

AN ABSTRACT OF THE THESIS OF

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In the process of adjusting to a new institutional environment, transfer students will often experience difficulties and these difficulties may limit their academic potential. Can an institution create a formal process which can help the transfer student adjust to the institutional environment? This study is an examination of a program--an extended transfer student orientation course modeled after the freshman extended orientation course which was developed at the University of South Carolina. Grade Point Average (GPA) was used to study the effects of the course on academic achievement (academic integration as measured by GPA, retention and graduation rates).

This experimental study was conducted at Oregon State University, a northwestern land-grant institution. The study was conducted with two groups of newly-admitted transfer students. The experimental group (N=80) consisted of those self-selected transfer students enrolled in the extended transfer student orien-

tation course, while the comparison group (N=80) consisted of transfer students, picked at random, who were not enrolled in the course. The two groups were studied after the Fall 1988 extended transfer student orientation course.

The demographic data revealed that a majority of the students transferred from in-state institutions, tended to enter from two-year institutions and four-year institutions. This study showed no evidence that the extended transfer student orientation course had an effect on academic achievement.

A Study of the Effects of an
Extended Transfer Student Orientation Course
on Transfer Student Academic Achievement

by

William Howard Thomas

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**A STUDY OF THE EFFECTS OF AN EXTENDED TRANSFER STUDENT
ORIENTATION COURSE ON TRANSFER STUDENT ACADEMIC ACHIEVEMENT**

**CHAPTER I
INTRODUCTION**

Students today are challenging the previous assumption that individuals enter college as freshmen and remain at one institution until obtaining a degree. The pattern of student matriculation in higher education has become less predictable, as many students transfer from two-year institutions to four-year institutions and from four-year institutions to different four-year institutions. Students move among institutions to find a specific program, to fit into a supportive environment, or to pursue upper-division courses.

According to Sheldon and Grafton (1982) the transfer student population is becoming an increasingly diverse and complex group. Research on transfer students has been limited because of vast inconsistencies in defining transfer students. There is no national association or clearinghouse which acts as an advocate for transfer students. The information that is known comes from institutional or state studies which have largely focused on community college transfer students. Higher education does not have a complete picture of transfers; however, one will find that some trends are apparent.

There are several unique problems faced by transfer students which have been shown to restrict their success:

1. When two-year and four-year students transfer, they commonly experience a drop in grades--an average of half a grade point in the first term (Lenning, 1977; Cross, 1981; Sheldon, 1982; Payne, Ridenour and Wood, 1988).
2. While many transfer students gradually recover from this low point, this early difficulty may limit their admission to competitive programs where native students (those who enter as freshmen) have a decided edge in cumulative grades (Lunneborg and Lunneborg, 1976; Desler, 1986; Johnson, 1987).
3. Two-year transfer students have uneven educational attendance patterns, they exhibit a lack of direction as to educational goals and they lack educational motivation (Cross, 1981; Lunneborg and Lunneborg, 1976).
4. The expectations of transfer students for the experiences they have in college and the resulting outcomes have been found to be unrealistic and exaggerated (Buckley, 1971).
5. The pre-entry characteristics that kept the two-year transfer students from direct entry to the university from high school may still interfere with upper-

division performance, and this may place them at a disadvantage in the new environment (Cross, 1981; Sheldon, 1982; Transfer Education, 1984).

The attrition rates of transfer students could be attributed to many of the same factors that limit the success of some entering freshmen (Johnson, 1987). It was suggested by Riesman (1981) that transfer students have the common experience of being freshmen twice.

According to Knoell and Medsker (1964), transfer students were commonly overlooked when four-year institutions planned orientation programs, offered counseling services to new students, provided adequate and appropriate advising at the first registration and invited student participation in social and extracurricular activities. There was a general lack of concern for the needs and interests of the transfer students.

Four-year institutions have gradually come to realize that some two-year and four-year transfer students have a difficult time succeeding in the four-year institutional environment.

Before adequate programs can be established to provide services for transfer students, the senior institutions must gather information on the characteristics of their transfer groups. They need to know how many students transfer annually, how old they are, at what class levels they are admitted, from what colleges they transferred, their sex and their interests.

One formal process that is increasingly being used to enhance student success is the extended orientation course; however, the course has usually focused on freshman populations. The extended orientation course has rarely been evaluated within a theoretical framework and, thus, its value in altering specific success variables remains dubious. There is a need to know whether an extended orientation course can affect success variables for transfer students.

According to Rice and Thomas (1989), studies conducted on extended orientation courses rarely address their effect upon the specific factors involved in student success, and such studies frequently have not been theoretically based.

Statement of the Problem

Transfer students experience considerable difficulties in the new institutional environment. The central problem is whether or not institutions can create a formal process which can ameliorate deficiencies within success factors for transfer students. One formal process, which usually focuses on freshman populations and is increasingly being used to enhance transfer student success, is the extended transfer student orientation course. The extended transfer student orientation course has rarely been evaluated within a theoretical framework; its value in altering speci-

fic success variables (academic achievement) remains dubious. It is unknown whether or not the extended transfer student orientation course can have an effect on academic achievement for transfer students.

The purpose of this study is to determine whether or not a significant difference exists between the experimental group (N=80) consisting of those self-selected transfer students enrolled in the extended transfer students orientation course at Oregon State University and the comparison group (N=80) consisting of transfer students, picked at random, who were not enrolled in the course, with respect to academic achievement (academic integration as measured by GPA, retention and graduation rates). If differences exist, what are the nature and extent of the differences?

Study Purpose

The purpose of this study is to measure the effect of an extended orientation course on two-year and four-year transfer students to determine if such a course can positively enhance transfer student academic achievement at Oregon State University, and to collect descriptive data on the institution's transfer student population.

Objectives

1. To determine the effect of an extended orientation course on variables associated with student academic achievement.
2. This study will describe some of the basic demographics of the transfer student population at the studied institution.

Research Questions

1. Does participation in the course affect transfer student academic integration as measured by the three indicators of academic achievement (GPA, retention and graduation rate)?
 - a. Do transfer students traditionally show declines in Grade Point Average during their first term after entering Oregon State University?
 - b. Following this drop, do the transfer students' Grade Point Averages gradually increase?
 - c. What are the effects of transfer orientation classes upon transfer student GPA?
 - d. What are the effects of transfer orientation classes upon transfer student retention?

- e. What are the effects of transfer orientation classes upon transfer student graduation rates?

Limitations of the Study

Within the transfer student orientation course structure are factors which limit the ability to generalize the findings of this study:

1. Students in the experimental group (those enrolled in the Transfer Student Orientation Course) were self-selected. These students' characteristics and motivations may be different from those of students not enrolled in the course (the comparison group).
2. Students in the comparison group (those not enrolled in the Transfer Student Orientation Course) were randomly selected in late August 1988, prior to the Fall term starting date in late September. The late enrollees were excluded, and their characteristics and motivations may differ from those of early enrollees.
3. Oregon State University, a land-grant school, may enroll a student population not comparable to those at liberal arts colleges or urban institutions previously used as transfer student study sites.

4. The content of the Transfer Student Orientation Course focused primarily on a developmental approach and was limited to 20 contact hours.
5. The effects of the experimental treatment on academic achievement will be assessed after one term.
6. A small number of the transfer students in the experimental group were at-risk transfer students; the study had no control because the students were self-selected. A small number of the transfer students in the comparison group were at-risk transfer students; the study had no control because the students were picked at random from a selected group, using a system of match and random selection.

Definition of Terms

In order to attain precision and clarity of meaning, the following definitions will be used:

Academic Achievement: Academic integration as measured by GPA, retention and graduation rates.

Academic Integration: The extent to which a transfer student meets the academic demands of the four-year institution

through intellectual growth, grade performance and faculty relationships.

Commitment: The degree the transfer student is committed to goal attainment (graduation) and to the institution.

Community College: A public two-year institution offering lower-division credits in which the associate degree is the highest degree (Cohen and Brawer, 1982).

Extended Orientation Course: A program designed to promote student success by attempting to foster social and academic integration in small group seminar format. The extended orientation course was developed by John Gardner at the University of South Carolina.

Fit: Moral and social interaction, meaningful contact between the student and the faculty, development of relationships between students and those who care about them and the responsiveness of the institutions to the needs the students feel (Lenning, Beal, and Sauer, 1980, p. 21).

Grade Point Average: A measure of scholastic performance over a set of courses, obtained by dividing the sum of the grade points earned by the total number of hours of course work attempted in the set for which GPA is assigned.

Institutional Experience: Opportunities for transfer students to interact with academic and social systems on the four-year campus in both formal and informal situations.

Intentions or Goals: Level and type of education and occupation desired by the transfer student.

Native Student: A college student who began post-secondary education at a four-year college or university and persisted at the same institution. Native student is a term used at Oregon State University by the Office of the Registrar.

Personal Goals: The level of importance attributed by the transfer student to life tasks of family, self and career.

Pre-Entry Attributes: Family background, personal attributes, skills, value orientation, and pre-college educational experience and achievements that students bring with them to the college environment.

Social Integration: The frequency and quality of interaction with extracurricular activities, peer groups, as well as the kind and compatibility of transfer student peer group lifestyle and values.

Stop-outs: Students who interrupt their educational programs for other than academic reasons.

Transfer Students: Individuals who move between post-secondary institutions that include two-year colleges and four-year colleges.

CHAPTER II

REVIEW OF LITERATURE

The review of literature focuses on six areas: transfer students, adjustment difficulties encountered by transfer students, programming for transfer students, a general summary of the SRC item differences among the groups, an analysis of the academic performance of the orientation-related groups and survey of related literature.

Transfer Students

Transfer students are an integral part of higher education. They have been present in American colleges since the colonial period (Brubacher and Rudy, 1976). Their number is uncertain, but it is estimated that 42 percent of the nation's 12.3 million students leave their first institution for another (U.S. Dept. of Education, 1977). According to the Oregon State University Office of the Registrar (1990), Fall 1990 Oregon State University transfer student population was 3,519, which was 22 percent of total enrollment.

The transfer population can be described comprising at least five separate groups. They include:

1. Articulated vertical transfers who move in regular sequence from high school to community college to university.
2. Lateral transfers who move from one senior institution to another.
3. International transfers who transfer from a foreign institution.
4. Willingham (1974) categorized three of these groups. They include:
 - a. Articulated transfers: Students who move from a two-year college into the upper division of a four-year college program.
 - b. Traditional horizontal transfers: Students who move from one four-year college to another because of family migration, changes in educational plans, dissatisfaction or financial constraints.
 - c. Non-traditional transfers: Students who do not follow the usual patterns, including adults who have been out of college for some years.
5. Lee (1982) included reverse transfers: Students who leave a four-year college to attend a two-year college.

Hall (1992) observed that the Department of Education statistics show that more than 5.5 million students attended two-

year colleges full-time last year (1991), an increase of 103 percent during the last decade. Four-year schools posted only a 33 percent rise in the same period. Because of the current state of the economy, students are finding education a bargain at these smaller schools. Because of the larger populations at two-year colleges, there will be larger numbers of transfer students to four-year schools (see Table 1).

TABLE 1

Two- and Four-year College Enrollment

Year	Two-year	Four-year
1970	2.319	6.262
1975	3.970	7.215
1980	4.526	7.571
1985	4.531	7.716
1990	5.181	8.529
1995 *	5.597	8.580

* projected

Values are in millions

Source: U.S. Department of Education 1992

Adjustment Difficulties Encountered by Transfer Students

A review of the literature concerned with the transfer students' academic achievement at two-year and four-year institutions showed that many investigations have been conducted in this area. The following review of literature will focus on academic problems of transfer students, retention difficulties of transfer students and transfer students' needs.

Academic Problems of Transfer Students

During Fall 1984 Anderson and Polillo (1987) conducted a study to compare the academic progress of 835 two-year college transfers, senior college transfers and continuing juniors (native) at University of Illinois at Chicago (UIC), as measured by mean Grade Point Average (GPA), academic status and continued enrollment consistently through two years after transfer. Study findings (based on data of two-year college transfers, 540 four-year college transfers and 4,588 native students) included the following:

- 1) Two years after transfer, approximately 38 percent of the two-year college transfers and 39 percent of the four-year college transfers had graduated, as had 58 percent of the native juniors.

- 2) Two- and four-year college transfer students had similar pre-transfer GPA's (3.28 and 3.20, respectively), while native juniors had an accumulated lower-division GPA of 2.98.
- 3) Both two- and four-year college transfer groups experienced a first-term drop in mean GPA, with the two-year group dropping .61 and the four-year group dropping .32.
- 4) In the fourth semester of study, the two-year college transfers still enrolled had achieved a mean GPA of 2.93, while the four-year college transfers and native students had achieved GPA's of 3.04 and 3.05, respectively. The four-year college transfers and native students show a .06 and .07 difference, compared to the two-year college transfers.
- 5) Two years after transfer, eight percent of the two-year college group and four percent of the four-year college group had dropped out and had not re-enrolled.
- 6) Native juniors, four-year college transfers and two-year college transfers ranked in descending order, respectively, on mean GPA in almost all of the 12 subject areas studied during the two-year period.

Anderson and Polillo (1988) conducted a study during Fall 1985 to compare the academic progress of two-year college transfers, senior college transfers and continuing sophomores and juniors (native students) at the University of Illinois at Chicago (UIC), as measured by mean Grade Point Average (GPA), academic status, graduation, and continued enrollment through two years after transfer. Study findings (based on data on 1,445 two-year college transfers, 1,201 transfers from senior colleges and 1,331 native students) included the following:

- 1) In 1986, 43 percent of the transfer students and 80 percent of the native students were continuing on clear or probationary status or had graduated from UIC.
- 2) Six percent of the two-year college transfers and 10 percent of the senior college transfers graduated within two years after entering UIC.
- 3) The two-year college transfers entered UIC with a mean pre-transfer GPA of 3.87, compared to mean GPA's of 3.67 for the senior college transfers and 3.66 for the native students.
- 4) Both two- and four-year college transfers experienced reduction in GPA after their first term at UIC, and the two-year college group never recovered their pre-transfer GPA.

- 5) By the end of the second year after transfer, 29 percent of the two-year college transfers and 22 percent of the senior college transfers had been dropped or left while on probation.

Buckley (1971) and Donato (1973) state that two-year transfer students' expectations of the four-year college prior to matriculation were exaggerated and incongruent with the actual intellectual and non-intellectual climate, thus requiring considerable adjustment on the part of the students.

Retention Difficulties of Transfer Students

Graham (1987) describes a study which contrasted the persistence rates of two-year college transfer students with those of native university students over a six-year period. Graham indicates that transfer students had lower persistence rates than native students during their second and third terms, although rates for the fourth term showed no differences.

Pascarella (1982) covered background characteristics (including family background, individual attributes and pre-college characteristics) which interact with each other and are expected to influence both goal commitment (graduation) and institutional commitment. In the academic system, goal commitment leads to higher grade performance and intellectual development,

which leads to academic integration and, in turn - in circular fashion, results in even greater goal commitment. Goal commitment reduces the probability of dropping out. In the social system, institutional commitment is expected to produce peer group and faculty interaction, which leads to social integrations and, in turn, increases institutional commitment, which is also expected to reduce the probability of dropping out.

Beginning in the early 1960's, attrition researchers began to apply theory to their work, namely the "college/fit" theory popularized by Pace and Stern (1958). The "college/fit" theory, simply put, is that the more congruence there is between the student's values, goals and attitudes and those of the college, the more likely it is the student will persist at that college.

Astin (1964), testing the validity of the "college/fit" theory in attrition research, concluded that students are likely to select a college that corresponds with personal characteristics. Barger and Hall (1964) compared 916 dropouts to 2,744 non-dropouts at the University of Florida and concluded that in order for students to actualize their ability more adequately may entail a better matching of students with college enrollments. Feldman and Newcomb (1969), in their comprehensive effort The Impact of College on Students, concluded that the congruence between the needs, interests and abilities of the student and the demands, rewards, and constraints of the particular college setting explained retention.

Holland (1973) developed his theory of vocational choice, which was similar in concept and construct to Stern's theory of "college/fit." Holland theorized that people's vocational and college major choices are expressions of their personalities.

