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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

AN INVESTIGATION OF ARTICULATION PROBLEMS PERCEIVED BY TRANSFERRING JUNIOR COLLEGE STUDENTS AT THE UNIVERSITY OF OKLAHOMA

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

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By

MILFORD DEAN MESSER

Norman, Oklahoma

1973

AN INVESTIGATION OF ARTICULATION PROBLEMS

PERCEIVED BY TRANSFERRING JUNIOR COLLEGE

STUDENTS AT THE UNIVERSITY OF OKLAHOMA

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AN INVESTIGATION OF ARTICULATION PROBLEMS PERCEIVED BY TRANSFERRING JUNIOR COLLEGE STUDENTS AT THE UNIVERSITY OF OKLAHOMA

CHAPTER I

INTRODUCTION

Present predictions indicate that the number of first-time students entering higher education will increase in the decade of the 1970's. "The United States Office of Education estimates that the number of students seeking bachelor's and higher degrees will jump fifty-two percent between 1970 and 1980 with the bulk of the increase in public institutions."[1]

This increase in numbers of students will occur in a variety of types of institutions. Four-year colleges and universities are expected to increase by forty-four percent, from 6.3 million in 1970 to nine million in 1980. The increase in two-year colleges is expected to be approximately 84 percent, from 1.6 million to three million students. The increase in non-degree credit courses, including occupational or general studies programs is projected to rise 86 percent, from 661,000 in 1970 to 1.2 million in 1980.[2]

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[1] Higher Education and National Affairs (Washington, D. C.: American Council on Education), April 17, 1972, p. 3.

[2] Ibid.

Of primary importance to this study is the increase in the proportion of students in the two-year college and the transfer of many of these students to four-year institutions of higher education. With the increasing number of students in two-year institutions, authorities expect that more students will transfer from these institutions to four-year colleges and universities. Knoell and Medsker observed in 1964 that "Transfer programs now attract the largest proportion of junior college students, particularly among recent high school graduates."[1] The trend since the publication of their study has not changed with increasing numbers of students enrolling in transfer programs.[2]

While many students have transferred from junior colleges to senior colleges or universities and more will continue to transfer, the articulation process has never been fully examined. Discussion is often carried on by those who work with the transferring student about problems which these students encounter, but the research in the area reveals little about the perception the student has concerning the problems that he has experienced.

The transferring student encounters a new environment as he moves from the two-year institution to the four-year institution. "Information still needs to be obtained about attrition . . . between the sophomore and junior years when students normally transfer and/or enter upper division programs."[3] This articulation process from junior to senior institution is the major focus of this study.

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[1]Dorothy M. Knoell and Leland L. Medsker, From Junior to Senior College: A National Study of the Transfer Student (Washington, D. C.: American Council on Education, 1965), p. 3.

[2]William A. Harper, (ed.), 1970 Junior College Directory (Washington, D. C.: American Association of Junior Colleges, 1970), p. 7.

[3]Knoell and Medsker, From Junior to Senior College, p. 4.

Background and Need for the Study

The transfer function of the junior college has attracted the largest number of students since the beginning of the institution. Historically, the transfer function was the first major responsibility accepted by the junior college. Thornton notes that "it was the primary purpose envisaged by Tappan, Folwell, Harper, Lange and Jordan,"[1] all considered to be founding fathers of the junior college movement.

Most literature on the junior college cites the transfer function as of major importance for the two-year institution, and apparently four-year colleges and universities have accepted transfers from junior colleges since the origin of this type of higher educational institution. Koos wrote in 1924 that 108 of 166 separate four-year colleges had received applications from junior college transfer students. The majority of these institutions admitted transfers with advance standing. Some gave hour-for-hour recognition of credit or gave credit only in those courses normally open to freshmen and sophomores.[2] However, the transition process for students has not been without some conflict and problems in articulation. Wrenn, writing in 1935, acknowledged that problem areas existed:

> . . .the gap between a junior college and a university is greater than any of us in either institution has been willing to admit. This gap may have nothing whatever to do with the quality of academic work carried on in the junior college; it may refer simply to the fact of the gap that exists for students coming from junior and senior colleges to the university. We in the university must make some provisions for meeting these needs.[3]

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[1]James W. Thornton, Jr., The Community Junior College (New York: John Wiley and Sons, 1966), p. 63.

[2]Leonard V. Koos, The Junior College (Minnespolis: The University of Minnesota, 1924), pp. 79-82.

[3]Gilbert C. Wrenn, "An Adjustment of Junior College Transfers," Junior College Journal, 6 (March, 1935), p. 281.

As the development of the junior college transfer programs has progressed, there has not been a significant amount of research involving the problems encountered by students who begin programs in junior colleges and continue their education in four-year institutions. Undoubtedly there have been sources of conflict in the articulation process since the origin of the junior college. Admissions officers, registrars, counselors, and faculty have been forced to evaluate and assess the credits of the transferring students:

> The receiving college is concerned that the transfer student shall be fully and comparably prepared to succeed in competition with "native" students. The junior college is equally concerned that no transfer practices seem to indicate that its courses or its students are inferior to those in the four-year college.[1]

Both the two-year and four-year institutions are sensitive for valid reasons in maintaining their own interests and autonomy. Caught in the middle of many controversies over the acceptability of transfer credit is the student who may be slighted or completely ignored in the educational or political considerations involved between institutions. Research in the area of articulation has rarely involved the student and how he perceives the problems that confront him.

Roueche stated that the transfer student requires greater skill in evaluation than the student who is admitted directly from high school. There is a greater variance in personality characteristics among transfer students as compared to non-transfer students. This could imply greater differences in academic performance. The transfer students are generally older, less likely to be at home on the larger university campus, and some studies have indicated a greater

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[1]Thornton, The Community College, p. 281.

propensity for withdrawing than the non-transfer student.[1]

There appears to be little reason to expect that the articulation problems will disappear, be resolved, or diminish as a result of fewer students preparing to transfer. Earlier figures cited indicate a significant increase from 1.6 million to 3 million students in junior colleges by 1980 with approximately 1.8 million students enrolled in transfer programs. In states where there has been significant development of the junior college, enrollment trends have revealed that increasing numbers of first-time college students are choosing to enroll in the two-year institutions: in California, 88 percent of the freshmen attending public colleges are enrolled in community junior colleges; in Florida the reported figure is 65 percent.[2] Further enrollment estimates are that 37 percent to 46 percent of all undergraduates will be enrolled in community colleges by the year 2000.[3] Jenks and Riesman predict "that within a generation the great majority of American high school graduates will be able to attend at least a two-year college . . . without leaving home."[4]

The state of Oklahoma has also felt the impact of the growth of the public junior college. There is currently a strong junior college movement underway in the urban centers of Oklahoma City and Tulsa with three new institutions, Tulsa Junior College, Oscar Rose Junior College, and South Oklahoma City Community College, in operation. The Oklahoma State Regents

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[1]John Roueche, Follow-Ups of the Unior College Transfer Student (Los Angeles: Educational Research Information Center for Junior Colleges, 1968), ERIC Document 013-067, p. 4.

[2]William A. Harper, (ed.), 1970 Junior College Directory (Washington, D. C.: American Association of Junior Colleges, 1970), p. 8.

[3]Ibid., p. 9.

[4]Christopher Jenks, and David Riesman, The Academic Revolution (Garden City, N. Y.: Doubleday and Co., 1968), p. 185.

for Higher Education have stated most recently that:

> Public two-year colleges should provide access for the bulk of the increase in lower-division students to be enrolled in Oklahoma between now and 1980, increasing their share of the total higher education enrollment in the public sector from 15 percent at present to nearly 22 percent by 1980, and upping their headcount from 14,000 to more than 28,000.[1]

Consequently, one can conclude from the various predictions available that the number of students transferring from junior colleges to senior colleges and universities will increase substantially through the 1970's.

The prevailing growth conditions with junior colleges and the growing number of students transferring from these two-year institutions make the study of problems encountered in the articulation process evermore relevant. Efforts must be made to resolve the difficulties that confront students who transfer. This cannot be done unless research is performed to ascertain what the problems are. Knoell and Medsker have recommended that two-and four-year year institutions seek "to know themselves and each other more intimately than has ever been true before."[2] Such institutional fact-finding is necessary and includes detailed study of specific problems which transfer students experience and have resulted in something less than the maximum degree of articulation.

Statement of the Problem and Purpose of the Study

Although not all junior college students enrolled in transfer programs will transfer, many of them will. Indications are that a growing number will transfer. These students represent a valuable resource for an

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[1]Dan S. Hobbs, Oklahoma Higher Education--A State Plan for the 1970's (Oklahoma City: Oklahoma State Regents for Higher Education, 1971), p.13.

[2]Knoell and Medsker, From Junior to Senior College: A National Study of the Transfer Student, p. 86.

American society which faces more complex social and technical problems, and these students should be assisted as extensively as possible in completing degree requirements. In the most recent study of transfer students at the University of Oklahoma, Kelley found that 97 of 188 junior college students withdrew before graduation.[1] This rate of attrition, which surpasses the fifty percent level, indicates that students are withdrawing at a significant rate but present research provides little insight into problems that they encounter and possible reasons for withdrawal.

Because previous research has provided very limited insight into the articulation process for the transferring junior college student, the problem for this study is to discern the sources of conflict that the student experiences in articulation from the two-year colleges to one state university. Through the research conducted, the writer has sought to answer these questions: Are there sources of conflict in the articulation process for the transferring junior college students at the University of Oklahoma and are these difficulties perceived differently by transferring students according to various characteristics associated with the students and identified in the study?

It would seem highly desirable for all individuals concerned with the articulation process that this transition be accomplished with maximum efficiency and minimum frustration. The purposes of the study were (1) to identify sources of conflict in the various dimensions of the articulation process and (2) to draw inferences, conclusions, and recommendations relevant to the needs of the transferring junior college student.

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[1]Robert E. Kelley, "Differences between Transfer and Non-transfer Students and Their Academic Performance at the University of Oklahoma" (unpublished doctoral dissertation, University of Oklahoma, 1970), p. 75.

Conceptual Model

The conceptual model for this study is based on Getzel's theory of administration which views the activities within an institution as a social process where behavior is conceived as a function of two dimensions, the nomothetic and the idiographic. The nomothetic dimension consists of institution, role, and expectations; the idiographic dimension consists of the individual, his personality, and his need dispositions.[1] Two sets of definitions are presented, namely: "institution" is used to designate agencies established to carry out "institutionalized functions for the social system as a whole," and "roles" are the "dynamic aspects" of the positions, offices and statuses within an institution. Roles are defined in terms of role expectations, and roles are complementary.[2]

In terms of this theory, junior college transfer students will be viewed as role incumbents who establish a relationship with a new institution, the University of Oklahoma, through the articulation process. Getzels has hypothesized that "Discrepancies between patterns of expectation attaching to a role and patterns of need dispositions characteristic of the incumbents of the role result in conflict."[3] When a new relationship occurs between an individual and an institution, conflicts arise as a function of these discrepancies.

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[1]Jacob W. Getzels, "Administration as a Social Process," Administrative Theory in Education (Chicago: Midwest Administration Center, 1958), pp. 150-165.

[2]Ibid., p. 153

[3]Jacob W. Getzels, et. al., Educational Administration as a Social Process (New York: Harper & Row, 1968), p. 112.

The Getzels' hypothesis, that conflict occurs when institutional expectations and the need dispositions of the role incumbent meet in the social process, provided the basis for the general research hypothesis of this study. The general research hypothesis is stated as follows: The articulation process between the junior-senior college experience contains sources of conflict for the transferring student. This conflict is a product of the discrepancies between the expectations of the receiving institution and the need dispositions of the transferring junior college student.

From the general research hypothesis was derived the basic research proposition for this study: If there are sources of conflict in the articulation process for transferring junior college students, then the conflict will be perceived differently by students according to characteristics possessed by the students and identified in the study. Those characteristics which were considered for study were age of the students, sex, academic major area of study, marital status, size of the junior college from which the student transferred, number of semesters in attendance at the University of Oklahoma, number of hours transferred by the student, financial status of the student's parents, grade point average at the junior college, and the student's persistence in enrollment at the University of Oklahoma. These characteristics represent certain idiographic and nomothetic variables associated with the students and were the independent variables in this study. The selection of the variables was based upon the review of the literature and research related to the problems of transferring junior college students.

Methods Employed

The method used in studying the problems encountered by transferring junior college students at the University of Oklahoma was a survey. An inventory of problems was developed and mailed to samples of persisting and

nonpersisting junior college transfer students. The responses to the problem areas cited in the inventory were analyzed by statistical methods. A copy of the inventory utilized in this study appears in Appendix C, and an in-depth explanation of all procedures followed in securing and analyzing data for this study is presented in Chapter III.

The Sample and Limitations of the Study

The study was limited to students who transferred from junior colleges to the University of Oklahoma and enrolled during the fall semester of 1972 and those transfer students who withdrew during the 1971-72 academic year. From the total population of junior college transfer students who enrolled in the fall semester of 1972, one sample of five hundred students was randomly selected. These students were identified through records on file with the Office of Admissions and Records at the University of Oklahoma. To obtain responses from the three hundred and twelve students who withdrew during the time period covered in the study, the researcher sent the problem inventory to the home addresses which the students provided the University during their most recent enrollment.

Samples from the total junior college transfer population at one four-year university were chosen for the study. Through the intensive study of these sample groups, it was assumed that certain articulation problem areas could be identified and studied through the development of a proper instrument. From the data obtained, certain conclusions were drawn about junior college transfer students in general. The researcher readily acknowledges the broad diversity existing with transfer junior college students and four-year institutions of higher education; however, one of the first steps toward understanding the transfer students' articulation problems in general is the intensive study of these problems at institutions where the problems exist.

Definitions of Terms

1. Articulation

the process of passing from the junior college to a four-year college or university in the higher education structure. In the broad sense, this process may extend from the earliest portion of the junior college experience to the point of complete adjustment in the four-year institution. The term is used in this study to include all related academic and social factors.

2. Conflict

"may be defined most simply as the mutual interference of parts, actions, and reactions in a social system."[1]

3. Junior college

a post high school educational institution offering a two-year program either of a terminal nature or as preparation for further training in a college or university.[2]

4. Perception

an awareness of an element of the environment through physical sensation, physical sensation interpreted in the light of experience.

5. Transfer students

students whose first enrollment was in a junior college and subsequently enrolled in a four-year college or university.

6. Persisting and nonpersisting students

Persisting students are those students who were enrolled during the

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[1]Getzels, et al., Educational Administration as a Social Process, p. 108.

[2]Carter V. Good, (ed.), Dictionary of Education (New York: McGraw-Hill Book Co., 1959), p. 305.

the period of time covered in the study. Nonpersisting students are those students who withdrew from the University of Oklahoma during the period of time covered in the study.

Summary

A paucity of information regarding problems encountered by junior college transfer students in the articulation process exists. Numerous studies related to the academic success of these students have been conducted, but few serious research efforts have sought to uncover problems related to transferring which may very well have a relationship with academic success. This study attempted to determine what the problems are by asking the students what problems confronted them.

A review of previous research and related literature is presented in Chapter II of this study while the research design, the null hypotheses, and other procedures related to methodology are discussed in Chapter III. Chapter IV is a presentation and analysis of the data collected, and the last chapter is a summary with conclusions and recommendations.

CHAPTER II

REVIEW OF RELATED LITERATURE

A perusal of the related research and literature reveals various problem areas cited in the articulation for junior college transfer students. Many studies have been conducted that have attempted to determine academic success, ability and aptitude ranges, persistence to graduation, and personal characteristics of the transferring student. Most of these studies have been reports of follow-up on students who have been enrolled in junior college transfer programs. Primarily, the studies have been concerned with the scholastic success of those students who transferred to degree-granting institutions.

Many of the research efforts investigated a variety of variables with much overlap. Ihrig cited those variables most often studied in research on the junior college transfer students as: grade point averages, socio-economic background, academic ability, family background, and financial ability.[1] For the purposes of this study, the researcher has attempted to organize the review of the literature in terms of five general areas most often touched upon in previous research: (1) studies dealing primarily with scholastic achievement, (2) studies relative to ability and pre-transfer achievement, (3) studies on student characteristics, (4) studies concerning junior college transfer student adjustment problems, and (5) studies concerned with student perceptions.

Growth in size and numbers of junior colleges has been unprecedented over the past twenty years. The status of the institution has

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[1]James P. Ihrig, Junior College Transfers and the Environmental Assessment Technique (Los Angeles: Educational Research Information Center for Junior Colleges, 1968), ERIC Document 024-358, p. 1.

reflected the growth and change has been rapid. Therefore, the emphasis in this review was placed on more recent research occurring over the past twenty years.

Studies of Scholastic Achievement

Medsker invited several institutions which receive each year a number of junior college transfers to participate in a longitudinal study using a uniform design to compare junior college transfer students and native students on scholarly performance (as expressed by a median grade point average), persistence, and graduation by the end of two years following junior classification. Sixteen institutions agreed to cooperate and submitted data for the report. Medsker concluded:

> In general, the data show that for the years studied the transfer students did somewhat less well than the native students in the first term after transfer. However, in most institutions by the end of the senior year they closely approached, and in a few instances slightly excelled, the native students. When there were differentials, they tended to be not more than 0.3 grade points and often less. However, in most institutions the retention rate for the transfer students during the junior and senior years was markedly lower than for the native students. Likewise, the percentage of transfers receiving degrees at the end of the second year after transfer (the "normal" time required to earn the baccalaureate degree) was generally much lower than for the native students. On the other hand, many institutions reported a greater number of transfer students who completed work for their degrees later, thus indicating that it often takes these students longer to satisfy degree requirements. As reported in the summary for some of the institutions, there were variations in all three factors of performance, retention, and degrees earned according to the schools or colleges in the universities.[1]

However, because of the limited number of schools and colleges in the universities studied, generalizations must be made cautiously from this study. In regard to differences according to sex, the transfer women tended to sur-

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[1]Leland L. Medsker, The Junior College: Progress and Prospect (New York: McGraw-Hill, 1960), p. 131.

pass transfer men in performance. Men tended to stay in college longer, but a higher percentage of women who transferred received their degrees within the four-year period after entering junior college.[1]

The most comprehensive study of community college transfers was conducted by Knoell and Medsker at the Center for the Study of Higher Education, University of California, Berkeley. Their results are reported in various publications. They drew a sample of 41 four-year colleges and universities in ten states in the fall term of 1960 and studied 7,243 junior college transfer students who were matriculating. The major objective of the study was to obtain and report normative information regarding the characteristics and performance of junior college students. They also compared the academic performance of 4,026 transfer and 3,349 native students at the participating schools.[2]

At the end of the initial two-year follow-up period for which the original study was planned, Knoell and Medsker found that fewer than half of the students who had transferred as juniors had completed their baccalaureate degree requirements and that nearly one-third were still enrolled. They then requested and received funds to follow the students into the fall term of their fourth year after transfer from junior college. Further findings indicated that sixty-two percent of the students obtained baccadegrees within three years after transfer and nine percent were still enrolled at the beginning of the fourth year. It was determined that approximately seventy-five percent of the transfer students received degrees eventually, including those who transferred to a second four-year institution. Fewer

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[1]Ibid.

