# AN EVALUATION OF A RESIDENTIAL LEARNING COMMUNITY USING TINTO'S MODEL OF INSTITUTIONAL DEPARTURE

By

ALAN JOSIN D'SOUZA

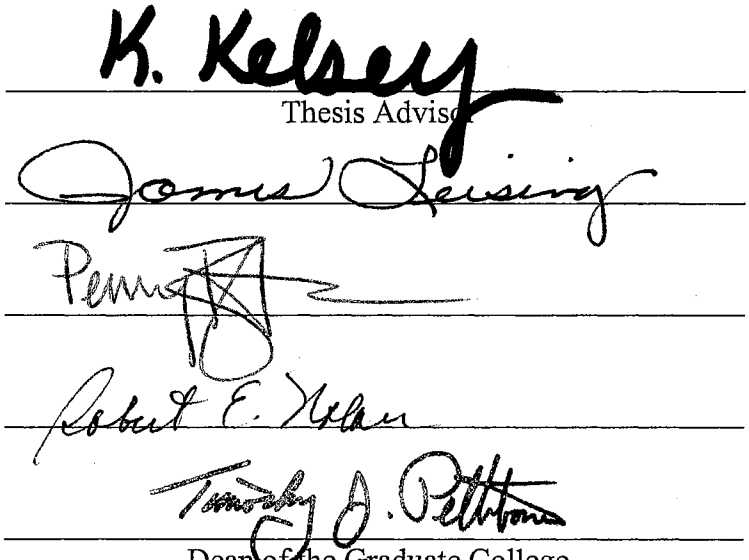
Bachelor of Education
Mumbai University
Mumbai, India
1997

Masters in Education
Mumbai University
Mumbai, India
2000

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
August, 2003

AN EVALUATION OF A RESIDENTIAL LEARNING COMMUNITY USING TINTO'S MODEL OF INSTITUTIONAL DEPARTURE

Thesis Approved:



Thesis Adviso

Dean of the Graduate College

# ACKNOWLEDGEMENTS

"What in me is dark
Illumine, what is low raise and support,"

John Milton, *Paradise Lost. Book i. Line 22-23.*

Many people have illumined my darkness and raised and supported my lowness. Dr. Kathleen Kelsey, my advisor who raised and supported my lowness, and Dr. Christian Mariger, my coworker who illumined my darkness, are due more than mere thanks. I owe this accomplishment to them. Besides, Dr. Robert Nolan and Dr. James Leising have always provided a strong paternal support and guidance for me, and their contribution is immeasurable. Dr. Penny Pennington's fresh perspectives have also been a contributing factor.

When it comes to thanking people, one cannot be chosen above the other. I have been blessed with family and friends, teachers and guides, all who have made my accomplishments a part of their life stories. Each and every person deserves a hug, and bright thanks.

Among all these persons, I can never forget the woman who held my tiny finger and took me to school at the age of four...my mom. I dedicate this dissertation to her and through her to God Almighty who continues to illumine my darkness, and raise and support my lowness.

TABLE OF CONTENTS

LIST OF TABLES & FIGURES

# CHAPTER I

# INTRODUCTION

## Background

"Programs to which a great deal of time, effort and devotion have been given must do something positive." – Peter Rossi (as cited in Chen, 1990, p. 8).

Social programs that aim to bring about desirable changes in the participants need to be constantly evaluated in order to properly understand the shortcomings of the program and provide for future improvements. Programs run by educational institutions could be called social programs, as they primarily aim at bringing about a change in the individual. The desirable change in this context could be learning. Modern educational institutions are trying to move from the mere responsibility of providing content-based knowledge to becoming more effective agents of social and personal change.

The connection between educational change and residential learning communities can be traced back to 1927 when Alexander Mieklejohn established the Experimental College at the University of Wisconsin. According to Smith (2003), about five hundred colleges and universities have offered "learning communities" in some form or other. In recent years, residential learning communities have received the attention of researchers for their potential to improve students' intellectual development and social integration into college life. Research studies by Pascarella and Terenzini (1991), Davis and Murrell

(1993), and Pike (1999) have shown that residential learning programs have the potential to positively impact college student co-curricular activities, faculty-student interaction, institutional bonding and retention. A recent study of National Survey of Student Engagement, found positive effects of residential learning communities on understanding of diversity, personal and social interactions, practical competence, general education, and overall satisfaction with college experiences (Smith, 2003).

The Freshmen in Transition (FIT) program offered by the College of Agricultural Sciences and Natural Resources (CASNR), Oklahoma State University (OSU), is one such residential educational program that sought to provide a comprehensive academic and social exposure to freshmen enrolled in the college. The present study is an evaluation of the FIT program in order to discover if the program has been effective in bringing about change in academic achievement, leadership skills development, and student retention.

## The FIT Program: A Profile

Sexten (2001) in her thesis on FIT evaluation traced the history of the development of the FIT program. Dr. Wes Holley, former assistant dean of CASNR, during the course of his teaching observed several students having problems adjusting to the demands of college life. He was also concerned with the increasing attrition rates in the college. Dr. Holley used to teach a freshmen orientation course for CASNR students, and had incorporated student mentors to help freshmen in his courses. Simultaneously, he researched on the existing literature on living learning programs, and became especially

aware of the Freshmen Interest Group (FIG) program at the University of Missouri-Columbia (2000).

In summer of 2000, Dr. Holley, decided to start a pilot freshmen residential learning community called Freshmen In Transition (FIT) along the lines of the Freshmen Interest Group (FIG) programs found in other universities. While the FIG program was to help freshmen with problems of adjustments, Dr. Holley wanted a program that would provide some kind of expectations from the participants for developing their academic and psychosocial abilities. At the same time, Residential Life at OSU allowed CASNR to develop a program in the newly constructed residential suites in Summer 2000. Thus, the FIT program was initiated (Sexten, 2001). The mission of the FIT program was "To provide CASNR freshmen with the opportunities to excel in the university, community, and life." The program was created to challenge first time freshmen to "reach beyond their personal expectations and achieve a significant level of excellence in several areas" (FIT, 2001).

### *Organization of the FIT Program*

The FIT program provides CASNR freshmen a space to live and learn together in a residential hall for their first academic year in college. The program consists of about 70 students both women and men in equal numbers, and are provided student academic mentors (SAMs). The students live in the suite-style residence halls provided. Though both males and females could live on the same floors, each suite housed only same gender participants.

The students were expected to meet thirteen expectations (Appendix B). During spring 2002, the expectations were changed (FIT, 2002) (Appendix B). The FIT students could get all the information about their program and expectations through the FIT website, which had important contact information, daily updates, monthly calendar, articles and pictures of participants, and administrators, and a list serve to contact each other. The suites also had white dry-erase boards to notify the activities for the current week. Also, in the lounge, several forms and other documents were kept for the FIT students to get involved in several activities in the college and university. The FIT program also had an Advisory Council, a Judiciary Board, and small groups (six to seven students under one SAM) to conduct their day-to-day activities of the program.

## Problem Statement

Program planners have addressed the emphasis on, and the importance of, evaluation for the past sixty years. Evaluation studies have broadened from the Tylerian approach that focused on specific objectives (Worthen & Sanders, 1997) to investigations using indicators as measures of program success. Evaluation is important both at the developmental level, as well as at the conclusion of a social program. The three main types of evaluation are: formative (collecting and sharing information for program improvement); summative (judging how effective the program has been and how well the program goals have been met); and impact evaluation (determining the impact on the larger community over a longer period of time). Summative evaluation tells what participants learned, how good facilities were, how well participants' expectations were,

how appropriate the program was, what administrative problems there were, and how the other program can be improved. Since FIT is an ongoing program, and the present study was conducted during the course of the program, this evaluation study was formative in scope and nature.

Sexten and Kelsey (2001) conducted an initial evaluation of the FIT program for the year 2000-2001. Their evaluation indicated that the program participants had significantly lower grade point averages than equivalent residence hall students, and that their psycho-social development was negatively impacted by two variables: mature interpersonal relationships talks and salubrious life style scale. The evaluation concluded that the program failed in specific areas. The failure was ascribed to factors such as heavy requirements, and a cloistered environment created by program leaders. The evaluation recommended research on individual aspects of the program, and called for a longitudinal and qualitative research. As a part of formative evaluation of the program, this second year evaluation of the program was considered as a research project.

The main weakness of the study conducted by Sexten and Kelsey (2001) was that it was exclusively quantitative, whereby scores on a standardized test (SDTLA, 1999), along with the grade point average (GPA) were considered as sufficient indicators for drawing conclusions about academic and psychosocial development. Social programs of such nature also need qualitative input, as indicators could be relatively diverse in human subjects. This is because in a social environment, reality could be constructed by the individuals participating in the process (Cresswell, 1994). Hence, a qualitative component would help in constructing that reality as perceived by the participants, both

administrators and students. This makes it necessary to evaluate the program with a mixed methods study.

In the fall of 2001, the FIT program entered its second academic year of existence. Mixed outcomes of the program were noticed. The program did not make any significant effect on the participants' academic achievement and their psychosocial development. Also, there were short-term gains in retention. Moreover, certain changes were incorporated from fall 2001 as against the year before. The changes included reduction in the expectations placed on the participants such as the number of allied arts events to attend, or the elimination of the mandatory tutorial sessions (Appendix B).

The present study aimed at evaluating the FIT program for possible impact on academic achievement, development of leadership skills among the participants of the program, development of institutional integration and loyalty and retention among the participants.

## Purpose Statement

The purpose of this study was to evaluate the impact of the FIT program regarding the students' academic achievement, leadership skills development, institutional integration and loyalty, and retention.

The following research questions guided the study:

1. Did participation in the FIT program help the participants achieve a higher GPA and related academic development when compared to non-FIT students?

2. Did the FIT program help participants to develop their leadership skills more than the non-FIT students?

3. Did the FIT program help participants to be more loyal and integrated into the institution (CASNR and OSU) than the non-FIT students?

4. Were the FIT students retained at a higher rate than the non-FIT students in CASNR and OSU?

## Significance of the Study

Since FIT is an ongoing program within CASNR, this study was considered as a formative evaluation of the program. Although the scope of the study was only the FIT program and the findings could not be generalized beyond the scope of the program, the study assumed significance because of the following reasons:

1. Only one evaluation study had been done on the program before this study, and that evaluation study had indicated a negative effect of the program on the students' academic achievement, although with a temporary positive effect on their retention. The present study tried to identify whether the trend continued or if there were significant underlying causes that led to the said effects of the first year evaluation.

2. As an evaluation study, this research identified the problems and shortcomings of the program and thus helped to overcome them in order to make the program more effective for subsequent implementation.

3. The research study also identified the areas of success for the program, and thereby helped retain those features, while providing people interested in such programs some direction in starting and running similar programs.

4. Finally, the research, being a mixed-methods study, had the potential to identify the perceptions of the program by the participants and major stakeholders. It was anticipated that the study might result in substantial insight into how a program is administered with continuous evaluation.

## Assumptions of the Study

For this study, the following assumptions were made:

1. That the instruments and methods used in this study gave accurate, reliable and valid responses from the subjects.
2. That the participants in this study answered the questions honestly and truthfully.

## Definitions of Important Terms

For this study the terms used were defined as follows:

*FIT*: Freshmen in Transition Program run by CASNR. For this study FIT referred to the program in effect during the academic year 2001 to 2002.

*Learning Community*: An organization of curriculum to link together courses or course work in order to increase interaction with faculty and other students, as well as have a greater understanding for what students are learning (Gabelnick, MacGregor, Matthews & Smith, 1990).

*Residential Learning Community*: A student living space with intentional academic programming and services within the residence halls (Shapiro & Levine, 1999).

*Academic Achievement*: Academic achievement would measure cumulative high school grade point averages, composite ACT scores, fall 2001 and spring 2002 grade point averages, and participation and attendance in academic activities such as tutorials and other on campus talks and workshops.

*Leadership Skills*: Leadership skills included attributes such as challenging the process, inspiring a shared wisdom, enabling others to act, modeling the way, and encouraging the heart were considered (Kouzes & Posner, 1997). These skills were measured by a self-reported scale of measurement. Leadership skills development was also measured by the number of leadership activities the participants got involved during the academic year.

*Institutional Loyalty & Retention*: Institutional loyalty and integration were measured on self-reported aspects of feelings associated with the university and college, as well as getting involved in campus activities and programs.

*Retention*: Retention was measured by whether the student returned to CASNR and OSU in the spring of the following semester (2002), and continued studies in the fall of 2002 both in the college as well as in the university.

*FIT SAM*: SAM referred to a Student Academic Mentor who was a sophomore in CASNR during the program. The FIT SAMs resided with the FIT students and served as mentors for six to eight students.

*FIT Student*: A first time freshman enrolled in a major in CASNR, and who participated in the FIT program during the academic year 2001-2002.

*Non-FIT Student*: A traditional residence hall CASNR student enrolled during the academic year 2001-2002 as a first time freshman.

*CASNR*: College of Agricultural Sciences and Natural Resources that offered educational programs within the fields of Agricultural Communication, Agricultural Economics, Agricultural Education, Agronomy, Animal Science, Biochemistry, Bio-Systems and Agricultural Engineering, Entomology, Forestry, Horticulture, Landscape Architecture, and Pre-Veterinary Medicine.

# CHAPTER II

## REVIEW OF LITERATURE

College students in the United States have been the focus of much academic research. Most research in this area is directed in knowing the students' expectations and satisfaction as well as ways and means to improve the educational system and enhance learning. The purpose of this study was to evaluate a residential learning community (RLC) program called Freshmen in Transition (FIT) sponsored by the College of Agricultural Science and Natural Resources (CASNR) at Oklahoma State University (OSU). For any research agenda, relevant literature review is important. Literature review relates a given study to the larger, continuous research and inquiry about a topic (Marshall & Rossman, 1989), besides providing a framework for a study and a benchmark for comparing the results of one study to similar past studies (Cresswell, 1994).

This chapter discusses important research that has a bearing on the topic of interests i.e., trends and findings of past research on evaluating residential learning programs, especially for college freshmen and related concerns of academic development, development of leadership skills, social and institutional integration, and retention. The literature review discusses the rationale for selecting Tinto's model (1975) as a framework for evaluating the FIT program, as the model combines the research

questions of the study into a single comprehensive whole in order to determine the retention of freshmen in college.

This chapter is divided into seven sections. Section I deals with learning community programs in general and those aimed at college freshmen in particular. Section II gives a general introduction to program evaluation including recent trends in evaluation studies. Section III discusses the implications of how Tinto's model of institutional departure integrates the research questions of the study. The next four sections deals with the research pertaining to each of the research questions. Section IV deals with academic development and integration among college freshmen, section V with leadership skills development, section VI with institutional loyalty and integration, and section VII with issues of retention. The chapter concludes with brief summary of the literature review for the study.

## Section I: Residential Learning Communities

The initiators and the harbingers of the FIT program were impressed by the theory and success of similar programs around the United States. Hence, it is imperative to know the philosophy and history of learning communities, especially in the United States. Since the establishment of the Experimental College at the University of Wisconsin in 1927 by Alexander Meiklejohn (Gabelnick, MacGregor, Matthews & Smith, 1990; Snider & Venable, 2000; Shapiro & Levine, 1999), learning communities have become a regular feature of most universities in the United States. Patrick (1985) maintained that the learning community movement was a response to educational problems such as

mismatched student-faculty expectations, lack of coherence in courses, and the growing interdependence of complex educational issues. The research on learning communities is extensive and mainly focused on enhancing the effectiveness of such communities to perform the roles of a support group to help college students adjust to the academic, social, and institutional challenges of college life.

### *Definitions of Residential Learning Community*

The definitions of RLC have evolved theoretically through history. For Alexander Meiklejohn, connected and integrated learning was manifest in learning communities (Shapiro & Levine, 1999). In recent times, however, the definitions of learning communities have become more focused and elaborate. Astin called such a community a small group of students with a common purpose (1985). Gabelnick, MacGregor, Matthews, and Smith (1990) defined a learning community as a reorganization of curriculum to link together courses or course work in order to increase interaction with faculty and other students while having a greater understanding of the student learning process. Brower and Dettinger (1998), additionally, provided a learning community model that had three main components: academic – the curriculum content; physical – the place where the community lives; and social – the interpersonal relations among students, faculty, and staff.

Shapiro and Levine (1999), in their literature review on learning community summarized the following aspects that characterized effective learning communities:

1. Organization of students and faculty into smaller groups.

2. Encouragement of curriculum integration.

3. Establishment of academic and social support networks for students.

4. Creation of an environment for students to learn about college expectations.

5. Union with faculty in more meaningful ways.

6. Focus of faculty and students on learning outcomes.

7. Establishment of an environment for community-based delivery of academic support programs.

8. Opportunity for examining the first-year experience.

### *Types of Residential Learning Communities*

Literature has identified five main models of learning communities: linked courses, learning clusters, freshmen interest groups, federated learning communities, and coordinated studies (Gabelnick, MacGregor, Matthews & Smith, 1990; Levine, 1986; Snider & Venable, 2000). In linked courses, cohorts register for pairs of courses, which are coordinated in assignments or syllabi. Learning clusters extend the paired courses into several linked courses.

Freshmen Interest Group (FIG), however, is a more focused group, exclusively designed for freshmen. This learning community allows a fixed cohort of about 25 students to take theme-related courses, and may have a peer-advising element. Federated learning communities extend the idea of FIG to more courses and provide faculty mentors to students. The coordinated studies model is more complicated than other models with more learning activities and a higher number of students.

*Residential Learning Communities: An Introduction*

FIT has been considered a residential learning community. A residence-based learning community (RLC) is a special kind of a learning community in which the students participating in the community also live together. It includes a living space with intentional academic programming and services within residence (Shapiro & Levine, 1999) and incorporates students' living and learning environments (Schroeder, Mable & Associates, 1994).

Residential learning communities have several advantages. They allow for interaction among students and offer integration and consistency, which is helpful during the first year in college (Schroeder, Mable & Associates, 1994). Similarly, RLC as a whole, help in building a sense of community, provide smooth transitional experiences, and have proved to further constructive relationships with faculty while increasing retention (Matthews, Smith, MacGregor & Gabelnick, 1996).

Some noticeable examples of RLC are the Freshmen Interest Group at the University of Oregon (Brower & Dettinger, 1998), MU living-learning options (University of Missouri-Columbia, 2000), and the summer and fall residential communities in the University of Nebraska (University of Nebraska, 2001). Each of these programs attempts to solve unique problems and issues that college freshmen face.

*Freshmen Community Programs*

Issues surrounding college freshmen have also been a recurrent theme in university research. Every year an annual conference titled *The Freshmen Year Experience* is held by the National Resource Center for The First-Year Experience & Students in Transition, at the University of South Carolina to outline freshmen issues.

*Freshmen and transition*: One of the major issues that freshmen face is that of transition from high school to college and their expectations from college. Levine (1986), in his key note address, while referring to the results of Carnegie Foundation Student Surveys, outlined that current students need a college education that provides the skills and knowledge needed to live in the world, hope in the face of fears about jobs, and a nuclear war, a sense of responsibility in the face of "me-orientation," and a feeling of efficacy. Similarly, Parks (1997) indicated that student challenges during the first year include environmental physical situations, mental problem solving, group dynamics, and cognitive skill utilization. He suggested and evaluated a supportive environment through staff efforts to provide an easy transition into higher education settings.

Strommer (1989) noted that in a national college survey, deans reported the advantages of providing a common experience to all freshmen with orientation, advising, learning assistance, retention and honors. Orientation for a first-year college students was also found important not only for students, but also for parents and the institution to help students ease into college (Abraham & Wagnon, 1992). Tinto (1996) considered learning

communities as one of the most promising reforms to enhance the quality of academic experience during the first critical year of college.

*Freshmen program evaluation*: A specific case study of Freshmen Interest Group was discussed by Schroeder, Minor, and Tarkow (1999) in their evaluation of the FIG program at the University of Missouri-Columbia (MU). Their article described the innovative and effective partnership for promoting student success through the creation of FIG. The article, besides tracing the efforts involved, also indicated the manner in which the program was evaluated. The survey-based evaluation revealed that the program was successful in increasing academic achievement of students as well as their institutional involvement. In their recommendations, they suggested measures such as establishing a time line, creating shared living arrangements, recruiting faculty partners, identifying student staff, providing FIG orientation and criteria for assessment. They recommended both qualitative and quantitative assessment with inputs from faculty, staff and key decision-makers.

A much earlier study on a similar program in the University of Washington found that Freshmen Interest Groups were more likely to stay in a competitive course, had higher grade point averages, and were less likely to drop out of college than non participants (Tokuno & Campbell, 1992).

While the importance of residential learning communities for freshmen can be established, every institution has established and used their individual methods of evaluating such communities. Gardner (1990) provided a comprehensive guideline for evaluating the freshmen year experience in this context. Her criteria included

recruitment/admissions, orientation, development of common culture and community, institutional policies and goals for the freshmen year, academics (including formal curriculum, faculty and staff development, and academic advising and tutorial assistance), and student life and campus services (including residence life, student activities and campus services, and campus problems and issues). These guidelines can be used to formulate a model to evaluate a residential freshmen interest group. The researcher used this guideline while formulating the indicators or Tinto's factors of academic and institutional integration.

The research literature on learning communities in general and residential learning communities in particular thus reveals that residential learning communities, especially for college freshmen have been found to be effective in academic and social development of students, that many institutions are increasingly using these communities to have desirable effects of reducing attrition among college students, and that evaluation of such communities is not only important, but also a part of the effort in improving the functioning of such communities.

## Section II: Program Evaluation

Literature on learning communities underlined the aspect of evaluation of such programs. Program evaluation is an important part of modern educational institutions. In the context of this research, it is imperative to know what program evaluation is and how the present study reflects the concerns and parameters set by evaluators in the past.

## *What is Evaluation?*

Worthen, Sanders and Fitzpatrick (1997) defined evaluation as "the identification, clarification, and application of defensible criteria to determine an evaluation object's value (worth or merit), quality, utility, effectiveness, or significance in relation to those criteria" (p 5). According to them, evaluation includes (a) determining standards for judging quality and deciding whether those standards should be relative or absolute, (b) collecting relevant information, and (c) applying the standards to determine value, quality, utility, effectiveness, or significance. Evaluation leads to recommendations to help improve the program evaluated.

## *Mixed Methods Evaluation*

One major trend in program evaluation that is the mixed-methods evaluation where both the qualitative and quantitative paradigms are used (Greene & Caracelli, 1997). Caracelli and Greene (1997) discussed four basic types of mixed-method integrated designs, iterative, embedded or nested, holistic, and transformative. Iterative designs include an ongoing interplay of different methodologies and are spiral in nature. Embedded or nested designs have one methodology located within another where there could be interlocking of contrasting characteristics. Holistic designs have an interdependence of different methodologies for understanding complex phenomenon as reflected in Chen (1989). Transformative designs focus more on value-based and action-oriented dimensions of evaluation. The present evaluation study could be called an

embedded mixed methods study since the qualitative aspect of the study was used to triangulate the findings of the quantitative aspects of the study.

### *Chen's Theory Driven Evaluation*

The evaluation approach used for the present study is derived from Chen's *Theory Driven Evaluation* model (1990). According to Chen, a social program consists of inputs and outcomes and the program itself is considered a "black box". In using this evaluation approach, the evaluator tries to discover the causal elements (program theory) of the program's outcomes. The causal elements are then analyzed in light of the program model where judgments about the program can be made.

Chen (1997) questioned the notion that the mixed methods approach is preferable to their counterparts. In his theory driven evaluation, he proposed a contingency approach toward selecting inquiry methods. He cited three configurations possible of type of information, credibility of data and openness of the system, and each configuration expects its own methodology (Figure 1). In configuration one, information required is intensive and contextual, the data available is low in credibility, and the system is open. In configuration two, extensive and precise information and high credible information is available. In this configuration, the program is a closed system. In configuration three, the information required is both intensive and extensive, and the access to information is limited. Also, the system is open in a limited sense. While configuration one favors qualitative methods, configuration two favors quantitative methods. Configuration three, however, favors mixed-methods approach.

Qualitative approaches to evaluation have their limitations such as generalizability and challenges to rigor. However, mixed methods approach tends to overcome these problems (Chen, 1997). The methodology of the present research is based on Chen's approach of theory driven evaluation along with the critical choice of a mixed-methods approach.

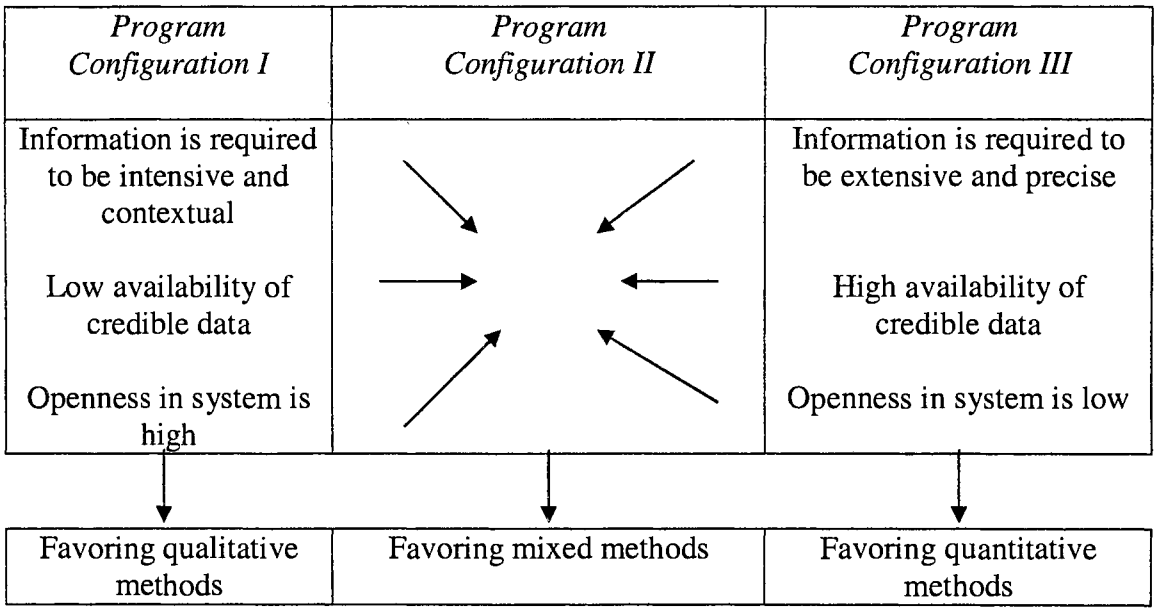



*Figure 1*

Program Configurations and Choice of Methods (Chen, 1997, p. 65)

Literature on program evaluation, suggests that program evaluation has evolved as an independent field of study and that the methods and approaches of evaluation are dictated by the characteristics of the program to be evaluated. Research conducted on mixed methods evaluation of social programs have indicated that for the present study, the best approach would be theory driven evaluation and the best method would be mixed methods evaluation as suggested by Chen (1997).

## Section III: Tinto's Longitudinal Model of Institutional Departure

Models help social scientists to comprehend complex social phenomenon in concrete aspects. A social-educational program such as the FIT program by its very nature was complex as several aspects and factors work concurrently during the course of the program. Two models have been extensively used in analyzing and explaining student development through college education in the United States, Chickering's model of the development of the young adult (Chickering & Reisser, 1993) and Tinto's model of institutional departure (1975, 1987, 1993).

Working on Erik Erikson's model of psychosocial model of development, Chickering suggested that the young adults of ages 17 or 18 needed special attention and proposed seven developmental vectors or tasks through college life to adapt their behaviors and attitudes so that they could respond to the challenge (Chickering & Reisser, 1993). The vectors included developing competence, managing emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing identity, developing purpose and developing integrity. Earlier, Chickering (1974) also had advocated that residence halls affect student development by modifying interpersonal relationships, creating a subculture, providing opportunities of social interaction and creating an atmosphere that enhances development.

## *Tinto's Model*

Since 1975, Tinto has provided a multivariate model of student retention in higher educational institutions (Tinto, 1975, 1987, & 1993). Tinto's model combines several factors such as demographics, cognitive, psychosocial, and institutional factors, which interact with each other and determine the persistence of a student in college. Figure 2 shows Tinto's model.

Tinto's model proposes that the demographic factors of family background, pre-college education and individual attributes affect the formation of the commitment stage when an individual enters an educational institution. Two forms of commitments are possible: goal and institutional. Goal commitment represents the degree to which an individual is committed to completing his/her college education. Institutional commitment refers to the degree to which an individual is personally concerned about graduating from a specific college or university (Tinto, 1993).

Two sorts of integrations are possible in this situation, academic and social integration. The academic systems of academic performance and intellectual development may help in academic integration. Social integration consists of peer-group interaction and faculty interactions. Tinto defined integration as a process by which the individual established membership or fails to establish membership in the college community (1993). Pascarella and Terenzini (1980) have defined integration as the extent to which an individual identifies and incorporates the norms and values of the institution.

