A STUDY OF HIGH-ACHIEVING TRANSFERS FROM
TWENTY-THREE VIRGINIA COMMUNITY COLLEGES TO VIRGINIA TECH
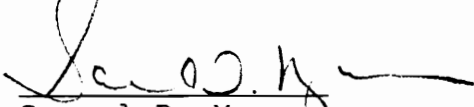
by

Virginia Anne Walker

Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in

Community College Education
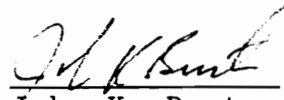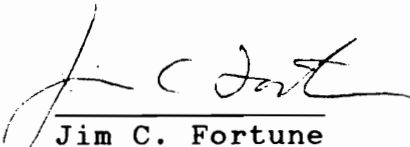
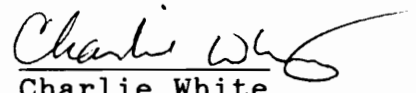APPROVED:

Samuel D. Morgan   Norris H. Bell

                    John K. Burton

Jim C. Fortune   Charlie White

December, 1992

Blacksburg, Virginia

A STUDY OF HIGH-ACHIEVING TRANSFERS FROM

TWENTY-THREE VIRGINIA COMMUNITY COLLEGES TO VIRGINIA TECH

by

Virginia Anne Walker

Dissertation Director: Samuel D. Morgan

(ABSTRACT)

With the national attention in the 1990's on quality education and renewed interest in the transfer function of community colleges, the community college faces increased demands from the legislators for educational accountability and the critics who question the two-year college's ability to maintain the quality of its transfer function at the same time that it provides vocational, community, and developmental education. Among the issues in the growing concern for transfer education, and most significant to the future of the community college, is the inference that the original transfer function has reemerged as a primary determinant of community college quality. Thus, the community college must respond to the critics and demonstrate the efficacy of its transfer function.

To examine the influences that contribute to the high academic achievement (GPA 3.0 or greater) of a transfer student from a Virginia community college to Virginia Tech and determine **why the high-achieving student succeeds**, the researcher utilized the qualitative research method of naturalistic inquiry with interviews and a quantitative research method with a questionnaire, a methodological triangulation for reliability and

validity in qualitative research.

In this research study of the two-year commuter institution, integration into the academic system appears more important to high-achievement than integration into the social system; moreover, the faculty-student interaction and collegiate impact seem significantly related to student characteristics, both findings of which are supported in the literature. With the originally eligible and originally ineligible more alike than different in entry characteristics, it seems probable that the community college experience is influential for students with the particular characteristics of those in this study.

Based on the findings in this study that the community college experience appears to have positive influence on educational aspiration and that the influence varies for different kinds of students, educators must consider **different** types of faculty-student interaction with **different** educational outcomes for **different** types of students--a topic of some significance for the diverse population of the community college. In this study of the community college with its open-door policy to expand the opportunity for the student without academic credentials, forty percent of these high-achievers were originally ineligible for admission to Virginia Tech; however, the combination of their characteristics as self-directed learners and the faculty-student interaction in the community college environment led them to success as high-achievers not only at the community college but also at Virginia Tech.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

CHAPTER IV: ANALYSIS AND FINDINGS

LIST OF FIGURES AND TABLES

Figure

Table

Chapter I

INTRODUCTION

National attention in the 1990's on quality education has rekindled interest in the transfer function of community colleges. As early as 1979, Lombardi noted a resurgence of concern for the transfer function. Since then, researchers, legislators, and others have debated the issues of a growing concern for transfer education: the growth of the vocational, developmental, and community services (Kissler, 1980; Knoell, 1982; Lombardi, 1979); the declining percentage of community college students who transfer (Bernstein, 1986; Cohen, 1979, 1989; Friedlander, 1980; Kintzer & Wattenbarger, 1985; Kissler, 1982); a perceived decline in academic performance of community college transfer students at four-year institutions (Kissler, Lara, & Cardinal, 1981; McIntyre, 1987; Russell & Perez, 1980); and research indicating that (after controlling for social background, ability, motivation and other personal factors), students starting their collegiate career at a two-year college have a smaller chance of attaining a baccalaureate degree than do freshman at residential, four-year institutions (Alba & Lavin, 1981; Astin, 1977, 1982; Breneman & Nelson, 1981b; Cohen, 1989; Karabel, 1972, 1986; Velez, 1985).

Among these issues, in the growing concern for transfer education, is the inference that the original transfer function has reemerged as a primary determinant of community college quality (Cohen, 1989; Cohen & Brawer, 1982; Cosand, 1979; Grubb, 1991). Indeed, sufficient evidence exists to support such a claim. For example, Vaughan and Templin's (1987) examination of transfer students at Piedmont Community College from 1978 to 1986 revealed that the transfers were able to compete successfully with native students at the University of Virginia, even though they were ineligible for admission to the senior institution upon graduation from high school, a study indicating that the community college is contributing measurable educational value to students. Moreover, in interviews of elite (high-achieving) students who had transferred successfully from Massachusetts community colleges to universities in the Northeast, Neumann and Riesman (1980) found that positive aspects of the community college experience contributed to the success of transfer students who would not have been admitted to selective institutions as freshmen. In addition, in a qualitative study of more than 4,000 Phi Theta Kappa inductees from 1947 to 1965, Garrett and Schultz (1967) found that after the first two years at the community college these honor students remained competitive with the natives. Also, Gold's (1967) examination of thirty-one former Los Angeles City College students who had achieved

honors at U.C.L.A. revealed that junior colleges provide high-level preparation for upper-division university study, even though three quarters of these students were ineligible for the University upon completion of high school.

In all of these studies, the characteristics that contributed to the high academic achievement of these transfers as well as the value-added concept of institutional effectiveness has remained unrecognized in research on the community college student. For example, previous research studies in outcomes analysis have compared only the performance between community college transfers and native students of four-year colleges and universities without recognition of the different starting points of the two groups. Astin (1983), however, in a discussion of the value-added effects of education upon the student observes that "the quality of an institution is based not on the performance level of the students it admits, but on the changes or improvements in performance that the institution is able to effect in its students" (p. 135).

Purpose of the Study

In this research study, the student attained high academic achievement (3.0 or greater) at the community college and maintained high academic achievement at Virginia Tech during the first semester. It is the intent of the researcher

to examine the influences that contribute to the high academic achievement (GPA 3.0 or greater) of a transfer student from a Virginia community college to Virginia Tech and determine **why the high-achieving student succeeds:**

1) to identify the characteristics of the high-achieving student--demographic, academic, and personal--

2) to identify aspects of the community college experience that influence the personal and situational characteristics of the student and lead him to high academic achievement, and

3) to determine what motivates the high-achieving student toward academic success as related to the Cross concept of motivation.

In the thinking of K. Patricia Cross (1981), "...there is almost never any attempt to relate one stream of research findings to any other...but if the ultimate goal is to facilitate the learning of adults, then educators will have to merge all these streams of research and theory" (p. 234). **The purpose of this study, therefore, is to merge the Cross theory of motivation with the demographic, academic, and personal factors of the student and with the influential aspects of the community college--all of which are associated with the academic success of community college transfers to Virginia Tech.**

Theoretical Basis for the Study

The catalyst for this study was the conceptual framework posed by K. Patricia Cross (1981). In the framework depicted

in Figure 1, called a Chain-of-Response (COR) Model, Cross assumes that participation in a learning activity is the result of a chain of responses, not a single act. As in the motivational psychology of deCharms and Muir (1978), the continuum in Figure 1, flowing in both directions, begins with the individual and moves to external situations.

Basically, however, the COR model relates to two kinds of learning styles: self-directed learning implemented with innovative approaches and organized instruction implemented with the traditional approach. In general, educators who wish to increase motivation in self-directed learning focus upon individual motivations (points A through D of the COR model); in contrast, those who wish to foster motivation in organized instruction open up new opportunities and ferret out barriers (point E). In addition, the COR model relates to four kinds of stimuli and motivation: enhancing self-concept, influencing attitude toward education, setting goals and expectations, and responding to life transitions.

In an analysis of the Chain-of-Response Model, each of the variables, personal and situational, reveals the Cross concept. For example, regarding points A and B in Figure 1, past research regarding **self-evaluation** (self-concept) suggests that a student who lacks confidence in his own ability will not pursue learning activities that threaten his self-esteem and that **attitudes toward education** arise from

environmental influences. In connecting points A and B in Figure 1, Cross submits that the student with a positive self-concept, somewhat likened to Atkinson and Feather's (1966) achievement-motivated personality, will pursue challenges and new opportunities in learning. **The importance of goals and the expectation that goals will be met**-- arising from the Locke (1969) goal-directed theory and the Vroom (1964) expectancy-valence theory of motivation--govern the depth of student motivation in point C: an important goal likely to be achieved through education increases motivation whereas an unimportant goal unlikely to be achieved decreases motivation. In connecting point D, **life transitions,** to the importance and expectation of goals, Cross cites universal changes (such as marriage or children) and dramatic changes (such as divorce or loss of a job) as the impetus activating a latent desire for education, somewhat related to Havighurst's (1972) "the teachable moment" (p. 7). Once the student is motivated toward participation in learning at point E, **opportunities and barriers** (such as financial aid or child care) play a significant function: those intensely motivated will seek out opportunities and overcome barriers, but those weakly motivated will abandon learning. Point F in the COR model, **information,** is vital to link motivated learners to relevant opportunities and ferret out barriers from the academic environment.

In terms of the community college and its impact upon these high-achieving students in this study, most efforts to lead the student toward participation begin in Figure 1 at point A, increasing self-concept and at point E, removing the barriers and enhancing the opportunities. As indicated with the arrow from opportunities and barriers (E) to importance of goals (C), the construction of opportunities and the elimination of barriers increase the student's expectation that goals will be met (C) and in turn increase his motivation. Also the arrow from participation (G) to self-evaluation (A) and attitudes toward education (B) support research findings that a student who has participated in education will do so again because his enhanced self-concept and positive attitude toward education lead him to greater expectation of meeting his goals.

According to Cross, the purpose of the theoretical model is to organize thinking and research, and its usefulness is to stimulate new research and improve practice. In this instance, the researcher will explore the influential aspect of the community college in relation to the success of the transfer student and its implications for increasing participation and facilitating learning in terms of the Cross theoretical concept.

(D)
Life transitions

(F)
Information

(A)
Self-evaluation

Importance of goals
and expectation
that participation
will meet goals
(C)

Opportunities
and barriers
(E)

(G)
Participation

Attitudes about
education
(B)

Figure 1   Chain-of-Response (COR) Model for Motivation

8

Hypothesis and Basic Assumptions

The hypothesis of this qualitative study is that particular aspects of the community college environment influence the high-achieving student to attain high academic achievement at the community college and to maintain high academic achievement during his first semester at Virginia Tech.

The basic assumptions for a study of selected variables associated with high academic achievement include these:

1. that the individual's perception of himself is one important determinant of his behavior.

2. that certain aspects of personality are measurable and can be, to some extent, assessed by the use of tests and other instruments.

3. that the present measures of scholastic aptitude and achievement used by universities are reasonably valid measures of the entering freshman's aptitude for college achievement.

4. That the first semester college marks are reasonably valid measures of academic achievement.

Statement of the Problem

The wide acceptance in the 1960's of the community college open-door philosophy, that grants each individual the opportunity to reach his potential, prompted the Carnegie Commission (1971) to respond that between thirty-four and forty-five percent of the undergraduates in the United States would attend two-year colleges by 1980; however, Jacobson (1991) reports that about fifty percent of all entering

9

freshmen are attending two-year institutions in the 1990's. Beyond doubt, the community college has become a dominant force in postsecondary education; however, during these past thirty years when the junior college evolved into the community college, evidence for at least two decades (Kintzer & Wattenbarger, 1985) indicates a decline of the transfer function: instead of the primary institutional mission, the transfer function is now "one of many" (Knoell, 1982, p. 5). Throughout the early decades of the junior college movement until the 1960's, transfer education carried about two-thirds of total enrollments (Eells, 1941; Medsker, 1960); then in the 1970's the transfer enrollments shifted to forty-three percent (Parker, 1975); again in the 1980's, to thirty-three percent (Cohen, 1989); and in the 1990's, to a record twenty-four percent (Cohen, 1991). Moreover, Lombardi (1979) predicts that the transfer function, no longer the major endeavor of the community college, will not regain its dominant role as far ahead as the year 2000. However, Mercer (1991), in disagreement with the prediction, points out that overcrowding on senior-college campuses and constricted budgets have stimulated states to view the community college as a less expensive, more attainable route to the baccalaureate, particularly in California where legislators are considering a policy in which students accepted in the universities would be directed to the community college and promised reserved

10

space at the university.

It is important, therefore, to assess the threats to the transfer function because the original function of the junior college, to provide the first two years of undergraduate education to students who would transfer to four-year institutions (Thornton, 1972), was judged almost entirely upon the success of its graduates who pursued their education at the university (Eells, 1943). With the emphasis on the transfer function diminishing, the preservation of a quality transfer program is essential for the image of the community college because most educators agree that "community colleges were, are, and will be evaluated to a major degree upon the success of their transfer students to the four-year colleges and universities" (Cosand, 1979, p. 6).

Vocational Education. First, the shift towards a vocational emphasis within the community college is a concern to the defenders of the transfer function, the liberal arts and general education advocates, many of whom view vocational education as a threat to the transfer function (Jacobson, 1977) because a shift toward vocational and away from liberal arts courses contributes to fewer students transferring to baccalaureate degree-granting institutions (Kissler, 1982). The enrollment growth in community college vocational courses prompted Lombardi (1979) to predict that vocational courses would increase to about fifty percent of the total enrollment,

11

a trend revealed much earlier in Eells' (1941) observation that vocational education was the "most significant aspect of the rapidly spreading junior college movement" (p. vi). With Congress and State legislators' generous appropriations and specified policies, the high unemployment among the college graduates during the early 1970's, and the proliferation of articles celebrating the "overeducated American," the development of vocational education became a reality. As wages for service trades increased and student perceptions of the value of the baccalaureate changed (Knoell, 1982), student enrollments in vocational education rose from thirteen percent in 1965, to approximately thirty percent in 1970, to nearly fifty percent in 1976 (Brawer & Friedlander, 1979), and to an excess of sixty percent in 1980 (Kissler, 1982). Moreover, as the enrollment patterns shift in the second half of the 1990's, forcing more students from the four-year institutions and into the community colleges, Jacobson (1991) foresees that the demand to provide developmental education will increase for students who receive a limited vocational education. However, Lombardi (1979) advocates that the transfer function faces a greater threat than the growth in vocational education--the community education movement.

Community Education. Defined as adult education, lifelong learning, and community services or "service, recreational, and cultural programs that are not part of an

academic program" (AACJC, 1980, p. 2), community education constitutes fifty-nine percent of the community college enrollment with a faster rate of growth than either vocational or transfer education (Lombardi, 1979). Confronted with declining enrollments of traditional students during the next two decades, the community college could be forced to shift its resources away from transfer education towards community education as it competes for students, a concept welcomed with some educators. For example, both Gleazer (1980) and McCabe (1979) envision the community college with a lifelong learning function, not a transfer function; however, defenders of the transfer function see a threat to the community college with the association of transfer and community service programs because taxpayers and legislators consider courses in "belly dancing and fly tying" as less than academic (Breneman & Nelson, 1981a, p. 25).

Developmental Education. Not only the vocational and community service programs but also the developmental programs concern the defenders of the transfer function, who advocate that converging the developmental with the academic weakens the transfer curriculum. For example, concentration upon the underachiever leads to the recruitment of low-ability students and reduction in the institutional status, a double selection process, which produces a detrimental effect on both high aptitude students who, "discouraged by large numbers of slow

13

learners, gravitate toward other colleges in the same district or out of the community colleges entirely" (Cohen & Lombardi 1979, p. 26), and the instructor who "may find it difficult to keep the content of the course and the nature of the assignments at a baccalaureate-equivalent level" (Kissler, 1982, p. 21) when transfer students are outnumbered in the total enrollment in the course. In addition, research studies of course offerings for transfers in humanities (Friedlander, 1979a), science (Brawer & Friedlander, 1979), and social science (Friedlander, 1979b) reveal few courses beyond the general introductory survey course, which inevitably leads to the loss of high aptitude students and reduction in the viability of transfer programs. Moreover, in Cohen's (1979) view the community college cannot afford developmental education because of its negative image with legislators as "an element in the welfare system" (p. 104); but developmental studies, now the third major function of the community college, account for as much as one-third of the instructional budget (Cohen, 1989).

Declining Enrollments. Although the dramatic shift within the community college towards vocational, community services, and developmental education convey profound implications, some critics see the most decisive threat to the community college transfer function in declining enrollments. Instead of the primary institutional responsibility of the

1960's, Knoell (1982) sees the transfer function as "one of many tasks" (p. 5) performed by community colleges. Moreover, the Cosand (1979) assertion that higher education is a declining industry, past its initial period of growth from 1946 through 1976, which finds itself in a climate where colleges of all types "prostitute themselves by enrolling bodies in order to maintain enrollments" (p. 2), was supported with the Carnegie Council prediction that the eighteen to twenty-four age group would decline twenty-three percent by 1997 (Lombardi, 1979). The impact of declining enrollments upon the community college transfer function, compounded by taxpayer revolts and competition for funding, has resulted not only in state legislatures reassessing educational priorities and scrutinizing the decreasing percentage of community college transfers to four-year institutions but also in four-year institutions competing with community colleges for transfer students.

Decline in Performance of Transfers. However, others view the decline in the performance of transfer students, verified in the Kissler (1980) report of retention and transfer at the University of California, as the ominous nuance to the transfer function. Although Bird (1956) concluded, in a summary of national studies dating from 1928 through 1954, that "junior college transfers make records approximately the same as those made by transfers from four-

15

year colleges and by native students, sometimes excelling slightly and sometimes being slightly excelled by the other groups" (p. 85), Knoell and Medsker's (1965) landmark report cast the first doubt on the academic performance of transfers with their observation that the performance of 7,000 transfers suffered a GPA reduction during the first semester after transfer (a phenomenon known as transfer shock) and a cumulative GPA below the native students at the senior institution. Moreover, Knoell and Medsker's findings fostered the support of Hills (1965) who maintained that, in addition to transfer shock and cumulative GPA's below native students, transfer students suffered higher attrition rates, required longer time to graduate, and incurred more difficulty in quantitative studies than the native students. In addition, the Anderson (1977) study found that community college transfers at the University of Illinois earned lower GPA's than the native juniors, even though the community college transfers entered the University with equivalent grade averages; and the Kissler, Lara, and Cardinal (1981) study indicated that the University of California native students earned higher upper-division GPA's with less potential for probation and attrition and greater rates for graduation than the community college transfers. However, even though Kissler (1980) agreed that a decline in academic performance existed for community college transfers, Kissler, et al (1981) also

16

found reasons for the declining academic performance of community college transfers: differences in levels of ability and motivation of students, differences in the types of institutions, differences in competition and grading policies, differences in curriculum and pedagogy, and problems of social integration. Nevertheless, the significance to the transfer function from all these studies of declining performance is that if the state legislatures lose confidence in the community colleges and cut the budgets and if the parents lose confidence and send the best students to four-year institutions, the quality of the transfer programs will be reduced, a far-reaching threat to the transfer function.

Negative Effect Upon Baccalaureate Attainment. And finally, some evidence exists to suggest that after controlling for social background, ability, motivation, and other personal factors, students starting their collegiate career at a two-year college have a smaller chance of attaining a baccalaureate degree than do freshman at residential, four-year institutions. For example, Astin (1977) discovered that "attending a public or private two-year college substantially reduces the student's chances of persisting" (p. 109) to graduation and that "this negative effect is particularly strong among high ability students" (p. 109). Since Astin's national study, numerous studies support his thesis: Alba & Lavin (1981), Anderson (1981),

Breneman & Nelson (1981b), Karabel (1986), and Velez (1985). As Dougherty (1987) summarized, the net differences in bachelor's degree attainment among those first entering two-year or four-year institutions range from eleven percent to over eighteen percent in favor of the four-year institution. However, Cohen (1989) rebuts the observation, that students attending community colleges are less likely to attain the baccalaureate degree within four or five years, with his criticism of two-year institutional policies, "one in which prerequisites to courses are not enforced and in which student progress toward program completion is not monitored" (p. 1). Nevertheless, all five threats, particularly this one, could lead to questionable policy recommendations or self-fulfilling prophesies, such as the recommendation that community colleges enroll fewer transfer students and concentrate on career and community education (Breneman & Nelson, 1981b) and the tendency for students to enroll in the University rather than the community college (McIntyre, 1987).

A Multitude of Small Causes. While these threats represent the magnitude of explanations for the decline in the transfer function, Grubb (1991) attributes the causes to "death by a thousand cuts" (p. 212), a multitude of small causes: changing demographic characteristics of students, declining achievement in high school, the disintegration of career counseling in the high school, an escalation of

18

"experimenters" in community colleges, the decreased emphasis upon the associate degree as a route to transfer, an expansion in "milling around" in postsecondary education, and a reduction in federal aid. Each of these causes, "death by a thousand cuts," interacting with the major causes, exacerbates the problems and increases the threat to the transfer function.

Community colleges, responding to these threats to the transfer function, have renewed the emphasis on quality with growing numbers of community college honors programs. These programs not only attract academically capable students to the two-year college and "direct and motivate students toward successful transfer" (Transfer, Honors, and Excellence, 1982, p. 1) but also improve the overall quality of the academic program in terms of curriculum and emphasis on excellence. For example, the "Emphasis on Excellence" program at Miami-Dade Community College serves to "address the continuing need for high quality programs during the first two years of college" (Emphasis on Excellence, 1980, p. 1). Thus, the current movement to provide quality education as well as equitable access resulted in the community college serving academically talented students and identifying and assisting transfer students in reaching their goals (Identifying and Assisting Transfer Students, 1982). With the emphasis on high-achieving transfers, the community college not only

19

strengthens its transfer program but also confirms its academic purpose and its claim to being a collegiate institution (Cohen & Brawer, 1982).

Significance of the Study

In order to rebut these threats to the transfer function, to assess its efficacy, and to verify its credibility in the current debate on quality, this study of high-achieving transfers attempts to assess the success of these students within the environment of an open-door philosophy.

Moreover, this research serves both the Virginia Community College System and Virginia Tech during current studies of transfer issues; furthermore, since Virginia Tech focuses on attracting high-achieving students, the research offers potential benefits for recruiting these students.

In addition, the study is significant because critics, in a historical perspective inclusive from 1954 through the present, advocate that each community college must assess its own transfer function rather than rely upon findings at other community colleges. For example, Martorana and Williams (1954) insisted that investigations need to be conducted periodically in individual institutions in order to avoid fallacious generalizations from one college to another. In addition, Moore (1970) reported that community colleges had grown and changed to such an extent that existing studies were

too old to be currently applicable to the needs of the community college. Moreover, Cohen (1979) observed the impossibility of comparing data from other states and colleges because of the varying definitions and reporting procedures. Also Cross (1981) noted that community college populations change so rapidly that research on student characteristics and academic performance should be a continuous process.

And finally, research on the community college transfer function, demonstrating that the originally ineligible student can rise to academic excellence at the community college and maintain his high academic achievement at the senior institution, documents that the community college is access for the individual who might lose the opportunity to develop his cognitive ability.

Limitations of the Study

1. The study was limited by the fact that the Virginia Community College System is not necessarily representative of all community college systems.

2. The study was limited by the variation in grading standards both within and between institutions.

3. The study was limited in that ex post facto research methods were applied to take advantage of data already available; moreover, random assignment of students to different treatments was not feasible in a study of high-

achieving transfer students.

4. The study was limited by a single institution design: one community college system and one senior institution.

5. The instruments designed for this study are limited in scope and purposes to measure only certain aspects of self-concept, achievement motivation, and attitudes.

Definition of Terms

Academic success. The academic record of a student performing at or above 2.0, a cumulative grade-point average required for graduation at Virginia Tech.

Achievement motivation. The strength of action to work with energy and persistence at a task deemed important.

Articulated course. Any community college course identified as equivalent to a course offered at Virginia Tech.

Community college. One of twenty-three open-door institutions in the State of Virginia organized to admit students for developmental and lower division academic work.

Full-time student. A student enrolled for twelve or more units per semester.

High Academic Achievement. A community college transfer student with a Virginia Tech GPA of 3.0 or greater.

Hokie. A term bestowed upon and fondly associated with the Virginia Tech student.

Native student. A student who received both lower and upper division undergraduate education at Virginia Tech.

Originally ineligible student. A community college student academically ineligible for admission to Virginia Tech upon graduation from high school.

Phi Theta Kappa. An honor society for high-achieving students at the community college.

Scholastic aptitude. The verbal and mathematical scores achieved on the Scholastic Aptitude Test of the College Entrance Examination.

Self-concept. The perceptions of the self admissible to awareness and composed of such elements as the perceptions of one's characteristics, values, and abilities.

Senior institution. An accredited four-year institution of higher learning offering the baccalaureate degree.

Transfer shock. The adverse effect experienced by the transfer student during his one or two semesters immediately following transfer: a lower grade-point average than that earned at the community college.

Transfer student. A student who transferred to Virginia Tech from one of the twenty-three community colleges in Virginia after completion of twelve or more hours.

VT. A shortened term for Virginia Tech.

Overview of the Presentation

Chapter I. An introduction to the issues related to the study, the purpose of the study, the theoretical basis for the study, hypothesis and basic assumptions, a statement of the problem, the significance of the study, the limitations, definition of terms, and an overview of the study.

Chapter II. A review of the literature related to the **transfer function,** a national perspective of transfer performance and critics on the transfer function; **studies of transfers,** national studies and high-achieving transfers; **studies of factors determining transfer success,** student characteristics and collegiate influence; **motivation theories related to the Cross concept,** theories associated with achievement and theorists and achievement motivation.

Chapter III. The development of the research design, a description of the population, the method of selecting the population and sample, the collection of data, the methods of data analysis, and the questionnaire and interview schedule.

Chapter IV. An analysis of the data associated with the study and a review of the research findings.

Chapter V. Conclusions, implications, and future research.

Chapter II

A REVIEW OF THE LITERATURE

In order to provide a perspective to assess the findings of this study, the researcher establishes a foundation upon which to examine the contributing influence of the community college toward the success of the high-achieving transfers within the Virginia Community College System. The literature review covers the **transfer function**, a national perspective of the transfer performance and critics on the transfer function; **studies of transfers**, national studies of transfers and studies of high-achieving transfers; **studies of factors determining success**, student characteristics and collegiate influence; and **motivation theories related to the Cross concept**, theories associated with achievement and theorists on achievement motivation. In conclusion, the chapter summarizes the findings of research studies, reviews the stimulus for this study, and reiterates the need for this analysis.

The Transfer Function

A National Perspective of Transfer Performance. Even though in his studies of transfers, Cohen (1979) observes the impossibility of comparing data between states and colleges

because of various definitions and procedures, and even though similarly, Kintzer and Wattenbarger (1985) cite ambiguity in definition and uniformity as limiting interpretation of data, critics have scrutinized the performance of transfers almost from the origin of the first junior college in 1901.

For example, in his summary of the achievements of junior colleges in 1921-22, Koos' (1925) discovery that junior college transfers performed more successfully than the natives at the University of Minnesota led Koos to conclude that the higher degree attainment of the university professors was "offset by the higher level of teaching skill in the junior college" (p. 97). In another early study of transfer students at Baylor University between 1910 and 1929, Allen (1930) found transfer GPA's only marginally lower in a random sample of natives, 83.4 to 83.5. In addition, Congdon (1932) in a five-year survey of Michigan junior college transfers to the University of Michigan from 1924-1928 concluded that the transfers performed better than the natives.

By 1943, however, the junior college shifted its emphasis from a transfer-oriented institution towards associate degree education with three-fourths of its students completing college in the junior college (Eells, 1943). Nevertheless, Eells maintained that, in the fifteen years since the Koos' (1925) study, numerous studies attested to the enduring high quality of the transfer function and, in some cases,

outstanding work for its graduates. In his concern for another aspect of the shift in emphasis, students in associate programs who later decided to transfer to senior institutions, Eells found in an analysis of associate curricula between 1934-1940 that the mean GPA of these transfer students was higher than their junior college mean. Moreover, summarizing the studies of Grossman (1934), Siemens (1943), and Rodes (1949), Martorana and Williams (1954) supported Koos' (1925) findings with research that the junior college transfers at the State College of Washington did as well academically as native students in the same fields.

However, in the 1960's when the junior college evolved to its current status as a community college, its transfer function appeared to be threatened for the first time. In a comprehensive study of transfer achievement, Knoell and Medsker (1965) determined that the academic performance of 7,000 transfers suffered a GPA reduction during the first semester after transfer (a phenomenon known as transfer shock) and a cumulative GPA below the native students at the senior institution. In addition, Knoell and Medsker's (1965) findings fostered the support of Hills (1965) who maintained that, in addition to transfer shock and cumulative GPA's below native students, transfer students suffered higher attrition rates, required longer time to graduate, and incurred more difficulty in quantitative studies than the native students.

27

On the other hand, in the 1970's some researchers presented findings supportive of Knoell and Medsker (1965) and Hills (1965), but others refuted the earlier findings. For example, in a comparison of native students with community college transfers, Brown (1976) maintained that the transfers had a greater percentage of graduates from North Texas State University. In addition, in a study of New Jersey community college transfers, Miller, Janawsky, and Katz (1977) discovered that transfers attained higher GPA's than natives. Moreover, Block (1970) and Stone (1975) noted no significant differences between the academic performance of vocational and transfer community college graduates. However, Hensen (1970) found natives at Michigan State University with higher GPA's than transfers from the Michigan community colleges; and similarly, in a study of community college transfers to the University of Illinois, Anderson (1977) observed that transfers earned lower GPA's than the native students.

In the 1980's, however, amidst mixed reviews of transfer performance, two significant studies indicate that the community college is contributing measurable educational value to students. In interviews of high-achieving students who had transferred successfully from Massachusetts community colleges to universities in the Northeast, Neumann and Riesman (1980) found that positive aspects of community college experience contributed to the success of transfer students who would not

have been admitted to selective institutions as freshmen. Moreover, Vaughan and Templin's (1987) examination of transfer students at Piedmont Community College from 1978 to 1986 revealed that the transfers were able to compete successfully with native students at the University of Virginia, even though they were ineligible for admission to the senior institution upon graduation from high school.

Critics and the Transfer Function. It is the transfer function, the provision of the first two years of a college education, that is the best known and most controversial feature of the community college. However, community colleges have become so diverse that Bowen (1982) calls them "the supermarkets of higher education" (p. 148) in a move away from the transfer function: "The trends have gone so far that many community colleges have almost lost their original function of preparing students to transfer to the upper division of four-year institutions" (p. 148). Even though the community college has diversified in other areas of education, it is the transfer function which remains the principal criterion of evaluation for the legislatures, the public, and the educators; therefore, it is the object of intense scrutiny for the critics.

For example, in Bird's (1956) essay titled "Preparation for Advanced Study," a review of empirical studies of the two-year transfer student, the findings of thirty-five years ago

29

correspond closely to more recent findings:

    a.   Junior college transfers make records approximately the same as those made by transfers from four-year colleges and by native students...they usually show a drop in their grade average in the first term after transfer, but then recover that loss.

    b.   Junior college transfers retain the relative scholastic standing after transfer that they had before transfer.

    c.   There is clear evidence that junior colleges are salvaging a large number of students for success in advanced studies who would otherwise have missed them entirely (p. 85).

However, two of Bird's assertions--that doubts about the quality of the performance of two-year college transfers no longer exist and the implication that the junior college performs a service for the senior institution by screening and diverting students into other channels of activity--both fall under the scrutiny of contemporary critics.