[2]Dorothy M. Knoell and Leland L. Medsker, From Junior to Senior College, pp. 1-13.

than half of the students graduated at the end of a four-year sequence. Those transferring after obtaining an associate degree were more successful in completion of a baccalaureate degree program than those who transferred with less junior college credit. Most of the students experienced some drop in grades in the first semester after transfer but tended to recover if they persisted in enrollment at the four-year institution. Drop-outs were clearly inferior in academic performance to those continuing in degree programs. Findings indicated that persisting transfer students had about the same probability of success in graduating in various major fields as did native students. More transfer students graduated in applied fields, primarily in business, engineering, and teacher education. Transfer and native students who received degrees in 1962, regardless of the date of their initial registration in a junior or senior college, spent a similar number of semesters in the upper division completing degree requirements. Test results of both groups showed that native students had more academic aptitude and a greater readiness to do college work than did the junior college transfer students. At many universities, native students performed at a higher level in the upper division than did the transfer students. Junior college transfer students performed more closely to the standards of native students in teacher colleges as contrasted with the academic standards of native students in universities.[1]

Osner compared the academic success of 778 native students and 316 junior college transfer students who graduated from four California State Colleges and were eligible for admission to these institutions after high school graduation. He made comparisons of the two populations on the number of high school recommending units, upper division grade point averages, sex,

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[1] Ibid., pp. 19-20.

major, and age. He found that the native men had a significantly larger mean number of high school recommending units than the transfer men, and that the upper division grade point average of 2.754 for the native men exceeded the 2.678 of the transfer men. The high school and college records of both native and transfer women were superior to those of men. The upper division grade point average of the transfer students was slightly higher than their junior college average. He concluded that the eligible high school graduate who attends a California junior college will be adequately prepared for state college work.[1]

Mann compared the academic success and persistency to graduation of junior college transfer students, senior college transfer students, and native students at the University of Oklahoma. He found that natives achieved at an increased rate after reaching junior standing, while the transfers' rate of achievement, as measured by grade point average, decreased. However, he found no significant difference in the four-year grade point average of the three groups. Many of the transfers left school for reasons other than academic deficiency. He concluded that the junior college transfers were satisfactorily prepared to succeed academically at the University of Oklahoma.[2]

An additional study was conducted at the University of Oklahoma by Kelley in 1970. He sought to determine if differences existed between transfer students and native students in academic performance. With samples of 600 transfer students and a similar number of native students, he used class-

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[1]Henry J. Osner, "A Comparison of the Academic Success of Native Students and Junior College Transfers Who Graduated from Four California State Colleges in 1959" (unpublished doctoral dissertation, University of the Pacific, 1961).

[2]Mitchell Mann, "The Academic Achievement of Transfer Students at the University of Oklahoma" (unpublished doctoral dissertation, University of Oklahoma, 1963).

ification of students as the independent variable; the cumulative grade point average and the graduation/withdrawal rate were the dependent variables. He found that (1) transfer students did not perform as well academically as non-transfer students; (2) out-of-state transfer students performed at a higher level than did in-state transfer students academically and in persistence to graduation; (3) the type of original college from which the student transferred appeared to make a difference in his academic grades and persistency to graduation; (4) regional location of original college made no difference; (5) the transfer student's major field of study appeared to influence his academic success and persistency to graduation; (6) female transfer students outperformed males in academic grades but not in persistency to graduation.[1]

Hoemann conducted a further study in Oklahoma involving transfer students at Oklahoma State University in 1967. In comparing students within the College of Arts and Sciences, he found that the cumulative grade point average dropped in the first semester, but male students had a significantly higher GPA after eight semesters; there was no difference in chances of success in certain major fields of study; father's occupation had no significant relationship with the student's success; and there was no difference in persistence to graduation with students from four different junior colleges.[2]

In regard to academic success, Young found the average transfer student compared quite favorably to the native student at Pennsylvania State University. However, he indicated that those students transferring from junior colleges made poorer academic adjustment than other transfers. Sixty-

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[1]Robert E. Kelley, "Differences between Transfer and Non-transfer Students and Their Academic Performance at the University of Oklahoma."

[2]Victor H. Hoemann, "A Comparative Study of the Academic Achievement and Persistence to Graduate of Junior College Transfer Students and Native Students in the College of Arts and Sciences, Oklahoma State University" (unpublished doctoral dissertation, Oklahoma State University, 1967).

six percent of the transfers had their prior grade point average decreased.[1]

In a similar study, Place also found that junior college transfers entered the California State College Business Divisions with higher grade point averages than natives earned during their first two years of college. However, the junior college transfers were less successful in upper division work. Transfer students tended to drop most during the first year after transfer and then to recover during the second year. Native students were more likely to survive the upper division work and attain graduation. He further concluded that the size of the junior college attended, background courses, or preparation curriculum did not seem to influence the academic success of the transfer.[2]

Holmes did a 10-year comparative study of 1,593 four-year institutions and 385 junior college transfer students in the College of Liberal Arts at Syracuse University. He also compared them with native students when possible. He indicated that the largest percentage of four-year transfers were from the smallest four-year schools, while the largest percentage of junior college transfers were from the largest junior colleges. Although both transfer groups graduated about two-thirds of their entering class, the junior college transfers had quite a sharp decrease in grade point average, had more people on probation, dropping out, and the fewest honors at graduation.[3]

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[1]William Young, "Influence of Certain Factors Related to Academic Performance of Transfer Students Admitted to the Pennsylvania State University" (unpublished doctoral dissertation, Pennsylvania State University, 1962).

[2]Robert I. Place, "The Academic Successes of Junior College Transfer Students in the California State College Business Divisions" (unpublished doctoral dissertation, University of Southern California, 1961).

[3]Charles H. Holmes, "The Transfer Student in the College of Liberal Arts" (unpublished doctoral dissertation, Syracuse University, 1960).

Similarly, Spangler found trends in the academic performance of the junior college transfer students who had transferred to Auburn University. However, he discovered married students made better grades, that transfers who entered with an associate degree made better grades than other transfers, and that transfers from private junior colleges made higher pre-transfer grades but with no significant difference in grades after transfer.[1]

Johnson, in his report concerning the scholastic achievements of junior college transfer students at the University of Missouri, indicated that the junior college transfer student compared very favorably to natives, transfers from four-year colleges, and out-of-state junior college transfers. The attained cumulative and last semester grade point averages were quite equal. In terms of ability, as measured by high school Ohio State Psychological Examination, no significant difference was found.[2]

At the University of North Dakota, Davison compared the scholastic success of 222 transfer students with 222 natives. He concluded transfer students did not persist as well in the upper division of the University of North Dakota as did nontransfer students, but those persisting did so with similar scholastic success after adjusting for the first semester of the junior year. Also, he stated that the transfer male experienced greater difficulty in persisting to graduation than native males but that there was little or no difference between female groups, other than in the College of Education, where transfer females were most successful.[3]

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[1]Billy B. Spangler, "A Study of the Academic Success of Junior College Students Who Transferred to Auburn University from Fall, 1960 Through Fall, 1963" (unpublished doctoral dissertation, Auburn University, 1966).

[2]Charles E. Johnson, "A Study of the Scholastic Achievement of Junior College Transfer Students at the University of Missouri" (unpublished doctoral dissertation, University of Missouri, 1965).

[3]Richard L. Davison, "A Comparison of the Scholastic Success of Transfer and Non-transfer Students at the University of North Dakota" (unpublished doctoral dissertation, University of North Dakota, 1965).

Both Mckenzie[1] and Trail[2] found that women earned higher average grades in the junior colleges and after transfer to four-year institutions of higher education.

Findings relative to the academic success of junior college transfer students who have articulated to four-year colleges and universities can be found in articles and research reports by Grossman,[3] Jordon,[4] Siemens,[5] McIntosh,[6] Osgood,[7] and Rodes.[8] This literature was produced before 1950 and is not reviewed extensively here. The general commentary running through these articles is quite similar in nature to that discussed previously in this review.

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[1]Travis M. Mckenzie, "Patterns of Characteristics of Texas Junior College Students Who Transferred to Texas Senior Colleges in September, 1961, and of the Educational Institutions They Attended as Related to Academic Performance" (unpublished doctoral dissertation, University of Texas, 1964).

[2]Stanley M. Trail, "Scholastic Success of Students Transferring to the University of Connecticut" (unpublished doctoral dissertation, University of Connecticut, 1961).

[3]D. A. Grossman, "Junior College Transfers at Illinois," Junior College Journal IV (March, 1943), pp. 297-303.

[4]A. M. Jordon, "A Study of Transfer Students," High School Journal XXXIV (February, 1941), pp. 86-88.

[5]Cornelius H. Siemens, "Predicting Success of Transfer Students," Junior College Journal XIV (September, 1943), pp. 24-28.

[6]Florine M. McIntosh, "A Comparative Study of Academic Records Made by Junior College Transfers, Native Stanford Students, and Transfers from Other Four-Year Schools" (unpublished master's thesis, Stanford University, 1944).

[7]Stanley W. Osgood, "A Matched Sample Study of the Achievement of Junior College Transfers and 'Natives' in the Upper Division of Stanford University" (unpublished doctoral dissertation, Stanford University, 1948).

[8]H. P. Rodes, "Successful Transfer in Engineering," Junior College Journal XX (November, 1949), pp. 121-127.

In a study on the academic success of junior college transfers at the State College of Washington, Martorana and Williams reported that transfer shock did take place in the first semester of transfer. Recovery during the following semesters left the transfers only slightly (.15 of 1.00) behind the native students. It was concluded after the matching of 251 transfers with 251 natives that the transfers fared equally as well academically as the non-transfers.[1]

The findings in the Hanson study at the University of Oregon indicate that transfer students do not perform as well during the first year or any other year as the native students. There was no significant differences in performance by students transferring from different types of colleges.[2] In a similar study at New Mexico State University, Witter compared performance of students transferring from four-year colleges, two-year colleges, and branch campuses with native students. He concluded that native students and transfers from four-year colleges scored significantly higher in mean grade point averages than junior college and branch campus transfer students, junior college transfers suffer from transfer shock, and native students and four-year college transfer students scored significantly higher in the colleges of Arts and Sciences and Education.[3]

Klitzke reported in 1961 that junior college transfer students in Colorado were significantly inferior to native students of Denver University

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[1]S. V. Martorana and L. L. Williams, "Academic Performance of the Junior College Transfer at the State College of Washington," Junior College Journal XXIV (March, 1954), pp. 402-15.

[2]John E. Hanson, "A Study of the Academic Performance of Undergraduate Transfer Students at the University of Oregon" (unpublished doctoral dissertation, University of Oregon, 1968).

[3]William C. Witter, "Academic Performance of Transfer Students at New Mexico State University" (unpublished doctoral dissertation, New Mexico State University, 1969).

and the University of Colorado. His conclusions were drawn from three unpublished theses from the period of 1949 to 1958 and from the results of his study at Colorado State College. In his study, 231 students who attended one of Colorado's junior colleges for at least six quarters before entering Colorado State College were compared with native students on the basis of major, sex, and number of hours toward graduation. There was a significant difference between the percentage of those graduating, ninety percent of the natives as opposed to 78 percent of the transfers.[1]

Hill reported in his survey what can be considered a summary of the literature reviewed to this point. He stated that in most cases the transfer student does not do as well academically after he transfers. The student experiences a drop in grades and he never completely recovers this initial decline in grade point average. Hill pointed out that the male transfer student from the junior college is less likely to complete his program than the female or the native student. Generally, the transfer student will take longer to finish a degree program than will the native student.[2]

A somewhat different conclusion was drawn by Roueche who summarized twenty-four studies relating to junior college transfer students. His findings reinforced much of the data obtained since 1928 on the subject of academic performance of the transfer. He found in his review that junior college transfers typically experience a lower grade point average during the first semester, but in most cases recover from this through successive semesters if they persist. Also, transfer students' grade point averages are lower than the average grades made by native students; transfer students are less likely to graduate and

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[1]L. L. Klitzke, "Academic Records of Transfers in Teacher Training," Junior College Journal XXXI (December, 1961), pp. 255-57.

[2]John R. Hill "Transfer Shock: Academic Performance of the Junior College Transfer," Journal of Experimental Education XXXIII (Spring, 1965), pp. 201-17.

those who persist to graduate will require more terms in the upper division than native students to complete the baccalaureate degree.[1]

Studies of Ability and Pre-Transfer Achievement

When ability differences as measured by prediction variables were statistically controlled at the University of Georgia, Jones found no significant differences in the senior division academic performance of the native and transfer students.[2]

In a study at the University of Wyoming in which students were matched according to sex and ability, Grover found that a higher percentage of the transfers than natives were dismissed for academic reasons. Although the transfers increased their grade average with each term completed, at the time of graduation they did not average quite as high as did the natives.[3]

At Florida State University, Nickens reported that twenty-seven percent of the first-year junior college transfer students was dismissed for academic reasons. This compared with approximately ten percent of the native FSU students who were dismissed after reaching junior standing during the same period.[4]

Davis studied various test scores as to their value in predicting the success of the graduates from a single junior college when transferring to four-year institutions. A principal conclusion was that, of the several predictor variables employed in the investigation, the grade point average at

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[1]John E. Roueche, "Follow-Up of the Junior College Transfer Student."

[2]Franklin M. Jones, "A Controlled Comparison of the Academic Performance of Native and Transfer Students at the University of Georgia" (unpublished doctoral dissertation, University of Georgia, 1966).

[3]Arland L. Grover, "A Comparative Study of Wyoming Community College Students Who Transferred to the University of Wyoming," College and University XLII (Winter, 1967), pp. 204-08.

[4]John Nickens, "The Relationship of Selected Variables to Performance of Junior College Transfer Students at Florida State University," Journal of Experimental Education 38 (Spring, 1970),pp. 61-5.

the junior college proved to be the best predictor of success in the senior college for all subgroups.[1]

A fairly recent study relating to academic performance of transfers was conducted at the University of Washington by Pennell. In 1968 he developed and administered a survey instrument to 2,356 former Washington community college students who had enrolled in five Washington public four-year colleges and universities. The intent of the study was to determine the predictive efficiency of perceived sources of influence upon the college choice in the prediction of post-transfer academic success. Some of the twenty-seven kinds of influence investigated were desirable location, low cost, and special curriculum. The results showed that perceived sources of influence do not play a significant role in the prediction of post-transfer academic success.[2]

In a study involving students at the University of Georgia, Russell reported natives excelled transfers in high school grade point average and scores in the Scholastic Aptitude Test and Sequential Tests of Educational Progress. Women exceeded men on high school grade point average, but the men were higher in the STEP test. Females generally continued to maintain higher grade point averages than males.[3]

A comparison of the academic success of native students and junior college transfers who graduated from the School of Education at the University of Kansas was conducted by Haberbosch. He concluded that the investigation

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[1]Luther E. Davis, Jr., "A Survey of Selected Traits of St. Petersburg Junior College Students and Their Value in Predicting Academic Success in Certain Courses of Study at the Senior College" (unpublished doctoral dissertation, Auburn University, 1965).

[2]George W. Pennell, "Perceived Influence Upon College Choice of Washington Community College Transfer Students in the Prediction of Post-Transfer Academic Success" (unpublished doctoral dissertation, University of Washington, 1968).

[3]James W. Russell, "An Analysis of the Academic Performance of Transfer and Native Students and Their Major Fields in the College of Arts and Sciences at the University of Georgia" (unpublished doctoral dissertation, University of Georgia, 1963).

supported the homogeneity of the two groups in placement tests and grade point averages. He noted that native University of Kansas graduates excelled the junior college transfers in student teaching significantly, as determined by the grade received in student teaching.[1]

In other particular major areas such as music and industrial arts, Moore in his study[2] and O'Dell in his investigation[3] both concluded that the junior college transfers were handicapped by attending a junior college. They implied a need for stronger programs at the junior colleges and better articulation between the junior and senior colleges.

Shay found in his study of terminal-program students who transferred in 1961 from public two-year colleges in New York that junior college students enrolled in the terminal programs should not be discouraged in regard to transferring as they actually do well. Three years after transfer, sixty-nine percent of the terminal transfers had earned baccalaureate degrees compared with sixty-one percent of the male transfers in general.[4]

In summarizing the ability differences and pre-transfer achievements of junior college transfers and native students, it appears that the native students are generally more academically oriented and have a better high school scholastic record. However, when the ability differences are controlled, there appears to be little difference in upper division academic performance between the two groups.

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[1]John F. Haberbosch, "A Comparison of the Academic Success of Native Students and Junior College Transfers Who Graduated from the School of Education" (unpublished doctoral dissertation, University of Kansas, 1961).

[2]Ray P. Moore, "Existent Music Curricula in Illinois Public Junior Colleges and Effect upon Student Transfer" (unpublished doctoral dissertation, Southern Illinois University, 1966).

[3]Robert D. O'Dell, "A Study of Factors Related to the Transfer of Junior College Students of State College Programs in Industrial Arts" (unpublished doctoral dissertation, University of California, Los Angeles, 1963).