Based on the level and kind of integration, the individual reevaluates and modifies his/her goal and institutional commitment. Finally based on these modified commitments,

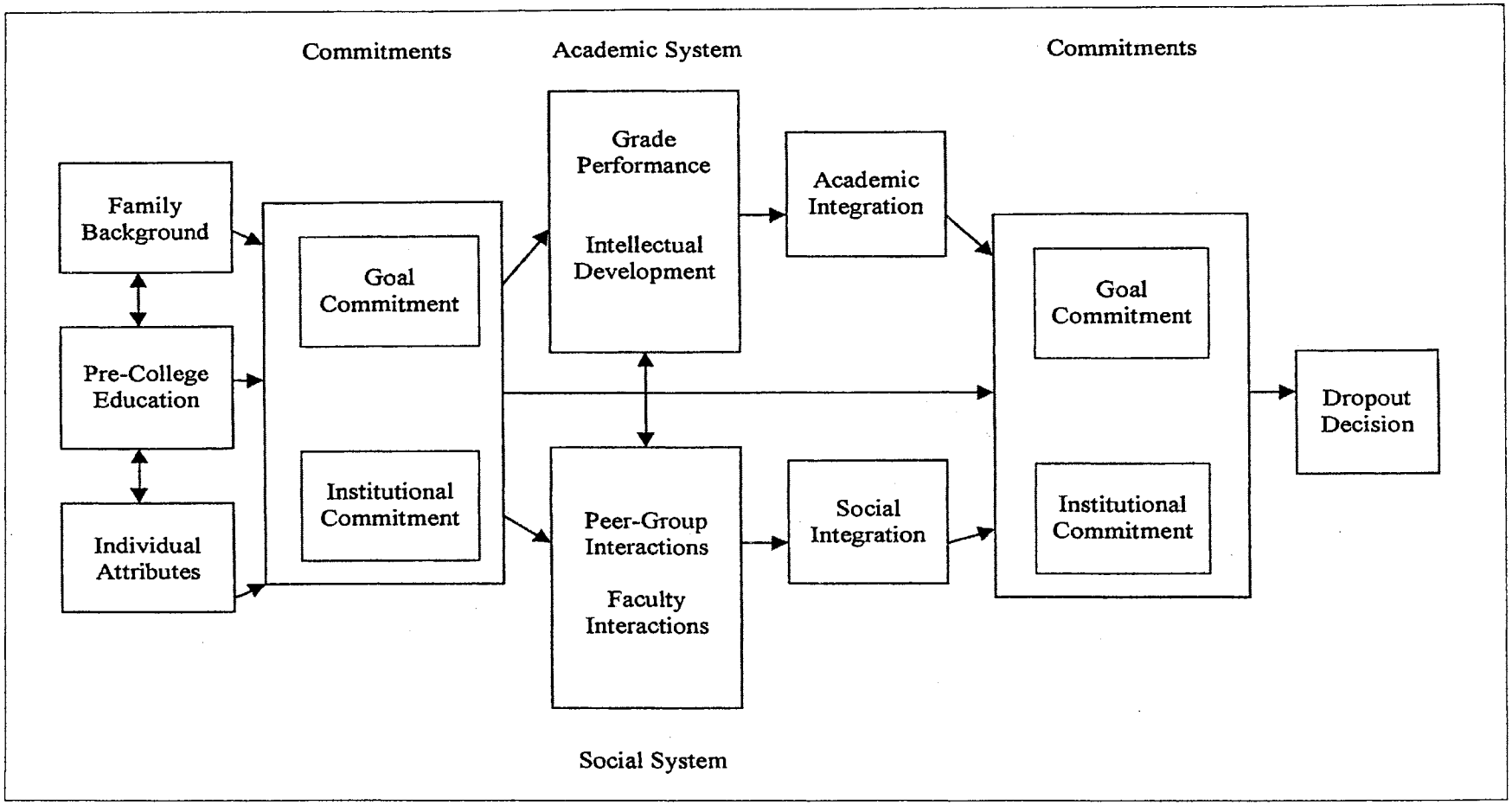



*Figure 3*

Model for Dropout from College (Tinto, 1975, p. 95)

the final decision either to drop or complete one's college education is made.

In order to implement the positive effect of these factors, Tinto (1993, p. 138-140) developed a set of guidelines for colleges, which he called principles of institutional action. The guidelines are as follows:

1. Institutions should ensure that new students enter with or have the opportunity to acquire the skills needed for academic success.

2. Institutions should reach out to make personal contact with students beyond the formal domains of academic life.

3. Institutional retention actions should be systematic in character.

4. Institutions should start as early as possible to retain students.

5. The primary commitment of institutions should be to their students.

6. Education, not retention, should be the goal of institutional retention programs.

### *Research Concerning the Model*

Tinto's model has been the topic of much research and validation in recent times. Munro (1981), Pascarella and Terenzini (1983), and Williamson and Creamer (1988) have shown that academic and social integration are influenced by a variety of factors such as age, socioeconomic status, personality needs, pre-college educational experiences, previous academic achievement, and initial experiences in college. Munro's study, however, found no significant effect on social integration due to those factors. Also, Pascarella and Chapman (1983) found that institutional type affected the effects of these two factors.

Studies have found mixed effects of integration on student retention. Nora (1987) found no relationships between institutional and social integration and retention. However, in the repetition of such a study, Nora, Attinasi, and Matonak (1990) found limited relationships between exogenous variables such as family background, pre-college schooling and spousal encouragement and endogenous variables such as initial commitment, and academic and social integration with retention in college. Pascarella and Terenzini (1991) found negative relationships between social integration and retention and concluded that social integration may be a liability for persistence for some students. Bers and Smith (1991), however, found out that social integration made a larger contribution in discriminating those who persist from those who don't than academic integration.

Napoli and Wortman (1996) conducted a meta-analysis of academic and social integration on persistence, and found that both academic integration and social integration played significant role in persistence/withdrawal decisions by college students. The also found justification in Tinto's contention (1993) that size and diversity of the institution was inversely related to academic integration. However, their study also found positive relationships between negative life events outside of school to academic and social integration (Napoli & Wortman, 1996).

In recent times, Tinto's model has been subject to scrutiny and reevaluation. Braxton, Milem, and Sullivan (2000) have examined the influence of faculty active-learning practices on student departure decisions in the context of Tinto's theory of college student departure. Their path analysis at a private research institute found that

active learning exerts statistically reliable influences on social integration, institutional commitment and the resultant retention of students.

Tucker (1999) has questioned Tinto's separation of academic and social integration as two distinct factors and maintains that each factor, including formal and informal factors do not play independent and discrete role in the lives of students. Tucker refers to Tinto's comment (1987) that the decision to depart from college is an individual decision and hence has to be understood individually. Tucker, thus maintains that Tinto has provided a theoretical model and needs to be tested and validated individually. Finally, Tucker agrees with Tinto (1998) that there has to be multi-method and both qualitative and quantitative case studies for the validation of this model on transition programs.

Tinto's model (1975) was selected to use as a frame of reference for this evaluation study as the model combined several aspects of college experiences along with pre-entry attributes. In the context of the FIT program, the model could be studied as:

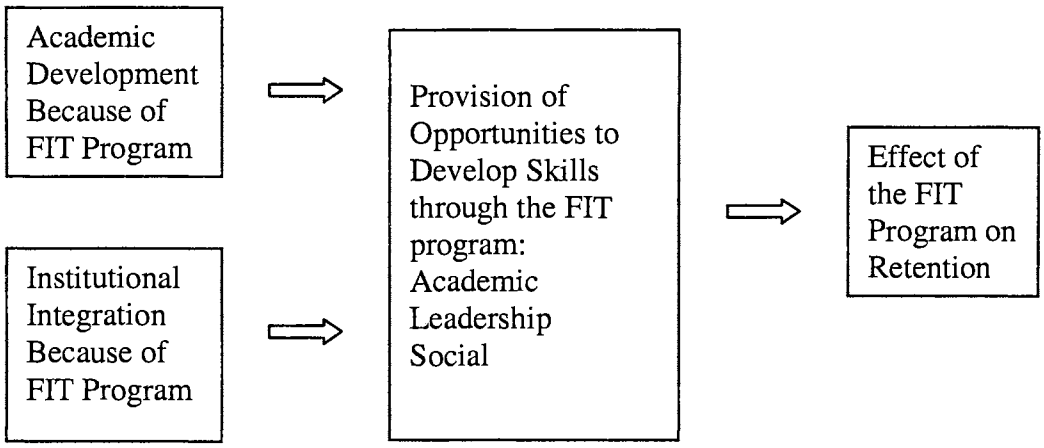



*Figure 3*

Tinto's Model as Reflected in the FIT Program

## Section IV: Academic Development of College Freshmen

Tinto's model combined several aspects of college life such as academic achievement and institutional integration to predict retention. The present research project has attempted to measure the constructs of academic achievement, institutional loyalty and integration, leadership development, and retention. These constructs within the context of Tinto's model merit individual attention. This chapter now will move on to assess the research done on these constructs.

In the research done on academic achievement of college students, one could identify three main issues in this area: the assessment of academic achievement, the factors contributing to academic achievement, and finally, the effect of certain programs on the academic achievement of the students.

### *Assessment of Academic Achievement of Freshmen*

The issue of predicting academic performance in educational institutions was studied by Wilson (1983), who in his literature review, systematically considered two factors: the validity of admissions measures for predicting GPA that reflects performance beyond the freshman year, and the comparative relevance and utility of freshman-year, cumulative, and independently computed post-freshman-year GPA as criteria for the validation of admissions measures. His research supported the traditional practice of employing the freshman-year GPA in admissions-related predictive validity studies for college academic achievement.

However, subsequent studies have undermined this conclusion. Young (1989), discussed the development of a valid measure of academic performance through the application of existing statistical methodology in a new manner. This new criterion, called Universal Scale for Grades, can be used to determine predictive validity of certain pre-admissions measures for a particular cohort of students at one university. This study combined the Partial Credit Model by Masters' and Graded Response Model by Samejima (1969, as cited in Young, 1989). The outcome of this study was that the Item Response Theory (IRT) model could create more reliable measures of academic performance.

A similar study was done by Lyerla & Elmore (1996) in which they used an Item Response Theory Partial Credit Model. Adjusted Grade Point Average (IRTGPA) was used for predicting academic success of undergraduate students. The cumulative analysis of the study indicated that separation of courses into domain-specific groups and the calculation of an IRTGPA enhanced prediction of academic success for underrepresented groups in particular. Nevertheless, past research thus suggests that quantitative measures of GPA can be used as both as an indicator as well as a predictor of academic success.

### *Factors Affecting Academic Development of Freshmen*

When we consider the factors influencing the intellectual development and academic achievement of students, King and Taylor (1989) revealed that peer group interaction and educational level had a positive effect on the academic achievement of black college freshmen. On the other hand, Gold (1990) conducted a study of the

relationship between the perceptions of black undergraduate students of their adjustment to a predominantly white university and academic success. Their findings suggested that personal counseling, tutoring, and general skill-building would be appropriate activities to support black female students, while peer/mentor support activities would be appropriate for black males in their academic achievement. Since both these studies were conducted on black American students, it is necessary that a similar study be done on residential learning programs for a representative group of students to understand the factors leading to academic achievement of undergraduate students. Nevertheless, both the studies supported academic activities and mentoring interventions for desirable academic effects on college freshmen.

Students' out of classroom experiences and their effect on learning and cognitive development has been studied by Terenzini, Pascarella and Blimling (1996). In their review they cited several preconditions for fostering student learning and personal development. These preconditions included clear and coherent educational purpose, holistic developmental institutional philosophy, balanced curricular approach, ample opportunities for student involvement, and human-scale settings. They called for a seamless learning environment in which students are encouraged to take advantage of learning resources that exist both inside and outside the classroom.

Terenzini et al (1996) have also suggested some measures to allow the establishment of a seamless learning environment. They include, generating enthusiasm for institutional renewal, developing a common communication set up, fostering collaboration and cross-functional dialogue, examining the influence of student cultures on student learning, and focus on systemic change.

Another area of research identified here is the effect of academic mentoring on freshmen. Mentoring could be either done by the faculty or students, peers, or seniors. Reitz (1975) showed how the city college of New York established faculty mentors for all civil engineering students and it helped in improving the retention of engineering students. As far as students as mentors were concerned, Bolender (1994) examined the effect of academic peer mentors on the GPAs of under prepared freshmen at Mount Vernon Nazarene College (Ohio). Though a peer mentor component was added to the program in the College Experience Enhancement Program, a statistically significant difference in the GPA was not found.

There have been some studies on other factors contributing to academic performance. Duby and Schartman (1997) found out in their study at Oakland University (Michigan) that students who enrolled for a full load of 16 credits were much more likely to graduate than students who registered for 12 credits.

### *Effect of Certain Programs on Academic Achievement of Freshmen*

Freshmen interest group programs have proven to be positive in enhancing the academic achievement of freshmen. Studies conducted by Tokuno and Campbell (1992) and Schroeder, Minor and Tarkow (1999) have indicated that freshmen transition programs have contributed positively to the academic well being of the participants. However, Tokuno and Campbell (1992) have recommended going beyond quantitative indicators and conducting a mixed methods study to verify the results of a living-learning program.

Thus, these researches suggest that there is a definite link between sustained and support based academic setup and improved academic performance of students.

## Section V: Leadership

Development of leadership skills was one of the concerns of the present study. However, since leadership is a broad concept in itself, this literature review focused only on the aspects of leadership skills among college students. This section will move from defining leadership to an understanding on the importance of leadership programs in developing leadership skills. This section will also explore the constructs of leadership skills and the rationale behind choosing items from Kouzes and Posner's Leadership Practices Inventory for the present study.

### *Definition of Leadership*

Bass (1990) defined leadership as "an interaction between two or more members of a group that often involves a structuring or restructuring of the situation and the perceptions and expectations of the members" (p. 19). This definition insists that leaders are agents of social change, and is an affective attribute. Leadership aims at modifying the abilities and motivation of others in a group. Also, this definition implies that any member of a group can exhibit leadership skills to a certain extent, and that there is variability in the expression of these attributes.

*Leadership Training Programs*

The aspect specifically identified for this research was development of leadership qualities among freshmen. The FIT program sought to develop leadership skills among its participants by providing opportunities to participate in leadership activities. Literature has identified several approaches to the development of leadership skills. One of the approaches to this idea is Smith's (1997) defining of leadership through followership. His paper begins by defining "leader," "follower," and "symbiosis." The paper suggests a pedagogical approach to a leadership skills development program for freshmen based on humanistic values that enhances both the leader and the follower. It concludes that the best approach to develop leadership skills would be to develop role models who demonstrate followership skills that prepare students for leadership.

Another suggested curriculum for developing leadership skills among agricultural students is by *Leadership through FFA* (1984). It includes lessons which contain some aspects like a statement of need; a suggested reading assignment; objectives; key questions, problems, and concerns along with pertinent teaching techniques and information; suggested learning activities; a list of references; transparency masters; and handouts.

A significant study about the exploration of leadership characteristics in college students is done by Eiche, Sedlacek, and Adams-Gaston (1997). This study examined the attitudes and behaviors associated with leadership qualities in 73 freshman athletes at the University of Maryland, College Park using the Sport Leadership Behavior Inventory (SLBI), the Non-cognitive Questionnaire (NCQ), and New Student Census. Results

found that leadership scores were positively associated with expectation of obtaining higher grades; positive expectations from the college experience; decreased expressed need for emotional/social counseling; increased ease of social adjustment; and lower expectancy of transferring to another school.

### *Leadership Skills*

For the present study, leadership as expressed in leadership skills was considered. While leadership is a broad concept, Miller's (1976) definition leadership as "development of life skills necessary to perform leadership function in real life" (p.2) could be used in this context. Miller (1975, 1976, 1981), Orr and Gobeli (1986), Mueller (1989), and Blackwell (1990), used different constructs such as (a) decision-making, (b) relationships, (c) learning, (d) management, (e) understanding self, and (e) group processes to list leadership skills. Seevers, Dormondy and Clason (1995) worked on developing a scale to research and evaluate youth leadership skills and developed and tested seven conceptual sub-domains: communication skills, decision-making skills, skills in getting along with others, learning skills, management skills, skill in understanding yourself, and skill in working with groups.

On the other hand, McCauley, Moxley and Velsor (1998) have listed six leadership skills that could be developed through a leadership training program: self-awareness, self-confidence, ability to take a broad, systemic view, ability to work effectively in social systems, ability to think creatively, and ability to learn from experience. Literature, thus, suggests that leadership skills can be classified under

different constructs and each construct can be measured for possible leadership skills development.

### *Kouzes & Posner's Leadership Attributes*

For the present study, Kouzes and Posner's (1997) leadership attributes were used while evaluating the FIT program. Kouzes and Posner found out that every single-best leadership case they collected involved challenge and that leadership involved challenging the process, which includes experimentation, innovation, and change although with the possibilities of risk and failures. They also maintained that leaders have to inspire a shared vision among their followers. "Leaders cannot command commitment, only inspire it" (p. 11). Besides leaders are aware of individual limitations and the negative effects of feeling of alienation. Hence leaders enable others to act by creating effective teams. Since leadership is by followership (Smith, 1997), leaders also have to model the way in performance. They do this by having a vision, and providing operational plans. Encouraging the heart is the last important construct. It is the way leaders link rewards with performance, and take care of quality, and service to individual members.

Kouzes and Posner (1997) thus viewed leadership as a relationship between the leader and the follower. Their five-fold classification of leadership attributes could be examined from both the leader's as well as the follower's viewpoint. For instance, challenging the process would involve searching for opportunities and experimenting and taking risks. Inspiring a shared vision would involve envisioning an uplifting future and

enlisting others in a common vision. Enabling others to act would involve fostering collaboration and strengthening people. Modeling the way would involve setting the examples and achieving small wins. Finally, encouraging the heart may involve recognizing individual contributions and celebrating team accomplishments.

Kouzes and Posner's (1997) Leadership Practices Inventory (LPI) has been tested for construct validity. Carless (2001) found that the LPI assessed an over-arching higher order of transformational leadership, and found that although LPI helped discriminate among the leadership qualities displayed by individuals, the instrument did not discriminate significantly among the constructs.

For this study, while constructing the survey instrument, the researcher selected attributes and items from Kouzes and Posner (1997) and added two more items of actually applying leadership skills in real life situations and awareness of diversity. Besides, in a personal interview with the researchers, the leadership SAMs for the program underlined the importance of getting involved in the university activities as an indicator of leadership (Personal Communication, December 2001). Hence that item was also included in the survey questionnaire.

Thus, literature review suggests that leadership skills development is a multi-faceted aspect of college life.

## Section VI: Social and Institutional Integration

Freshmen, when they first come to campus, are bound to face several challenges both academically and socially. Poor social skills have been found to be a negative factor

as it develops psychosocial problems (Segrin & Flora, 2000). Research literature on institutional and social integration while in college has focused more on the involvement in campus activities. Ory and Braskamp (1988) found that students who are more involved in the university developed the abilities of better analyzing and synthesis than those who did not integrate into the institution socially. Similarly, Pascarella and Terenzini (1991) concluded that students who were interactive with faculty were more likely to develop cognitively than their counterparts.

Pascarella and Terenzini's (1991) work can be considered seminal here. They enquired into theories relating to student development and the effect college has on students. They found that students who integrated with the institutions both academically and socially also had higher commitment to the institution. In an earlier study, Pascarella (1984) had studied affective development of students in continuation with Astin's (1977) comment on the interrelationship of retention and academic success with institutional integration. Greeley and Tinsley (1988) outlined the importance of understanding the needs of students by campus staff and faculty before getting them socially integrated. He also found that experience of college has a great impact on the development of persons and on the transition from adolescence to adulthood.

Dowaliby, Garrison, and Dagel (1993) developed and tested the effectiveness of a self-reported rating scale for student integration. They found that such an instrument could be used as an early alert reporting system, and could be used as a diagnostic tool for providing a model for other integration assessment efforts. For this study, certain items from the student integration survey were used while constructing the section on institutional integration. The items dealt with constructs on the emotional effects of the

institution such as feelings of loneliness, not wanting to spend weekends on campus, lack of friends, etc. However, in this study these constructs were not used as diagnostic tools, but as a way to measure institutional integration.

Literature on institutional integration has thus identified the importance of social an institutional integration in developing positive attitudes towards the institution. Past studies have also provided constructs that are critical in identifying areas of institutional integration that should be measured for student integration.

## Section VII: Retention

One of the implications of providing smooth transition for the freshmen through the FIT program consisted of enquiring into the attrition of the students. Extensive research is available on the aspect of retention of freshmen through the college years. Two main concerns are discernible here: one dealing with individual college or program retention studies, and the other about predictive value of student attrition.

### *Past Retention Studies*

Several universities have undertaken research in student retention. The University of California undergraduate enrollment studies conducted a study on student retention and transfer and came out with several recommendations pertaining to efforts to improve articulation and preparation, university programs and services, and university administration. Similarly, Odutola (1983) in his longitudinal study of the effects of

academic, demographic, and financial aid factors on retention for the freshmen class of 1974 at the Florida State University identified GPA, age, and gender to be important determinants of retention. Higher GPA, lower age, and females were more likely to graduate, while ethnicity did not significantly affect persistence. On the other hand, Avakian (1982) in their study at the University of Missouri-St. Louis found that while gender affected and race was important factors for student retention. They found that males and whites had higher retention rates than females, and non-whites.

Another study by Cooker, Gaskill, Watkins and Webb (1985) identified improvement of the advertisement process, and the development of a method of rating students in terms of their likelihood of persisting as possible strategies for improving retention. Langley (1987), in his study of student retention at Brunswick Junior College offered 26 recommendations including faculty support systems, career development center and others to rejuvenate the retention system.

Ruddock, Hanson and Moss (1999) tested characteristics of assessment test total score, high school rank, scholastic achievement total score, major, ethnicity, gender, on-campus versus off-campus housing, and whether or not they attended freshman orientation. These factors have found to impact retention. They did not find significant effect of factors such as interactions with faculty and staff, finances, and goals between stayers and leavers. However, they did find that leavers had lower academic achievement as compared those who stayed.

A different line of research was conducted by Jonides (1992) in his evaluation of minority retention programs in the undergraduate research opportunities program (UROP) at the University of Michigan. The results revealed that sophomores who

worked as research assistants showed positive motivational and behavioral changes, and thereby higher retention.

Two studies that stand out as significant are by Dey (1990) and Chaney and Farris (1991). In Dey's national evaluation of college student retention individual characteristics that were found to be positively correlated, with retention included high-school grade point average, admission test scores, and being female. Similarly, Chaney and Farris' survey on retention in higher education institutions identified financial difficulties, accomplishment of objectives, personal reasons, and poor grades as major factors that were instrumental in students leaving the colleges. On the other hand, programs listed as having a great impact on retention were those that helped students with finances, academic problems, and testing and performance assessment.

Murtaugh, Burns and Schuster (1999) conducted a similar study at Oregon State University from 1991 to 1996, and found that while attrition increased with age and nonresident status, and decreased with higher education, grades and attendance in freshmen orientation programs. They also found retention associated with race/ethnicity as they found African Americans and other minorities having higher drop out rates.

Another study conducted by Wyman (1997) found regional employment as the most predictable variable for attrition rates. The recent *State PIRG's Higher Education Report* (2002) found that 46% of full time working students worked 25 or more hours per week, and that 42% felt that working hurt their grades. Sixty three percent of full-time working students reported that they could not afford college if they did not work. The report recommended provision of student aid and financial support.

As far as FIT was concerned, the literature provided the rationale for analyzing the gender, on campus employment and academic standing as factors for analyzing the effects of the program on the participants.

### *Predictive Models for Retention*

The next area of research consists of predictive factors of student retention. Roweton (1994) in his project tried to identify statistically significant predictors of first-year retention among freshmen who were enrolled in a rural mid western comprehensive college. Nine factors affecting college selection and persistence were identified: financial concerns, college proximity to hometowns, student goals, emotional support from family and friends, social integration into campus life, and academic difficulty being some of them. Although step-wise discriminate analysis indicated that college GPA was the best overall predictor of retention of first-year students, semi-structured interviews led to the conclusion that GPAs may be convenient but superficial substitutes for pervasive "internal" dimensions like developmental maturity. Decisive factors included parental encouragement and parental, financial, and emotional support.

An interesting issue was discussed by Grayson (1996) in his study of retention of freshmen in Atkinson College. This study was conducted to evaluate whether the low retention rate of students between the first and second years at college were due to institutional failure or the characteristics and choices of mature students. This study concluded that low retention rate was more a reflection of student choices than of institutional failure.

This leads to the next issue for retention, the development of a predictive model for a one-year freshman retention rate. These factors could be linked to models for calculating college student retention rates and predicting enrollments. Tukey (1991) discussed three models, the cohort ratio model, the longitudinal persistence model, and the Markov process model and found the last as more encompassing, with wider applicability. He also found the Markov process model as useful in tracking student change in major and movement in and out of academic difficulty.

Antley (1999) investigated whether the one-year retention rate for the cohort of full-time, baccalaureate-degree-seeking, first-time freshmen could be predicted from institutional and aggregate cohort characteristics, including institutional type and control, institutional size, cohort size, average entrance exam score, percentage of part-time undergraduates, percentage of cohort residing on campus, percentage of nontraditional students, and percentage of minority students. Eight different models, based on institution type, size, and geographic locations were applied to 230 public and private institutions.

Although not one single model satisfied the retention behavior, four models, all based on public four-year institutions, surfaced as strong predictors of student retention. Average entrance exam score, percentage of cohort residing on campus, and percentage of nontraditional students were the most consistently significant predictor variables across the eight models. Private institutions and research institutions produced higher retention rates than did public institutions. Results suggested that it is not possible to evaluate institutional effectiveness in student retention without factoring these variables. By using a combination of these models, institutions can calculate their expected retention rate and measure actual over expected retention.

Finally, some research is also available on the future of retention research, in which there is a plea beyond the interactional theories of student departure. Ruddock, Hanson & Moss (1999) compared two groups those who persisted in undergraduate study and those who dropped out on the following characteristics: high school rank, SAT scores, major, ethnicity, gender, on-campus versus off-campus housing, and whether or not they attended freshman orientation. The analysis of student responses did not find additional variables that would predict which students would stay and which would leave. Factors such as interactions with faculty and staff, finances, and goals did not differ significantly between stayers and leavers.

For this study, retention was measured as positive if they returned to college after the first year. However, the participants' positive inclination towards retention was measured by asking them questions which addressed issues of cohort interaction, career planning, emotional and financial support provided in the college, and academic and social integration as addressed by literature in this section.

## Summary of Literature Review

The literature review presented an overview of relevant literature that provided both the basis and guidance for the study. Much of research focusing college students has been on areas of improvements in educational systems and enhancing learning. The literature review focused on literature relevant to residential learning communities and their effects.

The literature revealed that residential learning communities have a long and successful history in providing college students, especially freshmen, positive college experiences. Evaluation of such programs has gathered much attention in contemporary literature. Program evaluation as a major aspect of modern education has provided several approaches to evaluate such programs. The literature review identified mixed-methods approach as the best approach to conduct the present evaluation.

Tinto's longitudinal model of institutional departure was selected as the model to explore the FIT program as it correlated several aspects of the program, which were evaluated. While Tinto's model provided the framework for the study, the factors were classified into four aspects of academic development, leadership skills development, social and institutional integration, and retention.

Literature identified that GPA, past academic performance and involvement in academic activities were positive and reliable indicators of academic achievement. Similarly, review of literature on leadership skills development suggested that leadership being a multi-faceted phenomenon, could be divided into smaller constructs and the skills could be studied under each construct. The study used Kouzes and Posner's (1997)

leadership practices inventory to measure effects of the FIT program on leadership skills development.

Literature on social and institutional integration revealed that institutional integration was related to academic performance of the students as well as their retention in college. It also provided constructs to be used for measuring institutional integration. Retention studies in the past have correlated academic, demographic and institutional factors and found that student experiences in college are critical in predicting drop-out rates. The review of literature thus established the framework for the study as well as provided a direction in data collection and analysis.

# CHAPTER III

# METHODOLOGY

This chapter deals with the methods and procedures used in conducting the evaluation study. The formative evaluation was a mixed-methods study aimed at evaluating the impact of the Freshmen in Transition (FIT) program on the participants. In order to collect data relevant to answering the research questions of the study, the population was identified and an instrument was developed specifically to answer the research questions. Data was collected towards the end of Spring 2002. The purpose of this yearlong evaluation study was to evaluate the impact of the FIT program regarding the students' academic achievement, leadership skills development, institutional integration and loyalty and retention. The FIT program was sponsored by the College of Agricultural Sciences and Natural Resources (CASNR) to provide freshmen of the college a smooth transition from school to college.

## Research Questions

The purpose of the study was broken down into the following four specific research questions:

1. Did participation in the FIT program help the participants achieve a higher GPA and related academic development when compared to non-FIT students?

2. Did the FIT program help participants to develop their leadership skills more than the non-FIT students?

3. Did the FIT program help participants to be more loyal and integrated into the institution (CASNR and OSU) than the non-FIT students?