In "The Cooling-Out Function in Higher Education," Clark (1960a), one of the earliest critics of the community college transfer function, agrees with Bird that the community college serves the needs of senior institutions by selecting and screening the transfer student; however, Clark interprets the process as "cooling-out" the student by lowering his aspiration from obtaining a transfer degree to settling for a terminal vocational program:

> The latent terminal student is allowed into transfer curriculum but encounters counseling and testing that invite him to consider alternatives, subtle pressures to hedge his bet by taking courses that serve a terminal destiny, tough talk in orientation classes about realistic occupational choice, probationary status perhaps, and finally grades that will not allow transferring (p. 163).

Moreover, while Bird observes the democratic influence of the community college delivering higher education to the masses, Clark views the democratic influence appeasing the student who is denied social mobility by a hierarchical society. According to Clark's analysis,

> Situations of opportunity are also situations of denial and failure. Thus democratic societies need not only to motivate achievement but also to mollify those denied it in order to sustain motivation in the face of disappointment and to deflect resentment (p. 569).

Clark's "cooling-out" theory so mesmerized the community college supporters that his most controversial concept, that the community college fosters stratification of higher education, did not receive attention until Karabel (1972) later reintroduced it.

But an examination of Clark's (1960b) implication, based on a four-year case study of 3,000 students at San Jose Junior College in California from 1956 through 1960 and detailed in The Open Door: A Case Study, reveals that his thesis is supported almost totally by his observation that only one-third of the students actually transferred and by his comparison of his findings with a statewide study of community

31

college transfers--a resounding, lasting criticism of the transfer function without the support of hard data. For example, Clark does not present numbers of students who change curricula and categories of the attrition data to recognize graduates, transfers, and dropouts; and he does not interview or survey any of the students. Even Clark himself, some twenty years later in "The Cooling-out Function Revisited (1980)," regrets the "pop usage" of "cooling-out" where "the community college nearly always comes out as a villain" (p. 25). With recognition of London's (1978) observation that community college students are angry rather than "cooled-out" about not reaching their transfer goals, Clark softens his contention that the community college "cools-out" students, a societal function for which it is most adaptable, with his observation that the community college also performs a "warming-up or cooling-in" function for those "who perform better scholastically than they did in high school and who raise rather than lower their aspirations...moved by observant personnel or by their own efforts to transfer courses" (p. 25).

Clark's prediction that the community college would promote the stratification of higher education, though immersed in the controversy surrounding the "cooling-out" theory, was renewed in Karabel's "Community Colleges and Social Stratification" (1972), a Marxist interpretation of the

relationship of community colleges and social stratification in America. In a series of indictments against the transfer function, Karabel argues first that the community college perpetuates the status quo of the social structure with its dual tracking function: by serving the lower-class students in the lowest institution in a hierarchy of higher education and by tracking these working-class students into vocational occupations. Secondly, Karabel argues that the community college, "an arena of submerged class conflict" (p. 539), contributes to educational inflation, "the process by which the educational system expands without narrowing relative differences between groups or changing the underlying opportunity structure" (p. 525). Thirdly, Karabel argues that the community college is characterized by low transfer rates and a "negative effect" on completing the baccalaureate. For example, with emphasis upon the disparity between degree aspirations and achievements of community college students, Karabel estimates that seventy percent of all community college students begin with aspirations for a baccalaureate but that only thirty-five percent transfer to a four-year institution; and he suggests that those students who did transfer were from higher social backgrounds than the typical community college student. In longitudinal studies of comparison between degree persistence of community college students and four-year college students, Karabel cites Trent

and Medsker's (1968) findings that one of ten community college students earned the baccalaureate within four years and Folger, Astin, and Bayer's (1970) findings that twenty-two percent of community college students earned their baccalaureate within five years of entry into the community college; and then Karabel cites comparison findings that forty-nine percent of four-year natives from private colleges and universities earned the baccalaureate after five years. As evidence that community colleges are not increasing equality of educational opportunity as measured by outcomes, Karabel cites the American Council on Education study (1971) that shows no significant increase in baccalaureate degrees in the Pacific region of the United States. In conclusion, Karabel observes that "the sheer fact of attending a community college, <u>controlling for other variables</u>, seems to increase the likelihood of dropping out" (p. 533). And finally, in the last section of his essay, Karabel alludes to a conspiracy by the special interest groups--the federal government, private foundations, and even the American Association of Community and Junior Colleges--to promote vocational education.

Nevertheless, Karabel's arguments, imposing and persuasive, reveal weaknesses. For example, his arguments that the community college is a "contemporary expression...of class-based tracking and of educational inflation" (p. 526), his belief that the burden is on the community college to

34

alter the social structure of American society, could be challenged with the revelation that community colleges do offer opportunities for social mobility and the admonition that the responsibility of structural inequalities does not rest with the community college alone but with all institutions in society. Moreover, his arguments that the community college has low transfer rates and a "negative effect" on completing the baccalaureate could be challenged with 1) his earlier observation that thirty-five percent of community college students who enter with aspirations for transfer, in fact, do transfer and dubious evidence of higher class backgrounds for community college transfers (Templin & Sheardon, 1981); 2) the fact that the four and five-year limits of the longitudinal studies do not take into consideration the unique features of the community college transfer experience: loss of some transfer credits and part-time enrollment; 3) his assumption that the responsibility for no growth in baccalaureate completion for the Pacific region rests with the community college when the responsibility could just as easily rest with the senior institution raising its requirements for graduation or other possible explanations; 4) his closed forum revealed in his suggestion that the community college is a conspiracy of special interests groups and his intimation that even the success and upward mobility of community college students

35

"shifts attention to questions of individual mobility rather than distributive justice" (p. 556).

In a later work co-authored with Brint, The Diverted Dream (1989), Karabel focuses upon "distributive justice": the dream of an education as the pathway to prosperity and equal opportunity, a dream thwarted in vocational programs at the community college. An advocate of the liberal arts transfer program leading to an egalitarian system of education and to educated citizens prepared for self-governance, Karabel warns that the trend toward vocationalization will lead the community college transfer function toward dissolution in a trade school isolated from higher education. Moreover, the American educational system, conveying a democratic appearance of openness, contributes to the legitimation of these inequalities: differences in educational attainment among students of different social backgrounds and underrepresentation in society's top ranks of minority students and those of unpretentious socioeconomic backgrounds, both of which are linked to advantages of birth and family resources.

Later Karabel and Astin collaborated to examine some related theories in "Social Class, Academic Ability, and College Quality" (1975), a study of the relationships of **socioeconomic status** (the father's and mother's education, family income, and father's occupational prestige), **academic**

ability (standardized test scores), and **college quality** (status, prestige, and rank of the institution based upon the selectivity of the college and its affluence) and a study of the relationship between social class and educational opportunity. For example, Karabel and Astin claim that a relationship exists between social class (SES) and college quality: a correlation between low socioeconomic status and an unselective college and a correlation between high socioeconomic status and the prestigious institution. But Karabel and Astin also maintain that academic ability has a greater independent effect on college quality than SES; however, they do not mean that the American system of higher education is essentially democratic because, as they point out, the relationship between academic ability and social class and the "meritocratic" filtering (academic ability as defined by performance on standardized tests) results in an inherent bias in favor of students of higher social class: "strict adherence to meritocratic criteria tends to favor the affluent" (p. 396). Thus, in a system of "meritocratic elitism" (p. 396), society has manifested its social class bias in a tracking system with the high-social class student filtered into the high-quality college and the lower-class student channeled into the lower-quality college, specifically the community college.

With Karabel and Astin's definition of the community

college as a lower-quality college, the meritocratic selection projects for higher education an undeserved image of openness and legitimates the unequal distribution of society's rewards. Echoing Karabel's "myth of equal opportunity" (Karabel, 1972, p. 556), Karabel and Astin maintain that the educational system perpetuates the social status:

> If the entering student's SES is related to college rank, and if college rank is, in turn, related to student attrition, then the differentiated system of higher education serves to increase the likelihood that those who come from privileged backgrounds will graduate from college and hence obtain the kind of education which will assist them in retaining social status (p. 384).

However, Karabel and Astin do not present data on the community college and its effect on life's opportunities, nor do they specify the number of community college students or community colleges in their study. By definition, then, they conclude that community colleges are low-quality institutions with a higher dropout rate than one should anticipate, but they offer no details of the dropout rate or its comparison to other colleges of low quality.

In Preventing Students from Dropping Out (1975), Astin maintains that community colleges have a negative effect on student persistence; specifically, students have a greater chance of dropping out if they attend a community college than if they attend other institutions of higher education. The derivation of the negative impact stems from the need for

student involvement in the college: housing facilities, financial aid options, and campus job opportunities, all of which promote student interaction with college life:

> Students merely have to show up on campus for an hour or so to attend classes and find some time at home to complete assignments and study for examinations....Indeed, the commuter, in contrast to the resident, interacts less with faculty and students and participates in fewer academic and social activities at the institution (p. 167).

In a comparison of college types, Astin observed that the community college had the highest dropout rates, averaging almost fifty-nine percent for the forty-two community colleges in the sample:

> In a hierarchical system in which two-year colleges occupy the lowest level, admission to this tier does not represent an "equal educational opportunity" for bachelor's degree aspirants compared with admission to institutions on higher tiers (p. 165).

Moreover, Astin suggests that state systems of higher education should consider these implications before designing more commuter-type community colleges: "Chances of completing college are substantially less in the two-year colleges, particularly because residential facilities are absent" (p. 165). In addition, he even challenges the fiscal responsibility of building additional community colleges:

> Although community colleges are generally less expensive to construct and operate than four-year colleges, their "economy" may be somewhat illusory, particularly when measured in terms of the cost of producing each baccalaureate recipient (p. 255).

In *Four Critical Years: Effects of College on Beliefs, Attitudes, and Knowledge* (1977), Astin reiterates his findings of the negative impact upon the uninvolved student at the community college and extends his criticism to include other collegiate effects. In a uniform pattern of development during the undergraduate years, the **highly involved student** originates from educated and affluent families, aspires for advanced degrees, attends selective institutions, and lives on campus where he pursues one of three patterns of interpersonal, academic, and athletic involvement--each increasing his chances of graduation, career objectives, and satisfaction with the college experience and each associating with a different set of outcomes:

1. A first subpattern for the highly involved student, **interpersonal involvement**, describes the humanities or social science major, more liberal and hedonistic than other students, active in student government and interactive with faculty and fellow students, with musical and artistic interests, status needs, and a high degree of satisfaction with the college experience.

2. The second subpattern for the highly involved student, **academic involvement**, tends to reduce personality changes and hedonism, isolates the student (particularly those in engineering), and leads to satisfaction with the college experience.

3. A third subpattern for the highly involved student, **athletic involvement**, also isolating the student from his peers, results in minor behavioral changes with less increase in liberalism and less decrease in business interests than interpersonal students but more satisfaction with the college experience.

On the other hand, the **uninvolved student**, originating from less well-educated families and inadequate academic preparation and forced into the community college because of financial constraints and selective admission policies, has few aspirations for education and career, commutes to college, and interacts rarely with faculty and students.

However, Astin's findings have limited applicability for the community college. For example, his eighteen-year-old full-time student is not the typical part-time older community college student, and his four-year time span for the baccalaureate does not consider that community college students lose credits in transfer; but more misleading is his reporting dropout rates according to the student's college of origin rather than the college of attrition: he reports the percentage of those community college students who began with aspirations for the baccalaureate but who are no longer full-time students four-years later rather than the percentage of community college students who leave the community college **before** transfer. Thus, these misleading conclusions as well as the stereotyped patterns of student development, more characteristic of the four-year college student, support a bias, which becomes apparent in his acknowledgement that four-year college support for the community college has preserved the selective status of the senior institution; but rather than call for an improved community college in the face of

increasing numbers of high-achieving students enrolling in the community colleges, which according to Astin threatens chances of completing the baccalaureate, Astin proposes a moratorium on building more commuter colleges.

Studies of Transfers

National Transfer Studies. Knoell and Medsker's (1965) From Junior to Senior College--A National Study of the Transfer Student and Hills' (1965) Transfer Shock: the Academic Performance of the Junior College Transfer, two landmark studies, provide the framework for the phenomenon of **transfer shock** in the studies of transfer students over the last twenty-five years and offer a broad range of implications for researchers:

1. Economic considerations were important in selecting the two-year college: low cost, location near home, and opportunity to work while attending college.

2. Tested academic ability of the transfer student led the researchers to conclude that transfer students in the upper fifth of tested ability were immune to the effects of transfer shock.

3. The likelihood of obtaining the baccalaureate was far greater for transfer students attaining junior status prior to transfer.

4. A matching of senior institution and major field appropriate to ability and achievement led to success in achieving degree goals.

5. Transfer shock varied in terms of the student's two-year college GPA and his choice of senior institution.

6. The C grade achieved in the junior college is not a good predictor of senior level performance.

7. Test scores, an unreliable predictor of junior college success in senior college, should not be required for admissions.

8. Articulation problems and the increase in transfer students will necessitate a curriculum master plan.

9. Junior colleges should make sophomore level courses more difficult so that the student would be better prepared for upper division work.

10. And most significantly, self-motivation was the trait linked to student success after transfer.

High-achieving Transfer Studies. However, in the recent renewed interest in the transfer function at the community college, transfer shock is no longer an explanation for the differential in academic performance of transfers at the senior institution. In interviews of elite students who had transferred successfully from Massachusetts community colleges to universities in the Northeast, Neumann and Riesman (1980) found that positive aspects of the community college experience contributed to the success of transfer students who would not have been admitted to selective institutions as freshman. In addition, in a qualitative study of more than 4,000 Phi Theta Kappa inductees from 1947 to 1965, Garrett and Schultz (1967) found that after the first two years at the community college these honor students remained competitive with the natives. Also, Gold's (1967) examination of thirty-one former Los Angeles City College students who had achieved

honors at U.C.L.A revealed that junior colleges provide high-level preparation for upper-division university study, even though three quarters of these students were ineligible for the University upon completion of high school. In these three studies--the only qualitative studies of high-achieving transfers--Neumann and Riesman (1980), Garrett and Schultz (1967), and Gold (1967) focus on the positive academic performance of transfer students but provide no insights into academic performance or observations for creating community college experiences leading to academic performance after transfer. Thus, **no existing qualitative research correlates student characteristics with high-achieving performance after transfer.**

Studies of Factors Determining Transfer Success

Student Characteristics and Transfer Success. In an attempt to identify those factors which explain the academic performance of the transfer student in subsequent studies after the Knoell and Medsker's (1965) study, researchers broadened the base into criteria that account for little variance beyond that accounted for by tests of intellectual ability. Among all the quantitative research findings suggesting a relationship with academic achievement at the senior institution, only the community college GPA emerged as a predictive variable for academic achievement.

Gender. Studies of gender as a determinant of transfer academic performance resulted in conflicting conclusions. For instance, Lindia (1971) and McCook (1973) revealed no relationship between gender and transfer achievement. On the other hand, Nickens (1972b) and Klein and Snyder (1969) found a significant relationship between gender and transfer achievement.

Age. Most researchers have not included age as a factor in transfer studies, but in the studies where age was included as a variable, the results were also inconclusive. For example, the studies of Klein and Snyder (1969) and Lunnenborg and Lunnenborg (1967) found that older transfer students perform better than younger transfers. On the other hand, Lindia (1971) and Sitzman (1972) observed no significant relationship between age and academic achievement at the senior institution. However, now that the community college of the 1960's and 1970's, serving traditional age students of eighteen through twenty-two, has evolved to the community college of the 1990's, serving non-traditional students of all ages, more recent studies should include age as a variable for these students who were not included in the earlier transfer studies (Cross, 1981).

Ethnicity. In addition to the introduction of the variable of age as the result of the change to non-traditional students in the 1980's, the growing awareness of the disparity

in transfer rates of African-Americans and Hispanics in comparison with Whites also adds the additional variable of ethnicity. Although researchers have considered the participation of minorities in community college education (Richardson & Bender, 1987), few studies explore ethnicity as a determinant of transfer academic achievement. In one study, however, Orfield and Paul (1987) reveal that African-American community college students transfer at a lower rate than Whites and only one-fifth complete the baccalaureate.

Socioeconomic Status. Early research findings (Astin, Panos, & Creager, 1967); Medsker & Trent, 1965) reveal a rank ordering of colleges on the basis of student socioeconomic background--father's occupation, income, and education--with private universities attracting the student of high income, professional/managerial occupational level, college-educated parents and with the two-year colleges attracting much smaller proportions of students from high socioeconomic backgrounds. Moreover, attending a selective college is part of a cumulative advantage: not only are students from advantaged socioeconomic backgrounds more likely to attend selective undergraduate institutions (Karabel & Astin, 1975), but also are those from advantaged socioeconomic backgrounds more likely to turn the institutional status bestowed upon them into greater economic success (Karabel & McClelland, 1987).

Community College GPA. Traditionally, the high school GPA and scholastic aptitude tests have been the guidelines to predict academic achievement for transfer students (Rinehart, 1977); however, most recent studies reveal that community college GPA has a higher correlation with academic performance at the senior institution than any other factor (Phlegar, 1978). Even in early studies, though, Lynch (1936) reported a correlation between junior college GPA and transfer GPA at the University of Minnesota. Similarly, Sitzman (1972) in a study of transfers to the University of Florida, Lunnenborg and Lunnenborg (1967) in a study of the transfers to the University of Washington, and Sims (1966) in a study of transfers to four Florida universities concluded that junior college GPA was the most significant predictor of academic success. More recently, in a predictive performance study of community college transfers to Virginia Tech, Phlegar (1978) found community college GPA to be the principal indicator of transfer GPA.

Community College Location. In addition to community college GPA, researchers also found community college location, or community college of origin, to be a significant determinant of transfer GPA. For example, Hartman and Caple (1969) in comparison of native and transfer students at the University of Missouri observed that transfers from rural areas received higher grades than transfers from urban areas.

47

Moreover, Hoyt (1960) in a study of junior college transfers to Kansas State University found evidence that community college of origin influenced academic performance. While Sitzman (1972) discovered no relationship between the community college of origin and transfer achievement at the University of Florida, Lindia (1971) in a study of transfers to Connecticut State and McCook (1973) in a study of transfers to the University of Tennessee found a significant correlation between community college location and transfer achievement. Similarly, Phlegar (1978) in a study of community college transfers at Virginia Tech and de Wolf (1978) in a study of transfers at the University of Washington noted location as a significant determinant of transfer GPA.

Choice of Major. While the results regarding the community college of origin and transfer performance are somewhat mixed, considerable evidence exists to support the theory that the choice of major at the senior institution relates to the academic success of transfers. For example, Martorana and Williams (1954) observed that transfers in engineering and physical sciences at the State College of Washington earned a higher mean GPA than transfers in other majors. Also Lunnenborg and Lunnenborg (1967) in a study of transfers to the University of Washington found that successful transfers clustered in the social sciences rather than the natural sciences, and Webb (1985) discovered that

48

transfers in social science, unlike those in other majors, were immune to transfer shock at two California universities. In addition, Phlegar's (1978) transfers to Virginia Tech and Anderson's (1977) transfers to the University of Illinois performed better in non-quantitative majors than in math and science.

Senior Institution. While the findings regarding majors at the senior institution are somewhat predictive, it would also seem that transfer achievement would be dependent upon the type of senior institution; however, studies of comparison of transfer achievement between types of senior institutions are virtually non-existent. Only Knoell and Medsker (1965) observed a GPA reduction of .50 for transfers at major universities as compared to a GPA reduction of .22 for transfers to other colleges and universities.

Credits Transferred, Semesters of Attendance, and Attainment of AA Degree. Generally, a researcher might also anticipate that the accumulation of community college credits transferred, the number of semesters of attendance at the community college, or the attainment of the AA degree would be predictive of successful academic performance at the senior institution. Knoell and Medsker (1965) maintained that the probability of obtaining the baccalaureate degree is lower for transfers with less than junior standing. In a much later study of transfers to the University of Maryland, Radcliffe

(1984) found that transfers with at least fifty hours were as likely to attain the baccalaureate as transfers with the AA degree. Similarly, Claggett (1987) in a study of transfers to the University of Maryland discovered a higher incidence of GPA's above 3.0 from transfers with at least sixty credits. Moreover, Phlegar (1978) found that both credit hours and completion of an AA degree added to the prediction of academic performance for community college transfers to Virginia Tech. In addition, the Florida State Community College System (1979) reported that transfers with AA degrees earned GPA's similar to the natives in the state universities but those without the degree earned significantly lower grades.

Personality Factors. In general, the introvert seems to do better in higher education (Entwistle, 1972); however, Miller (1970) found that good students were most often neurotic introverts. In terms of stability, stable introverts successfully complete a course three times more often than the course population and six times more often than melancholics; however, neuroticism and extroversion combined to inhibit academic success (Wankowski & Cox, 1973). Wankowski and Cox also found that the correlation of .50 between grades and degree attainment for stable introverts diminished for students with temperamental dispositions.

Self-concept. Whatever the reason for early declines in academic self-concept, research indicates that students attend

two-year colleges because they are uncertain about interests and abilities. In their early study of junior college students, Knoell and Medsker (1965) found that nearly one-third of the transfers indicated concern for their academic preparation; and in interviews with these students a year later after transfer, they confided that they were not willing to risk their academic futures in senior colleges until they discovered their abilities at the two-year college. Moreover, data in the ACE and SCOPE studies (Astin, Panos, & Creager, 1967) suggest that junior college students feel that they are academically unprepared: fifty-seven percent of those who enter senior colleges feel self-confident compared with only twenty-nine percent of those who enter junior colleges. However, student academic self-concepts progressively recover, some as early as the sophomore year at the two-year college (Pascarella, 1985b, 1985c), a conclusion supported also in the Astin (1977) and Chickering (1974a) studies. And, Nix (1959) found that motivation and self-concept correlate positively with academic achievement.

Family Environment. In addition to personality factors, student background relates to academic success. Miller (1970) found that achievers thrive in harmonious, stable families from democratic homes with freedom of communication. Moreover, Bowen (1977) found that educational attainment is negatively related to family size, a finding which he defended

51

on the premise that highly educated parents have a greater interest in financial investment for a child. Also Hill and Stafford (1980) observed that college-educated women spend more time in pre-school activities and experiences to enhance development. Finally, Bowen (1977) found educational attainment associated with family income devoted to developmental experiences.

Collegiate Influence and Transfer Success. Thus, early research interests focused on the innumerable variables-- academic, psychological, sociological, and institutional--to determine their relationship with academic achievement. Most of these studies, quantitative in design, concentrated on student background rather than the interactive relationships between these variables or the complexity of the motivation leading the student to academic achievement.

In the late 1960's, however, the impersonal relationship between faculty and students, specifically the faculty-student experience beyond the classroom, was the contributor to much of the unrest in academic institutions (Taylor, 1971). During this period, the controversy surrounding higher education emphasized the philosophical attitude that college impact includes not only knowledge but also developmental education. Inherent in this perspective are two concepts: faculty-student interaction is a decisive determinant of collegiate impact (Chickering, 1969), and the college as a socializing

organization (Newcomb, 1966) comprises the student's "interpersonal environment" (Rossi, 1966)--both of which find justification in theory from sociology and psychology. In the socializing environment of the institution, "the set of stimuli presented to the individual by those persons with whom he is in contact on a direct and unmediated basis" (Rossi, 1966, p. 200), the student, who theoretically reduces the differences between himself and his interpersonal environment, assumes faculty attitudes and intellectual values. With the philosophical stance during the period of the 1970's emphasizing the importance of collegiate impact, the researcher has a multitude of definitive theories of student development, some of which are dominated by psychological paradigms to guide an inquiry into student development and collegiate impact.

Educational Aspirations. Some evidence exists to suggest that informal student-faculty interaction is positively associated with student aspirations. For example, in developing a model of college student development, Chickering (1969) found that when frequent interactions occur in diverse situations, formal and informal, the faculty foster the student's sense of purpose--his career choice. Moreover, Astin and Panos (1969) found correlations between scores on the familiarity-with-instructor scale and student aspirations to obtain a doctorate. In addition, Phelan (1979) discovered

that student interaction with major field professors contributed toward increases in scientific careers.

Satisfaction with College. Substantial evidence exists to suggest that the student's satisfaction with college and his attitude toward aspects of his collegiate experience are positively associated with his informal contact with faculty members. For example, in a quasi-experiment for student-faculty interaction, Newcomb, Brown, Kulik, Reimer, and Revelle (1970) found that the residential college students who spent more informal time with faculty were more satisfied with the collegiate experience than the students in the control groups. Moreover, Wood and Wilson (1972) and Pascarella and Terenzini (1976) found similar results with the same instrument to measure frequency of informal faculty-student contact. In addition, Spady (1971) and Astin (1977), controlling for student characteristics, found positive correlation between informal faulty-student interaction and seven different areas of satisfaction with college.

Intellectual and Personal Development. Just as Jacob (1957) and Chickering (1969) suggest, that faculty-student interaction correlates with educational aspirations and satisfaction with college, one observes also that positive correlations exist with intellectual and personal development during college. For instance, Pascarella and Terenzini (1976) found that freshmen in the one-third of informal contacts

54

(high interaction) with faculty ranked faculty significantly higher than the lower one-third (low interaction) as a source of positive influence on their intellectual and personal development. In addition, Pascarella and Terenzini (1978) found correlations between self-reported intellectual and personal development and frequency of faculty-student contact for two purposes: intellectual matters and career concerns. Similarly, Wilson, Wood, and Gaff (1974) and Wilson, Gaff, Dienst, Wood, and Bavry (1975) observed that high interaction leads to more student-reporting of faculty contributions to educational and personal development than low interaction. However, most evidence on college impact suggests that the association between educational outcomes is confounded by individual differences among students upon entry to college and that those who change most seem to be most open to college (Feldman & Newcomb, 1969).

Academic Achievement. Amidst considerable evidence to suggest that academic achievement is determined by student aptitude, it appears that aspects of the institutional environment, influencing the importance which the student attaches to his academic performance, may modify the relationship between aptitude and achievement (Lavin, 1965; Wallace, 1966). For example, the Spady (1971) finding, that faculty-student interaction was significantly associated with freshmen GPA, is consistent with the findings of Astin and

Panos (1969), Centra and Rock (1971), and Pascarella and Terenzini (1978) that faculty influence the value which students attach to academic achievement.

Motivation Theories Related to the Cross Concept

Theories Associated with Achievement. Although some of the early theorists maintained that individuals respond to drives for physiological survival (McClelland, 1985), researchers later discovered, as the study of psychology progressed, that individuals are motivated to outcomes other than physical survival; and thus other theories emerged to explain motivation: **need** theories, **goal-directed** theory, **reinforcement** theory, and **expectancy** theory. For example, Maslow (1943, 1970), a pioneer in **needs theory** research, developed a hierarchy of needs: physiological, safety, social, self-esteem, and self-actualization. Locke (1969), best known for research in **goal-directed theory**, proposed a theory of motivation in which the individual's conscious goals are the determinant of his behavior. In contrast to goal-directed theory which focuses on the individual's internal thought processes, Skinner (1969) introduced **reinforcement theory**, which concerns the individual's action affected by others external to the individual. But Vroom's (1964) **expectancy theory**, providing the most comprehensive explanation of motivation, promotes the idea that motivation results from the

expectation that an act will be followed by a desired outcome.

Amidst these theories in the field of psychology and a "conceptual desert" (Boshier, 1971, p. 3) in the field of adult education, four scholars, interested in motivation for adult learning, lay the conceptual framework for the Cross Chain-of-Response Model for understanding motivation, a model merging the theoretical concepts of the psychologists and the adult educators.

Miller (1967), an adult educator to influence the Cross concept and one of few to explain the relationship of socioeconomic status and participation in adult education, builds on Maslow's **needs theory**: that the individual ignores concerns for self-realization until fundamental needs are met. For example, Miller observes Maslow's needs hierarchy in the relationship between educational interests and age: the young adult is concerned with job-related and family oriented education while the older adult desires status and self-realization. In Miller's analysis of motivational forces present in the lower middle class for vocational success, Miller concludes that "the lower-middle-class value system, with its emphasis on mobility and status and a concentration on satisfying belonging needs within the nuclear family rather than in the adult peer group, makes it a prime consumer of continuing education" (p. 11).

Tough (1979), another adult educator to influence the

Cross concept and the leading proponent of research on self-directed learning, builds on Locke's **goal-directed theory**: that the individual's conscious goals are the determinant of behavior. Based on the assumption that subjects can articulate and understand behavior, Tough (1979) found that the learner's conscious contemplation of remuneration is more important than subconscious or surrounding forces. In his model of five stages, from the commencement of a learning activity, to retention of the skills, to application of learning, to material reward (promotion), or to symbolic reward (degree), Tough classifies three clusters of feelings: pleasure (happiness), self-esteem (self-image), and reaction from others (praise). From the test of the model to learn the conscious forces involved in the motivation for learning, Tough discovered that the most contemplated benefit was pleasure (fifty percent), self-esteem (forty-one percent), and reaction from others (nine percent).

Boshier (1973), the third adult educator to influence the Cross model and an advocate of the interaction between internal psychological and external environmental factors, builds on Skinner's **reinforcement theory**: that the individual's action is affected by others external to him. In Boshier's (1973) theoretical concept, that "both adult education participation and dropout can be understood to occur as a function of the magnitude of the discrepancy between the

58

participant's self-concept and key aspects (largely people) of the educational environment" (p.260), Boshier suggests that the greater the number of correlations between self-concept and others (students, instructors, and institutional environment), the greater the probability of participation (motivation for learning).

Rubenson (1977), the fourth adult educator to influence the Cross model and a proponent of achievement-oriented activity, builds on Vroom's **expectancy-valence theory**: that motivation results from the expectation that an act will be followed by a desired outcome. The strength of motivation in Rubenson's expectancy-valence theory depends upon the combination of positive and negative forces existing in the individual and his environment: a negative force in either of the two elements, the expectancy of success in the learning activity or the positive consequences, has the capability of canceling the motivation to participate; and the different consequences of participation control the valence. For example, the motivation for education and an increase in salary could be negated with the consequence of less time with the family; or the motivation for education and a promotion could be cancelled with associates' negative values about education or promotion. Although Rubenson's theory shifts from demographic variables to environmental factors, his perspective about motivation focuses less on external barriers

59

to motivation and more on the learner's perception of (but not necessarily the reality of) a situation, a more realistic perspective than other current research into motivation.

Theorists and Achievement Motivation. In terms of research into the reasons for motivation in adult learners, Houle's (1961) three-way typology remains the most significant motivational study. From holistic interviews in twenty-two case studies of active adult learners, Houle discovered common themes in the motivations of the learners: **goal-oriented** learners, who use learning to satisfy a need, for example better business procedures; **activity-oriented** learners, who participate for the activity itself rather than the acquisition of a skill, such as those who wish to elude loneliness or life-problems; **learning-oriented** learners, who pursue learning in every facet of their lives to satisfy an inquiring mind.

Houle's typology of common themes in learning-oriented adults stimulated other research into motivation. For example, Morstain and Smart (1974), in a multivariate analysis based on Boshier's Educational Participation Scale (1971), identified six reasons for motivation which parallel Houle's three classifications of learning-oriented adults: Factor IV (professional advancement) and Factor II (external expectations) appear similar to Houle's **goal-oriented** learner; Factor V (escape/stimulation and Factor I (social

relationships) relate to Houle's **activity-oriented** learner; Factor VI (cognitive interest) seems to be Houle's **learning-oriented** learner; however, Factor III (social welfare) appears not to relate to Houle's learners, but Morstain and Smart's analysis relates Factor III (social welfare) to both Factor I (social relationships) and Factor VI (cognitive interest). Although Morstain and Smart's analysis confirms Houle's study, the implications of Houle's findings is that learners are motivated by characteristic orientations that remain consistent over time while Morstain and Smart's findings suggest that learners are motivated by multiple reasons which change over time.