[4]Thomas M. Shay, "A Study of Terminal-Program Students Who Transferred in 1961 from Public Two-year Colleges in the State of New York" (unpublished doctoral dissertation, University of California, Berkeley, 1966),

Studies of Student Characteristics

Hennessey made a comparison of selected academic and personal characteristics of regularly enrolled and community-junior college transfer students at Michigan State University. He compared 137 males and 36 females in each group. He stated that community-junior college transfer students achieved a lower grade point average, and that the community-junior college students experienced severe grade point average losses during their first term at Michigan State University. Also, in comparison to the native, the community-junior college transfer failed to maintain a passing grade point average more often. In regard to characteristics, he concluded that more community-junior college transfer students were married and/or veterans. The fathers of natives generally possessed higher status positions than those of the community-junior college transfers. He did find the best single predictor of academic success at Michigan State University of the transfer student was the grade point average previously earned at the community-junior college.[1]

In regard to characteristics of the junior college transfer, Cooley and Becher found that the junior college group fell between the noncollege and senior college groups on seven indices of socioeconomic status, including mother's and father's education, father's occupation, number of books in the home, whether or not the student had his own room, desk, and typewriter in the home. The junior college group was more similar to the four-year college group on these indices than it was to the noncollege group.[2]

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[1]Francis J. Hennessy, "A Comparison of Selected Academic and Personal Characteristics of Regularly Enrolled and Community-Junior College Transfer Students" (unpublished doctoral dissertation, Michigan State University, 1960).

[2]W. W. Cooley and S. J. Becher, "The Junior College Student," Personnel and Guidance Journal XLIV (January, 1966), pp. 464-69.

Sims concluded in his study that junior college institutional characteristics such as age and enrollment of the institution, faculty salaries, or faculty-student ratio are not significant predictors of upper-division grades after transfer.[1]

When referring to the self-concept, data collected by Astin in 1966 for an ACE Research Report to the American Council on Education show that as a group, junior college freshmen were less confident than four-year college and university students on traits such as academic ability, leadership ability, intellectual perception, and writing ability. Although the differences were very slight, larger portions of junior college students felt themselves to be superior to four-year college students in athletics, artistic, defensiveness, and mechanical ability.[2]

In 1968 the American Association of Junior Colleges collaborated with the Educational Testing Service and the Center for Research and Development in Higher Education in a survey intended to describe the current junior college student population in terms of its uniqueness or difference from traditional student populations. The report of that survey and the synthesis represents a notable contribution to the research on the junior college student and his experiences surrounding his transfer to the senior institution. Cross reported the following principal findings of that study:

1. The entering freshman students at four-year institutions have superior academic ability over those entering junior colleges. On several measures of ability, junior college students appeared between four-year college and non-college groups. Tradi-

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[1]David M. Sims, "A Study of the Relationship of Selected Institutional Characteristics of the Junior College of Origin to the Academic Performance of Transfer Students in Four Universities in the University System of Florida" (unpublished doctoral dissertation, Michigan State University, 1960).

[2]A. W. Astin, et al., "National Norms for Entering College Freshmen-Fall 1966," ACE Research Report (Washington, D. C.: American Council on Education, 1967), p. 2.

tional measures of ability may not be appropriate for an increasingly large number of new junior college students

2. Junior college students obtained more money through employment and savings than their native counterparts, but the latter received more assistance through scholarships and governmental and parental aid.
3. The self-concepts of junior college students tended to indicate less confidence among that group than was shown by freshmen at four-year institutions, particularly with regard to academic ability.
4. Many junior college students have aspirations which are not commensurate with their abilities, although, as a group, their educational and occupational aspirations are more modest than those of native students.[1]

Knoell and Medsker found that transfer students were mostly white, Protestant, of native-born parentage, and under twenty-one years of age when they entered the four-year college or university. More men than women transferred. High school records for men were not as good as those for women; these students came from homes of skilled or semi-skilled workers who had generally completed a low level of formal education. Little financial support was available from parents; consequently the lower tuition cost of the junior college and the proximity of the institution were highly instrumental in the student's choice of the junior college for continuing his education. Many of the students chose to live at home with their parents, often while gainfully employed at the same time. The transfer students tended to give somewhat negative reasons for choosing a junior college, but they gave high ratings to the quality of the education that they had received. These students rated junior college counseling and advising at a higher level than those same services at the four-year colleges and universities. On the whole, the transfer students were very well satisfied with their junior college experiences.[2]

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[1]K. Patricia Cross, The Junior College Student: A Research Description (Princeton, N. J.: Educational Testing Service, 1968).

[2]Knoell and Medsker, From Junior to Senior College, pp. 18-19.

Studies of Adjustment Problems

In regard to the adjustment problems that junior college transfers must face, Hoffman studied 70 transfer and 73 native students of East Texas State University. She used a questionnaire to seek possible factors having an influence on grade point averages and the Bell Adjustment Inventory to attempt to determine personality adjustment. Hoffman found no significant differences between the groups in total personality nor in particular areas of home, health, social, and emotional adjustment. The sex of the students seemed to be a factor in causing the difference in grade point averages. There was not a significant difference between native men and transfer men; however, the women had better grade point averages in both groups.[1]

Based on data gathered at Western Michigan University, Lambe reported the major reasons why transfer students attend community college during their freshman and sophomore years are the relatively low cost, closeness to home, and opportunity to work. The principal problems of adjustment encountered were the increased costs over those at the community college, difficulties in scheduling required courses, and loss of credits upon transfer.[2]

Bratton also indicated that the two-year college transfers at Adelphi University had a greater financial factor involved in selecting a college than other transfers. As a result, junior college transfers originally viewed their junior college as something they had to settle for. They seemed to be personally

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[1]Mary F. Hoffman, "An Investigation of the Comparative Scholastic Success and Personality Adjustment of Texas Public Junior College Transfers and Native Students Who Graduated from East Texas State University in May, 1965" (unpublished doctoral disseration, East Texas State University, 1965).

[2]Cameron W. Lambe, "Academic Success and Adjustment to University Life of Community College Students Transferring to Western Michigan University" (unpublished doctoral dissertation, Wayne State University, 1964).

involved in the decision to attend college. They did not have high expectations of college and felt that their college had exceeded their expectations.[1]

A study at the University of Alabama in 1967 by Murfee was conducted to gain insight into the junior college and senior college experiences. The results indicated that (1) a greater amount and a higher quality of work was expected by senior college faculty members, (2) differences in grading existed at the senior institution, (3) transfer students showed some intolerance for the academic and social life, (4) transfer students found it difficult to see their faculty advisors, and (5) the failure of transfer students to complete lower division requirements contributed to their adjustment problems.[2]

It was Monroe's position in his recent book that the community college transfer finds the first year at a large state university to be a traumatic experience. Not only are the assignments longer and the examinations stiffer, but there are social adjustment problems of living in large dormitories and being away from home for the first time.[3] Those from smaller junior colleges are most impressed with the impersonal aspects of the university.[4]

Nelson has recommended that one step toward strengthening the adequacy of junior college preparation for transfer is better counseling on both ends of the process along with improved induction-orientation programs.[5] The trans-

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[1]Daniel L. Bratton, "The Transferring College Student as Studied Through the Transfer Students Enrolled at Adelphi University in 1964-1965" (unpublished doctoral dissertation, Columbia University, 1967).

[2]Thomas Murfee, "Articulation Between Marion Institute's Junior College Department and the University of Alabama" (unpublished doctoral dissertation, University of Alabama, 1967).

[3]Charles R. Monroe, Profile of the Community College (San Francisco: Jossey-Bass, 1972), p. 62.

[4]Ben Barger, et al., Transfer Students Speak Out (Los Angeles: Educational Research Information Center for Junior Colleges, 1968), ERIC Document 021-302, p. 1.

[5]James H. Nelson, "Do Junior College Transfers Make the Grade?" NEA Journal, LIV (October, 1965), p. 56.

fer student has special orientation needs which differ from those of the entering freshman. Usually he faces a drop in grade point in the senior institution. He represents unique academic and social problems since he tends to be older, is likely to be married, and may experience financial problems. Too often the transfer student is overlooked in orientation programs and academic advising.[1]

Cope reported that drop-outs among transfer students could be classified in the following order: (1) academic drop-outs, (2) social drop-outs, those who found no groups or friends at the university, (3) social-academic drop-outs, a combination of the first two groups, and (4) those whose religious ideals were challenged. He found that many of these drop-outs transferred to other institutions, but he offered no exact figures because of the problems involved with follow-up.[2]

Transfer of credit was reported as an adjustment problem in a study in Illinois. Winandy and McGrath found that transfer students are too often the victims of whim and fancy. They reported that no statewide practice existed for handling transition from one institution to another. "A transfer student from a two-year to a senior institution 'takes his chances' on the matter of the number of hours of transfer credit. . . ."[3] Penny elaborated further on loss of credit in transfer:

> The most usual kind of transfer arrangements involve an effort by the senior college to break down the general education cur-

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[1]Thomas Butts, "A Model Orientation Program for Transfer Students," College and University 46 (Summer, 1971), p. 656.

[2]R. G. Cope, Types of High Ability Drop-Outs," North Central Association Quarterly XLIV (Fall, 1969), p. 256.

[3]Donald H. Winandy and Robert A. McGrath, "A Study of Admission Policies and Practices for Transfer Students in Illinois," College and University 45 (Winter, 1970), pp. 187-191.

> riculum of the two-year college into component parts that may be evaluated according to traditional course organization patterns. Almost invariably, this means that the transferring student will lose credits, will repeat some work already covered, and will be required to take a few lower division courses while trying to complete his major field requirements during the junior and senior years. That this is often an unsatisfactory procedure is attested by the frustrations of students and admission officers alike.[1]

Students must make many adjustments to student life when they transfer from junior to senior college. In this section several of these problems have been cited. The most significant adjustments for the junior college transfer student appear to be the drop in grade point average, higher financial costs, loss of credits in transfer, and becoming part of a new social group.

Studies of Student Perceptions

The final group of studies to be reviewed is concerned with the junior college transfer student's perception of his college experiences. Very few studies have involved the student directly in an effort to determine how he perceives what has happened to him in the articulation process. Cross stated that in reviewing the research on junior college students, there is almost a total lack of any systematic investigation of the student's reactions to his college experience.[2]

Greer did compare twenty junior college transfer students with forty native students as to their perceptions of the junior college as an institution. He used a seven-point rating scale involving ten dimensions. He concluded that the junior college transfer student ranked the junior college

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[1]James F. Penny, "Needed: Better Articulation Between Junior and Senior Colleges," Liberal Education XLVI (May, 1960), p. 210.

[2]Cross, The Junior College Students, p. 36.

higher than natives did when they were asked to respond on the dimensions of motivation, timeliness, potency, movement toward goals, and importance in achieving academic success. The reverse was true when natives ranked the junior college higher on the dimensions of usefulness, restraint in student involvement, difficulty in realization of intellectual growth, influence, and dynamism of the institution. In nine items, the junior college transfers showed greater variance in their responses. This may be because of the variety of junior colleges that these students attended. Their perceptions would be expected to be different because of the variance in the influence of different institutions on students.[1]

A problem relative to how the student perceives his identity on the campus was discussed by Hanson. He contended that transfer students tend not to consider themselves as members of a particular group or class in the senior institutions. These students, if not given added help, become college "loners." He held that this phenomenon occurred because junior college transfers often enter a class at the four-year college at a time when the members have already had two years to form friendships and associations. Better orientation programs and counseling services for academic as well as social development were suggested as approaches to the elimination of these problems after transfer.[2]

With the exception of the Knoell and Medsker study which has been cited extensively earlier in this review, no other studies involving perceived problems were found by this writer.

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[1]Thomas V. Greer, "Perceived Characteristics of the Junior College," Peabody Journal of Education XLIV (November, 1966), pp. 145-48.

[2]Robert A. Hanson, "Junior College and the Transfer Function," Minnesota Journal of Education 45 (February, 1965), pp. 10-12.

Summary

The literature reviewed in this chapter served as a source of the independent variables selected for study as well as providing insight into the problem areas encountered in the articulation process. These problem areas were the primary consideration in the construction of the instrument which was used to solicit responses from the sample groups.

Generally one can conclude from the literature that academic performance has been the area of greatest concern for researchers affiliated with two- and four-year institutions of higher education. Findings vary but most reports indicate that transfer shock exists with a drop in performance in the first semester after transfer with some recovery in succeeding semesters; the extent of the recovery differs in various studies. However, a very pertinent factor in the transfer process is that many students withdraw after transferring and persistence to graduation is not extremely high in several colleges and universities.

Research outside of academic performance of the junior college transfer student is not extensive. Some writers have cited financial, social, and emotional problems encountered by the student in the articulation process, but little research has been conducted in these areas. Students have rarely been asked how they perceive their problems. Consequently, the following chapters will treat more thoroughly these kinds of problems.

CHAPTER III

METHODOLOGY

The methodology essential to the conducting of this study is presented in this chapter. The study design and procedures are discussed and the instrument used is explained. The sampling method is presented and collection and treatment of the data are described.

Study Design and Procedures

The research problem for this study is based on Getzels' theory that conflict arises when the need dispositions of a role incumbent and the expectations attaching to a role meet in the social process of institutional life. For the purposes of this study, the junior college transfer student is viewed as the role incumbent and the University of Oklahoma occupies the position of the institution. The research problem, then, is to discern the sources of conflict that the student, the role incumbent, experiences in transferring to a new institution, the University of Oklahoma.

The questions to be answered in the study are "Are there sources of conflict in the articulation process for the transferring junior college student at the University of Oklahoma, and are these difficulties perceived differently by transferring students according to various characteristics associated with the students and identified in the study?" The answers to these questions were obtained through a comparative study in which students were asked to respond to the level of difficulty experienced in various relationships with the University of Oklahoma.

The characteristics of students utilized in comparison were based upon those mentioned in research reports and other literature reviewed in Chapter II

as being the characteristics associated with difficulties encountered by transferring junior college students. The comparisons in the study were based upon these characteristics: age of the student, sex of the student, academic major, marital status, size of the junior college from which the student transferred, number of semesters in attendance at the University of Oklahoma, number of hours transferred by the student, the financial income of the student's parents, grade point average at the junior college, and the student's persistence in enrollment at the University of Oklahoma. These characteristics represent the independent variables of this study. The dependent variables of this study were the responses to the problem inventory which was developed and will be described at greater length in the next section of this chapter.

The general research hypothesis for this study is that the process of articulation between the junior and senior college contains sources of conflict for the transferring student. Utilizing the previously defined dependent and independent variables, the following null hypotheses, derived from the the general research hypothesis, were tested by probability based on statistical models:

> HO_1 There is no significant difference in the perceptions of articulation problems for transferring junior college students at different age levels.
>
> HO_2 There is no significant difference in the perceptions of articulation problems for transferring junior college students of different sexes.
>
> HO_3 There is no significant difference in the perceptions of articulation problems for transferring junior college students with different academic majors.
>
> HO_4 There is no significant difference in the perceptions of articulation problems for single or married transferring junior college students.

HO_5 There is no significant difference in the perceptions of articulation problems for transferring junior college students from junior colleges with varying size in enrollment.

HO_6 There is no significant difference in the perceptions of articulation problems for transferring junior college students who have been enrolled for varying numbers of semesters at the University of Oklahoma.

HO_7 There is no significant difference in the perceptions of articulation problems for transferring junior college students who transferred with different amounts of credit hours.

HO_8 There is no significant difference in the perceptions of articulation problems for transferring junior college students whose parents have different financial incomes.

HO_9 There is no significant difference in the perceptions of articulation problems for transferring junior college students with different junior college grade point averages.

HO_{10} There is no significant difference in the perceptions of articulation problems for transferring junior college students who persisted in enrollment or withdrew during the time period of this study.

Research Instrument

Knoell and Medsker found in their national studies that transfer students are rarely asked about their transfer problems and experiences.[1] Reason suggests that the natural source of data which may yield information to assist in the identification and understanding of the problems is the student who has experienced the conflict in the transfer process. Individually students are capable of giving empirical information concerning their transfer problems.[2]

Areas of conflict were explored through a series of pointed questions which provided insight into the basic reasons for complications in the articulation process. The questions were derived through the review of literature

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[1]Knoell and Medsker, From Junior to Senior College, p. 84.

[2]John Wise, Robert Nordberg, and Donald Reitz, Methods of Research in Education (Boston: D. C. Heath and Co., 1967), p. 88.

which was presented in Chapter II. Questions were based in the problem areas which research studies, articles, and books suggested as the areas most often causing problems for junior college students who transfer to senior institutions.

Content validation of the questions consists essentially in judgment.[1] One or a group of judges are asked whether the items of the instrument represent problem situations which the transferring student encounters in the articulation process. To insure content validity of the items on the problem inventory constructed for this study, three measures were taken: (1) an intensive review of literature was undertaken to discover sources of problems in the transfer process, (2) a panel of eight judges who have counseled with junior college transfer students was asked to evaluate the items to determine if they truly represented the problems in the articulation process, and (3) a sample of fifty junior college transfer students was asked in a pilot study to evaluate and criticize the items as to content and relevance to transfer problems that they had actually expereinced. From the results of the validation tests, the researcher modified items accordingly to gain greater validity in ascertaining what the real sources of conflict are for the transfer student. Letters used to communicate with the panel of judges and the students who participated in the pilot study appear in Appendix A.

From the final analysis of results of the validation tests, fifty-eight items representing different aspects of the areas of conflict in the articulation process were derived. The student was asked to respond to the level of difficulty which he had experienced in each of the fifty-eight problem situations. The response range was as follows: 1 - No difficulty (Not a problem),

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[1]Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, 1964), p. 446.

2 - Very little difficulty (Very minor problem), 3 - No opinion, or did not pertain to my transfer experience, 4 - Some difficulty (A somewhat disruptive problem, but I overcame it), 5 - Much difficulty (A problem of major proportion--very disruptive in the transfer process). The fifty-eight items with the demographic variables and instructional comments comprised the problem inventory utilized in this study. The instrument is presented in Appendix B.