Chickering (1974) investigated the "college/fit" theory through the study of students' living arrangements. He concluded that retention was increased by living on campus, especially by living in fraternity houses; next to fraternities, dormitories offered the most supportive environments. Cope and Hannah (1975), in Revolving College Doors, concluded that dropping out is an interaction between an individual and an institution. Astin (1975A), in Preventing Students from Dropping Out, found that in general persistence is enhanced if the student attends an institution in which the social background of other students resemble his or her own social background.

Spady (1970) developed the first full-blown theoretical model for studying the attrition process. Spady combined the ideas of Stern's "college/fit" theory with those of Durkhiem's (1961) suicide theory. Durkhiem observed that suicide is more likely to occur when individuals are not sufficiently integrated into the fabric of society. His idea, borrowed by Spady, was that shared group values and friendship support are expected to reduce suicide and, by analogy, increase retention.

Spady, using this theory, developed an explanatory sociological model of the dropout process. He first identified back-

ground characteristics that are important to the retention process; specifically family background, academic potential, ability and SES. Next, from Durkhiem, he identified normative congruence and friendship support as important variables. He then added the college-specific variables of grade performance and intellectual development. All of these factors, according to Spady's Model, lead to social integration, which is expected to increase student satisfaction, commitment and retention (Spady, 1970).

The model, as proposed by Spady, accommodates complex interactions among students' abilities, attitudes, expectations, dispositions, habits and interests and the expectations and demands of fellow students, faculty, administrators and the curriculum. According to Spady (1970), if discrepancies between the student and the environment are not too great, the student should be assimilated and accepted into the academic and social systems, and this should increase the chance of student retention at the institution.

The structure of the model (see Figure 1) consists of five independent variables, four of which (normative congruence, friendship support, intellectual development and grade performance) influence the fifth, social integration. The link between social integration and dropping out is indirect. Intervening are two variables that flow from the integration process: satisfaction with one's college experiences and a commitment to a social

system. Spady added these two variables on the assumption that one's satisfaction with the college experience depends upon the available social, as well as academic, rewards; and that sustaining one's commitment to the college requires both a sense of integration into the system and a sufficient number of positive rewards (Spady, 1970).

Tinto (1975) developed a model of attrition and empirical studies. Tinto's theoretical model, diagrammed in Figure 2, argues that the process of dropping out from college can be viewed as a longitudinal process of interactions between the individual and the academic and social systems of the college during which a person's experiences in those systems (as measured by his normative and structural integration) continually modify his goal and institutional commitment in ways which lead to persistence and/or various forms of dropout. According to Tinto's model, the academic system is divided into informal and formal components. According to Tinto, the formal element is the academic performance of the student -- grades and intellectual growth being the primary measures. The informal component is the frequency and quality of faculty-student interactions in and out of the classroom (see Figures 2 and 3).

According to Tinto's (1975) model, the social system also has formal and informal components. The extracurricular acti-

vities and social functions organized by the institution comprise the formal elements. The informal interactions with peer groups in daily living situations, study groups and personal needs are measured by the congruence of values and goals, the ease of making friends and the support of other students (see Figures 2 and 3).

Figure 1.

Model of the Undergraduate Dropout Process
(Spady, 1970)

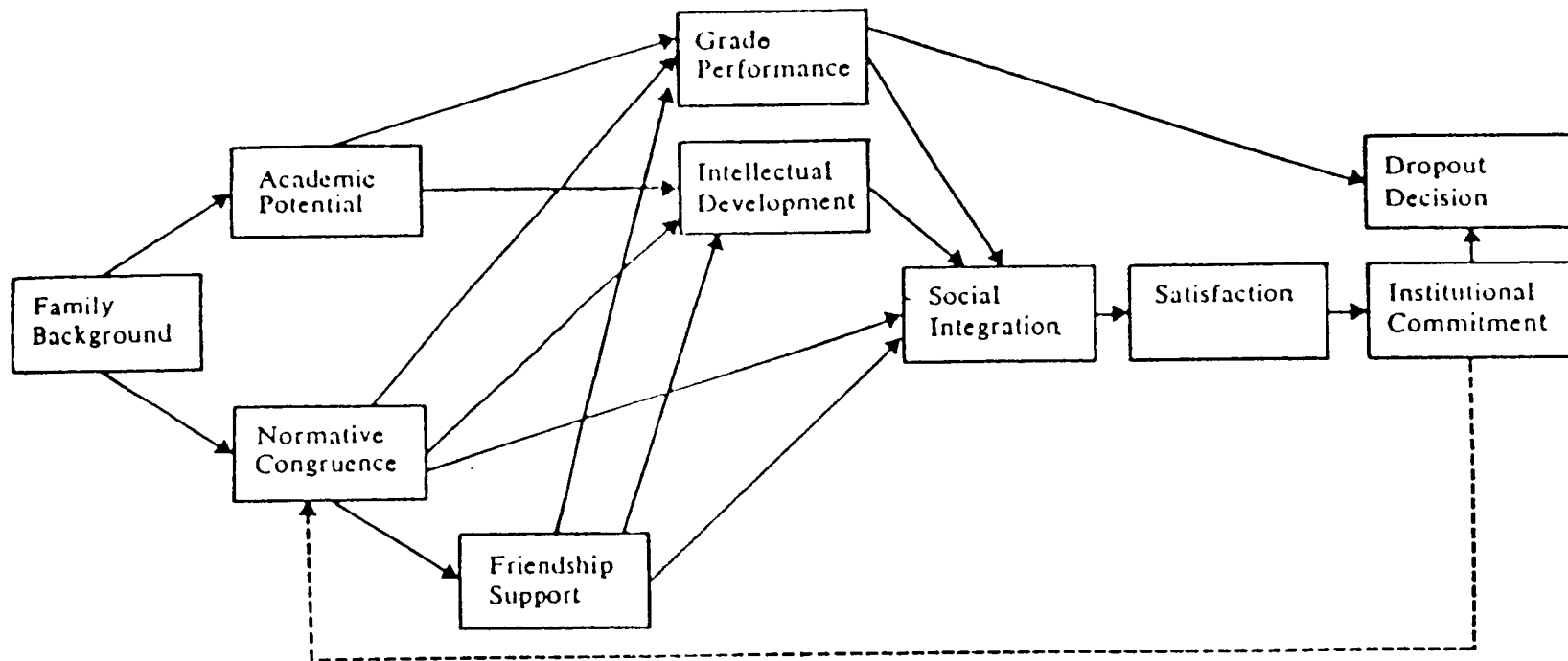


Figure 2.

A Conceptual Schema for Dropout from College
(Tinto, 1975)

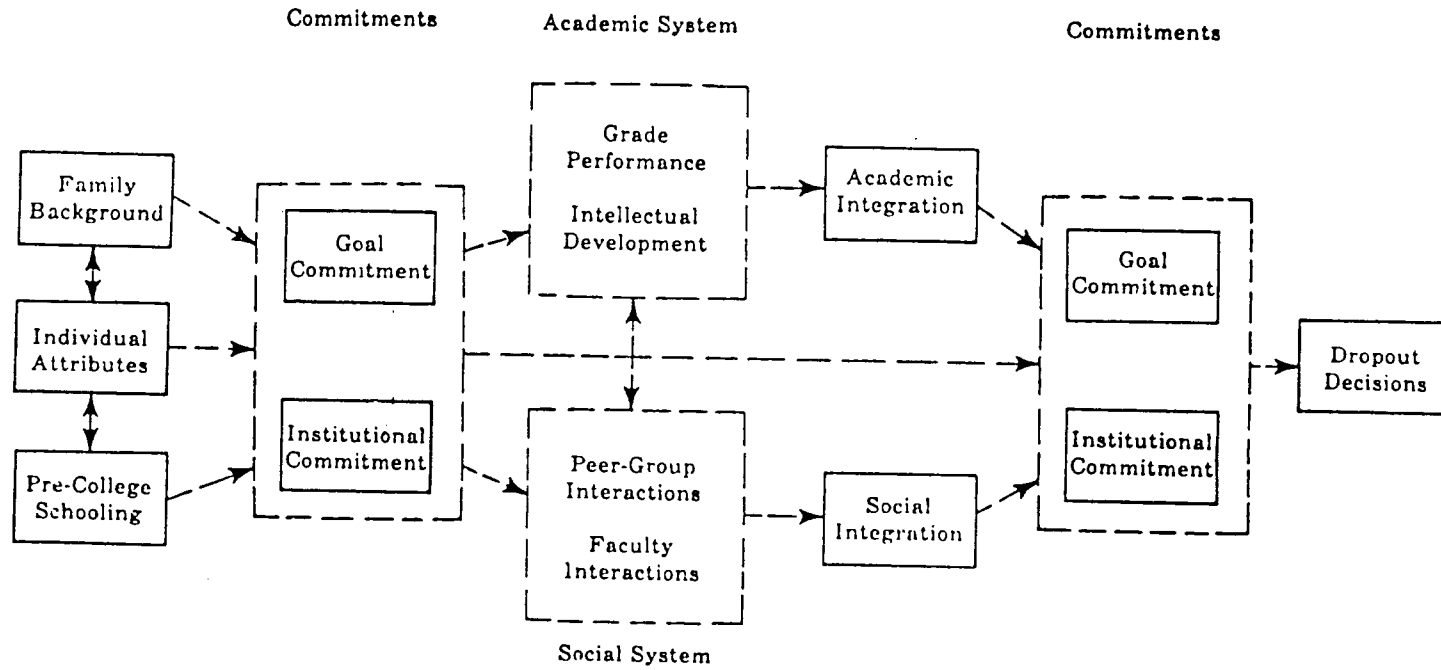
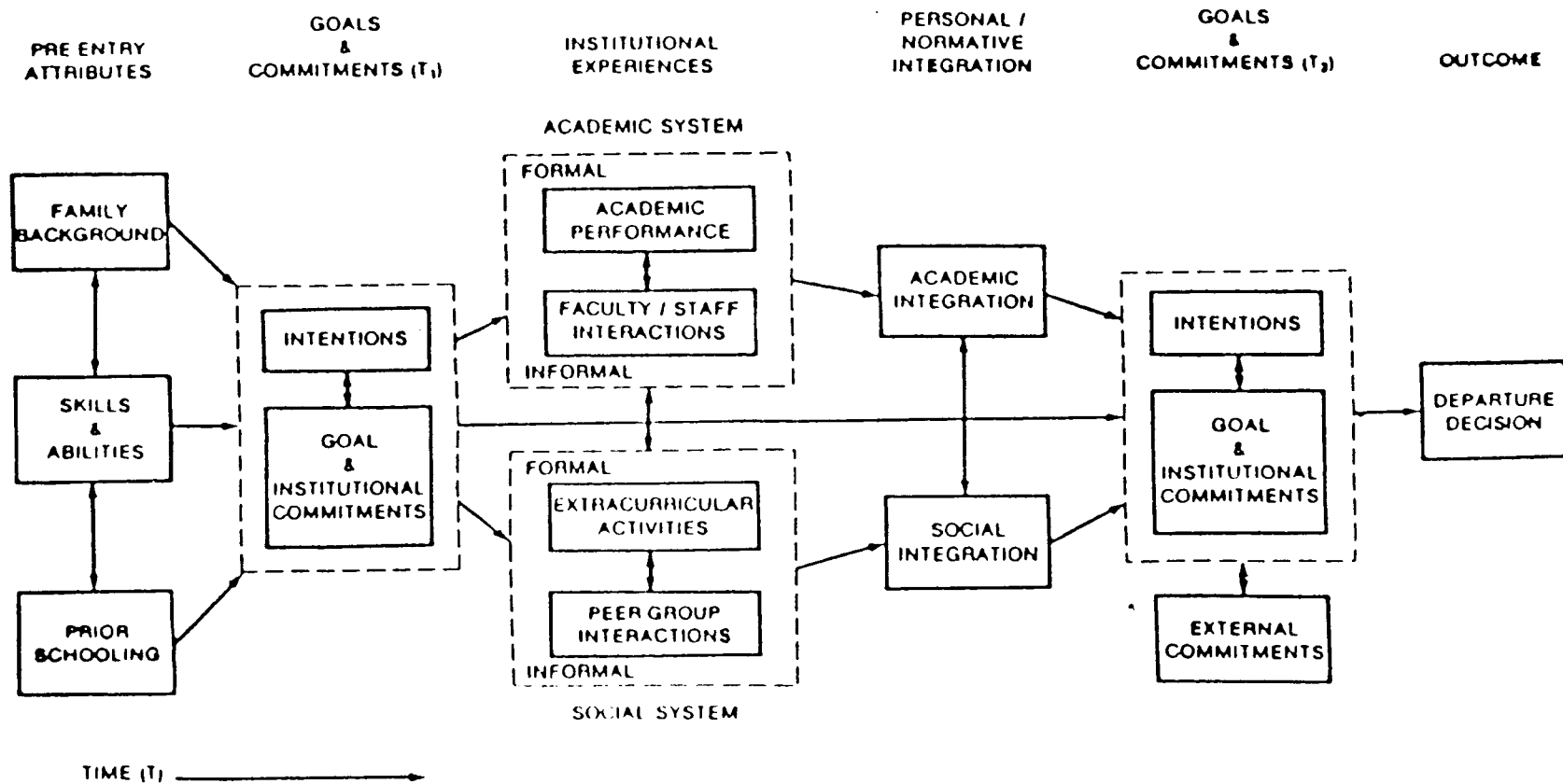


Figure 3.

A Model of Student Departure
(Tinto, 1987)



Terenzini and Pascarella's (1978) test of Tinto's model was a cross-sectional study using a sample of 378 students (representing a 76 percent response rate). Employing discriminant analysis they were able to explain 24.6 percent of the variance in the model. Social and academic integration were found to be influential in the attrition process, with social integration being the most important. Overall, the results supported the validity of the model.

In their test of the model, Terenzini and Pascarella (1980) found evidence that faculty contact played a more significant role in the attrition process than Tinto had asserted. In order to examine this role further, Pascarella and Terenzini (1979A & B), in a longitudinal study of 536 freshmen (representing a 53 percent response rate), employed discriminant analysis to investigate the pattern of relationships between different types of student-faculty interactions beyond the classroom and persistence during the freshman year. Evidence was found to support the aspect of Tinto's model, which asserts that informal student-faculty contact along six dimensions was found to discriminate between those students who voluntarily withdrew and those who persisted. These dimensions were defined by the following:

- 1) to get basic information and advice about academic programs;
- 2) to discuss matters related to future careers;
- 3) to help resolve a disturbing personal problem;

- 4) to discuss intellectual or course-related matters;
- 5) to discuss a campus issue or problem; and
- 6) to socialize informally.

The dimensions of discussing intellectual and course matters and discussing career concerns contributed most to discrimination.

Munro (1981) used path analysis to test Tinto's model with a sample of 6,018 drawn from the National Longitudinal Study of the high school class of 1972. The study covered a period of four years. It did not differentiate between transfers and permanent dropouts. The results did support the validity of Tinto's model. Fourteen percent of the variance in dropout behavior was accounted for.

Heilbrun (1964) found that dropouts expressed a lower need for achievement. Robinson (1967) suggested that dropouts were more dependent and less able to manage things on their own. Cope and Hannah (1975) concluded that there was definitely no dropout personality.

Background traits were found to have only an indirect effect on persistence. Academic integration had a strong effect on persistence, but social integration had little effect. Goal commitment was found to have the strongest effect on persistence.

Demitroff (1974) found that stop-outs and dropouts lacked clear career or personal goals. Johnson (1987) found that a strong relationship existed between transfer students' intention to remain in college and actual persistence.

Transfer Students' Needs

Studies of student satisfaction have continued in a best-guess-at-the-moment approach. In these descriptive studies, satisfaction has been defined in various ways. For example, Aitken (1982) and Babbitt and Burbach (1985) take the term to mean student acceptance of academic programs and living conditions. Bean and Metzner (1985) have described satisfaction as "the degree to which a student enjoys the role of being a student and reports a lack of boredom with college courses." Nafziger, Holland and Gottfredson (1975) defined a satisfied student as one who is a "typical student at his/her college and (has) a personality pattern which is both consistent and well defined." Astin (1974, 1978), after examining overall student satisfaction in a national sample of university students from 194 institutions, concluded that their overall satisfaction could be measured. Astin also identified specific facets of satisfaction that could be measured, including teaching, curriculum, facilities, career preparation, extracurricular activities and administrative services. He found that little variance in student satisfaction could be accounted for by entering characteristics, institutional characteristics and measure of student involvement (1974). The following aspects, according to Astin, did have substantial effects of satisfaction:

1. Quality of instruction.
2. Contacts with faculty and fellow students (e.g.,

Pascarella (1980) has suggested that faculty and peer contacts has the greatest positive effect and adds significantly to overall satisfaction).