Moreover, in research for an explanation of adult learning based on the hypothesis that **transitions**--career change, divorce, retirement--motivate adults to seek learning, Aslanian and Brickell (1980) discovered that eighty-three percent of adult learners cite transition in their lives as the motivating force that led them in quest for learning. Of the adult learners interviewed, fifty-six percent attributed learning skills to changes in careers; sixteen percent, to changes in family life styles; thirteen percent, to changes in their leisure lives; five percent, to changes in their health; and fewer than two percent, to changes in religion or citizenship.

In addition to studies into the **reasons** for motivation,

61

researchers have also attempted to understand the **barriers** to participation in learning: **situational barriers**, such as lack of funding, child care, or transportation; **institutional barriers**, for example inconvenient course times; and **dispositional barriers**, such as attitudes about age and ability. In the Carp, Peterson, and Roelfs (1974) study, situational barriers head the list with cost, time, home responsibilities, and job responsibilities as the major barriers for potential learners; institutional barriers were not far behind with expectation of full time enrollment, required amount of time to complete program, and inconvenient course scheduling; and dispositional barriers, with much lower percentages, centered on fear of being too old and lack of confidence in ability.

Research Questions

1.   What **characteristics**--demographic, academic, and personal--contribute to the high-achievement of these selected transfer students from the Virginia Community Colleges to Virginia Tech?

2.   What **influential aspects of the community** college contribute to the high-achievement of these transfer students?

3.   What **motivation** leads these high-achieving community college students toward academic success?

<u>Summary</u>

The literature review covers the **transfer function,** a national perspective of the transfer performance and critics on the transfer function; **studies of transfers,** national studies of transfers and studies of high-achieving transfers; **studies of factors determining transfer success,** student characteristics and collegiate influence; and **motivation theories related to the Cross concept,** theories associated with achievement and theorist on achievement motivation.

The Transfer Function. The literature of the transfer function from a historical perspective provides evidence that the community college performs its original function, the transfer function. However, as the junior college evolved into the community college with its additional functions of vocational, community, and developmental education, the controversy increased during the last three decades with reports of student difficulties upon transfer to the senior institution. Efforts to improve the transfer function centered on quantitative studies designed to determine factors which would enhance the performance of transfer students. Among all the quantitative research findings suggesting a relationship with academic achievement at the senior institution (original eligibility, community college math and English, senior institution major, associate degree or hours transferred, age, and gender), only the community college GPA

63

emerged as a predictive variable for academic success. Moreover, these wide discrepancies in findings indicate that it is vital for each community college and state system to assess its transfer function and enhance its effectiveness.

With national attention in the 1990's on quality education and renewed interest in the transfer function of community colleges, the community college faces increased demands from the legislators for educational accountability and the critics who question the two-year college's ability to maintain the quality of its transfer function at the same time that it provides vocational, community, and developmental education. Community colleges, responding to the threats to the transfer function, have renewed the emphasis on quality with programs not only attracting academically capable student but also improving the overall quality of the academic programs in terms of curriculum and emphasis on excellence. With the emphasis on the high-achieving transfer, the community college strengthens its transfer program and sanctions its claim as a collegiate institution.

However, in previous qualitative research studies, the characteristics that contribute to the high academic achievement of the transfer as well as the value-added concept of institutional effectiveness have remained unrecognized in research on the high-achieving community college student. For example, Neumann and Riesman (1980) found that positive

aspects of the community college experience contributed to the success of transfer students who would not have been admitted to selective institutions as freshmen. In addition, in a study of more than 4,000 Phi Theta Kappa inductees from 1947 to 1965, Garrett and Schultz (1967) found that after the first two years at the community college these honor students remained competitive with the natives. Also Gold's (1967) examination of thirty-one former Los Angeles City College students who had achieved honors at U.C.L.A. revealed that junior colleges provide high-level preparation for upper-division university study, even though three quarters of these students were ineligible for the University upon completion of high school.

Among the issues in the growing concern for transfer education, and most significant to the future of the community college, is the inference that the original transfer function has reemerged as a primary determinant of community college quality. Thus, the community college must respond to the critics and demonstrate the efficacy of its transfer function.

Studies of Transfers. Knoell and Medsker's (1965) From Junior to Senior College: A National Study of the Transfer Student and Hills' (1965) Transfer Shock: the Academic Performance of the Junior College Transfer, two landmark studies, provide the framework for the phenomenon of transfer shock in the studies of transfer students over the last

65

twenty-five years. However, in the recent renewed interest in the transfer function at the community college, transfer shock is no longer an explanation for the differential in academic performance of transfers at the senior institution. In these three studies--the only qualitative studies of high-achieving transfers--Neumann and Riesman (1980), Garrett and Schultz (1967), and Gold (1967) focus on the positive academic performance of transfer students but offer no insights into academic performance or observations for creating community college experiences leading to academic performance after transfer. Moreover, no existing qualitative research correlates student characteristics with high-achieving performance after transfer.

Studies of Factors Determining Transfer Success. Early research interests focused on **student characteristics** as predictive of academic achievement rather than the interactive relationship between **collegiate influence** and academic achievement. However, after the controversy surrounding higher education in the late 1960's, the philosophical stance shifted toward emphasis upon collegiate impact--faculty-student interaction as a decisive determinant of collegiate impact and the college as a socializing organization--with a multitude of definitive theories to guide a research inquiry into academic achievement.

Motivation Theories Related to the Cross Concept. Amidst psychological theories to explain motivation--Maslow's **need theory**, Locke's **goal-directed theory**, Skinner's **reinforcement theory**, and Vroom's **expectancy theory**--four scholars in adult education lay the conceptual framework for the Cross Chain-of-Response Model for understanding adult motivation, a model merging the theoretical concepts of the psychologists and the adult educators.

Miller (1967), an adult educator to influence the Cross concept and one of few to explain the relationship of socioeconomic status and participation in adult education, builds on Maslow's needs theory: that the individual ignores concerns for self-realization until fundamental needs are met. Tough (1979), another adult educator to influence the Cross concept and the leading proponent of research on self-directed learning, builds on Locke's goal-directed theory: that the individual's conscious goals are the determinant of behavior. Boshier (1973), the third adult educator to influence the Cross model and an advocate of the interaction between internal psychological and external environmental factors, builds on Skinner's theory of reinforcement: that the individual's action is affected by others external to him. Rubenson (1977), the fourth adult educator to influence the Cross model and a proponent of achievement-oriented activity, builds on Vroom's expectancy-valency theory: that motivation

67

results from the expectation that an act will be followed by

a desired outcome.

CHAPTER III

DESIGN AND PROCEDURES

To explore the characteristics of these high-achieving students, the contributing aspects of the community college toward their success, and the Cross Chain-of-Response model for motivation, the researcher utilized the **qualitative research method** of naturalistic inquiry, defined as a search for meaning and understanding in "naturally occurring phenomena in their naturally occurring states" (Patton, 1980, p. 41), and a **quantitative research method** with a modified version of Chickering's The Experience of College Questionnaire (1970), a methodological triangulation for reliability and validity in qualitative research (Kirk & Miller, 1986).

In this chapter, the researcher discusses the selection of the population and sample, the methods and procedures, reliability and validity as well as the rationale for multiple operations research, data collection, method of analysis, and methodological issues.

Selection of the Population

Theoretical Sampling. For qualitative research, Glaser and Strauss (1967) and Denzin (1989) recommend theoretical

sampling: the purposeful selection of those subjects who offer the most theoretical relevance to the situation and concepts under study. With multiple groups, theoretical sampling facilitates the

> simultaneous maximization or minimization of both the differences and the similarities of data that bear on the categories being studied. This control over similarities and differences is vital for dis covering categories, and for developing and relating their theoretical properties, all necessary for the development of an emergent theory (Glaser & Strauss, 1967, p. 55).

By maximizing or minimizing differences among comparison groups, the researcher controls the theoretical relevance of his data collection. By minimizing differences among comparison groups, the researcher increases his chances of collecting similar data on a specific category at the same time that he gleans important differences; on the other hand, by maximizing differences among comparison groups, the researcher increases the odds for collecting different and varied data at the same time that he gathers important similarities (Glazer & Strauss, 1967). In this study, for example, the researcher minimized the differences among the comparison groups by limiting the population to high-achieving transfers from twenty-three community colleges in Virginia; on the other hand, the researcher maximized differences among comparison groups by selecting a mixed sample of originally eligible and originally ineligible transfers.

Theoretical Saturation. Defined as the point of discovering no additional data, theoretical saturation occurs during both the collection and analysis stages when the researcher finds his major categories are filled. The criteria for the discovery of saturation include "a combination of the empirical limits of the data, the integration and density of the theory, and the analyst's theoretical sensitivity" (Glazer & Strauss, 1967, p. 62). In this study, for example, the researcher discovered theoretical saturation at the point of 80% data collection with relationships between all categories well established and validated: student characteristics, influential aspects of the community college, and motivation in relationship to high-achievement. Moreover, the researcher tried to saturate categories by maximizing differences between groups, the originally eligible and the originally ineligible, and in the process generating theory based on theoretical sensitivity.

Population. For this study, the population consists of those students who transferred to Virginia Tech from one of the twenty-three Virginia Community Colleges during the Fall of 1990: only those students with at least twelve semester hours of transfer credit and with no prior attendance at a four-year college and only those transfers who attained high academic achievement (3.0 or greater) at the community college and maintained high academic achievement during the first

71

semester at Virginia Tech. Within this group were those originally eligible and those originally ineligible for admission to Virginia Tech, both used as in the Glazer and Strauss' (1967) procedure to maximize differences.

Selection of Sample

Purposeful Sampling. Patton (1980) uses the definitive term <u>purposeful sampling</u> to describe the strategies for increasing information obtained from small samples, probably the most typical situation in qualitative methods. For example, sampling **extreme cases** will yield enlightening information about outstanding successes (Patton, 1980). In this case, the sampling of extreme cases, the high-achieving transfer student, lends credibility to the argument that the community college contributes to the success of these students. Moreover, sampling **critical cases** will yield "**logical** generalization and maximum application of information to other cases because if it's true of this one case, it's likely to be true of all other cases" (Patton, 1980, p. 105). In this case, the sampling of the critical cases, the originally ineligible student, lends credibility to the argument that if the community college is contributing to the success of these students, those who originally were not eligible for Virginia Tech, then the community college must be contributing to the success of all high-achieving community

72

college transfers to Virginia Tech.

For this study, once the population was defined and enumerated, the researcher considered **random sampling** in which all high-achieving transfer students have the same probability of inclusion in the final sample or **stratified sampling** in which each stratum, or representative community college, would have a fixed number of inclusions in the final sample, a procedure which offered a better representation of the population of community colleges in Virginia. After the researcher eliminated those high-achieving transfers who did not meet the criteria, the study included thirty-three transfers, three of whom are no longer at Virginia Tech. (See Table 9 in Chapter IV for representative community colleges.)

Methodology

According to Dexter (1970), the interview, an essential tool for naturalistic inquiry, should be utilized in a multiple operation, not a single-faceted approach. The questionnaire, limited in matters theoretically defined as "in flux," can be employed, however, to determine patterns of interaction in social groups, which in this case parallels the pattern and theme analysis of the interview (Denzin, 1989). Moreover, the modified version of Chickering's The Experience of College Questionnaire (1970) serves as methodological triangulation, a matter discussed in great detail in the

section titled <u>Reliability and Validity</u>.

In **ethnographic inquiry**, "concern with the meaning of actions and events to the people we seek to understand" (Spradley, 1979, p. 5), the researcher utilized four strategies: a) the **interview**, which records the respondent's recall about his experiences, attitudes, and beliefs; b) the **journal**, which records the researcher's personal accounts; c) **participant observation** in which the researcher serves as an observer; d) **document analysis**, which attempts to determine official stances (Denzin, 1989; Spradley, 1979).

Interview. Merton and Kendall's (1990) **focused interview**, an instrument for sociological and psychological research, is designed to collect in-depth information on specific topics or experiences. While it is **focused** on the specific experience under study, it allows considerable freedom to both the researcher and the subject: the researcher uses non-directive, open-ended questions and encourages the subject to express his perception of experiences in his own words. The focused interview, as conceived by its creators, collects information with a minimum of guidance from the interviewer, captures the subject's perception of the experience, covers the data regarding the experience under study with in-depth reactions, and provides the interviewer with insights into the character and personality of the subject. For its applicability to specific experiences, non-

directive questions, and in-depth profile of the subject under study, the researcher selected the focused interview.

However, the researcher also considered four interrelated **criteria of the effective focused interview** as Merton and Kendall (1990) define them (p. 12):

1. **Range.** The interview should enable interviewees to maximize the reported range of evocative elements and patterns in the stimulus situation as well as the range of responses.

2. **Specificity.** The interview should elicit highly specific reports of the aspects of the stimulus situation to which interviewees have responded.

3. **Depth.** The interview should help interviewees to describe the affective, cognitive and evaluative means of the situation and the degree of their involvement in it.

4. **Personal context.** The interview should bring out the attributes and prior experience of interviewees which endow the situation with these distinctive meanings.

To conduct an interview employing all four of these criteria and the skill of the interviewer, Merton and Kendall (1990) suggest certain specific interviewing techniques: **unstructured questions, the support of an interview guide, the encouragement of the subject's retrospective introspection, and the exploration of the subject's attitudes about the experience under study.** For example, **unstructured questions** give the subject the greatest latitude to respond to a specific topic: "In the focused interview, then an unstructured question is one which does not fix attention on

any specific aspect of the stimulus situation or of the response; it is, so to speak, a blank page to be filled in by the subject" (Merton & Kendall, 1990, p. 15). Moreover, **the support of an interview guide**, a reference of the specific topics or questions for the interviewer, assists the interviewer so that he does not neglect points of interest and so that he provides commonality in all interviews. In addition, **the encouragement of the subject's retrospective introspection**, getting the subject to think back to the social situation under study and then to describe in the past context his reactions to the situation, has an inherent problem in empirical research with a time interval between the actual experience and the reactions to the experience. To counterbalance intervening experiences and to foster specificity in the focused interview, Merton and Kendall (1990) champion the technique of retrospective introspection. Finally, learning **the subject's attitudes about the experience under study**, the primary aim of the focused interview, requires the interviewer to encourage the subject to share "self-revelatory comments" about the experience under study. Although non-directive questions and retrospective introspection contribute to the specificity, range, and depth of an interview, the interviewer must focus on the subject's attitudes to learn his perspective of the experience, both unexpressed and disguised.

For effective use of the focused interview, the interviewer should also be conscious of several points that conflict with the requirements of scientific inquiry: bias and variance in the interviewing process. For instance, opportunity exists for the subject to react to the interviewer rather than to concentrate on his attitudes toward the experiences under study, and, moreover, for the subject to cover for his own feelings of inadequacy. Similarly, variance in data collection is almost guaranteed in the focused interview because Merton and Kendall (1990) advise the interviewer to be flexible and to adapt to the subject's style of response. But the rewards of using the focused interview exceed the conflicts with scientific inquiry: 1) collecting information from the perspective of the subject, not the interviewer and 2) developing explanations grounded in empirical data, not the conjecture of the researcher.

Journal Notes. Since the focus of this study concerned the analysis of high-achieving students rather than the observation of students in the process of achieving, the researcher's use of observation as a method of data collection consisted solely of observations during the interviews. In the ethnographic interview, a social event involving at least two participants, the interviewer and the subject (Spradley, 1979), the interviewer not only makes inquiries of the subject but also observes the subject for additional insights into the

77

attitudes and beliefs related to the study and later enters these observations into a journal. Ethnographic interviewing requires that the researcher, as the instrument of research, record observations and reactions of the subject because these details provide validity support of the data.

Participant Observation. In addition to the data gathered from in-depth interviews, the researcher entered impressionistic observations in a journal. According to Wolfgang (1977), "our culture is so word oriented that it tends to forget" that individuals "communicate simultaneously on at least three levels in interpersonal situations: the verbal, non-verbal, and the cultural level which moderates and shapes the other two" (p. 147). Thus, the researcher included **all** observations which enhanced the understanding of the research study. In this study of the high-achieving transfer student where motives, attitudes, beliefs, and values influence motivation, "the most sophisticated instrumentation...is still the careful observer--the human being who can watch, see, listen...and finally analyze and organize his direct experience" (Guba & Lincoln, 1981, p. 213).

Document Analysis. Other social scientists utilize documents for inquiry, but researchers in education rely upon the collection of fresh data. However, for several reasons, researchers need this resource: as a "base from which any

subsequent inquirers can work," as a "legally unassailable base from which to defend oneself against allegations," as "the most objective means of understanding" (Guba & Lincoln, 1981, pp. 232-33). In this study, the researcher used the academic performance records of the subjects in two ways: 1) to select potential participants in the study based on information from the Virginia Tech admission files and 2) to confirm participants' reports of information and serve as a stimulus for further questioning.

Reliability and Validity

Triangulation. According to Denzin (1989), triangulation--the use of multiple methods empowering the researcher to rise above the personal biases that result from single method methodologies--remains "the soundest strategy of theory construction" (p. 236). With a multiple methods approach, the researcher moves toward the act of generating observations as an act of symbolic interaction and thus closer to understanding the subject matter. "Its use, when coupled with sophisticated rigor, will broaden, thicken, and deepen the interpretive base of any study" (p. 247).

Types of Triangulation. From the four basic types of triangulation--data triangulation, investigator triangulation, theory triangulation, and methodological triangulation--the researcher selected two approaches toward increasing the

validity of the study: **data triangulation** and **methodological triangulation**. In an imprecise sense, theoretical sampling is an example of data triangulation, a search for different data sources that bear upon the study under analysis (Denzin, 1989). By triangulating data sources, the selection of **all** twenty-three community colleges in the state system, the researcher uses the method to maximum theoretical advantage. Also, methodological triangulation, a between-method triangulation combining dissimilar methods (the questionnaire and the interview) to study the same phenomenon, inculcates the rationale that "the flaws of one method are often the strengths of another" (Denzin, 1989, p. 244) and achieves for the researcher "the best of each while overcoming their [combined] unique deficiencies" (Denzin, 1989, p. 244).

By triangulating methods, the **qualitative** method of ethnographic interviewing and the **quantitative** method of the survey questionnaire, the researcher takes the position that single-method studies are no longer defensible in the social sciences: the researcher converges data from multiple sources to deal with the inherent bias and validity threats in single-method research.

> The most fertile search for validity comes from
> a combined series of difference measures, each
> with its idiosyncratic weaknesses, each pointed
> to a single hypothesis. When a hypothesis can
> survive the confrontation of a series of
> complementary methods of testing, it contains a
> degree of validity unattainable by one tested within
> the more constricted framework of a single method.
> (Webb, 1966, p. 174).

As a further caution to the researcher, both Patton (1980) and Lincoln and Guba (1985) advise that the researcher should not anticipate that the findings from multiple methods will engender a harmonious picture because each method yields "a different slice of reality" (Denzin, 1989, p. 246). However, the significant point in multiple triangulation is that the emerging pictures in interpretive research foster in-depth understanding, not objective reality, the goal of multiple triangulation; thus, multiple triangulation disassociates itself in a comparison with correlation analysis in statistical studies (Denzin, 1989). In this study, for example, the questionnaire specifically addresses the extent of the community college experience in terms of self-concept, purpose and directional goals, attitude toward education, and intellectual curiosity; on the other hand, the interview, in less specific format, gathers from the responses patterns and themes leading toward these same observations.

Collection of Data

Preliminaries. On October 21, 1991, the researcher and the dissertation director filed a formal request, along with an abstract of the project, with the Registrar for a computer search to identify Virginia Community College students, who transferred to Virginia Tech for the Fall 1990 semester: only those students with at least twelve semester hours of credit and no prior attendance at a four-year college and only those students who attained high academic achievement (3.0 or greater) at the community college and maintained high academic achievement (3.0 or greater) during the first semester at Virginia Tech. The request was later amended to separate those students originally ineligible for admission to Virginia Tech. (See Appendix A for Request for Research Data.)

On November 20, 1991, the researcher met with Susan F. Bambach, Executive Associate Director of Transfer Affairs at Virginia Tech, for an informal discussion of transfer related concerns, and on November 21, 1991, the researcher met with David R. Bousquet, Director of Undergraduate Admissions, to discuss admission policies for transfer students.

On January 27, 1992, the Registrar released the list of high-achieving students who transferred to Virginia Tech for the Fall of 1990 and included a Confidentiality Statement for both the researcher and the student to sign. (See Appendix B for Confidentiality Statement.)

On February 6, 1992, the researcher met with Steve Culver, Director of Institutional Research, to discuss the pre-testing results of the Questionnaire at Radford University. (See Appendix C for Survey Questionnaire for Transfers.)

First Data Collection. On February 3, 1992, the researcher began to gather demographic and academic data from the university files for each student and then later to cross-check the document analysis data with data from the questionnaire and the interview.

Second Data Collection. On February 11, 1992, the researcher began the second data collection with the self-administered questionnaire, a modified version of Chickering's The Experience of College Questionnaire (1970).

Third Data Collection. During the months of February and March 1992, the researcher used the Merton and Kendall (1990) focused interview and the aid of a Sony micro VOR recorder to interview twenty-five subjects (a participation rate of 83.3 percent in the study). All interviews, conducted in the Newman Library and transcribed at the rate of four to six hours per tape, average an hour in length and generate over one-hundred pages of transcribed data. These interviews yield detailed, descriptive information about the subject's experiences and attitudes--unlike its counterpart, the survey questionnaire.

In an effort to unlock the perspectives of every interviewee, the researcher designed an interview guide of open-ended, focused questions to gather information related to contributing aspects of the community college to the success of these high-achieving students and information related to the Cross concept of motivation. (See Appendix D for the Interview Guide.) In those individual instances where questions did not elicit the desired information, the researcher used additional questions as probes. Each question, designed to gather information related to the research questions, also provided the opportunity for the interviewee to volunteer information unrelated to categories of the Cross concept of motivation.

In the process of "developing rapport and eliciting information" (Spradley, 1979, p. 78) about a particular cultural scene, the community college, the researcher developed descriptive questions aimed toward "a large sample of utterances in the informant's native language" (Spradley, 1979, p. 85). For example, Spradley's (1979) open-ended **descriptive question** intended to elicit atypical events appears in question 7:

> Describe a faculty-student relationship that you experienced at the community college.

Domains, categories of information emerging from responses to descriptive questions, lead then to structural questions.

However, Spradley's (1979) **structural question**, designed to verify the existence of a domain and to elicit additional information, frequently unveils the interviewee's composure and limits his response, a posture best handled with the introduction of a familiar domain. For example, question 6--List and explain five adjectives that you would associate with your **self-concept**--could be introduced in this way:

> Assume that you are looking at yourself in the mirror in the morning and you say, "This is John Adams." What would you say about yourself? In other words, what is your **self-concept**?

And then the **contrast question**, designed to elicit information about differences or similarities within a domain, is based on the principle that "the meaning of a symbol can be discovered by finding out how it is related to all other symbols" (Spradley, 1979, p. 156). For example, question 13 illustrates the contrast question:

> How do you feel about the **teaching** at the community college and the university?

An experienced researcher, alternating randomly all three types of ethnographic questions, not only assuages boredom but also subdues anxiety generated by the structural and contrast questions (Spradley, 1979).

Method of Data Analysis

Domain Analysis. To analyze the data, the researcher used the method of **domain analysis** (Spradley, 1979) in a

85

procedure of **analytic induction**, a process of scrutinizing qualitative data to determine 1) categories of meaning relevant to the concepts, 2) patterns common to the subjects under study, and 3) negative cases which force revision or rejection of the theory.

Denzin (1989) defines analytic induction as "a strategy of analysis that directs the investigator to formulate generalizations that apply to all instances of the problem" (p. 166). Described abstractly, analytic induction involves studying each case and determining whether the hypothesis fits the case and either reformulating the hypothesis or redefining the phenomenon, a repeated procedure until the researcher establishes a universal relationship. The procedure differentiates analytic induction from multivariate analysis, which directs concern toward generalizations that apply to most instances of a phenomenon, not to all instances. Thus, a basic assumption underlying analytic induction is the search for patterns that apply to **all** cases of the phenomenon under study.

To all transcribed interview data, the researcher applied Spradley's systematic procedure: a search for categories of meaning, or domains, embedded in what the subjects say. Each domain consists of three basic elements: cover terms, names for the domains; included terms, the items or data bit from the interview which fit inside the domain; and semantic

relationships, which link the cover term and the included terms.

Spradley contends that most meaning can be stated in one or more of the following nine semantic relationships. In the following list of these relationships, **X** represents the **included term** (data bit) and **Y** represents the **cover term** (domain of meaning):

1. Strict inclusion: **X** is a kind of **Y**.
2. Spatial: **X** is a place in **Y**; **X** is a part of **Y**.
3. Cause-effect: **X** is a result of **Y**; **X** is a cause of **Y**.
4. Rationale: **X** is a reason for doing **Y**.
5. Location-for-action: **X** is a place for doing **Y**.
6. Function: **X** is used for **Y**.
7. Means-end: **X** is a way to do **Y**.
8. Sequence: **X** is a step/stage in **Y**.
9. Attribution: **X** is an attribution or characteristic of **Y** (Spradley, 1980, p. 93).

Coding of Data. To establish domains, the researcher used two procedures. First, the researcher recast each interview question into a domain. For example, the interview question "Describe a faculty-student relationship that you experienced at the community college" became the domain of "faculty-student relationships." Secondly, responses which did not fall into any of the domains established from the interview questions provided the second source of domains. At the conclusion of the analysis for domains, the researcher entered a total of 68 into the list. (See Appendix E for List of Domains.)

To code the data, the researcher determined one of nine

semantic relationships for each question and domain. For example, the response to the question, "What is your attitude toward education?"

> It is the best thing anyone can do for himself.
> An education broadens one's perspective--well-rounded individual. One learns about people, thinks effectively, and grows intellectually.

revealed the phrases, "broadens one's perspective," "learn about people," "think effectively," and "grow intellectually" --all of which were then coded into the semantic relationship "kinds of" within the domain of "things to be gained by an education."

For every sentence or sentence particle coded into a semantic relationship within a domain, the researcher entered the following information on a data worksheet: 1) the interview tape number and respondent's identification, 2) transcription page number, 3) the data bit, 4) the semantic relationship and domain applicable to the data bit. (See Appendix F for Sample Domain Sheet.) This system, shortening the compilation of data, provides a means of tracking the information for future reference.

Pattern and Theme Identification. To establish patterns, the researcher looked for repetition in the events, attitudes, beliefs, and contributing aspects of the community college as cited in the responses. From a brief synthesis for each case, the researcher then entered each one onto a matrix so that

comparisons could be made among respondents, across colleges, and between groups--comparisons which revealed patterns of interrelated minor themes and one major theme related to all others.

Central to the ethnographic interview is the discovery of cultural themes. According to Spradley (1980), a **cultural theme**--defined "as any principle recurrent in a number of domains, tacit or explicit, and serving as a relationship among subsystems of cultural meaning" (p. 141)--functions as a cognitive principle that guides behavior. A cognitive principle, "something that people believe and accept as true and valid" (p. 141), exists in the form of an assertion and applies to most members of the culture. For example, Spradley's (1980) illustration "you can't trust a rubber tramp" (one who travels by car) is a specific assertion limited to a single member (rubber tramps) of a single domain (kind of tramps). Other assertions, however, "you can't beat a drunk charge" apply to a universal experience among tramps related to many domains.

Methodological Issues

Internal Validity. A study of naturalistic inquiry presents numerous threats to internal validity, most of which can be diminished with specific procedural techniques. Of Guba and Lincoln's (1981) four recommended methods for

89

establishing validity--host verification, triangulation, independent observer analysis, and "phenomenon recognition" (the recognition of a phenomenon as "real" by those who experience it), the researcher selected triangulation. (For the specifics of triangulation used in this study, see the previous section titled Validity and Reliability.)

Researcher Bias. In addition, a study with a data source of the impressions of the researcher and the recollections of the respondents introduces the potential for researcher bias. For example, cross-gender interviews present the occasion for "gendered identities that are enacted in the interview encounter" (Denzin, 1989, p. 116), the situations of interviewing create "between-class situational variance" (Denzin, 1989, p. 116), the process of interaction during the interview creates new attitudes or reshapes old attitudes (Webb, 1966) or creates a self-fulfilling prophecy with the respondent telling the interviewer what he wants to hear (Denzin, 1989), and an overdeveloped sense of rapport with the respondents can lead to loss of objectivity (Denzin, 1989). To reduce these sources of bias, the researcher implemented specific steps: taped interviews, data and methodological triangulation, journal entries of impressions and observations, and an interview guide for standardization of the interviewing process. Moreover, the researcher adopted Denzin's (1989) recommendation for "a profound sense of

self-cynicism" (p. 119) and an attitude of open-mindedness.

External Validity. Finally, in the matter of external validity, whether this particular "slice of life" is representative of other "slices of life," the researcher adopted the current revision from generalizability to "fittingness." For example, Cronbach (1975) advocates interpreting data in context rather than arriving at generalizations: "Generalizations decay. At one time a conclusion describes the existing situation well, at a later time it accounts for rather little variance, and ultimately it is valid only as history" (pp. 122-123). In addition, Patton (1980) observes that "evaluation findings are most useful with regard to the particular setting...and the interpretation of findings is particular to those people who need to...use the information...generated by evaluation research" (p. 282). Moreover, Guba and Lincoln (1981) encourage the researcher to think in terms of the hypothesis and of the degree of fit between the context in which the hypothesis is generated and the context in which it is to be applied. "Fittingness, rather than generalization is the naturalist's key concept" (Guba & Lincoln, 1981, p. 120). In this study, the researcher generated a hypothesis regarding the contributions of the community college toward the success of the high-achieving transfer student and its relationship to the Cross concept of motivation with the aim of generating knowledge that would

guide future studies of high-achieving transfer students, not

necessarily generalize to other studies.

Summary

To explore the characteristics of these high-achieving students, the contributing aspects of the community college toward their success, and the Cross Chain-of-Response model for motivation, the researcher utilized the qualitative research method of naturalistic inquiry with interviews and a quantitative research method with a questionnaire, a methodological triangulation for reliability and validity in qualitative research.

Selection of the Population

For this qualitative research study, the researcher used **theoretical sampling**: the purposeful selection of those subjects who offer the most theoretical relevance to the situation and concepts under study. By maximizing or minimizing differences among comparison groups, the researcher controls the theoretical relevance of his data collection. In this study, the researcher minimized the differences among the comparison groups by limiting the population to high-achieving transfers from twenty-three community colleges in Virginia; on the other hand, the researcher maximized differences among comparison groups by selecting a mixed sample of originally eligible and originally ineligible transfers.

The study **population** consists of those students who transferred to Virginia Tech from one of the twenty-three

Virginia Community Colleges for the Fall of 1990: only those students with at least twelve semester hours of transfer credit and with no prior attendance at a four-year college and only those transfers who attained high academic achievement (3.0 or greater) at the community college and maintained high academic achievement during the first semester at Virginia Tech. Within this group were those originally eligible and those originally ineligible for admission to Virginia Tech, both used as in the Glazer & Strauss' (1967) procedure to maximize differences.

Methodology

In this ethnographic inquiry, the researcher utilized four strategies: the **interview**, which records the subject's recall about his experiences, attitudes, and beliefs; the **journal**, which records the researcher's personal accounts; **participant observation** in which the researcher serves as an observer; **document analysis**, which attempts to determine official stances.

To conduct an interview employing all four of these criteria and the skill of the interviewer, Merton and Kendall (1990), the creators of the focused interview, suggest certain specific interviewing techniques: the **unstructured question**, which does not direct attention on any specific aspect of the stimulus situation or of the response; the support of an **interview guide**, a reference of the specific topics or

questions for the interviewer; the **encouragement of the subject's retrospective introspection**, getting the subject to think back to the social situation under study; and the **exploration of the subject's attitudes about the experience under study**, the primary aim of the focused interview.