In an effort to establish reliability of the instrument, the researcher conducted a retest of fifty respondents who were randomly selected from the total respondents. The fifty students were sent the problem inventory the second time four months after the first testing. The letter which accompanied the instrument explained to the students that they were to make no effort to duplicate their original answers to the items. Forty-six of the respondents returned the instruments completed. Mean scores, standard deviations, and t tests were computed for each item in the test and retest. Table I which follows reveals that there were no significant differences in responses at the .05 level on any item from test to retest. This statistical analysis indicates that the instrument is quite reliable in obtaining a consistent level of responses in sequential testings of the same group of students.

TABLE I

Test-Retest Responses
(Reliability Test)

Item No.	First Test N	Mean	S.D.	Retest N	Mean	S.D.	t-ratio
1	46	1.78	.95	46	1.56	.81	.176
2	46	2.32	1.32	46	2,20	1.23	.066
3	46	2.88	1.47	46	2.84	1.35	.020
4	46	2.50	1.52	46	2.30	1.33	.099

TABLE I (continued)

5	46	2.30	1.50	46	2.02	1.29	.141
6	46	2.43	1.34	46	2.04	1.31	.207
7	46	1.62	.99	46	1.64	.94	.015
8	46	2.58	1.49	46	2.52	1.33	.030
9	46	2.22	1.15	45	2.02	1.08	.127
10	46	2.82	1.47	46	2.40	1.36	.210
11	46	2.38	1.26	46	2.22	1.18	.092
12	46	2.27	1.29	46	2.13	1.12	.082
13	46	2.72	1.44	46	2.54	1.36	.091
14	46	1.96	1.19	46	2.04	1.16	.048
15	46	2.08	1.21	46	2.02	1.15	.036
16	46	2.26	1.17	46	2.08	1.08	.113
17	46	2.18	1.40	46	2.20	1.24	.011
18	46	2.45	1.28	46	2.46	1.23	.006
19	46	2.32	1.19	46	2.16	1.04	.101
20	46	2.46	1.11	46	2.24	1.20	.135
21	46	2.58	1.40	46	2.18	1.32	.208
22	46	2.82	1.51	46	2.34	1.49	.204
23	46	1.98	1.25	46	1.84	1.25	.079
24	46	2.74	1.54	46	2.24	1.42	.239
25	46	2.44	1.34	46	2.20	1.21	.133
26	46	2.40	1.07	46	2.46	1.16	.038
27	46	2.50	1.05	46	2.26	0.94	.170
28	46	2.20	1.34	46	1.90	1.18	.168
29	46	2.42	1.20	46	2.42	1.21	.000
30	46	2.22	1.27	46	2.16	1.09	.036
31	46	2.17	1.70	46	1.90	1.42	.121

TABLE I (continued)

32	46	2.44	1.37	46	2.32	1.25	.065
33	46	2.34	1.47	46	2.36	1.27	.010
34	46	1.92	1.16	46	1.80	0.90	.082
35	46	2.08	1.26	46	2.16	1.20	.046
36	46	2.18	1.14	46	2.24	1.12	.162
37	46	2.98	1.60	46	2.66	1.15	.162
38	46	2.70	1.09	46	2.44	1.01	.242
39	46	2.20	0.93	46	2.04	0.97	.119
40	46	2.36	0.98	46	2.22	0.95	.103
41	46	2.66	0.85	46	2.40	0.97	.202
42	46	2.28	1.02	46	2.48	1.15	.127
43	46	2.62	1.16	46	2.60	1.12	.012
44	46	2.76	1.15	46	2.60	1.16	.098
45	46	2.92	1.48	46	2.90	1.30	.010
46	46	2.56	1.20	46	2.58	1.07	.011
47	46	2.74	1.03	46	2.50	0.91	.175
48	46	2.46	1.47	46	2.24	1.41	.108
49	46	1.50	0.91	46	1.50	0.84	.000
50	46	2.10	1.09	46	1.92	1.10	.116
51	46	2.18	1.40	46	1.92	1.24	.165
52	46	2.64	0.83	46	2.36	0.92	.226
53	46	2.04	1.35	46	1.84	1.27	.108
54	46	1.80	1.11	46	1.82	1.22	.012
55	46	1.38	0.81	46	1.34	0.72	.037
56	46	2.32	1.42	46	2.04	1.21	.151
57	46	2.34	0.96	46	2.40	0.99	.044
58	46	1.86	1.26	46	1.90	1.22	.022

Sampling

Files at the Office of Admissions and Records on the University of Oklahoma campus indicated that a total of 1,113 junior college transfer students were enrolled for the fall semester of 1972. From this total population of junior college transfer students enrolled, one sample of five hundred students was randomly selected for the study. Randomness in selection was determined by use of a table of random numbers available in Fisher and Yates' book, Statistical Tables for Biological, Agricultural and Medical Research.[1]

To make the study more comprehensive and to provide a better understanding of problems encountered by all junior college transfers, the researcher also sought to sample the junior college transfer students who had withdrawn from the University of Oklahoma over the time period of one academic year. By examining the Admissions and Records files extensively, the researcher determined that 312 students had withdrawn from enrollment in the time period beginning with the fall semester of 1971 and ending with the enrollment of all students for the fall semester of 1972. Of the 312 students, forty could not be contacted because of invalid addresses. This reduced the total number of possible respondents to 272.

Final tabulation of all responses revealed that three hundred and eighty-two (382) of the persisting students returned completed instruments for a response percentage of 76.4. Of the nonpersisting group, one hundred and fifteen (115) of the 272 former students returned completed instruments for a response percentage of 42.3.

While no minimum response rate has been established for research based

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[1]Ronald A. Fisher and Frank Yates, Statistical Tables for Biological, Agricultural, and Medical Research (New York: Hafner Pub. Co., 1953), p. 114.

on survey questionnaires, the researcher should endeavor to obtain the highest level of response possible to strengthen the findings of the study. This was done in this study by an initial transmittal letter, a follow-up letter request for response, and a telephone follow-up request to those students living within the Oklahoma City dialing area. Wiersma has stated that "Generally, seventy-five percent is considered a minimum rate of return."[1] This level was attained for the major part of the sample of subjects considered in the study. The second group, the withdrawn or nonpersisting students, was included to broaden the meaning of the study. The researcher assumed that obtaining a response from this group would be difficult because of their lack of affiliation with the University of Oklahoma. Consequently, the results of the data obtained will have to be observed with the fact in mind that 42.3% of the nonpersisting students who could be contacted did respond. Rummel has taken the following position on the level of responses:

> Conclusions based upon small percentages of returns are often suspected of bias, although this is not necessarily true. If sampling is well done, that is, if it is representative of the individuals in the population and if the returns are also representative of the individuals of the population, the percentage of returns is not particularly meaningful in itself. The most important factor in the analysis of data is to have an adequate number of representative returns rather than any given percentage of the number of questionnaires originally distributed.[2]

The nonpersisting respondents are adequately distributed over the independent variables selected for examination in this study. This can best be observed by viewing the distribution of respondents within the sample groups on these variables in the table which follows.

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[1]William Wiersma, Research Methods in Education (Philadelphia: J. B. Lippincott, 1969), p. 282.

[2]J. Francis Rummel, An Introduction to Research Procedures in Education (New York: Harper Bros., 1958), p. 109.

The distribution of the persisting and nonpersisting respondents in the samples is illustrated in the following table. In some instances, respondents failed to report certain personal data and this lack of information is presented in the "Not reported" categories within the table. "Not reported" totals were not computed in the statistical analysis.

TABLE II

Distribution of Sample Groups
by Independent Variables

Independent Variable		Persisting Students	Nonpersisting Students
Age	<22	250	53
	≥22	132	62
	Total	382	115
Sex	Male	234	78
	Female	148	37
	Total	383	115
Major Field	Humanities	59	27
	Social Sciences	122	26
	Natural Sciences	35	11
	Applied Sciences	150	46
	Undecided or unidentified	16	5
	Total	382	115
Marital Status	Single	263	65
	Married	107	47
	Divorced*	12*	3*
	Total	382	115
Size of Junior College	0 - 500 students	75	21
	501 - 1000 "	96	34
	Over 1000 "	202	58
	Not reported	9	2
	Total	382	115

*Divorced students were eliminated from the statistical analysis because of an insufficient number reported.

TABLE II (continued)

No. of Semesters at U. of O.	1 semesters	134	36
	2 "	42	27
	3 "	103	11
	4 or more "	100	40
	Not reported	3	3
	Total	382	115
No. of Hours Transferred	1 to 30 hours	97	35
	31 to 65 hours	281	80
	Not reported	4	0
	Total	382	115
Parents' Financial Status	$ 0 - 4,000	35	11
	4,001 - 8,000	69	18
	8,001 - 12,000	109	25
	Over 12,000	138	55
	Not reported	31	6
	Total	382	115
Grade Point Average	1.0 - 1.9	33	21
	2.0 - 2.9	196	63
	3.0 - 4.0	153	31
	Total	382	115

Data Collection

From the 1113 junior college transfer students enrolled at the University of Oklahoma for the fall semester of 1972, five hundred students were randomly selected. A letter of transmittal was prepared and sent with the instrument to the selected students. Local addresses provided by the students to the Office of Admissions and Records were used for the mailing. A copy of the transmittal letter appears in Appendix C.

In addition to the currently enrolled students, the names of 312 students who had withdrawn from the University of Oklahoma over the time period of one academic year were obtained from Admissions and Records files. Instruments and letters of transmittal were mailed to this group of students. Home addresses provided by these students to the University during their time of enrollment were used for the mailing. Forty students could not be contacted

because of invalid addresses, reducing the sample group to 272 students. A copy of the transmittal letter to the nonpersisting students appears in Appendix C.

Three weeks after the initial mailing of transmittal letters and instruments to both samples of students, follow-up letters and instruments were mailed to all nonrespondents. Two weeks after the mailing of follow-up letters, a final attempt to gain responses from all students who had failed to respond was conducted by telephone for all of those students living within the Oklahoma City dialing area. A copy of the telephone message appears in Appendix C.

The final result of all data collection efforts was three hundred and eighty-two (382) persisting students responding for a response percentage of 76.4. Of the nonpersisting students, one hundred and fifteen (115) of the 272 contacted responded for a percentage of 42.3.

Data Analysis

When seven weeks had passed, no further instruments were accepted and data analysis was begun. The instruments were checked for completeness and computer cards were punched to prepare the data for analysis. Columns 1 through 16 on each card were used for demographic data and columns 17 through 75 were used to record responses to the items of the problem inventory.

The responses to all items of the instrument were ordinal in nature. The respondents were asked to mark the level of difficulty experienced in a problem area on a scale which had a range of little or no difficulty (1) to high difficulty (5). Consequently, the responses could be categorized into a low difficulty range (response numbers 1 and 2 on the scale), a no opinion or no response category (response number 3 on the scale), and a high difficulty

range (response numbers 4 and 5 on the scale). This arrangement of data allowed the researcher to determine the number of responses falling into the three different categories for comparison purposes.

In an effort to delimit the number of meaningful comparisons necessary on each independent variable, a factor analysis program was run with the data to determine common variance within the 58 items on the instrument. This statistical test ". . .uncovers the independent sources of data variation."[1] Within a group of items, interdependencies may exist and the factor analysis will indicate which items can be represented equally well by dimensions smaller in number than the number of items present. "These dimensions then delineate the order, the uniformities, the regularities, the patterns, in the data."[2]

From the results of the factor analysis, the researcher was able to determine that fourteen dimensions captured a major portion of variance existing within the fifty-eight items. The distribution of items by dimension is presented in Appendix B.

An additional result of the factor analysis was that eight items on the instrument did not load on any dimension in the data, and these items (2, 9, 27, 32, 33, 34, 52, 57) were eliminated brom further analysis. Table III contains the name given to each dimension within the problem inventory and the numbers of the items that loaded in that dimension.

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[1]R. J. Rummel, Applied Factor Analysis (Evanston, Ill.: Northwestern University Press, 1970), p. 16.

[2]Ibid.

TABLE III

Dimensions of the Problem Inventory

Name of the Dimension	Items within the Dimension
Social Relations Problems	51, 53, 54, 55, 56, 58
Academic Adjustment Problems	3, 4, 5, 6, 24
Degree Related Problems	8, 10, 16, 17, 28, 31
University Financial Aid Problems	4, 42, 46, 47
Faculty Related Problems	11, 12, 13
Housing Problems	35, 36, 37
Counseling Related Problems	19, 20, 21, 22, 25
Course Related Problems	1, 40, 41
Commuting Problems	38, 39
Accessibility Problems	14, 15
Selection of Major Problems	23, 26
Orientation Problems	17, 18, 29, 30
Attitudinal Problems	7, 49
External Financial Support Problems	43, 44, 45, 48

Chi square tests were performed on the participants' responses to the dimensions on each independent variable examined. Raw data from the frequency responses in the low difficulty range (responses 1 and 2), the no opinion or no response range (response 3), and the high difficulty range (responses 4 and 5) were computed for all respondents on each dimension. The chi square test was used in comparing frequency responses because of the nature of the data. Bi-modal distributions and skewness to the lower range were prevalent within the data, thus causing distorted computations of mathematical averaging

techniques such as mean scores. Klugh has stated:

> Since the ranks based nonparametrics are so powerful, there should be little hesitancy about using them in place of t tests, particularly in the sensitive situation where samples are small and distributions of t and F may be most easily distorted by skew and unequal sample variances.[1]

All propositions were checked for significance at the .05 level of significance, but a more stringent level was reported if it were obtained in the results.

Summary

In summary, this study began with the defining of the problem as a need to discern the sources of conflict that a transferring junior college student experiences in articulating to a four-year institution of higher education. The problem was examined by a comparative study, using ten characteristics of the students as the independent variables and their responses to an inventory of problem situations as the dependent variable. Data were obtained through a mail survey during the fall semester of 1972.

Null hypotheses were derived from the major research hypothesis and statistical testing was applied to the data, leading to acceptance or rejection of the null hypotheses. The .05 level of significance was established as the rejection level for the null hypotheses; more stringent levels were reported if obtained. The results of the testing are presented in Chapter IV with other findings.

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[1]Henry E. Klugh, Statistics: The Essentials for Research (John Wiley and Sons, 1970), p. 307.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The primary research problem of this study was to discern the sources of conflict experienced by the transferring junior college student in the articulation process from junior to senior institutions of higher education. Further, the researcher sought to determine if these students perceived the difficulty encountered differently according to certain personal characteristics. Responses to fifty-eight problem situations present in the transfer process were solicited from two samples of persisting and nonpersisting students. The students were to respond on a range of no difficulty to much difficulty, depending upon their perception of the problems.

The following chapter presents data obtained from investigational procedures described in Chapter III which were used to determine levels of difficulty perceived and to test the null hypotheses. The first table in this chapter is a presentation of levels of difficulty perceived by dimensions. The data are arranged in a rank ordering of the dimensions in accordance to the level of difficulty perceived by junior college transfer students. Succeeding tables are the presentation of findings relative to each null hypothesis. Each table contains the data for one of the independent variables examined in the study. The categories within each table represent the various dimensions of the problem inventory, and with each dimension is presented the distribution of scores on the dimension. The data distributions in each table are listed under the persisting and nonpersisting groups and are labeled with all scores on the dimension in the low difficulty range placed in the LOW

column, all scores in the no opinion or no response range placed in the N/O column, and all scores in the high range placed in the HIGH column. In all instances of no response to an item by a participant, the score was placed in the no opinion column. The chi square test results for the frequency distributions in each table are presented as significant (SIG) or not significant (N.S.), depending upon the results of the testing. The level for significance is always .05 unless denoted by an asterisk as attaining a higher level of significance.

Levels of Difficulty

The following table is a presentation of the percentage of student responses falling into the HIGH difficulty range. The dimension with the highest percentage of response in the HIGH difficulty range is listed first with other dimensions in descending order for both persisting and nonpersisting students.

TABLE IV

Percentage of Students Responding
in HIGH Difficulty Range by Dimensions

Problem Dimensions	% of Persisting Students in HIGH Range	Problem Dimensions	% of Nonpersisting Students in HIGH Range
External Financial Support	33	Degree Related	36
Degree Related	31	Counseling Related	35
Academic Adjustment	31	External Financial Support	29
Faculty Related	30	Selection of Major	29

TABLE IV (continued)

Counseling Related	29	Faculty Related	28
Accessibility	29	Academic Adjustment	25
Orientation Problems	24	Orientation Problems	19
Selection of Major	17	Accessibility	17
Social Relations	17	Commuting	17
University Financial Aid	15	Social Relations	15
Housing	13	Housing	15
Commuting	12	Course Related	12
Course Related	10	University Financial Aid	12
Attitudinal	7	Attitudinal	6

In three dimensions, one with persisting students and two with non-persisting students, one-third or more of the students responded in the HIGH level of difficulty range. The six dimensions suggesting the most problems for persisting students are external financial support problems, degree related problems, academic adjustment problems, faculty related problems, counseling related problems, and accessibility problems. The six dimensions where nonpersisting students find the most difficulty are degree related problems, counseling related problems, external financial support problems, selection of major problems, faculty related problems, and academic adjustment problems. The dimensions in which both groups expressed higher levels of difficulty are external financial support problems, degree related problems, counseling related problems, academic adjustment problems, and faculty related problems. In general, the findings of this section indicate that one-third or less of the students responding express high difficulty with certain dimensions.

Tests of the Hypotheses

For each of the tables presented with the data relative to a particular independent variable, the null hypothesis is listed first, followed by the findings in tabular form. Discussion of the findings and the acceptance or rejection of each null hypothesis follows each table.

Table V contains the findings for the following null hypothesis:

HO_1 There is no significant difference in the perceptions of articulation problems for transferring junior college students at different age levels.