4. Were the FIT students retained at a higher rate than the non-FIT students in CASNR and OSU?

## Institutional Review Board (IRB)

In consonance with the federal policies to protect participants of any research activity (45 CFR, 46), the Oklahoma State University (OSU) policy requires prior review and approval of all studies involving human subjects. The OSU Institutional Review Board reviewed the evaluation proposal in compliance with the university policy. The study was approved and the researchers were granted permission to collect data from human subjects. Since this was the second year of evaluation, the previous IRB was modified and the researchers names were added. The IRB application number is AG0315. A copy of the IRB approval is attached in Appendix A.

## Mixed Methods Approach

The mixed methods approach was used for this study. The justification for this approach came from Cresswell (1994) who advocated the use of a combination of both qualitative and quantitative methods when the situation allows for it.

The theoretical base of this method comes from Chen's (1990) theory driven evaluation. The study reflects the systems' approach in which the main aspects to be studied are inputs, process and outcomes. In any given system, the inputs can be known and the outcomes can be measured. Based on the outputs and inputs, we can arrive at some conclusions about the process. Chen reported that every program has specific objectives that are the outcomes that are expected by the stakeholders. Hence, if one tries to first find out what are the expected outcomes of the program and then compare them to the actual outcomes, one may be able to make evaluative comments about the program. Thus, in a theory driven evaluation approach, the researcher has to:

1. Identify the inputs and desired outcomes of the program.
2. Measure/study the actual outcome of the program, and,
3. Make a comparative evaluation of the program based on expected outcomes and actual outcomes.

## Mixed Methods in Evaluation Studies

In the era of methodological pluralism (Greene & Caracelli, 1997), the mixed methods approach is gaining popularity in evaluation studies. Chen's theory driven

evaluation model (1990) recommends such an approach when the evaluation requires producing intensive and contextual information (Chen, 1997). Mixed methods research design has a potential to combine critical features of paradigmatic traditions defensibly and coherently (Caracelli & Greene, 1997).

Chen (1997) recognized the practicality of such an approach, but questioned the superiority of one methodology over another. He suggested a contingency view for selecting appropriate methodology for program evaluation. According to Chen, while conducting research evaluations, three configurations were possible: configuration I, in which information required is intensive and contextual but the data available is low in credibility; configuration II, where the information is extensive and high credibility, but the system is closed; and configuration III, where although the data is precise and highly credible, the system is open (See Figure 1, page 23). Chen favored qualitative methods of enquiry for configuration I, mixed methods for configuration II and quantitative methods for configuration III. The researchers found that the program to be evaluated belonged to program configuration II as it had evaluation contexts that required extensive and precise information, high availability of credible information, and a low level of openness. Hence, the mixed methods approach with the embedded design was used for the purpose of evaluation (Caracelli & Greene, 1997).

## Research Design

The research approach followed for this study was the nested or embedded mixed methods type (Caracelli & Greene, 1997). This consisted of two interrelated research designs.

The qualitative aspect of the study was nested in the quantitative descriptive approach. The method used was research interviews held towards the end of the program in order to find out what the subjects expected and experienced during the program. Based on the interviews, themes were classified into inputs or outputs of the program.

## Data Collection

### *Data Sources*

Three data sources were used to draw conclusions: student records, a student inventory, and interviews. Student records were used to track the students in regard to their past and present academic standing as expressed by their high school GPA, SAT and/or ACT scores. The SIS records were also used to track students through their enrolment status for the semesters after the program, and thereby measure their retention status.

*Critical Incident Interviews*

From September to December 2001, the researcher conducted critical incident interviews with major program stakeholders to gather input for the research questions (Hayes, 1998). Table 1 shows the people interviewed for the purpose.

Table 1

*Schedule of Critical Incident Interviews*

| # | Involvement in the FIT Program | Date Interviewed |
|---|---|---|
| 1 | Coordinator of the FIT Program | September 6, 2001 |
| 2 | FIT $SAM_1$ | September 13, 2001 |
| 3 | FIT Participant | September 14, 2001 |
| 4 | FIT $SAM_2$ | September 14, 2001 |
| 5 | FIT $SAM_3$ | September 19, 2001 |
| 6 | Associate Dean of CASNR Academic Programs | October 20, 2001 |
| 7 | FIT $SAM_4$ (Leadership) | December 5, 2001 |
| 8 | FIT $SAM_5$ (Leadership) | December 7, 2001 |

Eight people were interviewed while conducting critical incident interviews. The people included the FIT coordinator, the associate dean of academic programs for the college, and five SAMs, two out of which were specifically oriented towards leadership. The interviewees also included one FIT participant. The members' input was considered important, as they were the major stakeholders in the program. Their input was helpful in identifying areas and concerns that could be examined in the process of evaluation.

The interviews were tape recorded and transcribed for verbatim accuracy. The interviews were also cleaned and a copy of the transcripts was sent to the interviewees to review for accuracy and allow for changes, if any, in their answers to the questions. Based on the critical incident interviews, themes were generated to form constructs items in the inventory.

### *Survey Development Procedures*

Based on the interviews and previous literature review, the first draft of the survey was constructed in February 2002. The draft was then referred to a panel of experts for their comments on the face and content validity of the survey. The panel of experts consisted of seven people: two faculty advisors, the residence hall director, the director of student academic services, two SAMs and the former coordinator of the FIT program. The panel was selected from major stakeholders of the program. Since FIT was a living-learning program, the residence hall director was invited to be on the panel of experts. The director of student services is involved in general student activities like organizing Camp Cowboy and other student activities. Also, the present director of student services had completed his doctoral studies on student retention at OSU. Hence, he was invited to be on the panel of experts. Table 2 lists the panel of experts and their relevance for the research.

Each member of the panel of experts was given a copy of the survey draft and was asked to give comments. The researcher met with three members of the panel of experts. The faculty advisors and the director of student services gave their input in a face-to-face

meeting, while the residence hall director, the FIT SAMs and the former coordinator of the program sent their suggestions by making some comments on the survey directly. While some members questioned certain items in the questionnaire, some suggested additional options or modifications in the multiple-choice questions. The FIT SAMs, however, found the survey long and suggested to reduce the size and expand the leadership section of the survey.

Table 2

*Panel of Experts*

| Panelist # | Association with the Research |
|---|---|
| 1 | Faculty advisor for FIT |
| 2 | Faculty Advisor for FIT |
| 3 | Residential Hall Director |
| 4 | Director of Student Activities |
| 5 | Former coordinator & past evaluator of the FIT Program |
| 6 | FIT SAM (Leadership) |
| 7 | FIT SAM (Leadership) |

Based on the input and suggestions of the panel of experts, the second draft of the survey was constructed. The concerns and the suggestions of the panel of experts were addressed and the draft was pilot tested.

As the population of the FIT program was 70 students, it was decided that the sample for pilot testing would be drawn from the Non-FIT students. A random number table was used to generate 30 names of students for pilot testing the surveys. The drafts

for the pilot tests were sent by campus mail to the sample using Dillman's (2000) four phase mailing procedure in March 2002, which consisted of a first mailing of cover letter and a copy of the instrument, a reminder postcard, then a second mailing of the instrument copy, and finally a second reminder post card. The pilot test generated a response rate of 40% ($n$=12). Since the number of responses was too small to run statistical test of significance, the researcher qualitatively assessed each response and in consonance with the thesis advisor modified several items in the questionnaire. The main modifications included additional response items in the multiple choice questions as well as providing parenthetical explanations to certain items on the survey.

After incorporating the changes necessitated by pilot testing, the final draft of the survey was prepared April 2002. Two survey instruments were developed. The first survey was administered to the Non-FIT students, while the second only to the FIT students. Table 3 summarizes the survey development process.

A copy of the survey is attached in Appendix F. The survey consisted of nine sections in all. Section A consisted of eight multiple-choice items. The items consisted of questions addressing the students' opinions about academic success, attendance at OSU, reasons for changing major or dropping out of college, motivation to complete freshman year, qualities reflecting institutional loyalty, factors helping to develop institutional loyalty and perceptions about leadership. The respondents could choose as many options as possible. Each item also had an open-ended option where the respondents could write in any other response to the item not covered by the given options.

Section B consisted of fourteen items. Items 1 to 12 were scaled responses in which the respondents had to fill in the number of times they participated in activities

Table 3

*Survey Development Process*

| Steps in developing the survey | Process Details |
|---|---|
| Invited stakeholders to give input for the evaluation | Interviewed the Associate Dean of CASNR, the FIT coordinator, two student academic mentors, a Super SAM, the faculty associate and a participant of the FIT program ($n$=9). |
| Collect items for survey | Reviewed several surveys including the instrument variables researched by Pascarella & Terenzini (1980) and Martaugh, Burns, & Schuster (1999). Interviews transcripts were studied for possible survey items. |
| Survey draft 1 | Circulated comprehensive list of questions to a panel of experts consisting of faculty, the residence hall director, CASNR career services, and FIT program coordinator. |
| Survey draft 2 | Pilot tested survey with randomly selected group of non-FIT students ($n$=30, response rate=40%). Incorporated changes by manual check based on feedback from pilot surveys. |
| Mail survey to non-FIT students | |
| First mailing | Campus mailed surveys to 142 non-FIT students. Packet included a cover letter, survey, and a return envelope. |
| Second mailing | Reminder postcard, sent only to non-respondents. |
| Third mailing | Cover letter, survey, and a return envelope, sent only to non-respondents. |
| Fourth mailing | Reminder postcard, sent only to non-respondents. |
| Administration of surveys to FIT students | Surveys administered to FIT student in Residence Hall |

such as tutoring, group study, allied arts, educational programs, social activities, leadership activities, community service activities and wellness activities. These activities were a part of the expectations of the FIT program. Items 13 and 14, were open ended. Item 13 asked what kind of general educational activities did the students attend while at OSU. This was to check if the respondents knew the term general educational activities as different from activities required for a given course. Item 14 asked what sort of educational activities were most helpful for academic development to the students.

Section C consisted of two main questions concerning continuing studies in the college and motivation for getting higher grades. This question asked what activities motivated the respondents to continue studies in the college. This item gave 12 optional activities (11 of these activities were FIT expectations, while one was the Camp Cowboy activity). The second question aimed to find out what motivated respondents to get higher grades. This question gave seven options. Most of the options such as group studies, tutoring services and faculty interaction were the administrative elements of the FIT program. Each of the items consisted of a four-point scale of *Yes, Don't Know, No* and *Did not Participate.*

Section D sought to test the participants' perception of the effect of leadership activities they attended at OSU. This section tested the constructs that formulated leadership skills as suggested by Kouzes and Posner (1997). However, certain modifications were made and respondents were provided fifteen statements about leadership to be marked on a five point Likert-Type scale of *Strongly Disagree, Disagree, Agree, Strongly Agree* and *Did not Participate.* The last option was used as some Non-FIT students would have not participated in leadership activities. Some of the

items of the scale were negatively stated (E.g. *Did not help me to set goals*, instead of *Did help me to set goals*) to assure that the respondents read the statements and responded accordingly. The negative aspect of the statement was highlighted for attention.

Section E consisted of the overall freshman experience at OSU. It consisted of 23 statements regarding the experiences at OSU. Some of the statements were negatively stated and highlighted to assure that the respondents would read them carefully. The items were tested on a four point Likert-like scale of *Strongly Agree, Agree, Disagree*, and *Strongly Disagree*. The items combined aspects of continuing studies at college, feelings of at home or loneliness on campus, the academic and interactive experiences as well as other activities such as participating and feeling proud of OSU achievements or reading the campus newspaper. The last item in the survey asked if the respondents wanted to be a part of the FIT program.

Section F consisted of demographic information such as age, gender, marital status, race, family association with agriculture, employment status, parental education, family association with OSU, experiences at FFA and 4-H and educational goals. The literature review identified these variables as intervening variables in college experiences as well as retention of students.

Section G of the survey was constructed specifically for the FIT students. It consisted of six questions. The first question was a multiple-choice question aimed at finding out the reasons for the respondents' association with the FIT program. The question had an open-ended option and the respondents could check any number of options. Questions 2 and 3 were specifically to cover the FIT expectations not covered in

section B, and 4 and 5 were to find out their responses to the changes that the program incorporated from fall 01 to spring of 2002.

Section H consisted of a four point Likert-like scale of Strongly Agree, Disagree, Agree, and Strongly Agree for 13 statements about the FIT program. Some of the statements were negative statements and highlighted to find out the participants' assessment of the FIT program.

Section I listed eleven activities of the FIT program and asked the participants to suggest if those activities were to be kept or dropped from the program. Also recommendations about these expectations were solicited. This section provided some space for comments if any on the survey and the program in general.

### *Administration of the Survey*

The final surveys were administered in two ways. For the Non-FIT students, the surveys were mailed by the university mailing service (all the Non-FIT students lived on campus) in the month of April 2002. The procedure followed was the modified Dillman's four phase mailing procedure (2000) to generate maximum responses from the research subjects. Although Dillman suggested a pre-survey post card to the population to be surveyed, the researcher directly sent a survey and a letter of solicitation. In case of no response within a week, the survey letter was followed with a reminder postcard and a second copy of the survey was sent if there was no response to the reminder post card. Immediately after the second copy of the survey was mailed, the researcher made a telephone solicitation for responses to all those who had not responded to the first

mailing. Finally, a second reminder post card was sent (Appendixes D & E). Out of 160 students who were mailed the survey, 53 responded, giving a 38% usable response rate.

The FIT students were administered the surveys in their residence hall during the evenings in the last week of April 2002. The researcher informed the participants of the availability of the surveys at a given time during the evenings, when they could collect the surveys from the researcher and were free either to respond to the surveys immediately, or to take them to their rooms, and send the responses later. Sixty-two out of 70 students completed the survey generating a response rate of 89%. Two of the eight who did not respond specifically refused to participate in the survey study. Out of the other six, four could not be contacted after repeated attempts, and two did not send their responses although they received the instrument.

*Control for non-response*

The researcher intended to conduct a census on both the FIT and Non-FIT students, but an incomplete data set was collected for the Non-FIT population (38%). To control for selection bias, respondents were compared to non-respondents by "double-dipping" (Miller & Smith, 1983). Fifteen non-respondents were randomly selected and telephoned. The researcher administered selected demographic questions from the survey for comparison with respondents. There were no differences found between the respondents and non-respondents for the demographic variables of age, gender, employment status, educational goals, and past 4-H and FFA association. Therefore, results can be generalized to the population.

## *Documents Analysis*

Demographic and academic information such as GPA of high school and college (fall 01 and spring 02), SAT and/or ACT scores, hours enrolled and hours earned were downloaded from the OSU Student Information System and were used as variables in the analysis.

## *Qualitative Data*

Two principle methods were used to gather qualitative data: the observation and interviews. The observation method was used to gather additional data about the events and happenings in the FIT program. The interview method was used to collect information from select participants of the program.

### *Observations*

Since fall 2001, the researcher spent some time observing the various activities of the FIT program by visiting them or by just participating in some of the activities. The researcher took detailed notes about the meetings with specific focus on the course of the meetings, the opinions expressed by both the administrators as well as the participants of the meetings or events. The notes were used as a tool for triangulating the survey.

### *Interviews*

A heavy reliance only on empirical data could neglect the human aspects of construction of reality especially through human conversation. In recent times, qualitative interviews have been increasingly used as a research method (Kvale, 1996). As a part of

the embedded mixed methods study, the researcher used long interview to support claims made by the survey data.

Two kinds of interviews, critical incident and research interviews were conducted for the study. Critical incident interviews were used as a means of constructing the survey instrument for the study. Research interviews were conducted as a part of the mixed-methods approach.

Kvale (1996) provided seven stages of interview investigation: thematizing, designing, interviewing, transcribing, analyzing, verifying and reporting. The researcher went through each of the stages as follows:

1. Thematizing: The critical incident interviews and literature review helped formulate research questions. Since the research was of the FIT program, it was decided to conduct the interviews of some FIT participants with special focus on the research questions.

2. Designing: The researcher, decided to use the semi-structured interview (Bechhofer & Paterson, 2000) for the study. The research questions allowed the breaking of the course of the interview into four sections and possible questions addressing each of the sections were generated. The interviews were guided with a list of suggested questions for the researcher (See Appendix G).

3. Interviewing: The interviews were conducted in Agricultural Hall 465 with the FIT participants. The researcher used the technique called snowballing for identifying the participants for the interviews. The researcher used purposeful sampling of members who were considered having extreme opinions about the FIT program. The extreme cases

allowed the researcher to get both positive and negative feedback about the program. A total of eleven FIT participants were interviewed as shown in Table 4.

4. Transcribing: Each interview was transcribed for verbatim accuracy and the transcribed interviews were also cleaned to reduce errors in transcribing.

5. Analyzing: The data analysis is discussed in the next section.

6. Verifying: The verification of the interviews was done in cleaning the transcriptions by a third person.

7. Reporting: Reporting is discussed in the next section

Table 4

*Interviews of Select Participants*

| Participant # | Day | Date | Time |
|---|---|---|---|
| 1 | Tuesday | 04/02/02 | 3.00 p.m. |
| 2 | Thursday | 04/04/02 | 9.00 a.m. |
| 3 | Thursday | 04/04/02 | 2.00 p.m. |
| 4 | Friday | 04/09/02 | 11.00 p.m. |
| 5 | Thursday | 04/11/02 | 2.00 p.m. |
| 6 | Thursday | 05/02/02 | 2.00 p.m. |
| 7 | Thursday | 05/02/02 | 2.00 p.m. |
| 8 | Wednesday | 05/01/02 | 11.00 a.m. |
| 9 | Wednesday | 05/01/02 | 10.30 a.m. |
| 10 | Wednesday | 04/10/02 | 2.00 p.m. |
| 11 | Wednesday | 04/10/02 | 3.30 p.m. |

## Data Analysis and Reporting

Chapter IV gives a detailed report of the findings of the analysis. Data was analyzed according to the research questions. Since the study was a mixed methods study, the data was analyzed separately for both the quantitative and qualitative components.

### *Quantitative Data Analysis*

Descriptive and inferential statistics were used in analyzing the data provided by the survey responses as well as document analysis. Kerlinger (1986) stated that Likert-type data was ordinal in nature, and it was acceptable and practical to treat it as interval data and subject it to statistical analysis as long as care was taken in the interpretation of results. Responses to sections C, D, and E of the survey were scored and were treated as interval data for the study. For all scaled items such as GPAs, and number of activities, leadership score, an independent samples *t*-test was run between FIT and Non-FIT respondents to find differences, if any. In case of nominal data such as gender, participation in FFA or 4-H programs, a chi-square test was run to find differences between FIT and Non-FIT students. An alpha level of .05 was set *a priori* when determining differences among variables.

Statistical tools such as *t*-tests and chi-square test are tools to analyze statistical significance. However, there is a distinction between statistical significance and substantive significance. Social scientists need to place emphasis on measures of strength

of association such as correlation coefficients, phi, Cramer's *V* (Byrne, 2002). Wiersma (2000) indicated that statistical significance could not be equated with practical importance. It has become necessary to include some reference to practical importance as manifested in effect size along with inferential tests. For this study, Cohen's *d* was calculated for *t*-tests and Cramer's *V* for chi-square tests as recommended (Warmbrod, 2001).

### *Qualitative Data Analysis*

Qualitative data consisted of interview analysis. Observation notes were used to gain a deeper understanding of the happenings in the program.

The interviews were analyzed using ATLAS.ti 4.1 for Windows 95. The process used for transcribing the interviews was by classifying chunks of text into like categories (Ryan & Bernard, 2000).

The researcher decided to use the triangulation method of Heideggerian hermeneutics coupled with the method of grounded theory (Wilson & Hutchinson, 1991). Heideggerian hermeneutics aims at interpreting the lived experience of any social phenomenon (Diekelmann, 1990). Grounded theory advocates that any group shares an unarticulated basic social problem (Denzin & Lincoln, 2000). While hermeneutics portion of the study described and interpreted participants' meanings and practices, the grounded theory portion sought to accurately describe and explain basic social processes, phases, and properties (Wilson & Hutchinson, 1991).

The coding was done independently from the research questions. After coding, however, the codes were classified into the individual research questions and then

findings reported. The codes and analysis were verified by peer reviewing and discussions.

The findings of the interview analysis were reported along with the quantitative findings. Although most qualitative findings were used to triangulate the findings of quantitative data, those findings that were not addressed by the research questions but had relevance for the study were reported in a separate section.

## Validity & Reliability

Validity refers to the extent to which a given study gives the correct answer, while reliability refers to the consistency of responses (Kirk & Miller, 1986). Since the study was a mixed methods study, validity and reliability concerns for both the quantitative and qualitative aspects of the study were addressed separately. The main possible threats to validity and reliability included internal and external validity. Internal validity consisted of history, maturation, testing, instrumentation, and selection bias. External threats consisted of questions of generalizability of the results.

### *Validity & Reliability of Quantitative Findings*

#### *Internal Validity & Reliability*

The internal validity of quantitative findings was to be judged on two criterions: the research method validity and the instrument validity. The research design was supported by Chen's contention that a mixed methods study is best suited for social

program that is comparatively closed and has intensive and extensive data with limited access. The FIT program reflected these characteristics and hence, the mixed methods research approach was considered valid.

Since there was no pre-test conducted and the subjects were subjected to the survey instrument at the same time of the semester, the threats of maturity and testing were overcome.

The instrument could be assessed on three aspects: face validity, content validity, and internal consistency and reliability.

The problem of face and content validity was addressed by referring the instrument to a panel of experts while constructing it. A pilot test also benefited the soundness of the survey instrument. For internal consistency and reliability, a Cronbach alpha test was run on all scaled items. The Cronbach alpha for internal consistency for the general instrument was measured at 0.53. Ary, Jacobs and Razavieh (1996) state that when the measurement results were to be used for deriving some conclusions about a group or for research purposes, a reliability coefficient of the range of 0.5 to 0.6 was acceptable. The survey instrument used in this study was found to be relatively reliable.

*External Validity*

External validity or generalizability refers to the extent in which findings of a study can be applied to other similar situations. Since the FIT program was specific to a given group of students, the researcher did not generalize the findings beyond the program for that particular year. Thus, this study made no attempt to secure external validity.

## *Validity and Reliability of Qualitative Findings*

Merriam (1995) has given some practical suggestions to establish validity and reliability in qualitative research. The researcher tried to establish validity and reliability of the qualitative component of this study by using those suggestions as follows:

### *Internal Validity*

The researcher used the four strategies to establish internal validity in this study. Triangulation was used by multiple sources of data such as field notes, observation, correspondence between members and administrators (Denzin, 1970; Mathison, 1988). Member checks were employed by formally presenting the findings of the data in an open session to both the stakeholders as well as interested FIT students. Peer examination was sought by getting graduate students and other faculty members involved in the research activity and findings.

### *External Validity*

External validity refers to the problem of generalizability. Qualitative research cannot claim population generalizablity (Vogt, 1999). However, certain strategies such as thick description, multi-site designs, modal comparisons and sampling within can be used to accomplish what Erickson called "concrete universals" (Erickson, 1986, Merriam, 1995). For this study, the researcher used three strategies to assure external validity. The first was thick description of the program and its issues. The second strategy was multi-site designs where extreme cases were interviewed to get broader perspectives of the program. The final strategy was that of sampling within where the FIT program was

studied from several component parts such as faculty, administrators and participants.

*Dependability and Consistency*

Guba and Lincoln (1985) have suggested dependability and consistency instead of reliability in qualitative research. They maintain that the main issue of qualitative study is whether the results of the study are consistent with the data collected. The three strategies for this aspect as suggested by Merriam (1995) are triangulation, peer examination, and an audit trail. For this study, triangulation was secured through using a mixed methods study as well as observation notes. Peer examination consisted of discussing results and findings with colleagues and other faculty members. Audit trail was recorded in the specific details of the process and sources of information. The audit trail has been archived as along with the data collected for the research.

## Limitations of the study

This study identified and acknowledged the following limitations:

1. The subjects of the study were humans and it was not possible to control all intervening variables while conducting the study. Therefore, the consistency and validity of the results could not be established without a margin of error.
2. Since the FIT program was an evolving program, the assessment and evaluation techniques and paradigms were subject to change. In this sense, this study is not replicable, as every year the evaluation approach and agenda will change.
3. This study focused on evaluating a particular program: the FIT program. Any conclusions drawn cannot be generalized beyond the scope of the FIT program.

Although there was an attempt to understand the general nature of phenomenon of such living-learning programs, the inferences of this study were essentially limited only to the FIT program.

4. Certain concepts such as leadership skills development, institutional integration and loyalty, and academic improvement are ambiguous. Hence, such terms could not be defined in accurate terms. Well-established definitions and parameters were considered, but they were open to interpretations by the readers.
5. During the course of the program, external incidents such as the September 11, 2001 terrorist attacks on the United States happened. Similarly, the nation was passing through some economic hardships. There was thus a historical threat to validity. These factors were not taken into consideration in analyzing the data collected.

## Summary of Chapter III

Chapter III dealt with the methodology employed for the study. Based on Chen's criteria of selection, the researcher selected the mixed-methods approach to conduct the study. The methods consisted of quantitative data as secured from document analysis of student records from the university SIS, and a survey instrument specially developed for the study. The survey instrument was developed in stages and pilot tested to establish validity and reliability. Qualitative data was secured from the text analysis of the interview responses by select FIT participants.. Attempts were made to establish validity and reliability of both sources of data and analysis. The quantitative data were analyzed using statistical instruments. The qualitative data were subject to qualitative interpretation of thematic analysis to parallel quantitative findings. The next chapter provides the analyses of the data collected during this study.

# CHAPTER IV

## FINDINGS

The purpose of this study was to evaluate a residential learning program sponsored by the College of Agricultural Sciences and Natural Resources (CASNR) at Oklahoma State University. The main research questions dealt with the effect of the program in helping participants achieve academic development, leadership qualities, institutional integration and loyalty, and retention at higher levels as compared to non-participants. Chapter III discussed how data were collected and subjected to both qualitative and quantitative analyses. This chapter discusses the findings of the survey, document analysis, and personal interviews held with the participants.

The findings are presented according to the research questions stated in chapter I. Each research question was answered on the basis of quantitative data provided by the survey responses and document analysis. The findings of the quantitative data were triangulated by the responses of the participants in the face-to-face interviews. To protect the identity of the interviewees, each interviewee was assigned a number and the statements were attributed to the number. Also, while referring to the respondents the generic pronoun "she" was used so as not to disclose the gender of the participant.

## Comparative Profiles of FIT and non-FIT students

*Research Question 1*: Was there a difference in composition between the two groups, FIT and non-FIT in select demographics of age, gender, employment status, parents/guardians' education, high school GPA, and past involvement in FFA and 4-H activities.

Research Question 1 dealt with establishing the demographic equivalence of the groups, FIT and non-FIT. This helped in establishing the validity of the comparisons between the groups. Data downloaded from the Students Information System (SIS) system of the university helped in understanding data relevant to past academic achievement and survey responses helped in knowing about past experiences in areas of academic and non-academic involvement in school. Also, family background was sought as a factor to establish equivalence. These variables could be considered as intervening variables for academic and social development of students (Chickering, 1969), their retention status (Tinto, 1993; Ruddock, Hanson, & Moss, 1999; Stafford, 1982), and leadership qualities (Balschweid & Talbert, 2000).

### *Quantitative Findings*

A chi-square test suggested no significant differences between demographic variables of gender, marital status, ethnic background, employment status, family association with agriculture, past membership in FFA and 4-H organizations, whether they had any sibling studying in the university, their parents/guardians' educational

levels, their personal educational goals, and if they were enrolled in the honors program or not. However, significant difference was found between the employment statuses of the two groups.

More FIT respondents were employed (47.5%) than non-FIT respondents (28.3%) (Tables 5 & 6). However, the Cramer's *V* of 0.20 revealed a weak association between the employment status of the two groups (Warmbrod, 2001).

Table 5

*Chi-Square Analysis for Intervening Demographic Factors*

| Demographic Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Gender | | | | |
| Male | 44.3 | 39.9 | | |
| Female | 55.7 | 60.1 | 0.396 | 0.53 |
| Marital Status | | | | |
| Never Married | 95.2 | 98.1 | | |
| Married | 4.8 | 1.9 | 0.742 | 0.39 |
| Ethnic Background | | | | |
| White, non-Hispanic | 84.7 | 86.5 | | |
| Hispanic | 3.4 | 1.9 | | |
| Native American | 8.5 | 5.8 | | |
| Asian Pacific Islander | - | 3.8 | | |
| Bi-racial | 3.4 | 1.9 | 3.0 | 0.56 |
| Employment Status [A] | | | | |
| Employed | 47.5 | 28.3 | | |
| Unemployed | 52.5 | 71.7 | 4.429 | 0.04 |
| Place of Employment | | | | |
| On-campus | 55.2 | 40.0 | | |
| Off-campus | 44.8 | 60.0 | 0.910 | 0.34 |
| Family Association with Ag. | | | | |
| Yes | 61.3 | 56.6 | | |
| No | 38.7 | 43.4 | 3.673 | 0.06 |

[A] Significantly Different

Table 5 (Cont.)