Reliability and Validity

From the four basic types of triangulation--data triangulation, investigator triangulation, theory triangulation, and methodological triangulation--the researcher selected two approaches toward increasing the validity of the study: **data triangulation** and **methodological triangulation.** By triangulating data sources, the selection of **all** twenty-three community colleges in the state system, the researcher uses the method to maximum theoretical advantage. Also, methodological triangulation, a between-method triangulation combining dissimilar methods (the questionnaire and the interview) to study the same phenomenon, inculcates the rationale that the best of each will overcome their combined deficiencies.

By triangulating methods, the **qualitative** method of ethnographic interviewing and the **quantitative** method of the survey questionnaire, the researcher takes the position that single-method studies are no longer defensible in the social sciences: the researcher converges data from multiple sources to deal with the inherent bias and validity threats in single

95

method research.

Collection of Data

On February 3, 1992, the researcher began the **first data collection** with demographic and academic data from the university files for each student and then to cross-check the document analysis data with the data from the questionnaire and interview. On February 11, 1992, the researcher began the **second data collection** with the self-administered questionnaire, a modified version of Chickering's The Experience of College Questionnaire (1970). During the months of February and March 1992 in the **third data collection**, the researcher used the Merton and Kendall (1990) focused interview with the aid of a Sony micro VOR recorder to interview twenty-five subjects (a participation rate of 83.3 percent in the study). All interviews, conducted in the Newman Library and transcribed at the rate of four to six hours per tape, average an hour in length and generate over one-hundred pages of transcribed data. These interviews yield detailed, descriptive information about the subject's experiences and attitudes--unlike its counterpart, the survey questionnaire.

Method of Analysis

To analyze the data, the researcher used the method **domain analysis** (Spradley, 1979) in a procedure of **analytic induction**, a process of scrutinizing qualitative data to

determine 1) categories of meaning relevant to the concepts, 2) patterns common to the subjects under study, and 3) negative cases which force revision or rejection of the theory.

To establish domains, the researcher used two procedures: first, the researcher recast each interview question into a domain; secondly, responses which did not fall into any of the domains established from the interview questions provided the second source of domains.

In **coding the data**, the researcher determined one of nine semantic relationships for each question and domain. For every sentence or sentence particle coded into a semantic relationship within a domain, the researcher entered information on a data worksheet: 1) the interview tape number and respondent's identification; 2) transcription page number; 3) the data bit; 4) the semantic relationship and domain applicable to the data bit.

To establish **pattern and theme identification**, the researcher looked for repetition in the events, attitudes, beliefs, and contributing aspects of the community college as cited in the responses. From a brief synthesis for each case, the researcher then entered each one onto a matrix so that comparisons could be made among respondents, across colleges, and between groups--comparisons which revealed patterns of interrelated minor themes and one major theme related to all

others.

Methodological Issues

A study of naturalistic inquiry presents numerous threats to **internal validity**, most of which can be diminished with specific procedural techniques. Of Guba and Lincoln's (1981) four recommended methods for establishing validity, the researcher selected triangulation.

In addition, a study with a data source of the impressions of the researcher and the recollections of the respondents introduces the potential for **researcher bias**. To reduce these sources of bias, the researcher implemented specific steps: taped interviews, data and methodological triangulation, journal entries of impressions and observations, and an interview guide for standardization of the interviewing process.

Finally, in the matter of **external validity**, whether this particular "slice of life" is representative of other "slices of life," the researcher adopted the current revision from generalizability to "fittingness." For example, in this study, the researcher generated a hypothesis regarding the contributions of the community college toward the success of the high-achieving transfer student and its relationship to the Cross concept of motivation with the aim of generating knowledge to guide future studies of high-achieving transfer students, not necessarily generalize to other studies.

Chapter IV

ANALYSIS AND FINDINGS

In this research study of high-achieving students from
the twenty-three Virginia Community Colleges to Virginia Tech
(VT) during the Fall of 1990, the student attained high
academic achievement (3.0 or greater) at the community college
and maintained high academic achievement during the first
semester at Virginia Tech. It is the intent of the researcher
to examine the influences that contribute to the high academic
achievement (GPA 3.0 or greater) of a transfer student from a
Virginia community college to Virginia Tech and determine **why
the high-achieving student succeeds:**

1) to identify the characteristics of the high-achieving
   student--demographic, academic, and personal--

2) to identify aspects of the community college
   experience that influence the personal and
   situational characteristics of the student and lead
   him to high academic achievement, and

3) to determine what motivates the high-achieving
   student toward academic success as related to the
   Cross Chain-of-Response Model of motivation.

In this Chapter of Analysis and Findings, the researcher
examines the characteristics of the high-achieving student in
A Profile of the High-achieving Transfer, the community
college experience in **Influential Aspects of the Community
College,** and the theoretical basis for the motivation of the

high-achieving student in the **Cross Chain-of-Response Model of Motivation.**

A Profile of the High-Achieving Transfer

The population for this study consists of three hundred and seven transfers from the twenty-three Virginia Community Colleges to Virginia Tech during the Fall of 1990: only forty-nine of these transfers qualify with a GPA of 3.0 or greater at the community college and the first semester at Virginia Tech, approximately fifteen percent of the transfer population. Of those forty-nine, three are no longer at Virginia Tech and sixteen do not meet the criteria for inclusion in the study: only those students with at least twelve semester hours of transfer credit, no prior attendance at a four-year college, and a GPA of 3.0 or greater at the community college and the first semester at Virginia Tech. (The rationale for excluding those with fewer than twelve semester hours of transfer credit is that they would not have accumulated enough credit time at the community college to be sufficiently influenced and that those who had attended another four-year college would contaminate the study because of the indeterminate effect of attendance at the four-year college prior to enrollment at the community college.) Thus, the sample consists of thirty transfers who meet the criteria for the study: sixty percent **originally eligible** and forty

percent **originally ineligible** for admission to Virginia Tech.

Demographic Characteristics

Gender. Analysts speculate that the growing numbers of women students reflect a changing society with women as well as men pursuing careers; but in this study the life transitions, which brought these students to college, relate more significantly to the men rather than to the women. Of the study sample of twenty-five students, only 40% were female, more than fourteen percentage points lower than the proportion of women (54.3%) enrolled in all types of public educational institutions at all levels in the U.S. (The Almanac of Higher Education, August 28, 1991) and significantly lower, moreover, than the 57.7 percent of females in the VCCS Student Profile for the year 1990 (Student Profile: VCCS Routine Planning Elements 1981-82 through 1991-92).

Age. Since 1981, nearly sixty percent of the students enrolled in two-year institutions in the State of Virginia have been over twenty-five years old (Student Profile: VCCS Routine Planning Elements 1981-82 through 1991-92). However, among the high-achieving students who transferred from the Virginia Community Colleges to Virginia Tech in the Fall of 1990, only twenty percent were twenty-five or older: eight percent of the females and twelve percent of the males.

Moreover, while the U. S. Department of Education in 1987 reported that 52.3 percent of all undergraduates in the United States were over the age of twenty-two (The Almanac of Higher Education, August 28, 1990), only thirty-two percent of the students in this sample were over the age of twenty-two.

Table 1   Age at Time of Transfer

Age	Study Set		Originally Ineligible	
	No.	%	No.	%
Less than 20	4	16.0	1	10.0
20	11	44.0	5	20.0
21-22	2	8.0	1	10.0
23-24	3	12.0	1	10.0
25-26	2	8.0	1	10.0
27-28	1	4.0		
29-33	2	8.0	1	10.0
	25	100.0	10	100.0
	21.92	mean	22.1	
	20.0	median	20.0	

Ethnicity. In the State of Virginia, minorities embody 22.60 percent of the population and 18.3 percent of the higher education enrollments: 18.1 percent of the enrollment at public four-year institutions and 16.9 percent of the enrollment at public two-year institutions (The Almanac of Higher Education, August 28, 1991).

Table 2 shows the ethic distribution in relationship to the 16.9 percent minority distribution in the overall population of Virginia community college students: 12 percent

minority representation in the study sample and 15.8 percent
minority representation in the Virginia Tech enrollment (The
Chronicle of Higher Education, March 18, 1992).

Table 2   Ethnic Distribution

	Study Sample		VT '90 Enrollment	
Ethnicity	Number	Percent	Number	Percent
African-American		0.0	1,073.86	4.2
American Indian		0.0	25.57	0.1
Asian	1	4.0	1,278.40	5.0
Hispanic	2	8.0	255.68	1.0
Other			1,406.24	5.5
Caucasian	22	88.0	21,502.69	84.1
		100.0	25,568.00	99.90 *

*percents round to 99.9

     Moreover, Table 3 shows that while minority enrollments
represent 16.9 percent of the two-year college enrollment in
Virginia and 18.1 percent of the four-year college enrollment
in Virginia, minority enrollment at Virginia Tech represents
only 15.8 percent of the population.   On the other hand,
Asians, while only 2.6 percent of the total state population
and 2.6 percent of the higher education enrollment in
Virginia, make up 5.0 percent of the population at Virginia
Tech.   However, African-Americans, representing 18.8 percent
of the state population and 12.83 percent of higher education
enrollment in Virginia, are only 4.2 percent of the population
at Virginia Tech.   This disparity in ethnic distribution of
African-American students, supported in the literature

(Orfield & Paul, 1987), is the subject of a national project
for raising the transfer rates of minority students in two-
year colleges (AACJC, 1987).

Table 3   Comparison of Ethnic Distribution in VA Population,
           VA Higher Education, and VT Enrollment, Fall '90

	VA Population	VA Higher Education	VT Enrollment
African-American	18.8	13.8	4.2
American Indian	.2	.2	0.1
Asian	2.6	2.8	5.0
Hispanic	[2.6]*	1.2	1.0
Caucasian	77.4	80.2	84.1
Other	.9	1.7	5.5
	99.9	99.9	99.9 *

* [may be any race]
* percents round to 99.9

Socioeconomic Status.   Early research findings (Astin,
Panos, & Creager, 1967; Medsker & Trent, 1965) reveal a rank
ordering of colleges on the basis of student socioeconomic
background--father's occupation, income, and education--with
private universities attracting the student of high income,
professional/managerial occupational level, college-educated
parents and with the two-year colleges attracting much smaller
proportions of students from high socioeconomic backgrounds.
Moreover, attending a selective college is part of a
cumulative advantage: not only are students from advantaged
socioeconomic backgrounds more likely to attend elite
undergraduate institutions (Karabel & Astin, 1975), but also

104

are those from advantaged socioeconomic backgrounds more likely to turn the institutional status bestowed upon them into greater economic success (Karabel & McClelland, 1987).

In this study of high-achieving transfers, however, the income levels in Table 4, in contrast to the Medsker and Trent (1965) rank ordering of colleges, indicate an affluent socioeconomic background--64 percent with incomes above $40,000, 32 percent with incomes above $70,000, and 12 percent with incomes from $80,000 to $109,000--and the Karabel and McClelland (1987) prognosis for greater economic success.

Table 4 Family Income Levels

Study Set			Originally Ineligible	
No.	%	Income	No.	%
3	12.0	12,000--19,000	2	20.0
3	12.0	20,000--29,000		
3	12.0	30,000--39,000	1	10.0
4	16.0	40,000--59,000	1	10.0
4	16.0	60,000--69,000	2	20.0
5	20.0	70,000--79,000	3	30.0
1	4.0	80,000--99,000	1	10.0
2	8.0	100,000-109,000		
25	100.0		10	100.0

54,620	mean	45,750
45,000	median	62,500

But even though these transfers have affluent backgrounds, fifteen out of the twenty-five (sixty percent) indicate financial aid assistance, in some cases from **more than one source** as illustrated in Table 5: grants, loans, and

scholarships.

Table 5 Financial Aid

Income	No.	%	Grant	Loan	Scholarship
0------15,000	1	4.0	1		
16,000--30,000	5	20.0	4	4	
31,000--45,000	5	20.0	2	3	4
46,000--60,000	2	8.0			2
61,000--75,000	1	4.0		1	
76,000--90,000	0				
90,000--over	1	4.0			1

Moreover, the highest educational level of the father in Table 6 indicates that 52 percent of the fathers of these high-achieving students have an associate degree or higher, 36 percent have a baccalaureate or higher, 16 percent have a masters degree or higher, and 8 percent have a doctorate or advanced professional degree (JD, MD, DVM, DDS). For the originally ineligible, 60 percent of the fathers have an associate degree or higher.

Table 6 Highest Educational Level of Father

Study Set			Originally Ineligible	
No.	%	Educational Level	No.	%
2	8.0	less than h. s. diploma		
0	40.0	high school diploma	4	40.0
4	16.0	associate degree	2	20.0
5	20.0	baccalaureate	3	30.0
2	8.0	masters degree		
1	4.0	doctorate	1	10.0
1	4.0	advanced professional degree (JD, MD, DVM, DDS)		
25	100.0		10	100.0

In a study of the impact of parental education on the next generation, Gruca, Ethington, and Pascarella (1988) found that indirect effects--parental income, pre-college education aspirations, and the selection of the undergraduate institution--enhance the educational attainment for the offspring of college educated parents.

In addition, as illustrated in Table 7, fifty-two percent of the fathers occupy professional/managerial positions. Among the originally ineligible, sixty percent of the fathers hold professional/managerial positions.

Table 7 Occupation of Father

Student ID	Management/Professional	Student ID		Blue Collar
2	Engineer	*	1	Farmer
5	Professor/Librarian		3	Mechanic
6	Manager		4	Truck driver
* 7	County Treasurer	*	11	Carpenter
* 8	Assoc. Chief Council, IRS		14	Salesman
* 9	Professor	*	15	Technician
* 10	Engineer		16	Meat cutter
* 12	Engineer		18	Farmer/builder
* 13	Civil Service		19	Mechanic
17	Lawyer		21	Mechanic
20	Mining	*	23	Salesman
22	Vice Pres. of Printing		25	Railroad
24	Mathematician			conductor

* Originally ineligible

To determine the social position for these students, the researcher used Hollingshead's (1957) Two Factor Index of Social Position, a procedure premised upon occupation and education in a hierarchy: **occupations** with societal values

107

attached to them from the low evaluation of unskilled labor to the prestigious evaluation of creative ideas and control of other people; and **education** with societal values attached to similar educations, tastes, attitudes, and behavior patterns. In a study of factor analysis, demonstrating the existence of classes with mass communication data used as criteria of social behavior, Hollingshead and Redlich (1958) validated the assumption of meaningful correspondence between an estimated class position of individuals and their social behavior.

In this study of high-achieving students, seventy-two percent fall into the middle and upper level of the hierarchy of social position; and sixty-four percent have economic backgrounds in excess of $40,000. For the originally ineligible students, seventy percent fall into the middle and upper level of the hierarchy of social position; and seventy percent have economic backgrounds in excess of $40,000.

Table 8   Social Position

Study Set				Originally Ineligible	
No.	%	Social Class	Range Scores	No.	%
5	20.0	I	11-17	2	20.0
5	20.0	II	18-27	3	30.0
8	32.0	III	28-43	2	20.0
6	24.0	IV	44-60	3	30.0
1	4.0	V	61-77		
---	----				
25	100.0			10	100.0

Thus, although earlier research indicates that the two-year college attracts smaller proportions of students from high socioeconomic background (Astin, Panos, & Creager, 1967; Medsker & Trent, 1965), the socioeconomic status of these high-achieving students in this study reveal again the difficulty in determining the influence of ability and environmental factors. Although Lavin (1965) indicates in thirteen studies that SES is positively related to academic performance, Knoell and Medsker (1965) and Holstrom and Bisconti (1974) conclude that background characteristics are less important determinants of success after transfer than community college GPA. In a more recent study, Margraine (1978) notes that findings generally indicate that SES explains little variance in academic achievement beyond that explained by intellectual ability.

Community College Location. A study of the representation of transfers by community college location suggests that the geographical distribution of transfer students to Virginia Tech, whether a matter of choice or proximity, is not easily determined. For example, the largest representations from Northern Virginia and J. Sargeant Reynolds equal the numbers from New River, Southwest Virginia, and Wytheville; however, the absence of representation from the eastern community colleges seems to indicate a matter of proximity.

Table 9   Representative Community Colleges

Included in the Study   Outside the Study

Blue Ridge
Central VA 2   Danville
Dabney Lancaster.................2   Eastern Shore
J. Sargeant Reynolds............3   Germanna
Lord Fairfax....................1   John Tyler
New River.......................4   Mountain Empire
Northern VA.....................5   Paul D. Camp
Patrick Henry...................1   Piedmont Virginia
Southwest VA....................3   Rappahannock
Thomas Nelson...................1   Southside VA
Wytheville......................3   Tidewater
                                         VirginiaHighlands
                                         Virginia Western

A representation of forty-nine high-achieving Virginia
Community College transfer students with first semester GPA's
of 3.0 or greater (sixteen percent of the three hundred and
seven transfers) is an impressive group from the VCCS in
attendance at Virginia Tech when compared with the overall
twenty percent of high-achieving students from the entire
student body at Virginia Tech.   On the other hand, it is
regrettable that only ten of the twenty-three community
colleges are represented, a representation of only forty-three
percent.

    It should be noted also that the geographic area from
which Virginia Tech draws the bulk of its transfers is the
region with the lowest socioeconomic scale in Virginia, a
factor likely to affect the institutional characteristics of
the community colleges located in these counties: 1) fewer

sources of local funding for community college educational programs and 2) fewer opportunities for academic backgrounds. However, the close proximity of Virginia Tech to these community colleges presents the opportunity for a large pool of highly qualified adjunct faculty.

The institutional characteristics of these community colleges may also be affected by the transfer articulation: 1) more coordination in the curriculum for transferability of courses to Virginia Tech and 2) better preparation of the transfer advisors.

Academic Characteristics

Community College GPA. Community college GPA has proved over the years to be a good predictor of future performances of transfer students (Phlegar, 1978). Accordingly, Virginia Tech Admissions places emphasis on this achievement measure for the selection of transfer students to Virginia Tech and to colleges within the university and adjusts the GPA measure on a competitive basis for each entering class. The mean community college GPA for the study sample, entering Virginia Tech during the Fall of 1990, was 3.5341.

GPA and Transfer Shock. According to the literature, transfers incur transfer shock, an immediate drop in grades during the first semester at the senior institution (Knoell & Medsker, 1965; Hills, 1965; Nolan & Hall, 1978). However,

while transfer shock is especially characteristic of the
community college transfer, these high-achieving transfers
incur only a modest fall from a mean CC GPA of 3.5341 to a
mean VT GPA of 3.3313 as revealed in Table 10.

Table 10   Transfer Shock

		Community College GPA	VT GPA First Semester
Student	1	3.557	3.1923
	2	3.176	3.1705
	3	3.724	3.7000
	4	3.926	3.7666
	5	3.878	3.5882
	6	3.757	3.2750
	7	3.515	3.2117
	8	3.300	3.4250
	9	3.000	3.6000
	10	3.120	3.1200
	11	3.606	4.0000
	12	3.120	3.0000
	13	3.137	3.0000
	14	3.619	3.2941
	15	3.901	3.6800
	16	3.570	3.0000
	17	3.760	3.2384
	18	3.650	3.1400
	19	3.793	3.3333
	20	3.835	3.2500
	21	3.897	3.1200
	22	3.000	3.4692
	23	3.257	3.0000
	24	3.891	3.0083
	25	3.364	3.7000
		mean 3.5341	mean 3.3313

In addition, transfer shock has less effect on a student who
expects the new environment to be harder than the community
college. One student from the community college described her
first semester at Virginia Tech:

112

> I knew that I was in for transfer shock when I came to
> Virginia Tech, but I knew that the community college
> had prepared me well for the rigorous experience ahead of
> me. [NRCC]

For a variety of reasons--innate ability, motivation, and
self-discipline--the high-achieving community college transfer
copes with apprehension; but most likely he survives the
difficult first semester because of the self-confidence he
gained from his community college experience:

> It [the community college] gave me the confidence
> about my education and myself because in high school
> I felt inferior. It got me over that--I realized
> that I wasn't, and I felt that I could compete with
> the other students... [JSRCC]

Once past the first semester, research shows that the grades
of the community college transfer student generally rise until
there is no significant difference between the GPA of the
transfer and the GPA of the native student (Knoell & Medsker,
1965; Nolan & Hall, 1978).

Original Eligibility and Transfer Shock. Moreover, the
literature supports the observation that the first semester
performance of transfer students varies with the student's
original eligibility status: transfers eligible for the senior
institution upon graduation from high school perform better
during their first semester at the senior institution than
those transfers who do not have this status (Rinehart, 1977).
However, in this sample the mean community college GPA of
3.3875 for the originally ineligible student remains almost

113

constant during the first semester at the senior institution:
from a mean CC GPA of 3.3875 to a mean VT GPA of 3.3523.

Table 11   Original Ineligibility and Transfer Shock

Originally Ineligible		VT GPA First Semester
Student 1	3.557	3.1923
7	3.515	3.2117
8	3.300	3.4250
9	3.000	3.6000
10	3.120	3.1200
11	3.606	4.0000
12	3.120	3.0000
13	3.137	3.0000
14	3.619	3.2941
15	3.901	3.6800
mean	3.3875	mean 3.3523

GPA and Gender. Hughes (1968), Klein and Snyder (1969),
and Nickens (1972b)--all found gender a determinant of
transfer achievement for the community college transfer.   In
this study, as illustrated in Table 12, female gender relates
to the higher GPA: the mean for the female transfers is 3.4998
while the mean for the male transfers is only 3.1989.

Table 12   Community College GPA and Gender

Males		Females	
5	3.5882	11	4.0000
22	3.4692	4	3.7666
19	3.3333	25	3.7000
14	3.2941	3	3.7000
20	3.2500	15	3.6800
17	3.2384	9	3.6000
1	3.1923	8	3.4250
2	3.1705	6	3.2750
10	3.1200	7	3.2117
21	3.1200	18	3.1400
24	3.0083	12	3.0000
16	3.0000		
13	3.0000		
23	3.0000		
	3.1989	mean	3.4998
	3.1814	median	3.6000

GPA and College Location.   Moreover, some researchers
consider the location of the community college influential
upon academic performance at the senior institution.   For
example, Place (1961) found evidence suggesting that students
from larger community colleges are more successful at senior
institutions in contrast to Chickering (1969) who found
institutional size negatively associated with academic
achievement; moreover, Hartman and Caple (1969) reported that
students from rural community colleges performed better than
those who attended urban community colleges.   In addition,
Hoyt (1960), Lindia (1971), McCook (1973), and Phlegar (1978)
found that the community college attended correlated
significantly with transfer student achievement at the senior

institution. In this study also, students from small rural community colleges are more successful at the senior institution than those from large urban community colleges.

Table 13 College Location and VT GPA First Semester

Community College	Student #	CC GPA	Mean
New River	9	3.6000	
	11	4.0000	
	13	3.0000	
	15	3.6800.........	3.5700
Wytheville	1	3.1923	
	3	3.7000	
	4	3.7666.........	3.5530
Dabney Lancaster	23	3.0000	
	25	3.7000.........	3.3500
Southwest VA	5	3.5882	
	20	3.2500	
	21	3.1200.........	3.3194
Lord Fairfax	6	3.2750.........	3.2750
J. Sargeant Reynolds	2	3.1705	
	14	3.2941	
	19	3.3333.........	3.2660
Central VA	22	3.4692	
	16	3.0000.........	3.2346
Patrick Henry	7	3.2117.........	3.2117
Northern VA	8	3.4250	
	10	3.1200	
	12	3.0000	
	17	3.2384	
	18	3.1400.........	3.1847
Thomas Nelson	24	3.0083.........	3.0083

Major at VT. Statistics from the majors of Fall 1990 transfers who entered Virginia Tech with upper division standing suggest few trends, except perhaps a parallel with the diversity in the social trends of the nineties. Transfer students prefer majors in Engineering and Management: 28% of the men elect majors in Engineering and 20% of the women elect majors in Management. The declining interest in Education, only 12% from the group with majors in Education, does not favor the university's efforts to affect the classroom of the future or relate to the current interest in education.

Table 14 Major at Virginia Tech

Curriculum		Male	Female
AGEC	Agricultural Economics		1
BIOL	Biology	1	
CE	Civil Engineering	3	
CHE	Chemical Engineering	1	
COMM	Communications		1
CSES	Crop & Soil Environmental Sciences	1	
EDHL	Health Education		1
EDVT	Vocational Education	2	1
EE	Electrical Engineering	1	
ENGL	English	1	
FCD	Family & Child Development		1
HORT	Horticulture		1
LASC	Liberal Arts & Sciences		1
ME	Mechanical Engineering	2	
MGT	Management		5
MINE	Mining Engineering	1	

No unanimity exists to support the theory that the choice of major at the senior institution relates to the academic success of transfers. For example, Lindia (1971)

117

found no significant relationship between transfer student major and student GPA at the senior institution; on the other hand, McCook (1973) found higher transfer student academic achievement in some student majors at the senior institution.

Associate Degree Attainment. An analysis of the sample shows that fifteen of the high-achieving transfers attained the A. A. degree prior to transfer: a 60 percent rate of associate degree attainment prior to transfer. The distribution of associate degrees by curriculum in Table 15 reveals Business Administration and Engineering as the curricula with the greatest rate of degree attainment prior to transfer.

Table 15 A. A. Degree Attainment Prior to Transfer

Study Set			Originally Ineligible	
No.	%	Major	No.	%
7	28.0	Business Administration	4	40.0
5	20.0	Engineering	2	20.0
1	4.0	General Studies	1	10.0
1	4.0	Nursing		
1	4.0	Science		
15	60.0		7	70.0

Semester Hours Transferred. The mean of 50.36 for semester hours transferred in Table 16 confirms the low incidence of A. A. degree completion, nearly ten credits less than the minimum credit total for an associate degree in Virginia, because a higher frequency of degree attainment

118

would increase the semester hours transferred. For those originally ineligible, the percentage for degree attainment and hours transferred is significantly higher.

Table 16   Semester Hours Transferred to Virginia Tech

Study Set			Originally Ineligible	
No.	%	Hours	No.	%
1	4.0	0--12		
2	8.0	13--30		
6	24.0	31--39	2	20.0
1	4.0	40--50	1	10.0
2	8.0	51--59	7	70.0
13	52.0	60--68		
25	100.0		10	100.0

50.36	mean	55.40
60.00	median	62.00

Research findings in support of semester hours transferred or the attainment of the associate degree as predictive of success at the senior institution are mixed and less supportive than those for the community college GPA. Although Knoell and Medsker (1965) conclude that transfers with less than sixty hours reduce the probability of obtaining the baccalaureate, Federico and Shoemaker (1974) and Lindia (1971) found no significant relationship between community college hours transferred and senior college GPA. Phlegar (1978), on the other hand, found that both transfer hours and the associate degree are predictive of success at the senior institution.

Terms in Attendance at the Community College. An
analysis of the terms in attendance for the high-achieving
transfer at the community college reveals the traditional two-
year (four semester transfer) sequence in Table 17. The total
terms of attendance at the community college is a significant
characteristic for this study: it reflects the potential for
the impact of the community college effect. (Higher numbers
of terms at the community college can be associated with more
significant impact and also part-time enrollment, and lower
numbers of terms can be associated with less impact as well as
full-time enrollment.)

Table 17 Terms of Attendance at the Community College

Study Set			Originally Ineligible	
No.	%	Terms	No.	%
0		one		
3	12.0	two		
1	4.0	three		
10	40.0	four	3	30.0
5	20.0	five	4	40.0
1	4.0	six		
0		seven		
2	8.0	eight	2	20.0
1	4.0	nine		
1	4.0	ten		
0		eleven		
1	4.0	twelve	1	10.0
25	100.0		10	100.0

5	mean	6	
4	median	5	

Personal Characteristics

Principal Reason for Studying. In addition to the terms in attendance at the community college, the researcher asked the student to select, from among Chickering's (1970) suggested choices, the one reason which most closely reflected the student's primary reason for studying at the community college. In Table 18, one observes that a sense of mastering the material is far more important than a sense of learning something useful for a vocation or future activity, an attitude which, when coupled with the attitude toward education and self-concept, seems to characterize the idealism of the high-achieving transfer. Apparently, however, idealism does have its limitations: no one in this sample studies to enjoy the experience of learning.

In addition, the attitudes of these high-achievers parallel those in the Medsker and Trent (1965) study: for the college graduate, the main purpose of education is to gain knowledge and appreciate ideas; for the non-attender or dropout, the value of an education is to acquire vocational skills.

Table 18   Principal Reason for Studying

Reason	No.	%
To have a sense of mastering the material, of doing a job well	14	56.0
To broaden my general knowledge, understanding, or background	4	16.0
To learn something useful for a vocation or future activity	4	16.0
To complete a requirement for graduation and academic credit	3	12.0
To enjoy the experience of learning	0	0.0
	25	100.0

Study Habits.   That the high-achieving student feels that mastering the material is the principal reason for studying is revealed also in his study habits at the community college. In the response to the researcher's inquiry into **study habits**, almost all of the high-achievers generalized a pattern of "studying all the time" with one poetic description of a "twenty-four hour" ritual: "You go to bed with it on your mind, and you wake up with it on your mind. You dream about it."   One high-achiever, however, was more academic about his study habits: "two hours for every hour in the class."   In addition to time investment, these high-achievers realize that goals require **commitment**: "I know that it takes dedication and perseverance to obtain goals. Sometimes I have to stay up all night to get the necessary studying done."

122

But these high-achievers express an awareness that commitment functions best with know-how to achieve goals. For example, almost every high-achiever recognizes the value of **class attendance** when he says that he "attends every class" or "hates to miss class" and acknowledges **time management** as an asset when he says that:

> I'm not one to procrastinate. When I was given an assignment, I would start working on it and not wait until the last minute. Also with exams, I was not one who studied the night before.   [DLCC]

> I put time aside every day for studying. If I go out for dinner or play tennis, it just means that I stay up later to study.   [JSRCC]

> With a part-time job...I try to start before hand any major projects that are due. I've learned a lot about time management.   [WCC]

Moreover, the high-achiever demonstrates established **study skills** in approaching his responsibilities as a student:

> I try to keep up...I go over what the professor has marked. I even review things that I got correct so the processes are fresh in my head. I use the homework assignments to gear toward test questions.
>   [NVCC]

> When I read (I just can't read), I have to take notes on the book. So, I take notes on all the chapters for the tests and notes in class; then two or three days before the test, I go over everything.
>   [NRCC]

In the literature relating study habits with academic performance, Entwistle, Entwistle, and Cowell (1971) and Wankowski and Cox (1973) found higher correlations with success at polytechnics than at universities. Moreover,

Entwistle, et al (1971) found that students with good study habits tend to be introverted, an observation true in this research study also. (See **Self-concept** under **Personal Characteristics**.) However, it is ironic that although academic success is associated with introversion and highly motivated students with good study habits, Entwistle, et al (1971) found a tendency for highly motivated students to be extroverted and those with good study habits to be introverted.

Reasons for Attending the Community College. In keeping with the traditional description of the community college student as influenced more by practical considerations and less by intellectual interests than his peers in four-year colleges (Knoell & Medsker, 1965), the high-achieving student in this study attended the community college with priorities for cost efficiency and location as the predominant attraction; however, the high-achieving student was also undecided about his interest and abilities so that he was unwilling to risk his academic future in a four-year institution until he tried the role of a college student. Thus, the reasons for attending the community college remain identical to those expressed among community college students nearly thirty years ago (Knoell & Medsker, 1965).