TABLE V

Responses to Dimensions According to Age of the Student

Problem Dimension	Persisting Students N = 382				Nonpersisting Students N = 115			
	<22 years = 250 ≥22 years = 132				<22 years = 53 ≥22 years = 62			
	LOW	N/O	HIGH	X^2	LOW	N/O	HIGH	X^2
Social Relations Problems	1081 592	106 105	313 95	44.97 SIG***	229 276	24 54	65 42	16.72 SIG***
Academic Adjustment Problems	655 385	164 118	431 157	25.42 SIG***	126 200	52 52	87 58	19.17 SIG***
Degree Related Problems	972 499	223 146	555 279	4.78 N.S.	191 211	54 57	126 166	1.60 N.S.
University Financial Aid Problems	286 163	337 187	127 46	5.72 N.S.	60 79	91 72	8 35	19.74 SIG***
Faculty Related Problems	459 246	57 42	234 108	4.06 N.S.	94 114	20 11	45 61	4.84 N.S.

TABLE V (continued)

Housing Problems	346 141	288 224	116 31	37.66 SIG***	81 80	51 82	27 24	5.29 N.S.
Counseling Related Problems	636 353	631 143	383 164	7.84 SIG*	126 141	49 55	90 114	0.48 N.S.
Course Related Problems	375 212	293 149	82 35	1.87 N.S.	80 110	60 52	19 24	3.77 N.S.
Commuting Problems	210 139	239 77	51 48	27.26 SIG***	56 74	38 13	12 37	4.07 N.S.
Accessibility Problems	320 178	27 19	153 67	2.85 N.S.	65 74	7 13	34 37	1.08 N.S.
Selection of Major Problems	279 150	131 72	90 42	0.52 N.S.	52 64	21 27	33 33	0.54 N.S.
Orientation Problems	491 225	254 192	255 111	20.20 SIG***	111 113	64 84	37 51	2.11 N.S.
Attitudinal Problems	528 264	162 113	60 19	9.55 SIG**	116 126	31 52	12 8	4.41 N.S.
External Financial Support	372 187	277 195	351 146	15.69 SIG***	96 77	67 87	49 84	11.12 SIG**

*** Significance; $p \leq .001$
** Significance; $p \leq .01$
* Significance; $p < .02$

The age of 22 years was used as the division of students on the age variable. Twenty-two was chosen because students traditionally have graduated from their degree programs near that age level. Tradition is rapidly changing and more older students are entering college. The literature points out that junior colleges are receiving many older students and this study attempted to discern if older students perceived problems differently from younger students.

Persisting students were found to differ significantly on the age variable with the social relations, academic adjustment, housing, counseling,

commuting, orientation, attitudinal, and external financial support problem dimensions. Nonpersisting students differed significantly on the social relations, academic adjustment, university financial aid, and external financial aid problem dimensions. In those instances of significant differences, HO_1 was rejected.

A greater proportion of persisting students below 22 years of age expressed high difficulty in all of the problem dimensions where significant difference existed between age levels. With nonpersisting students, the younger group expressed a higher level of difficulty proportionately where there was significant difference, except in the two problem dimensions relative to finances; older nonpersisting students indicated more difficulty with financial problems than did the younger group. When significant difference was observed, for the most part, younger students expressed more perceived difficulty than did the older students.

With various problem dimensions, significant difference did not occur on the age variable, but this is not to indicate that a questionable amount of difficulty does not exist with these dimensions. Such areas as degree related problems, orientation problems, faculty related problems, and external financial support problems suggest problem situations where both persisting and nonpersisting students have experienced difficulty which should be probed more extensively.

Table VI contains the findings for the following null hypothesis:

HO_2 There is no significant difference in the perceptions of articulation problems for transferring junior college students of different sexes.

TABLE VI

Responses to Dimensions According to Sex of the Student

Problem Dimension	Persisting Students N = 382 Male = 234 Female = 148				Nonpersisting Students N = 115 Male = 78 Female = 37			
	LOW	N/O	HIGH	X^2	LOW	N/O	HIGH	X^2
Social Relations Problems	1037 631	124 87	237 170	2.66 N.S.	340 164	43 35	79 23	10.04 SIG**
Academic Adjustment Problems	615 425	174 107	376 208	4.39 N.S.	224 100	64 37	97 48	1.18 N.S.
Degree Related Problems	871 600	226 142	534 294	6.20 SIG	259 142	69 39	211 78	6.16 SIG
University Financial Aid Problems	276 173	332 189	91 82	6.76 SIG	91 48	104 56	36 7	5.84 N.S.
Faculty Related Problems	428 274	61 38	210 132	0.00 N.S.	137 71	19 11	75 29	1.47 N.S.
Housing Problems	280 204	341 171	78 69	12.64 SIG**	108 53	86 46	37 12	1.76 N.S.
Counseling Related Problems	607 381	224 150	334 209	0.29 N.S.	174 89	64 39	147 57	3.47 N.S.
Course Related Problems	356 230	269 172	47 42	0.36 N.S.	139 51	58 51	34 9	15.51 SIG***
Commuting Problems	228 120	179 136	59 40	5.35 N.S.	73 37	54 26	27 11	0.26 N.S.
Accessibility Problems	304 192	31 15	131 89	0.98 N.S.	98 39	15 5	41 30	4.59 N.S.

TABLE VI (continued)

Selection of Major Problems	262 167	128 75	76 54	0.68 N.S.	75 41	31 16	48 17	1.64 N.S.
Orientation Problems	448 268	259 185	225 139	2.13 N.S.	152 72	90 55	66 21	4.71 N.S.
Attitudinal Problems	484 308	175 98	40 38	4.18 N.S.	168 73	49 32	14 6	2.37 N.S.
External Financial Support Problems	353 206	293 178	286 208	3.34 N.S.	117 55	98 54	93 39	1.16 N.S.

*** Significant; $p < .001$
** Significant; $p < .01$

Sources in the review of literature tend to support the position that women have more success in the transfer process than men. Fewer of them do transfer, but they usually have better grade point averages overall and they graduate more quickly after transfer.

Findings in this study reveal that persisting students differ significantly in perceived difficulty on the sex variable with the degree related, university financial aid, and housing problem dimensions. For those students who withdrew, the nonpersisting students, there was significant difference with the social relations, degree related, and course related problem dimensions. HO_2 was rejected in those dimensions where significant difference was determined. Where significant difference did exist, women expressed more difficulty proportionately on two of the three dimensions with the persisting students while nonpersisting men expressed more difficulty on the three dimensions cited.

Problem dimensions which revealed no significant differences but which indicated higher levels of difficulty proportionately were academic adjustment, degree related, faculty related, counseling related, accessibility, and orien-

tation, and external financial support problems.

Table VII contains the findings for the following null hypothesis:

HO_3 There is no significant difference in the perceptions of articulation problems for transferring junior college students with different academic majors.

TABLE VII

Responses to Dimensions According to Academic Major Fields

Problem Dimension	Persisting Students N = 382				Nonpersisting Students N = 115			
	Humanities = 59 Social Sciences = 122 Natural Sciences = 35 Applied Sciences = 150 Undecided or unidentified = 16				Humanities = 27 Social Sciences = 26 Natural Sciences = 11 Applied Sciences = 46 Undecided or unidentified = 5			
	LOW	N/O	HIGH	X^2	LOW	N/O	HIGH	X^2
Social	233	47	74		122	12	28	
Relations	558	58	116	19.63	110	18	28	14.85
Problems	163	13	34	SIG*	57	6	3	N.S.
	645	87	168		195	40	41	
	74	6	16		21	2	7	
Academic	175	49	71		82	24	29	
Adjustment	348	77	185	18.90	73	22	36	4.63
Problems	102	21	52	SIG*	33	12	10	N.S.
	376	118	256		125	43	62	
	39	17	24		14	3	8	
Degree	221	67	125		101	22	66	
Related	472	102	280	10.56	92	27	63	12.87
Problems	148	25	72	N.S.	45	8	24	N.S.
	567	160	323		149	53	120	
	63	15	34		15	1	19	
University	69	70	38		38	32	11	
Financial Aid	141	171	54	23.65	25	39	14	10.58
Problems	53	33	19	SIG**	10	20	3	N.S.
	169	221	60		61	65	12	
	17	29	2		5	7	3	
Faculty	113	19	45		60	4	17	
Related	227	27	112	5.48	49	4	25	@@
Problems	60	8	37	N.S.	22	2	9	
	278	39	133		68	21	49	
	27	6	15		9	0	6	

TABLE VII (continued)

	81	68	28		49	17	15	
Housing	163	161	42	7.46	35	33	10	27.65
Problems	37	52	16	N.S.	6	23	4	SIG***
	188	208	54		64	56	18	
	18	23	7		7	4	4	
Counseling	158	52	90		66	27	42	
Related	275	116	219	36.43	56	26	48	9.68
Problems	106	27	42	SIG***	21	8	26	N.S.
	416	156	178		114	41	75	
	39	23	18		10	2	13	
Course	84	74	19		50	24	7	
Related	194	129	43	10.79	39	30	9	7.21
Problems	65	31	9	N.S.	16	14	3	N.S.
	221	189	40		76	41	21	
	23	19	6		9	3	3	
	56	47	15		29	15	10	
Commuting	100	110	34	7.27	22	20	10	4.65
Problems	33	29	8	N.S.	13	7	2	N.S.
	149	116	34		41	36	15	
	11	14	7		6	3	1	
	80	7	31		34	4	16	
Accessibility	158	17	69		34	3	15	
Problems	47	1	22	@@	14	0	8	@@
	195	21	84		53	12	27	
	18	0	14		4	1	5	
Selection of	62	34	22		27	7	20	
Major	131	60	53	14.13	26	10	16	
Problems	43	18	9	N.S.	12	4	6	@@
	179	83	38		47	24	21	
	14	8	10		4	3	3	
	100	74	62		47	38	23	
Orientation	225	136	127	13.21	44	35	25	13.40
Problems	78	31	31	N.S.	21	19	4	N.S.
	283	180	137		104	50	30	
	30	25	9		8	6	6	
	115	45	17		64	14	3	
Attitudinal	266	74	26	8.36	53	23	2	
Problems	74	24	7	N.S.	20	12	1	@@
	302	121	27		95	32	11	
	35	11	2		10	2	3	

TABLE VII (continued)

External	83	62	91		38	32	38	
Financial	177	146	165	16.32	34	37	33	7.92
Support	50	38	52	SIG	20	15	9	N.S.
Problems	230	197	173		71	66	47	
	19	29	16		10	4	6	

*** Significant; $p < .001$
** Significant; $p < .01$
* Significant; $p < .02$
@@ Insufficient numbers in cells to compute X^2

Not a large number of studies reviewed in Chapter II investigated academic major areas in research on the transferring junior college student. There is no discernible pattern within the data from this study which indicates that high difficulty prevails consistently with any one major area.

Significant difference appeared among persisting students in academic major groups with the social relations, academic adjustment, university financial aid, counseling related, and external financial support problem dimensions. Nonpersisting students perceived problems differently only with one problem dimension, housing. Where significant difference was found with both groups, HO_3 was rejected.

Chi square testing could not be computed on four dimensions with nonpersisting students and one dimension with persisting students because of insufficient responses in some cells of the distributions.

Higher levels of difficulty can be observed proportionately with academic majors in the academic adjustment, degree related, counseling related, orientation, and external financial support problem dimensions.

Table VIII contains the findings for the following null hypothesis:

> HO_4 There is no significant difference in the perceptions of articulation problems for single or married transferring junior college students.

TABLE VIII

Responses to Dimensions According to Marital Status of the Student

Problem Dimension	Persisting Students N = 382 (Single = 263, Married = 107, Divorced = 12@)				Nonpersisting Students N = 115 (Single = 65, Married = 47, Divorced = 3@)			
	LOW	N/O	HIGH	X^2	LOW	N/O	HIGH	X^2
Social Relations Problems	1144 472	111 92	323 78	44.08 SIG***	299 194	28 50	63 38	17.83 SIG***
Academic Adjustment Problems	712 291	184 91	419 153	3.62 N.S.	176 142	60 42	89 51	2.70 N.S.
Degree Related Problems	1015 404	254 109	572 236	0.35 N.S.	238 152	73 36	144 141	11.58 SIG**
University Financial Aid Problems	308 125	356 157	125 39	2.79 N.S.	73 63	105 55	17 23	8.78 SIG*
Faculty Related Problems	470 205	70 26	249 90	1.75 N.S.	121 82	21 10	53 49	2.91 N.S.
Housing Problems	375 101	295 195	119 25	51.27 SIG***	105 53	58 72	32 16	15.65 SIG***
Counseling Related Problems	683 281	249 113	383 141	1.95 N.S.	150 107	56 45	119 83	0.32 N.S.
Course Related Problems	414 155	297 132	78 34	1.58 N.S.	111 74	64 46	20 21	1.72 N.S.
Commuting Problems	235 99	238 72	53 43	16.72 SIG***	67 41	49 29	14 24	8.42 SIG*
Accessibility Problems	329 147	36 10	161 57	2.82 N.S.	76 58	11 9	43 27	0.48 N.S.

TABLE VIII (continued)

Selection of Major Problems	290 120	133 68	103 26	7.17 SIG	57 57	27 19	46 18	8.04 SIG*
Orientation Problems	517 175	285 150	250 103	10.97 SIG**	123 97	91 53	46 38	2.33 N.S.
Attitudinal Problems	559 205	167 100	63 16	13.94 SIG***	144 91	39 42	12 8	4.26 N.S.
External Financial Support Problems	403 145	293 155	356 128	10.05 SIG**	114 54	75 77	71 57	11.69 SIG**

*** Significant; $p < .001$
** Significant; $p < .01$
* Significant; $p < .02$
@ Divorced students were eliminated from study because of insufficient number.

More recent trends with student populations in higher education have shown more married students in attendance at colleges and universities. The samples for this study revealed that slightly more than one-fourth of the persisting students was married, and almost one-half of the nonpersisting students was married. Very few in either group were divorced, and this division of students with the groupings according to marital status could not be included in statistical computations because of insufficient numbers.

Persisting students responded with significant difference on the social relations, housing, commuting, selection of major, orientation, attitudinal, and external financial support problem dimensions. Single students indicated more difficulty proportionately in four of the dimensions where there was significant difference while married students showed a significantly higher response in two dimensions.

With nonpersisting students significant difference was found on seven problem dimensions: social relations, degree related, university financial aid, housing, commuting, selection of major, and external financial support. Propor-

tionately nonpersisting married students responded significantly higher on four dimensions and single students on one dimension. HO_4 was rejected on those dimensions where significant difference appeared.

Table IX contains the findings for the following null hypothesis:

HO_5 There is no significant difference in the perceptions of articulation problems for transferring junior college students from junior colleges with varying size in enrollment.

TABLE IX

Responses to Dimensions According to Size of Junior College

Problem Dimension	Persisting Students N = 382				Nonpersisting Students N = 115			
	0 - 500 Stus. 75 500 - 1000 Stus. 96 Over 1000 Stus. 202 Not reported 9@				0 - 500 Stus. 21 500 - 1000 Stus. 34 Over 1000 Stus. 58 Not reported 2@			
	LOW	N/O	HIGH	X^2	LOW	N/O	HIGH	X^2
Social Relations Problems	312 419 895	48 55 106	90 102 211	3.47 N.S.	99 143 257	14 26 38	13 35 53	3.61 N.S.
Academic Adjustment Problems	197 251 566	56 66 152	122 163 292	4.54 N.S.	60 95 166	16 33 54	29 42 70	1.04 N.S.
Degree Related Problems	286 376 768	82 94 182	157 202 464	3.99 N.S.	73 112 209	21 34 56	53 92 141	1.23 N.S.
University Financial Aid Problems	78 122 242	113 121 271	34 45 93	3.87 N.S.	20 48 71	34 38 88	9 16 15	8.49 N.S.
Faculty Related Problems	121 186 379	19 30 49	85 72 178	10.97 SIG	40 60 105	5 10 16	18 32 53	0.36 N.S.
Housing Problems	99 136 235	97 116 291	29 36 80	6.44 N.S.	30 46 84	27 45 58	6 11 32	6.34 N.S.

TABLE IX (continued)

Counseling Related Problems	204 226 533	64 96 205	107 158 272	8.27 N.S.	42 77 143	18 32 51	46 61 96	3.65 N.S.
Course Related Problems	118 149 307	89 112 229	18 27 70	2.54 N.S.	36 50 101	23 34 54	4 18 19	5.92 N.S.
Commuting Problems	72 102 169	54 76 177	24 14 58	11.99 SIG*	21 28 60	16 24 39	5 16 17	3.91 N.S.
Accessibility Problems	96 119 275	7 15 22	47 58 107	3.70 N.S.	24 39 73	4 6 10	14 23 33	0.78 N.S.
Selection of Major Problems	77 105 236	39 49 109	34 38 59	5.92 N.S.	18 36 62	8 14 24	16 18 30	2.47 N.S.
Orientation Problems	145 191 363	87 91 256	68 102 189	8.53 N.S.	41 60 120	31 48 68	12 28 44	3.68 N.S.
Attitudinal Problems	155 199 419	42 72 153	28 17 34	14.75 SIG**	41 67 130	17 26 38	5 9 6	5.35 N.S.
External Financial Support Problems	127 141 279	93 101 263	80 142 266	12.44 SIG*	35 40 94	32 49 72	17 47 66	8.19 N.S.

** Significant; $p \leq .01$
* Significant; $p \leq .02$
@ Not computed in statistical testing.

Junior colleges in the state of Oklahoma ranged in size from 115 students to 4,834 students in the fall semester of 1972, according to statistics available in the office of the Oklahoma State Regents for Higher Education. The environments for these junior colleges vary from totally rural to urban centers. Students coming from this wide variation in size and environment could be expected to perceive new experiences somewhat differently. Findings from this study indicate that problems were perceived with significant difference

by persisting students on only four dimensions and there was not significant difference in perceptions on any dimension with nonpersisting students.

Persisting students showed significant difference in perceptions on the faculty related, commuting, attitudinal, and external financial support problem dimensions. Persisting students from junior colleges below 500 enrollment indicated the highest level of difficulty proportionately on three of the four dimensions cited above with students from institutions with 500 to 1,000 student enrollments responding with the most difficulty on external financial support problems. HO_5 was rejected with the dimensions where significant difference was found.