3. Intellectual environment.

McKeachie (1979) observed that "teachers may be differentially effective for different students" (p. 360). Palmer, Carlinger and Romen (1978), in generalizing the results of their study, drew attention to the fact that "the results might be different for two different departments, for students taking an upper-level course, for different types of students or for instructors at different universities" (p. 862). It may be reasonable to ask if different teaching styles have different effects on different groups of students. Chickering (1969) and Spady (1970) found that student-faculty informal interaction has a direct influence on academic performance.

Handel (1984) compared attitudes, perceptions and experiences of 366 transfer and 1,516 non-transfer students, using the Student Transfer Questionnaire. Results showed that loss of credits is perceived as the most important problem in transferring to students least familiar with the system. Handel suggested a need for more information and advising for potential transfer students.

Roelf (1975) states that when a transfer student enters a four-year college beyond the freshman year or stops out of college

for a period of time, the transfer student usually falls into the older-than-average category and will have a different set of needs, responsibilities and motives than younger counterparts. Lewin (1935) theorized that a person's feelings, actions and perceptions grow out of his/her environment. Murray (1938) theorized that an individual has a transactional relationship with his/her environment.

Spady (1970) theorized that students who did not integrate easily into the social and academic realms of their institution's environment would be more likely to drop out. Spady's study shows that the transfer student does have a difficult time meeting social needs at the four-year college.

Programming for Transfer Students

In the past, the connections between the theoretical framework regarding students' successful matriculation and student performance have not been strong. This has been particularly true for the two-year and four-year transfer students.

Orientation for Transfer Students

An orientation is a comprehensive program to provide substantial documentation for new transfer students to acquaint them with programs and services, to support their studies and to help them succeed in their adjustment to the four-year college work and life.

According to Beck (1980); Wilkie and Kuckuck (1989); and Witten (1970), their studies of various orientation programs have shown that orientations increase participants' self-concept and values. According to Copeland (1986) and Dempsey (1986), research revealed that the University of Puget Sound, Arizona Community Colleges, LaGuardia Community College, Cuyahoga Community College and Sacramento Community College are examples of colleges which have determined student needs and created orientation programs designed to retain students and increase transfer success at four-year schools.

Nelson (1966) stated that transfer students often found it difficult to become involved in student activity programs at the senior college, even though they had participated successfully at the two-year college. He recommended that senior colleges minimize articulation difficulties by providing orientation induction programs reflecting the interests and problems of the entering two-year college transfer students and by early assignment of advisors.

Extended Orientation Programs

Kramer and Washburn (1983) examined the perceived orientation needs of college freshmen and transfer students (N=527) and whether these needs were met or unmet. Results showed that new students, both before and after orientation, saw academic and career planning as the primary objective of an orientation program. Uperagt and Gardner (1989) state that the positive factor of the extended orientation course has been a welcoming environment for transfer students at the four-year institution.

Swain and Degus (1988) conducted a two-year study at Monroe Community College (MCC) in Rochester, New York, to assess the need for and define the objectives of an expanded orientation program, to determine the components of such a program and how these components would be integrated with other student development services and to propose and design a program for future implementation. Findings of the study resulted in the development of an orientation plan which underscores institutional commitment to the program, outlines goals and objectives, proposes a design for orientation sessions and an orientation course and considers organizational, staffing and funding considerations.

Palmer (1986) conducted a study whose objective was to smooth the flow of students from two-year colleges to baccalaureate-granting institutions. Focusing on more than transfer of course credits, these efforts have involved multi-dimensional

programs which identify and assist potential transfer students. The result was a stronger transfer function, represented by an attempt to place the two-year college more securely in the educational mainstream of student flow from high school through the baccalaureate.

According to Angel and Bannena (1991), the Transfer Opportunities Program (TOP) is a central element for the faculty. The TOP offers students in General Studies an alternative to viewing college as "banking" a number of courses and credits and using the possibility of transfer to four-year colleges as the sole criterion. TOP sees the real educational task as preparing students to perform well at their transfer institutions. It does this by replacing the independent, three-credit course with a twelve-credit unit of instruction, staffed by a core group of faculty large enough to offer a vital intellectual community to students. The pedagogical approach mixes lectures with seminars, small-group discussions, "writing across the curriculum" and other activities that draw faculty and students into closer contact. Students can only take themselves seriously as learners if they enter into and experience the academic culture.

According to Grosset (1991):

Improved educational planning would enhance both younger and older student persistence. This could be accomplished, in part, by providing all new students early in the enrollment process with special orientation programs that make them aware of the array of program possibilities, course selections, registration procedures, and available support services.

Beyond this general orientation, individual counseling and advising sessions should focus on student short- and long-term educational goals and students with undefined objectives should be provided with intrusive advisement that translates their non-specific educational goals into programs of study where coursework and desired outcomes are clearly linked.

Strong academic assessment programs, coupled with placement in courses that are designed to offset gaps in preparation, are needed to encourage positive academic experiences. A greater counseling effort should be focused on ensuring that bridging or entry experiences are available to students who are not college-ready.

Rice and Thomas (1989) conducted a study at Oregon State University on the effect of orientations and extended orientations. A quasi-experimental design using four matched groups of entering Oregon State University freshmen was constructed to investigate whether various types of orientation programming and increasing levels of exposure to orientation programming would have any effect upon freshman reaction to college, following their first term on campus. The study also investigated the effect of orientation-related programming upon freshman academic performance, as measured by first-term and first-year GPA and retention rates.

Oregon State University currently has four types of orientation-related programs for freshmen. These programs include:

1. a week-long orientation given immediately prior to registration (Traditional);
2. a two-day Summer orientation program (SOAP);

3. an extended one-credit-hour orientation course taught by trained upper-classmen (HIED 101x); and
4. a one-credit-hour university seminar taught by volunteer faculty and staff (HIED 102x).

The availability of these programs provided an excellent opportunity to study the general and additive effects of orientation programming.

The university seminar (HIED 102x) began during the Fall of 1987. Eighty-eight newly-enrolled freshmen elected to participate in the course, which was offered one hour each week throughout the Fall term. Student participants were enrolled in one of eight sections of approximately 12 students and were taught by either a faculty or staff volunteer. All of the university seminar students had also participated in the other three orientation programs. Each of the 88 students enrolling in the seminar was matched on four variables--gender, academic major, high school Grade Point Average and housing status--with three additional freshmen who each had participated in a different type of orientation program. A total of 352 freshmen, representing 15.2 percent of the entering freshman class, were selected for investigation. The groups and their type of orientation included the following:

Group 1 - Traditional Orientation (N=88)

Students who attended only the Fall term pre-registration orientation program.

Group 2 - Summer Orientation Program-SOAP (N=88)

Students who participated in both the Fall orientation program and the Summer orientation program (SOAP).

Group 3 - HIED 101x (N=88)

Students who participated in the Fall and Summer orientation programs and the first-term extended orientation course taught by upper-classmen (HIED 101x).

Group 4 - HIED 102x (N=88)

Students who participated in the Fall and Summer orientation programs, the first-term extended orientation course (HIED 101x) and the one-credit-hour university seminar course (HIED 102x).

At the conclusion of the Fall term, each of the 352 students was asked to complete the Student Reaction to College Survey (SRC). Usable surveys were available for 60 of the 88 matched groups, representing 68 percent of the students surveyed. The percentage of favorable reactions among the four groups were compared on the 19 sub-categories (Table 2) and on each of the 150 items of the SRC. Academic performance, including Fall term and first-year GPA, retention rates, probation percentages and percentage of students with GPA's of 3.5 or better were also compared among the four groups.

The intent of the study was to determine if increased participation in orientation-related programming would affect freshman reaction to college and freshman-year academic performance. It was hypothesized that increased participation would produce more favorable reaction to college and would have a more positive effect upon student academic performance.

TABLE 2

Significant Differences Among Groups on the SRC Sub-categories

SRC Category/Item	Numbers are percent				Chi-square	Significance
	Tradi- tional	SOAP	HIED 101x	HIED 102x		
Organized Student Activities	29	31	38	30	1.085	.781
Programming	69	74	65	71	.979	.806
Grading	57	60	49	57	.973	.808
Help with Living Arrangements	32	34	40	32	.944	.815
Registration/Scheduling	66	59	62	62	.889	.828
Quality of Instruction	70	74	75	69	.870	.845
Rules and Regulations	30	30	47	40	.543	.909
Instructor Accessibility	66	61	62	58	.465	.926
Studying	50	54	56	52	.436	.933
Academic Performance	52	56	54	52	.336	.953
Financial and Related Problems	69	72	75	71	.329	.954
Planning	64	64	64	59	.315	.957
Form of Instruction	55	55	59	54	.304	.959
Involvement with Faculty	50	55	57	57	.301	.960
Library/Bookstore	77	79	85	82	.288	.962
Student-Centered Instruction	46	43	43	42	.169	.982
Counseling and Advising	65	62	61	61	.144	.986
Campus Climate	57	59	60	62	.069	.995
Administrative Procedures	51	50	54	54	.033	.998

A General Summary of the SRC Item Differences Among the Groups

Traditional

This group was significantly less involved with faculty and more unsure about what they were getting from college, felt less able to get help and found college information difficult to get. In addition, this group had less clarity about their future goals and were less satisfied with college services. They felt more isolated in areas of obtaining help and support and more frustrated with advisement services. They expressed greater displeasure with academic coursework and had a higher number of scheduling and advisement problems. Results of this analysis are shown in Table 2 (page 38).

SOAP Group

Students in this group were significantly more satisfied with some aspects of the quality and forms of instruction. They displayed higher levels of dissatisfaction with the rules and regulations and more frustration with the availability of college information. They were significantly less involved with faculty, but they appeared to be more satisfied with coursework. They were less socially integrated in expressing less interaction with

faculty and little involvement with campus activities. They experienced far fewer scheduling and advisement problems and were more sure about their place in college than traditional group members. Results of this analysis are shown in Table 2 (page 38).

HIED 101x Group

The student-led group displayed high levels of satisfaction with student services, although they were less satisfied with the registration process and more frustrated in accessing counselors. They were likely to feel that they were treated as adults and more likely to participate in campus activities. They were significantly more likely to believe that students have a role in making the rules and regulations which affect them. They showed more confusion about what courses to take and were more likely to drop courses. However, they were significantly less likely to get behind in their coursework. They felt that information about college was easy to get and the college was supportive in helping students with problems. They were more supportive of cooperative in-class assignments. However, they did feel more vulnerable to thievery on campus. Results of this analysis are shown in Table 2 (page 38).

HIED 102x Group

The group having the full array of orientation-related programming exhibited significantly high levels of faculty involvement and satisfaction in getting information about the college. They expressed a high degree of dissatisfaction with the quality and form of instruction on some of the SRC items. They indicated a high preference for cooperative in-class assignments. Although they interacted with faculty more than the other groups, they expressed higher levels of dissatisfaction with the quality of faculty interaction--especially in having faculty understand student points of view. They paralleled the traditional orientation group in believing that the college was not as responsive to student problems as it should have been. Results of this analysis are shown in Table 2 (page 38).

An Analysis of the Academic Performance of the Orientation-Related Groups

GPA

A one-way analysis of variance comparing the first-term and first-year GPA's of the four orientation-related groups is indicated in Table 3. The groups showed significant differences in both

the first-term and the first-year GPA. A multiple comparison test showed that the HIED 102x group scored significantly higher GPA's than either the traditional or the HIED 101x group.

TABLE 3

Grade Point Average for Orientation-Related Groups

Time Period	Traditional	SOAP	HIED 101x	HIED 102x	ANOVA value
First Term	2.49	2.66	2.50	2.81	9.38 *
First Year	2.43	2.69	2.56	2.93	11.03 *

* significant .05

Honors Status

A chi-square analysis of the groups' percentage of students with GPA's greater than 3.50 shows no significant differences in first-term nor the first-year percentage of students earning more than GPA's of 3.50 (Table 4).

TABLE 4

Percentage of Participants With GPA's Greater Than 3.5

Time Period	Traditional	n	SOAP	n	HIED 101x	n	HIED 102x	n	CHI-square
First Term	9%	8	8%	7	11%	10	17%	15	1.24
First Year	8%	7	9%	8	12%	11	18%	16	1.17

Probationary Status

A chi-square analysis of students with GPA's of 2.00 or less shows a significant difference in the first term and in the first year among the groups (Table 5). HIED 102x group members were less likely to earn grades under 2.00 at the conclusion of their first term and year on campus.

TABLE 5

Percentage of Participants With GPA's Less Than 2.00

Time Period	Traditional	n	SOAP	n	HIED 101x	n	HIED 102x	n	Chi-square
First Term	22%	19	15%	13	21%	18	7%	6	8.32 *
First Year	26%	23	14%	12	22%	19	7%	6	12.19 *

* significant at .05

Retention Rates

A chi-square analysis was conducted to determine if student retention rates were affected by the degree of orientation-related exposure (Table 6). No significant differences were found, although there was a slight tendency for students having the full array of programming (HIED 102x) to have higher retention rates following their first year.

TABLE 6

Retention Percentage of Participants

Time Period	Traditional	n	SOAP	n	HIED 101x	n	HIED 102x	n	Chi-square
First Term	93%	82	96%	84	94%	83	96%	84	.009
First Year	85%	75	91%	80	89%	78	96%	84	.695

Summary of Academic Performance Findings

Students experiencing the full array of orientation-related programming achieved significantly higher first-year GPA's and significantly lower percentages of participants with GPA's of less than 2.0. The additive value of having freshmen participate in a full array of orientation programming which culminated with a faculty- or staff-led freshman seminar seemed to make a significant difference in freshman academic performance. On the other hand, freshmen having only the pre-registration orientation were most vulnerable to attrition and low grade point performance.

Survey Of Related Literature

The review of related literature focuses on three areas: changing roles in higher education, current research on transfer students and programming for transfer students.

Changing Roles in Higher Education

The following related literature will focus on changing roles in higher education for transfer students.

Bernstein's (1989) studies show a decline in student transfer from two- to four-year colleges. He discusses the inadequacy of conventional explanations for the decline in transfer and points to underlying policies and practices that affect transfer (e.g., lack of faculty involvement, inadequate funding and ineffective articulation with four-year schools).

According to Bender (1991), legislators and college leaders bring different concerns to the issue of student transfer policy effectiveness. If governing boards do not ensure effective transfer, legislatures may take the initiative by issuing mandates for interinstitutional cooperation. The key to successful transfer and articulation is collegial faculty-to-faculty relationships.

Volkwein (1986) conducted a study on the relationship between transfer student interaction with faculty and intellectual

growth. The quality of the faculty-student relationship, both inside and outside the classroom, was significantly and positively related to two measures of self-perceived intellectual growth.

The American Council on Education (1991) focused on the academic dimensions of student transfer from two- to four-year institutions. This report seeks to provide a foundation for institutional and academic policy decisions affecting the transfer student experience and transfer student achievement. The report presents a policy statement on academic achievement and transfer and a nine-point agenda for action. The agenda calls on two- and four-year institutions to: 1) establish a firm commitment to transfer; 2) enrich the connection between teaching and transfer; 3) revitalize academic relationships between institutions; 4) manage transfer more effectively; 5) identify and realize transfer goals; 6) inform students fully; 7) issue a clear public call for improved transfer; 8) acknowledge the importance of financial support; and 9) establish firm expectations of transfer students.

Enhancing Transfer Effectiveness (1990), a study for the National Effective Transfer Consortium, observed effective transfer practices in four areas:

1. Relations with four-year schools were characterized by a climate of cooperation and the development of complete and detailed articulation agreements.
2. Student services that support transfer were often centrally coordinated, and frequently included specialized academic support and

advising programs for potential transfer students.

3. Technical support for the transfer function included sophisticated student information systems, articulation databases, and research on transfer issues.
4. Relations with elementary/secondary education often involved cooperation and outreach activities at high schools and junior high schools, and coordination of curricula and academic programs between the community college and its feeder high schools.