Table 19 Reasons for Attending the Community College

```
1..........2..........3..........4..........5
Low                                        HIGH
```

    4.08   College location
    4.08   Cost efficiency
    3.48   Opportunity to discover your
              ability and/or interest
    2.68   Developmental courses in basic skills
    2.52   Easier to transfer to VT than to be
              admitted as freshman
    2.28   Special program availability
    1.88   Financial aid

In the words of one high-achieving student, who summarized the reasons generalized by most of the students in the study, the predominant reasons for community college attendance rest with location, cost efficiency, and the opportunity to discover ability:

> I selected the community college because of its **location, cost, and my own insecurities** about my ability. I needed that slower approach to college--the community college. I always feel that the community college is geared toward the people who are working and trying to raise money to go to college... So that was part of it, but basically I was not sure what I wanted to do yet.   [JSRCC]

Self-concepts. In their early study of junior college students who transferred to senior colleges and universities, Knoell and Medsker (1965) found that nearly one-third of the transfers indicated concern for their academic preparation as the reason for attending the junior college; and in interviews a year later after transfer, the students confided that they were not willing to risk their academic futures in senior

colleges until they had the opportunity to discover their abilities at the junior college. Moreover, data in the ACE and SCOPE studies (Astin, Panos, & Creager, 1967) suggest that junior college students feel that they are academically unprepared: fifty-seven percent of those who enter senior colleges feel self-confident compared with only twenty-nine percent of those who enter junior colleges. In this study, more than twenty years since the observations of Knoell and Medsker (1965) and Astin, et al (1967), the researcher finds that over seventy percent of these high-achieving transfers attended the community college to explore their academic abilities and that they rank the opportunity to discover their abilities and interests as third among reasons for attending the community college. Thus, it appears that the two-year college student remains less confident than his senior college peer.

However, two years after the high-achiever attends the community college, the significance of which is explored in the section titled Influential Aspects of the Community College, the high-achiever adopts a new self-concept. For example, in interview requests for five adjectives associated with the high-achiever's self-concept, an effort to formulate a self-portrait of these students, the researcher finds that **self-confidence** appears in fifty-two percent of the student responses.

Table 20   Adjectives Associated with High-Achievers'
                        Self-concept

Adjective	Repetitions	Percent
Self-confident	13	52.0
Self-motivated	10	40.0
Introverted	8	32.0
Persistent/determined	5	20.0
Hardworking	5	20.0
Reliable/responsible/dependable	4	16.0
Caring	4	16.0

Based on Chickering's (1958) theory that success enhances feelings of self-confidence and that learning improves as the self-concept becomes more favorable, the self-portrait of these high-achievers reveals a positive relationship between actual self-perceptions and achievement, not ideal self-perceptions and achievement.

In addition, the researcher's measurement of self-concept in the questionnaire supports the findings of the interview data: self-confidence in academic ability.   Lack of confidence in leadership ability may be related to fewer opportunities for student involvement at the community college, and lack of confidence in social skills may be related to the introverted character of the student who devotes his time to academics rather than socializing with friends.   (Both his study habits and his self-image as an introvert tend to support these conclusions.)

Table 21   Student Perception of Traits

```
1.......2.......3........4.......5
LOW                              HIGH
```

```
4.28   Self-discipline
4.20   Emotional health
4.12   Academic ability
4.12   Physical health
3.68   Self-confidence (social)
3.68   Leadership ability
3.52   Athletic ability
3.40   Mechanical ability
2.52   Artistic ability
```

To complete the portrait of these high-achievers, the researcher attempted to envision the life direction and values of the high-achiever. According to Chickering (1958), the self-concept provides a frame of reference for the individual struggling to maintain harmony within himself as well as his environment in a condition of stability. Thus, once the individual is secure with his self-concept, he is free from the evaluations of society to launch goals that may be contrary to the social values around him. For this researcher, the point of interest was the discovery of the goal that would give the high-achiever the greatest satisfaction in life.

Table 22   The Greatest Satisfaction in Life

Greatest Satisfaction	No.	%
Marriage and family relationships	11	44.0
Contributions to people and society	5	20.0
Career or occupation	5	20.0
Financial success	3	12.0
Leisure-time activities (hobbies, sports)	1	4.0
Religious activities	0	0.0
Literature, art, and music	0	0.0
	25	100.0

Of some interest is that these high-achievers cite marriage and family relationships as a greater satisfaction than financial success, a choice selection in contrast with current social mores. Thus, the assimilation of an effective self-concept bestows upon these individuals an independent regulator of self-esteem supporting Chickering's observation (1958).

In addition, the difference between the personal interests of the two-year and four-year college student observed over twenty years ago (Cross, 1968) appears to have undergone a metamorphosis: the four-year college student then was more likely to express humanitarian concerns whereas the two-year college student was somewhat more concerned about business and financial matters. In this study, however, the high-achiever expresses greater interest in humanitarian concerns than financial matters, also a choice selection in contrast with current social mores.

Attitude toward Education. Earlier literature reviews found that college seniors placed greater emphasis on the intrinsic values of an education and less emphasis on vocational or career education (Trent & Medsker, 1968; Feldman & Newcomb, 1969). In the nearly three decades since these studies, research into educational value change, though extremely scarce, reveals no change.

With in-depth interviews directed toward gaining insights into the high-achiever's expectations about his learning experiences, the researcher probed the student's motivation for learning with a pragmatic question about his expected rewards. In terms of benefits for the individual, the high-achiever's attitude toward education encompassed education as "the best thing anyone can do for himself...to broaden his horizons...in the development of the individual...so that he can survive in a competitive world."

> It is the **best thing** anyone can do for himself.
> An education broadens one's perspective--the well-
> rounded individual. One learns about people, thinks
> effectively, and grows intellectually. [PHCC]
>
> An education is the **best thing** to own--per dollar.
> I mean you can pay for something and lose it, but
> you can pay for an education and never lose it.
> [CVCC]

An education **broadens your horizons.** You go
from a narrow-minded focus on things to a more
open-minded approach, and an education allows
you to see things from a more informed opinion,
a better educated opinion. It makes you
receptive to seeing other people's viewpoints,
and whether you accept them or not, you at least
realize that they have a right to their opinions.
It [an education] makes you more aware of the
world around you.   [WCC]

To **broaden your horizons** just makes you excell
more and builds to a lot of self-confidence.
                                          [DLCC]

It helps you **develop as an individual.** It helps
you understand things that you want to do with
your life and makes your life different.
                                          [NVCC]

It is necessary for survival in a competitive
society and essential for **development of the
individual.**   [JSRCC]

In order to survive in today's society, you need
an education. A lot of **competition** is out there.
                                          [WCC]

Just the statistics of people with an education
tells you that you must have an education. You
must have an education **to compete** out there.
                                          [SVCC]

In rating expectations in terms of its motivation of the

individual, the high-achiever considered professional

advancement and cognitive interest as the most significant.

Thus, the high-achiever anticipates that the benefits of an

education are two-fold: for the individual and for the

professional. In the Medsker and Trent (1965) study, however,

the college achiever's attitude toward education enclosed

knowledge and appreciation of ideas whereas the non-achiever

131

viewed education only from the perspective of vocational expectations.

Table 23   Rating of Expectations of Learning

```
1.......2........3........4........5
LOW                              HIGH
```

    4.56 Professional advancement (to secure advancement)
    3.92 Cognitive interest (to satisfy an inquiring mind)
    3.72 Social welfare (to serve mankind or community)
    2.80 Escape/stimulation (to contrast with routine)
    2.56 **External** expectations (to satisfy some authority)
    2.32 Social (to fulfill need for friendships)

Educational Aspirations. In response to the researcher's inquiry into the educational aspirations of the student upon entry to the community college, eighty percent of the sample indicated the baccalaureate or a higher degree, an almost perfect correlation with the 78.5 percent response indicated in the most recent survey of full-time college freshmen (Astin, 1984). According to Astin (1983), initial degree aspiration is strongly related to retention, actual degree attainment, and entry into graduate studies. For those originally ineligible, the degree aspiration was identical-- eighty percent.

Table 24 Highest Aspiration **Upon Entry** to the C C

	Study Set				Originally Ineligible	
No.	%	Highest Aspiration	No.	%
0		no degree		
5	20.0	associate degree	2	20.0
17	68.0	baccalaureate	8	80.0
2	8.0	masters		
1	4.0	doctorate		
0		advanced degree (JD, MD, DVM, DDS)		
25	100.0		10	100.0

With the American dream for upward mobility in these responses, it is appears that the community college performs a "warm-up or cooling-in" function for those "who perform better scholastically than they did in high school and who raise rather than lower their aspirations...moved by observant personnel or by their own efforts to transfer courses" (Clark, 1980, p. 25). Upon entry to the community college, eighty percent indicate the baccalaureate or higher; but after transfer, seventy-two percent want degrees **beyond** the baccalaureate. (Of some significance also is that upon entry to the community college, none of the originally ineligible students want advanced degrees; however, after transfer--after a "warm-up" function at the community college--the originally ineligible shares almost identical aspirations with the originally eligible.)

Table 25   Highest Aspiration **After Transfer** to VT

Study Set		Highest Aspiration	Originally Ineligible	
No.	%		No.	%
7	28.0	baccalaureate	3	30.0
13	52.0	master	5	50.0
5	20.0	doctorate advanced degree (JD, MD, DVM, DDS)	2	20.0
25	100.0		10	100.0

Of course, all educators know students who pass through college accumulating the credits without ever experiencing the excitement or stimulation of learning.   To examine the intensity or depth of commitment to these goals, the researcher asked the high-achiever just how important his goal was to him.

> In about six weeks I'm getting my bachelor's degree, a source of great satisfaction to me....
> I like to achieve so it's important that I keep achieving, that I don't become content. With what I've done now, it is important that I continue.   [WCC]

> My education has always come first. It controls the quality of my life.   [LFCC]

> I've always known that I would be a mining engineer. and once I've decided that I'm going to do something, I follow through with it.   [SVCC]

Motivation.   In a society increasingly dependent upon educated citizens and commitment to a national goal of higher education, educators need to know what stimulus fosters participation in learning. With the removal of the economic

134

barrier to education so that the socioeconomic condition is not an obstacle, it would appear that a college education would be determined solely by ability; however, Medsker and Trent (1965) and Brint and Karabel (1989) discovered that forty percent of the students with college ability do not attend college. According to Cross (1967) and this researcher, the motivation for participation in learning lies beyond ability.

In this study of the high-achieving student, the researcher explores the source of the student's motivation for an education: the relationship of socioeconomic status to college attendance, the parental attitude toward education, and life transitions (significant changes calling for adjustment to a new phase in life).

In the Medsker and Trent (1965) study, students with upper socioeconomic status entered college and those with lower socioeconomic status did not enter--in both cases, regardless of ability. Even when the student from the lower socioeconomic family entered college, he tended to drop out, even though he had no academic difficulty. What distinguished these two groups was parental influence, a source for academic motivation. In this study, with the economic barrier to education no longer an obstacle in economic backgrounds ranging from $12,000 to $109,000, seventy-six percent of these high-achieving students attributed college attendance to

parental influence--the source for motivation.

Thus, the student's perception of **parental attitude toward education** influenced these students to attend college.

> It is expected in my family that you go to
> school...my sister went off to college to do
> her thing, and then my brother. To see these
> people aspire to their goals--my mom, a
> bachelor's and my dad, a master's--in that
> direction they pushed me.   [SVCC]

> My father, an electrical engineer, was my role
> model, who impressed upon me that he didn't want
> me to be dependent on anyone: to be prepared for
> anything that life might bring. [NVCC]

Also, in the context of the family setting, among fifty-two percent of the fathers and twenty-eight percent of the mothers with an associate degree or higher, the parental attitude toward college was constant throughout the early life of the student:

> It was just assumed in my family that my sister and
> I would go to college. My dad was a lawyer, and my
> mom, who didn't go as far in college as she wanted,
> later went back when we were teenagers. **College
> was just around us and expected of us.** [NVCC]

In a limited number of cases, twenty-four percent of the study, a **life transition** (significant change calling for adjustment to a new phase in life) influenced the student to seek a college education. For example, one individual, who went to work for a corporation right out of high school, found himself in a less enjoyable position when another corporation bought out his employer:

Most people learn a trade to rely on for life, but I wanted an education to rely on for the rest of my career. **Life changes just as the corporation changed.** [JSRCC]

In another instance, after four years of working as a draftsman, the individual observed

I was topping out in my career as an engineering draftsman so I needed the engineering degree to progress further. [CVCC]

In the case of a high school dropout, the transition for the individual was the loss of his job:

I didn't know that I wanted to be a teacher until June of '90 when I lost my job at textiles...now I want to teach business education at the postsecondary level and assist high school dropouts like me to continue their education. [WCC]

And then there were two interesting exceptions to parental influence and life transitions as the stimulus for motivation: one, a pragmatist who saw the benefits of earning a degree

I think what motivated me most to attend college was that I saw that most of the people who did well (who could get ahead) had a college degree.... that a degree opens doors and provides more opportunities.

And also another thing that made me want a degree is that someone who puts in the time makes a statement about himself--that he can persist.
                                        [WCC]

and another, a dedicated Hokie even before she arrived at Virginia Tech confessed

137

> I knew in high school that I wanted to go to VT.
> Even in the ninth grade, I knew that I wanted to go.
> My cousins, all graduates from VT, enforced it into
> me...My whole life I just wanted to go. [NRCC]

Family Environment. The two groups--the originally eligible and originally ineligible--are remarkably similar in regard to their family backgrounds. If the researcher could use but one word to describe the home environment for the high-achiever, it would be <u>stable</u>. However, the lives of these young adults were by no means without conflict--four divorces (all in the early years with extended families), a mother with polio, another with a nervous disorder, a father with a mental breakdown, and an adopted girl who "felt different in her early childhood"--but in all these instances, the student considered himself happy and emotionally well-adjusted. One student, representative of others, characterized his family life as a "Leave it to Beaver," and described his mother as a homemaker, one of many with this attitude.

In the literature associating background characteristics with academic achievement, Miller (1970) found positive correlation between academic achievement and a stable and harmonious family background and, in general, student's background characteristics useful as a predictor for success for the high ability student. However, based on the observation that background characteristics, often

138

contradictory, account for little variance beyond that accounted for by intellectual ability, Margrain (1978) suggests cluster analysis and the observation that "students might not be the sole arbiters of their success" (p. 121); thus, the suggestion of collegiate impact enters as a greater significance in academic performance.

Influential Aspects of the Community College Experience

An institutional environment with emphasis on intellectual development of the student should foster conditions that lead to a commitment to learning: **an institutional commitment to learning** and **the self-initiated efforts of the student toward learning.** For the student who begins his higher education in a community college, the college orientation towards learning--reflected in its student involvement, faculty-student interaction, elimination of barriers to learning, and transfer function effectiveness--can be significant in assisting the student toward a commitment to learning. Thus, the institution has the responsibility for creating conditions stimulating student commitment to learning, a joint effort between the institution and the individual, so that the student will take advantage of every opportunity for involvement in the academic environment.

Self-confidence. In interviewing each student for his experiences during the first semester at the community

college, the researcher observed the tremendous gain in **self-confidence** attributed to the community college experience. For example, a student, representative of the high-achiever, confided that:

> In my case it [the community college] helped me grow up. It gave me the confidence about my education and myself because in high school I felt inferior. It got me over that--I realized that I wasn't, and I felt that I could compete with the other students....I wouldn't trade the experience for anything. [JSRCC]

Moreover, without exception the students in this study commented that they would not have been as successful at Virginia Tech without the community experience.

At the entry point of his college career, eager to assess academic accomplishments, the community college student discovers his "frog pond" (Davis, 1966) where his initial success becomes his aspiration. In this respect, the most significant response came from a thirty-three year old, a high school dropout who was originally ineligible for admission to Virginia Tech:

> I never made A's before. In high school it was C's and D's--I really could not accomplish anything. But I had the desire to go--so strong and now stronger. And ladders were always there [at the community college] to help me--telling me to get more education. [WCC]

Also, of some significance is that upon entry to the community college, none of the originally ineligible students want advanced degrees; however, after transfer--after a "warm-up" function at the community college--the originally ineligible

140

shares almost identical aspirations with the originally eligible. For the originally ineligible student, like these, first time success leads to feelings of self-confidence and self-esteem.

Student Involvement

Institutions create campus activities not only to reinforce the professors' aims in the classroom but also to promote student development by means other than those introduced in the classroom. In the words of Coles (1963), the President of Bowdoin,

> It is not reasonable to expect that what
> the best professors can do in fifteen hours
> in the classroom can be fully effective if
> the remaining hours of the student's week
> are spent in an environment unsympathetic
> to what the professor would accomplish (p. 7).

Moreover, research shows that out-of-class experience has a major impact on college students--emotionally, socially, morally (Astin, 1977; Bowen, 1977; Chickering, 1974a, 1974b; Feldman & Newcomb, 1969).

Peer influence. The initial academic success serves as an impetus for student involvement with the community college. In this study, although the student was commuting during his studies at the community college, the peer influence introduced into the college environment should integrate him into harmony with institutional goals. However, the high-achieving student isolated himself from the sanctions of his

141

fellow non-achievers against academic achievement:

> I get frustrated with people who don't put enough
> effort into school. High school, I can understand; but
> college--this is the rest of your life. I couldn't make
> friends with people who don't understand. I like people
> who have a sense of direction--who seem to know where
> they are going.   [SVCC]

Nevertheless, the high-achiever, perceptive about those who shared his educational goal, identified with those students like him:

> A particular friend from my math class, an older guy
> with a daughter in college, had decided to come back
> to college to get a degree in math because he had
> always wanted to teach. I had a lot of respect for
> him--giving up a good job at his age to do what he
> wanted to do. I know the turmoil that I went through
> when I was thinking about school. I can imagine what
> it must have been like for him.   [SVCC]

Moreover, the high-achieving student, seeking moral and academic support, benefited from the peer influence of support groups with common concerns:

> Everybody in engineering (you know, we were all
> friends) would work together on homework assign-
> ments that were real tough, which the instructors
> did not care as long as you did not copy; so, by
> working together, everybody got pretty close.   [SVCC]

In the words of one student describing her community college experience, the rewards from peers are as valuable as those offered by the faculty, an observation also supported in the literature (Chickering, 1969; Feldman & Newcomb, 1969):

> I got more than an academic education from the
> community college. I met people like me--motivated
> to do something with their lives--and I learned
> from them.   [NRCC]

Campus Involvement. To this researcher, while the twenty-three institutions in the VCCS initiate institutional bonding with the development of self-esteem, they show limited implementation of service-related activities to bring peer influence and campus involvement into harmony with institutional goals. In this study, for example, these high-achieving transfers indicate only twenty-eight percent participation in **honors program** involvement and twenty percent participation in **campus activities.**

Table 26   Campus Involvement

```
1.............2..............3.............4
NONE       LIMITED     FULL-FLEDGED    LEADERSHIP
```

1.50   Social service or special ed. work (tutoring,
       leading youth groups, leading recreation, etc.)
1.40   Varsity or intramural sports
1.36   On-campus organizations for students interested
       in a special vocational or academic field
1.36   Groups for student recreation (folk dancing,
       hobby, group, etc.)
1.24   Student government
1.24   Drama, music, and art activities
1.12   School spirit and hospitality organizations
       (including freshman orientation committees,
       guides, and pep rally groups)
1.08   Journalism, broadcasting, literary activities
1.00   Activities sponsored by religious groups

1.16   Other: faculty-student get-to-gethers and
       political activities

Residential Housing. Although the underlying assumption in the literature is that student integration predicts greater academic success and student development for the residential

student (Astin, 1977; Chickering, 1974a; Pascarella, 1985c),
it is not possible for community college students to move into
student residences; but, as Chickering (1974a) points out,
residential life need not be continuous to create peer
relationships and faculty-student relationships that foster
development, for example short-term, special residential
experiences such as retreats, workshops, field trips, and
extended seminars to approximate residential experiences for
students, none of which was in evidence in this sample.

In this study of the high-achiever, the student lived
with his parents, of course, while he was at the community
college; but even when the opportunity presented itself for
residential housing, he selected off-campus while he was at
Virginia Tech.

Table 27 On/Off-campus Housing

At the Community College				At Virginia Tech			
Parents		Own Place		On-campus		Off-campus	
N	%	N	%	N	%	N	%
20	80.0	5	20.0	3	12.0	22	88.0

Of some significance is the student's reasoning for the off-
campus housing at Virginia Tech. For example, one student
confided

> I was intimidated by the university environment
> an observation reinforced when I stayed down here
> [VT] and lived in the dorm for a semester. I
> realized the difference in value systems: things
> really bothered me in the dorms...students too
> busy having a good time rather than focusing on
> the reason that they are here. (I had to use ear
> plugs to study in the dorm.) I don't think that
> I would have been successful if I had come
> here [VT] as a freshman.   [WCC]

Thus, the high-achiever's ability to isolate himself from his peers and insulate against an environment in conflict with his goals lends further evidence of his self-motivation and self-directed learning.

Faculty-student Interaction

Although student involvement is theoretically an element in the integration of the student with the institutional environment, it is not a contributor toward the success of the high-achieving student in this study. An even more important influential aspect of integration, however, is faculty-student interaction.

In the late 60's, the impersonal relationship between faculty and students, specifically the faculty-student experience beyond the classroom, was the contributor to much of the unrest in academic institutions (Taylor, 1971). During this period, the controversy surrounding higher education emphasized the philosophical attitude that college impact includes not only knowledge but also developmental education. Inherent in this perspective are two concepts: faculty-student

145

interaction is a decisive determinant of collegiate impact (Chickering, 1969), and the college as a socializing organization (Newcomb, 1966) comprises the student's "interpersonal environment" (Rossi, 1966)--both of which find justification in theory from sociology and psychology. In the socializing environment of the institution, "the set of stimuli presented to the individual by those persons with whom he is in contact on a direct and unmediated basis" (Rossi, 1966, p. 200), the student, who theoretically reduces the differences between himself and his interpersonal environment, assumes faculty attitudes and intellectual values.

To evaluate collegiate impact in this research study, the researcher explored faculty-student interaction in the VCCS: the opportunity for interaction, topics of interaction, characteristics of influential faculty, and student-faculty experiences with impact.

Opportunity for Interaction. According to the research of Wilson, Gaff, Dienst, Wood, & Bavry (1975), one common characteristic of the effective professor is accessibility to the student outside the classroom:

> The attempts of effective teachers to stimulate,
> to relate, and to educate are not limited to their
> classroom activities; they are more frequently
> interact with students beyond the classroom as well,
> discussing careers and educational plans, course-
> related ideas, campus issues, and problems of
> immediate personal concern to individual students...
> by keeping office hours and frequenting student
> gathering places, lounges, or cafeterias" (pp. 192-193).

146

In this research study, for instance, the high-achieving
student indicates a high rating for the opportunity to visit
the professor.

Table 28   Amount of Opportunity to Acquaint with Faculty

    LOW   1........2.........3.........4........5   HIGH
                  4 (16%)   2 (8%)   4 (16%)   15 (60%)

Moreover, seventy-two percent of the high-achieving students
indicate that the professors at the community college welcome
a visit to discuss **ideas** encountered in a course, and eighty
percent indicate that the professors welcome a visit to
discuss **difficulties** encountered in a course.

  Topics of Interaction. In their study of faculty-student
interaction and college persistence, Pascarella and Terenzini
(1977) found that not only faculty-student involvement but
also certain types of interaction are more significant than
others: contacts centering on intellectual or course-related
matters and relating to career concerns contribute the most
toward faculty-student interaction:

> Perhaps it is in helping the student develop an
> interest in ideas and intellectual concern which
> extends beyond the classroom into more leisurely
> interpersonal settings that student-faculty informal
> relationships have their most significant impact on
> students' social and academic integration (pp. 550-551).

In a more recent study, Pascarella and Terenzini (1980) extend
their results to include "the potential importance of faculty,

147

in both their formal teaching and informal nonteaching roles" and to observe "the quality and impact of student-faculty relations...as greater contributions than peer relationships" (p. 72).

In this study of high-achieving transfers, the topics of interest in faculty-student relationships support the observation that contacts centering on intellectual matters and relating to career concerns contribute the most toward student-faculty interaction as revealed in Table 29.

Table 29   Topics of Conversation in Rank Order

  1.   General conversations, humorous and/or serious
  2.   Topics in the academic field of the faculty member
  3.   Questions about future education or career plans
  4.   Academic matters (scheduling, requirements, credits,
          etc.)
  5. Issues in student's personal life (academic and social)
  6.   Campus events, activities, issues

Characteristics of the Faculty. In any institution, the professor is likely to respond to enthusiastic and intelligent students; but at the community college, as London (1978) described, when the instructor finds one smiling face among all the bored or distracted ones, he responds to a more imminent challenge inculcated in the institutional mission:

> I think the most satisfying kind of student for the
> community college teacher is the student who never
> intended to go to college, never felt he or she had
> the academic ability or never had the financial re-
> sources or whatever, came to the community college
> more or less because it was there, and found himself
> or herself, and found a field of study, be it career
> or transfer, and then went on and made a future from
> nothing. I've had students like that who found their
> opportunity, found themselves in the community college,
> and this is tremendously satisfying (London, 1978,
> p. 127).

However, according to the Wilson, et al (1975) research into faculty-student interaction reveals that faculty members with the greatest impact upon students contrast with other faculty in specific ways: first, they are more interested in teaching than in research; secondly, they are more likely to use anecdotes, humorous stories, and their own experiences; thirdly, they are more likely to talk with students about issues of the times, such as drugs, sex, and alternative life-styles.

In this study of high-achieving transfers, the researcher found illustrations of these faculty characteristics:

> A professor at the community college, a well-rounded
> engineer, gave me a lot of ideas and stuff about
> things. A Hindu, **he taught me about his religion.**
> So, it was more person to person rather than faculty
> to student. But he was good about wanting his
> students to be well-rounded as engineers...He gave
> me a lot of things that engineers don't have
> because they are technical people.   [SVCC]

149

Dr. G. showed genuine concern for his students.
Considering that this is a community college
without a lot of lee-way in course selection,
he went out on a limb for me and three other
students and got us a class in animal behavior
with just five students. He spent a whole semester
teaching just five students. (He didn't even get
paid for it!) But the best part was that he was
eloquent but yet **comic in his presentations:** he
supported his lecture material with humorous
illustrations.   [SVCC]

I think that the professor who made an impact on me
was my English instructor. I could relate to him be-
cause **we played intramural softball together:** he was
on the faculty team and we played for the other team.
Also **he made jokes in class** and just made the course
smooth.   [DLCC]

The drafting instructor at the community college,
Professor P., **helped the engineering students build a
bateau** for the technology festival, a 40' long and 8'
wide wooden boat that went down the river at the end
of the semester.   [CVCC]

In addition to these distinguishing characteristics
illustrated in faculty-student interaction, the researcher
also found tributes to the dedication of the community college
professor:

I felt that the professors actually and
sincerely cared about their students. It
wasn't just a job to them; they loved what
they did.   [DLCC]

Experiences with Faculty. However, the effectiveness of
the student development relies not only upon the personal
qualities of the community college instructor but also upon
his experiences with the student outside the classroom. In
the faculty-student interaction detailed in the interviews,

150

each student described a relationship with a professor who contributed the most toward his personal and educational development, relationships which captured the influence of contacts relating to career concerns, pursuit of excellence, and change of attitude.

For example, in addition to developing student interest in ideas and intellectual concerns, the professor extends beyond the classroom into the student's **career concerns**:

> Knowledgewise, he influenced me; but to bring my level of interest up to the point where I wanted to be a biology major was very significant. I think if it had not been for him, I would not have gone after a **career in biology**. [SVCC]

> The community college was not only helpful but also instrumental toward increasing my interest in a **career in vocational education**. Professor B., a graduate of VT himself, thought that I had a good chance of coming into the program at VT. But at the time with a lot of things going on in my life, I had to take about a year-and-half break. My advisor, however, contacted me to see if I had started my studies at VT. Their encouragement led me to where I am now--anxious to complete the bachelor's degree so that I can come to VT for night classes leading to a master's degree. [NRCC]

> I would say that the most significant student-faculty relationship was the professor who counseled me about the **architecture and engineering program**. Without his help, it would have taken me longer to figure out the direction for my career--engineering. [JSRCC]

In other faculty-student experiences, the researcher observed that the relationships lead to more personal development, for example the **pursuit of excellence**:

I had a positive experience with my professor of biology
who encouraged me to **excell to my best**. Even though it
had not surfaced in my grades, he knew that I had the
capability to learn...I think what affected me most about
this relationship is that this person who had never met
me before saw things in me which told him that I could
excell. How could someone who doesn't even know me see
those things? So, I had to prove it to myself that he
was right, and I did prove it. And it was a good feeling
for me to know that I could do the things that he
expected to happen.   [DLCC]

That would be my college English instructor for
composition. I went into the class expecting an A
because I did really well in high school, but for the
first paper I received a C on a rather immature
descriptive thing. I was shocked, but I was also
spurred on by what she wrote on my paper--that even
though she didn't know too much about me, she wanted
more from me. That made me think that maybe I did
have some growing up to do. She encouraged and
challenged me to do better. [NVCC]

I had one teacher who taught me liberal arts math. She
was a great teacher, a great woman--Professor K. The
funny part of it was that she told me, "Mark, you should
be a teacher." She was always there for me when I had
troubles or problems with my work. She would give me
that boost to make it that I didn't have for myself.
[WCC]

In other instances of faculty-student relationships, the

researcher captured the rare but coveted experience that

brings about a **change of attitude**:

The relationship that sticks in my mind, the greatest
influence, was the professor who gave me my one and only
B. In my first semester of calculus, I scored A's on all
the tests; but I thought that I could get a D on the
final and still get an A in the course. And that is what
happened, but I got a B in the course. So, I went to
talk with him...He said, "Well, no one is going to take
my course, get a D on the final, and make an A in the
course. Your final is a representation of how well you
retain the material. There is no reason you should get
an A when you're telling me that you learned only 60 or
70 percent of the material you were taught. If you think

152

that deserves an A, I don't think so." At first, it was the situation that angered me because you know that you should have something...but in another sense, it brought me down to level: it told me that I couldn't walk around being like I was because I was just blowing everybody away. It was a bad attitude to take--the experience brought me down to earth. (I took him again for my second semester of calculus and still had an ongoing relationship with him until I transferred.) ...So, I think that he was the faculty member who influenced me the most in terms of how to be and what kind of person to be. [TNCC]

Community College Teaching

In addition to the characteristics of the community college professors and their experiences with students, the researcher explored with these high-achieving transfers the matter of teaching at the community college and its comparison with university teaching: the ideal role of the community college instructor, the quality of teaching at the community college, and the differences between the teaching at the community college and the senior institution.

Ideal Role of the Community College Instructor. To determine the concept of the community college instructor in the minds of these high-achieving students and the reality of this concept, the researcher explored several roles for the instructor. As illustrated in Table 30, the Ideal Role of the Community College Instructor, seventy-five percent of these students support the role of the instructor as a facilitator in self-directed learning.

Table 30   Ideal Role of the Community College Instructor

	No.	%
Instructor dispenses knowledge, which is the student's job to master...........	4	16.0
Instructor directs his effort to help students to learn......................	2	8.0
Instructor and student work together as both increase their understanding of the subject matter...................	9	35.0
Instructor serves mainly as a resource for students while students have the principal responsibility for their studies.................................	10	40.0

Quality of Teaching at the Community College. Ninety-six percent of these students respond affirmatively when they are asked whether the instructors at the community college generally meet the concept that they indicated in Table 30. However, of even greater significance is that seventy-six percent of these students give a high rating to the quality of teaching at the community college.

Table 31   Rating the Quality of Teach at the C C

LOW 1..........2...........3...........4..........5 HIGH
        4 (16%)   2 (8%)   4 (16%)   15 (60%)

Teaching at the Community College and Virginia Tech. According to Cohen (1987), the most positive aspect of the community college is that it has become well-known for its teaching, not only among its own faculty but also among the

154

legislators; and its faculty, now content with the identity of a people's college, no longer looks to the university for innovation in instruction and curriculum or future employment leading to a university career. In assessing the influential aspects of the teaching environment at the community college upon these high-achieving students, the researcher discovered distinctive differences between the professors at the community college and the university.