Table X contains the findings for the following null hypothesis:

HO_6 There is no significant difference in the perceptions of articulation problems for transferring junior college students who have been enrolled for varying numbers of semesters at the University of Oklahoma.

TABLE X

Responses to Dimensions According to Number of Semesters at University of Oklahoma

Problem Dimension	Persisting Students N = 382 (1 semester = 134; 2 semesters = 42; 3 semesters = 103; 4 or more sems. = 100; Not reported = 3@)				Nonpersisting Students N = 115 (1 semester = 36; 2 semesters = 27; 3 semesters = 11; 4 or more sems. = 40; Not reported = 1@)			
	LOW	N/O	HIGH	X^2	LOW	N/O	HIGH	X^2
Social	575	87	142		131	38	47	
Relations	195	17	40	17.33	127	12	23	30.06
Problems	441	44	133	SIG**	47	6	13	SIG***
	449	62	89		195	22	23	
Academic	379	79	212		100	38	42	
Adjustment	102	31	77	26.57	84	12	39	17.24
Problems	268	72	175	SIG***	23	11	21	SIG**
	282	98	120		116	42	42	

TABLE X (continued)

Degree	532	120	286		132	42	78	
Related	137	55	102	15.31	94	18	44	14.77
Problems	406	85	230	SIG*	27	14	36	SIG
	380	108	212		147	37	96	
University	157	181	64		42	49	17	
Financial Aid	51	59	16	5.51	31	35	15	8.87
Problems	127	130	52	N.S.	13	19	1	N.S.
	108	152	40		53	57	10	
Faculty	262	34	106		55	21	32	
Related	77	14	35	13.73	58	3	20	##
Problems	169	23	117	SIG	17	0	16	
	189	28	83		75	7	38	
	184	168	50		36	49	23	
Housing	33	82	11	28.15	44	27	10	16.23
Problems	143	120	46	SIG***	17	15	1	SIG*
	120	140	40		64	39	17	
Counseling	357	136	177		87	50	53	
Related	87	52	71	21.03	73	10	52	21.70
Problems	279	75	161	SIG**	19	8	28	SIG**
	254	110	136		88	43	69	
Course	201	157	44		45	45	18	
Related	62	50	14	1.25	56	14	8	15.32
Problems	159	122	28	N.S.	18	11	4	SIG*
	158	112	30		70	38	12	
	102	133	33		27	32	13	
Commuting	39	33	12	12.30	21	23	10	11.37
Problems	99	80	27	N.S.	14	5	3	N.S.
	104	70	26		47	21	12	
	185	14	69		40	9	23	
Accessibility	50	4	30	6.60	37	2	15	8.04
Problems	124	16	66	N.S.	17	2	3	N.S.
	134	12	54		44	7	29	
Selection of	149	77	42		39	17	16	
Major	41	25	18	5.18	26	11	17	3.21
Problems	113	55	38	N.S.	11	5	6	N.S.
	122	45	33		40	13	27	
	280	124	132		65	46	33	
Orientation	72	50	46	28.66	63	19	26	20.43
Problems	195	115	102	SIG***	22	15	4	SIG***
	161	154	85		72	67	21	

TABLE X (continued)

	279	94	29		69	33	6	
Attitudinal	85	33	8	2.72	62	13	6	5.99
Problems	217	68	24	N.S.	22	9	2	N.S.
	204	79	17		87	27	6	
External	169	178	189		42	62	40	
Financial	64	59	45	16.52	41	36	31	11.44
Support	166	103	143	SIG*	21	9	14	N.S.
Problems	150	130	120		65	47	48	

*** Significant; $p < .001$
** Significant; $p < .01$
* Significant; $p < .02$
@ Not reported not included in statistical testing.
Insufficient numbers in cells to compute X^2.

The review of research concerning junior college transfer students revealed that a substantial number of junior college transfer students, over fifty percent in one study at the University of Oklahoma, do not persist in their enrollments at the four-year institutions. Some students transfer to other colleges or universities, others leave higher education permanently, while some return to the original four-year institution at a later time. Research supplies little information about later attendance patterns of non-persisting students.

This study attempted to find if students whose time of enrollment in numbers of semesters varied perceived difficulty differently in the articulation process. The new student in his first semester may possibly be more aware of the problems encountered in a recent transfer while those who have persisted for two, three, or four semesters may see problem situations in a different perspective.

Persisting students responded with significant difference on eight of the fourteen problem dimensions: social relations, academic adjustment, degree related, faculty related, housing, counseling related, orientation, and external financial support. In only one instance did students in their first semester

have the highest level proportionately in the difficulty range, and that was with external financial support problems. Students with three semesters of enrollment responded in the high difficulty range more often proportionately than did other student groups.

With nonpersisting students there was significant difference on the social relations, academic adjustment, degree related, housing, counseling related, course related, and orientation problem dimensions. First semester students responded proportionately higher on three dimensions while those students with three semesters responded proportionately higher on four dimensions. HO_6 was rejected with fifteen of the possible twenty-eight testings on the problem dimensions.

Table XI contains the findings for the following null hypothesis:

HO_7 There is no significant difference in the perceptions of articulation problems for transferring junior college students who transfer with different amounts of credit hours earned.

TABLE XI

Responses to Dimensions According to Number of Hours Transferred from Junior College

Problem Dimension	Persisting Students N = 382 (1 to 30 hrs. = 97; 31 to 65 hrs. = 281; Not reported = 4@)				Nonpersisting Students (1 to 30 hrs. = 35; 31 to 65 hrs. = 80; Not reported = 0)			
	LOW	N/O	HIGH	X^2	LOW	N/O	HIGH	X^2
Social Relations Problems	467 1187	46 163	69 336	22.96 SIG***	148 357	18 60	44 63	8.04 SIG*
Academic Adjustment Problems	251 784	109 167	125 454	33.77 SIG***	95 231	34 40	46 99	0.58 N.S.
Degree Related Problems	374 1084	118 242	187 641	13.65 SIG**	132 270	38 73	75 217	4.94 N.S.

TABLE XI (continued)

University Financial Aid Problems	112 333	153 363	26 147	14.50 SIG***	27 112	70 93	8 35	22.82 SIG***
Faculty Related Problems	192 505	22 77	77 261	3.35 N.S.	66 142	8 23	31 75	0.52 N.S.
Housing Problems	84 398	171 336	36 102	34.44 SIG***	50 111	42 91	13 38	0.66 N.S.
Counseling Related Problems	243 736	117 253	125 415	9.07 SIG*	84 183	29 65	52 152	4.91 N.S.
Course Related Problems	133 449	129 307	29 87	5.91 N.S.	55 135	41 71	9 34	4.02 N.S.
Commuting Problems	88 257	71 241	35 64	6.24 SIG	32 79	29 52	9 29	2.02 N.S.
Accessibility Problems	130 364	8 37	56 161	1.55 N.S.	48 91	2 18	20 51	5.19 N.S.
Selection of Major Problems	102 323	54 146	38 92	1.53 N.S.	31 85	15 33	24 42	1.84 N.S.
Orientation Problems	155 554	175 266	58 304	68.41 SIG***	73 151	49 99	13 70	5.10 N.S.
Attitudinal Problems	188 297	91 179	12 67	14.85 SIG***	68 174	29 54	8 12	2.26 N.S.
External Financial Support Problems	124 428	155 311	109 386	20.39 SIG***	55 118	50 104	35 98	1.49 N.S.

*** Significant; $p < .001$
** Significant; $p < .01$
* Significant; $p < .02$
@ Not computed in statistical testing.

Previous research revealed that students who transfer after obtaining the associate of arts degree or its equivalent are more successful in completing a bachelor's degree than those who transfer before finishing a junior college

degree program. In this study the level used to divide students into two groups was thirty credit hours. Those students who had completed fewer than thirty credit hours represented the group who had completed up to the equivalent of one academic year in the junior college. Those students who had completed thirty-one to sixty-five hours represented the group which had completed more than one year and may have obtained a junior college degree. The maximum number of hours was established at sixty-five because the University of Oklahoma will accept only that number of credit hours in transfer from a junior college.

Data reveal that persisting students who transferred with more than thirty hours of credit expressed higher levels of difficulty proportionately in seven of the ten problem dimensions where there was significant difference. The problem dimensions where significant difference was found with persisting students were social relations, academic adjustment, degree related, university financial aid, housing, counseling related, commuting, orientation, attitudinal, and external financial support.

Nonpersisting students with less than thirty hours responded at significantly higher levels on two dimensions: social relations and university financial aid. There was significant difference on no other problem dimensions with nonpersisting students. HO_7 was rejected with twelve of the twenty-eight testings on the problem dimensions with persisting and nonpersisting students.

Table XII contains the findings for the following null hypothesis:

> HO_8 There is no significant difference in the perceptions of articulation problems for transferring junior college students whose parents have different financial income.

TABLE XII

Responses to Dimensions According to Parents' Financial Status

Problem Dimension	Persisting Students N = 382				Nonpersisting Students N = 115			
	$ 0 - 4,000 = 35 4,001 - 8,000 = 69 8,001 - 12,000 = 109 Over 12,000 = 138 Not reported = 31[@]				$ 0 - 4,000 = 11 4,001 - 8,000 = 18 8,001 - 12,000 = 25 Over 12,000 = 55 Not reported = 6[@]			
	LOW	N/O	HIGH	X^2	LOW	N/O	HIGH	X^2
Social	143	20	47		39	10	17	
Relations	299	24	91	17.79	72	19	17	19.05
Problems	488	57	109	SIG	105	17	28	SIG**
	613	82	133		262	29	39	
Academic	90	24	61		26	13	16	
Adjustment	194	47	104	6.42	45	17	28	4.92
Problems	309	66	170	N.S.	76	18	31	N.S.
	376	113	201		156	50	69	
Degree	119	30	96		37	4	36	
Related	281	57	145	14.57	54	23	49	16.24
Problems	420	93	250	SIG	99	15	61	SIG*
	540	147	279		192	60	33	
University	46	34	25		9	11	13	
Financial Aid	101	66	40	67.79	20	25	9	42.14
Problems	140	129	58	SIG***	40	26	9	SIG***
	131	248	35		65	93	7	
Faculty	55	16	34		17	1	15	
Related	131	16	60	9.61	32	6	16	12.34
Problems	210	21	96	N.S.	39	5	31	N.S.
	255	36	123		108	18	39	
	44	49	12		9	17	7	
Housing	83	99	25	5.59	24	25	5	11.82
Problems	145	131	51	N.S.	33	31	11	N.S.
	178	189	47		130	48	97	
Counseling	74	31	70		17	6	32	
Related	179	69	97	14.48	37	19	34	18.06
Problems	301	95	149	SIG	65	28	33	SIG**
	357	142	191		130	48	97	

TABLE XII (continued)

Course	54	32	19		18	10	5	
Related	114	77	16	12.14	26	24	4	7.78
Problems	167	124	36	N.S.	40	27	8	N.S.
	205	172	37		95	44	26	
	35	27	8		10	5	7	
Commuting	69	48	21	6.96	14	14	8	7.41
Problems	93	90	35	N.S.	24	17	9	N.S.
	124	123	29		58	29	13	
	43	3	24		11	3	8	
Accessibility	83	9	46	6.68	21	5	10	2.62
Problems	156	12	50	N.S.	31	4	15	N.S.
	182	16	78		66	8	36	
Selection of	36	18	16		10	7	5	
Major	85	35	18	4.32	12	11	13	11.93
Problems	127	56	35	N.S.	27	5	18	N.S.
	151	75	50		62	23	25	
	55	27	58		14	15	14	
Orientation	141	68	67	52.20	36	21	15	9.81
Problems	187	121	128	SIG***	57	26	17	N.S.
	275	187	90		107	74	39	
	59	33	13		18	9	6	
Attitudinal	144	56	7	24.81	32	19	3	20.81
Problems	245	53	29	SIG***	55	16	4	SIG**
	283	102	29		128	33	4	
External	42	36	62		10	13	21	
Financial	87	81	103	42.36	19	28	25	26.14
Support	158	113	165	SIG***	33	36	31	SIG***
Problems	229	194	129		107	69	44	

*** Significant; $p < .001$
** Significant; $p < .01$
* Significant; $p < .02$
@ Not computed in statistical analysis.

Literature about the junior college states that one of the major reasons that students attend a junior college is less expense. Students can live at home in many instances because of the proximity of the college. Tuition costs are generally lower and scheduling of classes is often structured for the working student. Consequently, the student who transfers may encounter new difficulties because of the different financial demands of a

four-year college or university. If he cannot rely on parental financial assistance, his difficulties may be greater. Because of the possibility of problems related to financial support by parents, financial capability was examined.

Students primarily from the lowest level of parental financial income ($0000 to 4,000) expressed the highest level of difficulty proportionately with all dimensions where significant difference was found with both persisting and nonpersisting students. With the persisting group, significant difference was found on seven problem dimensions: social relations, degree related, university financial aid, counseling related, orientation, attitudinal, and external financial support. Nonpersisting students responded with significant difference on six problem dimensions: social relations, degree related, university financial aid, counseling related, orientation, attitudinal, and external financial support. HO_8 was rejected with each of the problem dimensions where significant difference existed. In no instance did students from the two higher income levels respond proportionately higher than those students in the two lower income groups.

Table XIII contains the findings for the following null hypothesis:

> HO9 There is no significant difference in the perceptions of articulation problems for transferring junior college students with different junior college grade point averages.

TABLE XIII

Responses to Dimensions According to Junior College Grade Point Average

Problem Dimension	Persisting Students N = 382				Nonpersisting Students N = 115			
	1.0 - 1.9 GPA = 33 2.0 - 2.9 GPA = 196 3.0 - 4.0 GPA = 153				1.0 - 1.9 GPA = 21 2.0 - 2.9 GPA = 63 3.0 - 4.0 GPA = 31			
	LOW	N/O	HIGH	X^2	LOW	N/O	HIGH	X^2
Social	143	25	30	4.06	94	12	20	3.56
Relations	856	109	211	N.S.	267	49	62	N.S.
Problems	674	77	167		144	14	25	
Academic	89	28	48	5.75	59	21	25	0.79
Adjustment	511	151	318	N.S.	181	53	81	N.S.
Problems	440	103	222		86	30	39	
Degree	105	36	90	12.39	77	16	54	1.78
Related	747	192	433	SIG*	214	66	161	N.S.
Problems	619	141	311		111	29	77	
University	32	51	16	8.70	22	29	12	3.70
Financial Aid	227	284	77	N.S.	76	91	22	N.S.
Problems	190	189	80		41	43	9	
Faculty	69	10	20	4.84	35	6	22	3.39
Related	357	51	180	N.S.	112	15	62	N.S.
Problems	279	38	142		61	10	22	
Housing	38	52	9	5.54	26	26	11	1.32
Problems	240	266	82	N.S.	89	74	26	N.S.
	209	194	86		46	33	14	
Counseling	73	25	67	20.82	51	13	41	14.82
Related	488	198	294	SIG***	138	52	125	SIG**
Problems	428	151	186		78	39	38	
Course	37	41	21	18.16	32	16	15	11.99
Related	301	230	57	SIG**	103	63	23	SIG*
Problems	249	171	39		55	33	5	
Commuting	26	28	12	2.14	21	13	8	1.26
Problems	182	161	49	N.S.	63	43	20	N.S.
	141	127	38		27	25	10	
Accessibility	48	5	13	9.47	26	2	14	1.79
Problems	237	27	128	N.S.	73	13	40	N.S.
	213	14	79		40	5	17	

TABLE XIII (continued)

Selection of Major Problems	42 217 170	12 104 87	12 71 49	3.29 N.S.	23 64 29	6 28 14	13 34 19	1.64 N.S.
Orientation Problems	50 380 286	51 221 174	31 183 152	7.43 N.S.	33 123 68	28 82 38	23 47 18	6.99 N.S.
Attitudinal Problems	61 405 326	31 142 102	7 41 31	3.85 N.S.	49 128 65	13 47 23	1 14 5	3.81 N.S.
External Financial Support Problems	44 300 215	44 229 199	44 255 198	2.83 N.S.	29 100 44	29 77 48	26 75 32	2.89 N.S.

*** Significant; $p < .001$
** Significant; $p < .01$
* Significant; $p < .02$

Research studies related to the academic success of transferring junior college students reveal that the best predictor of success after transfer is the junior college grade point average. Those students who have done well at the junior college have better chances for success at the four-year institution of higher education.

Persisting students were found to differ significantly in their responses on three problem dimensions: degree related, counseling related, and course related. With each dimension group one (1.0 - 1.9) responded proportionately higher in difficulty than the other two levels. Nonpersisting students differed significantly on two problem dimensions: counseling related and course related. Groups one and two were very similar in their response levels in the higher difficulty range on these dimensions. HO_9 was rejected on those dimensions where significant difference occurred.

Table XIV contains the findings for the following null hypothesis:

> HO_{10} There is no significant difference in the perceptions of articulation problems for transferring junior college students who persisted in enrollment or withdrew from enrollment during the time period selected for this study.

TABLE XIV

Responses to Dimensions According to
Persistence or Nonpersistence of Students

Problem Dimension	Persisting Students = 382 Nonpersisting Students = 115 LOW	N/O	HIGH	X^2
Social Relations	1673	211	408	4.01
Problems	505	78	107	N.S.
Academic Adjustment	1040	282	588	8.17
Problems	326	104	145	SIG*
Degree Related	1471	369	834	7.88
Problems	402	111	292	SIG*
University Financial Aid	449	524	173	1.46
Problems	139	163	43	N.S.
Faculty Related	705	99	342	0.14
Problems	208	31	106	N.S.
Housing	487	512	147	4.09
Problems	161	133	51	N.S.
Counseling Related	989	374	547	9.82
Problems	267	104	204	SIG**
Course Related	587	442	117	4.65
Problems	190	112	43	N.S.
Commuting	349	316	99	3.52
Problems	111	81	38	N.S.
Accessibility	498	46	220	2.76
Problems	139	20	71	N.S.
Selection of Major	429	203	132	14.86
Problems	116	48	66	SIG***
Orientation	716	446	366	4.88
Problems	224	148	88	N.S.
Attitudinal	792	275	79	0.50
Problems	242	83	20	N.S.
External Financial	559	472	497	2.27
Support Problems	173	154	133	N.S.