We also found that transfer practices that are effective for traditional transfer students may not provide adequate help for large numbers of students with a low propensity to transfer. Strategies that appeared to be effective for non-traditional transfer students included:

1. Student outreach that emphasized personal contact;
2. Student services that included specialized programs targeted to serve specific populations such as older re-entering women, single parents, or academically underprepared students; and
3. Academic support for students with special needs.

Most NETC colleges have only begun to develop the specialized services needed to fully support non-traditional transfer students. The effective development of such services could substantially increase colleges' overall transfer rates.

Colleges with high transfer effectiveness had a multitude of activities that supported transfer, in a complex and interdependent system. The challenge for the 1990s may well be one of developing transfer strategies -- within supportive organizational environments -- that can strike a balance between meeting the needs of traditional and non-traditional transfer students.

In 1987 the Southern Regional Education Board suggested specific ways that two-year colleges could better serve their students. The recommendations were presented in the areas of:

- 1) student assessment and placement in associate degree programs;
- 2) the establishment of linkages between two-year colleges and high schools through a joint coordinating structure;
- 3) the effectiveness of programs in the two-year colleges;
- 4) the strengthening of collaboration and communication between faculty from two-year colleges and senior institutions;
- and 6) the improvement of cooperation between two- and four-year colleges.

According to Community Colleges Where America Goes to College (1991), :

on average, community college students begin post-secondary studies with lower levels of academic achievement than students at four-year colleges and universities. Only 9 percent of high school seniors with an "A" average attend community colleges in the first year after graduation; in contrast, 44 percent of these "A" students attend public four-year colleges and 27 percent attend private four-year colleges.

It must be remembered that these figures reflect average trends and that community colleges enroll large numbers of academically-able students. Nonetheless, community colleges provide access for a disproportionately large share of students whose academic backgrounds render them unlikely candidates for admission to four-year colleges and universities. In admitting these students and providing remediation and support services where needed, community colleges undertake one of the most difficult tasks facing higher education today. (Page 10.)

Table Seven			
<i>Percentages of High School Students Attending Community Colleges and Four-Year Colleges, by High School Grade Point Average</i>			
	1980 High School Graduates		
	Students with "A" average	Students with "B" average	Students with "C" average
% attending a public community college in Fall 1980	9%	17%	13%
% attending a public four-year college in Fall 1980	44%	31%	6%
% attending a private four-year college in Fall 1980	27%	11%	3%
Source: El-Khawas and others, 1988.			

(Source: Community Colleges Where America Goes to College (1991), page 10.)

Farland and Anderson (1989), in a report for California Community Colleges, Sacramento, Office of the Chancellor, report on specific activities undertaken in 1987-88 to strengthen articulation and transfer, including: 1) 2 + 2 + 2 projects among high schools, community colleges and four-year institutions; 2) ongoing work to develop a general education transfer curriculum; 3) work to redefine the structure of the associate degree; 4) joint projects with the CSU; 5) activities of the Intersegmental Coordinating Council related to English as a Second Language instruction; 6) the Transfer Center Pilot Project; 7) efforts of the California Articulation Number Project to develop a statewide cross-refer-

enced course numbering system; and 8) Project ASSIST (Articulation System Stimulating Interinstitutional Student Transfer).

According to Cepeda (1991), the adoption of the Intersegmental General Education Transfer Curriculum states the following:

In 1988, Assembly Bill (AB) 1725 directed the governing boards of the University of California (UC), the California State University (CSU), and the California Community Colleges to jointly develop, maintain, disseminate, and adopt a common core curriculum in general education for the purpose of facilitating student transfer between institutions. In 1986, all three academic senates had already begun work on a common curriculum in response to recommendations from California's legislative Review of the Master Plan for Higher Education. By February 1990, all three senates had approved the curriculum, with implementation scheduled for fall 1991. Completion of this Intersegmental General Education Transfer Curriculum (IGETC) permits a student to transfer from a community college to the CSU or UC system without taking additional general education (GE) courses to satisfy campus GE requirements. The IGETC calls for a student to complete specified courses in the following subject areas: English/Communications, Mathematics, Arts and Humanities, Social and Behavioral Sciences, and Foreign Language. The IGETC agreement does not specify the individual courses to fulfill each of these requirements, nor does it list the procedures to be followed by community colleges in certifying that students have completed the IGETC. This report reviews the relevant AB 1725 legislation, summarizes the general contents of the IGETC courses, and describes the plans for its implementation and dissemination. The full text of the IGETC agreement and the names of the IGETC Committee members are appended. (Page 17.)

According to Cepeda and Nelson (1991):

California Senate Bill (SB) 121 establishes that a strong transfer function is the responsibility of all three segments of higher education; the California Community Colleges (CCC), the University of California (UC), and the California State University (CSU), and that each segment must develop transfer agreement programs, discipline-based articulation agreements, transfer centers, and a transfer plan for implementation of provisions of the bill.

The Spotlight On The Transfer Function (1990) provided information on transfer centers at Los Rios Community College:

The goal of the Transfer Center Project is to increase the overall transfer rate of students, particularly underrepresented ethnic minorities, by coordinating resources and services designed to facilitate the transfer process. This project was initiated in 1985 and is established at sites serving approximately 24,000 students annually. The project involves 20 community colleges, 14 CSU campuses, eight UC campuses, and two independent universities. A recent independent evaluation of the project found that the overall transfer rates to UC and CSU have improved at the 20 campuses with state-funded transfer centers, and that the rates for Hispanic and Asian students are higher at these campuses than at colleges without transfer centers.

Each Los Rios campus has a well-developed transfer center with a wealth of supplies furnished by universities and state monies. The Transfer Opportunity Program was brought into the Transfer Center Project, and the University of California at Davis Transfer Center adviser spends two days a week at the two larger colleges and one day at the smaller one. Staff from Los Rios and California State University, Sacramento, also formed an agreement similar to this one. The University of the Pacific is our independent university partner in this program. An intersegmental committee oversees the Transfer Center Project and is the policy making group for Los Rios's three centers. This steering committee meets once a month.

Some of the many activities of the Transfer Center are making sure that transfer students have up-to-date information and providing workshops on admissions, financial aid, housing, how to fill out the applications, advertising, and making appointments for other four-year representatives, and providing trips to the universities. "On-the-spot admissions" aimed specifically at affirmative action students generates large numbers of transfers. The "Spring in Davis" and Crossover Enrollment at California State University, Sacramento allows those students who apply to the University of California at Davis and/or California State University, Sacramento, to take one or two courses at the university during their last term before they transfer. All fees are waived for the students; the only cost to them is for books. This activity gives the students an opportunity to experience what it's really like to take a course at the university. California State University, Fresno, later joined this activity. (Page 55.)

The Missouri Coordinating Board for Higher Education (1987) is required by statute to "establish guidelines to promote and facilitate the transfer of students between institutions of higher education within the state;" thus allowing students to complete a degree program in the shortest time possible, whether remaining in one institution or transferring to another. These transfer guidelines are applicable to course credits and related matters for undergraduate students who want to transfer between Missouri public colleges and universities. They are also recommended for Missouri independent institutions. Transfer policy information includes: baccalaureate degree program; general education; associate degrees (associate of arts degree, associate of science degree, associate of applied science degree, other associate

degrees); transfer without a degree; admission of transfer students (institutional admission, program admission); catalog; change in major; transfer of credit; transfer of grades; credit by examination, experimental learning, and pass/fail credit; and state certification or statutory requirements.

Kominski's (1990) report informed that one of the several purposes of Oregon community colleges is to prepare students for successful transfer into four-year colleges. The report showed that academic year 1988 transfer students' Grade Point Averages (GPA's) declined slightly the first year after community college transfer. This was true of all Oregon State University colleges with the exception of Education, Health and Human Performance and Home Economics. The three colleges enrolled too small a number of students to detect statistically significant differences. See Table 7 for specifics on academic year 1988.

TABLE 7

**1988 Admissions From Community Colleges
to Oregon State University
Status at End of First Year**

College	Transfer Hours	Successfully Completed Hours	OSU GPA	Community College GPA	N
Agriculture	99	51	2.86	2.93	14
Business	107	45	2.98	3.09	61
Education	103	57	3.23	2.98	8
Engineering (Pre)	102	40	2.95	3.17	20
Engineering	113	52	3.17	3.30	19
Forestry	108	43	2.88	2.97	11
Hlth & Human Perf	98	54	2.91	2.86	6
Home Economics	114	44	3.11	3.04	7
Liberal Arts	103	49	3.01	3.05	57
Pharmacy	117	45	2.80	2.93	10
Science	107	43	2.99	3.00	38
Total	106	47	2.99	3.06	251

Current Research on Transfer Students

A review of related literature showed that investigations have been conducted on transfer students. The following related literature will focus on current research on transfer students.

Holahan (1983) analyzed longitudinal data covering six years for transfer student (N=3,407) performance and degree completion. Results showed that: 1) transfer students completed degrees as often as non-transfers; 2) community college transfers performed less well than other groups; and 3) sex and ethnicity related to performance and retention.

Wright (1990) conducted a study to investigate the differential predictability of academic success between those who transferred to a private multi-purpose university from two-year colleges and those who transferred from four-year institutions. The study looked at success after one academic year, using Scholastic Aptitude Test (SAT) scores and Grade Point Averages (GPA's) at the time of transfer as predictors. Data were collected from 697 students who transferred to the university during the academic years 1984 through 1989. The students transferred from six four-year colleges, nine community colleges and one private two-year college. Findings included the following:

- 1) overall GPA at the time of transfer was 2.78 for two-year college transfers and 2.42 for four-year college transfers;
- 2) GPA after two semesters was 2.31 for two-year college transfers

and 2.62 for four-year college transfers; 3) SAT verbal scores averaged 409.7 for two-year college transfers and 449.9 for four-year college transfers; and 4) SAT math scores averaged 453.0 for two-year college transfers and 490.9 for four-year college transfers. Cross validation was conducted by using 1988-89 data on 88 students. The study suggested that GPA at the time of transfer was the best predictor of academic success for transfer students from two-year colleges, and that both SAT scores and GPA's were necessary variables for predicting the academic success of transfer students from four-year institutions.

Kintzer and Wattenbarger (1985), in The Articulation/Transfer Phenomenon: Patterns and Directions, stated that:

The most recent material released by the University of California on first-year performance of community college transfers suggests that "most transfers are adequately prepared for the University and achieve an acceptable level of performance on University of California campuses." The average difference between GPA transferred to the University by community college graduates and initial GPA earned during the first university upper-division year was one-half of a grade point -- the normal "transfer shock" drop. The first-year upper-division GPA of "natives" (2.96) and "transfers" (2.92 for transfers who were eligible for UC enrollment upon high school graduation and 2.67 for those who were not eligible upon high school graduation) compared favorably. (Page 11.)

According to the Riverside Community College District, California Office of Research and Planning (1991) study, students who transfer to a four-year institution (California State University, or CSU) from Riverside Community College (RCC) had an in-

crease in Grade Point Average (GPA). Some of the findings were:

1) while RCC experienced a 17% drop in the number of students transferring to CSU between 1975 and 1989, all California Community Colleges (CCC's) had a 21% decline during the same period; 2) between fall 1986 and fall 1987, RCC had a 19% increase in the number of CSU transfers, while the CCC system as the whole experienced a 2% increase; 3) about 80% of all RCC and CCC transfers to CSU were admitted to the upper division; 4) in fall 1986, RCC upper-division transfers to CSU had a 2.79 GPA at RCC, which rose to 2.84 after transferring to CSU; and 5) for the last four years, RCC upper-division transfers have had higher GPA's upon transferring to CSU than either all CCC transfers or CSU natives.

Owen (1991) examined whether or not there are significant differences in the academic performance and graduation rates of undergraduate transfer students compared to students who entered the general campuses as first-time freshmen in selected two- and four-year campuses in the state of Colorado. There were four student cohorts studied within three campuses (Boulder, Denver, Colorado Springs) of the University of Colorado system, and a comparison of their performance was made involving Grade Point Average (GPA), mean term credit load, graduation rates and retention/drop-out rates. Findings revealed that there are significant differences between the academic performance and graduation rates of in-state, first-time freshmen and transfer students. In comparison to the freshman students who survived to

their second year, the transfer cohorts: 1) had a lower percentage attaining a 2.0 GPA or better in their first year; 2) took a lower student credit hour load; and 3) brought between 31 and 39 transfer student credit hours, while the surviving freshman cohorts brought a median of 30 credit hours to their second year on the Boulder campus and 27 credit hours at the Colorado Springs and Denver campuses.

Pounds and Anderson's (1989) summary statistics for students transferring to and from institutions of the university system of Georgia during 1987-88 fiscal year (summer quarter 1987 through spring quarter 1988) were compiled for this report. Key findings include the following: 1) of the 16,954 students who transferred into system institutions, 7,921 (46.7%) came from institutions outside the system, and of these, 2,048 were from in-state non-system institutions and 5,873 transferred from out-of-state schools; 2) 9,033 students transferred between system institutions; 3) the largest flow was from senior colleges to other senior colleges, with the 3,766 students in this category representing 41.7% of within-system transfers; 4) the second largest flow was from two-year colleges to senior colleges, including 3,608 students who comprised 39.9% of within-system transfers; 5) the transfers from two-year colleges to two-year colleges (N=398) and from senior colleges to two-year colleges (N=1,261) were relatively small in number; and 6) students transferring from two-year colleges to senior colleges had a very

slight overall decrease of .08 in GPA after transferring, while the other three categories of within-system transfer students achieved an overall higher GPA after transferring.

A report developed by James Madison University (JMU) (1989) in Virginia, presented results of a study of the academic performance of JMU transfers from Virginia's public two-year colleges. Following an introductory section, the report describes the methods used to determine the information needs of the two-year colleges and to protect the students' right to privacy. Next, results of the transfer student study are presented, indicating that: 1) unsolicited responses from two community colleges attested to the usefulness of the data collected; 2) 393 two-year college students transferred to JMU between 1985 and 1989; 3) four Virginia community colleges accounted for 72% of all of JMU's transfer students; 4) an average of 42.7 transfer credits were accepted per student, and more than half of the students transferred more than 40 credits; 5) 88.4% of the transfers were either on the president's list, dean's list, or in good standing; 6) the combined GPA of the transfers was 2.73, compared to 2.79 for all JMU students enrolled during fall 1988; and 7) transfers performed well in most disciplines except biology, chemistry, mathematics, physics, accounting and economics, where the overall GPA was below 2.2.

Programming for Transfer Students

The following related literature will focus on programming for transfer students. Also included in the related literature on freshman programming are models which would be effective for transfer student programming.

Roberts and Warren (1984) describe the participation of South Mountain Community College (SMCC), in Phoenix, Arizona, in the Ford Foundation's Urban Community Colleges Transfer Opportunities Program and the activities developed at the college to guide students from the beginning of their college careers at SMCC through their transfer and retention at a four-year college or university. After providing background on the college and its clientele, the project overview outlines the three components of the program: 1) the College Orientation Program, a week-long program for entering transfer-oriented students which introduces key administrators and facilities and provides instruction in note-taking and test-taking; 2) the Mentor Program, which seeks to provide selected students with intensive and personalized support from faculty members during an entire semester; and 3) the University Orientation Program, a university course taught at SMCC which covers topics including student motivation and goal setting, language facility, study and test-taking skills and university resources and procedures. The next sections describe achievements to date in the three programs, highlighting the responsibilities

of project staff, recruitment procedures, the range of activities undertaken by faculty mentors and completion rates. After discussing the extent to which project objectives have been achieved, the report discusses ways in which each of the program components have been modified and institutionalized at SMCC.

Rendon (1986) conducted a study of the major transfer education issues and proposed a comprehensive strategy for studying and improving transfer education: 1) access to higher education for minorities and low socioeconomic status (SES) whites continues to be a problem; 2) over 50% of all entering community college students have goals related to attaining a baccalaureate; 3) students who complete two years in a community college may be expected to perform reasonably well at a senior institution; 4) no one educational sector can solve the transfer problem alone; 5) occupational students, especially those in allied health, engineering technology, data processing, agriculture and forestry programs, transfer in sizeable numbers; 6) faculty/student contact is one of the most important determinants of student retention; 7) giving students the right to fail simply has not worked; 8) literacy demands placed on community college students have decreased; 9) concerted efforts to address transfer education involving collaboration between two- and four-year colleges have achieved promising results; and 10) when community colleges fail to collect information and data, they lose out on a valuable

opportunity to make modifications to improve their curricular and student support services.