In general, the high-achieving transfer cited the benefits of earning credits for foundation courses at the community college:

> I felt that I was better prepared going to the community college than the students who came here [VT] originally. I attributed this to the fact that at the community college you learned what you needed to learn if you did what you needed to do. The professors there [cc] have time to spend with you because they do not have research like the professors here [VT]...It is more clinical at the four-year college than it is at the two-year college. [TNCC]

> Before I came here [VT], some students who graduated from VT told me that I should take all those things [foundation courses] from the community college. [NVCC]

> I think that you hurt yourself if you don't take advantage of what's there [the community college] as a stepping stone before you come to the four-year college. I could become aware of what my problems and turn things around before it was too late--before I came to VT. [CVCC]

Moreover, the high-achieving student is aware of the benefits of smaller classes for both the instructor and the student:

155

I like the idea of small classes and communication.
A lot of people are shy in large classes, and you
can see it. Here [at VT], for example, you don't
feel you really know the professor; and if you are
in a class of 300 people, he won't recognize you.
But there is recognition at a community college. [SVCC]

There [at the cc] a big class has thirty students, but
here [at VT] a big class has 600 or 700...Here [at VT]
the notes are thrown up on the over-head machine, you
copy them down, and you study them on your own whereas
the instructor at the community college, more like a
guide, will make sure that you learn everything. [CVCC]

In addition to the smaller classes at the community

college, the high-achieving student also observed that the

professors were more personal:

At the community college, you had more one-to-one
time with your professor because the classes were
smaller, and they [the professors] knew you by name.
At the university in some of your classes, the
general classes in your core curriculum, professors
did not know you by recognition....It wasn't as
personal as it is at the community college. [DLCC]

On the other hand, the high-achieving student also

noticed that the community college courses were easier and

less challenging:

At the community college, the professors were
friendlier and laid-back; but I find teaching here
[VT] to be more challenging, maybe in some ways
more intense, to present the material and leave
you more on your own for more explanation. I've
noticed that the testing is a little harder....
Community college was easier and less challenging
in some aspects than it is here [VT]. [WCC]

However, many of these high-achieving students, while

acknowledging the equity in the abilities of professors and

156

quality of teaching at the community college and VT, attributed the differences to the traditional view of community college professors as teachers and university professors as researchers:

> Some of the professors here [VT] are lacking the teaching experience of the community college professors because they are researchers rather than teachers.   [NVCC]

One high-achieving student became quite vocal with his views on university professors as researchers:

> And more and more with the emphasis on education in terms of how Americans are doing...the five hours spent with student conferences is a more significant contribution toward America than five hours of research. The current student is the professor's replacement for the future of America. [TNCC]

Nevertheless, the high-achieving student captured the essence of the relationship between research and teaching as viewed by most university professors:

> I think that some of the professors at the community college were on an equivalent level with those at VT, but some of the professors were, I guess, not so involved with society like some of the professors here [VT] who get involved with research....The professors at VT know more about the situations that you are going to be involved in and apply it to their teaching. [SVCC]

As summarized by two high-achieving students, the education and teaching of the community college professor and the university are quite distinctive entities:

The professors here [VT] have more education
and experience in their fields. The community
college professors have a **general education**
whereas the university professors have a more
specific education and can provide more
details. [DLCC]

The quality of the teaching at the community college
was excellent--they all seemed to know what they were
teaching. But I think the approach to teaching [at
the community college] was more **practical** than the
theoretical approach of the larger university [VT].
[CVCC]

Satisfaction with the Community College Experience

Both Astin (1977) and Pascarella (1980) found student
satisfaction related significantly to faculty-student
interaction and quality of instruction.

Students who interact frequently with faculty are more
satisfied with all aspects of their institutional
experience, including student friendships, variety of
courses, intellectual environment, and even
administration of the institution (Astin, 1977, p. 223).

In this study of high-achieving students, the researcher
found abundant evidence of not only faculty-student
interaction but also satisfaction with the institutional
environment. To the question, "How well are you satisfied
with your educational experience at the community college,"
eighty percent of the students responded "very well"; only
twenty percent, "fairly well"; and no one, "not at all."
However, the comments of these high-achieving students speak
for themselves:

I could not have made it without the community college.
I could not have gained admission down here [VT].   In
fact, I have had professors here [VT] to tell me that,
to get a good learning base, you need to go to the
community college for two years....In fact, there's a
professor here [VT], a doctorate, who was a high school
dropout, and he values community college highly
because that is how he made it.   [WCC, a high school
dropout)

It [CC] gives you the transition: it gives you the
chance to find yourself, it gives you the sound
footing to stand on, and it gives you the chance to
mature better than you can at a four-year college.
Then you come here [VT], and it's baptism by fire in
a way.   [TNCC]

If I had not attended the community college, I would
not be graduating in May with a bachelor's degree.   The
community college was a big and important step toward
reaching my goal.   [NVCC]

I am satisfied with the experience at the community
college.   For the most part, I feel that I received
good preparation for VT and higher education....
classes were fairly easy to schedule, the professors
were friendly and knew you by name, the small
environment allowed you to get to know the students.
The community college experience for me was relatively
happy and a good one, and I am pleased with it.   [WCC]

For additional evidence of satisfaction with the community

experience, the researcher explored the extent of the

influence of the community college experience upon each high-

achieving student.

Table 32   Influence of Community College Experience

```
       1..............2..............3
     MINOR        MODERATE         MAJOR
```

  2.44   Increasing your sense of purpose and
            direction (goals)
  2.40   Developing a more confident self-image
            (self-concept)
  2.36   Increasing your intellectual curiosity
  2.36   Becoming more open with people and more
            understanding of them
  2.24   Clarifying your values (attitude toward education)

Barriers to Learning at the Community College

Just as it is important to know the success of the
community college in its commitment to learning, it is also
important to know its weaknesses. Obstacles to learning,
classified under three headings, include **situational barriers**
(those arising from one's situation in life), **institutional
barriers** (those discouraging the student from participating in
educational activities), and **dispositional barriers** (those
related to attitudes and self-perceptions about oneself.)

To respond to the items listed in Table 33, the
researcher asked the high-achieving student to check all items
that interfered with his learning at the community college and
with which he needed community college assistance.

Table 33 Barriers to Learning

Situational Barriers	Number	Percent
financial	15	60.0
child care	1	4.0
home/job responsibilities	3	12.0

Institutional Barriers	Number	Percent
course scheduling	5	20.0
course availability	5	20.0
transfer information	6	25.0
counseling	5	20.0

Dispositional Barriers	Number	Percent
no confidence in ability	18	72.0
unrefined study habits	18	72.0
uncertain about career	18	72.0

In this research, in contrast to survey research of this type, **situational barriers** rank second for these high-achievers with four percent citing child care, twelve percent citing home/job responsibilities, and sixty percent citing financial barriers. However, all those in need of financial assistance found the means from at least one source and, in some cases, from two sources to eliminate the barrier, and in almost all cases, financial aid officers at the community college were instrumental in assisting with this barrier. However, the impact of college cost is a difficult barrier to study because evidence exists to support the claim that willingness to pay is not the same as ability to pay (Wilcox, Saltford, & Veres, 1975); and, in this study of high-

achievers, for example, sixty percent cite financial barriers in a study sample with a mean income of $54,620 and a median income of $45,000.

Created by the providers of educational services, **institutional barriers**--including course scheduling, course information, course availability, and transfer information-- rank third in importance to situational barriers in survey research and affect between ten and twenty-five percent of learners. In this study of high-achievers, however, institutional barriers rank third: twenty percent of the sample indicate institutional barriers--budget cuts leading to limited scheduling, restricted counseling, and limited student activities--and another twenty-five percent indicate institutional barriers with transfer information (to be detailed in the section titled Transfer Experience at the Community College.)

> Registering and getting classes never was a problem
> for me until they started **cutting funds**...They cut
> classes down and forced you to take them at certain
> times, convenient or not. [JSRCC]

> The community college should improve its counseling
> program with more **individualized counseling**...it
> isn't the way it is down here [VT] with a counselor
> to talk with about a problem with a roommate, your
> family, or boyfriend. [NVCC]

> There's one thing that I think all community colleges
> should teach....I took a class in the psychology of
> learning [at VT], a requirement for education. I
> learned more about myself--how I learn and how I can
> study to improve. I think that is something that will
> help everybody--**techniques for studying**. [WCC]

> I think that the community college should try for more
> **student activities** to get the students to bond. [NVCC]

With traditionally only five to fifteen percent response in survey data because of the social contexts related to one's attitudes and self-perceptions, **dispositional barriers** require that the researcher ask the respondent to estimate in general rather than in relationship to himself: in this case, what community college students in general would perceive to be barriers. In this study of high-achievers, the student readily voices concerns: for lack of self-confidence in his ability, unrefined study habits, and uncertainty in career decisions--all of which were reinforced with faculty-student interaction. (See previous section **Faculty-student Interaction.**)

Transfer Experience at the Community College

In a recent policy statement, Setting the National Agenda: Academic Achievement and Transfer, the American Council on Education (1991) stated that the transfer of community college students to colleges and universities should be a routine transition.

> America's community colleges in particular embody our
> hopes for the future. For millions of students, they
> are the entry point to higher education and thus serve
> as the avenue to intellectual and economic growth. Entry
> to senior colleges or universities by community college
> students, i.e., transfer, is central to the realization
> of equal opportunity in education (ACE, 1991, p. 1).

163

However, although the twenty-three community colleges in the VCCS have an established program for transfers, the goal of a successful transition has not been achieved. For example, in this study of high-achieving transfers, the **source of transfer information** is fragmented rather than centralized as indicated in Table 34.

Table 34   Sources for Transfer Information

	Number	Percent
Catalogue/course schedule	12	48.0
Community college counselors	8	32.0
VT transfer guide	5	20.0
	----	-----
	25	100.0

In addition, the high-achieving transfers indicate problems with **course transferability**. For example, one student took a computer course that would not transfer to Virginia Tech: "almost the same identical course." Another pointed out that the community college accepts calculus credits from high school and enters them on the community college transcript; however, when Virginia Tech accepts these high school credits in calculus, the student is not ready for second year calculus at Virginia Tech: "The numbers match, but the courses don't. It is not the same at all!" Still others complained about lost courses: one student with three semesters of physics at the community college found that only two would transfer to VT, and another student with two semesters of psychology found

that only one would transfer to VT. Perhaps the most serious complaint came from the student whose friend spent an extra year at VT because only one year of credits would transfer: "Not only the money but also a year of his life was wasted."

Transfer Attitude. Of some significance, however, is the transfer attitude of these high-achievers, an attitude which perhaps curtails non-transferable credits for these high-achievers entering Virginia Tech in the Fall of 1990 and which also is built into the new State Policy on Transfer, recently adopted by SCHEV and VCCS, under the heading **Transfer Student Responsibilities:** "Students intending to transfer need to take responsibility for planning their course of study to meet the requirements of the institution to which they desire to transfer." (See Appendix G titled **State Policy on Transfer.**) For the most part, these high-achievers accept responsibility for planning their own courses of study:

> If the student walks into the situation and knows
> that he is going to transfer, he should be calling
> the college and talking with the college where he
> is transferring. **I feel that it isn't right to put
> the blame on the community college.** [TNCC]

> I knew what I needed to get accepted. So, I just
> went down the list. You can get a cross reference
> from VT for the community college courses. [CVCC]

> I had a college catalogue, which told me that the
> course might not transfer to a four-year college...
> But the transfer process I did on my own with a
> catalogue from VT to find out what they did take,
> the only way to be sure. [NRCC]

At about the same time that the sample population for this study transferred to Virginia Tech in the Fall of 1990, the State Council of Higher Education (SCHEV) and the State Board for Community Colleges (VCCS) established the Joint Committee on Transfer Students (JCTS) in October, 1990. With the membership of faculty and administrative representatives from both community colleges and senior institutions and the support of the VCCS and SCHEV, the Joint Committee on Transfer Students began its study to recommend policies to improve the transfer function in the VCCS. From a series of campus interviews, held in April of 1991, with students, faculty, counselors, and administrators and studies of other state transfer systems, the JCTS gathered the issues most in need of resolution before drafting a report for a conference held at the University of Virginia on October 10, 1991. The State Policy On Transfer, endorsed by the VCCS on November 21, 1991 and by SCHEV on December 10, 1991, appears in Appendix G of this document.

The Cross Concept of Motivation: Chain-of-Response (COR) Model

The catalyst for this study was the conceptual framework posed by K. Patricia Cross (1981). In the framework depicted in Figure 1, called a Chain-of-Response (COR) Model for motivation, Cross assumes that participation in a learning activity is the result of a chain of responses, not a single

166

act. As in the motivational psychology of deCharms and Muir (1978), the continuum in the COR model, flowing in both directions, begins with the individual and moves to external situations.

Basically, however, the COR model relates to two kinds of learning styles: self-directed learning implemented with innovative approaches and organized instruction implemented with the traditional approach. In general, educators who wish to increase motivation in self-directed learning focus upon individual motivations (points A through D of the COR model); in contrast, those who wish to foster motivation with traditional instruction open up new opportunities and ferret out barriers (point E). In addition, the COR model relates to four kinds of stimuli and motivation: enhancing self-concept, influencing attitude toward education, setting goals and expectations, and responding to life transitions.

In an analysis of the Chain-of-Response Model, each of the variables, personal and situational, reveals the Cross concept. For example, regarding points A and B, past research regarding **self-evaluation (self-concept)** suggests that a student who lacks confidence in his own ability will not pursue learning activities that threaten his self-esteem and that **attitudes toward education** arise from environmental influences. In connecting points A and B in the COR model, Cross submits that the student with a positive self-concept,

somewhat likened to Atkinson and Feather's (1966) achievement-motivated personality, will pursue challenges and new opportunities in learning. **The importance of goals and the expectation that goals will be met**--arising from the Locke (1969) goal-directed theory and the Vroom (1964) expectancy-valence theory of motivation--govern the depth of student motivation in point C. In connecting point D, **life transitions**, to the importance and expectation of goals, Cross cites universal changes (such as marriage or children) and dramatic changes (such as divorce or loss of a job) as the impetus activating a latent desire for education, somewhat related to Havighurst's (1972) "the teachable moment" (p. 7). Once the student is motivated toward participation in learning, **opportunities and barriers** (such as financial aid or child care) at point E play a significant function: those intensely motivated will seek out opportunities and overcome barriers, but those weakly motivated will abandon learning. Point F in the COR model, **information**, is vital to link motivated learners to relevant opportunities and ferret out barriers from the academic environment.

In terms of the community college and its impact upon the high-achieving student in this study, most efforts to lead the student toward participation in the Chain-of Response (COR) Model of motivation begin at point A, increasing self-confidence, and at point E, removing the barriers and

enhancing the opportunities. As indicated with the arrow from opportunities and barriers (E) to importance of goals (C), the construction of opportunities and the elimination of barriers increase the student's expectation that goals will be met (C) and in turn increase his or her motivation. Also the arrow from participation (G) to self-evaluation (A) and attitudes toward education (B) support findings that a student who has participated in education will do so again because his enhanced self-concept and positive attitude toward education lead him to greater expectation of meeting his goals.

Point A: Increasing Self-Confidence. In the Chain-of-Response Model, the relationship of self-evaluation (point A) to educational motivation (point G) is that a student who lacks self-confidence about his learning ability will avoid the risk of learning because he does not anticipate success. In the student's past experience, his efforts in education may have resulted in self-inflicted pain rather than the anticipated rewards from his goals.

In this study of the high-achieving transfer, for example, the researcher finds that over seventy percent of the high-achievers attended the community college to explore their academic abilities and that they rank the opportunity to discover their abilities and interests as third among reasons for attending the community college. However, two years after the high-achiever gains his self-confidence at the community

college, he adopts a new self-concept with self-confidence and self-motivation. For the student who says that "the community college gave me confidence about my education and myself" and the originally ineligible student who shares almost identical aspirations with the originally eligible student after a "warm-up" function at the community college, first time success leads to feelings of self-confidence and self-esteem. Other variables in the model, such as life transitions (point D) and goals (point C), must generate strong incentives to overcome any negative forces remaining at self-evaluation (point A). For example, for the student whose parents told her to stop calling about tests because her uncertainty was always followed with an $\underline{A}$ or $\underline{B}$, her motivation generates from a life transition, not self-confidence; for the insecure high school dropout, who intends to devote his career to teaching secondary business education to potential dropouts like him, his motivation generates from his goal, not self-confidence.

For the community college, the COR model suggests that an educational institution may foster the development of latent academic ability with efforts that minimize the threat level for the student with insufficient self-confidence in his ability to learn. In this study of high-achieving transfers, the efforts lie in the attitudes and teaching of the community college faculty. For example, students tell of encounters with humanistic professionals: an engineering professor who

170

wanted his students to be well-rounded as engineers, not just technical people; a biology professor who arranged on his own without remuneration to teach a high-demand class for five students.

Point B: Developing Positive Attitudes toward Education. Two entities influence attitudes toward education: the student's own experiences and the attitudes of others. In connecting points A and B in the COR model, Cross postulates that the student with a positive self-concept and attitude toward education, somewhat likened to Atkinson and Feather's (1966) achievement-motivated personality, will pursue challenges on his own, somewhat like the high-achiever who has experienced and captured for himself the stimulation from the experience of learning:

> I like to achieve so it's important that I keep achieving, that I don't become content. [WCC]

Thus, this high-achiever has participated in education and will do so again because of his enhanced self-concept and positive attitude toward education. Moreover, the more the learner values the opinion of those expressing positive attitudes toward education, the greater the influence for motivation, as a high-achiever observed:

> I felt that the professors actually and sincerely cared about their students. It wasn't just a job to them; they loved what they did. [DLCC]

In this study of the high-achiever, the researcher

wanted his students to be well-rounded as engineers, not just technical people; a biology professor who arranged on his own without remuneration to teach a high-demand class for five students.

Point B: Developing Positive Attitudes toward Education. Two entities influence attitudes toward education: the student's own experiences and the attitudes of others. In connecting points A and B in the COR model, Cross postulates that the student with a positive self-concept and attitude toward education, somewhat likened to Atkinson and Feather's (1966) achievement-motivated personality, will pursue challenges on his own, somewhat like the high-achiever who has experienced and captured for himself the stimulation from the experience of learning:

> I like to achieve so it's important that I keep
> achieving, that I don't become content. [WCC]

Thus, this high-achiever has participated in education and will do so again because of his enhanced self-concept and positive attitude toward education. Moreover, the more the learner values the opinion of those expressing positive attitudes toward education, the greater the influence for motivation, as a high-achiever observed:

> I felt that the professors actually and
> sincerely cared about their students. It
> wasn't just a job to them; they loved what
> they did. [DLCC]

In this study of the high-achiever, the researcher

171

observes the community college capability to contribute toward
self-confidence and attitude toward education but its
inability to enlarge upon a corollary assumption in the Cross
concept that the greater the density of support for learning
the greater the demand for it. Instead of the reinforcement of
peer influence, the high-achiever isolates himself from his
fellow non-achiever because he gets "frustrated with people
who don't put enough effort into school" and forms support
groups in an effort to share his educational goal. Moreover,
these high-achievers indicate only twenty-eight percent
participation in honors program involvement and twenty percent
participation in campus activities. Thus, while the community
college initiates the development of self-esteem, its limited
implementation of service-related activities restricts student
involvement for exposure to positive attitudes toward
education and contagious interests from the environment.

Point C: Assisting Learners with Goals and Expectations.
The importance of goals and the expectation that goals will be
met--arising from the Locke (1969) goal-directed theory and
the Vroom (1964) expectancy-valence theory of motivation--
govern the depth of student motivation in point C. Associated
with expectancy is the subjective perspective that pursuit of
the goal will lead to the reward: the student with high self-
esteem will anticipate success. Thus, developing the
student's self-confidence is instrumental in increasing the

172

valence, the importance of the goal to the individual.

In exploring the community college contribution toward assisting with goals and expectations, the researcher includes also the philosophical position, assumed by some educators, that learning is a natural rather than an acquired taste and that learning will be rewarding unless quelled with negative experience. Based upon the assumption that the student's past experience in education has resulted in lowered self-esteem rather than anticipated rewards from his goals, assisting learners with goals and expectations (point C) is pivotal for the motivational vitality generated at point G in the COR model. It is a significant observation, therefore, that these professors extended beyond the classroom into student goals and expectations--the student's career concerns. For example, one student confided, "If it had not been for him, I would not have gone after a career in biology," and another said, "Without his help, it would have taken me longer to figure out the direction for my career--engineering." But the most inspirational account came from the student whose professor led him (the student) to believe in himself: "I think what affected me most about this relationship is that this person who had never met me before saw things in me which told him that I could excell." In this instance, the educator with humanistic orientation enhances the natural learning process without imposing his will so that the student becomes self-

directed, somewhat related to Tough's (1979) self-directed
learner. Thus, exposing the student to quality learning
experiences with community college faculty increases the
valence, the importance of the goal for the individual.

Point D: Responding to Life Transitions. In connecting
point D, life transitions, to the importance and expectation
of goals, Cross cites universal changes (such as marriage or
children) and dramatic changes (such as divorce or loss of a
job) as the impetus activating a latent desire for education,
somewhat related to Havighurst's (1972) "teachable moment" (p.
7). Adapting to life transitions creates motivation for the
student sufficiently strong to counter any negative forces,
such as lack of self-confidence and barriers that might hinder
him.

In creating an environment fruitful in educational
encouragement, the developmentalist takes a more active role
than the humanist in deciding the kinds of learning
experiences that are likely to influence the student: he
emphasizes challenge and stimulation in the environment
whereas the humanist stresses acceptance and encouragement.
For example, in this study with only twenty-four percent of
the sample citing life transitions as the motivating force to
pursue an education, the student who was "spurred on by what
she wrote on my paper" and who felt that "even though she
didn't know too much about me, she wanted more from me" was

challenged to do better: to reach for growth enhancing experiences. Since the life transition creates a high motivation for learning (Aslanian & Brickell, 1980; Havighurst, 1972), the educator designs learning experiences to challenge the student to move to advanced stages in his development: to make the learner so uncomfortable in his assumptions that he is forced to redefine them. For instance, the drafting student, whose instructor helped him build a bateau, a 40'long and 8'wide wooden boat, encountered advanced skills which reinforced his thinking that he was "topping out in a career as a draftsman." Thus, the findings from this study lead the researcher to conclude that the student learns not only because it is natural to learn, a humanist position, but also because life transitions create challenges and stimulation to promote learning, a developmentalist position.

Point E: Creating Opportunities and Removing Barriers. Educators devote attention to points A through D in the COR model because it is futile to create opportunities and remove barriers for those whose motivation is negative. Once the individual's motivation is certain, however, **situational barriers** (those arising from one's situation in life), **institutional barriers** (those discouraging the student from participating in educational activities), and **dispositional barriers** (those related to attitudes and self-perceptions about oneself) play an important role. The major barriers in

this study--financial concerns (situational), transfer information (institutional), and an unrefined sense of self-confidence (dispositional)--send a message to the twenty-three community colleges: concern for educational costs in an affluent society, the need for a centralized source for transfer information, and the significant difference in the motivation of these students after increasing their self-esteem. Moreover, opportunities for high-achieving students like those in this study generate at point E in the COR model with educators who see the focus of the community college as a teaching institution dedicated to developing dormant abilities.

Point F: Providing Information. Information (point F of the COR model) epitomizes the decisive connection between the learner and the reality of an education: a motivated learner (points A through D) and abundant opportunities (point E) are nullified without accurate, up-to-date information because every variable in the COR model relates to the receipt of information. For example, a potential learner with low self-confidence (point A) and an adverse attitude toward education (point B) will not respond to opportunities; thus, educators determined to reach the student repelled with past unpleasant learning experiences must counter the negative images at points A and B (as did the community college faculty in this study) or offset the negative experiences with positive goals

176

and expectations (point C) and stimulation from life transitions (point D). Information (positive communication) designed to change the negative images from past experiences renews the student's self-esteem with self-confidence. Of course, educators encountering a student with positive forces at points A and B, favorable evaluations of himself and education, need only to associate the relevance of the education to the goals of the learner (points C and D).

Summary

A Profile of the High-achieving Transfer, the first of three components in examining the success of these students, includes the **demographic**, **academic**, and **personal** characteristics of twenty-five high-achieving students (sixty percent originally eligible and forty percent originally ineligible for admission to Virginia Tech).

Demographic Characteristics. Of the study sample of twenty-five students, only 40% are female, significantly lower than the 54.3% enrolled in all types of public educational institutions at all levels in the U.S. and the 57.7% in the VCCS Student Profile for 1990. Although nearly 60% of the students enrolled in two-year institutions in the State of Virginia are over twenty-five years old and 52.3 % of all undergraduates in the U.S. are over the age of twenty-two, the mean age of this study sample is 21.92. In relationship to the 16.9% minority distribution in the overall population of Virginia community college students, the study sample has 12% minority representation. In terms of Hollingshead's (1957) Two Factor Index of Social Position, 72% of the study sample falls into the middle and upper level of the hierarchy of social position; moreover, the income levels indicate an affluent socioeconomic background--64% with incomes above $40,000, 32% with incomes above $70,000, and 12% with incomes from $80,000 to $109,000. (However, 60% of the sample

178

indicate financial aid assistance, in some cases from more than one source.) Of these high-achieving students, fifty-two percent of the fathers have an associate degree or higher and occupy professional/managerial positions; and finally, the geographical distribution of transfers to VT from the twenty-three community colleges indicates proximity with only 43% representation.

Academic Characteristics. A good predictor of future performance of transfer students and a competitive measure for each entering class, the GPA for the study sample entering Virginia Tech during the Fall of 1990 was 3.5341. While transfer shock is especially characteristic of the community college transfer, these high-achieving transfers incur only a modest fall from a mean CC GPA of 3.5341 to a mean VT GPA of 3.3313 during the first semester. Moreover, contrary to the literature that the first semester performance of transfer students varies with the student's original eligibility status, the GPA for the originally ineligible student in this study remains almost constant during the first semester at the senior institution: from a mean CC GPA of 3.3875 to a mean VT GPA of 3.3523. However, consistent with the literature that female gender relates to the higher GPA, the mean GPA is 3.4998 for the female transfers and 3.1989 for the male transfers. Also supported in the literature, students from small rural community colleges perform better than those from

179

larger urban colleges. Also, just like the diversity in the literature that the major at the senior institution relates to the success of transfers, the majors for these high-achieving students suggests few trends: 28% of the men elect majors in Engineering and 20% of the women elect majors in Management. And finally, a 60% rate of degree attainment, a mean of 50.36 hours transferred to VT, and a mean of 5 semesters of attendance--all relate positively to the academic success of these students, though somewhat less supportive in the literature than for the community college GPA and academic success.

Personal Characteristics. While the demographic and academic characteristics of the originally eligible and originally ineligible student reveal similarities in all respects but two, the socioeconomic status and college eligibility, the portrait for these students comes into focus with the personal characteristics. In response to an inquiry for the principal reason for studying, the high-achiever cites a sense of mastering the material as far more important than a sense of learning something useful for a vocation, an attitude which, when coupled with his attitude toward education and self-concept, seems to characterize the idealism of the high-achiever. In terms of study habits, the high-achiever acknowledges commitment, time management, and study skills in a generalized pattern of "studying all the time."

In keeping with the traditional description of the community college student, the high-achiever in this study attended the community college with priorities for cost efficiency and location as the predominant attraction; but he was also undecided about his interest and abilities so that he was unwilling to risk his academic future in a four-year institution until he tried the role of a college student. Once secure with his self-concept and free from the evaluations of society to launch goals contrary to those around him, however, the high-achiever views marriage and family relationships rather than financial success and considers humanitarian concerns rather than business and financial matters as the goals that would give him the greatest satisfaction in life. With a positive relationship between self-perception and achievement, the high-achiever associates with his self-image the adjectives self-confident, self-motivated, introverted, persistent/determined, hardworking, reliable/responsible/dependable and rates himself high in character traits of self-discipline, emotional health, and academic ability. The high-achiever's attitude toward education encompasses two-fold benefits: for the individual, education is "the best thing anyone can do for himself...to broaden his horizons...in the development of the individual...so that he can survive in a competitive world"; and for the professional, education leads to professional

advancement and satisfies cognitive interests. His educational motivation stems from a family setting, among fifty-two percent of the fathers and twenty-eight percent of the mothers with an associate degree or higher, where parental attitude toward college was constant throughout the early life of the student: "College was just around us and expected of us." (Only twenty-four percent of the transfers indicated a life transition--a significant change calling for adjustment to a new phase in life--as the influence leading him to seek an education.) Upon entry to the community college, eighty percent of the study sample indicate the baccalaureate or higher; but after transfer, seventy-two percent want degrees beyond the baccalaureate. (Of some significance also is that upon entry to the community college none of the originally ineligible students want advanced degrees; however, after transfer--after a "warm-up" function at the community college--the originally ineligible shares almost identical aspirations with the study group.) All of these concepts, attitudes, and aspirations--both for the originally eligible and originally ineligible--originate from home environments synonymous with the word stable and consistent with the literature associating stable, harmonious family backgrounds with academic achievement.

Influential Aspects of the Community Experience, the second of three components in examining the success of these

students, covers influential aspects of the community college experience in relation to twenty-five high-achieving students: self-confidence, student involvement, faculty-student interaction, community college teaching, satisfaction with the community college experience, barriers to learning at the community college, and the transfer experience.

At the entry point of his college experience, eager to assess academic accomplishments, the community college student discovers his "frog pond" (Davis, 1966) where his initial success becomes his inspiration. For the originally ineligible student, first time success leads to feelings of self-confidence and self-esteem. Although the initial academic success serves as an impetus for student involvement with the community college, the high-achieving student isolates himself from his fellow non-achievers and invokes the moral and academic support from his peers who share his educational goal in a collegiate environment with few opportunities for involvement. For example, these high-achieving transfers indicate only twenty-eight percent participation in the honors program and twenty percent in campus activities.

Although student involvement, theoretically an element in the integration of the student with the institutional environment, is not a contributor toward the success of the high-achieving student in this study, faculty-student

183

interaction, an even more important influential aspect of integration, contributes significantly to student development in terms of career concerns, pursuit of excellence, and attitude at the community college. In addition to faculty-student interaction, the high-achieving student views the role of the ideal community college instructor as a facilitator in self-directed learning and rates highly the quality of teaching at the community college. In a comparison of the teaching at the community college and Virginia Tech, the high-achieving student cites the benefits of earning credits for foundation courses at the community college, smaller classes, and personable instructors who are devoted to teaching rather than research like those at the senior institution; but the high-achieving student also notices that the community college courses are easier and less challenging than those at Virginia Tech. Verifying the correlation in the literature between student satisfaction and faculty-student interaction and quality of instruction, eighty percent of the high-achieving students responded that they are "very well" satisfied with the community college experience; twenty percent, "fairly well"; and no one, "not at all." Moreover, in response to the extent of the influence of the community college experience, the high-achiever cites **major** influences (on a three-point rating scale) as the increase in purpose and direction (goals) and the development of self-confidence.

Just as it is important to know the success of the community college in its commitment to learning, it is also important to know its weaknesses--obstacles to learning, such as situational barriers, institutional barriers, and dispositional barriers. **Dispositional barriers** head the list with seventy-two percent indicating concerns for self-confidence in ability, seventy-two percent with concerns for unrefined study habits, and eighty percent with concerns for career decisions--all of which are reinforced with faculty-student interaction during the community college experience. **Situational barriers** rank second with sixty percent citing financial barriers and twelve percent citing home/job responsibilities. **Institutional barriers** rank third with twenty percent indicating budget cuts leading to limited scheduling and course availability, restricted counseling, and limited activities and with twenty-five percent citing barriers with transfer information.