*Chi-Square Analysis for Intervening Demographic Factors*

| Demographic Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Past membership in FFA | | | | |
| Yes | 59.7 | 43.4 | | |
| No | 40.3 | 56.6 | 3.035 | 0.08 |
| Past Membership in 4-H | | | | |
| Yes | 56.5 | 42.3 | | |
| No | 43.5 | 57.7 | 2.263 | 0.13 |
| Older brother/sister studying at OSU | | | | |
| Yes | 27.4 | 41.5 | | |
| No | 72.6 | 58.5 | 2.531 | 0.11 |
| Honors Program | | | | |
| Yes | 14.5 | 17.0 | | |
| No | 85.5 | 83.0 | 0.132 | 0.72 |

[A] Significantly Different

An independent samples *t*-test between demographic variables of age, distance of parents' home from Stillwater, number of hours employed per week, and the number of years of FFA and 4-H membership did not reveal any significant differences. However, significant differences were found between the high school GPA and the adjusted ACT scores of the students. The non-FIT students had significantly higher means in both high school GPA and adjusted ACT scores (Table 7). The Cohen's *d* calculated for high school GPA and the ACT scores was 0.33 and 0.42, which suggested a medium effect size (Cohen, 1988).

Table 6

*Chi-Square Analysis for Intervening Demographic Factors*

| Demographic Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Father/Male Guardian Educational Level | | | | |
| Grade School | 1.6 | - | | |
| Some high school | 1.6 | 1.9 | | |
| High School Diploma/GED | 21.3 | 18.9 | | |
| Some College | 26.2 | 17.0 | | |
| Associates Degree | 4.9 | 5.7 | | |
| Baccalaureate Degree | 14.8 | 22.6 | | |
| Some Graduate School | 1.6 | 3.8 | | |
| Masters Degree | 24.6 | 18.9 | | |
| Doctoral Degree | 3.3 | 7.5 | | |
| Vo-Tech/Career Tech | - | 3.8 | 7.254 | 0.61 |
| Mother/Female Guardian Educational Level | | | | |
| Grade School | 1.6 | - | | |
| Some high school | - | - | | |
| High School Diploma/GED | 18.0 | 20.8 | | |
| Some College | 16.4 | 20.8 | | |
| Associates Degree | 8.2 | 3.8 | | |
| Baccalaureate Degree | 36.1 | 32.1 | | |
| Some Graduate School | - | - | | |
| Masters Degree | 19.7 | 17.0 | | |
| Doctoral Degree | - | 3.8 | | |
| Vo-Tech/Career Tech | - | 1.9 | 5.870 | 0.56 |
| Your Educational Goals | | | | |
| Some College | 1.7 | 3.8 | | |
| Associates Degree | - | 3.8 | | |
| Baccalaureate Degree | 28.3 | 28.3 | | |
| Some Graduate School | 3.3 | 3.8 | | |
| Masters Degree | 30.0 | 22.6 | | |
| Doctoral Degree | 21.7 | 9.4 | | |
| Doctor of Veterinary Medicine | 15.0 | 28.3 | 8.312 | 0.22 |

Table 7

*Independent Samples t-test for Intervening Demographic Factors*

| Demographic Factors | n | Mean | SD | SE | P |
|---|---|---|---|---|---|
| Age | | | | | |
| FIT | 61 | 18.74 | 0.54 | 6.97 | |
| Non-FIT | 53 | 18.74 | 0.49 | 6.68 | 0.99 |
| How far is (in miles) parent's home from OSU, Stillwater? | | | | | |
| FIT | 60 | 280.55 | 406.12 | 52.43 | |
| Non-FIT | 51 | 422.69 | 1520.15 | 212.86 | 0.52 |
| How many hours do you work every week? | | | | | |
| FIT | 26 | 15.56 | 4.59 | 0.90 | |
| Non-FIT | 15 | 16.70 | 11.77 | 3.04 | 0.72* |
| How many years were you a member of FFA? | | | | | |
| FIT | 37 | 3.40 | 0.98 | 0.16 | |
| Non-FIT | 23 | 3.70 | 0.64 | 0.13 | 0.17* |
| How many years were you a member of 4-H? | | | | | |
| FIT | 35 | 4.57 | 1.82 | 0.30 | |
| Non-FIT | 22 | 4.68 | 1.86 | 0.39 | 0.83 |
| High School GPA | | | | | |
| FIT | 70 | $3.57^{A}$ | 0.33 | 3.94 | |
| Non-FIT | 129 | $3.68^{A}$ | 0.34 | 3.03 | 0.03 |
| ACT Scores | | | | | |
| FIT | 70 | $24.00^{B}$ | 3.36 | 0.40 | |
| Non-FIT | 138 | $25.54^{B}$ | 3.98 | 0.34 | 0.01 |

Means with similar superscripts are significantly different

* Equal variances not assumed

*Qualitative Findings*

Eleven participants were interviewed. Based on the interviews, an additional aspect surfaced as important.

*Major Finding*: Some of the FIT participants came from a non-agricultural background. They found the town and university small and the FIT program limited in providing constructive college experiences.

*Data Analysis*: Four of the 11 respondents voluntarily shared the information that they were non-traditional agriculture students. Three students said that they were from much bigger towns and hence did not find the university activities, such as allied arts, appealing. Respondent 3 felt that the absence of Broadway-like facilities made it a boring experience, while respondent 6 felt that she was not happy with the allied arts although she underlined the importance of such activities in life. Respondent 2 said that she came from a small town and hence liked the allied arts programs and felt that allied arts enriched her understanding of life. Respondent 1 articulated that since she was from a non-agricultural background, she had never been exposed to agricultural equipment. Her main purpose of being in the college was the kinds of financial aid available to the students. This participant dropped out of the college after the freshmen year because she did not get any financial aid from the college.

Thus, the background of the FIT students had an effect on the way they perceived their experiences of the university in general and the FIT program in general.

## Academic Achievement

*Research Question 2*: Did participation in the FIT program help the participants achieve a higher GPA and related academic development when compared to non-FIT students?

Research Question 2 dealt with the measurement of comparative academic achievement of FIT and non-FIT students. Both qualitative and quantitative analyses were used to measure this construct.

### *Quantitative Data Analysis*

The quantitative measures used for analyzing the academic achievement of the FIT and non-FIT participants were their GPAs for fall 01, spring 02, and cumulative GPA for the academic year, the number of hours enrolled and completed in the semesters, as well as the number of academic activities they participated in during the year.

An independent samples *t*-test revealed that there were no significant differences between the FIT and the non-FIT students in the fall 2001, spring 2002 and the cumulative GPAs. However, an independent samples *t*-test on the number of hours enrolled and earned in fall 01 and spring 02 found significant differences between the two groups, the FIT students having earned more hours than the non-FIT students in the spring semester (Table 8). The Cohen's *d* of 0.37 for this variable suggested a medium effect size (Cohen, 1988).

An independent samples *t*-test run on the product of GPA and hours earned in both fall and spring semesters suggested no significant difference for the fall semester, but significant difference for the spring semester. The FIT students had a higher product mean for GPA and hours earned in spring 02. Similarly, significant difference was found in the number of academic activities that the students participated in during the freshman year between the groups, and the FIT students again scored better on this variable (Table 8). The Cohen's *d* for the product mean for GPA and hours earned in spring 02 was calculated as 0.28 and the number of activities participated during the freshman year was calculated as 0.55, which suggested a small and medium effect size respectively.

A trend graph (Figure 3) of the GPA for FIT and non-FIT students showed that while both groups recorded a decrease in their GPA from high school to their first semester at OSU, the GPA for FIT students decreased less than those of the non-FIT students. Both groups remained stable in their GPAs for the spring semester.

A chi-square analysis of what the students considered as high academic achievement did not reveal significant differences between the FIT and non-FIT students (Table 9). Similarly, a chi-square analysis of the factors that motivated students to get higher grades did not reveal significant differences between the groups. All the motivating factors, except taking more than 15 credits hours per semester and taking easy courses, were actually the expectations of the FIT program (Table 10).

Table 8

*FIT vs. Non-FIT t-test for Academic Indicators*

| Academic Indicators | n | Mean | SD | SE | P |
|---|---|---|---|---|---|
| Fall 01 GPA | | | | | |
| FIT | 70 | 2.98 | 0.56 | 6.65 | |
| Non-FIT | 141 | 2.84 | 0.92 | 7.83 | 0.16* |
| Spring 02 GPA | | | | | |
| FIT | 70 | 3.00 | 0.79 | 9.48 | |
| Non-FIT | 141 | 2.81 | 1.02 | 8.63 | 0.16* |
| Cumulative GPA | | | | | |
| FIT | 70 | 3.04 | 0.54 | 6.43 | |
| Non-FIT | 141 | 2.88 | 0.86 | 7.24 | 0.10* |
| Hours Enrolled in Fall 01 | | | | | |
| FIT | 70 | 14.36 | 1.41 | 0.17 | |
| Non-FIT | 141 | 14.06 | 1.79 | 0.15 | 0.22 |
| Hours Earned in Fall 01 | | | | | |
| FIT | 70 | 14.17 | 1.50 | 0.18 | |
| Non-FIT | 141 | 13.45 | 2.62 | 0.22 | 0.12* |
| Hours Enrolled in Spring 02 | | | | | |
| FIT | 70 | 15.24 | 2.12 | 0.25 | |
| Non-FIT | 141 | 15.03 | 2.21 | 0.19 | 0.50 |
| Hours Earned in Spring 02 | | | | | |
| FIT | 70 | $14.73^{A}$ | 3.08 | 0.37 | |
| Non-FIT | 141 | $13.40^{A}$ | 3.96 | 0.33 | 0.01* |
| Product of GPA & Hours Fall | | | | | |
| FIT | 70 | $42.33^{B}$ | 9.09 | 1.09 | |
| Non-FIT | 141 | $39.85^{B}$ | 15.62 | 1.32 | 0.15* |
| Product of GPA & Hours Spring | | | | | |
| FIT | 70 | $45.20^{C}$ | 14.65 | 1.75 | |
| Non-FIT | 141 | $40.42^{C}$ | 18.81 | 1.58 | 0.05* |
| Academic Activities Participated | | | | | |
| FIT | 55 | $40.11^{D}$ | 33.23 | 4.48 | |
| Non-FIT | 56 | $25.11^{D}$ | 19.24 | 2.57 | 0.01* |

Means with similar superscripts are significantly different

* Equal variances not assumed

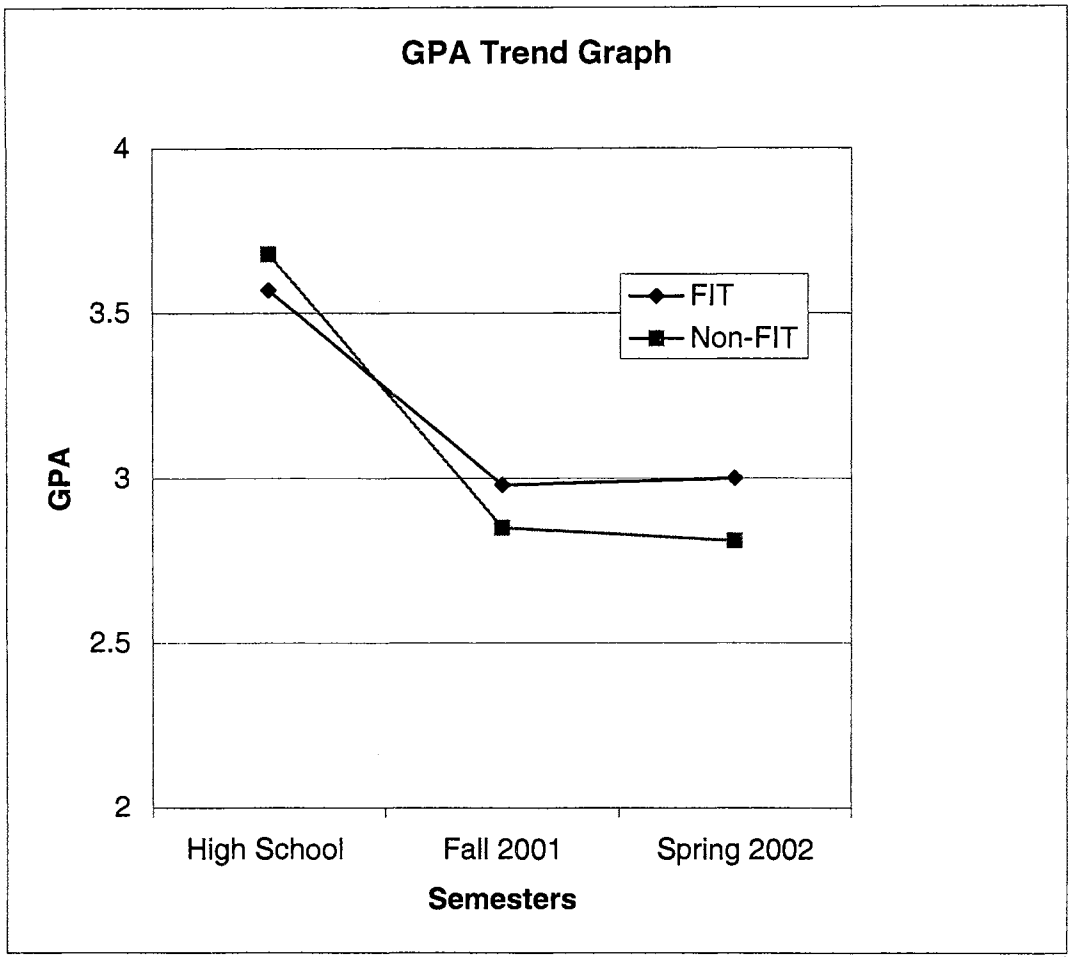



*Figure 4*

Trend graph of FIT and non-FIT students' GPA for high school, first, and second semester at OSU.

Table 9

*FIT vs. Non-FIT Attitudes towards Academic Achievement*

| Motivating Factors for Academic Achievement | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Earning a GPA above 2.5 | | | | |
| Yes | 16.1 | 18.9 | | |
| No | 83.9 | 81.1 | 0.149 | 0.70 |

Table 9 (Cont.)

*FIT vs. Non-FIT Attitudes towards Academic Achievement*

| Motivating Factors for Academic Achievement | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Earning a GPA above 3.0 | | | | |
| Yes | 69.4 | 69.8 | | |
| No | 30.6 | 30.2 | 0.003 | 0.96 |
| Having a thorough understanding of the subject matter | | | | |
| Yes | 75.8 | 84.9 | | |
| No | 24.2 | 15.1 | 1.479 | 0.22 |
| Being motivated to study | | | | |
| Yes | 43.5 | 34.0 | | |
| No | 56.5 | 66.0 | 1.102 | 0.29 |
| Having effective habits | | | | |
| Yes | 35.5 | 37.7 | | |
| No | 64.5 | 62.3 | 0.063 | 0.80 |

Table 10

*FIT vs. Non-FIT Motivating Factors to Earn a Higher GPA*

| Motivating Factors for Higher GPA | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Tutoring Services | | | | |
| Yes | 58.3 | 71.4 | | |
| No | 41.7 | 28.6 | 1.504 | 0.22 |
| Studying in a Group | | | | |
| Yes | 64.2 | 76.9 | | |
| No | 35.8 | 23.1 | 1.731 | 0.18 |
| Meeting with Sophomores/Juniors/ Seniors in the Residence Halls | | | | |
| Yes | 56.3 | 65.7 | | |
| No | 43.8 | 34.3 | 0.757 | 0.38 |

Table 10 (Cont.)

*FIT vs. Non-FIT Motivating Factors to Earn a Higher GPA*

| Motivating Factors for Higher GPA | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Quiet Hours in the Residence Halls | | | | |
| Yes | 34.1 | 34.1 | | |
| No | 65.9 | 65.9 | 0.000 | 1.00 |
| General Educational Activities | | | | |
| Yes | 44.4 | 37.9 | | |
| No | 55.6 | 62.1 | 0.307 | 0.58 |
| Taking more than 15 Credits/Semester | | | | |
| Yes | 39.0 | 51.4 | | |
| No | 61.0 | 48.6 | 1.195 | 0.27 |
| Taking Easy Course | | | | |
| Yes | 26.5 | 30.8 | | |
| No | 73.5 | 69.2 | 0.192 | 0.66 |
| Interaction with Faculty | | | | |
| Yes | 84.9 | 90.0 | | |
| No | 15.1 | 10.0 | 0.526 | 0.47 |

## *Qualitative Findings*

All the interviewees were asked to comment on the effect of the FIT program, positive or negative, on their academic achievement.

*Major Findings*: The major findings of the interview analyses were:

1. FIT participants considered GPA as only one of the indicators of academic success,
2. FIT participants had mixed reactions about the tutorial services, and

3. FIT participants felt that the FIT program was modestly successful in helping participants develop academically.

*Data Analyses*: Three main themes emerged in the context of the effect of the FIT program on the academic achievement of the participants. The themes were: indicators of academic success, the experiences with the tutorials offered by the program, and the overall effect of the program.

Indicators of academic achievement: Ten out of the eleven respondents expressed their ideas about academic achievement. Four respondents (3, 4, 7 and 9) agreed on the importance of GPA in measuring academic achievement but they did not consider GPA as the only indicator of academic achievement. For the rest of the respondents (2, 5, 6, 8, 10 and 11) other indicators were important in indicating academic achievement. Among the other indicators suggested were knowledge and understanding (3, 4 and 6), challenge to think (5), learning and individual goals (8), doing well in co-curricular activities (9) and "academic experience" (10). One respondent (2) emphatically stated that "GPA is not an indicator of academic achievement," and that the overall experience counted as an indicator of academic success. This comment was repeated by other respondents by statements such as "academic success is learning, getting something out of the class" (3), "academic success is setting your goal and working for it" (8) and "not failing and being happy with what you make" (11). The respondents indicated that a high GPA was not an important concern for them. Respondent 11 summarized: "Depends on the person. I can be happy with a C."

The experiences with the tutorials: Tutoring services provided in the residence hall were one of the major benefits of the FIT program. The tutoring services were

focused on helping the students with their classes and the academic development. The sessions lasted for about two hours and were provided weekly for subjects such as math, biology, and chemistry. The tutors were either teaching assistants or research associates who were paid by the sponsors of the FIT program. The sessions were generally held in the lobby of the residence hall. All FIT students were welcome to attend them. During fall 2001, the students were expected to attend at least five sessions during the semester. During spring 2002, the sessions were made optional.

Out of the 11 students interviewed for the study, four students (6, 8, 9 and 11) were negative about the sessions, five (1, 3, 4, 7 and 10) were positive about them, one (2) was very positive about them, while one (5) was indifferent to their contribution. Their responses ranged from "it was a kind of a blessing to have a math tutor," (1), "being able to have tutors, that has helped," (4), to "it was a waste of time," (8).

The most important aspect of the tutorials was that they were provided in the residence hall, and all but one student (9) felt that it was both comfortable and easy to access. Four students (1, 3, 5 and 7) felt that the participation was high because of their location. One student (9), however, felt that the sessions should be held out side of the residence hall.

Some negative aspects of the tutorials were that there was noise in the place where they were held (2, 3, 5 and 7), and that the tutor could not give individual attention to each student (1). Another major problem was of finding the right tutor (5) and that the tutors themselves sometimes couldn't teach the subject well (4). However, one student did not mind the noise (2). Two students (1 and 9) found the group of students large, but one student (5) felt that since all students were working on the same problem during a

session, individual attention was not a critical point. There was a disagreement on the number of people per session. One student felt that 20 students were far too many to be handled by one tutor. However, according to others (2 and 3) the maximum attendance was limited and so the tutor could easily attend to each student. According to one student (6) the ratio of students to tutor of "about 10 to 1 were a pretty good odds."

The most positive thing about the tutorial sessions, besides their location, was their accessibility. For two students (2 and 4), the sessions helped them in their tests, and one student found her tutor the best she could ever get (7). For one student the tutorials were a time to have a group study (5). Except for two students who felt that they would have sought a tutor if one were not available in the hall (4 and 8), most students attended because they were readily available. Two students attended them only because they were required (8 and 10). Two students (5 and 11) had gone to sessions such as those in the math science laboratory and the writing center, which was beyond the tutorials, provides in the residence hall. Respondent 5, however, did not find the writing center that helpful.

Among the suggestions for the sessions, all respondents, except 9, felt that the sessions be continued in the hall for maximum participation. Noise and attendance were not considered critical points, though the topics covered were considered significant. One felt that tutorial services should be provided for all subjects that the FIT students had so that the real academic aspect of the FIT program could be implemented: "if they were focusing more on the academics then they would have a tutor for every class and not a tutor just for biology and not just chemistry."

Thus, most students had mixed reactions about the tutorial services arranged by the FIT program. Except for one student (8) who felt it was a waste of time to attend

them, most attended them out of necessity and felt that they did get enough, if not extraordinary, help from the tutors. One student, while indirectly referring to the mandatory nature of expectations, emphasized that at this age the students have to be responsible on their own for attending such programs (3). However, most interviewed, except respondent 7, were not enthusiastic about the sessions.

The overall effect of the program: Ten respondents gave their opinions on the question for the effect of the FIT program on their academic achievement. Four respondents (2, 3, 4 and 5) explicitly stated that the FIT program helped them academically, and that the program went beyond just helping them improve upon their GPA. For these respondents, GPA coupled with other aspects like knowing and understanding the subject mater were critical points in academic success. The reasons quoted for FIT helping in academic achievement were the program "gets you involved in so many things" (2), "provides tutorial services in the residence halls" (3), "helps in understanding and academic growth" (4) and helps in establishing a "network with similar course participants" (5).

Of the remaining six respondents, two respondents (9 and 10) expressed satisfaction with the academic support provided by the FIT program, but did not indicate a clear academic advantage as a result of being in the program. The other (6, 7, 8 and 11) respondents did not find any effect of the FIT program on their academic achievement, "FIT did not help in better academic performance" as respondent 8 put it. However, none of the participants expressed the complaint that the FIT expectations had any adverse effect on academic achievement.

Thus, while the respondents were ambiguous about the academic effects of the FIT program, they agreed that FIT did not harm their academic experiences either. Two respondents (8 and 9), however, felt that FIT did harm them in an indirect way. Respondent 8 stated that "FIT helps those who don't know how to get involved; to those who know how to get involved, it kind of holds those guys back." Respondent 9 had some bad experiences when in the program. Hence, he was not happy with the experience totally. However, respondents 10 and 11 clearly stated that, "FIT had no negative impact."

## Leadership Skills Development

*Research Question 3*: Did the FIT program help participants to develop their leadership skills more than the non-FIT students?

Critical incident interviews had revealed that the stakeholders of the program wished to develop leadership qualities among the participants. Hence, research question 2 dealt with the development of leadership qualities among the participants.

### *Quantitative Findings*

The attitudes about leadership and effects of the leadership activities on the FIT and non-FIT students were measured by multiple survey items. On some survey items the respondents were asked to report their perception of leadership. A chi-square analysis on

that group of questions revealed no significant differences between the FIT and non-FIT students (Table 11).

Table 11

*Chi-Square Analysis for Effect of Leadership Activities on Students*

| Effect | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Taught me leadership skills. | | | | |
| Strongly Disagree | 3.4 | 3.3 | | |
| Disagree | 15.3 | 10.0 | | |
| Agree | 62.7 | 60.0 | | |
| Strongly Agree | 18.6 | 26.7 | | |
| Total | 100.0 | 100.0 | 1.031 | 0.79 |
| Did not encourage me to accept leadership positions in clubs and associations. | | | | |
| Strongly Disagree | 20.7 | 38.7 | | |
| Disagree | 60.3 | 45.2 | | |
| Agree | 12.1 | 16.1 | | |
| Strongly Agree | 6.9 | 0.0 | | |
| Total | 100.0 | 100.0 | 5.664 | 0.13 |
| Made me more involved in activities at OSU | | | | |
| Strongly Disagree | 1.7 | 3.0 | | |
| Disagree | 18.6 | 9.1 | | |
| Agree | 54.2 | 69.7 | | |
| Strongly Agree | 25.4 | 18.2 | | |
| Total | 100.0 | 100.0 | 2.775 | 0.43 |
| Helped me make better decisions | | | | |
| Strongly Disagree | 1.7 | 2.9 | | |
| Disagree | 24.1 | 11.8 | | |
| Agree | 62.1 | 67.6 | | |
| Strongly Agree | 12.1 | 17.6 | | |
| Total | 100.0 | 100.0 | 2.399 | 0.49 |

[A] Significantly Different

Table 11 (Cont.)

*Chi-Square Analysis for Effect of Leadership Activities on Students*

| Effect | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Did not help me to set goals | | | | |
| Strongly Disagree | 13.8 | 31.4 | | |
| Disagree | 77.6 | 57.1 | | |
| Agree | 6.9 | 5.7 | | |
| Strongly Agree | 1.7 | 5.7 | | |
| Total | 100.0 | 100.0 | 5.753 | 0.12 |
| Made me a better communicator | | | | |
| Strongly Disagree | 00.0 | 2.9 | | |
| Disagree | 28.8 | 14.7 | | |
| Agree | 54.2 | 67.6 | | |
| Strongly Agree | 16.9 | 66.7 | | |
| Total | 100.0 | 100.0 | 4.273 | 0.23 |
| Did not encourage me to take appropriate risks | | | | |
| Strongly Disagree | 6.9 | 22.9 | | |
| Disagree | 70.7 | 60.0 | | |
| Agree | 15.5 | 17.1 | | |
| Strongly Agree | 6.9 | 00.0 | | |
| Total | 100.0 | 100.0 | 7.133 | 0.07 |
| Did not help me make plans for the future | | | | |
| Strongly Disagree | 11.9 | 24.2 | | |
| Disagree | 69.5 | 60.6 | | |
| Agree | 15.3 | 12.1 | | |
| Strongly Agree | 3.4 | 3.0 | | |
| Total | 100.0 | 100.0 | 2.396 | 0.49 |
| Encouraged me to become self-disciplined | | | | |
| Strongly Disagree | 00.0 | 0.0 | | |
| Disagree | 25.4 | 8.8 | | |
| Agree | 64.4 | 70.6 | | |
| Strongly Agree | 10.2 | 20.6 | | |
| Total | 100.0 | 100.0 | 4.870 | 0.09 |

[A] Significantly Different

Table 11 (Cont.)

*Chi-Square Analysis for Effect of Leadership Activities on Students*

| Effect | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Motivated me to be more ambitious | | | | |
| Strongly Disagree | 1.7 | 0.0 | | |
| Disagree | 23.7 | 12.9 | | |
| Agree | 64.4 | 67.7 | | |
| Strongly Agree | 10.2 | 19.4 | | |
| Total | 100.0 | 100.0 | 3.037 | 0.39 |
| Taught me how to work in a group | | | | |
| Strongly Disagree | 1.7 | 0.0 | | |
| Disagree | 32.2 | 21.9 | | |
| Agree | 61.0 | 65.6 | | |
| Strongly Agree | 5.1 | 12.5 | | |
| Total | 100.0 | 100.0 | 2.870 | 0.41 |
| Did not motivate me to apply the skills in real life | | | | |
| Strongly Disagree | 12.1 | 25.0 | | |
| Disagree | 67.2 | 62.5 | | |
| Agree | 20.7 | 9.4 | | |
| Strongly Agree | 0.0 | 3.1 | | |
| Total | 100.0 | 100.0 | 5.536 | 0.14 |
| Helped me develop a network of acquaintances | | | | |
| Strongly Disagree | 3.4 | 0.0 | | |
| Disagree | 22.0 | 11.8 | | |
| Agree | 54.2 | 64.7 | | |
| Strongly Agree | 20.3 | 23.5 | | |
| Total | 100.0 | 100.0 | 2.906 | 0.41 |
| Helped me to feel more confident about myself | | | | |
| Strongly Disagree | 3.4 | 0.0 | | |
| Disagree | 22.4 | 17.6 | | |
| Agree | 60.3 | 67.7 | | |
| Strongly Agree | 13.8 | 14.7 | | |
| Total | 100.0 | 100.0 | 1.602 | 0.66 |

[A] Significantly Different

Table 11 (Cont.)

*Chi-Square Analysis for Effect of Leadership Activities on Students*

| Effect | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Did not help me appreciate diversity among students | | | | |
| Strongly Disagree | 15.8 | 36.4 | | |
| Disagree | 66.7 | 45.4 | | |
| Agree | 12.3 | 12.1 | | |
| Strongly Agree | 5.3 | 6.1 | | |
| Total | 100.0 | 100.0 | 5.413 | 0.14 |

[A] Significantly Different

Another set of questions asked about the effect of the leadership activities in which the students participated. The students indicated on a Likert-type scale the perceived leadership skills that were enhanced by participating in the leadership activities. Table 12 summarizes the findings of the analysis. A chi-square analysis did not reveal significant differences of the effect of leadership activities between the two groups of FIT and non-FIT students.