In April 1990 the American Association of Community and Junior Colleges and the National Center for Academic Achievement and Transfer conducted a national survey of 1,366 regionally accredited, degree-granting, two-year public and private colleges to identify practices used to foster and encourage student transfers to senior institutions. The institutions were asked to describe the frequency with which they employed the various transfer strategies, their method of identifying transfer students and their method of calculating institutional transfer statistics. Study findings, based on a 39.4% response rate, included the following: 1) the institutions utilized written articulation agreements (85%), course equivalency guides (81%) and transfer counselors (81%); 2) additional transfer strategies employed included joint degree programs, dual registration, transfer information centers, intercollegiate relations commissions and guaranteed admissions to receiving institutions; 3) the most popular methods used to identify students who transferred were graduate follow-up surveys, estimates/guesses, state reporting systems, documentation of transcript requests and information obtained from senior institutions; and 4) most institutions based transfer statistics on recent associate degree graduates or students enrolled in transfer

curricula, producing higher transfer rates than institutions considering the entire student population in estimating transfer rates.

The Journal of The Freshman Year Experience (1990) stated that orientation programs, pre-entry and extended, should direct their energies not only to giving students the information they need to manage college, but also the important task of community building. Educational institutions should center their attention on helping students make the often difficult transition to the senior educational institution and establish competent membership in the social and intellectual communities of the educational institution. For that reason, orientation programs and first-year programs generally should contain, where possible, some form of faculty and/or peer mentoring. For all students, but for minority students in particular, these individual bonds prove to be an important element in the social support system needed for learning.

Barringer (1990) offered a strategic approach to incorporate a college seminar into the freshman curriculum. Barringer (1990) has listed five general goals for students to be achieved via the college seminar course: 1) acquire a sense of the college community and its structure; 2) begin to identify skill deficiencies and work on improvement; 3) identify potential personal growth, goal commitment and career decisions; 4) learn to solve problems; and 5) improve academic performance and college life. The college seminar course should be a two-credit course, mandatory for all

undeclared freshmen and strongly recommended for all declared freshmen. The class would meet once a week during the first term.

Okon (1986) studied a project at Kalamazoo College to promote student transfers from two-year colleges. Among the accomplishments of the project were the preparation of a general transfer student brochure addressing issues of admissions, financial aid, credit transfer and academic advising; the distribution of a quick reference sheet stating transfer and credit policies to all admissions counselors at Kalamazoo Valley Community College; the development of a special application for transfer admission; the institution of a new policy whereby transfer applicants receive information on degree requirements and a written evaluation of their transcripts; and the establishment of closer contacts between Kalamazoo College's Transfer Coordinator and local community colleges. Other projects, in progress at the time of Okon's study, include research on the educational backgrounds of transfer students and the development of a special transfer student orientation program.

A study was conducted at Monroe Community College (MCC) (1989) in Rochester, New York, to assess the need for and define the objectives of an expanded orientation program, to determine the components of such a program and how these components would be integrated with other student development services, and to propose and design a program for future implementation. Data for the study were collected through 40 interviews with faculty, staff,

and administrators from 27 departments; an off-campus orientation workshop involving 26 student affairs professionals; a survey of 1,025 MCC students; a pilot orientation program presented to 324 high school seniors; an evening orientation program for "2 + 2" transfer students and their parents; a review of the literature on orientation; and an analysis of programs at other institutions. The study found support for expansion of the college's orientation program among faculty and staff, a lack of awareness among many current students of existing orientation options, and support for the existing peer counseling program. Based on study findings, an orientation plan was developed which underscores institutional commitment to the program, outlines goals and objectives, proposes a design for orientation sessions and an orientation course, and considers organizational, staffing, and funding considerations.

CHAPTER III

RESEARCH DESIGN

The following is a description of this study's experimental and comparison groups, experimental treatment, procedure, design, methods of analysis and hypotheses.

The purpose of this study was to measure the effect of an extended orientation course on two-year and four-year transfer students to determine if such a course can positively enhance transfer student academic achievement at Oregon State University, and to collect descriptive data on the institution's transfer student population.

1. Did participation in the course affect transfer student academic integration as measured by the three indicators of academic achievement (GPA, retention and graduation rate)?
 - a. Did transfer students traditionally show declines in GPA during their first term after entering Oregon State University?
 - b. Following this drop, did the transfer students' GPA's gradually increase?
 - c. What were the effects of transfer orientation classes upon transfer student GPA?

- d. What were the effects of transfer orientation classes upon transfer student retention?
- e. What were the effects of transfer orientation classes upon transfer student graduation rates?

The Population

Two groups were selected for observation. One group consisted of transfer students who enrolled in a transfer orientation course and the other group consisted of transfer students who did not enroll in a transfer orientation course.

The two groups of students were all newly-enrolled transfer students at Oregon State University.

Both groups had similar majors, entering GPA's and places of residence.

Experimental Group

The experimental group consisted of 80 entering transfer students who voluntarily enrolled in a course in Fall 1988 titled HIED 202 (Transfer Orientation Course) and completed the two-credit course.

The students were recruited into the newly-offered course by circulating information about the program to:

1. Oregon community college counselors;
2. Head advisors of colleges and schools at Oregon State University;
3. The New Student Office at Oregon State University; and
4. Students, themselves, in flyers distributed throughout the Oregon State University campus.

The experimental group was 45 percent female and 55 percent male; the average age was 22.5 years. The students represented majors within most of the undergraduate colleges at Oregon State University. (A detailed description of the experimental population is found in Chapter IV.)

Comparison Group

The comparison group (N=80) was drawn from newly admitted transfer students not enrolled in the transfer student extended orientation course. These students were randomly selected within the following defined parameters:

1. Transfer students with sufficient credits to be ineligible for the freshman orientation course (more than 30 credits) and
2. Students not above senior status (fewer than 145 credits).

The selection was at random from a total group of 1,152 transfer students newly-admitted to Oregon State University during Fall 1988 and, then, a random numbering sequence was used to draw a sample from this group. An attempt was made to select, at random from the 1,152 transfer students, 80 students who compared to the experimental group; such as:

1. Gender
2. Age
3. Residential setting (on-campus or off-campus)
4. Major (college)
5. Ethnic group
6. Area (transferring) in-state or out-of-state
7. Entering GPA and
8. Class standing

The comparison group was 42.5 percent female and 57.5 percent male; the average age was 22.4 years. The students represented majors within most of the undergraduate colleges at Oregon State University. (A detailed description of the comparison population is found in Chapter IV.)

Experimental Treatment

The experimental group attended the course twice per week in a two-credit elective course held throughout the 1988 Fall term. The course was based on the freshman extended orientation format developed at the University of South Carolina and described by Gardner (1986) and Gordon and Grites (1984).

The students were instructed in techniques intended to:

1. establish interaction with faculty,
2. strengthen their self-concepts,
3. build their study skills, as well as
4. provide information on the availability and uses of campus support services.

During Fall term 1988, an experimental course, called HIED 202, was developed to help newly-enrolled transfer students with their academic and social adjustment to Oregon State University. The HIED 202 course is similar to the 102x course because of the similar needs of both groups (see page 35 for information on 102x). Analyses were conducted in order to determine the effects of the course upon student reactions to college, student study habits and attitudes and the degree to which the course fulfilled its primary objectives. Course participants were also asked to share their general opinion as to the value of the course.

Rationale For HIED 202

National studies on transfer students clearly point to a number of adjustment problems encountered by this group of students. Transfers traditionally show declines in Grade Point Average during their first term on a new campus. Compared to native students, transfers show higher attrition rates, are more likely to be less informed about campus policies and are less likely to utilize the services and resources of their new campus. Studies also show that transfers rarely participate in traditional transfer orientation programming. According to Oregon State University's Institutional Research and Planning, Office of Budgets and Planning (1987), a study of transfer students at OSU, conducted in 1987, indicated that transfer students who saw their academic advisors more frequently gave more favorable ratings to the transfer process. The results of the transfer student studies underscore the importance of providing structured experiences to help transfer students bridge their inter-collegiate experiences in a manner that would make them better higher education consumers.

Objectives of HIED 202

The objectives of the HIED 202 course were formulated upon the basic principles of retention research. The clear intent in the creation of the course was to provide a tool that would help turn newly-enrolled transfer students into continuing students. Thus, the basic principles in the construction and content of the course were patterned after retention theory. Essentially, the course attempted to help students clarify their goals, foster greater institutional commitment, increase student interaction with peers and faculty, provide methods for increasing student self-appraisal, furnish students with some very clear academic skills and knowledge and encourage greater participation in and involvement with campus life. Specifically, the HIED 202 course had ten general objectives:

Objective 1: To help transfer students develop better academic survival skills so that they may become more effective and efficient learners.

Objective 2: To promote transfer students' formal and informal involvement with faculty.

Objective 3: To facilitate the transfer students' awareness of, involvement in and appreciation for university resources and services.

Objective 4: To help transfer students understand institutional policies so that they may feel less encumbered by the rules and regulations of the university.

Objective 5: To enhance transfer students' appreciation for and involvement with the cultural and co-curricular life of the campus.

Objective 6: To provide transfer students with a supportive atmosphere which would foster greater feelings of community, friendliness and a positive sense of campus climate.

Objective 7: To help transfer students develop more positive attitudes and reactions toward the learning process.

Objective 8: To give transfer students advisement-related support so that they may become more self-directing in affirming their future academic and career goals.

Objective 9: To strengthen transfer students' commitment to the university.

Objective 10: To increase transfer students' academic performance in terms of GPA and retention rate.

The course was organized into class sections of 7 to 15 students each. These sections met for one hour and twenty minutes, twice a week, for a total of 20 hours during the term.

The section instructors were five graduate students and two faculty members trained in student success enhancement techniques. The instructors would meet regularly to share information and review successful strategies. Some of the techniques used in the seminar included the following:

1. self-exploration exercises,
2. study skill assessments,
3. student journal entries,
4. campus tours,
5. guest speakers from student services, and
6. group projects.

Procedure

1. Grade Point Averages. These Averages were collected at the following intervals in order to study variations as time progressed:
 - a. At the time observation began. For both groups of students, observation began at the time of admission to Oregon State University.
 - b. At the end of the first, second and third quarters of academic years 1988-1989, 1989-1990 and 1990-1991.
 - c. After one, two and three years of observation.
 - d. Upon receipt of the baccalaureate degree.

- e. After all collegiate work. For students who were graduated, this included work culminating in a degree; for students who dropped out, this included work up to the time of withdrawal or dismissal.

Comparisons of the transfer students enrolled in HIED 202 and the transfer students not enrolled in HIED 202 as a whole group and as sub-groups.

The following is a comparison made of both groups:

1. Gender
2. Age
3. Residential setting (on-campus or off-campus)
4. Major (college)
5. Ethnic group
6. Area (transferring) in-state or out-of-state
7. Entering GPA and
8. Class standing

Design

The design for the comparison of the Grade Point Average (GPA) for the experimental and comparison groups is as follows:

1. Observation began: Fall 1988.

End of first quarter: Fall 1988, 1989, 1990.

End of second quarter: Winter 1989, 1990, 1991.

End of third quarter: Spring 1989, 1990, 1991.

2. After one academic year.
After two academic years.
After three academic years.
3. Upon receipt of baccalaureate degree.
4. After all collegiate work completed.

Design Matrix

Before-After Static Group Comparison

Group	Before Observation	Treatment	After Observation
Experimental	W_1	X	Y_1
Comparison	W_2	--	Y_2

The pre-experimental design needed for the development of invalidating factors is the static-group comparison. This is a design in which the experimental group which experienced treatment (X) is compared with the comparison group which did not experience treatment (X), for the purpose of establishing the effect of the treatment (X).

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Sources of Invalidity for
the Static-Group Design

Internal

	History	Matur- ation	Testing	Instru- mentation	Regres- sion	Selec- tion	Mortal- ity	Interaction of Selec- tion and Matura- tion, etc.
Static-Group Comparison	+	?	+	+	+	-	-	-
<div> <div>X</div> <div>Y₁</div> <hr/> <div>Y₂</div> </div>								

External

	Interaction of Testing and X	Interaction of Selection and	Reactive Arrangements	Multiple - X Interference
Static-Group Comparison		-		
<div> <div>X</div> <div>Y₁</div> <hr/> <div>Y₂</div> </div>				

NOTE: In the tables, a minus indicates a definite weakness, a plus indicates that the factor is controlled, a question mark indicates a possible source of concern, and a blank indicates that the factor is not relevant.

According to Campbell and Stanley (1966), relevant to internal validity, eight different classes of extraneous variables will be presented; if these variables are not controlled in the

experimental design, effects confounded with the effect of the experimental stimulus could be produced. They represent the effects of:

1. *History*, the specific events occurring between the first and second measurement in addition to the experimental variable.
2. *Maturation*, processes within the respondents operating as a function of the passage of time per se (not specific to the particular events), including growing older, growing hungrier, growing more tired, and the like.
3. *Testing*, the effects of taking a test upon the scores of a second testing.
4. *Instrumentation*, in which changes in the calibration of a measuring instrument or changes in the observers or scorers used may produce changes in the obtained measurements.
5. *Statistical regression*, operating where groups have been selected on the basis of their extreme scores.
6. Biases resulting in differential selection of respondents for the comparison groups.
7. *Experimental mortality*, or differential loss of respondents from the comparison groups.

8. *Selection-maturation interaction, etc.*, which in certain of the multiple-group quasi-experimental designs might be mistaken for the effect of the experimental variable.

According to Campbell and Stanley (1966) the factors jeopardizing external validity or representativeness which will be discussed are:

1. The *reactive or interaction effect of testing*, in which a pretest might increase or decrease the respondent's sensitivity or responsiveness to the experimental variable and thus make the results obtained for a pretested population unrepresentative of the effects of the experimental variable for the unpretested universe from which the experimental respondents were selected.
2. The *interaction effects of selection biases and the experimental variable*.
3. *Reactive effects of experimental arrangements*, which would preclude generalization about the effect of the experimental variable upon persons being exposed to it in non-experimental settings.

4. *Multiple-treatment interference*, likely to occur whenever multiple treatments are applied to the same respondents, because the effects of prior treatments are not usually erasable.

The following is how the internal validity is related to this study:

1. *History*. Specific external events occurring between the first and second measurements and beyond the control of the researcher, such as a catastrophic event in the community, that may significantly effect the performance of the students. In this study, there were no abnormal abstractions.
2. *Maturation*. A student can change in many ways over a period of time, and these changes may be confused with the effect of the independent variables under consideration. During the course of the study, the students (both groups) became wiser, older and so on, which can cause changes in students.
3. *Testing*. Testing (written test) was not needed by the two groups for this study.
4. *Instrumentation*. An instrument was not needed because there was no test given to the two groups. There were changes in the obtained measurements because the instructors presented the information differently.

5. Statistical regression. Statistical regression is also known as regression to the mean. The statistical regression was not used in this study because no pre-test and post-test were given. Both groups entered Oregon State University by meeting the entry requirements.
6. Selection bias. Selection bias existed when, upon invitation, volunteers were used as members of the experimental group. The comparison group members were picked at random, from a selected group, using a system of match and random selection. The entering GPA for the comparison group was higher than that of the experimental group.
7. Experimental mortality. Mortality, or loss of subjects, is particularly likely in a long-term study. The study lasted for three academic years, during which time students in both groups dropped out, went on academic probation and graduated. The major concern here is whether the groups experienced different loss rates that might confound the results.
8. Selection-maturation interaction, etc. This had no effect on this study.

The following shows how the external validity related to this study:

The interaction effects of selection biases and the experimental variable. The extent of treatment verification. Treatment was administered as intended, according to the content of the course (HIED 202).

Methods of Analysis

The present study was designed to examine the academic achievement of transfer students who were enrolled in the extended orientation course at Oregon State University, and to ascertain what difference existed between them and transfer students who did not enroll in the extended orientation course.

The Registrar's records were used to determine age and gender. To ascertain whether the pre-entry attributes of the experimental and comparison groups were as similar as possible, t-tests were used to determine if differences existed between the two groups.

When small samples are involved, the students' distribution (t) is used.