Although the twenty-three community colleges in the VCCS have an established program for transfers, the goal of a successful transition has not been achieved. For example, the source of transfer information is fragmented rather than centralized, and problems exist with course transfer. Of some significance, however, is the transfer attitude of these high-achievers, an attitude which perhaps controlled non-transferable credits for these high-achievers entering

Virginia Tech in the Fall of 1990 and which is built into the new State Policy on Transfer under the heading **Transfer Student Responsibilities**: "Students intending to transfer need to take responsibility for planning their course of study to meet the requirements of the institution to which they desire to transfer." (See Appendix G titled **State Policy on Transfer**.) At about the same time that the sample population for this study transferred to Virginia Tech in the Fall of 1990, the State Council of Higher Education (SCHEV) and the State Board for Community Colleges (VCCS) established the Joint Committee on Transfer Students (JCTS) in October, 1990; and both endorsed the State Policy on Transfer about a year later.

The Cross Chain-of-Response Model for Motivation, the third of three components in examining the success of these students, explores the theoretical basis for the motivation of the high-achieving student.

In terms of the community college and its impact upon the high-achieving student in this study, most efforts to lead the student toward participation in the Chain-of-Response (COR) Model begin at point A, increasing self-confidence, and at point E, removing the barriers and enhancing the opportunities, both of which are implemented with two kinds of learning styles: educators who wish to increase motivation in self-directed learning focus upon individual motivations (points A through D of the COR model); in contrast, those who

186

wish to foster motivation with traditional instruction open up new opportunities and ferret out barriers (point E). In addition, the COR model relates to four kinds of stimuli and motivation: enhancing self-concept, influencing attitude toward education, setting goals and expectations, and responding to life transitions.

Increasing Self-confidence. For the community college, the COR model suggests that an educational institution may foster the development of latent academic ability with efforts that minimize the threat level for the student with insufficient self-confidence in his ability to learn. For the student who says that "the community college gave me confidence about my education and myself" and the originally ineligible student who shares almost identical aspirations with the originally eligible after a "warm-up" function at the community college, first time success leads to feelings of self-confidence and self-esteem. In this study, the efforts lie in the attitudes and teaching of the community college faculty for high-achievers who attended the community college to explore their academic abilities and discover their abilities and interests.

Developing Positive Attitudes toward Education. In the COR model, Cross postulates that the student with a positive self-concept and attitude toward education will pursue challenges on his own, somewhat like the high-achiever who has

experienced and captured for himself the stimulation from the experience of learning: "I like to achieve so it's important that I keep achieving, that I don't become content." Moreover, the more the learner values the opinion of those expressing positive attitudes toward education, the greater the influence for motivation: "I felt that the professors actually and sincerely cared about their students." Thus, the community college demonstrates its capability to contribute toward self-confidence and attitude toward education, but its inability to enlarge upon a corollary assumption in the Cross concept that the greater the density of support for learning the greater the demand for it. Instead of the reinforcement of peer influence and campus activities for exposure to positive attitudes, the high-achiever isolates himself from his fellow non-achiever with support groups to share his educational goals and with only twenty-eight percent participation in honors program involvement and twenty percent participation in campus activities.

Assisting Learners with Goals and Expectations. Based upon the assumption that the student's past experiences in education have resulted in lowered self-esteem rather than anticipated rewards from his goals, assisting learners with goals and expectations (point C) is pivotal for the motivational vitality generated at point G in the COR model. It is significant, therefore, that the community college

professor extends beyond the classroom into student goals and expectations--the student's career concerns. For example, one student confided, "If it had not been for him, I would not have gone after a career in biology," and another said, "Without his help, it would have taken me longer to figure out the direction for my career--engineering." Exposing the student to quality learning experiences increases the valence, the importance of the goal for the individual.

Responding to Life Transitions. Since adapting to life transitions creates motivation for the student sufficiently strong to counter any negative forces, such as lack of self-confidence and barriers that might hinder him, the educator designs learning experiences to challenge the student to move to advanced stages in his development: to make the learner so uncomfortable in his assumptions that he is forced to redefine them. For instance, the drafting student, whose instructor helped him build a bateau, a 40' long and 8' wide wooden boat, encountered advanced skills which reinforced his thinking that he was "topping out in a career as a draftsman." Although only twenty-four percent of the sample cite life transitions as the motivating force to pursue an education, the findings in this study support the observation that the student learns not only because it is natural to learn, a humanist position, but also because life transitions create challenges and stimulate learning, a developmentalist position.

Creating Opportunities and Removing Barriers. The major barriers in this study--financial concerns (situational), transfer information (institutional), and an unrefined sense of self-confidence (dispositional)--send a message to the twenty-three community colleges: concern for educational costs in an affluent society, the need for a centralized source for transfer information, and the significant difference in the motivation of these students after increasing their self-esteem.

Providing Information. Information (point F of the COR model) epitomizes the decisive connection between the learner and the reality of an education: a motivated learner (points A through D) and abundant opportunities (point E) are nullified without accurate, up-to-date information because every variable in the COR model relates to the receipt of information. For the high-achievers in this study, the educators--determined to reach the student repelled with past unpleasant learning experiences--countered the negative images at points A (self-confidence) and B (attitude toward education), off set the negative experiences with positive goals and expectations (point C), and developed the impetus stimulated from life transitions (point D).

Chapter V

CONCLUSIONS, IMPLICATIONS, AND FUTURE RESEARCH

The literature of the transfer function from a historical perspective provides evidence that the community college performs its original function, the transfer function. However, as the junior college evolved into the community college during the 1960's with its additional functions of vocational, community, and developmental education, the controversy increased with reports of student difficulties upon transfer to the senior institution, for example Knoell & Medsker's (1965) From Junior to Senior College: A National Study of the Transfer Student and Hills' (1965) Transfer Shock: the Academic Performance of the Junior College Transfer.

It is important, therefore, to assess the threats to the transfer function because the original function of the junior college, to provide the first two years of undergraduate education for students who would transfer to four-year institutions (Thornton, 1972), was judged almost entirely upon the success of its graduates who pursued their education at the university (Eells, 1943). With the emphasis on the transfer function diminishing, the preservation of a quality transfer program is essential for the image of the community

college because most educators agree that "community colleges were, are, and will be evaluated to a major degree upon the success of their transfer students to the four-year colleges and universities" (Cosand, 1979, p. 6).

Statement of the Problem

Thus, the dramatic shift in community college enrollments from transfer education to community, vocational, and developmental education and the increased educational offerings to students who embody an immense range of competency and motivation led defenders of the transfer function to question whether the community college could sustain an undergraduate education comparable to that attainable at the four-year institution. Moreover, defenders of the transfer function observed threats by the projected decline in enrollments, the increased competition for students from four-year institutions, the financial constraints imposed by the taxpayer and legislature, and the increased demand for accountability.

Significance of the Study

With the national attention in the 1990's on quality education and renewed interest in the transfer function of community colleges, the community college faces increased demands from the legislators for educational accountability and the critics who question the two-year college's ability to maintain the quality of its transfer function at the same time

192

that it provides vocational, community, and developmental education. Community colleges, responding to the threats to the transfer function, have renewed the emphasis on quality with programs not only attracting the academically capable student but also improving the overall quality of the academic programs in terms of curriculum and emphasis on excellence. With the emphasis on the high-achieving transfer, the community college strengthens its transfer program and sanctions its claim as a collegiate institution.

However, in previous qualitative research studies, the characteristics that contribute to the high academic achievement of the transfer as well as the value-added concept of institutional effectiveness have remained unrecognized in research on the high-achieving community college student. For example, Neumann & Riesman (1980) found that positive aspects of the community college experience contributed to the success of transfer students who would not have been admitted to selective institutions as freshmen. In addition, in a study of more than 4,000 Phi Theta Kappa inductees from 1947 to 1965, Garrett and Schultz (1967) found that after the first two years at the community college these honor students remained competitive with the natives. Also Gold's (1967) examination of thirty-one former Los Angeles City College students who had achieved honors at U.C.L.A. revealed that junior colleges provide high-level preparation for upper-

division university study, even though three quarters of these students were ineligible for the university upon completion of high school.

Among the issues in the growing concern for transfer education, and most significant to the future of the community college, is the inference that the original transfer function has reemerged as a primary determinant of community college quality. Thus, the community college must respond to the critics and demonstrate the efficacy of its transfer function.

Purpose of the Study

In this research study, the student attained high academic achievement (3.0 or greater) at the community college and maintained high academic achievement at Virginia Tech during the first semester. It is the intent of the researcher to examine the influences that contribute to the high academic achievement (GPA 3.0 or greater) of a transfer student from a Virginia community college to Virginia Tech and determine **why the high-achieving student succeeds:**

1) to identify the characteristics of the high-achieving student--the demographic, academic, and personal--

2) to identify aspects of the community college experience that influence the personal and situational characteristics of the student and lead him to high academic achievement, and

3) to determine what motivates the high-achieving student toward academic success as related to the Cross concept of motivation.

194

In the thinking of K. Patricia Cross (1981), "...there is almost never any attempt to relate one stream of research findings to any other...but if the ultimate goal is to facilitate the learning of adults, then educators will have to merge all these streams of research and theory" (p. 234). **The purpose of this study, therefore, is to merge the Cross theory of motivation with the demographic, academic, and personal factors of the student and with the influential aspects of the community college--all of which are associated with the academic success of the community college transfer to Virginia Tech.**

Summary Findings: Profile of the High-Achievers

While evidence suggests that integration into the social and academic systems of the college is associated with educational outcome, the outcome of such interaction is not independent of the characteristics of the students involved.

In terms of the **demographic characteristics**, the Caucasian twenty-two-year-old high-achiever at the time of transfer falls into the middle and upper level of Hollingshead's (1957) hierarchy of social position, an affluent background averaging $54,620 income, fifty-two percent of the fathers and twenty-eight percent of the mothers with baccalaureates, fifty-two percent of the fathers with management/professional occupations, and a community college

location near the senior institution. Only the socioeconomic status for the originally ineligible varies from the above demographic description.

In terms of the **academic characteristics**, the high-achieving transfer, entering Virginia Tech during the Fall of 1990 with a 3.5341 GPA, incurs a modest fall to a mean VT GPA of 3.3313 and no variation in the performance for the originally ineligible during the first semester at the senior institution, a higher GPA of 3.4998 for the females over 3.1989 for the males, better performance for those from small rural community colleges, 28% of the men electing majors in Engineering and 20% of the women electing majors in Management, 60% degree attainment, a mean of 50.36 transferred hours, and a mean of 5 semesters of attendance. Only the admission status, originally eligible and originally ineligible, varies in the above academic description for the high-achiever.

While the demographic and academic characteristics of the high-achieving student reveal few variations for the originally eligible and originally ineligible, the significant portrait for these students comes into focus with the **personal characteristics**. The high-achiever's attitude that a sense of mastering the material is far more important than a sense of learning something useful for a vocation or future activity, when coupled with his attitude toward education and his self-

196

concept, seems to characterize the idealism of the high-achieving transfer. In a generalized pattern of "studying all the time" and recognition of "dedication and perseverance to obtain goals," the high-achiever formulates a self-portrait with characteristic adjectives for his self-concept--self-confident, self-motivated, introverted, persistent/determined, hardworking, reliable/responsible/dependable, and caring--and rates himself high in terms of self-discipline and academic ability. Secure with his self-concept, he is free to launch goals contrary to the social values around him: marriage and family relationships and humanitarian concerns as a greater satisfaction than financial success. In anticipation of the expected rewards of an education, the high-achiever's attitude toward an education encompasses "the best thing anyone can do for himself...to broaden his horizons...in the development of the individual...so that he can survive in a competitive world." His educational motivation stems from a family setting, among fifty-two percent of the fathers and twenty-eight percent of the mothers with an associate degree or higher, where "college was just around us and expected of us." Upon entry to the community college, eighty percent of the high-achievers want the baccalaureate or higher; but after transfer, seventy-two percent want degrees **beyond** the baccalaureate. (Of some significance also is that upon entry to the community college none of the originally ineligible

197

want advanced degrees; however, <u>after transfer</u>--in an apparent "warm-up" function at the community college--the originally ineligible share almost identical aspirations with the study group.) All of these concepts, attitudes, and aspirations-- both for the originally eligible and originally ineligible-- originate from home environments synonymous with the word <u>stable</u> and consistent with the literature associating stable, harmonious family backgrounds with academic achievement.

Thus, the entry characteristics for both the originally eligible and originally ineligible high-achieving student are remarkably similar in nearly all respects but two, the socioeconomic status and college eligibility, from the moment they initiate their academic career at the community college.

Why then are they extraordinarily different in academic success from London's (1978) students, who also shared the **same** discordant feelings--lack of self-confidence, motivation, and clarity of career goals?

> In the face of their concerns and self-doubts, it would be logical to expect students to work hard in school in order to "reestablish" them- selves. After all, they were in school not de- spite their anxieties but because of them. Yet they did not "seize the hour." In class after class it was painfully obvious that reading and writing assignments were often undone, that stu- dents were unwilling to engage in class discussions, and that attendance was poor (London, p. 24).

London's community college student, "ambivalent over the pro- spect of mobility and the intellectualizing" (p. 95),

internalized about the "negative evaluation of [his] own working-class status" (p. 97) and rejected the college experience with "changes in values, lifestyles, and self-image" (p. 95). On the other hand, the student in this research study--filled with a sense of pride to be among the first in the family to be educated and initiated into the college experience with the self-esteem bestowed upon him at the community college--successfully integrates into the academic and social environment to become a high-achiever.

It seems probable, therefore, that the entry characteristics of the students in this study influence academic success at the community college; however, since the originally eligible and the originally ineligible seem more alike than different in characteristics, it seems more probable that the community college experience accounts for academic achievement for students with these particular characteristics. If, for example, the community college led only those originally eligible to high-academic achievement and if, for example, the background characteristics were more different than alike, the researcher would reach a different conclusion.

In research studies examining the question of whether entry characteristics or collegiate experience seems more important in explaining academic achievement, most studies confirm the findings of Terenzini and Pascarella (1980): they

conclude that entry characteristics have important effects on achievement, but they are tempered by the collegiate experience. For example, for students with similar entry characteristics, Tinto (1975) suggests that it is the collegiate experience--integration into the academic and social systems of the college--that determines academic success. Most studies of college impact suggest that individual differences confound the association between collegiate experience and educational outcomes (Feldman & Newcomb, 1969). Thus, it is likely that both the type of faculty-student interaction and the type of faculty impact are not independent of individual differences. For example, Astin and Panos (1969), Chickering (1969), and Feldman & Newcomb (1969)--all present evidence that the student tends to pursue intellectual interests and activities consistent with his characteristic orientation and that his change during his collegiate experience is most likely also characteristic orientation.

Implications and Future Research

Student Characteristics. Based on the findings in this study that the collegiate experience appears to have positive influence on educational aspiration and that the influence varies for different kinds of students, future research might consider **different** types of faculty-student interaction with

different educational outcomes for **different** types of students--a topic of some significance for the diverse population, a characteristic of the community college.

   Socioeconomic Status. In early research findings (Astin, Panos, and Creager, 1967; Medsker & Trent, 1965), the ranking of colleges on the basis of student socioeconomic background (private universities attracting the student of high socioeconomic status and two-year colleges attracting the lower socioeconomic status) extended a significant role to the two-year college in the democratization of higher education. In this research study, however, the affluent socioeconomic status of these high-achievers confirms Karabel and Astin's (1975) suggestion that transfers have high socioeconomic backgrounds, a point later disputed in the research of Templin & Sheardon (1981).

   Thus, the influence of socioeconomic status is difficult to determine because in this study of high-achievers, sixty percent cite financial barriers in a sample with a mean income of $54,620 and median income of $45,000; moreover, evidence exists to support the claim that willingness to pay is not the same as ability to pay (Wilcox, Saltford, & Veres, 1975).

   In view of the difficulty of relating socioeconomic status to the two-year college student from present research data, educators need to explore the role of college cost and financial assistance in the educational plans of the community

201

college student: Does socioeconomic status continue to relate to educational opportunity?

Family Environment. In the Medsker & Trent (1965) study, students from upper socioeconomic families entered college regardless of ability, and those from lower socioeconomic families did not--again, regardless of ability. Even when the student from lower socioeconomic background overcame the financial barrier and entered college, he tended to drop out even though he had no greater academic difficulty than his peers from higher economic status. What distinguished these two groups was parental influence, the source for academic motivation. In this study, with the economic barrier to education no longer an obstacle and economic backgrounds ranging from between $12,000 to $109,000, seventy-six percent of these high-achieving students attributed college attendance to parental influence--the source for motivation.

Thus, a realm of interrelated variables, only some of which are socioeconomic, enter into the cultural-social value systems in the student environment; and these, more than the economic factors, as revealed in the Medsker & Trent (1965) study and this research study, play an integral role in student educational interests. Based upon the demonstrated close relationship between the high-achiever's aspirations and his perception of parental attitude toward education in this study, educators need to know more about the influence of home

202

environment: What kinds of educational influences has the
student encountered?

Summary Findings: Influential Aspects of the Community College

Although student involvement, theoretically an element in
the integration of the student with the institutional
environment, is not a contributor toward the success of the
high-achieving student in this study, faculty-student
interaction, an even more important influential aspect of
collegiate integration, contributes significantly to academic
achievement in this study.   From the results of this study
evolves a description of the effective educator: accessibility
outside the classroom, concern for his students, willingness
to   discuss   intellectual   matters   and   career   concerns,
stimulating class sessions, and encouragement to excell--all
characteristic of an enthusiastic, devoted educator.

No matter how ideal the role of the community college
instructor, the student's experiences with the faculty are
more influential in terms of educational outcomes, for example
the increase in purpose and direction (goals) and development
of self-confidence.   In this study of high-achievers, both
testimonials of career identity and opportunity to interact
with faculty support the findings in the literature that the
higher the interaction between faculty and student the greater
the change in "intellectual disposition" and career identity

(Pascarella & Terenzini, 1976). Moreover, the student's interpersonal relationships with faculty in this study support Spady's (1971) findings that interactions influence not only intellectual interests but also academic achievement. From the interviews and the literature (Wilson, et al, 1975), it also appears that the particular personal characteristics and orientations of the faculty to whom the student is exposed significantly influence the student to seek these interpersonal relationships. It is also conceivable that the self-directed high-achiever with a propensity for learning seeks out the faculty because he is benefiting from the academic experience; however, the most likely observation is that the faculty-student interaction and the educational outcome reinforce one another. In any case, administrators should develop programs designed to increase faculty-student interaction and influence educational outcomes.

Thus, in the two-year commuter institution, integration into the academic system appears more important to high-achievement than integration into the social system; moreover, the faculty-student interaction and impact seem significantly related to student characteristics, both findings of which are supported in the literature. For example, in two studies of the two-year institution (Pascarella and Chapman, 1983; Pascarella, Duby, and Iverson, 1983), the researchers conclude that

> ...in many commuter institutions the opportunities
> for social involvement are sufficiently few that
> the concept of social integration has little meaning
> in terms of bonds to the institution (p. 98)

and that student commitment to the institution is "defined to

a significant degree by academic integration" (p. 98) through

its direct effect on student goals.

These researchers conclude also that the Tinto (1975)

model does not relate adequately to the commuter institution,

one of several reasons why this researcher did not select it

for this research study. (The other reasons appear in the

section titled **Summary Findings: the Cross Concept of**

Motivation.)

Implications and Future Research

Self-confidence. In this study, more than twenty years

since the observations of Knoell & Medsker (1965) and Astin,

et al. (1967) that fifty-seven percent of those who enter

senior colleges feel self-confident compared with only twenty-

nine percent of those who enter junior colleges, the

researcher finds that seventy percent of these high-achieving

transfers attended the community college to explore their

academic abilities and that they rank the opportunity to

discover their abilities and interests as third among reasons

for attending the community college. Thus, it appears from

all these studies that the two-year college student remains

less confident than his senior college peer.

To encourage and foster the development of the student who lacks self-confidence in his ability, the community college educator needs to create educational activities with low threat levels, unlike those encountered in the student's past experience--innovative approaches to learning. For example, self-directed learning bestows upon the learner complete control: to set his own pace, to engage in inquiry at his bidding, and to withdraw if he likes; television learning, somewhat greater in risk, permits the learner to proceed with planned content and assignments without risk unless he decides to establish his competency in the subject-matter; competency-based learning admits the learner into noncompetitive education. Of course, almost all learning activities for academic credit are competitive and biased toward those with self-confidence; moreover, the continuation of the traditional style of learning restricts the development of self-confidence for the community college student.

Educators need to explore further the causes for the student's academic insecurity: Is the high school experience such that the student learns to question his academic ability? Is the high school experience such that his non-participation arouses doubts about his academic preparation for college?

Peer Influence. In this study of the high-achiever, the researcher observes the community college capability to contribute toward self-confidence and attitude toward

education but its inability to enlarge upon a corollary assumption in the Cross concept that the greater the density of support for learning the greater the demand for it. Its limited implementation of peer-influence activities restricts student involvement for exposure to positive attitudes toward education and contagious interests from the environment.

Without peer-influence activities offering not only the opportunity for assistance but also training and supervision, peers in this study rely on their own resources for student interaction, thus excluding potential benefits for institutional impact: effective student services to aid student education and development, effective use of institutional resources with professional faculty in comprehensive efforts, continued student involvement with the community after the college experience, and information from peer-influence activities relayed to the institutional leadership about the attitudes and needs of students.

Based on research suggesting that the student's commitment of time and energy to academic work is influenced by student peers (Coleman, 1961; McDill & Rigsby, 1973) and the student-initiated involvement in this research study, it would be useful to determine whether different types of student peer groups stimulate student involvement and enhance the learning process, a significant factor with the diverse population at the community college.

Residential Life. Although it is not possible for community college students to move into student residences, the underlying assumption in the literature is that student integration predicts greater academic success and student development for the residential student (Astin, 1977; Chickering, 1975; Pascarella, 1985c). As Chickering (1974a) suggests, residential life need not be continuous to create peer relationships and faculty-student relationships that foster development: special residential experiences--such as retreats, workshops, field trips, and extended seminars-- approximate residential experiences for students.

In recognition of the extensive devices to assess the quality of effort that students devote to various activities (Pace, 1982) and the limited opportunity for the community college to simulate residential experience, the research question arises in connection with the quality versus quantity issue: To what extent can high-quality involvement compensate for lack of quantity?

Student-faculty Interaction. In this research study, as in most other studies, the relationship between faculty-student interaction and educational outcomes is related to individual differences among students (Feldman & Newcomb, 1969). Moreover, not all types of interaction appear to have the same influence on educational outcomes (Pascarella, 1978).

Thus, it is unlikely that both the amount and type of

faculty-student interaction are independent of the individual student characteristics. Educators need, therefore, to explore how various types of contact are associated with different educational outcomes for different kinds of students: What types of faculty-student interaction relate to different kinds of students?

Summary Findings: Cross Concept of Motivation

For a social organizational approach to the study of student change, known as collegiate impact, the researcher concentrates on the institutional sources of change rather than the substance of student change; thus, the institutional focus is more sociological than psychological in character. Astin's (1970) involvement theory does not meet the generally accepted definitions of _theory_ or the community college environment. Tinto's (1975) theory of student integration into the academic and social systems of an institution, a more explicit design than Astin's concept of involvement, also does not relate to the commuter environment at the community college. And Pascarella's (1985) causal model, more explicit of both the characteristics and environment of an institution, emphasizes the student background characteristics, interactions with the socializing agents of the institution, and the quality of student efforts; however, the institutional features--assumed to have an indirect, rather than direct,

influence on student development--are mediated through institutional environment, the quality of student effort, and student interaction with faculty. In this research study, the researcher's point of interest was the origin of the student's motivation as well as the institutional origins of student change over which institutions have control.

In terms of the community college and its impact upon both the originally eligible and originally ineligible in this study, the COR model suggests that an educational institution may foster the development of latent academic ability for the student with insufficient self-confidence in his ability to learn. In addition, the COR suggests that the student with a positive self-concept and attitude toward education, sources of his own inspiration, will pursue challenges on his own. Moreover, the COR model suggests that extending beyond the classroom into student goals and expectations increases the valence, the importance of the goal for the individual. And finally, the COR model suggests that designing learning experiences in response to life transitions challenges the student to move to advanced stages in his development.

Thus, the COR Model provides a framework for examining four kinds of motivation: enhancing self-concept, influencing attitude toward education, setting goals and expectations, and responding to life transitions. However, its emphasis upon the individual as the focus of the continuum with stimuli from

external situations, in this case the community college, points to an inherent problem in the present educational system: creating dependent rather than independent learners. In this research study, the community college high-achiever discovers his "frog pond" (Davis, 1966) where his initial success becomes his inspiration and self-motivation, perhaps even bestowing upon him a "learning-prone personality." (It is obvious, of course, that educational motivation, the most relevant variable in most descriptive studies, is more closely related to academic achievement than many other variables to describe learners. In addition, some evidence exists to suggest that a propensity for learning is associated with social class (Hiemstra, 1975)--all applicable to this present study.)

In addition to four types of motivation, the COR Model of Motivation relates to two kinds of learning styles, one of which is particularly effective in this research study--self-directed learning implemented with innovative approaches. In general, educators who wish to increase motivation in self-directed learning focus upon individual motivations (points A through D of the COR model); in contrast, those who wish to foster motivation in traditional instruction open up new opportunities and ferret out barriers (point E). For the high-achiever in this study self-directed learning means assuming responsibility for one's actions and development, an

211

attitude apparent in approaches to academic success as well as the transfer process. For the institution fostering self-directed learning, the educational environment must be such that the student feels that others care about him and his concerns, one in which the student and the instructor are secure in their roles (Knowles, 1975), an environment apparent in the community colleges in this study.

Implications and Future Research

Faculty Development. In view of the observation that the success of the high-achiever in this study stems from self-directed learning, faculty members, long steeped in the traditional approach to learning, need a variety of activities: seminars and conferences designed to acquaint faculty with concepts of motivation; exploration of attitudes, values, and affective factors in teaching styles observant of these factors; and a faculty development program supported with developmental teaching grants and videotapes which demonstrate the teaching-learning process and the effectiveness of teaching.

Thus, faculty development for in-depth exploration of student learning serves as the basis for redesigning classroom activities and relationships that guide and support self-directed learning. Fortified with such training, faculty could then utilize recent advances in teaching and learning to

promote effective relationships between students and college professors. Therefore, a high demand item for accountability in the community college in the 1990's is the implementation of an effective teaching-learning process: What options are available for exploring recent studies in teaching and learning?

Student Development. The learning orientation of the high-achiever in this study confirming the motivation theories underlying the Cross' (1981) COR Model of motivation--Miller's (1967) concept, based upon Maslow's (1970) needs theory, that the middle-class value system with emphasis on status makes it a consumer of continuing education; Tough's (1979) goal-directed theory, based upon Locke's (1969) theory in which the individual's conscious goals are the determinant of his behavior; Boshier's (1973) theory, based upon Skinner's reinforcement theory, in which the internal psychological self-concept interacts with the external environment (students, instructors, and institutional environment); Rubenson's (1977) theory, based upon Vroom's expectancy-valence theory (1964), that an act will be followed by a desired outcome; as well as Knowles' (1988) assumption that "in a world of accelerating change, it is unfair to students to turn them out knowing only how to learn from teachers" (p. 4) and Tough's (1988) assumption that "most of us as instructors do too much for the student...full responsibility

213

for the what and the how of learning" (p. 7)--send a message to the educator that not only faculty development but also student development should be the agenda of the 1990's. To foster an institutional climate in self-directed learning for the student, some institutions now offer courses in self-development as part of the curriculum and others establish a student development center to enhance self-development (Miller and Prince, 1976). In this research study, the community colleges offer nothing in the area of these concerns.

Conclusion: Why Did They Succeed?

In the two-year commuter institution, integration into the academic system appears more important to high-achievement than integration into the social system; moreover, the faculty-student interaction and impact seem significantly related to student characteristics, both findings of which are supported in the literature. With the originally eligible and originally ineligible more alike than different in entry characteristics, it seems probable that the community college experience is influential for students with these particular characteristics. In this study of high-achievers, for example, student testimonials of increases in purpose (goals) and self-confidence from interaction with faculty support the findings in the literature that the higher the interaction between faculty and student the greater the change in

214

"intellectual disposition" and career identity. Also, from the interviews and the literature, it appears that the particular personal characteristics and orientations of the faculty to whom the student is exposed influence the student to seek these interpersonal relationships.

Implications for Institutional Practice

Thus, this study indicates two themes about the community college impact in the Virginia Community College System: first, the contribution of faculty-student interaction toward the success of the high-achiever and the surrounding learning environment created from the interaction; and second, the vigor of the high-achievers' self-directed efforts in the educational environment. Therefore, the implication for the VCCS is to shape the educational environment in ways that promote learning in relationship to different types of students and to influence students to exploit these opportunities to the fullest (Chickering, 1969; Kuh, Schuh, Whitt, Andreas, Lyons, Strange, Krehbiel, & MacKay, 1991). To bring these implications to a reality, institutions need to analyze student characteristics in terms of "institutional fit," to engage student involvement, and to promote faculty development.

Since the founding of the community college with its open-door policy to expand the opportunity for the student

without academic credentials, traditional admissions criteria as the best predictor of college performance have continued to fall under the scrutiny of educators without the expertise to redefine non-processable information. For example, Nettles, Thoeny, & Gosman (1986) see student characteristics as better predictors of performance than standardized scores. In this study, for example, forty percent of these high-achievers were originally ineligible for admission to Virginia Tech; however, the combination of their characteristics as self-directed learners and the faculty-student interaction in the community college environment led them to success not only at the community college but also at Virginia Tech. Thus, student characteristics, combined with the community college environment, serve as instruments for successful performance: faculty, fortified with knowledge of student characteristics, could aim for homogeneity between student interests, attitudes, and values and the influence of the community college environment.

REFERENCES

Alba, R. D. & Lavin, D. E. (1981). Community colleges and tracking in higher education. <u>Sociology of Education</u>, 54, 223-237.

Allen, W. S. (1930). University success of junior college graduates. <u>Junior College Journal</u>, 1, 147-148.

Almanac of Higher Education. August 28, 1990. Supplement to <u>The Chronicle of Higher Education.</u>

Almanac of Higher Education. August 28, 1991. Supplement to <u>The Chronicle of Higher Education.</u>

American Association of Community and Junior Colleges (1980). Enrollment in two-year colleges. Washington, DC: Author.

American Council on Education (1971). The American freshman: National norms for fall 1971. Washington, DC: Author.

American Council on Education (1990). Setting the national agenda: Academic achievement and transfer. Washington, DC: Author.

Anderson, E. F. (1977). Three-year comparison of transfer and native student progress at the university of Illinois at Urbana-campaign, fall 1973. Eric Clearinghouse for Junior Colleges. ED 149 820.

Anderson, K. L. (1981). Post-high school experiences and college attrition. <u>Sociology of Education</u>, 54, 1-15.

Aslanian, C. B. & Brickell, H. M. (1980). <u>Americans in transition: Life changes as reasons for adult learning</u>. New York: Future Directions for a Learning Society.

Astin, A. W. (1975). <u>Preventing students from dropping out</u>. San Francisco: Jossey-Bass.

Astin, A. W. (1977). <u>Four critical years: Effects of college on beliefs, attitudes, and knowledge</u>. San Francisco: Jossey-Bass.

Astin, A. W. (1982). <u>Minorities in American higher education: Recent trends</u>. San Francisco: Jossey-Bass.

Astin, A. W. (1983). Strengthening the transfer programs. In G. B. Vaughan (Ed.), Issues for community college leaders a new era (pp. 122-138). San Francisco: Jossey-Bass.

Astin, A. W. (1984). Student involvement: a development theory for higher education. Journal of College Student Personnel, 25 (4), 297-308.

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

Astin, A. W. & Panos, R. J. (1969). The educational and vocational development of college students. Washington, DC: American Council on Education.

Astin, A. W., Panos, R. J., & Creager, J. A. (1967). National norms for entering college freshman--fall, 1966. ACE Research Reports, 2 (1). Washington, DC: American Council on Education.