*** Significant; $p < .001$
** Significant; $p < .01$
* Significant; $p < .02$

Students leave institutions of higher education for a variety of reasons. Little research has been done on reasons for withdrawal from enrollment. Difficulty in following up on students who withdraw is a major contributing factor to this lack of research. The researcher in this study sought to discover how withdrawn students perceived difficulty in the articulation process.

With the various problem dimensions cited in the problem inventory, persisting and nonpersisting students responded with significant difference on the following problem dimensions: academic adjustment, degree related, counseling related, and selection of major. Persisting students responded at proportionately higher levels of difficulty on academic adjustment and degree related problems, and nonpersisting students responded at proportionately higher levels on counseling related and selection of major problems. HO_{10} was rejected on the four dimensions where significant difference was found.

Reasons for Withdrawal

To provide additional insight into the withdrawal patterns occurring with several junior college transfer students, an opportunity was provided on the problem inventory for the nonpersisting students to specify the major factor in their withdrawals. The responses were not coded and entered on computer cards since the variety of responses and the subjective nature of them prevented statistical analysis. In some instances, students mentioned more than one factor and both factors were recorded.

Table XV is a presentation of the various responses given, summarized in general groups suggested by the nature of the comments.

TABLE XV

Reasons for Withdrawal

Reasons	No. of Responses
Financial difficulties	25
Change of major field of study	12
Poor grades	9
Did not want college degree	8
Personal problems	6
Personal apathy	5
Foreign language requirement in Arts and Sciences	5
Transfer of credit problems	5
Decided to marry	5
Impersonal attitude at the University of Oklahoma	5
Poor counseling at the University of Oklahoma	5
Did not like teaching methods of faculty of Univ. of Okla.	4
Illness	4
Did not like social groups and ideas at Univ. of Okla.	4
Housing problems	3
Took time off from school to work	3
Military draft	2

Summary of Findings

The following questions were to be answered in this study: Are there sources of conflict in the articulation process for transferring junior college students at the University of Oklahoma and are these difficulties perceived differently by the students according to various characteristics associated with the students? Affirmative responses can be given to both questions.

Levels of difficulty which represented conflicting conditions between student needs and institutional expectations varied among the fourteen dimensions of the articulation process. This variation can be observed throughout the tables presented in this chapter. Generally speaking, attitudinal problems related to the attitude of faculty and students at the University of Oklahoma toward junior college transfer

students revealed the lowest difficulty and the fewest problems proportionately in the articulation process, and the problem dimensions of external financial support, degree related, and counseling related represented problem areas giving students the most difficulty.

To determine if junior college transfer students perceived problems differently according to various characteristics associated with students, chi square tests were computed on each dimension for each of the characteristics which were the independent variables in this study. Test results showing significant difference at the .05 level or at a more stringent level indicated rejection of the null hypotheses related to the independent variables.

A summary of the results of the chi square testing of the null hypotheses is presented in Table XVI. An "X" appearing in the column of any particular dimension indicates that significant difference was found at the .05 level or beyond for the independent variable listed in the left hand column.

TABLE XVI

Summary Table
of
Significance on Independent Variables

Independent Variable*	Student Status	Problem Dimensions 1	2	3	4	5	6	7	8	9	10	11	12	13	14
Age	Persisting	X	X				X	X		X			X	X	X
	Nonpersisting	X	X		X										X
Sex	Persisting			X	X		X								
	Nonpersisting	X		X					X						
Academic Major Fields	Persisting	X	X		X			X							X
	Nonpersisting						X								

TABLE XVI (continued)

Independent Variable	Student Status	Problem Dimensions 1	2	3	4	5	6	7	8	9	10	11	12	13	14
Marital Status	Persisting	X					X			X		X	X	X	X
	Nonpersisting	X		X	X		X			X		X			X
Size of Junior College	Persisting					X				X				X	X
	Nonpersisting														
No. of Semesters at U. of O.	Persisting	X	X	X		X	X	X					X		X
	Nonpersisting	X	X	X			X	X	X				X		
No. of Hours Transferred	Persisting	X	X	X	X		X	X		X			X	X	X
	Nonpersisting	X			X										
Parents' Financial Status	Persisting	X		X	X			X					X	X	X
	Nonpersisting	X		X	X			X						X	X
Junior College GPA	Persisting			X				X	X						
	Nonpersisting							X	X						
Persistence			X	X				X				X			

*An X appearing under a dimension with the persisting or nonpersisting groups indicates that significant difference was found for the group on the independent variable in the left hand column. The division of the groups on the independent variables can be observed in the tables presented previously in this chapter.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The research problem for this study was to discern the sources of conflict that junior college transfer students encounter in the articulation process at the University of Oklahoma. In addition, the researcher sought to determine if these students perceived the difficulty differently according to certain personal characteristics possessed by the students and specified in previous research as related to problemmatic conditions in transfer. The design for the examination of the research problem was a survey in which the student was asked to respond to a series of problem situations described by fifty-eight items on a problem inventory. The problem situations were derived from research and other literature concerning students who transfer from junior to senior colleges or universities. A series of null hypotheses was developed and statistical testing was conducted, utilizing the student characteristics identified in the study as the independent variables and responses to the inventory items as the dependent variables.

The student population from which the sample groups were selected was all junior college transfer students enrolled at the University of Oklahoma in the fall semester of 1972 and those junior college transfer students who had withdrawn from enrollment at the University in the time period spanning one academic year which terminated with the enrollment of all students for the fall semester of 1972. From the student population, a sample of 500 currently enrolled students was selected randomly, and the total group of withdrawn students was used as the other sample. Addresses on file with the Office of Admissions and Records were used to mail problem inventories to the two sample groups, and after a

follow-up transmittal letter and telephone call reminder to encourage response, 382 currently registered students and 115 withdrawn students did respond, representing 76.4% and 42.3% of the total sample groups respectively. The responses to the problem inventory were punched into computer cards for data compilation and statistical tests were calculated at the Merrick Computer Center on the University of Oklahoma campus.

The statistical model chosen for testing the null hypotheses was the chi square test. The data were first compiled by use of a factor analysis program to discern if various dimensions in the data captured common variance throughout the fifty-eight items. Fourteen dimensions were selected as representative of the majority of variance within the items, and eight items were dropped from further testing when they failed to load on any of the dimensions. Chi square testing was then computed on the frequency responses within the various dimensions to test for significant differences with the ten null hypotheses.

Conclusions

The following conclusions are presented subject to the limitations of the study as to sample groups and population from which the sample groups were drawn--junior college transfer students who had enrolled at the University of Oklahoma during one academic year and those who withdrew from enrollment in the time period selected for the study.

One of the major questions to be answered by this research study was "Are there sources of conflict in the articulation process for the transferring junior college student at the University of Oklahoma?" Respondents to the problem inventory indicated that varying levels of difficulty do exist in the dimensions of the articulation process identified in this study.

Through an examination of the levels of response, one can conclude that certain problem dimensions carry higher levels of difficulty than do others. There was not always significant difference in the testing of the null hypotheses on the dimensions because the response patterns were similar proportionately. The question arises as to what level really indicates that enough students are experiencing difficulties with problems in a particular dimension to warrant further investigation. Ideally no student would find difficulty in any dimension of the articulation process, but this surely is an unrealistic assumption. It would seem that when one-fourth to one-third of the students indicate difficulty in the HIGH range, authorities in charge of transfer functions should question seriously why this level of difficulty is occurring with students trying to move from a junior institution to a senior institution in the higher education system within one state. It is entirely possible that a student's withdrawal from the University could be caused by a severe problem in only one dimension. Consequently, higher difficulty response in a variety of dimensions could be indications of problems for several students. The rate of attrition which was found to approach and surpass fifty percent in more than one study indicates that adjustment problems are present. Also in a period of time when financial resources available to institutions are severly restricted, personnel in institutions of higher education should seek to prevent students from wasting time, effort, and resources in frustrating aspects of the articulation process only to leave the system without successfully completing degree requirements. Since growing numbers of students are entering junior colleges, many with the intent of transferring to four-year institutions, those involved with articulation should make all attempts to eliminate impediments from the student's progress.

This study was conducted to discover sources of conflict for junior

college transfer students and to determine if these students perceived the difficulties differently according to certain personal characteristics possessed by the students. In examination of the results of the testing of the ten null hypotheses, the following conclusions are presented.

(1) Younger students expressed in proportion more perceived difficulty in ten of the twelve instances where significant difference was found on the age variable. Only with financial problems did older nonpersisting students express a higher level of difficulty. These findings do not support the position that older students have more adjustment problems in the articulation process.

(2) Previous research indicates women are more successful in the articulation process. In the six instances of significant difference in perceived difficulty, men responded proportionately at a higher level than women. These findings are in agreement with the research reviewed for this study which stated that women usually have more success in transferring.

(3) Although there were six problem dimensions where significant difference was found with different academic majors, no clear pattern emerged which revealed that students in one academic field had more difficulty than did those in other fields.

(4) When testing was conducted with marital status as a variable, single persisting students indicated more difficulty proportionately than did married persisting students. The reverse was true with nonpersisting students.

(5) Size of the junior college from which a student transferred seemed to have little impact on the level of difficulty expressed by the students. In the four instances where significant difference was found, students from the small junior colleges (0 to 500 students) responded in the higher difficulty range proportionately with three dimensions. However, there were twenty-four

testings where no significant difference was found.

(6) In the testing of the null hypotheses on the various problem dimensions, length of enrollment in semesters was the variable on which more instances of significant difference were found. Students in their third semester responded in the high level of difficulty range proportionately more often than all other student groups. This finding does not indicate that higher difficulty necessarily occurs in the first semester after transfer. Therefore, a continuing concern must be shown for the transferring student, not concern which terminates after the student once arrives on campus.

(7) Persisting students who transferred with more than thirty hours expressed a higher level of difficulty proportionately in seven of the ten problem dimensions where significant difference occurred. This finding is contrary to previous research that supported the position that generally students who stay in enrollment longer at the junior college are more successful than those who transfer with fewer transfer credit hours. First year nonpersisting students responded at a higher level of difficulty in the two dimensions where significant difference was found.

(8) In the thirteen dimensions where significant difference was found in the testing of the null hypothesis related to parents' financial status, students from low income homes ($0000 to 4,000) responded proportionately at a higher level of difficulty in all instances. This finding supports previous research which indicated level of income contributed to problems that a transfer student might encounter in articulation.

(9) When grade point average was considered as a variable, students in the 1.0-1.9 group responded in the high difficulty range more proportionately than did students with the higher grade point averages. Significant difference

was found in testing on five dimensions. Previous research indicated that the student's grades at the junior college are the best predictor of success after transfer; the results of this study indicate that students with the lower grade point averages express more difficulty in articulation.

(10) When persisting students and nonpersisting students were compared in the manner in which they responded on all dimensions, results indicated no great difference in response patterns. With the four dimensions where significant difference occurred, each group responded proportionately higher in difficulty on two dimensions.

Recommendations

(1) Research concerning junior college transfer students has too often been related simply to demographic data about students. The student has rarely been asked what problems he has encountered in articulating to a senior college or university. Further research efforts need to probe more extensively the reasons contributing to the withdrawal of up to fifty percent of the junior college transfer students before graduation. This study has discovered that one-fourth to one-third of the students express difficulty with financial support, degree attainment, counseling, academic adjustment, and problems related to instruction. More intensive investigation into all of these problems is recommended.

(2) Additional study of the perceptions and attitudes of junior college transfer students is recommended. With the growth in numbers of junior colleges and the growth in enrollment in many of these institutions, administrative and counselling personnel in four-year institutions need to know more about the types of students who transfer and how they differ from native students. Research is needed to find out what characteristics, traits, and achievements are linked to success after transfer, in terms of the students'

earning good grades, persisting in their programs and graduating on time.

(3) The instrument utilized in this study is recommended for future research studies. The problem inventory is a first attempt to discover what problems are encountered by transfer students and is certainly subject to further refinement. Data obtained from the use of the inventory can contribute to efforts in student personnel services to aid and assist transfer students.

(4) Four-year institutions of higher education should seek to learn whether transfer students are equally successful in all types of four-year colleges and universities. With greater dependence on two-year colleges for preparation of beginning undergraduate students, students are entitled to know what chances of success they have with various institutions.

(5) Four-year colleges and universities should make extensive efforts to keep junior college students informed on transfer procedures and course requirements prior to the transfer of the students and after the student arrives on the new campus. Knowledge about numerous requirements will assist students in transition.

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APPENDICES

APPENDIX A

THE TEXTS OF TRANSMITTAL LETTERS TO STUDENTS IN PILOT STUDY AND TO COUNSELORS FOR CRITIQUE

1514 Denison Dr.
Norman, Oklahoma
October 9, 1972

Dear

When a student enters a new educational institution, several opportunities for conflict arise as efforts are made by the student to adjust to the new scene. You, as a junior college transfer student, have undergone this experience and I am particularly interested in knowing about the experiences which you have encountered.

I am conducting a research study for a doctoral dissertation in which junior college transfer problems are the main object of investigation. Representatives of various educational institutions often discuss the problems that transferring students have when they transfer to a four-year institution of higher education, but only a limited amount of study has been conducted to find out where the problems really occur.

You are one of a group of junior college transfer students I am asking to criticize the enclosed problem inventory. I would like for you to respond to the problems listed. If any one of the items is not clear or does not adequately describe the problem, please write this criticism on the test form. You may use the front or back of the pages to write your comments. If particular problems are not covered in the inventory, please indicate this at the end. Be completely frank because your criticism will assist greatly in improving the inventory before it is given to a large group of junior college transfer students. Your name will not be associated in any way with the study.

I certainly need your help for the study to be meaningful. Please respond as quickly as possible using the enclosed self-addressed envelope. Contact me personally on campus if you have any questions about the study.

Thank you for your time and effort.

Sincerely,

Milford D. Messer
Director of Registration
University of Oklahoma

1514 Denison Dr.
Norman, Oklahoma
October 3, 1972

To: Counseling Personnel

From: Milford D. Messer

The accompanying problem inventory is an attempt to find what articulation problems cause the transferring junior college student the most difficulty at the University of Oklahoma. Currently, there is no other instrument available to obtain this information.

With the increasing number of transfer students entering four-year institutions, a growth from 286 admitted in 1970 to 606 admitted in 1972 to the University of Oklahoma, efforts need to be made to smooth the articulation process. After the development of this instrument, a random sample of 500 students will be selected from the total junior college transfer population at the University of Oklahoma and will be given the opportunity to respond to the problems described in the inventory. In addition, all of those junior college transfer students who withdrew over the span of time of one academic year will be contacted in an effort to solicit there responses to the items. The data collected from these samplings should be helpful in interpreting the problems encountered by the transferring student.

Since you have counseled with junior college transfer students, I am asking you to assist with the construction of a meaningful instrument. I desire that you criticize the structure and content of the items on the inventory. Do they really describe the problem situations which the transfer student might encounter? If the items are improperly structured or if the terminology is faulty, in your opinion, please write the criticism on the backs of the pages. If there are additional problem areas that I have failed to include, please supply suggestions on what should be added.

I will be extremely appreciative of any time and effort that you will give to this project. Thank you.

APPENDIX B

THE

INSTRUMENT

CENTER FOR STUDIES IN HIGHER EDUCATION
UNIVERSITY OF OKLAHOMA

An Investigation of Articulation Problems Perceived by
Junior College Transfer Students

Problem Inventory Test No. _____

Please supply the following personal data: Age _____ Sex _____

Academic Major Area of Study _____

Marital Status (Check one) - ___ Single ___ Married ___ Divorced

Size of junior college which you attended? (Check one) ___ 0 to 500 ___ 501 to 1000 ___ Over 1000

Number of semesters you have attended the University of Oklahoma including the present semester? (Check one) ___ 1 ___ 2 ___ 3 ___ 4 or more

Number of hours you transferred to the University of Oklahoma? (Check one) ___ 1 to 30 ___ 31 to 65

What is the financial income bracket of parents? ___ $ 0 to 4000 ___ 4001 to 8000 ___ 8001 to 12000 ___ Over 12000

Directions: Using the number codes given below, rate the amount of difficulty that you experienced in the activities described by the statements presented. Mark out the answer of your choice in the righthand column. (Example of answer . . . . 1 2 3 ● 5)

Number Codes:
1 - No difficulty (Not a problem)
2 - Very little difficulty (Very minor problem)
3 - No opinion, or did not pertain to my transfer experience
4 - Some difficulty (A somewhat disruptive problem but I overcame it)
5 - Much difficulty (A problem of major proportion--very disruptive in the transfer process)

1. In courses at the University of Oklahoma, repetition of material already covered in junior college courses has caused me 1 2 3 4 5
2. Using the University of Oklahoma library and it various services has caused me 1 2 3 4 5
3. The amount of study required to prepare for courses at the University of Oklahoma has caused me 1 2 3 4 5
4. Differences in grading standards between the University of Oklahoma and the junior college which I attended have caused me 1 2 3 4 5
5. Competition with non-transfer students in courses at the University of Oklahoma has caused me 1 2 3 4 5
6. In preparing for courses at the University of Oklahoma, the lack of academic background not gained in junior college courses has caused me 1 2 3 4 5
7. The attitude of University of Oklahoma faculty toward transfer students has caused me 1 2 3 4 5