There were no significant differences found between the two groups before the experimental treatment.

The next step was to use analysis of variance (ANOVA) to determine if there were any differences between the experimental and comparison groups after the treatment of Fall 1988.

According to Devore and Peck (1986), analysis of variance (ANOVA) involves a comparison of (k) population or treatment means. The objective is to test H_0 (null hypothesis) against H_a (alternative hypothesis): at least two of the means are different.

According to Devore and Peck (1986):

The null hypothesis, denoted by H_0 , is the claim that is initially assumed to be true. The other hypothesis is referred to as the alternative hypothesis and is denoted by H_a . In carrying out a test of H_0 versus H_a , H_0 will be rejected in favor of H_a only if sample evidence strongly suggests that H_0 is false. If the sample does not contain such evidence, H_0 will not be rejected. The two possible conclusions are then to reject H_0 and fail to reject H_0 .

According to Devore and Peck (1986) the error of rejecting H_0 when H_0 is true is called a type I error. The error in which H_0 is not rejected when it is false and H_a is true is called a type II error.

The analysis of variance may be summarized as a technique for partitioning the variation in the observed data into parts, each part assignable to different causes or combinations of causes (Wiersma, 1969, p. 86).

Hypotheses

The validity of the HIED 202 course content, as it applies to the model, was tested by the following hypotheses:

1. Null Hypothesis

The extended orientation course will have no significant effect upon transfer students traditionally showing declines in Grade Point Average (GPA) during their first term after entering Oregon State University.

Studies reviewed, on the academic performance of transfer students at four-year institutions, show declines in Grade Point Averages (GPA's) after their first term on a new campus. One of the objectives of the extended orientation course (HIED 202) is to increase transfer students' academic performance in terms of GPA.

2. Null Hypothesis

The extended orientation course will have no significant effect upon transfer students' Grade Point Averages (GPA's).

The extended orientation course has been designed to give transfer students advisement-related support so that they may become more self-directing in affirming their academic future. What has not been attempted is a comparison of how the effects of academic treatment differs

from the effects of advisement-related support received by newly-admitted students who are not in this type of program.

3. Null Hypothesis

Participation in the extended orientation course will have no effect upon transfer retention.

The theories on student withdrawal from institutions by Spady (1970) and Tinto (1975) led to research studies which attempted to predict factors that are associated with retention. Pascarella and Terenzini (1979A & B) focused on the model component of academic commitment that related to students' interaction with faculty. Their conclusion was that voluntary withdrawal is a reflection of what occurs on campus after entry, and another part of this occurrence is the quality of the formal and informal contact that students have with faculty. One of the objectives of the extended orientation course was to promote transfer students' formal and informal involvement with faculty.

4. Null Hypothesis

The extended orientation course will have no effect upon transfer student graduation rates.

This study followed the transfer students who participated in the extended orientation course until graduation. The study will compare transfer students who did not take the course with transfer students who did enroll in the course.

CHAPTER IV

STUDY RESULTS

The purpose of this study was to measure the effect of an extended orientation course on two-year and four-year transfer students to determine if such a course could positively enhance transfer student academic achievement at Oregon State University, and to collect descriptive data on the institution's transfer student population.

The data collection for the study was done prior to and after the completion of the Fall 1988 term, which is the term during which the extended transfer student orientation course was offered. The participants in the course (experimental group) were compared with those transfer students who were not enrolled in the course (comparison group) to determine its effects on their Grade Point Averages (GPA's).

Transfer Student Descriptive Information

An objective of the study was to determine the effect of an extended orientation course on variables associated with transfer students' academic achievement. The study investigated whether participation in the course affected transfer students' academic

achievement as measured by GPA, retention and graduation rates.

The initial comparison group included 1,152 newly enrolled transfer students. Eighty students, picked at random, were used for the study. The experimental group was self-selected and totaled 80 students. The tables of descriptive information which follow represent the experimental group (extended orientation course participants) and the comparison group.

Sample Size

The number of participants in the studied groups and in the entire institutional transfer student population are listed in Table 8. The percentages of experimental and comparison transfer populations involved in the study are also listed.

TABLE 8

Sample Size		
Group	Number	% of Newly Enrolled Transfer Students
Experimental	80	6.94
Comparison	80	6.94
OSU Transfers	1,152	100.00

Summary: A proportion of the newly admitted transfer student population, 13.88 percent, was included in the study.

Gender

The student records were used to tabulate the percentages of the males and females in the student groups listed in Table 9.

TABLE 9

Gender				
Group	Female	%	Male	%
Experimental	36	45.0	44	55.0
Comparison	34	42.5	46	57.5
OSU Transfers	N/A		N/A	

Summary: There were similar percentages of males and females in the experimental and comparison groups.

Mean Age

The mean and median ages of experimental and comparison group members were calculated and compared to each other. These figures are shown in Table 10.

TABLE 10

Group	Number	Mean Age	
		Mean	Median
Experimental	80	22.5	20
Comparison	80	22.4	21
OSU Transfers	1,152	N/A	N/A

Summary: The experimental and comparison means, medians and modes are similar. The mean age of both groups is within the 18 to 22 years age range, which is the range for traditional college-aged students.

Ages

The separating of the ages into categories was used to determine the similarities and differences between the ages of the transfer students and what is considered to be the traditional college-age range of 18 to 22 years. This information is detailed in Table 11.

TABLE 11

Ages

Ages

Groups	18	19	20	21	22	23	24-30	30+
Experimental	--	14	24	13	9	3	7	10
Comparison	--	11	18	21	6	5	12	7
Experimental	--	17.5%	30.0%	16.25%	11.25%	3.75%	8.75%	12.5%
Comparison	--	13.75%	22.5%	26.25%	7.5%	6.25%	15.0%	8.75%

Summary: The age categories show that 75 percent of the experimental group and 70 percent of the comparison group were within the range of 18- to 22-year-old college students, although the experimental group tended to be concentrated at 19 to 20 years of age and the comparison group at 20 to 21 years of age. Students over 22, often called older-than-average, made up 25 percent of the experimental group and 30 percent of the comparison group.

Ages of Females and Males

The ages of the female group participants, shown in Table 12, were examined to determine if there were any similarities and differences in the overall distribution between the two groups, as well as between males and females. The ages of males in the study were depicted separately to ascertain whether there were any noticeable trends that differed from those of the female population. The results of this analysis are shown in Table 13.

TABLE 12

Ages of Females

Ages								
Groups	18	19	20	21	22	23	24-30	30+
Experimental	-	9	11	5	3	-	4	5
Comparison	-	5	12	5	3	1	3	3
Experimental	-	11.25%	13.75%	6.25%	3.75%	-	5.00%	6.25%
Comparison	-	6.25%	15.00%	6.25%	3.75%	1.25%	3.75%	3.75%

Summary: The most frequent age for the experimental group and the comparison groups was 20 years. The experimental group had a larger number of 19-year-old females than the comparison group. For the ages of 21 and 22 years, the experimental group and the comparison group had the same number of females. Only 11.25 percent of the experimental group and 8.75 percent of the comparison group females were over 22 years of age.

TABLE 13

Ages of Males

Ages								
Groups	18	19	20	21	22	23	24-30	30+
Experimental	-	5	13	8	6	3	3	5
Comparison	-	6	6	16	3	4	9	4
Experimental	-	6.25%	16.25%	10.00%	7.50%	3.75%	3.75%	6.25%
Comparison	-	7.50%	7.50%	20.00%	3.75%	5.00%	11.25%	5.00%

Summary: Most of the males and females in both groups tended to be of traditional college age. Substantially many more males than females were over the age of 22 years in both the experimental and comparison groups.

Area of Origin

The area of origin is where the members of the experimental and comparison groups resided before entering Oregon State University, and is detailed in Table 14.

TABLE 14

Area of Origin

Area of Origin		
Groups	State of Oregon	Out-of-State
Experimental	57	23
Comparison	70	10
Experimental	71.25%	28.75%
Comparison	87.50%	12.50%

Summary: The experimental group and the comparison group showed a large number of transfers within the State of Oregon System of Higher Education.

Former College Enrollment

Former college enrollment is the type of college the transfer students had attended prior to coming to Oregon State University. Table 15 shows the type of college of both groups as determined by Oregon State University admission records.

TABLE 15

Former College Enrollment

Groups	Number	Two-Year		Four-Year	
		Number	Percent	Number	Percent
Experimental	80	46	57.50	34	42.50
Comparison	80	56	70.00	24	30.00
Experimental and Comparison	160		63.75		36.25

Summary: A substantial proportion of the newly-admitted transfer students in both groups transferred from a two-year college.

Class Standing

Table 16 shows the division of both groups by class standing as determined by admission records.

TABLE 16

Class Standing

Class								
Groups	No.	Freshman	No.	Sophomore	No.	Junior	No.	Senior
Experimental	23	28.75%	30	37.50%	24	30.00%	3	3.75%
Comparison	11	13.75%	33	41.25%	34	42.50%	2	2.50%

Summary: The general concept of transfer students arriving as juniors at the four-year institution is not supported by these figures, particularly in the experimental group. The table shows that many students enter as freshmen and sophomores.

Enrollment by College

The enrollment by college was examined to see if the experimental and comparison groups were as similar as possible. This information is shown in Table 17.

TABLE 17

Enrollment by College

College	Experimental	Percentage	Comparison	Percentage
Agriculture	1	1.25%	0	0
Business	20	25.00%	17	21.25%
Engineering	5	6.25%	5	6.25%
Education	1	1.25%	4	5.00%
Forestry	0	0	1	1.25%
Home Economics	2	2.50%	8	10.00%
Liberal Arts	42	52.50%	38	47.50%
Pharmacy	2	2.50%	0	0
Science	7	8.75%	7	8.75%

Summary: The general trends are somewhat similar for both groups. There was an under-representation of certain colleges, such as Education and Home Economics, in the experimental group.

Entering Grade Point Averages (GPA's)

The previous college Grade Point Averages (GPA's) from the entering experimental and comparison groups were calculated by the Admissions Office and averaged for this study. International students could not be included because their records did not have equivalent Grade Point Average (GPA) information. The information is shown in Table 18.

TABLE 18

Entering Grade Point Averages (GPA's)

Group	Entering GPA
Experimental	2.75
Comparison	2.94
t-test	.004
significance	.05

Summary: The entering GPA for the comparison group was higher than that of the experimental group.

Housing Status

The housing status of the experimental and comparison groups was studied to determine if there were any differences between the experimental and comparison groups. This is detailed in Table 19.

TABLE 19

Group	Housing Status			
	Type of Housing			
	Off-Campus	Percent	On-Campus	Percent
Experimental	54	67.50	26	32.50
Comparison	65	81.25	15	18.75

Summary: The experimental and comparison groups preferred off-campus housing, rather than living on campus.

Ethnic Groups

The student records were used to tabulate the percentages of ethnic groups represented by the experimental and comparison groups to determine if there was a difference. This information is detailed in Table 20.

TABLE 20

Ethnic Groups

Group	Caucasian	Hispanic	African-American	Inter-National
Experimental #	70	3	7	0
Comparison #	76	1	2	1
Experimental %	87.50	3.75	8.75	0
Comparison %	95.00	1.25	2.50	1.25

Summary: The experimental group was self-selected; the study had no control over which ethnic groups were represented in the study. The comparison group was picked at random for the study. The Hispanic students have a low percentage in both groups because the Hispanic student population at Oregon State University is less than 1 percent. The African-American experimental group is larger than the Hispanic and International groups because of its greater representation in the athletic department at Oregon State University. But, like the Hispanic population, the African-American student population is less than 1 percent of the total student population, which accounts for its low percentage in both the experimental and comparison groups.

Demographic Data Summary

The information gathered in this survey reveals a profile of students who were likely to enroll in the extended transfer student orientation course. Much of the information did indicate that the experimental and comparison groups were similar.

The demographic differences between the experimental and comparison groups were minimal. Statistically significant differences were found in the area of origin.

Hypotheses Testing

The second objective of this study was to determine the effect of the extended transfer student orientation course upon factors related to student academic achievement. Specifically, does participation in the course affect the transfer students' academic achievement?

1. Null Hypothesis

The extended orientation course will have no significant effect upon transfer students' decline in Grade Point Average (GPA) during their first term after entering Oregon State University.

The entering Grade Point Average (GPA) of the experimental and comparison groups compared to that of their first term (Fall 1988) at Oregon State University are detailed the following tables.

TABLE 21

**Analysis of Variance Summary Statistics for the
Entering Grade Point Average (GPA) for the Experimental Group**

**One Factor ANOVA-Repeated Measure for
Entering GPA Compared to Fall 1988 GPA**

Source:	df:	Sum of Squares:	Mean Square:	F-test:	P value:
Between subjects	77	46.219	.6	2.14	.0005
Within subjects	78	21.875	.28		
treatments	1	.024	.024	.086	.7702
residual	77	21.85	.284		
Total	155	68.093			

Reliability Estimates for- All treatments: .533 Single treatment: .363
Note: 2 cases deleted with missing values

Group:	Count:	Mean:	Std. Dev.:	Std. Error:
Enter GPA	78	2.756	.501	.057
F88	78	2.731	.796	.09

Comparison:	Mean Diff.:	Fisher PLSD:	Scheffe F-test:	Dummettt t:
Enter GPA vs. F88	.025	.005 *	.086	.293

* Significant at 5%

Significance level = 0.05

3.84 (the desired critical value)
.086 (Scheffe F-test) < 3.86
Except Ho (null hypotheses)
Type I error

The analysis of variance showed a drop in Grade Point Average (GPA) of .025, thus the null hypothesis was retained that transfer students' Grade Point Averages traditionally show a decline during the first term after entering Oregon State University.

TABLE 22

**Analysis of Variance Summary Statistics for the Entering
Grade Point Average (GPA) for the Comparison Group**

**One Factor ANOVA-Repeated Measure for Entering
GPA Compared to Fall 1988 GPA**

Source:	df:	Sum of Squares:	Mean Square:	F-test:	P value:
Between subjects	79	46.887	.594	1.56	.0244
Within subjects	80	30.429	.38		
treatments	1	3.27	3.27	9.513	.0028
residual	79	27.158	.344		
Total	159	77.315			

Reliability Estimates for- All treatments: .359 Single Treatment: .219

Group:	Count:	Mean:	Std. Dev.:	Std. Error:
Enter GPA	80	2.939	.587	.066
F88	80	2.653	.77	.086

Comparison:	Mean Diff.:	Fisher PLSD:	Scheffe F-test:	Dunnett t:
Enter GPA vs. F88	.286	.006 *	.095	.308

* Significant at 5%

Significance level = 0.05

3.84 (the desired critical value)
.095 (Scheffe F-test) < 3.86
Except Ho (null hypotheses)
Type I error

The analysis of variance showed a drop in Grade Point Average (GPA) of .286, which supports the null hypothesis that transfer students' Grade Point Averages traditionally show a decline during the first term after entering Oregon State University.

Summary: The analysis of variance showed a drop in Grade Point Average for the experimental and comparison groups. The analysis revealed that the experimental group showed less of a drop, compared to the comparison group. The experimental group received the treatment, the extended transfer student orientation course. The drop in GPA for both groups does retain the null hypothesis that transfer students' Grade Point Averages traditionally show a decline during the first term after entering Oregon State University. The analysis of variance (ANOVA) failed to reject H_0 .

2. Null Hypothesis

The extended orientation course will have no significant effect upon transfer students' Grade Point Averages (GPA's).

The academic years' (1988, 1989 and 1990) Grade Point Averages (GPA's) for the experimental and comparison groups are compared in the following tables (23 & 24, 25 & 26, and 27 & 28).

TABLE 23

Analysis of Variance Summary Statistics for the Academic Year 1988
for the Comparison and Experimental Groups Compared

Comparison Group				
One Factor ANOVA-Repeated Measure for GPA Academic Year 1988				
Group	Count (n)	Mean (\bar{x})	S ²	Totals
F88	80	2.653	.592	212.25
W89	79	2.572	.461	203.2
S89	76	2.745	.41	208.589

F 1.18589 < 3
Accept Ho
Significant at 5%
Significance level = 0.05

TABLE 24

Experimental Group				
One Factor ANOVA-Repeated Measure for GPA Academic Year 1988				
Group	Count (n)	Mean (\bar{x})	S ²	Totals
F88	78	2.731	.633	213.00
W89	75	2.471	.872	185.34
S89	72	2.670	.514	192.24

F 2.07595 < 3
Accept Ho
Significant at 5%
Significance level = 0.05

Summary: The analysis of variance showed that the experimental and the comparison groups did not show a difference in Grade Point Averages (GPA's) for the 1988 academic year. For the academic year 1988, the null hypothesis is retained. The student orientation course showed no effect when the experimental group was compared to the comparison group. The analysis of variance (ANOVA) failed to reject H_0 .