An independent samples *t*-test on the total number of leadership activities that the students got involved in during the freshman year revealed that the FIT students were involved in a significantly higher number of leadership activities than the non-FIT students. However, on the scores of the Likert-type items that asked the students the perceived change in their leadership abilities as a result of getting involved in the leadership activities, the mean of the non-FIT students was significantly higher than the FIT students (Table 13) The Cohen's *d* for the leadership activities was 1.132, which revealed a large effect size, while that for the changes in their leadership abilities was calculated as 0.483, which revealed a small effect size.

Table 12

*FIT vs. Non-FIT Inventory of Leadership Skills*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig (2-sided) |
|---|---|---|---|---|
| Looking for challenges in life | | | | |
| Yes | 67.7 | 56.6 | | |
| No | 32.3 | 43.4 | 1.514 | 0.22 |
| Initiating new activity | | | | |
| Yes | 58.1 | 64.2 | | |
| No | 41.9 | 35.8 | 0.444 | 0.51 |
| Improving upon tasks and projects | | | | |
| Yes | 66.1 | 54.7 | | |
| No | 33.9 | 45.3 | 1.562 | 0.21 |
| Taking risks | | | | |
| Yes | 53.2 | 66.0 | | |
| No | 46.8 | 34.0 | 1.941 | 0.16 |
| Good communication skills | | | | |
| Yes | 75.8 | 77.4 | | |
| No | 24.2 | 22.6 | 0.038 | 0.85 |
| Group consciousness | | | | |
| Yes | 53.2 | 56.6 | | |
| No | 46.8 | 43.4 | 0.132 | 0.72 |
| Conviction in any undertaking | | | | |
| Yes | 42.6 | 32.1 | | |
| No | 57.4 | 67.9 | 1.343 | 0.25 |
| Enthusiasm and excitement | | | | |
| Yes | 72.6 | 69.8 | | |
| No | 27.4 | 30.2 | 0.107 | 0.74 |
| Getting things done | | | | |
| Yes | 77.4 | 66.0 | | |
| No | 22.6 | 34.0 | 1.843 | 0.18 |

Table 12 (Cont.)

FIT vs. Non-FIT Inventory of Leadership Skills

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig (2-sided) |
|---|---|---|---|---|
| High values and principles | | | | |
| Yes | 74.2 | 69.8 | | |
| No | 25.8 | 30.2 | 0.273 | 0.60 |
| Good planning | | | | |
| Yes | 75.8 | 67.9 | | |
| No | 25.2 | 32.1 | 0.88 | 0.35 |
| Supporting others | | | | |
| Yes | 66.1 | 66.0 | | |
| No | 33.9 | 34.0 | 0.000 | 0.99 |

Table 13

*FIT vs. Non-FIT t-test for Leadership Activities and Scores*

| Leadership Factors | *n* | Mean | SD | SE | P |
|---|---|---|---|---|---|
| Leadership activities during freshman year | | | | | |
| FIT | 56 | 7.16[A] | 4.94 | 0.66 | |
| Non-FIT | 50 | 1.98[A] | 4.18 | 0.59 | 0.00 |
| Score on leadership activities | | | | | |
| FIT | 52 | 28.58[B] | 6.72 | 0.93 | |
| Non-FIT | 26 | 31.81[B] | 6.63 | 1.30 | 0.05 |

Note: Scale for leadership activities score: 0=Strongly Disagree, 1=Disagree, 2=Agree, 3=Strongly Agree
Means with the same superscript are significantly different

## *Qualitative Findings*

The interviewees were asked probing questions about their perceptions about leadership and the effect of leadership activities on their leadership skills.

*Major Findings*: The interviews revealed that

1. The program participants had a higher awareness of leadership qualities,
2. The SAMs did not provide good role models for leadership,
3. There was lack of cultural diversity in the program, and
4. The leadership activities arranged by the FIT program did not develop leadership qualities among its participants.

*Data Analysis*: Two themes emerged during the analysis of the interview responses to the questions about leadership, the conception of leadership by the participants and the effect of the FIT program on leadership qualities of the participants.

Qualities of a leader: FIT students had different perceptions about leadership skills, though they put a premium on ethics in leadership. Six respondents (2, 3, 4, 5, 6 and 8) mentioned the qualities they would expect from a good leader. Three respondents (2, 5, and 6) felt that leading through personal example is the most desirable quality in a good leader. As respondent 2 articulated: "show people, not tell them how to do." Two respondents (4 and 6) perceived leadership in a management context. For respondent 4, activity and goals orientation were important, while for respondent 6, "getting people to follow you is the most important leadership quality." All six respondents, however, stressed the ethical aspect of leadership. This was articulated especially by respondents 3 and 8. Respondent 3 insisted on "high morals and values" was critical to being a leader, while respondent 8 felt that followership was more important than leading as "humility was extremely important in being a leader."

SAMs as role models: The FIT students were provided SAMs for conducting small group meetings as well as helping them in the day-to-day functioning of the

program. The SAMs of the year 2001-2001 were those who had been in the program in the year before and were sophomore students. It was expected that the SAMs serve as role models of leadership to the FIT students.

The participants were asked indirectly about their experiences and impressions about their SAMs. Ten out of the 11 respondents (all except 1) expressed their impressions about their SAMs. Except for three respondents (4, 5 and 11) all others were satisfied with their SAMs. Respondents 3, 6 and 10 felt that their SAMs were very helpful and encouraging. Respondent 6 appreciated the existence of a SAM to solve crisis, while participant 10 was extremely satisfied with his SAM. Respondent 3 felt that the SAMs being just a year older, could give both experience and friendship to their group members.

Four respondents (7, 8, 9 and 11) were indifferent, although not positive with their SAMs. Respondent 11 did not indicate much interaction with his SAM. Respondent 4 however, was not happy with the lack of communication and meetings with his SAM. He "felt that he (the SAM) cheated me, that he did not have enough time for his group." Respondent 5 referred to problems of alcohol abuse in the residence halls and indicated that the SAMs provided poor role models as leaders. He suggested equal treatment for all the participants and administrators of the program.

Lack of diversity: Respondent 1 alluded to some incident during the program that indicated that the FIT participants lacked a sense of appreciation for diversity. She claimed that many people in the program were conservative and that she was not happy with the overall behavior of the participants when discussing intercultural aspects. She suggested that the program should have more room for intercultural studies.

Effect of the FIT program on leadership qualities: Respondents were asked to share the effects of the FIT program on their leadership skills. Their responses were generally focused on the leadership expectations of the program and the type of leadership activities they participated in along with the effect of these activities on their leadership skills.

Eight (2, 3, 5, 6, 7, 8, 9 and 10) out of the 11 students interviewed expressed their opinions on the leadership expectations of the program. All those who responded had completed their leadership expectations. Three respondents (3, 7 and 10) felt that the activities helped develop leadership skills. Three students (2, 5 and 8) said that the activities did not develop any leadership skills. Two students (6 and 9) were of the opinion that the activities were more of learning about leadership rather than those of developing leadership skills.

Respondent 8 expressed dissatisfaction that only the activities organized or recognized by the FIT program were considered for fulfilling the leadership requirement.

Those who felt that the activities were useful seemed happy and excited about the activities. Respondent 3 felt that both talks and workshops were helpful for developing leadership skills. Similarly, respondent 10 felt that the program pushed the participants to be better leaders. Respondent 7 felt that she enjoyed being on the committees and recommended that everyone should be on the committees to develop leadership skills.

However, most of the respondents felt that the leadership activities were inadequate and not suitable for them at a personal level. One respondent (2) said that she had done enough leadership earlier and so was not impressed with the activities. Those who felt that the activities were useless pointed out that there should be a difference

between doing the activities and developing skills. One respondent (8) said that just going to activities doesn't help develop leadership skills. Respondent 5 was of the opinion that one should evaluate more of the actual leadership activities rather than just going to the committees. However, he did underline the importance of the committees for networking. One respondent (9) was perceptive in saying that there was some sort of learning taking place, but was unsure if it was oriented towards leadership or not.

## Institutional Loyalty & Integration

*Research Question 4*: Did the FIT program help participants to be more loyal and integrated into the institution (CASNR and OSU) than the non-FIT students?

Institutional integration and loyalty was an important construct of the study as it was considered an important indicator of positive college freshmen experiences.

### *Quantitative Findings*

Institutional loyalty and integration were measured by a series of questions that asked students about their experiences while at OSU. A chi-square analysis indicated that FIT and non-FIT students differed in their opinion on only one item: the FIT students reported that graduating from CASNR was not an indicator of institutional loyalty, whereas the non-FIT students reported that graduating from CASNR was an indicator of loyalty (Tables 14 & 15).

Table 14

*FIT vs. Non-FIT Qualities that Reflect Institutional Loyalty among Students*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Familiarity with the campus | | | | |
| Yes | 79.0 | 77.4 | | |
| No | 21.0 | 22.6 | 0.047 | 0.83 |
| Reading the Daily O'Collegian | | | | |
| Yes | 33.9 | 32.1 | | |
| No | 66.1 | 67.9 | 0.042 | 0.84 |
| Feeling happy when OSU wins any sporting event | | | | |
| Yes | 58.1 | 64.2 | | |
| No | 41.9 | 35.8 | 0.444 | 0.51 |
| Purchasing annual sports pass for OSU games | | | | |
| Yes | 35.5 | 37.7 | | |
| No | 64.5 | 62.3 | 0.063 | 0.80 |
| Wearing OSU embellished clothes (i.e., T-shirts, pants, caps, etc.) | | | | |
| Yes | 59.7 | 69.8 | | |
| No | 40.3 | 30.2 | 1.279 | 0.26 |
| Recommending the university to friends or relatives | | | | |
| Yes | 71.0 | 84.9 | | |
| No | 29.0 | 15.1 | 3.172 | 0.08 |
| Planning to become a member of OSU alumni | | | | |
| Yes | 58.1 | 50.9 | | |
| No | 41.9 | 49.1 | 0.585 | 0.44 |

[A] Significantly different

Table 14 (Cont.)

*FIT vs. Non-FIT Qualities that Reflect Institutional Loyalty among Students*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Graduating from OSU [A] | | | | |
| Yes | 69.4 | 84.9 | | |
| No | 30.6 | 15.1 | 3.846 | 0.05 |
| Emotional attachment to OSU | | | | |
| Yes | 71.0 | 66.0 | | |
| No | 29.0 | 34.0 | 0.323 | 0.57 |

[A] Significantly different

Table 15

*FIT vs. Non-FIT Factors That Help Develop Institutional Loyalty among Students*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Well-maintained campus | | | | |
| Yes | 67.6 | 73.6 | | |
| No | 32.3 | 26.4 | 0.468 | 0.50 |
| Cooperative university staff | | | | |
| Yes | 74.2 | 79.2 | | |
| No | 25.8 | 20.8 | 0.41 | 0.52 |
| Availability of student services | | | | |
| Yes | | | | |
| No | 54.8 | 62.3 | | |
| | 45.2 | 37.7 | 0.648 | 0.42 |
| Cultivating new friends | | | | |
| Yes | 83.9 | 94.3 | | |
| No | 16.1 | 5.7 | 3.12 | 0.08 |

Table 15 (Cont.)

*FIT vs. Non-FIT Factors That Help Develop Institutional Loyalty among Students*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Developing close relationships with class mates/room mates/faculty, etc. | | | | |
| Yes | 75.8 | 86.8 | | |
| No | 24.2 | 13.2 | 2.229 | 0.14 |
| Satisfactory academic standards | | | | |
| Yes | 58.1 | 64.2 | | |
| No | 41.9 | 35.8 | 0.444 | 0.51 |
| Activities like Orange Peel, Homecoming, etc. | | | | |
| Yes | 71.0 | 71.7 | | |
| No | 29.0 | 28.3 | 0.007 | 0.93 |

An independent samples *t*-test regarding the total participation in on-campus activities revealed that FIT students were involved in more on-campus activities than non-FIT students. The five specific activities that FIT students participated in to a greater degree than non-FIT students were 1) approaching a sophomore/junior/senior for academic help, 2) general educational activities (outside their course requirements), 3) allied arts activities, 4) career developmental activities, and 5) community service activities (Table 16).

Table 16

*FIT vs. Non-FIT t-test Participation in On-Campus Activities*

| Activities | n | Mean | SD | SE | P | Cohen's *d* | Effect Size |
|---|---|---|---|---|---|---|---|
| Group study | | | | | | | |
| FIT | 59 | 10.73 | 10.03 | 1.31 | | | |
| Non-FIT | 48 | 8.73 | 9.03 | 1.30 | 0.29 | | |
| Approaching a sophomore/junior/senior for academic help | | | | | | | |
| FIT | 58 | 7.67[A] | 8.68 | 1.14 | | | |
| Non-FIT | 47 | 4.64[A] | 6.13 | 0.89 | 0.04* | 0.4032 | Medium |
| Approaching a sophomore, junior/senior for personal help | 57 | 9.51 | 29.15 | 3.86 | | | |
| | 45 | 5.93 | 11.41 | 1.70 | 0.43 | | |
| FIT | | | | | | | |
| Non-FIT | | | | | | | |
| General Educational Activities | 61 | 10.02[B] | 11.85 | 1.52 | | | |
| FIT | 49 | 2.00[B] | 2.48 | 0.35 | 0.00* | 0.9368 | Large |
| Non-FIT | | | | | | | |
| Allied Arts | | | | | | | |
| FIT | 61 | 3.92[C] | 2.67 | 0.34 | | | |
| Non-FIT | 51 | 1.51[C] | 1.93 | 0.27 | 0.00 | 1.035 | Large |
| Career Development Activities | 61 | 4.74[D] | 2.42 | 0.31 | | | |
| FIT | 50 | 1.02[D] | 1.30 | 0.18 | 0.00* | 1.9150 | Large |
| Non-FIT | | | | | | | |
| On campus Clubs Associations | 60 | 4.70 | 5.23 | 0.68 | | | |
| FIT | 50 | 6.02 | 7.54 | 1.07 | 0.28* | | |
| Non-FIT | | | | | | | |
| Socials | | | | | | | |
| FIT | 58 | 17.34 | 18.02 | 2.37 | | | |
| Non-FIT | 40 | 14.60 | 15.93 | 2.52 | 0.44 | | |

Means with same superscripts are significantly different

* Equality of variances not assumed

Table 16 (Cont.)

FIT vs. Non-FIT t-test Participation in On-Campus Activities

| Activities | n | Mean | SD | SE | P | Cohen's *d* | Effect Size |
|---|---|---|---|---|---|---|---|
| Community Service Activities | | | | | | | |
| FIT | 60 | 9.26[E] | 10.25 | 1.32 | | | |
| Non-FIT | 48 | 5.29[E] | 7.96 | 1.15 | 0.03 | 0.4326 | Medium |
| Wellness Activities | | | | | | | |
| FIT | 60 | 5.30 | 6.23 | 0.80 | | | |
| Non-FIT | 48 | 9.19 | 19.49 | 2.81 | 0.15* | | |
| Total Freshman Year Activity | | | | | | | |
| FIT | 51 | 101.65[F] | 71.47 | 10.01 | | | |
| Non-FIT | 33 | 66.36[F] | 37.30 | 6.49 | 0.00* | 0.619 | Large |

Means with same superscripts are significantly different
* Equality of variances not assumed

Several Likert-type items on the survey were based on students' perceptions regarding institutional loyalty and integration. Significant differences were not found between the FIT and non-FIT students in their assessment of some experiences at OSU that were thought to develop institutional loyalty and integration (Table 17).

Table 17

*FIT vs. Non-FIT t-test for Students' Experiences in OSU*

| Experiences | n | Mean | SD | SE | P |
|---|---|---|---|---|---|
| Academic satisfaction | | | | | |
| FIT | 62 | 10.65 | 2.27 | 0.29 | |
| Non-FIT | 52 | 10.27 | 2.49 | 0.35 | 0.40 |
| Familiarity of OSU | | | | | |
| FIT | 61 | 10.62 | 1.83 | 0.23 | |
| Non-FIT | 53 | 10.36 | 1.92 | 0.26 | 0.45 |

Note: Scale for positive experiences score: 0=Strongly Disagree, 1=Disagree, 2=Agree, 3=Strongly Agree

Table 17 (Cont.)

*FIT vs. Non-FIT t-test for Students' Experiences in OSU*

| Experiences | n | Mean | SD | SE | P |
|---|---|---|---|---|---|
| Interaction with faculty | | | | | |
| FIT | 61 | 25.90 | 5.53 | 0.71 | |
| Non-FIT | 34 | 26.53 | 4.39 | 0.75 | 0.57 |
| Loyalty & integration related experiences | | | | | |
| FIT | 62 | 4.10 | 1.16 | 0.15 | |
| Non-FIT | 53 | 3.66 | 1.36 | 0.19 | 0.07 |

Note: Scale for positive experiences score: 0=Strongly Disagree, 1=Disagree, 2=Agree, 3=Strongly Agree

*Qualitative Findings*

Institutional loyalty was another concern of the research project. The interviewer asked indirect questions about how the FIT students felt about the institutions, both OSU as well as CASNR. The indirect questions were whether they attended OSU sports events, whether they wore OSU accessories on Fridays, whether they thought about dropping out of the college or the university, and if they felt attached to the institution.

*Major Findings*: The main themes that emerged through the analysis were:

1. FIT students were not interested in external display of indicators of institutional attachment such as wearing OSU colors, watching OSU athletic events etc.
2. Attachment was due to other factors beyond the FIT program,
3. FIT, being a closed group, had limited contribution to institutional integration.

*Interview Analysis.*: Nine out of the eleven students articulated clear responses about the issue of loyalty. Three respondents (2, 5 and 6) said that they had bought annual sports events pass and went to most of the sports events. Four (2, 5, 8 and 11) stated that

they wore OSU colors and embellished clothes on Fridays. Three respondents (3, 6 and 9) said that they felt attached to the institution. One respondent (3) was not planning to drop out of college. One respondent (11) was of the opinion that Camp Cowboy helped in developing loyalty among students for CASNR. Another respondent (6) felt that the program created loyalty among its participants for CASNR, but he was not sure about loyalty to OSU. She also felt that the program made its participants feel special about themselves.

One respondent (4) came to the program and the college in spite of a family affiliation towards another university because she wanted to study agriculture. Another respondent (3) identified agriculture as the main bonding factor that helped students come together in the FIT program and feel attached to the institution. "FIT helped by getting us involved in joint activities," he said. Only one respondent (10) felt that the FIT program developed loyalty among its participants. Respondent 8 articulated his loyalty to OSU as "If not bleeding green from 4-H, bleeding orange from OSU."

Two respondents (2 and 3) explicitly talked about the development of attachment among the students. Respondent 2 felt that though FIT started as a family attachment, she did not have many friends in the FIT program. Respondent 3 felt that the FIT socials and games developed a certain kind of group consciousness among students as much as an attachment towards the institution. Respondent 11 repeated this comment by saying "shared interests help in developing attachment."

FIT also emerged as a closed society among the respondents. As respondent 5 stated: "FIT puts you in the upper echelon of freshmen coming to sophomores." However, beyond that, FIT also came into light as a support group for the participants.

Respondents 1, 4, 7, 9 and 10 alluded to the emotional support that FIT offered while getting integrated into college life. For instance, respondent 4 stated that FIT helped her to form her support group. For respondent 7, FIT helped overcome her fear of being isolated in a group. Respondent 10 appreciated the creation of smaller groups that helped to interact with the larger class groups through FIT. Respondent 9 summarized this feeling as "this is our own little community."

Respondent 1, however, found this aspect irritating. She alluded to the existence of smaller cliques within the group as unbecoming for the program. She also found that most of the FIT administration was geared towards controlling the behavior of the participants in regard to the completion of the expectations. She used the term "policing" to describe this administrative control and did not think it to be a positive aspect of the program.

All students, however, indicated that FIT did not make them attached to the university consciously. At most, it made them attached to the college as respondents 5 and 6 stated. Respondent 5 felt that even at the college level, FIT created a kind of subgroup for its participants. Respondent 6 however, clearly stated: "FIT made me attached to the college, not the university."

## Retention

*Research Question 5*: Were the FIT students retained at a higher rate than the non-FIT students in CASNR and OSU?

*Quantitative Findings*

Retention is a function of institutional integration (Tinto, 1993). The survey asked students to respond to a variety of questions that inquired about critical factors affecting retention among freshmen. The only significantly different variable between FIT and non-FIT students was academic support systems. Twenty-six percent of the FIT students versus 9% of the non-FIT students reported that academic support systems were a motivating factor for retention (Table 18). A calculated Cramer's *V* of 0.211 suggested a weak association of the factor between FIT and non-FIT students.

Table 18

*FIT vs. Non-FIT Motivating Factors for Completing their Freshman Year*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Your GPA is above 2.5 | | | | |
| Yes | 12.9 | 17.0 | | |
| No | 87.1 | 83.0 | 0.377 | 0.54 |
| Your GPA is above 3.0 | | | | |
| Yes | 48.4 | 52.8 | | |
| No | 51.6 | 47.2 | 0.226 | 0.64 |
| Your age | | | | |
| Yes | 29.0 | 17.0 | | |
| No | 71.0 | 83.0 | 2.310 | 0.13 |
| The academic reputation of OSU | | | | |
| Yes | 38.7 | 22.6 | | |
| No | 61.3 | 77.4 | 3.431 | 0.06 |

[A] Significantly Different

Table 18 (Cont.)

*FIT vs. Non-FIT Motivating Factors for Completing their Freshman Year*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Academic support systems [A] | | | | |
| Yes | 25.8 | 9.4 | | |
| No | 74.2 | 90.6 | 5.132 | 0.02 |
| Financial support from OSU | | | | |
| Yes | 46.8 | 56.6 | | |
| No | 53.2 | 43.4 | 1.105 | 0.29 |
| Financial support from family | | | | |
| Yes | 45.2 | 41.5 | | |
| No | 54.8 | 58.5 | 0.155 | 0.69 |
| Emotional support from staff | | | | |
| Yes | 17.7 | 11.3 | | |
| No | 82.3 | 88.7 | 0.94 | 0.33 |
| Close to home | | | | |
| Yes | 19.4 | 22.6 | | |
| No | 80.6 | 77.4 | 0.187 | 0.67 |
| Classmates and friends | | | | |
| Yes | 58.1 | 69.8 | | |
| No | 41.9 | 30.2 | 1.701 | 0.19 |
| Career development activities put on by the Ag. College | | | | |
| Yes | 21.3 | 9.4 | | |
| No | 78.7 | 90.6 | 3.009 | 0.08 |
| Co-curricular activities on campus | | | | |
| Yes | 43.5 | 26.4 | | |
| No | 56.5 | 73.6 | 3.656 | 0.06 |
| Self-respect | | | | |
| Yes | 71.0 | 77.4 | | |
| No | 29.0 | 22.6 | 0.605 | 0.44 |

[A] Significantly Different

Students were asked a variety of questions regarding factors that would cause them to change their major. A lack of financial support and a lack of co-curricular activities on campus were the only variables that were significantly different between the groups (Table 19). The Cramer's *V* for the items calculated at 0.185 and 0.197 revealed a weak association between the two groups.

Table 19

*FIT vs. Non-FIT Reasons for Changing Major*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Low GPA in the Ag. College | | | | |
| Yes | 24.2 | 32.1 | | |
| No | 75.8 | 67.9 | 0.884 | 0.41 |
| Age | | | | |
| Yes | 4.8 | 1.9 | | |
| No | 95.2 | 98.1 | 0.742 | 0.39 |
| Getting Married | | | | |
| Yes | 11.3 | 17.0 | | |
| No | 88.7 | 83.0 | 0.773 | 0.38 |
| The academic reputation of Ag. College | | | | |
| Yes | 6.5 | 1.9 | | |
| No | 93.5 | 98.1 | 1.432 | 0.23 |
| Lack of academic support systems | | | | |
| Yes | 12.9 | 7.5 | | |
| No | 87.1 | 92.5 | 0.877 | 0.35 |
| Lack of student support systems | | | | |
| Yes | 9.7 | 5.7 | | |
| No | 90.3 | 94.3 | 0.639 | 0.42 |

[A] Significantly different

Table 19 (Cont.)

*FIT vs. Non-FIT Reasons for Changing Major*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Lack of financial support systems [A] | | | | |
| Yes | 35.5 | 18.9 | | |
| No | 64.5 | 81.1 | 3.928 | 0.05 |
| Financial problems | | | | |
| Yes | 40.3 | 49.1 | | |
| No | 59.7 | 50.9 | 0.883 | 0.35 |
| Distance from home | | | | |
| Yes | 16.1 | 30.2 | | |
| No | 83.9 | 69.8 | 3.228 | 0.07 |
| Conflicts with friends or classmates | | | | |
| Yes | 9.7 | 7.5 | | |
| No | 90.3 | 92.5 | 0.163 | 0.69 |
| Lack of career opportunities in his/her major | | | | |
| Yes | 46.8 | 54.7 | | |
| No | 53.2 | 45.3 | 0.721 | 0.40 |
| Lack of co-curricular activities on campus [A] | | | | |
| Yes | 8.1 | 0.0 | | |
| No | 91.9 | 100.0 | 4.468 | 0.04 |
| Can't pass required classes | | | | |
| Yes | 42.6 | 39.6 | | |
| No | 57.4 | 60.4 | 0.105 | 0.74 |
| Change of interest | | | | |
| Yes | 88.7 | 94.3 | | |
| No | 11.3 | 5.7 | 1.141 | 0.29 |

[A] Significantly different

When queried about reasons that a freshman would drop out of college there were no significant differences between the responses of FIT versus non-FIT students (Table 20).

Table 20

*FIT vs. Non-FIT Reasons for Dropping out of OSU*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Low GPA in the Ag. College | | | | |
| Yes | 58.1 | 64.2 | | |
| No | 41.9 | 35.8 | 0.444 | 0.51 |
| Age | | | | |
| Yes | 12.9 | 3.8 | | |
| No | 87.1 | 96.2 | 3.000 | 0.08 |
| Getting Married | | | | |
| Yes | 43.5 | 54.7 | | |
| No | 56.5 | 45.3 | 1.427 | 0.23 |
| The academic reputation of Ag. College | | | | |
| Yes | 4.8 | 0.00 | | |
| No | 95.2 | 100.00 | 2.633 | 0.11 |
| Lack of academic support systems | | | | |
| Yes | 22.6 | 13.2 | | |
| No | 77.4 | 86.8 | 1.682 | 0.20 |
| Lack of counseling support systems | | | | |
| Yes | 16.1 | 9.4 | | |
| No | 83.9 | 91.6 | 1.129 | 0.29 |
| Lack of student support systems | | | | |
| Yes | 12.9 | 7.5 | | |
| No | 87.1 | 92.5 | 0.877 | 0.35 |

Table 20 (Cont.)

*FIT vs. Non-FIT Reasons for Dropping out of OSU*

| Factors | FIT (%) | Non-FIT (%) | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Lack of financial support systems | | | | |
| Yes | 45.2 | 34.0 | | |
| No | 54.8 | 66.0 | 1.493 | 0.22 |
| Financial problems | | | | |
| Yes | 77.4 | 84.9 | | |
| No | 22.6 | 15.1 | 1.035 | 0.31 |
| Distance from home | | | | |
| Yes | 43.5 | 52.8 | | |
| No | 56.5 | 47.2 | 0.987 | 0.32 |
| Conflicts with friends or classmates | | | | |
| Yes | 17.7 | 15.1 | | |
| No | 82.3 | 84.9 | 0.145 | 0.70 |
| Lack of career opportunities in his/her major | | | | |
| Yes | 21.0 | 35.8 | | |
| No | 79.0 | 64.2 | 3.151 | 0.08 |
| Lack of co-curricular activities on campus | | | | |
| Yes | 9.7 | 1.9 | | |
| No | 90.3 | 98.1 | 3.034 | 0.82 |

A series of Likert-type items on the survey assessed the effect of the FIT expectation (or requirements) on motivating the FIT students to continue their studies with CASNR. An independent samples *t*-test on the mean scores on the list of items found a significant difference with a large effect size between the FIT and the non-FIT students (Table 21). FIT students were more motivated to continue studies in CASNR than the non-FIT students.

Table 21

*FIT vs. Non-FIT t-test on Motivation to Continue Studies in CASNR*

| Score on Motivation | n | Mean | SD | SE | P | Cohen's d | Effect size |
|---|---|---|---|---|---|---|---|
| FIT | 59 | 6.00[A] | 3.25 | 0.42 | | 0.7062 | Large |
| Non-FIT | 52 | 3.94[A] | 2.54 | 0.35 | 0.00 | | |

[A] Significantly Different

Retention was measured by determining students' status of enrollment for fall 2002 using OSU SIS. A chi-square analysis of the enrollment status of both FIT and the non-FIT students suggested that the FIT students had a higher frequency of enrollment for fall 2002 (98.6%) versus non-FIT students (88.7%) (Table 22).