8.	Not completing prerequisites for upper division courses at the University of Oklahoma while I was attending the junior college has caused me	1 2 3 4 5
9.	Discussing course-related problems outside of class with the faculty at the University of Oklahoma has caused me	1 2 3 4 5
10.	Meeting basic degree requirements at the University of Oklahoma has caused me	1 2 3 4 5
11.	Teaching methods used by University of Oklahoma faculty members have caused me	1 2 3 4 5
12.	Faculty competence in their areas of academic specialization at the University of Oklahoma has caused me .	1 2 3 4 5
13.	The use of graduate assistants to teach courses which I have taken at the University of Oklahoma has caused me	1 2 3 4 5
14.	Adjusting to large classes at the University of Oklahoma has caused me	1 2 3 4 5
15.	The lack of opportunity to ask and discuss questions in classes at the University of Oklahoma has caused me	1 2 3 4 5
16.	Changes in course requirements in my major area at the University of Oklahoma since I have transferred have caused me	1 2 3 4 5
17.	Obtaining adequate information about academic programs at the University of Oklahoma while I was attending the junior college caused me	1 2 3 4 5
18.	The adequacy of the orientation process designed to inform transfer students of student life at the University of Oklahoma caused me	1 2 3 4 5
19.	Obtaining counseling on personal problems at the University of Oklahoma has caused me	1 2 3 4 5
20.	Obtaining counseling on vocational plans at the University of Oklahoma has caused me	1 2 3 4 5
21.	Finding out what courses I need to satisfy graduation requirements at the University of Oklahoma has caused me	1 2 3 4 5
22.	Seeing my faculty adviser for planning a course of study at the University of Oklahoma has caused me. .	1 2 3 4 5
23.	Selecting a major area of study at the University of Oklahoma has caused me	1 2 3 4 5
24.	Adjusting my study habits to meet assignments for courses at the University of Oklahoma has caused me	1 2 3 4 5
25.	Obtaining counseling on academic problems or grades at the University of Oklahoma has caused me	1 2 3 4 5
26.	Changing major areas of study since transferring to the University of Oklahoma has caused me	1 2 3 4 5
27.	Obtaining remedial help with reading, math, or other learning problems at the University of Oklahoma has caused me	1 2 3 4 5
28.	My selection of courses at the junior college in preparation for transfer to the University of Oklahoma has caused me	1 2 3 4 5

29.	Gaining an opportunity to visit with a University of Oklahoma representative prior to my transfer caused me	1 2 3 4 5
30.	Lack of opportunity to visit the University of Oklahoma campus prior to my transfer caused me	1 2 3 4 5
31.	Transferring junior college credit to the University of Oklahoma has caused me	1 2 3 4 5
32.	Accepting the manner in which administrative decisions pertinent to my welfare are made at the University of Oklahoma has caused me	1 2 3 4 5
33.	Scheduling required courses at the University of Oklahoma has caused me	1 2 3 4 5
34.	Obtaining health services at the University of Oklahoma has caused me	1 2 3 4 5
35.	Assistance offered to find adequate housing at the University of Oklahoma has caused me	1 2 3 4 5
36.	General maintenance of university housing at the University of Oklahoma has caused me	1 2 3 4 5
37.	Study conditions in university housing at the University of Oklahoma has caused me	1 2 3 4 5
38.	Commuting to the University of Oklahoma has caused me	1 2 3 4 5
39.	Living in off-campus housing at the University of Oklahoma has caused me	1 2 3 4 5
40.	Having to repeat courses taken at the junior college has caused me	1 2 3 4 5
41.	Gaining an opportunity to talk with administrative officials at the University of Oklahoma about problems relative to student life has caused me	1 2 3 4 5
42.	Obtaining information relative to the programs of financial aid available at the University of Oklahoma has caused me	1 2 3 4 5
43.	Obtaining a part-time job at the University of Oklahoma has caused me	1 2 3 4 5
44.	Working part-time while attending the University of Oklahoma has caused me	1 2 3 4 5
45.	The cost of living while attending the University of Oklahoma has caused me	1 2 3 4 5
46.	Obtaining financial aid at the University of Oklahoma has caused me	1 2 3 4 5
47.	Obtaining adequate couseling on financial problems at the University of Oklahoma has caused me	1 2 3 4 5
48.	The level of financial assistance available from my parents has caused me	1 2 3 4 5
49.	The attitude of non-transfer students at the University of Oklahoma toward the transfer student has caused me	1 2 3 4 5
50.	Participation in extra-curricular activities at the University of Oklahoma by junior college transfer students has caused me	1 2 3 4 5
51.	Adjusting to social life at the University of Oklahoma has caused me	1 2 3 4 5

52.	Participating in Greek fraternity or sorority activities at the University of Oklahoma has caused me	1	2	3	4	5
53.	Making friends on the University of Oklahoma has caused me	1	2	3	4	5
54.	Accepting social and political attitudes of University of Oklahoma faculty has caused me	1	2	3	4	5
55.	Accepting rules and regulations at the University of Oklahoma concerning my personal behavior has caused me	1	2	3	4	5
56.	Adjusting to the indifferent treatment of a large university has caused me	1	2	3	4	5
57.	Assuming a leadership role in campus activities at the University of Oklahoma has caused me	1	2	3	4	5
58.	Adjusting to the University of Oklahoma community and feeling a part of it has caused me	1	2	3	4	5

To the student: This problem inventory is an attempt to discover problems encountered by the transferring junior college student. Are the basic problems covered in the inventory?

____Yes ____No

Please suggest any additional problems which should be cited in this study:

To the withdrawn student: Please write below the single most important factor in your withdrawal from the University of Oklahoma.

Items by Dimensions as Determined by the Factor Analysis

Dimension 1 - Social Relations Problems

51.	Adjusting to social life at the University of Oklahoma has caused me	1 2 3 4 5
53.	Making friends on the University of Oklahoma campus has caused me	1 2 3 4 5
54.	Accepting social and political attitudes of University of Oklahoma faculty has caused me	1 2 3 4 5
55.	Accepting rules and regulations at the University of Oklahoma concerning my personal behavior has caused me	1 2 3 4 5
56.	Adjusting to the indifferent treatment of a large university has caused me	1 2 3 4 5
58.	Adjusting to the University of Oklahoma and feeling a part of it has caused me	1 2 3 4 5

Dimension 2 - Academic Adjustment Problems

3.	The amount of study required to prepare for courses at the University of Oklahoma has caused me	1 2 3 4 5
4.	Differences in grading standards between the University of Oklahoma and the junior college which I attended have caused me	1 2 3 4 5
5.	Competition with non-transfer students in courses at the University of Oklahoma has caused me	1 2 3 4 5
6.	In preparing for courses at the University of Oklahoma, the lack of academic background not gained in junior college courses has caused me	1 2 3 4 5
24.	Adjusting my study habits to meet assignments for courses at the University of Oklahoma has caused me .	1 2 3 4 5

Dimension 3 - Degree Related Problems

8.	Not completing prerequisites for upper division courses at the University of Oklahoma while I was attending the junior college has caused me	1 2 3 4 5
10.	Meeting basic degree requirements at the University of Oklahoma has caused me	1 2 3 4 5
16.	Changes in course requirements in my major area at the University of Oklahoma since I have transferred have caused me	1 2 3 4 5
17.	Obtaining adequate information about academic programs at the University of Oklahoma while I was attending the junior college caused me	1 2 3 4 5
28.	My selection of courses at the junior college in preparation for transfer to the University of Oklahoma has caused me	1 2 3 4 5
31.	Transferring junior college credit to the University of Oklahoma has caused me	1 2 3 4 5

Dimension 4 - University Financial Aid Problems

42.	Obtaining information relative to the programs of financial aid available at the University of Oklahoma has caused me	1 2 3 4 5
43.	Obtaining a part-time job at the University of Oklahoma has caused me	1 2 3 4 5
46.	Obtaining financial aid at the University of Oklahoma has caused me	1 2 3 4 5
47.	Obtaining adequate counseling on financial problems at the University of Oklahoma has caused me	1 2 3 4 5

Dimension 5 - Faculty Related Problems

11.	Teaching methods used by University of Oklahoma faculty members have caused me	1 2 3 4 5
12.	Faculty competency in their areas of academic specialization at the University of Oklahoma has caused me	1 2 3 4 5
13.	The use of graduate assistants to teach courses which I have taken at the University of Oklahoma has caused me	1 2 3 4 5

Dimension 6 - Housing Problems

35.	Assistance offered to find adequate housing at the University of Oklahoma has caused me	1 2 3 4 5
36.	General maintenance of university housing at the University of Oklahoma has caused me	1 2 3 4 5
37.	Study conditions in university housing at the University of Oklahoma have caused me	1 2 3 4 5

Dimension 7 - Counseling Related Problems

19.	Obtaining counseling on personal problems at the University of Oklahoma has caused me	1 2 3 4 5
20.	Obtaining counseling on vocational plans at the University of Oklahoma has caused me	1 2 3 4 5
21.	Finding out what courses I need to satisfy graduation requirements at the University of Oklahoma has caused me	1 2 3 4 5
22.	Seeing my faculty adviser for planning a course of study at the University of Oklahoma has caused me	1 2 3 4 5
25.	Obtaining counseling on academic problems or grades at the University of Oklahoma has caused me	1 2 3 4 5

Dimension 8 - Course Related Problems

1.	In courses at the University of Oklahoma, repetition of material already covered in junior college has caused me	1 2 3 4 5

40.	Having to repeat courses taken at the junior college has caused me	1 2 3 4 5
41.	Gaining an opportunity to talk with administrative officials at the University of Oklahoma about problems relative to student life has caused me . . .	1 2 3 4 5

Dimension 9 - Commuting Problems

38.	Commuting to the University of Oklahoma has caused me	1 2 3 4 5
39.	Living in off-campus housing at the University of Oklahoma has caused me	1 2 3 4 5

Dimension 10 - Accessibility Problems

14.	Adjusting to large classes at the University of Oklahoma has caused me	1 2 3 4 5
15.	The lack of opportunity to ask and discuss questions in classes at the University of Oklahoma has caused me	1 2 3 4 5
56.	Adjusting to the indifferent treatment of a large university has caused me	1 2 3 4 5

Dimension 11 - Selection of Major Problems

23.	Selecting a major area of study at the University of Oklahoma has caused me	1 2 3 4 5
26.	Changing major areas of study since transferring to the University of Oklahoma has caused me	1 2 3 4 5

Dimension 12 - Orientation Problems

17.	Obtaining adequate information about academic programs at the University of Oklahoma while I was attending the junior college caused me	1 2 3 4 5
18.	The adequacy of the orientation process designed to inform transfer students of student life at the University of Oklahoma caused me	1 2 3 4 5
29.	Gaining an opportunity to visit with a University of Oklahoma representative prior to my transfer caused me	1 2 3 4 5
30.	Lack of opportunity to visit the University of Oklahoma campus prior to my transfer caused me . . .	1 2 3 4 5

Dimension 13 - Attitudinal Problems

7.	The attitude of University of Oklahoma faculty toward transfer students has caused me	1 2 3 4 5
49.	The attitude of non-transfer students at the University of Oklahoma toward the transfer student has caused me	1 2 3 4 5
50.	Participation in extra-curricular activities at the University of Oklahoma by junior college transfer students has caused me	1 2 3 4 5

Dimension 14 - External Financial Support Problems

43.	Obtaining a part-time job at the University of Oklahoma has caused me	1 2 3 4 5
44.	Working part-time while attending the University of Oklahoma has caused me	1 2 3 4 5
45.	The cost of living while attending the University of Oklahoma has caused me	1 2 3 4 5
48.	The level of financial assistance available from my parents has caused me	1 2 3 4 5

Items which did not load on any dimension in the factor analysis and omitted from statistical testing:

2.	Using the University of Oklahoma library and its various services has caused me	1 2 3 4 5
9.	Discussing course-related problems outside of class with the faculty at the University of Oklahoma has caused me	1 2 3 4 5
27.	Obtaining remedial help with reading, math, or other learning problems at the University of Oklahoma has caused me	1 2 3 4 5
32.	Accepting the manner in which administrative decisions pertinent to my welfare are made at the University of Oklahoma has caused me	1 2 3 4 5
33.	Scheduling required courses at the University of Oklahoma has caused me	1 2 3 4 5
34.	Obtaining health services at the University of Oklahoma has caused me	1 2 3 4 5
52.	Participating in Greek fraternity or sorority activities at the University of Oklahoma has caused me .	1 2 3 4 5
57.	Assuming a leadership role in campus activities at the University of Oklahoma has caused me	1 2 3 4 5

APPENDIX C

THE TEXTS OF TRANSMITTAL LETTERS TO PERSISTING AND NONPERSISTING STUDENTS

1514 Denison Dr.
Norman, Oklahoma
October 30, 1972

Dear

When a student enters a new educational institution, several opportunities for conflict arise as efforts are made by the student to adjust to the new scene. You, as a junior college transfer student, have undergone this experience and I am particularly interested in knowing about the experiences that you have encountered.

I am conducting a research study for a doctoral dissertation in which junior college transfer problems are the main object of investigation. Representatives of various educational institutions often discuss the problems that transferring students have when they transfer to a four-year institution of higher education, but only a limited amount of study has been conducted to find out where the problems really occur.

Files in the Admissions and Records Office indicate that you were a transfer student at the University of Oklahoma during the 1971-72 college year but that you withdrew or did not return to the University after the fall or spring semester. I am most interested to get your response to the problems which you experienced in transferring. Please be completely frank with your answers. Feel free to write on the form any additional comments that you think will be helpful in analyzing the problems experienced by the student. Your name will not be associated in anyway with the study, nor will it ever be used in any publication related to the study.

I certainly need your help for the study to be meaningful. Please respond as quickly as possible using the enclosed self-addressed envelope. Your contribution will assist greatly with the study and will most certainly be appreciated.

Thank you for your time and effort.

Sincerely,

Milford D. Messer
Director of Registration
University of Oklahoma

1514 Denison Drive
Norman, Oklahoma
October 30, 1972

Dear

When a student enters a new educational institution, several opportunities for conflict arise as efforts are made by the student to adjust to the new scene. You, as a junior college transfer student, have undergone this experience and I am particularly interested in knowing about the experiences that you have encountered.

I am conducting a research study for a doctoral dissertation in which junior college transfer problems are the main object of investigation. Representatives of various educational institutions often discuss the problems that transferring students have when they transfer to a four-year institution of higher education, but only a limited amount of study has been conducted to find out where the problems really occur.

You can help greatly in this study by responding to the enclosed problem inventory. Please be completely frank with your responses. Feel free to write on the form any additional comments that you think will be helpful in analyzing the problems experienced by the student. Your name will not be associated in any way with the study, nor will it ever be used in any publication related to the study.

I certainly need your help for the study to be meaningful. Please respond as quickly as possible using the enclosed self-addressed envelope. Contact me personally on campus if you have any questions about the study.

Thank you for your time and effort.

Sincerely,

Milford D. Messer
Director of Registration
University of Oklahoma

MDM:ptb

Enclosure

APPENDIX D

THE TEXTS OF FOLLOW-UP TRANSMITTAL LETTERS AND TELEPHONE MESSAGE TO PERSISTING AND NONPERSISTING STUDENTS

1514 Denison Dr.
Norman, Oklahoma
November 20, 1972

Dear

Records at the University of Oklahoma indicate that you transferred to the University from a junior college. Recently I mailed to you a copy of a problem inventory like the one enclosed. Through the use of this instrument, I am trying to find those problem areas which cause the transferring junior college student the most difficulty. From these findings, university officials will have a better knowledge of what problems are occurring and be able to make adjustments to eliminate them.

I certainly need your help. Please take a few minutes out of your busy schedule and respond to the problems listed. I ask that you be completely candid about the experiences that you have encountered. Feel free to write on the form any comments that will help in explaining any problem situations. Your name will not be associated in any way with the study.

I will be greatly appreciative of your help. Please respond as soon as possible using the enclosed return envelope.

Respectfully,

Milford D. Messer
Director of Registration
University of Oklahoma

1514 Denison Dr.
Norman, Oklahoma
November 22, 1972

Dear

Records indicate that you were a junior college transfer student at the University of Oklahoma during the 1971-72 academic year, but that you withdrew or did not return to the University. I am greatly interested in obtaining from you your responses to the problems described on the enclosed inventory. This is the second inventory that I have mailed to you and I certainly hope that you will find time in your busy schedule to respond to the problem areas described.

I certainly need your help if the study of these problems is to be successful. Through the use of the problem inventory, I am trying to find those problem areas causing the most difficulty for the junior college transfer student. From the findings, university officials will have a better knowledge of what the real problems are and be able to make adjustments to eliminate them.

Please be completely frank in your responses. Feel free to write on the form any comments that will help in explaining any problem situations. Your name will not be associated in any way with the study.

I will be greatly appreciative of your assistance in this study. Please respond as soon as possible using the self-addressed return envelope. I thank you in advance for the consideration given this request.

Respectfully yours,

Milford D. Messer
Director of Registration
University of Oklahoma

Telephone Follow-up on Study of Junior College Transfer Student Problems

Good Morning. This is _____ calling from the Center for Studies in Higher Education at the University of Oklahoma. Recently Milford Messer, a student at the Center, has mailed to you a questionnaire concerning the problems encountered by junior college transfer students who transfer to the University of Oklahoma. Mr. Messer is conducting a study to determine the problems areas related to the transfer process. In order for the study to be meaningful, he needs your response along with those of several other transfer students to the questions asked. Will it be possible for you to complete the questionnaire and return it prior to leaving campus after finals?

Your assistance and cooperation will certainly help in the study and will be greatly appreciated. Thank you.

or

Thank you for your time.

APPENDIX E

THE TEXT OF TRANSMITTAL LETTER TO PERSISTING STUDENTS FOR RETEST

1514 Denison Dr.
Norman, Oklahoma
February 19, 1973

Dear

During the fall semester I mailed to you a problem inventory related to situations encountered by junior college transfer students transferring to the University of Oklahoma. Your were very generous with your time and responded to the items on the inventory.

Now, in an effort to test the validity of the instrument used in this study, I am requesting that you respond a second time. Your responses on the second testing will be compared with those on the initial testing to see if there is significant difference between the two. You should make no effort to duplicate your first answers on this second testing.

I am greatly aware of the demands on a student's time, but I am very hopeful that you will have an opportunity in the near future to complete this inventory and return it in the self-addressed envelope. I will be greatly appreciative of your contributions to this study of difficulties experienced by junior college transfer students. Your name will not be associated in any way with the study.

I want to thank you in advance for your help. If I can answer any questions, please contact me on campus in Evans Hall, Room 103.

Respectfully,

Milford D. Messer
Director of Registration
University of Oklahoma