TABLE 25

**Analysis of Variance Summary Statistics for the Academic Year 1989
for the Experimental and Comparison Groups Compared**

Comparison Group

**One Factor ANOVA-Repeated Measure for
GPA Academic Year 1989**

Group	Count (n)	Mean (\bar{x})	S ²	Totals
F89	75	2.755	.489	206.62
W90	73	2.842	.430	207.48
S90	72	2.848	.452	205.07

F .043899 < 3
 Accept H_0
 Significant at 5%
 Significance level = 0.05

TABLE 26

Experimental Group				
One Factor ANOVA-Repeated Measure for GPA Academic Year 1989				
Group	Count (n)	Mean (\bar{x})	S ²	Totals
F89	61	2.604	.578	158.826
W90	58	2.471	.747	143.304
S90	53	2.728	.775	144.590

F 1.31776 < 3
 Accept Ho
 Significant at 5%
 Significance level = 0.05

Summary: The analysis of variance showed that the experimental group had a lower Grade Point Average (GPA) for the academic year 1989. For the academic year 1989, the null hypothesis is retained. The student orientation course showed no effect when the experimental group was compared to the comparison group. The analysis of variance (ANOVA) failed to reject Ho.

TABLE 27

Comparison Group				
One Factor ANOVA-Repeated Measure for GPA Academic Year 1990				
Group	Count (n)	Mean (\bar{x})	S ²	Totals
F90	50	2.994	.415	149.68
W91	59	2.257	1.805	133.15
S91	40	3.094	.384	123.74

F 1.46328 < 3
 Accept Ho
 Significance at 5%
 Significance level = 0.05

TABLE 28

Experimental Group				
One Factor ANOVA-Repeated Measure for GPA Academic Year 1990				
Group	Count (n)	Mean (\bar{x})	S ²	Totals
F90	35	2.919	.635	102.16
W91	30	2.949	.324	88.46
S91	25	2.913	.703	72.83

F .01968 < 3.186
 Accept Ho
 Significant at 5%
 Significance level = 0.05

Summary: The analysis of variance showed that the experimental group's Grade Point Average in the third year after the treatment was at mean 2.927, compared to the comparison group's at mean 2.78; which proves that the Grade Point Average (GPA) for transfer students will gradually go upward naturally, not due to the extended orientation course. The null hypothesis will be retained because the analysis of variance (ANOVA) failed to reject H_0 .

3. Null Hypothesis

Participation in the extended transfer student orientation course will have no effect upon transfer retention.

The retention of the experimental and comparison groups at Oregon State University are detailed in the following tables (29 and 30).

TABLE 29

Retention of Experimental and Comparison Groups by Percent

Term	Experimental Percentage	Comparison Percentage
Fall 88	97.50	100.00
Winter 89	93.75	98.75
Spring 89	90.00	95.00
Fall 89	76.25	93.75
Winter 90	72.50	91.25
Spring 90	66.25	90.00
Fall 90	43.75	62.50
Winter 91	50.00	57.50
Spring 91	31.25	50.00

TABLE 30

**Retention of Experimental and Comparison Groups
by Number of Students**

Term		Experimental	Comparison
Fall	88	78	80
Winter	89	75	79
Spring	89	72	76
Fall	89	61	75
Winter	90	58	73
Spring	90	53	72
Fall	90	35	50
Winter	91	30	59
Spring	91	25	40

Academic Year Mean

Academic Year	Experimental	Comparison	Difference
1988	93.75%	97.91%	4.16
1989	71.66%	91.66%	20.00
1990	41.66%	56.66%	15.00

Summary: The retention for the experimental group for academic year 1988 showed 4.16 mean difference from the comparison group. The treatment was given to the experimental group during Fall 1988. The extended orientation course had a negative effect on retention because retention for the experimental group was lower than the comparison group.

The retention for the experimental group for academic year 1989 showed a 20 mean difference from the comparison group, which shows that the extended orientation course had a negative effect on retention during the second year.

The retention for the experimental group for academic year 1990 showed a 15 mean difference from the comparison group, which shows that the extended orientation course had a negative effect on retention during the third year.

Retain the null hypothesis for academic year 1988 because there was no statistically significant difference. The null hypothesis will be retained for academic years 1988, 1989, and 1990 because the extended orientation course had a negative effect on retention. The tests failed to reject H_0 .

The GPA's of over 3.50 and 3.57 for the experimental group is shown in Table 31. The GPA's of over 3.50 and 3.57 for the comparison group is shown in Table 32.

TABLE 31

**Percentage of Experimental Group with
Grade Point Averages (GPA's) Over 3.50 and 3.57**

Term	GPA 3.50		GPA 3.57	
	# Students	%	# Students	%
Fall 88	14	17.90	11	13.75
Winter 89	14	18.67	11	13.90
Spring 89	12	16.67	9	11.80
Fall 89	8	13.10	8	10.70
Winter 90	9	15.50	8	11.00
Spring 90	10	18.90	11	15.30
Fall 90	11	31.40	8	16.00
Winter 91	5	16.70	5	8.50
Spring 91	8	32.00	7	17.50

TABLE 32

**Percentage of Comparison Group with
Grade Point Averages (GPA's) Over 3.50 and 3.57**

Term		GPA 3.50		GPA 3.57	
		# Students	%	# Students	%
Fall	88	10	12.80	7	8.75
Winter	89	6	8.00	4	5.06
Spring	89	9	12.50	8	10.53
Fall	89	10	16.39	6	8.00
Winter	90	13	22.40	9	12.33
Spring	90	13	24.50	11	15.28
Fall	90	12	34.30	11	22.00
Winter	91	7	23.30	5	8.47
Spring	91	11	44.00	10	25.00

Academic Year Mean

Academic Year	Experimental		Comparison		Difference	
	3.50	3.57	3.50	3.57	3.50	3.57
1988	17.75	13.15	11.10	8.10	6.67	5.05
1989	15.80	12.30	21.09	11.87	5.29	.43
1990	26.70	14.00	33.90	18.49	7.20	4.49

The GPA of below 2.00 for the experimental group is shown in Table 33. The GPA of below 2.00 for the comparison group is shown in Table 34.

TABLE 33

Percentage of Experimental Group Below 2.00 (GPA)

Term		Below 2.00	
		# Students	Percent
Fall	88	14	17.90
Winter	89	23	30.70
Spring	89	13	18.05
Fall	89	9	14.75
Winter	90	15	25.90
Spring	90	9	16.98
Fall	90	2	5.71
Winter	91	1	3.30
Spring	91	3	12.00

Summary: The treatment was given to the experimental group during Fall 1988. At the end of the academic year, the experimental group had a larger mean of transfer students with a Grade Point Average (GPA) of 3.50 and 3.57.

At the end of academic year 1989, the comparison group showed a larger mean of transfer students with a Grade Point Average (GPA) of 3.5. In the comparison group and experimental group, there was a small difference at 3.57 (.43 difference).

At the end of academic year 1990, the comparison group showed a larger mean of transfer students with a Grade Point Average (GPA) of 3.50 and 3.57.

The treatment for the experimental group for academic year 1988, which was given during Fall 1988, showed that the treatment did have an effect on Grade Point Averages, with a Grade Point Average of 3.50 and 3.57 the year of the treatment.

TABLE 34

Percentage of Comparison Group below 2.00 (GPA)

Term	Below 2.00	
	# Students	Percent
Fall 88	14	17.50
Winter 89	18	22.78
Spring 89	9	11.84
Fall 89	9	12.00
Winter 90	9	12.32
Spring 90	7	9.72
Fall 90	4	8.00
Winter 91	16	27.12
Spring 91	2	5.00

Academic Year Mean

Academic Year	Experimental	Comparison	Difference
1988	54.60	44.20	10.40
1989	46.30	27.56	18.74
1990	7.00	13.37	6.37

Summary: The experimental group showed a larger mean of transfer students going on probation for academic year 1988, compared to the comparison group.

For the academic year 1989, the experimental group showed a larger mean of students going on probation, compared to the comparison group.

For the academic year 1990, the experimental group showed fewer students on probation than the comparison group.

(At Oregon State University, probation is when a student's Grade Point Average drops below 2.0.)

4. Null Hypothesis

The extended orientation course will have no effect upon transfer student graduation rates.

The graduation rates of the experimental and comparison groups are shown in Tables 35 and 36.

TABLE 35

Graduation Rates of Experimental Group Students

Year	# of Students	Percent of Fall 88 Group
1989	5	6.25
1990	11	13.75
1991	8	10.00
Total	24	30.00

TABLE 36

Graduation Rates of Comparison Group Students

Year	# of Students	Percent of Fall 88 Group
1989	1	1.25
1990	16	20.00
1991	19	23.75
Total	36	45.00

Summary: At the end of academic year 1988, the experimental group showed 80 percent more students graduating, compared to the comparison group. The treatment was given to the experimental group during Fall 1988, academic year 1988. For the three year study, the comparison group had one-third more students who graduated, compared to the experimental group. The extended orientation course had no effect on graduation rates for the experimental group.

The null hypothesis will be retained for the three-year study. The tests failed to reject H_0 .

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The primary purpose of this study was to determine the effects of an extended transfer student orientation course on academic achievement. The model components were transfer student decline in Grade Point Average (GPA), transfer student Grade Point Average (GPA), transfer student retention and transfer student graduation rates. The assessment of experimental and comparison groups of newly admitted transfer students at Oregon State University was done after the Fall 1988 term, when the experimental treatment--the extended transfer student orientation course--took place. Analyses of variance were the main statistical techniques used to compare the two group responses.

The demographic data revealed that these transfer students had many of the characteristics which have been shown to limit student success. Seventy to seventy-five percent of the transfer student participants were the traditional ages of college students (18-22 years old).

The class standing of the transfer students indicated that many of the two-year transfer students were moving to the four-

year school without the associate degree. In addition, many of the four-year transfer students were transferring in their sophomore or junior years.

Most of the transfer students who enrolled in the extended transfer student orientation course were in-state students. In addition, most of the transfer students who did not enroll in the course were in-state students. The majors of both groups were similar.

In this study, the entering Grade Point Averages (GPA's) of the experimental group were lower than those of the comparison group. The experimental group entered with a lower GPA than the comparison group; it appeared that those transfer students recognized the need for help in order to be successful students. The marketing of the course was successful in attracting transfer students who needed the extended transfer student orientation course.

Hypotheses Testing

The primary objective of this study was to determine the effect on academic achievement of the extended transfer student orientation course. The areas examined were the transfer student decline in Grade Point Average (GPA), transfer student Grade Point Average (GPA), transfer student retention and transfer student graduation rates.

Decline in Grade Point Average

The experimental treatment showed a drop in Grade Point Average (GPA) for the experimental and comparison groups after their first term at Oregon State University. The experimental group showed less of a drop, compared to the comparison group. The experimental group received the treatment, the extended transfer student orientation course. The drop in Grade Point Average (GPA) for both groups did support the null hypothesis that transfer students' Grade Point Averages (GPA's) traditionally show a decline during the first term after entering Oregon State University. The treatment had no effect ameliorating decline in Grade Point Average (GPA).

Grade Point Average (GPA)

The Grade Point Averages (GPA's) of the experimental and comparison groups showed that both groups did not show a difference in academic year 1988. The Grade Point Averages (GPA's) of the experimental and comparison groups showed that the experimental group had a lower Grade Point Average (GPA) for the academic year 1989. The impact of the extended transfer student orientation course on academic achievement did not help the experimental group during its second year at Oregon State University. At the end of nine terms the analysis showed the

experimental group's Grade Point Average at mean 2.927, compared to the comparison group's mean of 2.78; which demonstrates that the Grade Point Average (GPA) for transfer students will gradually go upward, although the Grade Point Average (GPA) going upward for the experimental group was not due to the extended transfer student orientation course.

Retention of Transfer Students

At the end of academic year 1988, the transfer students who were enrolled in the extended transfer student orientation course had a retention rate four percent lower than the transfer students who did not enroll in the course. At the end of academic year 1989, the transfer students enrolled in the course had a decline in retention of 20 percent, compared to the transfer students who did not enroll in the course. At the end of academic year 1990, the transfer students enrolled in the course had a decline in retention of 15 percent, compared to the transfer students who did not enroll in the course. The retention of transfer students who enrolled in the course showed a negative effect.

Transfer Student Graduation Rates

The three-year study demonstrated that the transfer students not enrolled in the extended transfer student orientation course showed one-third more graduating transfer students, compared to the transfer students enrolled in the course. The course showed no positive effect on graduation rates for transfer students enrolled in the course.

Conclusion

The transfer student GPA and retention was measured for three years. The course showed no positive effect on academic achievement or retention for the transfer students enrolled in the course. In addition, pre-entry attributes, such as Grade Point Average (GPA) and trend of academics, are important elements in predicting student success; but not enough was known about the transfer students at this institution (Oregon State University) to control for such variables. The study demonstrated that the grade received in the course Fall 1988 helped the at-risk transfer students to maintain Grade Point Averages (GPA's) of 2.00 and above.

After the term, participants in the extended transfer student orientation course made comments which suggested that they had made faster inroads into the academic and social systems of the university. The comments were made at the end of the Fall 88 course. The implication is that the participants made friends in the extended orientation course and had a close relationship with at least one faculty member--the section instructor. The following are comments made by the transfer students who were enrolled in the course. The comment introduction and summary of findings were written by Dr. Robert Rice of Oregon State University at the end of Fall 1988.

Written Comments From Participants

A final study used a qualitative analysis of the participants' written comments of the course. Each of the participants in the course were asked to submit weekly journals of their first term experiences at Oregon State University. The following statements have been derived from comments in the journals and student reactions to a question concerning their assessment of the HIED 202 course. The comments reflect statements from 72 of the 80 students; some students had several statements worthy of note.

1. I thought I saw a change in the caring department because of the HIED class. The students in this class really wanted to help each other. I also saw a different kind of teacher. The kind I was expecting five years before. It is nice to have a teacher who cares and really goes out to help students.
2. My education should go a lot smoother and should be a happier ride because of this course.

3. There are more people here at OSU who are willing to help you than I thought.

4. This class has helped me in several ways. I feel comfortable here at OSU; I feel like I know the system and how it works and I think this class has helped me get to that point.

5. I feel this class has helped me to develop some key friendships and I have become more involved in some super activities. I already feel at home here in Corvallis.

6. The teacher of the HIED class has been a friend and an assistant for me. I am really glad that I decided to take this class because now I feel like a real college student.

7. I feel so close to the instructor and students in the HIED class. Everyone has been so sensitive and caring.

8. The HIED class has been wonderful. It has helped me to feel more comfortable with my surroundings. I think this class is a wonderful addition for transfer students.

9. I have become so enchanted by the friendly, helpful people here at OSU that I have decided to stay at OSU. This HIED class has really helped me to sort out my feelings, the instructor has been our friend and advisor.

10. I enjoyed the HIED class. Besides meeting a lot of new people, I learned a lot about the campus. It helped me a lot with my academic development.

11. The best thing to happen to me as a result of this course was the gaining back of my confidence. As a class we didn't talk about confidence, but we examined study habits and personality traits. When this picture of myself was painted, I didn't like what I saw. This prompted me to take a look at what the problem was. I'm back on track and thank this class and myself for it.

12. Because of the HIED 202 class, I'm now in a state of mind where I can set goals for myself and take them seriously. For the past year and a half this had been missing, replaced by false commitment and apathy.

13. The HIED course has been very helpful to me. I hope that people will continue to take this course and use it to its fullest potential.

14. The orientation class sped up my knowledge of OSU and all it has to offer. It helped me to adapt quickly to the campus.

15. The HIED class helped me to get a jump on a more successful stay here at OSU.

16. I highly recommend that all transfers take the transfer orientation class. You get some good advice about school and lots of encouragement.

17. I found the HIED class to be very supportive. It was comforting to know other students were facing the same problems and the class helped me to meet some very good friends.