Table 22

*FIT vs. Non-FIT Enrollment Status for Fall 2002*

| Fall 2002 Enrollment | FIT | Non-FIT | Pearson Chi-Square | Asymp. Sig. (2-sided) |
|---|---|---|---|---|
| Enrolled | | | | |
| Count | 69 | 149 | | |
| Percent | 98.6 | 88.7 | | |
| Not Enrolled | | | | |
| Count | 1 | 19 | | |
| Percent | 1.4 | 11.3 | 6.268 | 0.01 |

## *Qualitative Findings*

Retention was a quantitative construct. However, the qualitative aspect of retention was sought in the interviews through questions regarding changing of majors by the students, as well as decisions and impressions about dropping out of the program and

the university. Being a part of the FIT program was considered as a step towards active involvement in college life, and hence, the main themes that emerged on this construct were as below.

*Major findings*: Based on the interviews it was found that:

1. FIT participants enrolled in the FIT program because of external factors such as parental suggestion and facilities provided by being in the FIT program rather than interest in academic achievement,
2. Changing majors was considered normal by FIT participants, and
3. Most FIT participants were not inclined to drop from the program, the college, or the university.

*Interview analysis*: Three themes that emerged in the construct of retention were the reasons to be enrolled in the FIT program, the changing of majors, and the inclination to drop out of the program, the college, or the university.

Reasons for participation in the FIT program: All eleven respondents responded to the questions probing their decision to be a part of the FIT program. All stated that they received information about the FIT program in the mail. Four participants (2, 5, 8 and 10), however, were motivated by genuine interest in the program. Participant 2 made a conscious choice to get involved in FIT and thought "it would be cool." Participant 5 took the suggestion from the advisor and agreed that he was motivated by the aspect of living in the suite-styled dorms. Participant 8 joined the program due to a friend's recommendation. Participant 10, however, felt that he was motivated for academic achievement.

Parents' involvement in their decision to be a part of the FIT program was also alluded to by participants 3, 6, 7 and 10. While participant 3 consulted his parents about the program, participants 6 and 7 felt that their parents were supportive. Participant 10 was encouraged by his parents to be a part of the FIT program.

One participant (1), however, was motivated to be a part of the FIT program as well as CASNR because of the scholarships it offered. Since he did not get the scholarship, he dropped out of the college and changed his major.

Changing majors: The respondents indicated that changing majors was not the same as dropping our of college altogether and that it was normal for college students to change their majors according to their new found interests or career goals. Three respondents (1, 4 and 9), specifically, mentioned the reasons for changing majors. Participant 1 changed her major because she was not actually interested in agriculture and that her sole purpose of being in the college was scholarships. Participant 4 changed majors after interacting with career services and made a choice more suitable to her area of interest and future. Participant 9 however, felt that change of major could be attributed to difficult subjects. One participant (3) was pretty focused on his area of interest and indicated that she would not change his major.

Dropping out of College: While all the respondents indicated that they would remain in the FIT program, nine of the 11 respondents indicated that they would remain in CASNR. The reasons cited for persisting were suitable majors (4, 8, 9, 10 and 11), scholarships (8), and agricultural background of the family (2, 3 and 10). Only four respondents (2, 3, 9 and 11) clearly stated that the FIT program actually motivated them

in retention within the college and the university. Four participants (4, 5, 8 and 10) were not sure if the FIT program helped retain them in the college.

One participant, however, voiced the concern that retention was beyond the FIT program as other factors were also an indicator for attrition. "Retention is beyond the FIT program. Other factors play a part. The program, however, makes the FITers feel special in the university." Participant 1 proved this point when he suggested that he would be dropping out of the college as he did not secure the desired scholarships.

## Additional Findings

### *Quantitative Findings*

The survey segment given exclusively to the FIT students, revealed additional insights into the working of the FIT program.

*FIT Participants:*

An independent samples *t*-test did not suggest significant differences between the FIT male and female participants in their experiences of the FIT program (Table 23).

Table 23

*Male vs. Female FIT Participants' Assessment of the FIT Program*

| Score FIT Experiences | n | Mean | SD | SE | P |
|---|---|---|---|---|---|
| Male | 27 | 19.23 | 5.66 | 1.09 | |
| Female | 34 | 18.44 | 6.33 | 1.09 | 0.61 |

A frequency distribution of the ethnic profile of the FIT students who responded to the survey revealed that they were generally white non-Hispanic (84%) (Table 24).

Table 24

*Ethnic Profile of the FIT Participants*

| Race | *N* | Percent |
|---|---|---|
| White non-Hispanic | 47 | 83.93 |
| Hispanic | 2 | 3.57 |
| Native Indian | 3 | 5.36 |
| Biracial | 2 | 3.57 |
| American* | 1 | 1.79 |
| Celtic Caucasian* | 1 | 1.78 |
| Total | 56 | 100.00 |

* Open-ended answers

*Reasons for Enrolling in the FIT Program*

On the question as to why they enrolled in the FIT program, the top items listed were living in the suite-style residence halls (85.5%) (non-FIT freshmen were not allowed to reside in the new suite-style housing), making friends (82.3%), family members thought it was a good idea (72.6%), and provision for a smooth transition from high school to college life (69.4%).

*Changes in the FIT Program*

Most FIT students (79%) approved of the changes that came about in the FIT program from fall 2001 to spring 2002. However, while listing the changes that they liked

or did not like, the response ranged from "the changes make the expectations too easy" to "reasonable changes." Most students did not take a strong position regarding the changes.

*Participants' Suggestions*

Regarding keeping or dropping the expectations for the FIT program, the highest percentage of drop suggestion came for the allied arts events (8.8%). Some changes recommended by the FIT participants in the open-ended question were that the leadership activities should be reduced ($n$=3), intramurals should not be mandatory ($n$=3), the general educational activities should be reduced ($n$=4), community service activities should be optional ($n$=2), students should be allowed to perform community services outside of Stillwater ($n$=2), and the minimum GPA requirement of 2.5 was too low ($n$=12) and should be raised to 3.0.

## *Qualitative Findings*

The interview analysis also revealed the opinions of the participants about the FIT expectations as follows:

*Major Finding*: Although FIT students found it challenging to complete the expectations they were supportive of them.

*Interview Analysis*: As far as expectations of the FIT program were concerned, the main aspects that the interview respondents discussed were their general ideas about expectations and subsequent changes in the second semester, the individual expectations such as allied arts events, faculty discussions, SGA meetings, small group meetings, GPA

requirement, social events and tutoring events. The checking of those expectations was also discussed by one respondent.

1. General ideas about expectations: Nine out of eleven respondents discussed their general concerns about the FIT expectations. The respondents ranged from those who had completed all their expectations (3 and 6)) to those who could not finish all the expectations (8). However, all the respondents agreed that the expectations were not out of reach and that they were appropriate for the program. "If you practice time-management properly, the FIT program is minimal as far as taking time. Interference (academically) is possible only if someone waited for the last minute to do their work," said 5 while 3 stated: "It was nothing that was not reachable."

Changes that took place in the FIT expectations from fall to spring semester of the year were welcomed by the respondents. Respondent 2 felt that the changes helped people to achieve what they wanted to do. However, respondent 5, although welcomed the change, felt that she would have preferred the GPA expectation at 3.0 as was expected in the fall semester, because it helped her to improve his GPA "The bar should be raised" as she put it. She felt that an average B grade may increase a participant's academic excellence. Respondent 9 was satisfied with the expectations and felt that a positive attitude would help in completing any level of expectations.

Most respondents (2, 3, 6, 7, 8, 10 & 11) also found the expectations having a positive effect on the participants. Respondent 2 felt that expectations help to set higher goals. Respondent 3 felt that it would be wrong to assume that only present interests should be taken care of in expectations. Respondent 10 felt that the expectations gave a more rounded look at the college and university. Both respondent 3 and 10 expressed that

they expected to continue getting involved in those aspects of college, which were expected as a part of the FIT program. Respondent 3 and 8 felt that there ought to be minimum expectations and the participants encouraged to go beyond and above those requirements. None of the respondents felt the need to do away with the expectations. "If you separate the expectations, you are separating the bonds that tie the program" (Respondent 3). Respondent 8 also felt that complaining about expectations was wrong: "If they did not want to do it, why did they sign up?" Respondent 11 summarized the absolute need of expectations as: "It wouldn't be much of a program if it did not make us do something. It would just be like a regular dorm with a bunch of agricultural majors together."

2. Allied Arts Events: Ten interviewees respondent to impressions about allied arts events. Six respondents (1, 2, 6, 7, 10 and 11) liked the allied arts they attended. One respondent (4) did not like them, one (5) struggled with the expectation, one (8) did not attend any allied arts event, and one (3) found them both boring as well as interesting. For two respondents, the allied arts were an extension of their high school experiences ( 6 and 11).

Although the respondents did not object to allied arts events, they had reservations about them. Two respondents (3 and 6) did not find them to be of good quality. One (8) participant was frustrated that the activities he did by doing an allied arts event was not counted towards completing his expectations for the FIT program due to administrative problems. One respondent (4), however, found them useless if one were not to take them as a serious interest. Two respondents had differing viewpoints about the expenses on allied arts. While respondent 5 found them expensive, respondent 7 found

the rates reasonable, and enhanced cultural understanding. For respondent 10, the motivation to attend allied arts came from watching his friends participating in the arts. However, respondent 3 voiced the general opinion that the number of allied arts may be reduced so that the fewer expectations could be met.

3. Faculty Discussions: All eleven interviewees expressed their opinions about faculty discussions. Eight respondents ( 3, 4, 5, 6, 7, 9, 10 & 11) found the faculty discussions useful. The two respondents who did not find them useful expressed their confidence in meeting the faculty members on their own when the need arose (1 & 8). They found the faculty discussions a "waste of time." One respondent (2) did not find the faculty discussions useful to him, but understood their importance to other students.

Those who found the interactions helpful felt that the interactions broke myths about teachers (2), helped them interact with teachers and know them personally (3, 4, 10 & 11), motivated them in their studies (2, 5 and 9) and helped in networking (4). Respondent 7 felt fortunate about the discussions: "I feel like a leg up as compared to other freshmen." Respondent 3 summarized the effect of how the faculty discussions helped her interact with the faculty members while in class/college "You become a person, more than a number, for the faculty member."

4. Student Government Association Meetings: Eight interviewees expressed serious concerns about this requirement. Only two (6 and 10) found the meetings interesting and constructive. The others (2, 3, 4, 5, 8 and 9) did not like them. They found it a waste of time (2), just full of arguments (3), out of context (4), not beneficial (5), not required (8) and a mere formality (9). However, respondent 6 found them useful to

understand the functioning of student government, while 10 recommended that every student should go to at least one SGA meeting.

5. Small Group Meetings: Ten interviewees (all expect 4) had comments about small groups meetings (SGA). Though many of the respondents attended the meetings and found them interesting, they were frustrated at not having them regularly in the second semester. Five respondents (3, 6, 7, 9 and 10) attended the meetings regularly, and were happy with them. One respondent (1) was happy with the meetings but felt that they did not allow group bonding. A similar theme was reflected by respondent 7 who enjoyed the meeting but could not figure out its use within the program. Three respondents were careful about the happenings in a meeting. Respondent 5 and 6 felt that the meetings should not get out of control. Respondent 8, however, felt the need to have meetings only when necessary. She pointed out that even her SAM was not interested in the meetings. Two respondents who had the same SAM were very happy with the meetings. They felt that their SAM was a big motivating factor for the FIT program.

Respondent 3 expressed the main theme when he expressed that the meetings were creating smaller groups within the FIT program as a medium of interacting with the larger FIT group. It also acted as information sharing and a means to keep everyone on the same page and in touch.

6. Social Events: Two interviewees (6 & 7) discussed the expectation of socials in the FIT program. While 6 felt that the socials were not helping with the bonding process as they got disintegrated into smaller clicks, 7 found the socials enjoyable and bonding.

7. GPA Requirement: Respondent 5 was specific in the statement that the GPA requirement of 2.5 set for the second semester was too low. She recommended individual standards for GPA. expectation.

8. Checking Requirements: Respondent 5 also indicated that the way expectations were recorded and completed were suspect. Most consisted only of a document submission and there was no check on them.

### *FIT Made a Difference*

One of the ways in which satisfaction level of the FIT program among its participants was studied was by asking them two questions: what difference did FIT make to them, and would they recommend the program to others.

*Major Finding*: The main findings of this aspect revealed that:

1. Most participants felt that FIT did very positive things for them, and
2. Most participants would recommend FIT as a good program for incoming freshmen.

*Interview Analysis*: All respondents responded to the questions regarding individual impressions about the program.

Positive effect of FIT: All respondents, except respondent 8, felt that FIT had some positive contribution to their life. The main positive things ascribed to FIT were: getting acquainted with key people in the college (respondents 1, 2, 3, 4, 5, 6, 9, 10 and 11), encouraging and providing opportunities for active involvement in the college

(respondents 1, 2, 3, 4, 5, 6, 7, 9, 10 and 11), making friends and support groups (respondents 7, 9, 10 and 11), pushed to higher achievement levels (respondent 5), "led in the right direction" (respondent 6), "maturity" (respondent 9), and "networking" (respondent 1 and 11). As respondent 3 indicated, the FIT program helped in the "transition and getting used to bigger and more things."

Although respondent 8 did not find any noticeable impact of the FIT program on his life at college, he still acknowledged that FIT would be beneficial for some people. "It is a good program for those who don't know how to get involved."

Recommending FIT to Others: All respondents indicated that they would recommend FIT to incoming freshmen in the college. However, some respondents did have some comments to make about this recommendation. Respondent 4 felt that the FIT program was similar to other Greek societies and felt that one could be a member of either. Respondent 10 felt that the program was definitely positive, and has already recommended it to several of her friends. Respondent 8 was, however, cautious. She felt that if a freshmen so desires, she should get involved in the program and then after a few days, make his/her own decision to continue in it. Although she agreed that "FIT serves a purpose," she felt that the program was not suitable for everyone.

## Summary of Findings

Research question 1 tried to establish the equivalence of the FIT and the non-FIT groups on selective demographics. The quantitative data suggested that when the two groups were compared, the non-FIT students had higher high school GPA, while more FIT students were employed. The qualitative data suggested that the kind of high schools and the size of towns that the FIT students came from had an effect on their perception of the program and the university.

Research question 2 compared the groups on academic achievement. Quantitative data indicated no significant differences on the GPA of both the groups, although a graphic presentation suggested that the decrease in GPA over the college semesters was lower for the FIT students when compared to the non-FIT students. Also, the FIT students enrolled in and completed more academic hours than the non-FIT students. Qualitative data showed mixed responses to the academic interventions such as GPA requirements, and tutorial services provided to the FIT program. The respondents were ambivalent about the effect of the FIT program on their academic achievement.

Research question 3 compared the groups on leadership skills development. Quantitative data suggested that although the FIT students got involved in more leadership activities than the non-FIT students, they did not find their activities contributing to the development of leadership skills. Qualitative data indicated that the participants found that the FIT program was not having any positive effect on the development of leadership skills due to the absence of poor role models through the SAMs and lack of diversity.

Research question 4 compared the groups on institutional integration and loyalty. Quantitative data suggested that FIT students had participated in more campus activities than the non-FIT students, although they did not show any significant difference in their attitudes towards institutional loyalty and integration. Qualitative data indicated that the FIT students were not interested in outer manifestations of institutional loyalty and integration, and that they felt more bound to the FIT group and the college, than the university.

Research question 5 compared the groups on retention status. The quantitative data found that the FIT students had a higher rate of retention and motivation to continue college than the non-FIT students. Qualitative data supported this finding as it indicated that most FIT students were not inclined to either drop from the program, the college, or the university.

# CHAPTER V

# CONCLUSIONS AND RECOMMENDATIONS

This research was conducted to find out the impact of the FIT program on second year participants. The research used Tinto's model of institutional departure as a frame of reference and sought to describe the outcomes of the program through the model. In this chapter, certain conclusions are drawn on the basis of the quantitative and qualitative findings of the study. The conclusions and recommendations are listed according to the research questions, and then a general discussion of the application of Tinto's model follows. One section deals with the discussion of FIT as a residential program. At the end ideas for future research are suggested.

## FIT Participants: A Profile

Quantitative findings revealed that FIT participants were not different from non-FIT students on selected demographic variables; however, the FIT participants were less academically prepared than non-FIT students. Qualitative findings suggested the background school experiences as well as rural or urban background made a difference in the perception of the FIT expectations and the program in general.

All applicants were screened by a selection committee for admission, based on a short application form. The selection committee chose participants who they believed would benefit from the program; thus, average students were selected in favor of those who were above average in high school. It is recommended that the selection process be continued with no modifications as fairness and equity in the selection process has been established. Also, attempts could be made to provide for expectations that seek to address the needs of students from diverse backgrounds, as many students in CASNR come from non-agricultural backgrounds.

## Academic Achievement

### *Findings*

One of the FIT program's goals was to help students' academic transition from high school to college. Quantitative findings suggested that The FIT program did not make an impact on participants' fall semester GPA; but, FIT students slightly outperformed non-FIT students spring semester by earning a higher GPA and more credit hours than non-FIT students (Table 5). Although not significantly different, the FIT students earned a cumulative GPA of 3.04 versus 2.88 for non-FIT students.

The FIT program may have helped participants academically in two ways. First, it arrested the decrease in the college GPA from school, and second, it motivated the participants to complete their enrolled hours. Although both FIT and non-FIT students showed no significant differences in their score for motivation to earn higher grades,

more involvement in educational activities by the FIT students, as encouraged by the program, may have affected this change in academic achievement. This factor gives support to Chickering's model (1975) of academic and intellectual growth of the students due to college experiences that enhance integration.

However, one of the main goals of the program was to provide support for academic excellence. The FIT program attempted to meet this goal by providing in-residence tutoring, discussion on academic progress and concerns of participants during small group meetings, and an expectation of a minimum GPA of 2.50. Even with these interventions, the FIT students did not report an attitude of excellence different than non-FIT students (Table 9). Therefore, the FIT interventions were insufficient in creating an academic environment for students to be self-motivated to excel academically.

Qualitative findings, however, did not suggest that FIT program positively affected the participants' academic achievement. There were several reported problems with the tutoring sessions. They only served those students who had classes in math, biology, and chemistry. Other content areas were not supported. They were provided in-residence, where the students lived and played. There were disruptions during the sessions. Students were forced to attend the sessions as part of the requirements for the fall semester of the program. However, interview responses indicated that most students were happy with the tutorial sessions and the way they were conducted in the residence hall. The participants had individual problems about the sessions. Nevertheless, these sessions did not actually translate into a significantly higher GPA for the FIT students. Hence, it could be said that the tutorial sessions were not successful in achieving their purpose of helping students academically. Similarly, although the respondents indicated

that the program did not affect their studies negatively, they did not feel that the program was doing anything substantial for improving their academic achievement.

The literature on internal versus external locus of control states that when people are responsible for fulfilling their needs they are internally (self) motivated to seek help and do not require external pressure to complete a task (Bandura, 1997; Zimmerman, Bonner & Kovach, 1996). Requiring FIT students to attend tutoring sessions may have served to shift the locus of control from internal to external, thus when the stimulus for action was removed (the FIT requirement or expectation) the motivation decreased. It is fortunate that the requirement to attend a pre-determined number of tutoring sessions was dropped at the end of fall semester. Forcing the FIT students to attend the tutoring sessions when they did not need or want tutoring may have caused the reported disruptions for those who were attending the session. Perhaps when students must seek out tutoring from the Math Lab and the Writing Center, for example, they place a higher value on the help than when it is provided in-residence.

### *Recommendations*

Based on these findings it is recommended that (a) the FIT students not be provided tutoring in-residence, but rather encouraged to seek out tutoring from sources already supported by the university, (b) SAMs be trained to provide academic mentoring which focuses on developing an attitude of academic excellence among freshmen, (c) the small group meetings be refocused toward academic excellence or replaced by study groups, (d) and that the minimum GPA expectation be raised to 3.0.

## *Findings*

Quantitative findings suggested that the FIT program made no impact on students' self-reported leadership skills development. Although the FIT students had a higher rate of participation in leadership activities (workshops, seminars, and lectures), those activities did not increase their perception of becoming better leaders.

Qualitative findings revealed that the program participants had a higher awareness of leadership qualities, that the SAMs did not provide good role models for leadership, there was lack of cultural diversity in the program, and that the leadership activities arranged by the FIT program did not develop leadership qualities among its participants.

One possible explanation is that as individuals gain a greater understanding of leadership concepts, their perceptions and expectations of leadership change (Vollmer & Hedlund, 1994). Thus, the FIT students may have become more critical of themselves regarding assessing their leadership qualities than those who had not been exposed to the leadership discipline via workshops, seminars, and lectures.

Leadership development depends on the role models students are exposed to (Smith, 1997). It is recommended that care be taken in selecting and training SAMs, as they are the immediate role models for leadership in the FIT program. SAMs should have an excellent leadership record, as well as impeccable moral character, in order to motivate and provide appropriate role models for freshmen.

*Recommendations*

A major stumbling block for leadership activities was the lack of precise definitions of leadership skills for the program. The program administrators did not provide any clear idea of what was to be accomplished through the leadership activities. It is recommended that the program administrators become clear in their leadership expectations as also the kinds of skills they expect to develop through the leadership activities provided by the FIT program.

Existing leadership activities need to be changed, as existing activities do not serve all kinds of students. Different kinds of activities should be offered which could range from helping the shy and introverted students to those who seek challenges in life. Also, the students should be given credit for activities that they take on independently or outside the FIT program, after giving due attention to the nature of activity and its effect on participants.

Antonio (2000) reported that interracial and interethnic interactions enhance socialization and create a positive effect on leadership development. The FIT program suffers from lack of diversity in its racial and ethnic composition, as does the entire university. It is noted that the ethnic composition of the FIT participants is not diverse (Table 5). It is recommended that fresh attempts be made to not only to increase racial diversity, but also to expose the students to diversity through programming such as offering a workshop on multiculturalism and tolerance.

Institutional Loyalty & Integration

## *Findings*

Quantitative findings revealed that the FIT program made no difference in building institutional loyalty and integration among participants. FIT students were more involved in campus activities than non-FIT students, but this can be accounted for by the FIT expectations. FIT students were required to participate in activities to remain in good standing with the program.

Qualitative conclusions that emerged through the analysis suggested that the FIT students were not inclined to exhibit external indicators of institutional attachment. Attachment was due to other factors beyond the FIT program, and FIT being a closed group, had limited contribution to institutional integration.

## *Recommendations*

Langley (1987) reported that faculty support systems create positive institutional loyalty. One opportunity for developing more institutional loyalty is the faculty discussions. The FIT participants in their interviews were appreciative of the faculty interactions that they had in the residential halls during the program. It is recommended that the faculty discussions would be continued at a higher rate, while encouraging more FIT participants to attend such discussion sessions. Diversity as suggested by Antonio (2000) helps in healthy social integration. Quantitative analysis of the demographic

characteristics of the FIT and non-FIT group suggested that the FIT group represented the over all college freshman population. However, the qualitative analysis also suggested the evolution of FIT as a closed group. Attempts should be made to allow the FIT participants to interact with students and faculty members of other colleges on campus to expose them to a diverse population. This may help the students in developing more institutional attachment towards the university, as much as towards the college and the program.

## Retention

### *Findings*

Quantitative findings suggested that the FIT program was supportive of its participants and had a positive impact on retention. Qualitative data, however, revealed that FIT participants enrolled in the FIT program because of external factors such as parental suggestion and facilities provided by being in the FIT program rather than interest in academic achievement. Also, changing majors was considered normal by FIT participants. Moreover, most FIT participants were not inclined to either drop from the program, the college or the university.

*Recommendations*

Studies documenting retention are incomplete until the students are graduated; however, as Ruddock, Hanson and Moss (1999), Terenzini, Pascarella, and Blimling (1996), and Pike, Schroeder, and Berry (1997) have reported that living in residence halls, attending freshman orientation, and increased involvement and interaction with other students and faculty helps to retain students at the university. The majority of FIT and non-FIT students reported that they received no emotional support from faculty or staff (Table 18). It is recommended that the FIT program encourage all FIT participants to attend Camp Cowboy and continue to provide opportunities for social interaction with other students, faculty, and staff. It is also recommended that the director of the FIT program emphasize the importance of faculty and staff support to freshmen in the institution.

## Application of Tinto's Model to the FIT Program

The findings discussed under each individual research question revealed that, as compared to non-FIT students:

1. The FIT program did not substantially contribute to the academic achievement of the participants.
2. The FIT program did not develop leadership skills among the participants.
3. The FIT program did not develop positive institutional attachment to the university.

4. The FIT program succeeded in retaining its participants in the college and the university.

A simplification of the Tinto's model (1975) would reveal that the main aspects to be considered were:

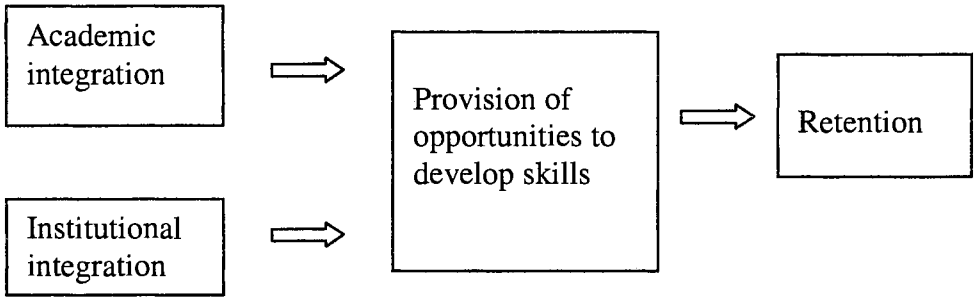



*Figure 5*

Simplified Tinto's Model

In the context of the FIT program, the model could be studied as:

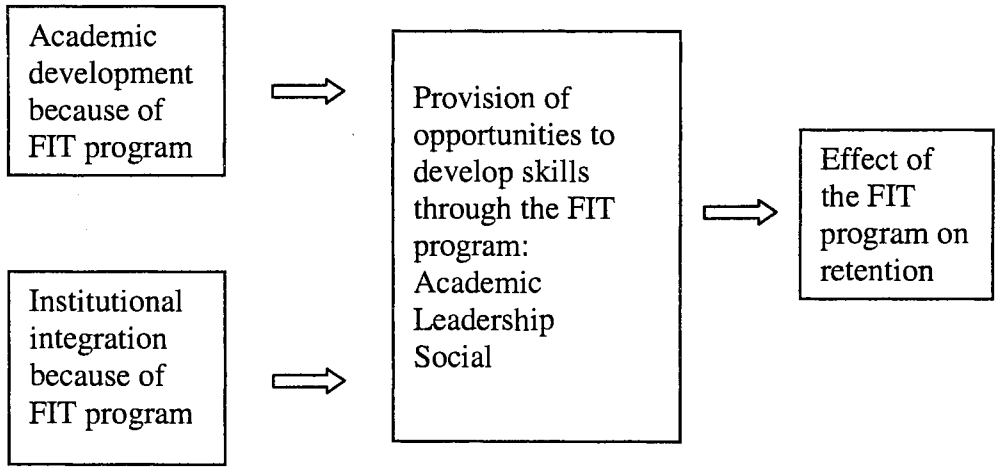



*Figure 6*

Tinto's Model as Reflected in the FIT Program

The findings of the study suggested that in academic development, the FIT students had a higher GPA than the non-FIT students, and that they attended academic activities at a higher rate. However, there was no statistically significant difference between the FIT and non-FIT students in their academic achievement. Hence the academic integration that must have taken place could not be ascribed to the FIT program. Qualitative data supported the quantitative findings, as the FIT students did not consider the FIT as a contributor, either positive or negative to their academic performance.

As far as institutional integration is concerned, while quantitative data suggested that there were no differences between FIT and non-FIT students in their institutional loyalty and integration, qualitative data suggested that FIT bound them to the college more than the university, and that the FIT program created a subculture within the larger university and college group. Thus, the kind of integration created by the FIT program was flawed as FIT emerged as a closed group within the college as supported by qualitative findings.

The FIT program did provide intervening factors to help in the integration of the participants into the academic and social life of the university through their list of expectations. However, the expectations became aspects of administrative control (as suggested by qualitative findings) rather than facilitating the proper social and academic integration of the participants in the program. Thus it can be said that the FIT intervening factors, in the form of expectations, did not succeed either in enhancing the academic achievement of the participants, nor in helping them develop leadership skills. The factors also did not develop any institutional loyalty and integration among its members.

Nevertheless, FIT program participants were retained in the college at a higher level than the non-FIT students. Qualitative findings, however, suggested that retention was tempered through several other factors such as career, provision of financial help (scholarships), and family background suitable to the majors. The only FIT participant who dropped out of the college did so because of the failure to achieve financial support from the college. Therefore, it could be argued that although the FIT program helped in retention, other unidentified factors also may have played a part in higher retention among the program participants.

Thus, it can be concluded that in the application of Tinto's model to the evaluation of the FIT program, the outcome of the program of higher retention could be a desirable outcome as suggested by Tinto. However, Tinto's suggested aspects of academic and institutional integration did not play a part in the outcome. The study could not validate retention of FIT students on the basis of Tinto's model of longitudinal institutional departure.

## Is the FIT Program a Residential Learning Community?

The FIT program was originally modeled after several learning communities. However, a learning community is a reorganization of curriculum to link together course work in order to increase interaction with faculty and other students (Gabelnick, MacGregor, Matthews & Smith, 1990). Although several universities have created different models of learning communities, they all emphasize common themes of community, social learning theory, and collaborative learning (Shapiro & Levine, 1999).

Learning communities consist of academic (the curriculum content), physical (the place where the community lives), and social (the interpersonal relations among students and faculty) components (Brower and Dettinger, 1998).

The FIT program has successfully provided the social and physical space for a residential learning community; however, limited attempts to create a common curriculum have been made. Faculty discussions were offered in the residence halls, but the discussions consisted of a faculty member coming to the residence hall, and discussing various non-academic subjects for an hour. Thus, it can be said that only limited attempts were made to evolve FIT as a residential learning community.

Lyerla and Elmore (1996) reported that domain specific courses enhance the academic success of freshmen in a learning community. Schroeder (1998) reported that courses in which the students are enrolled should be reinforced by seminars and workshops outside the classroom. It is recommended that if the FIT program administrators desire to create a true learning community, they should create a common core curriculum and treat the students as a cohort group during their freshmen year. This kind of an arrangement would help and motivate students to form study groups in residence. Faculty discussions, and other activities, could be focused on the core curriculum. The core courses could be supplemented with seminars and workshops that are arranged along the same themes as the courses, providing an academic focus for the participants.

## Recommendations for Further Research

The following issues should be addressed in future research concerning the FIT program:

1. Research should be conducted on the contributions of individual elements like tutoring, small group meetings, faculty discussions, and leadership activities.
2. A more rigorous experimental study with pre-and-post treatment evaluation with an original instrument suitable for the FIT program should be conducted. Such a study would also attempt to calculate the extent of the effects of academic and institutional integration it has on the retention of students based on Tinto's model.
3. In the absence of validation of retention among FIT students through the application of Tinto's model, it is recommended that future research is necessary on other intervening factors that have an effect on FIT participants interaction with the institution.
4. Research of a longitudinal nature that tracks the present and past groups of FIT cohorts during their tenure at OSU should be conducted to substantiate gains made by students over non-FIT students.
5. More qualitative input from both the FIT students and non-FIT students should be collected to evaluate the effects of the FIT program.
6. A meta-analysis of similar program across the universities in America should be conducted to ascertain the impacts of similar programs on areas of academic excellence, psychosocial development and retention of students so as to consolidate the findings of this research project.

# REFERENCES


Abraham, J. & Wagnon, B. (1992). Helping students ease into college. *Planning for Higher Education, 21,* 1, 32-36.

Antonio, A. L. (2000). *Developing leadership skills for diversity: The role of interracial interaction.* (ERIC Document Reproduction Service No. ED 443 321).

Antley, H. W. (1999). *The development of a predictive model for one-year freshman retention rate: A macro-approach.* AIR Annual Forum Paper.

Ary, D., Jacobs, L.C., & Razavieh, A. (1996). *Introduction to research in education.* (5th ed.). Texas: Fort Worth.

Astin, A. (1977). *Four critical years: Effects of college on beliefs, attitudes, and knowledge.* San Francisco, CA: Jossey-Bass.

Astin, A. W. (1985). *Achieving educational excellence: A critical assessment of priorities and practices in higher education.* San Francisco, CA: Jossey-Bass.

Avakian, A. N. (1982). Race and sex differences in student retention at an urban university. *College and University, 57,* 2, 160-165.

Balschweid, M.A. & Talbert, B. Allen (2000). *A comparison of agricultural education students to the "typical high school student" as quantified in The state of our nation's youth: by Horatio Alger Association.* (National FFA Report). West Lafayette, IN: Purdue University, 1442 Liberal Arts and Education Building.

Bandura, A. (1997). *Self efficacy: The exercise of control.* New York: W.H. Freeman.

Bass, B. M. (1990). *Bass & Stogdill's handbook of leadership : theory, research, and managerial applications.* (3rd ed.). New York : Free Press

Bechhofer, F. & Paterson, L. (2000). *Principles of research design in the social sciences.* New York: Routledge.

Bers, T. H. & Smith, K. E. (1991). Persistence of community college students: The influence of student intent and academic and social integration. *Research in Higher Education, 32,* 5, 539-556.

Blackwell, L. (1990). *New Mexico state 4-H youth leadership project: Relationships between elements of leadership participation and self-esteem.* Unpublished master's thesis, New Mexico State University, Las Cruces.

Bolender, R. (1994). *A comparison of the effect of academic peer mentors on the grade point averages of underprepared freshmen at Mount Vernon Nazarene College.* Unpublished Ed.D. practicum, Nova University, OH, U.S.A.

Braxton, J. M. Milem, J. F., & Sullivan, A. S. (2000). The influence of active learning on the college student departure process: Toward a revision of Tinto's theory. *Journal of Higher Education, 71*, 5, 569-90.

Brower, A. M. & Dettinger, K. M. (1998). What "is" learning community? Toward a comprehensive model. *About Campus, 3,* 5, 15-22.

Byrne, D. (2002). *Interpreting quantitative data.* Thousand Oaks, CA: Sage Publications.

Caracelli, V.J. & Greene, J. C. (1997). Crafting mixed-method evaluation designs. In Greene, J. C. & Caracelli, V. J. (eds.) Advances in mixed-methods evaluation: *The challenges and benefits of integration diverse paradigms. New Directions for Evaluation: Publication of the American Evaluation Association.* San Francisco: Jossey-Bass Publishers, 19-32.

Carless, S. A. (1995). *Transformational leadership and Australian bank managers.* Unpublished Doctoral Dissertation, University of Melbourne, Australia.

Chaney, B. & Farris, E. (1991). Survey on retention at higher education institutions. *Higher Education Survey Report.* (Survey Number 14). Maryland.

Chen, H. (1990). *Theory driven evaluations.* Thousand Oaks, CA: Sage Publications.

Chen, H. (1997). Applying mixed methods under the framework of theory-driven evaluations. In Greene, J. C., & Caracelli, V. J. (eds.) Advances in mixed-methods evaluation: *The challenges and benefits of integration diverse paradigms. New Directions for Evaluation: Publication of the American Evaluation Association.* San Francisco: Jossey-Bass Publishers, 61-72.

Chickering, A.W. (1969). *Education and identity.* San Francisco: Jossey-Bass.

Chickering, A. W. (1974). Education and identity: Implications for residence hall living. In D. DeCoster & P. Mable (eds.). *Student development and education in residence halls.* (pp. 76-86). Washington D.C.: American College Personnel Associaton.

Chickering, A. W., & Reisser, L. (1993). *Education and identity.* (2nd ed.). San Francisco, CA: Jossey-Bass.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, N.J.: L. Erlbaum Associates.

Cooker, R., Donovan, E., Gaskill, M., Watkins, J.F., & Webb, D. (1985). *Institutional retention study: Gainesville junior college. 1985.* (ERIC Document Reproduction Service No. ED 257 509).

Cresswell, J.W. (1994). *Research design: Qualitative & quantitative approaches.* Thousand Oaks, CA: SAGE Publications.

Davis, T.M. & Murrell, P.H. (1993). *Turning teaching into learning: the role of student responsibility in the collegiate experience.* (ASHE-ERIC Higher Education Report No. 8). Washington DC: George Washington University. (ERIC Document Reproduction Service No. ED372703).

Denzin, N. K. (1970). *The research act: A theoretical introduction to sociological methods.* Chicago: Aldine Pub. Co.

Denzin, N. K. & Lincoln, Y. S. (eds.). (2000). *Handbook of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Dey, E. L. (1990). *Evaluating college student retention: Comparative national data from the 1981-1984 entering freshman classes.* Paper presented at the Annual Meeting of the American Educational Research Association, Boston, MA.

Diekelmann, N. (1990). *Notes from Applied Nursing Institute for Interpretive Research Studies.* Unpublished raw data.

Dillman, D. A. (2000). *Mail and internet surveys: the tailored design method* (2nd ed.). NY: J. Wiley.

Dowaliby, F. J., Garrison, W. M., & Dagel, Delbert (1993). The student integration survey: Development of an early alert assessment and reporting system. *Research in Higher Education, 34,* 4, 513-31

Duby, P. & Schartman, L. (1997, May). *Credit hour loads at college onset and subsequent academic performance: A multi-institutional pilot project.* Paper presented at the annual forum of the Association for Institutional Research, Orlando, FL.

Eiche, K., Sedlacek, W.E., & Adams-Gaston, J. (1997). *An exploration of leadership characteristics in college athletes.* (ERIC Document Reproduction Service No. ED 411 753).

Erickson, F. (1986). Qualitative methods in research on teaching. In M. C. Wittrock (Ed.) *Handbook of research on teaching* (3rd ed., pp. 119-161). New York: Macmillan.

*Freshmen in Transition* (2001). Flyer. College of Agricultural Sciences & Natural Resources, OSU.

Freshmen in Transition (2002). *FIT expectations* (spring 02). Available from FIT Website, http://www.fitokstate.edu

Gabelnick, F., MacGregor, J., Matthews, R., Smith, B.L. (1990). Learning communities: Building connections among disciplines, students and faculty. *New Directions in Teaching and Learning*, 41, 19-37.

Gardner, J., (1990). *Guidelines for evaluating the freshman year experience.* National Resource Center for the Freshman Year Experience, Columbia, SC.

Gold, J. (1990). *Black undergraduate adaptation to college as a predictor of academic success.* Paper presented at the Annual Meeting of the American Association of Counseling and Development. (ERIC Document Reproduction Service No. ED338730).

Greeley, A. T., & Tinsley, H. E.A. (1988). Autonomy and Intimacy Development in College Students: Sex Differences and Predictors. *Journal of College Student Development, 29,* 6, 512-20.

Guba, E.G., & Lincoln, Y.S. (1989). *Fourth generation evaluation.* Newbury Park, CA: SAGE Publications.

Grayson, J.P. (1996). *The retention of first year students in Atkinson college: Institutional failure or student choice?* Institute for Social Research, York University, Ontario.

Greene, J. C., & Caracelli, V. J. (1997). Defining and describing the paradigm issue in mixed-method evaluation. In Greene, J. C. & Caracelli, V. J. (Eds.). *Advances in mixed-method evaluation: The challenges and benefits of integrating diverse paradigm* (pp. 5-17). San Francisco, CA: Jossey Bass.

Hayes, B. E. (1998). *Measuring customer satisfaction: Survey design, use, and statistical analysis method.* (2nd ed.). Milwaukee, Wis.: ASQ Quality Press

Jonides, J. (1992, August). *Evaluation of minority retention programs: The undergraduate research opportunities program at the University of Michigan.* Paper presented at the annual meeting of the American Psychological Association, Washington, DC.

Kerlinger, F.N. (1986). *Foundations of behavioral research* (3rd ed.). NY: Holt, Rinehart & Winston.

King, P.M. & Taylor, J.A. (1989). *Factors influencing the intellectual development and academic achievement of black college student.* Final report submitted to the Counseling and Human Development Foundation, Ohio.

Kirk, J. & Miller, M.L. (1986). Reliability and validity in qualitative research. *Qualitative Research Methods, Volume I.* Beverley Hills: Sage Publications.

Kouzes, J. M., & Posner, B. Z. (1997). *Student leadership practices inventory: Facilitator's guide.* San Francisco, CA: Jossey-Bass.

Kvale, S. (1996). *An introduction to qualitative research interviewing.* Thousand Oaks, CA: Sage Publications.

Langley, H.M. (1987). *Student retention study: Brunswick junior college.* (ERIC Document Reproduction Service No. ED 301 269).

*Leadership through FFA.* (1984). Montana: U.S. (ERIC Document Reproduction Service No. ED 248 396).

Levine, A. E. (1986). Hearts and minds: The freshman challenge. *AAHE Bulletin*, 3-6.

Lyerla, R.L. & Elmore, P.B. (1996, April). *Predicting academic success: An application of Young's universal scale for grades.* Paper presented at the meeting of the American Educational Research Association, New York, NY.

Marshall, C. & Rossman, G. B. (1989). Designing qualitative research. (3rd ed.). CA: Sage Publications.

Mathison, S. (1988). Why triangulate? *Educational Researcher, 17,* 2, 13-17.

Matthews, R., Smith, B. L., MacGregor, J., & Gabelnick, F. (1996). Learning communities: A structure for educational coherence. *Liberal Education.* 4-9.

McCauley, C. D., Moxley, R. S., & Velsor, E. V. (1998). *The center for creative leadership handbook of leadership development.* San Francisco, CA: Jossey-Bass.

Murtaugh, P.A., Burns, L.D., Schuster, J. (1999). Predicting the retention of university students. *Research in Higher Education, 40,* 355-371.

Merriam, S. B. (1995). What can you tell from an N of 1? Issues of validity and reliability in qualitative research. *PAACE Journal of Lifelong Learning, 4*, 51-60.

Miller, M. E. (1981). *Effectiveness of 4-H life skills approach to leadership development.* Unpublished doctoral dissertation, Oklahoma State University, Stillwater.

Miller, R. A. (1975). *Life skills for 4-H leadership roles.* Unpublished master's thesis, Oklahoma State University, Stillwater, OK, U.S.A.

Miller, R. A. (1976). *Leader/agent's guide: Leadership life skills.* Stillwater, OK: Oklahoma State University.

Miller, L, E. & Smith, K. L. (1983). Handling nonresponse issues. *Journal of Extension, 21*, 5, 45-46.

Mueller, D. (1989). *Taking the lead in leadership.* Unpublished master's thesis, Washington State University, Pullman.

Munro, B. (1981). Dropouts from higher education: Path analysis of a national sample. *American Educational Research Journal, 81*, 133-141.

Napoli, A. R. & Wortman, P. M. (1996). A meta-analysis of the impact of academic and social integration on persistence of community college students. *Journal of Applied Research in the Community College, 4,* 1, 5-21.

Nora, A. (1987). Determinants of retention among Chicano college students: A structural model. *Research in Higher Education, 26,* 1, 31-59.

Nora, A., Attinasi, L. C., & Matonak, A. (1990). Testing qualitative indicators of pre-college factors in Tinto's attrition model: A community college student population. *Review of Higher Education, 13*, 3, 337-356.

Orr, J. D. & Gobeli, V. C. (1986). *4-H teen leadership development in Nebraska: an evaluation.* University of Nebraska, Lincoln: Nebraska Cooperative Extension Service.

Ory, J. C. & Braskamp, L. A. (1988). Involvement and growth of students in three academic programs. *Research in Higher Education, 28*, 2, 116-129

Odutola (1983) Odutola, A. A. (1983). *A longitudinal study of the effects of academic, demographic, and financial aid factors on retention for the freshman class of 1974 at the Florida State University.* Unpublished doctoral dissertation, Florida State University.

Parks, R. E. (1997). *Miami bound: Issues in transition.* Proceedings of the International Conference on Outdoor Recreation and Education (ICORE), Miami University, OH, U.S.A.

Pascarella, E. T. & Chapman, D. W. (1983). A multi-institutional, path analytic validation of Tinto's model of college withdrawal. *American Educational Research Journal, 20,* 1, 87-102.

Pascarella, E.T., & Terenzini, P.T. (1980). Predicting freshman persistence and voluntary dropout decisions from a theoretical model. *Journal of Higher Education, 51*, 60-75.

Pascarella, E. T. & Terenzini, P. T. (1983). Predicting voluntary freshman year persistence/withdrawal behavior in a residential university: A analytic validation f Tito's model. *Journal of Educational Psychology, 75*,2, 215-226.

Pascarella, E. T. (1984). Reassessing the effects of living on-campus versus commuting to college: A causal modeling approach. *The Review of Higher Education, 7*, 3, 247-260.

Pascarella, E.T. & Terenzini, P.T. (1991). *How college affects students: findings and insights from twenty years of research.* San Francisco: Jossey-Bass Publishers.

Patrick, H. (1985). *The rationale for learning communities and learning community models.* Paper presented at the Inaugural Conference on Learning Communities of the Washington Center for Improving the Quality of Undergraduate Education. (ERIC Document Reproduction Service No. ED309818).

Pike, G.R. (1999). The effects of residential learning communities and traditional residential living arrangements on educational gains during the first year of college. *Journal of College Student Development, 40,* 3, 269-284.

Pike, G. R., Schroeder, C. C., & Berry, T. R. (1997). Enhancing the educational impact of residence halls: The relationship between residential learning communities and first-year college experiences and persistence. *Journal of College Student Development, 38,* 6, 609-621.

Reitz, E.S. (1975, June). *Faculty mentoring of undergraduates at city college.* Paper presented at the annual conference of the American Society for Engineering Education, Colorado State University, Ft. Collins, CO.

Roweton, W. E. (1994). *Predicting rural college retention among first-year undergraduates.* Nebraska. (ERIC Document Reproduction Service No. ED 370 501).

Ruddock, M.S., Hanson, G., & Moss, M.K. (1999). *New directions in student retention research: Looking beyond interactional theories of student departure.* Paper presented at the Annual Forum of the Association for Institutional Research, Seattle, WA.

Ryan, G.W. & Bernard, H. R. (2000). Data management and analysis methods. In Denzin, N. K. & Lincoln, Y. S. (eds.). (2000). *Handbook of qualitative research* (2nd ed.) 769-802. Thousand Oaks, CA: Sage Publications. 769-802.

Schroeder, C. C. (1994). Developing learning communities. In C. Schroeder and P. Mable (eds.). *Realizing the educational potential of residence halls.* (pp. 165-189). San Francisco, CA: Jossey-Bass.

Schroeder, C. C., Mable, P. & Associates. (1994). *Realizing the educational potential of residence halls.* San Francisco, CA: Jossey-Bass.

Schroeder, C. C., Minor, F. D., & Tarkow, T. A. (1999). Freshman interest groups: Partnerships for promoting student success. *New Directions for Student Services, 87,* 37-49.

SDTLA (Student *Development Task and Life Style Assessment*). (1999). Student Development Associates, Inc.

Seevers, B. S., Dormondy, T. J. & Clason, D. L. (1995). Developing a scale to research and evaluate youth leadership life skills development. *Journal of Agricultural Education, 36,* 2, 28-34.

Segrin, C. & Flora, J. (2000). Poor social skills are a vulnerability factor in the development of psychosocial problems. *Human Communication Research, 26,* 3, 489-514.

Sexten, A. M. (2001). *A quasi experiment of the Freshmen in Transition residential learning program.* Unpublished master's thesis. Oklahoma State University, Stillwater, OK, U.S.A.

Sexten, A. & Kelsey, K.D. (2001, September). *A case study of the impact of freshmen in transition retention program for agricultural science and natural resources students 2000-2001.* University Assessment: Oklahoma State University, OK.

Shapiro, N. S. & Levine, J. H. (1999). *Creating learning communities: A practical guide to winning support, organizing for change, and implementing programs.* San Francisco, CA: Jossey-Bass.

Smith, B. L. (2003). Learning communities and liberal education. Available: http://www.aaup.org/publications/Academe/03jfsmi.htm

Smith, R. M. (1997). *Defining leadership through followership: Concepts for approaching leadership development.* Paper presented at the Annual Meeting of the National Communication Association, Chicago, IL.

Snider, K. J. G., & Venable, A. M. (2000). *Assessing learning community effectiveness: A multi-campus approach.* Paper presented at the annual meeting of the Association for Institutional Research (AIR) AIR Forum, Cincinnati, OH.

*SPSS graduate pack 8.0 for Windows.* Chicago, IL: SPSS Inc.

Stafford, G. H. (1982). College admissions and the transition to post secondary education. Testimony to the national commission on excellence in education (Public hearing, Chicago, Illinois, June 23, 1982). (ERIC Document Reproduction Service No. ED237036).

Strommer, D. (1989). Designed for first year students: University college today. *Journal of the Freshmen Year Experience, 1*, 1, 17-31.

State PIRG's Higher Education Project (2002). *At what cost? The price that working students pay for a college education.* Washington D.C.

Stufflebeam, D. L. (2001). Evaluation models. *New Direction for Evaluation: A Publication of the American Evaluation Association*. San Francisco, CA: Jossey-Bass.

Terenzini, P.T., Pascarella, E.T., & Blimling, G.S. (1996). Students' out-of-class experiences and their influences on learning and cognitive development: A literature review. *Journal of College Student Development, 37*, 149-162.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45,* 89-125.

Tinto, V. (1987). *Leaving college: rethinking the causes and cures of student Attrition.* Chicago: University of Chicago Press.

Tinto, V. (1993). *Leaving college: rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.

Tinto, V. (1996). Reconstructing the first year of college. *Planning for Higher Education. 25,* 1, 1-6.

Tokuno, K. A., & Campbell, F. L. (1992). The freshmen interest group program at the university of Washington: Effects of retention and scholarship. *Journal of Freshmen Year Experience, 4,* 1, 7-22.

Tucker, J. E. (1999). Tinto's model and successful college transitions. *Journal of College Student Retention: Research, Theory & Practice, 1,* 2, 63-75.

Tukey, D.D. (1991). Models for student retention and migration. *Journal of the Freshman Year Experience, 3,* 2, 61-74.

Vogt, P. W. (1999). *Dictionary of statistics & methodology : a nontechnical guide for the social sciences* (2nd ed.). Thousand Oaks, CA: Sage Publications

Vollmer, M. A. & Hedlund, D. E. (1994). *Change in the perceptions of rural adolescents after exposure to the outside world.* Paper presented at the research forum of the National Rural Education Association, Tulsaloosa, AL, N.Y.

Warmbrod, R. J. (2001). *Conducting, interpreting, and reporting quantitative research.* Research pre-session BAERC 2001, New Orleans, L.A.

Wiersma, W. (1999). *Research methods in education: An introduction.* (7th ed.). NY: Allyn & Bacon.

Williamson, D. R. & Creamer, D. G. (1988). Student attrition in 2- and 4-year colleges: Application of a theoretical model. *Journal of College Student Development, 29,* 3, 210-217.

Wilson, K. M. (1983). *A review of research on the prediction of academic performance after the freshman year.* New York, U.S.A. (ERIC Document Reproduction Service No. ED233076).

Wilson, H. S. & Hutchinson, S. A. (1991). Triangulation of qualitative methods: Heideggerian hermeneutics and grounded theory. *Qualitative Health Research, 1,* 2, 263-276.

Worthen, B. R., Sanders, J. R., & Fitzpatrick, J. L. (1997). *Program evaluation : alternative approaches and practical guidelines.* (2nd ed.). New York : Longman.

Wyman, F. J. (1997). A predictive model of retention rate at regional two-year colleges. *Community College Review, 25,* 1, 29-58.

Young, J.W. (1989). *Adjusting the cumulative GPA using item response theory.* Unpublished doctoral dissertation, Stanford University, CA.

Zimmerman, B. J., Bonner, S., Kovach, R. (1996). *Developing self-regulated learners: beyond achievement to self-efficacy.* Washington, D.C.: American Psychological Association.

# APPENDIXES

# APPENDIX A

# INSTITUTIONAL REVIEW BOARD APPROVAL

## Oklahoma State University
## Institutional Review Board

Protocol Expires: 5/8/02

Date : Thursday, December 06, 2001 IRB Application No AG012

Proposal Title: A CASE STUDY OF THE IMPACT OF FRESHMEN IN TRANSITION RETENTION PROGRAM FOR AGRICULTURAL SCIENCE AND NATURAL RESOURCE STUDENTS

Principal Investigator(s) :

Kathleen Kelsey
466 Ag Hall
Stillwater, OK 74078

Alan D'souza
466 Ag Hall
Stillwater, OK 74078

Reviewed and Processed as: Expedited

Approval Status Recommended by Reviewer(s) : Approved **Modification**

---

Please note that the protocol expires on the following date which is one year from the date of the approval of the original protocol:

Protocol Expires: 5/8/02

Signature :

Carol Olson, Director of University Research Compliance

Thursday, December 06, 2001
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

## Oklahoma State University
## Institutional Review Board

Protocol Expires: 3/20/03

Date : Thursday, March 21, 2002 IRB Application No AG012

Proposal Title: A CASE STUDY OF THE IMPACT OF FRESHMEN IN TRANSITION RETENTION PROGRAM FOR AGRICULTURAL SCIENCE AND NATURAL RESOURCE STUDENTS

Principal Investigator(s) :

Kathleen Kelsey
466 Ag Hall
Stillwater, OK 74078

Alan D'souza
466 Ag Hall
Stillwater, OK 74078

Reviewed and Expedited **Continuation**

Approval Status Recommended by Reviewer(s) : Approved

---

Signature :

Carol Olson, Director of University Research Complian

Thursday, March 21, 2002
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

# APPENDIX B

# FIT EXPECTATIONS

# FIT EXPECTATIONS

Fall 2001

(Downloaded 09/30/03
from http://fit.okstate/edu/requirements.shtm.)

All the following expectations are what an average freshmen should be involved in during their first year. Students can utilize the FIT Calendar on the web and the bulletin boards on the third floor of Zink. They can also work with their peers to accomplish the program expectations.

## Academic Excellence

Must attend 75% of the academic excellence workshops that are provided in resident location. These workshops can be academic mentoring sessions, academic seminars, or review sessions with professors. Academic mentoring sessions and study sessions on subjects such as Chemistry, Animal Science, and Biology may be added as determined from the enrollment of students' participation in the program.

## Allied Arts

Participate in three allied arts activities of your choosing each semester.

## Leadership

Participate in four leadership activities at the FIT, College or University during the semester.

## College and University Clubs and Associations

Join and actively participate in one College or University Club, organization or associatin of your interest each semester.

## Community Service

Participate in eight hours of University or Community volunteer activity each semester. These activities may be planned and conducted by the living learning group.

## General University Educational Activities

Attend two seminars or educational presentations on subjects in your or general university educational presentations.

## Wellness Program

Participate in one wellness assessment program and plan and attend education program each semester in the Ag House community.

Intramurals

Participate in at least one intramural team or individual competition.

Social Activities

Plan and attend one social activity each month as a FIT member.

Actively participate in Homecoming preparation activities during the fall semester and actively participate in Ag Week activities during the spring semester.

Career Development

Attend at least two career exploration events at the university or college during each semester.

Attend the Resume Development and Career Planning Workshop targeted specifically for the FIT and other freshmen and complete and file a resume with the Career Services by the end of the academic year.

Faculty Discussions

Attend three faculty discussion sessions in the FIT Residence each semester.

Academic Expectations

First semester GPA must be 2.5 or greater. The second semester GPA must be 3.0 or higher.

Other (Mandatory)

Work with an experienced student (SAM, Student Academic Mentor) in a group of five to six students.

Attend Camp Cowboy during the summer prior to entering the fall semester. Camp Cowboy for CASNR and FIT students is July 13-15, 2001 at Carl Blackwell, Stillwater, Oklahoma.

Live in the designated areas of Zink Hall (residence suite facility).

Be enrolled in the College of Agricultural Sciences and Natural Resources for the entire year.

# FIT EXPECTATIONS

Spring 2002

Academic Excellence

The second semester GPA goal is 2.5. Tutoring session for core subjects are available in Zink Hal at no expense to the student. Academic success is our primary goal!

Allied Arts

Attend at least one allied arts activity of your choice.

Career Development

Attend at least two career exploration events.

Attend one of Louann Waldner's Resume Development and Career Planning Workshops (may have been completed during Fall '01).

File a resume with Career Development committee chair, Marcy Grundmann, by the end of the academic year.

College or University Clubs and Associations

Actively participate in at least one College or University club, organization or association.

Attend at least one RHA or SGA meeting.

Community Service

Participate in eight hours of University or Community volunteer service.

Faculty Interaction

Attend three faculty interaction sessions.

General University Educational Activities

Attend one seminar or educational presentation of your choice.

Intramurals

Participate in one intramural team or individual competition (may have been completed during Fall '01).

Serve as a member on one committee (FIT, Zink Hall, Club, etc.)

Third activity is either one additional workshop/seminar or committee.

Social Activities

Attend one FIT social activity each month.

Wellness

Complete one wellness assessment (may have been completed during Fall '01) and attend one FIT wellness activity (Freshmen in Transition, 2002).

# APPENDIX C

## COVER LETTERS: FIRST & SECOND MAILINGS

FIRST MAILING

Date

Dear:

We are conducting an evaluation of the freshmen year experience at CASNR, OSU. It is our pleasure to invite you to participate in this important study.

You are one of only a small number of randomly selected people that are being asked to fill out the enclosed survey. **Your voice counts!** By filling out this survey you will help CASNR to better serve its students. Your responses will help the College of Agricultural Sciences and Natural Resources (CASNR ) can better understand your needs as a freshman?

The information gathered will be used to plan future changes and improvements in the freshmen year experience. Please be assured that your responses are completely confidential, that your participation is strictly voluntary, and that there will be no harmful effects caused by participating in this study.

Pilot testing indicated that it should take you about 15 minutes to complete the survey. If you have questions about the study or need assistance in completing your survey please call or email us. Thank you in advance for your cooperation!