18. Our instructor in the HIED class really cared about how we were doing socially and academically. He was willing to help us or find us help.

19. The transfer class made it easier for me to cope with the lonely feelings I had moving up here. The relaxed atmosphere made it easier to talk about our problems.

20. I would recommend this class to everyone. It will help you adjust to the college atmosphere 100%.

21. It is very hard to be a college student if you don't know what or where your resources are. This class really helped to identify the key resources.

22. This class helped me to get organized and helped me to deal with the stress that I was feeling.

23. I really enjoyed the HIED class because it was a time to meet with others who were feeling just like me at time-we all shared common stress and the class helped to bring us together and help each other with that stress.

24. Over-all this class made the difference between be forging ahead when I considered dropping out.

25. The feeling of anonymity in a new town and sometimes overpowering environment was some how balanced by this class where people are allowed to be people without the demand of "heady" expectations.

26. The HIED class--the small group setting was so supportive, it was a place to come where I was seen as an individual rather than an unknown face in a sea of unknown faces.

27. The crucial element of the HIED class for me was the beautiful personality of the instructor-his genuine nature, openness, and willingness to share his experiences and sense of caring was great.

28. The HIED class is a time to get in touch with yourself and find some direction in your life.

29. The HIED class was a place where you feel people care and you belong to a group where you can make some real friendships.

30. The HIED class is an experience where you don't have to go out and worry about seeking help-it's all right here for you.

31. The class was very helpful, I'm sorry that it is over.

32. The HIED class is the best course that I took this term.

33. I believe the HIED class has done more for me than any other class. It thought me a lot of techniques that I now use in my education.

34. The HIED class has helped me to improve my system of study.

35. The HIED class is a very good class for not only transfers, but all students. I hope that each person in the class has benefitted in a personal sense in as much as I believe that I have.

36. The HIED class has helped me to gain important knowledge about the university, knowledge of other students, and experience having a class that involves input from sources other than teachers.

37. The class was stress free and a good way to meet people. I'd recommend it to anyone transferring to OSU.

38. What I liked about the HIED class? It was relaxed, comfortable, helpful, interesting, and a chance to meet people who were supportive.

39. I would highly recommend the transfer orientation class to any new student.

40. Our group in the HIED class became very close and this made it easier to talk about and to work out our problems. I really enjoyed this class.

41. The instructor in the HIED class was the best thing to happen to me during the first term at OSU.

42. The HIED class is a good idea and is superb in helping students.

43. I feel that the HIED class has really helped me to feel more comfortable with OSU. The instructor is an inspiration to me. He turned out to be a friend and an advisor. I think this class is a very good idea.

44. I think that the main thing I recommend new transfer students to do is take the Transfer Orientation course. It is a very beneficial and informative class.

45. The HIED 202x transfer orientation course helped me to deal with the stress of coming to OSU, I thoroughly enjoyed it.

46. The HIED 202x class helped me with my knowledge of the campus, with my studying, with my anxiety, and it helped me to make new friends.

47. I thought the HIED 202x class might be boring but it turned out to be my favorite class. It was interesting, helpful, informative, and a great class!!!

48. The HIED instructor was a friend and a good model for us to follow.

49. The HIED class is very good.

50. I feel that the HIED class has been long overdue at OSU. I am very surprised that it has never been offered before. It has given me a chance to learn about the university and it has been a tremendous help in locating campus resources.

51. I feel that because of this class that I am better prepared for OSU than a freshman or other transfer student.

52. This class has taken the handicap out of being a transfer student.

53. I thought the HIED class was well organized and I learned a lot from it.

54. I'm really glad that I took the transfer class because it helped me feel more a part of the university.

55. I really enjoyed the transfer class. I particularly liked the personal relationships of our group.

56. I feel that the HIED class is an extremely important class. It gives transfer students an opportunity to meet others in our situation. It helped me to know myself and to know how to deal with others.

57. The instructor of the transfer group did a fantastic job. I really enjoyed the camaraderie.

58. The HIED class was perfect in all categories, it really helped in my commuting to OSU.

59. Working in a group within the HIED class was a real plus. They all knew exactly what I was experiencing.

60. It was a place to relax and learn, to meet some nice people and learn about the internal workings of the university.

61. I gain confidence and more self-esteem for the HIED course. I feel that I can make educated decisions instead of guesses as a result of taking the course. I liked the moral support and specific information presented.

62. I liked meeting and learning from the experiences of the other students.

63. I have a much better understanding of the depth and breadth of services and resources at OSU.

64. The HIED provided me with an opportunity to have a strong relationship with my classmates-this was valuable to me.

65. The HIED class provided me with a support group for older than average student problems. It gave me a more realistic view of the campus, its role, functions and how I fit in.

66. The HIED class gave me the chance to meet new people and explore the resources at OSU.

67. The HIED class gave me the chance to meet other older than average students and this helped to make the campus a more friendly place.

68. The HIED class was great, the biggest strength was the instructor. His counseling and help were extremely helpful and he gave me a push in the right direction, something I haven't got in a long time.

69. The HIED class gave me the chance to make some friends. It also gave me a chance to learn valuable study tips and how to plan my time more effectively.

70. The HIED class gave me the freedom to be me and the content of the course was very good.

71. The class helped me to deal with the anxieties of being a new student in a new place.

72. The HIED class was a place where you could go and discuss things and feel comfortable. We got to know others and we were treated as unique people and not just another face in the crowd.

73. I really enjoyed the HIED class.

74. The HIED instructor really made me feel comfortable about OSU. The other students in the class were of great help and support and I enjoyed learning about myself and theirs.

75. The HIED class was a very open, warm, and friendly atmosphere. I really enjoyed the class discussions especially on dealing with the stress of college life.

76. The HIED class was fun. You got to know others, obtain some friendships, and it was a place where I could go if I had a question and I wasn't sure where to start.

77. I enjoyed the HIED class. The instructor was good, likeable, and the class was so personal.

78. In the HIED class I learned how to deal with people in new situations. The instructor was excellent and concerned himself with his students.

79. The HIED class helped me to relax and gave me some insights into how others perceived me and my new environment.

80. The HIED class gave me a better understanding of how OSU is operated and I enjoyed relating to other student problems and understanding their needs.

81. I enjoyed the atmosphere of the HIED 202x class. I also enjoyed working with the other students and the instructor.

82. I enjoyed the small group atmosphere of the HIED class because it allow you to feel closer to the students and the instructor. You don't feel like just another number.

83. I feel that the HIED class is a very strong one.

84. I enjoyed the lectures, discussions, and guest speakers of the HIED class.

85. I liked the instructor's attitude in the class. You are given freedom to talk and discuss issues in this course.

86. I enjoyed the atmosphere of the HIED class, I could be open with the instructor and with my classmates.

Summary of Findings

Participation in the HIED 202x has profound effects upon transfer student academic performance, reactions to college, and study habits and attitude development. Moreover, testimony from student participants clearly points to a strong favorable reaction and support for the course. The course would appear to have a tremendous value in enhancing student awareness of the rules and regulations of OSU, in fostering significantly more student/faculty involvement, in facilitating more favorable views of the campus climate, in promoting positive impressions of the forms of instruction at OSU, and in stimulating more awareness and use of the counseling and advisement services at OSU.

The content and methodology within the course produced significant gains in the over-all study habits and attitudes of the student participants as more than 45% of the students increased their study habit ability by 50%. The course clearly helped students to utilize their time more effectively, to change many of their procrastination habits, and to look more favorably upon the role of their instructors.

The most intriguing findings of the study were in the model component of Grade Point Average (GPA), which is not examined for two-year and four-year transfer students at the same time. Perhaps the conclusions which have been drawn from data collection on Grade Point Averages (GPA's) and retention rates should also focus

on personal motivation to succeed in order to understand why some students persevere at an institution of higher education.

Recommendations for Further Research

This study was conducted on the first extended transfer student orientation course taught at Oregon State University, and the course was adapted from courses taught to freshmen. A replication of the extended transfer student orientation course and its assessment would be needed to confirm these findings and to make broader inferences. A future study comparing freshmen and transfer participants in such courses could be done to confirm the similarities and any differences found in other studies.

This study did not examine the social system. The extended transfer student orientation course itself should be modified to provide the formal and informal components of the social system. The social needs of transfer students is the need to fit into the Oregon State University environment. The number of contact hours should be increased or spread out over more than one term; I would suggest three terms. The formal academic system experiences, such as concentration on academic skill, should be added to the content of the course.

The effect of the course, as it relates to the overall issue of retention, should be studied in a longitudinal project. The persistence of transfer students at Oregon State University, their academic performance and the perceptions they have of faculty and the institution could be assessed at a later date for both experimental and comparison groups.

Other colleges and universities could replicate this project on transfer students, as their transfer student populations may differ from this studied group. In addition, specific sub-groups could be targeted, such as older-than-average, female and minority students. Different types of transfer students, such as articulated, non-traditional and reverse transfer students, could also be identified and studied. Controls related to pre-entry variables of gender, GPA, educational background, entering GPA or type of former college could be used. A study of at-risk transfer students would enable colleges and universities in the future to provide an environment where at-risk transfer students can fulfill their educational goals.

This study and further research will enable colleges and universities in the future to provide an environment conducive to a higher percentage of two-year and four-year transfer students fulfilling their educational goals.

In conclusion, I will say that the more that is known about the transfer student at Oregon State University, the more fully they will be served.

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APPENDICES

DIRECTORY OF COMMUNITY COLLEGES IN OREGON

Institution, Location, Administrative Officer

Blue Mountain Community College
2410 NW Carden Avenue
PO Box 100
Pendleton, OR 97801-0100
Phone: 276-1260
Mr. Ronald L. Daniels, President

Central Oregon Community College
2600 NW College Way
Bend, OR 97701-5998
Phone: 382-6112
Dr. Frederick H. Boyle, President (to July 1990)
Dr. Robert Barber, President (July 1990-)

Chemeketa Community College
4000 Lancaster Drive NE
PO Box 14007
Salem, OR 97309-5009
Phone: 399-5000
Dr. William Segura, President

Clackamas Community College
19600 S Molalla Avenue
Oregon City, OR 97045
Phone: 657-8400
Dr. John Keyser, President

Clatsop Community College
1653 Jerome
Astoria, OR 97103
Phone: 325-0910
Mr. Phil L. Bainer, President (to July 1990)
Dr. Doreen Dailey, President (July 1990-)

*Columbia Gorge Community College
300 E 4th Street
The Dalles, OR 97058
Phone: 296-6182
Mr. William E. Bell, President

Lane Community College
4000 E 30th Avenue
Eugene, OR 97405
Phone: 747-4501
Dr. Jerry Moskus, President

Linn-Benton Community College
6500 SW Pacific Boulevard
Albany, OR 97321-3774
Phone: 928-2361
Mr. Jon Carnahan, President

Mt. Hood Community College
26000 SE Stark
Gresham, OR 97030
Phone: 667-6422
Dr. Paul Kreider, President

Oregon Coast Community College
Service District
332 SW Coast Highway
Newport, OR 97365
Phone: 265-2283
Dr. Robert Costi, President

Portland Community College
12000 SW 49th Avenue
Portland, OR 97219
Phone: 244-6111
Dr. Daniel F. Moriarty, President

Rogue Community College
3345 Redwood Highway
Grants Pass, OR 97526
Phone: 479-5541
Dr. Harvey Bennett, President

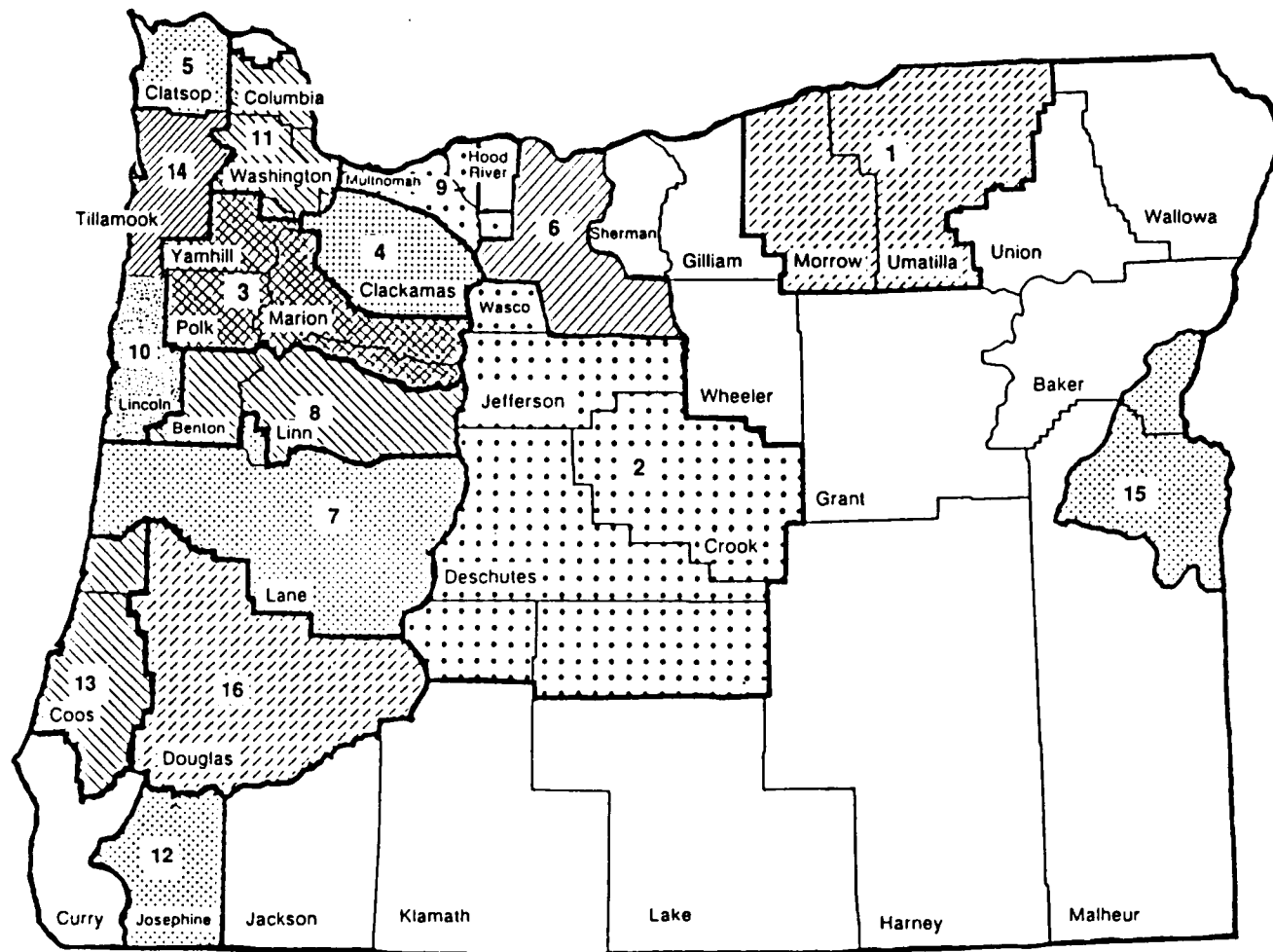
Southwestern Oregon Community College
1988 Newmark
Coos Bay, OR 97420
Phone: 888-2525
Dr. Robert Barber, President (to July 1990)

Tillamook Bay Community College
Service District
6385 Tillamook Avenue
Bay City, OR 97107
Phone: 377-2765
Mr. Roy B. Mason, President

Treasure Valley Community College
650 College Boulevard
Ontario, OR 97914
Phone: 889-6493
Dr. Glenn E. Mayle, President

Umpqua Community College
Box 967
Roseburg, OR 97470
Phone: 440-4600
Dr. James Kraby, President

* Treaty Oak CCSD became Columbia Gorge Community College August 1989.



- | | |
|------------------------|------------------------|
| 1 Blue Mountain | 9 Mt. Hood |
| 2 Central Oregon Coast | 10 Oregon Coast |
| 3 Chemeketa | 11 Portland |
| 4 Clackamas | 12 Rogue |
| 5 Clatsop | 13 Southwestern Oregon |
| 6 Columbia Gorge | 14 Tillamook Bay |
| 7 Lane | 15 Treasure Valley |
| 8 Linn-Benton | 16 Umpqua |