Sincerely,

Alan D'souza
Research Associate
(405) 744-6942
alanjd@okstate.edu

Dr. Kathleen Kelsey
Evaluator
(405) 744-5129
kelseyk@okstate.edu

SECOND MAILING

Date

Dear:

We are conducting an evaluation of the freshmen year experience at CASNR, OSU. It is our pleasure to invite you to participate in this important study.

If you have already mailed in your survey, **Thank You**! We appreciate your time.

If not, won't you please take a few minutes to answer the questions on the enclosed survey so that the College of Agricultural Sciences and Natural Resources (CASNR ) can better understand your needs as a freshman?

You are one of only a small number of randomly selected people that are being asked to fill out the enclosed survey. **Your voice counts!** By filling out this survey you will help CASNR to better serve its students.

The information gathered will be used to plan future changes and improvements in the freshmen year experience. Please be assured that your responses are completely confidential, that your participation is strictly voluntary, and that there will be no harmful effects caused by participating in this study.

Pilot testing indicated that it should take you about 15 minutes to complete the survey. If you have questions about the study or need assistance in completing your survey please call or email us. Thank you in advance for your cooperation!

Sincerely,

Alan D'souza
Research Associate
(405) 744-6942
alanjd@okstate.edu

Dr. Kathleen Kelsey
Evaluator
(405) 744-5129
kelseyk@okstate.edu

# APPENDIX D

# REMINDER POST CARD

Dear College of Ag. Freshman:

Last week, a survey seeking your responses regarding your freshman year experience was delivered to you. You are one of a small number of freshmen students selected to participate in this study.

If you have completed and returned the survey, please accept our sincere thanks. If you have not filled out your survey, please take a few minutes to complete and return it today. We are especially grateful for your help. We believe that your responses will be very useful to College of Agriculture in improving their services.

If you did not receive the survey, or you have any questions about this study, please call (405) 744-6942 or email me at alanjd@okstate.edu. I will be happy to send you another survey or answer your questions.

Sincerely,

Alan D'souza
Research Associate

Kathleen Kelsey
Evaluator

Oklahoma State University
Department of Agricultural Education,
Communications & 4-H Youth Development
Stillwater, Oklahoma 74078-6031

# APPENDIX E

# CONSENT FORM

**Consent Form – FIT Study**

I am consenting to participate in a study titled Freshmen in Transition: An Evaluation by Alan D'souza and Dr. Kathleen Kelsey. This study is designed to evaluate the program for effectiveness and improvement, and to record my experiences with the program.

- I will be asked to fill out one questionnaire in 2002.
- I may be asked to participate in an interview with the researchers working on the project.
- I understand that the research team will access my grade point average and retention status from the registrar's office as measures for the effectiveness of the program. The data will be held in the strictest confidence and will only be reported as group data.
- I understand that my responses are anonymous, and that the only people who will see the documents are Kathleen D. Kelsey, and her research assistant.
- I understand that my participation is voluntary, and that I may withdraw at any time with no penalty.
- I understand that there will be no harmful effects by participating in this study.

Thank you for your participation!

_____ _____

Signature Date

_____

Student ID Number

Fold and tear off below this line for contact information:

---

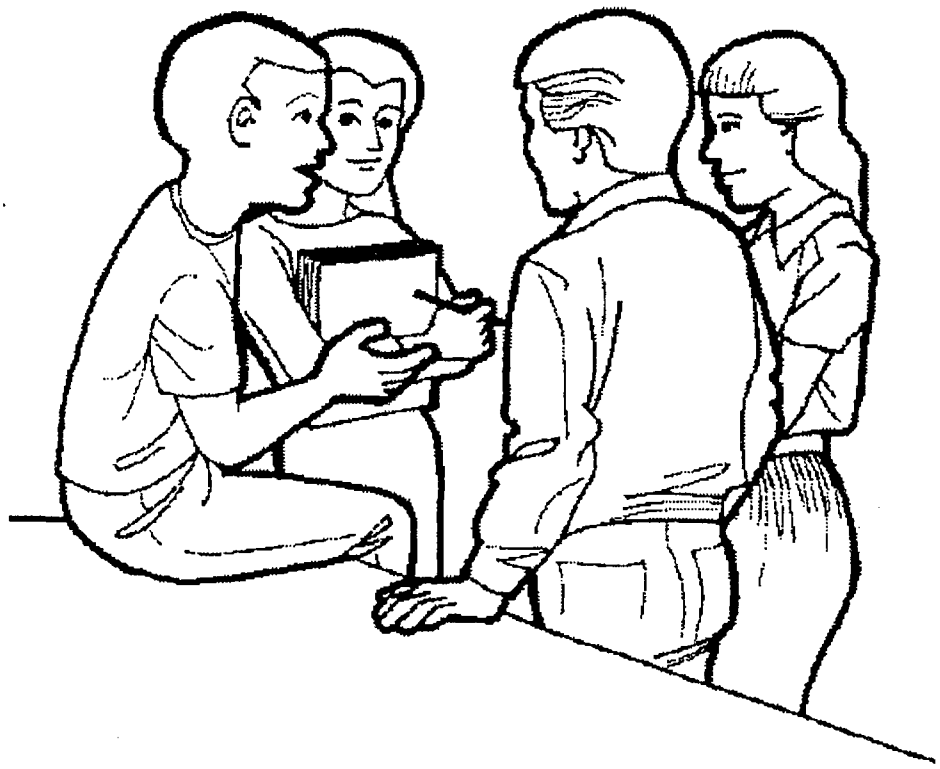
Dr. Kathleen Kelsey
Assistant Professor
Ag. Education, Comm.
& 4-H Youth Development
466 Agricultural Hall
405-744-8137
Fax: 405-744-5176
Email: kelseyk@okstate.edu

Alan D'souza
Graduate Research Associate
Ag Education, Comm.
& 4-H Youth Development
464 Agricultural Hall
405-744-6942
Fax: 405-744-5176
Email: alanjd@okstate.edu

# APPENDIX F

# SURVEY

# *Freshmen In Transition Survey*



**Oklahoma State University**

Spring 2002

# Freshmen In Transition Survey

**Section A:** ***In the following questions, please check ALL that apply:***

1. **In your opinion, what constitutes high academic success?**
   - Earning a GPA above 2.5 ☐
   - Earning a GPA above 3.0 ☐
   - Having a thorough understanding of the subject matter ☐
   - Being motivated to study ☐
   - Having effective study habits ☐
   - Other (please specify): _____

2. **Why did you choose to attend OSU?**
   - Parental pressure ☐
   - Wanted to earn a college degree ☐
   - My career goals require a college degree ☐
   - Could not find a job ☐
   - Nothing better to do ☐
   - For social reasons (make friends, find a spouse) ☐
   - Other (please specify): _____

3. **What motivates you to complete your freshmen year at OSU?**
   - Your GPA is above 2.5 ☐
   - Your GPA is above 3.0 ☐
   - Your age ☐
   - The academic reputation of OSU ☐
   - Academic support systems (i.e., tutoring services, academic mentoring etc.) ☐
   - Financial support from OSU ☐
     - from family ☐
     - from faculty ☐
     - from staff ☐
   - Emotional support from family ☐
     - from friends ☐
     - from faculty ☐
     - from staff ☐
   - Close to home ☐
   - Classmates and friends ☐
   - Career development activities put on by the Ag College ☐
   - Co-curricular activities (i.e., intra murals / clubs / associations etc.) on campus ☐
   - Self respect ☐
   - Other (please specify): _____

4. **According to you, why would a College of Ag freshman change his/her major?**
   - Low GPA in the Ag College ☐
   - Age ☐
   - Getting married ☐
   - The academic reputation of Ag College ☐
   - Lack of academic support systems (i.e., tutoring, mentoring, etc.) ☐
   - Lack of student support systems (i.e., counseling, career services, etc.) ☐
   - Lack of financial support systems (i.e., scholarships, financial aid, etc.) ☐
   - Financial problems ☐
   - Distance from home ☐
   - Conflicts with friends or classmates ☐
   - Lack of career opportunities in his/her major ☐
   - Lack of co-curricular activities on campus ☐
   - Can't pass required classes ☐
   - Change of interest ☐
   - Other: (please specify) _____

5. **According to you, why would a College of Ag freshman drop out of OSU?**
   - Low GPA in the Ag College ☐
   - Age ☐
   - Getting married ☐
   - The academic reputation of Ag College ☐
   - Lack of academic support systems ☐
   - Lack of counseling support systems ☐
   - Lack of student support systems ☐
   - Lack of financial support systems ☐
   - Financial problems ☐
   - Distance from home ☐
   - Conflicts with friends or classmates ☐
   - Lack of career opportunities in his/her major ☐
   - Lack of co-curricular activities on campus ☐
   - Other: (please specify) _____

6. **What do you think are qualities that reflect institutional loyalty among students?**
   - Familiarity with the campus ☐
   - Reading the Daily O'Collegian ☐
   - Feeling happy when OSU wins any sporting event ☐
   - Purchasing annual sports pass for OSU games ☐

Go to next page ☞ 1

Wearing OSU embellished clothes (i.e., T-Shirts, pants, caps etc.) ..... ❑
Recommending the university to friends or relatives ❑
Planning to become a member of OSU alumni ..... ❑
Graduating from OSU ..... ❑
Emotional attachment to OSU ..... ❑
Other (please specify) _____

7. **What do you think helps a freshman develop loyalty towards OSU?**
Well-maintained campus ..... ❑
Cooperative university staff ..... ❑
Availability of student services ..... ❑
Cultivating new friends ..... ❑
Developing close relationships with class mates/room mates/faculty, etc. ..... ❑
Satisfactory academic standards ..... ❑
Activities like Orange Peel, Homecoming, etc. ..... ❑
Other: (please specify) _____

8. **Leadership involves the following:**
Looking for challenges in life ..... ❑
Initiating any new activity ..... ❑
Improving upon tasks and projects ..... ❑
Taking risks ..... ❑
Good communication skills ..... ❑
Group consciousness ..... ❑
Conviction in any undertaking ..... ❑
Enthusiasm and excitement ..... ❑
Getting things done ..... ❑
High values and principles ..... ❑
Good planning ..... ❑
Supporting others ..... ❑
Other: (please specify) _____

**Section B:** *How many times did you participate in the following on campus activities? (0, 1, 2, 3, etc.)*

| | Fall 01 | Spring 02 |
|---|---|---|
| 1. Tutoring Sessions (i.e., visits to the writing center / math lab etc.) | | |
| 2. Studying in a group | | |
| 3. Seeking academic help from a sophomore / junior /senior | | |
| 4. Seeking personal help from a sophomore / junior / senior | | |
| 5. Educational programs (i.e., talks, lectures/ debates/ presentations etc. other than your course requirements, etc.) | | |
| 6. Allied arts programs (i.e., plays, concerts, performance arts, etc.) | | |
| 7. Career development programs (i.e., talks, shows, career fairs etc.) | | |
| 8. On campus club / association memberships | | |
| 9. Social activities (i.e., parties, get-to-gathers, games, pot lucks, etc.) | | |
| 10. Leadership activities (i.e., seminars, leadership workshops etc.) | | |
| 11. Community service activities (i.e., animal shelter, hospital visits, etc.) | | |
| 12. Wellness activities (i.e., intramural sports, wellness workshops, yoga, wellness assesments, etc.) | | |

13. What kind of general educational activities (i.e., seminars, talks, shows, presentations, etc.) other than your course requirements) did you participate?
In Fall '01 _____ In Spring '02 _____

14. From the activities that you listed in question 13, which were helpful to your academic development?
List: _____
Why: _____

Go to next page ☞ 2

**Section C.** *Mark the appropriate circle.*

| This activity motivated me to continue studies in the College of Ag. | Yes | Don't Know | No | Did not Participate |
|---|---|---|---|---|
| Meeting with friends | ○ | ○ | ○ | ○ |
| Allied arts activities | ○ | ○ | ○ | ○ |
| Career development programs | ○ | ○ | ○ | ○ |
| Membership of college clubs / associations | ○ | ○ | ○ | ○ |
| Community service activities | ○ | ○ | ○ | ○ |
| Faculty discussions (i.e., meetings with faculty, special faculty presentations for students etc.) | ○ | ○ | ○ | ○ |
| General educational activities (i.e., presentations, seminars, workshops etc. other than regular class requirements) | ○ | ○ | ○ | ○ |
| Intramural sports | ○ | ○ | ○ | ○ |
| Leadership activities | ○ | ○ | ○ | ○ |
| On campus social activities (i.e., pot-lucks, games, get-to-gathers, parties etc.) | ○ | ○ | ○ | ○ |
| Wellness activities | ○ | ○ | ○ | ○ |
| Attending Camp Cowboy | ○ | ○ | ○ | ○ |
| **This activity motivated me to get higher grades** | | | | |
| Tutoring services (i.e., writing center, math center, etc.) | ○ | ○ | ○ | ○ |
| Studying in a group | ○ | ○ | ○ | ○ |
| Meeting with sophomores / juniors / seniors in the residence halls | ○ | ○ | ○ | ○ |
| Quiet hours in the residence halls | ○ | ○ | ○ | ○ |
| General educational activities (i.e., talks, shows, seminars, etc. other than course requirements) | ○ | ○ | ○ | ○ |
| Taking more than 15 credit hours per semester | ○ | ○ | ○ | ○ |
| Taking easy courses | ○ | ○ | ○ | ○ |
| Interaction with faculty | ○ | ○ | ○ | ○ |

**Section D.** ***For the following questions, please mark the circle that best represents your perception of any <u>leadership activities</u> that you participated in during the freshman year at OSU. (If you did not participate, mark the last column.)***

| Leadership activities | Strongly Disagree | Disagree | Agree | Strongly Agree | Did not Participate |
|---|---|---|---|---|---|
| Taught me leadership skills | ○ | ○ | ○ | ○ | ○ |
| **Did not** encourage me to accept leadership positions in clubs and associations | ○ | ○ | ○ | ○ | ○ |
| Made me more involved in activities at OSU | ○ | ○ | ○ | ○ | ○ |
| Helped me to make better decisions | ○ | ○ | ○ | ○ | ○ |
| **Did not** help me to set goals | ○ | ○ | ○ | ○ | ○ |
| Made me a better communicator | ○ | ○ | ○ | ○ | ○ |
| **Did not** encourage me to take appropriate risks. | ○ | ○ | ○ | ○ | ○ |
| Did not help me to make plans for future. | ○ | ○ | ○ | ○ | ○ |

Go to next page ☞ 

| | Strongly Disagree | Disagree | Agree | Strongly Agree | Did not Participate |
|---|---|---|---|---|---|
| Encouraged me to become more self-disciplined. | ○ | ○ | ○ | ○ | ○ |
| Motivated me to be more ambitious. | ○ | ○ | ○ | ○ | ○ |
| Taught me how to work in a group. | ○ | ○ | ○ | ○ | ○ |
| **Did not** motivate me to apply the skills in real life situations. | ○ | ○ | ○ | ○ | ○ |
| Helped me develop a network of acquaintances. | ○ | ○ | ○ | ○ | ○ |
| Helped me to feel more confident about myself. | ○ | ○ | ○ | ○ | ○ |
| Did not help me appreciate diversity among students. | ○ | ○ | ○ | ○ | ○ |

## Section E. *Please mark the circle that best represents your experience at OSU:*

| My Freshman Year Experience at OSU | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| I am familiar with campus buildings, roadways, parking lots etc. | ○ | ○ | ○ | ○ |
| The university staff **is not** cooperative. | ○ | ○ | ○ | ○ |
| Student services like (i.e., tutoring services, career counseling etc.) are easy to access. | ○ | ○ | ○ | ○ |
| I **do not** read the O'Collegian every day. | ○ | ○ | ○ | ○ |
| I visit the Edmond Low Library once a week. | ○ | ○ | ○ | ○ |
| I meet with my advisor once a month. | ○ | ○ | ○ | ○ |
| I feel lonely in the residence halls. | ○ | ○ | ○ | ○ |
| I feel proud when OSU wins a sports game. | ○ | ○ | ○ | ○ |
| I purchased an annual sports pass for OSU games played on campus. | ○ | ○ | ○ | ○ |
| I **don't** feel that I belong to OSU | ○ | ○ | ○ | ○ |
| I wear OSU-embellished accessories often (i.e., T-Shirts, Pants, Caps, etc.). | ○ | ○ | ○ | ○ |
| I discuss issues regarding OSU with my family. | ○ | ○ | ○ | ○ |
| I **do not** like to spend weekends on campus. | ○ | ○ | ○ | ○ |
| I **don't think** I will graduate from OSU. | ○ | ○ | ○ | ○ |
| I am doing the right thing by attending OSU. | ○ | ○ | ○ | ○ |
| I **would not** recommend attending OSU to a friend or family member. | ○ | ○ | ○ | ○ |
| I understand OSU rules and regulations. | ○ | ○ | ○ | ○ |
| OSU meets my expectations for a university education. | ○ | ○ | ○ | ○ |
| Since coming to OSU, I have developed close personal relationships with other students. | ○ | ○ | ○ | ○ |
| My non-class contacts with faculty have had a positive influence on my personal growth. | ○ | ○ | ○ | ○ |
| I have performed academically as well as I hoped. | ○ | ○ | ○ | ○ |
| I **am not** satisfied with my academic experience at OSU. | ○ | ○ | ○ | ○ |
| My non-classroom contacts with faculty have had a positive influence on my career goals. | ○ | ○ | ○ | ○ |
| I wanted to be a part of the FIT program in the College of Ag. | ○ | ○ | ○ | ○ |

Go to next page ☞ 4

## Section F. Demographic Information

1. **Your age:**_____ **2. Gender:** Male ❑ Female ❑

3. **Your marital status:**
   - Never married ❑
   - Married ❑
   - Married, & separated ❑

4. **How far is your parent's home / your home from OSU, Stillwater?** _____ miles.

5. **I consider myself:**
   - White, non-Hispanic ❑
   - Hispanic ❑
   - Native American (American Indian) ❑
   - Black, African American ❑
   - Asian Pacific Islander ❑
   - Bi-racial ❑
   - Other (Please list): _____

6. **Did you enroll in any advanced placement (AP) credit at OSU?**
   Yes ❑ No ❑

6a. **If yes, which (list)** _____

7. **Is your family associated with agriculture?**
   Yes ❑ No ❑

7a. **If yes, How is your family associated with agriculture?:** _____

8. **Are you employed?**
   Yes ❑ No ❑

8a. **(If yes), do you work:**
   ❑ off campus ❑ oncampus

8b. **(If yes,) how many hours do you work every week?**
   _____ (numeric terms)?

9. **Please check the box that corresponds to your parent's educational level.**

*Father / Male Guardian*
- Grade school (K-8) ❑
- Some high school (9-12) ❑
- High school diploma or GED ❑
- Some College ❑
- Associates degree ❑
- Baccalaureate degree ❑
- Some graduate school ❑
- Masters degree (M.S., M.A., M.Ag.,) ❑
- Doctoral degree (Ph.D.or Ed.D.) ❑
- Vo-Tech/Career Tech ❑
- Other degree (Specify): _____

*Mother / Female Guardian*
- Grade school (K-8) ❑
- Some high school (9-12) ❑
- High school diploma or GED ❑
- Some College ❑
- Associates degree ❑
- Baccalaureate degree ❑
- Some graduate school ❑
- Masters degree (M.S., M.A., M.Ag.,) ❑
- Doctoral degree (Ph.D.or Ed.D.) ❑
- Vo-Tech/Career Tech ❑
- Other degree (Specify): _____

10. **Do you have an older brother or sister who attends college?**
    Yes ❑ No ❑

11. **Did you apply for financial aid to attend OSU?**
    Yes ❑ No ❑

12. **For how many years were you a member of the National FFA Organization in High School?**
    - 1 year ❑
    - 2 years ❑
    - 3 years ❑
    - 4 years ❑
    - I was not a member of FFA ❑

13. **I was a member of the 4-H association for:**
    - 1-2 years ❑
    - 2-3 years ❑
    - 3-4 years ❑
    - 4-5 years ❑
    - 5-6 years ❑
    - more than 6 years ❑
    - I was not a member of 4-H ❑

14. **What are your educational goals?**
    - Some College ❑
    - Associates degree ❑
    - Baccalaureate degree ❑
    - Some graduate school ❑
    - Masters degree (M.S., M.A., M.Ag.,) ❑
    - Doctoral degree (Ph.D.or Ed.D.) ❑
    - Doctor of Veterinary Medicine ❑
    - Other degree (Specify): _____

15. **Are you in the honors program?**
    Yes ❑ No ❑

16. **Are you in the USP program?**
    Yes ❑ No ❑

Go to next page ☞ 5

## Section G: *Please answer the following questions as directed*

*Check all that apply:*

1. **I decided to participate in the FIT program because:**

❑ Family members thought it was a good idea

❑ I thought it would help me do well in my classes

❑ I thought I would be able to make career contacts

❑ I thought I would be able to make friends through FIT

❑ I wanted to live in the new suite-style residence halls

❑ I thought FIT would help me in smooth transition from school to college life

❑ A former FIT student recommended FIT

❑ Just applied and got into it

❑ Other (Please specify): _____ _____

_____

*Answer the following questions:*

2. **How many small group meetings did you attend in (1,2,3, etc.)?**
   Fall 2001 _____ Spring 2002 _____
3. **How many times did you meet with your SAM outside the small group meetings for academic help in (1,2,3, etc.)?**
   Fall 2002 _____ Spring 2002 _____
4. **Do you approve of the changes in the expectations made from fall 2001 to spring 2002?**
   Yes ❑ No ❑
5. **Which changes did you like?**

_____ _____ _____

_____ _____ _____

6. **Which changes did you not like?**

_____ _____

_____ _____

## Section H: *Please mark the circle that best represents your experience at OSU*

| | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| • The minimum GPA requirement by FIT motivated me to earn higher grades | ○ | ○ | ○ | ○ |
| • The faculty discussions conducted in the residence halls motivated me to earn higher grades | ○ | ○ | ○ | ○ |
| • Small Group Meetings **did not** motivate me to earn higher grades | ○ | ○ | ○ | ○ |
| • Meetings with my SAM outside the Small Group Meetings encouraged me to earn higher grades | ○ | ○ | ○ | ○ |
| • My SAM **did not** help me to solve my academic problems | ○ | ○ | ○ | ○ |
| • My SAM helped me to solve my personal problems | ○ | ○ | ○ | ○ |
| • I enjoyed attending the faculty discussions | ○ | ○ | ○ | ○ |
| • Attending faculty discussions **did not** motivate me to stay in college | ○ | ○ | ○ | ○ |
| • FIT social activities helped me to stay in college | ○ | ○ | ○ | ○ |
| • It was **not** possible to meet the FIT expectations of Fall 2001 without negatively affecting my grades | ○ | ○ | ○ | ○ |
| • The FIT expectations of Spring 2002 can be met without much effort | ○ | ○ | ○ | ○ |
| • The FIT program has encouraged me to stay in CASNR | ○ | ○ | ○ | ○ |
| • The FIT program **did not** meet my expectations of a residential learning program | ○ | ○ | ○ | ○ |

Go to next page ☞ 6

**Section I:** ***For the following question, mark the appropriate box if you recommend retaining or dropping a particular FIT expectation. If you want to suggest some changes, write in the last column in the space provided:***

| Requirements | Keep | Drop | Changes Recommended |
|---|---|---|---|
| Minimum GPA requirement of 2.5 | ❑ | ❑ | |
| Allied Arts | ❑ | ❑ | |
| Career Development Activities | ❑ | ❑ | |
| College & University Clubs & Associations | ❑ | ❑ | |
| Community Service Activities | ❑ | ❑ | |
| Faculty Interactions | ❑ | ❑ | |
| General University Educational Activities | ❑ | ❑ | |
| Intramural Sports Events | ❑ | ❑ | |
| Leadership Activities | ❑ | ❑ | |
| Social Activities | ❑ | ❑ | |
| Wellness Activities | ❑ | ❑ | |

**Comments:** _____

Stop • Thank you for your participation **7**

# APPENDIX G

## QUESTIONS FOR INTERVIEW WITH FIT STUDENTS

# QUESTIONS FOR INTERVIEW WITH FIT STUDENTS

## General Information about FIT

1. What is your impression about the FIT program so far?
2. How has FIT benefited you this year?
3. Has FIT harmed you in any way?
4. Why did you decide to enroll in the FIT program?

## Expectations of the FIT Program

1. Do you think the expectations of the FIT program are reasonable?
2. Would you like to change any of the expectations?
3. How do you feel about the changes in the expectations from the fall to the spring semester?
4. Is it possible to finish these expectations without affecting your grades or education?

## Leadership

1. What do you think are the qualities that define a good leader?
2. Tell me about the leadership activities that you participated in the FIT program.
3. Did the FIT program help you get more involved in activities on campus?
4. Did the FIT program help you improve upon tasks and projects, good communication skills, good planning, conviction, group consciousness, etc.

## Academic Success

1. How would you define academic success? (GPA, understanding of the subject matter, motivation to study more, having effective study habits, etc.).
2. Did the FIT program help you academically?
    a. How?
    b. Did it help you get better grades?
    c. Helped you in understanding your subjects or topics better?
    d. Motivated you to study more?
    e. Anything else where it helped you academically?

## Tutoring Sessions

1. Were the tutorial services offered by the FIT program effective?
2. Do you feel they are adequate?
3. Should their nature or location be changed?
4. Do you attend the tutorials outside of Zink Hall? (Places such as Math & Science Lab, or the Writing Center).
5. Did the tutorial services help you improve your grades, or understand your subject topics better?

6. Do you think it is a waste of time to attend them?

Faculty Discussions

1. What is your impression of the faculty discussions?
2. What did you gain by attending them?
3. Did they help you feel more comfortable meeting with other teachers in the college and outside CASNR?
4. Did they motivate you or encourage you to get higher grades?
5. Did they motivate you to continue studies in college?

Allied Arts Activities

1. What are your impressions about the allied arts events?
2. Did they help you? How?
3. Did you enjoy attending them?

SGA Meetings

1. Did you enjoy attending the SGA meetings and the RHA meetings?
2. Did they help you? How?

FIT Socials

1. Do you like to attend the FIT social activities? Why?

SAMS

1. What is your impression of the small group meetings?
2. Do you think your small group meetings are constructive and useful? Why?
3. Do you think the small group meetings are a waste of time? Why?
4. Are you happy with the way the meetings are conducted?
5. How is your relationship with your SAM?
6. Do you approach your SAM for academic or personal help?
7. Are you happy with your SAM? Why?

FIT Coordinators

1. Describe your interaction with the FIT Coordinators.

Camp Cowboy

1. Do you attend camp cowboy program?
2. Did you like it?
3. How did the camp affect you?

Retention

1. Have you ever thought about dropping out of OSU or CASNR? Why?
2. Did the FIT program have anything to do with it?
3. Did the FIT program encourage or discourage you from leaving or staying in college?
4. Have you ever thought about changing your major? Why?
5. Did the FIT program have anything to do with it?
6. Have you ever thought about changing your major? Why?
7. Did the FIT program have anything to do with it?

Institutional Loyalty

1. Do you feel loyal to CASNR/OSU?
2. Have you bought an annual pass for sports events on campus?
3. Do you like to wear OSU embellished clothes and accessories?
4. Did the FIT program help you to feel more loyal to the university and college?

FIT Final Thoughts

1. Has the FIT program changed you? How?
2. If there is any one thing about FIT which you would want to change, what would it be?
3. Is there anything else you would like to say or add about the program?

VITA

Alan Josin D'souza

Candidate for the Degree of

DOCTOR OF PHILOSOPHY

Thesis: AN EVALUATION OF A RESIDENTIAL LEARNING COMMUNITY USING TINTO'S MODEL OF INSTITUTIONAL DEPARTURE

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Vengurla, Maharashtra, August 29, 1972, the son of Josin Simon D'souza and Stella Josin D'souza.

Education: Graduated from Fatima High School, Vidyavihar, Mumbai, India in June 1987, and Junior College from Ramniranjan Jhunjhunwala (R.J.) College, Ghatkopar, Mumbai, India, in June 1989. Attended R.J. College and earned a Bachelors degree in Arts in English in July 1992. Earned a Masters degree in English from Mumbai University in July 1994. Earned a Bachelors in Education in June 1997, and a Masters degree in Education in August 2000 from Mumbai University, Mumbai, India. Completed the requirements for the Doctor of Philosophy degree with a major in Agricultural Education at Oklahoma State University in August 2003.

Professional Experience: Lecturer in English, R.D. National College, Bandra, Mumbai, India, 1994-1995; Lecturer in English, Kirti M. Doongursee College, Dadar, Mumbai, India, 1995-1998; Lecturer in English, R. J. College, Ghatkopar, Mumbai, India, 1998-2000; Teaching Associate, Dept. of English, Oklahoma State University, Stillwater, OK 74078, U.S.A.,2000-2001; Research Associate, College of Agricultural Sciences and Natural Resources, Oklahoma State University, Stillwater, OK 74078, U.S.A., 2001-2003.

Professional Organizations: American Association for Agricultural Education, Life Member, Asiatic Society of Mumbai, India, & Life Member, Indo-American Center for International Studies.