Atkinson, J. W. & Feather, N. T. (1966). A theory of achievement motivation. New York: Wiley.

Bernstein, A. (1986). The devaluation of transfer: Current explanations and potential causes. In L. S. Zwerling (Ed.), The community college and its critics: New directions for community colleges (Vol. 54, pp. 31-40). San Francisco: Jossey-Bass.

Bird, G. V. (1956). Preparation for advanced study. In N. B. Henry (Ed.), The public junior college: the fifty-fifth yearbook of the national society for the study of education (pp. 77-93). Illinois: The University of Chicago Press.

Block, R. C. (1970). A Comparative study of the academic performance of and success of community college graduates occupational and transfer programs who transferred to four-year colleges and universities in Michigan. Dissertation Abstracts International, 31, 6358A.

Boshier, R. (1971). Motivational orientations of adult education participants: A factor analytic exploration of Houle's typology. Adult Education, 21, 3-26.

Boshier, R. (1973). Educational participation and dropout: A theoretical model. Adult Education, 23 (4), 255-282.

Bowen, H. R. (1977). Investment in learning: The individual and social value of American higher education. San Francisco: Jossey-Bass.

Bowen, H. R. (1982). The state of the nation and the agenda for higher education. San Francisco: Jossey-Bass.

Brawer, F. B. & Friedlander, J. (1979). Science and social science in the two-year college. Eric Clearinghouse for Junior Colleges. ED 172 854.

Breneman, D. W. & Nelson, S. C. (1981a). Financing community colleges: An economic perspective. Washington, DC: The Brookings Institute.

Breneman, D. W. & Nelson, S. C. (1981b). The future of community colleges. Change, 13 (5), 17-25.

Brint, S. & Karabel, J. (1989). The diverted dream: Community colleges and the promise of educational opportunity in America, 1900-1985. New York: Oxford University Press.

Brown, J. H. (1976). A comparison of academic success between four-year senior college students and selected two-year transfer students at North Texas State University. Dissertation Abstracts International, 37 (4), 1896A.

Carnegie Commission on Higher Education. (1971). New students for the future growth and development of american higher education. New York: McGraw-Hill.

Carp, A. Peterson, R., & Roelfs, P. (1974). Adult learning interests and experiences. In K. P. Cross, J. R. Valley, & Associates (Eds.), Planning non-traditional programs; An analysis of the issues for post-secondary education (pp. 11-52). San Francisco: Jossey-Bass.

Centra, J. & Rock, D. (1971). College environment and student achievement. American Educational Research Journal, 8, 623-34.

Chickering, A. W. (1958). Self-concept, ideal self-concept, and achievement. Unpublished dissertation. New York: Columbia University.

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

Chickering, A. W. (1970). The experience of college questionnaire. Sarotoga Springs, New York.

Chickering, A. W. (1974a). Commuting versus resident students: Overcoming the educational inequities of living off campus. San Francisco: Jossey-Bass.

Chickering, A. W. (1974b). The impact of various college environments on personality development, Journal of the American Health Association, 23, 82-93.

Claggett, C. A. (1987). Community college transfers at UMCP. Eric Clearinghouse for Junior Colleges. ED 296-776.

Clark, B. R. (1960a). The cooling-out function in higher education. American Journal of Sociology, 65 (6), 569-76.

Clark, B. R. (1960b). The open door: A case study. New York: McGraw-Hill.

Clark, B. R. (1980). The cooling-out function revisited. In G. B. Vaughan (Ed.), New directions for community colleges: Questioning the community college role (pp. 15-31). San Francisco: Jossey Bass.

Cohen, A. M. (1979). Counting the transfer students. Eric Junior College Review. Eric Clearinghouse for Junior Colleges. ED 172 864.

Cohen, A. M. (1989). Commitment to transfer. Washington, DC: Office of Educational Research and Improvement. Eric Clearinghouse for Junior Colleges. ED 310 832.

Cohen, A. M. (1991). The transfer indicator: Progress to date in the transfer assembly project. Working Papers, 2 (2). Washington, D. C.: American Council on Education/National Center for Academic Achievement and Transfer.

Cohen, A. M. & Brawer, F. B. (1982). The American community college. San Francisco: Jossey-Bass.

Cohen, A. M. & Brawer, F. B. (1987). <u>The collegiate</u> <u>function of community colleges</u>. San Francisco: Jossey-Bass Publishers.

Cohen, A. M. & Lombardi, J. (1979). Can the community colleges survive success. <u>Change</u>, 11 (8), 24-27.

Coleman, J. S. (1961). <u>The Adolescent Society</u>. New York: Free Press.

Coles, J. S. (1963). Introductory Remarks. Proceedings of Symposium on Undergraduate Environment. October 18-19, 1962. Bowdoin College.

Congdon, W. H. (1932). Do junior college transfers succeed? <u>Junior College Journal</u>, 2, 538-541.

Cosand, J. P. (1979). Perspective: Community colleges in the 1980's. Washington, DC: American Association of Community and Junior Colleges. Eric Clearinghouse for Junior Colleges. ED 178 146.

Cronbach, L. J. (1975). Beyond the two disciplines of scientific psychology. <u>American Psychologist</u>, 30 (2), 116-127.

Cross, K. P. (1967). Beyond ability. <u>The Research</u> <u>Reporter</u>, 2 (1), 1-4.

Cross, K. P. (1968). The junior college student: A research description. Princeton, NJ: Educational Testing Service. Eric Clearinghouse for Junior Colleges. ED 024 354.

Cross, K. P. (1981). <u>Adults as learners</u>. San Francisco: Jossey-Bass.

Davis, J. A. (1966). The campus as a frog pond: An application of the theory of relative deprivation to career decisions of college men. <u>American Journal of</u> <u>Sociology</u>, 72, 17-31.

de Charms, R. & Muir, M. S. (1978). Motivation: Social approaches. <u>Annual Review of Psychology</u>, 29, 91-113.

de Wolf, V. I, (1978). A comparison of University of Washington performance of community college associate in arts degree holders: A preliminary analysis. Eric Clearinghouse for Junior Colleges. ED 188-653.

Denzin, N. K. (1989). The Research act: A theoretical
    introduction to sociological methods (3rd ed.). New
    York: McGraw-Hill.

Dexter, L. A. (1970). Elite and specialized interviewing.
    Evanston, Illinois: Northwestern University Press.

Dougherty, Kevin (1987). The effects of community colleges:
    Aid or hindrance to socioeconomic attainment?
    Sociology ofEducation, 60 (2), 86-103.

Eells, W. C. (1941). Why junior college terminal education?
    Washington, DC: American Association of Junior
    Colleges.

Eells, W. C. (1943). Success of transferring graduates of
    junior college terminal curricula. Registrars Journal
    (Journal of American Association of Collegiate
    Registrars), 18 (7), 372-398.

Emphasis on excellence. (1980). Miami: Miami-Dade Community
    College. Eric Clearinghouse for Junior Colleges. ED
    198-840.

Enrollment by race, 1990. (March 18, 1992). The Chronicle
    of Higher Education, 38 (28), A36-44.

Entwistle, N. J. (1972). Personality and academic
    attainment. British Journal of Educational Psychology,
    42, 137-151.

Entwistle, J., Entwistle, D., & Cowell, M. D. (1971). The
    academic performance of students. Prediction from
    scales of motivation and study methods. British Journal
    of Educational Psychology, 41, 258-267.

Federico, J. J. & Shoemaker, B. (1974). Summary of a study
    to determine the factors that influence a student's
    ability to transfer successfully from Lehigh County
    Pennsylvania Community College. Eric Clearinghouse for
    Junior Colleges. ED 097 042.

Feldman, K. A. & Newcomb, T. M. (1969). The impact of
    college on students. Vol. 1. San Francisco: Jossey-
    Bass.

Feldman, K. A. (1972). Some theoretical approaches to the
    study of change and stability of college students.
    Review of Educational Research, 42, 1-26.

Folger, J., Astin, H., & Bayer, A. (1970). Human resources
    and higher education. New York: Russell Sage.

Friedlander, J. (1979a). The humanities curriculum in the
    community/junior college. Community/Junior College
    Research Quarterly, 3(4), 297-309.

Friedlander, J. (1979b). The social science curriculum in
    the community college. Eric Clearinghouse for
    Junior Colleges. ED 168 623.

Friedlander, J. (1980). An eric review: Why is transfer
    education declining? Community College Review, 8 (2),
    59-66.

Garrett, L. W. & Schultz, R. E. (1967). Junior college
    honor students who were initiated into Phi Theta Kappa
    for selected years during the period 1947-1965. Eric
    Clearinghouse for Junior Colleges. ED 014 308.

Glaser, G. G. & Strauss, A. L. (1967). The discovery of
    grounded theory. Chicago: Aldine Publishing Co.

Gleazer, E. J. (1980). The community college: Values,
    vision, and vitality. Washington, DC: American
    Association of Community and Junior Colleges.

Gold, B. K. (1967). Some characteristics of Los Angeles
    city college transfers who earned academic honors at
    U.C.L.A. Eric Clearinghouse for Junior Colleges. ED
    016 478.

Grossman, D. D. (1934). Junior college transfers at
    Illinois. Junior College Journal, 4, 297-303.

Grubb, W. N. (1991). The decline of community college
    transfer rates. Journal of Higher Education, 62 (2),
    194-222.

Gruca, J., Ethington, C., & Pascarella, E. (1988).
    Intergenerational effects of college graduation on
    career sex-atypicality in women. Research in Higher
    Education, 29, 99-124.

Guba, E. G. & Lincoln, Y. S. (1981). Effective evaluation.
    San Francisco: Jossey-Bass.

Hartmann, E. L. & Caple, R. B. (1969). Academic achievement of junior college transfer students and native students, The Journal of College Student Personnel, 10, 378-381.

Havighurst, R. J. (1972). Developmental tasks and education (3rd ed.). New York: McKay.

Henson, R. E. (1970). A study of the academic success of transfer students to Michigan State University from selected Michigan community colleges. Dissertation Abstracts International, 31 (5), 2057A.

Hiemstra, R. (1975). The older adult and learning. Lincoln: University of Nebraska.

Hill, R. & Stafford, F. (1980). Parental care of children: Time diary estimates of quantity, predictability, and variety. Journal of Human Resources, 15, 219-239.

Hills, J. R. (1965). Transfer shock: the academic performance of the junior college transfer. Journal of Experimental Education, 33 (3), 201-215.

Hollingshead, A. B. (1957). Two factor index of social position. n. p.

Hollingshead, A. B. & Redlich, F. C. (1958). Social class and mental illness. New York: John Wiley and Sons.

Holstrom, E. I. & Bisconti, A. S. (1974). Transfers from junior to senior colleges. Washington, DC: American Council on Education.

Houle, C. O. (1961). The inquiring mind. Madison: University of Wisconsin Press.

Hoyt, D. P. (1960). Junior college performance and its relationship to success at Kansas State University. College and University, 25, 281-91.

Hughes, W. H. (1968). A study comparing the academic achievement of junior college transfer students with that of native students at Mississippi State University. Unpublished dissertation. Mississippi University.

Identifying and assisting transfer: Survey of current policies and practices (1982). California: Office of the Chancellor of the California Community College System. Eric Clearinghouse for Junior Colleges. ED 223 277.

Jacob, P. E. (1957). Changing values in college: An exploratory study of the impact of college teaching. New York: Harper.

Jacobson, R. L. (1977, March 28). Higher education and the job crisis: Public disillusionment provokes a debate. The Chronicle of Higher Education, 14 (5), 3.

Jacobson, R. L. (1991, November 20). Academic leaders predict major changes for higher education in recession's wake. The Chronicle of Higher Education, 38 (13), 1, 35-36.

Karabel, J. (1972). Community colleges and social stratification. Harvard Educational Review, 42, 521-562.

Karabel, J. (1986). Community colleges and social stratification in the 1980's. In L. S. Zwerling (Ed.), The community college and its critics: New directions for community colleges (Vol. 54, pp. 13-30). San Francisco: Jossey-Bass.

Karabel, J. & Astin, A. W. (1975). Social class, academic ability, and college 'quality.' Social Forces, 53 (3), 381-398.

Karabel, J. & McClelland, K. (1987). Occupational advantage and the impact of college rank on labor market outcomes. Sociological Inquiry, 57, 323-347.

Kintzer, F. C. & Wattenbarger, J. L. (1985). The articula-tion/transfer phenomenon: Patterns and directions. Washington, DC: American Association of Community and Junior Colleges. Eric Clearinghouse for Junior Colleges. ED 257 539.

Kirk, J. & Miller, M. L. (1980). Reliability and validity in qualitative research. Newbury Park: Sage Publications.

Kissler, G. R. (1980). Trends affecting undergraduate education at the University of California. University of California Board of Regents. Eric Clearinghouse for Junior Colleges. ED 194 138.

Kissler, G. R. (1982). The decline of the transfer function: Threats or challenges? In F. C. Kintzer (Ed.), Improving articulation and transfer relationships: New directions for community colleges (Vol. 39 (4), pp. 19-29). San Francisco: Jossey-Bass.

Kissler, G. R., Lara, J. F., & Cardinal, J. L. (1981, April 13-17). Factors contributing to the academic difficulties encountered by students who transfer from community colleges to four-year institutions. Paper presented at the Annual Meeting of the American Educational Research Association. Los Angeles, California. Eric Clearinghouse for Junior Colleges. ED 203 920.

Klein, R. B. & Snyder, F. A. (1969). Non-academic characteristics and achievement. The Journal of College Student Personnel, 10 (5), 328-332.

Knoell, D. M. (1982). The transfer function--one of many. New Directions for Community Colleges, 10 (3), 5-17.

Knoell, D. M. (1983). Serving today's diverse students. In G. B. Vaughan and associates (Eds.), Issues for community college leaders in a new era (pp. 21-38). San Francisco: Jossey-Bass.

Knoell, D. M. & Medsker, L. L. (1964). Factors affecting the performance of transfer students from two to four-year colleges: With implications for coordination and articulation. Center for the Study of Higher Education. Berkeley: University of California.

Knoell, D. M. and Medsker, L. L. (1965). From junior to senior college: A national study of the transfer student. Washington, DC: American Council on Education.

Knowles, M. (1975). Self-directed learning. Chicago: Associated Press/Follett Publishing.

Knowles, M. (1988). Beyond the adult learner's dependency. In Perspectives on adult education (pp. 6-10). Supplement to Aurora. Athabasca University. Eric Clearinghouse for Junior Colleges. ED 307-391.

Koos, L. V. (1925). The junior-college movement. Boston: Ginn and Company.

Kuh, G., Krehbiel, L., & MacKay, I. (1988). Personal development and the college student experience: A review of the literature. Trenton, NJ: New Jersey Department of Higher Education, College Outcomes Evaluation Program.

Kuh, G., Schuh, J., Whitt, E., Andreas, R., Lyons, J., Strange, C., Krehbiel, L., & McKay, K. (1991). Involving colleges: encouraging student learning and personal development through out-of-class experiences. San Francisco: Jossey-Bass.

Lavin, D. E. (1965). The prediction of academic performance. New York: Russell Sage Foundation.

Lincoln, Y. S. & Guba, E. G. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage Publishers.

Lindia, A. (1971). The Predictability of selected variables on academic success of community/junior college transfers at Central Connecticut State College. Dissertation Abstracts International, 33 (6), 2657A.

Locke, E. A., Shaw, K. N., Saari, L. M., & Lathan, G. P. (1981). Goal setting and task performance. Psychological Bulletin, 90, 125-152.

Lofland, J. (1971). Analyzing social settings: A guide to qualitative observation. Belmont, CA: Wadsworth Publishers.

Lombardi, J. (1979). The decline of the transfer function. Eric Clearinghouse for Junior Colleges. ED 179 273.

London, H. B. (1978). The culture of a community college. New York: Praeger.

Lunnenborg, P. W. & Lunnenborg, C. E. (1967). Improving prediction of academic achievement for transfer students. Personnel and Guidance, 45, 993-995.

Lynch, D. (1936). Achievement prognosis at Duluth. Junior College Journal, 7, 78-80.

Margrain, S. A. (1978). Student characteristics and academic performance in higher education. Research in Higher Education, 8 (2), 111-123.

Marshall, C. & Rossman, G. B. (1989). Designing qualitative research. Newbury Park, CA: Sage Publications.

Martorana, S. V. & Williams, L. L. (1954). Academic success ofjunior college transfers at the State College of Washington. Junior College Journal, 34, 402-415.

Maslow, A. H. (1943). A theory of human motivation. Psychological Review, 50, 370-396.

Maslow, A. H. (1970). Motivation and personality. 2nd. ed. New York: Harper and Row.

McCabe, R. H. (1979). Restructuring community colleges for life-long education. In J. Gilder (Ed.). Policies for life-long education. Washington, DC: American Association for Community and Junior Colleges.

McClelland, D. C. (1985). Human motivation. Glenview, Illinois: Scott, Foresman & Co.

McCook, J. E. (1973). Prediction of academic success of Tennessee Community-Junior College transfer students. Dissertation Abstracts International, 34 (8), 4791A.

McDill, E. L. & Rigby, I. C. (1973). Structure and process in secondary schools: The academic impact of educational climates. Baltimore: Johns Hopkins University Press.

McIntyre, C. (1987). Assessing community college transfer performance. Research in Higher Education, 27 (2), 142-163.

Medsker, L. L. (1960). The junior college: Progress and prospect. New York: McGraw-Hill.

Medsker, L. L. & Trent, J. W. (1965). Factors affecting college attendance of high school graduates from varying socioeconomic and ability levels. Berkeley: Center for Research and Development in Higher Education.

228

Mercer, Joye (1991, May 6). States turn to community colleges as route to bachelor's degree as 4-year campuses face tight budgets and overcrowding. The Chronicle of Higher Education, 38 (35), 1 & 28.

Merton, R. K. & Kendall, P. L. (1990). The focused interview: A manual of problems and procedures. 2nd ed. New York: Free Press.

Miller, G. W. (1970). Success, failure, and wastage in higher education. London University Institute of Education.

Miller, H. L. (1967). Participation of adults in education: A force-field analysis. Boston: Center for the Study of Liberal Education for Adults.

Miller, H. F., Janawsky, R., & Katz, A. (1977). The academic achievement of two-year college graduates in New Jersey four-year colleges. Eric Clearinghouse for Junior Colleges. ED 143 397.

Miller, T. K. & Prince, J. S. (1976). The future of student affairs: A guide to student development for tomorrow's higher education. San Francisco: Jossey-Bass.

Moore, W. (1970). Against the odds. San Francisco: Jossey-Bass.

Morstain, B. R. & Smart, J. C. (1974). Reasons for participation in adult education courses: A multivariate analysis of group differences, Adult Education, 24 (2), 83-98.

Nettles, M., Thoeny, A., & Gosman, E. (1986). Comparative and predictive analyses of black and white students' college achievement and experience. Journal of Higher Education, 57, 289-318.

Neumann, W. & Riesman, D. (1980). The community college elite. In G. B. Vaughan (Ed.), Questioning the community college role: New directions for community colleges (Vol. 32, pp. 53-71). San Francisco: Jossey-Bass.

Newcomb, T. (1966). The general nature of peer group influence. In T. Newcomb & K. Wilson (Eds.). College peer groups: Problems and prospects for research (pp. 2-16). Chicago: Aldine.

Newcomb, T., Brown, D., Kulik, J., Reimer, D., & Revelle, W. (1970). Self-selection and change. In J. Gaff (Ed.). The Cluster College (pp. 137-60). San Francisco: Jossey-Bass.

Nickens, J. M. (1972a). Transfer shock or transfer ecstasy? Paper presented at the annual meeting of the American Educational Research Association. Chicago: Illinois.

Nickens, J. M. (1972b). A comparison of accuracy of selected models for predicting academic performance of junior college transfer students. Journal of Educational Research, 66 (3), 111-114.

Nix, A. P. (1959). An evaluation of the contribution of four selected personality factors to the prediction of first quarter grades of University of Georgia freshmen in selected curricula areas. Dissertation Abstracts, 1959, 20, 2678.

Nolan, E. J. & Hall, D. I. (1978). Academic performance of the community college transfer student: A five-year follow-up study. Journal of College Student Personnel, 19, 543-48.

Orfield, G. & Paul, F. (1987). Declines in minority access: A tale of five cities. Educational Record, 68 (4), 56-62.

Pace, C. R. (1982). Achievement and the quality of student effort: Report prepared for the National Commission on Excellence in Education. Los Angeles: University of California.

Parker, G. G. (1975). Collegiate enrollees in American two-year institutions, 1974-75: Statistics, interpretations, and trends. Iowa City, Iowa: American College Testing Program. Eric Clearinghouse for Junior Colleges. ED 114-130.

Pascarella, E. T. (1980). Student-faculty informal contact and college outcomes. Review of Educational Research, 50 (4), 545-595.

Pascarella, E. (1984). College environmental influences on students' educational aspirations. Journal of Higher Education, 55, 751-771.

Pascarella, E. T. (1985a). College environmental influences on learning and cognitive development: A critical review and synthesis. In J. C. Smart (Ed.), Higher education: Handbook of theory and research (Vol. 1, pp. 1-61). New York: Agathon.

Pascarella, E. T. (1985b). Students' affective development within the college environment. Journal of Higher Education, 56, 640-663.

Pascarella, E. T. (1985c). The influence of on-campus living versus commuting to college on intellectual and interpersonal self-concept. Journal of College Student Personnel, 26, 292-299.

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

Pascarella, E. T., Duby, P. B., and Iverson, B. K. (1983). A test and reconceptualization of a theoretical model of college withdrawal in a commuter institution setting. Sociology of Education, 56, 88-100.

Pascarella, E. T. & Terenzini, P. (1976). Informal interaction with faculty and freshman ratings of academic and non-academic experience of college. Journal of Educational Research, 70, 35-41.

Pascarella, E. T. & Terenzini, P. T. (1977). Patterns of student-faculty informal interaction beyond the classroom and voluntary freshman attrition. Journal of Higher Education, 48, 540-552.

Pascarella, E. T. & Terenzini, P. T. (1978). Student-faculty informal relationships and freshman year educational outcomes. Journal of Educational Research, 71, 183-189.

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

Patton, M. Q. (1980). Qualitative evaluation methods. Beverly Hills, CA: Sage Publishers.

Phelan, W. (1979). Undergraduate orientations toward
     scientific and scholarly carers. American
     Educational Research Journal, 16, 411-422.

Phlegar, A. G. (1978). Predicting the academic performance
     of the Virginia Community College transfer.
     Unpublished dissertation. Virginia Polytechnic
     Institute and State University.

Place, R. I. (1961). The academic successes of junior
     college transfer students in the California State
     College. Dissertation Abstracts, 21 (11), 3313.

Radcliffe, S. K. (1984). Academic performance of Howard
     Community College students in transfer institutions.
     Research Report No. 37. Columbia, Maryland: Howard
     County Community College.

Richardson, R. C. & Bender, L. (1987). Fostering minority
     access and achievement in higher education. San
     Francisco: Jossey-Bass.

Rinehart, R. (1977). Assessing successful articulation of
     transfer students. New Directions for Community
     Colleges, 5 (2), 37-50.

Rodes, H. P. (1949). Successful transfer in engineering.
     Junior College Journal, 20, 121-127.

Rossi, P. (1966). Research strategies in measuring peer
     group influence. In T. Newcomb & E. Wilson (Eds.).
     College peer groups: Problems and Prospects for
     Research (pp. 190-214). Chicago: Aldine.

Rubenson, K. (1977). Participation in recurrent education:
     A research review. Paper presented at meeting of
     National Delegates on Developments in Recurrent
     Education.

Russell, A. A. & Perez, P. L. (1980). Stopping the
     attrition of science transfer students. New Directions
     for Community Colleges, 8 (3), 65-72.

Siemens, C. H. (1943). Predicting success of transfer
     students. Junior College Journal, 14 (1), 24-28.

Sims, D. M. (1966). A study of the relationship of institutional characteristics of the junior college of origin to the academic performance of public junior college transfer students in four universities in the University of Florida System. Unpublished dissertation. Eric Clearinghouse for Junior Colleges. ED 026-041.

Sitzman, M. J. (1972). The prediction of academic success for transfer students from Florida Community Colleges to the University of Florida. Dissertation Abstracts International, 34 (1), 141A.

Skinner, B. F. (1969). Contingencies of reinforcement. New York: Appleton-Century-Crofts.

Spady, W. (1971). Drop-outs from higher education: Toward an empirical model. Interchange, 2, 38-62.

Spradley, J. P. (1979). The ethnographic interview. New York: Holt, Rinehart, & Winston.

Spradley, J. P. (1980). Participant observation. New York: Holt, Rinehart, & Winston.

Stone, J. C. (1975). A study of the relative academic success of Mississippi public junior college completions of terminal programs who transferred to Mississippi public senior colleges in 1969 through 1972. Dissertation Abstracts International, 36 (3), 146A.

Strauss, A. L. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: Sage Publishers.

Taylor, H. (1971). How to change colleges: Notes on radical reform. New York: Holt, Rinehart, & Winston.

Templin Jr., R. G. & Sheardon, R. W. (1980). Curriculum tracking and social inequality in the community college. In G. B. Vaughan (Ed.), Questioning the Community College Role: New Directions for the Community College, (Vol. 32, pp. 83-92). San Francisco: Jossey-Bass.

Terenzini, P. T. & Pascarella, E. T. (1980). Toward the validation of Tinto's model of college attrition: A review of recent studies. Research in Higher Education, 12, 271-282.

Thornton, J. W. (1972). The community junior college (3rd ed.). New York: Wiley.

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

Tough, A. (1979). Choosing to learn. In G. M. Healy & W. L. Ziegler (Eds.), The Learning stance: Essays in celebration of human learning. Washington, DC: National Institute of Education.

Tough, A. (1988). Self-directed learning: the role of the educational institution. In Perspectives on adult education (pp. 6-10). Supplement to Aurora. Athabasca University. Eric Clearinghouse for Junior Colleges. ED 307-391.

Transfer, honors, and excellence: Six districts spotlighted (1982). Los Angeles: Center for the Study of Community Colleges. Eric Clearinghouse for Junior Colleges. ED 221-257.

Trent, J. & Medsker, L. (1968). Beyond high school. San Francisco: Jossey-Bass, 1968.

Vaughan, G. B. & Templin, R. G. (1987). Value-added: Measuring the community college's effectiveness. The Review of Higher Education, 10 (3), 235-245.

Velez, W. (1985). Finishing college: the effects of college type. Sociology of Education, 58, 191-200.

Virginia Community College System. Student Profile: VCCS Routine Planning Elements 1981-1982 through 1991-1992. Author.

Vroom, V. (1964). Work and motivation. New York: Wiley.

Wallace, W. (1965). Peer influences and undergraduate aspirations for graduate study. Sociology of Education, 38, 375-392.

234

Wankowski, J. A. & Cox, J. B. (1973). <u>Temperament, motivation, and academic achievement</u>. Birmingham: University of Birmingham Educational Survey.

Webb, E. (1985). Follow-up study of transfer students from College of the Sequoias to California State University. Eric Clearinghouse for Junior Colleges. ED 269-076.

Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L.(1966). <u>Unobtrusive measures: Nonreactive research in the social sciences</u>. Chicago: Rand McNally.

Wilcox, J., Saltford, R., & Veres, H. (1975). <u>Continuing education: Bridging the information gap</u>. New York: Cornell University.

Wilson, R., Wood, L., Gaff, J. (1974). Social-psychological accessibility and faculty-student interaction beyond the classroom. <u>Sociology of Education</u>, 47, 74-92.

Wilson, R. C., Gaff, J. G., Dienst, E. R. Wood, L., Bavry, J. L. (1975). <u>College professors and their impact on students</u>. New York: Wiley.

Wood, L. & Wilson, R. (1972). Teachers with impact. <u>Research Reporter</u>, 7, 1-4.

Wolfgang, A. (1977). The silent language in the multicultural classroom. <u>Theory into Practice</u>, 16 (3), 145-152.

Appendix A
Request for Documents

October 22, 1991

Memorandum

To: Wanda Dean, Registrar
From: Dr. Samuel D. Morgan, Program Director in EDCC
       Virginia Walker, doctoral student in EDCC
Reference: Data request for dissertation
            Topic: A Study of High-achieving Transfer
            Students from Virginia Community Colleges to
            Virginia Tech

We need a computer search to identify Virginia Community College students, who transferred to Virginia Tech for the Fall 1990 semester: only those students with at least twelve semester hours of credit and no prior attendance at a four-year college, only those students originally-ineligible for admission to Virginia Tech, and only those students who attained high academic achievement (3.0 or greater) at the community college and maintained high academic achievement (3.0 or greater) during the first semester at Virginia Tech.

Include the following data on each student:

1.   Name
2.   Address
3.   Phone number
4.   Social security number
5.   Gender
6.   Ethnicity
7.   Birth date
8.   Community college of origin
9.   GPA at community college
10. Curriculum major at Virginia Tech
11. GPA at high school
12. SAT score (if available)
13. Total community college credits transferred
14. Associate degree, if awarded
15. GPA first semester at Virginia Tech

We would like also copies of 1) the requirements for admission to Virginia Tech as an undergraduate and 2) transfer policies which govern the acceptance of credit and associate degrees from Virginia Community Colleges to Virginia Tech.

236

Appendix B
Confidentiality Statement

January 24, 1992

Student's Name
Address
Town, State

Dear Student:

You have been selected as a possible participant in a research analysis of high-achieving transfers from the Virginia Community Colleges to Virginia Tech. Our experience is that students, an especially important source of information and insight, have a valuable contribution to make in reaching policy decisions regarding educational experiences.

In a few days a researcher, Virginia Walker, will contact you with a request to participate in this study. If you agree to participate, she will provide you with a signed card with her signature assuring you of the confidentiality of your information and of your identity. Likewise, she will request your signed agreement to participate in the study. A facsimile of the card is as follows:

> I agree to participate in this research project and understand the information will appear in confidential form in a research report.
>
> Signed, _____
>
> I agree that all information and the student's identity will remain strictly confidential in the research report.
>
> Signed, _____

We hope that you will be able to participate and be able to donate an hour of your time to share your experiences at the community college.

Sincerely,

Wanda Hankins Dean
University Registrar

cc: J. F. Wolfe, Vice Provost for Academic Affairs

Appendix C
Survey Questionnaire for Transfers

1. How would you rate yourself on these traits?

    1...2...3...4...5
    LOW   HIGH

    _____academic ability
    _____self-discipline
    _____leadership ability
    _____self-confidence (social)
    _____self-confidence (intellectual)
    _____emotional health
    _____physical health
    _____athletic ability
    _____artistic ability
    _____mechanical ability

2. Among the following, which **one** do you think will give
    you the greatest satisfaction in life? (Check only
    one.)
    _____career or occupation
    _____financial success
    _____marriage and family relationships
    _____leisure-time activities (hobbies, sports)
    _____religious activities
    _____contributions to people and society
    _____literature, art, and music

3. List all **community colleges** where you enrolled before
    you came to Virginia Tech.

    _____ _____
    _____ _____
    _____

4. List all **four-year colleges** or **universities** you attended
    before you came to Virginia Tech.

    _____ _____
    _____ _____
    _____

5. Did you graduate with an **AA degree** from the **community
    college?**   ____yes   no____

6. How many semesters in **all** (including the summer) did you
    attend the **community college/s?**

7. What is your **community college** GPA? (Circle nearest one.)
   3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0

8. Were you originally eligible for VT? ___yes no___

9. When you enrolled at the **community college**, what was the highest aspiration that you eventually wished to attain?
   ___no degree
   ___associate degree
   ___baccalaureate
   ___masters
   ___doctorate
   ___advanced professional degree (JD, MD, DVM, DDS)

10. **Presently,** what is the highest degree that you eventually wish to earn?
    ___baccalaureate
    ___masters
    ___doctorate
    ___advanced professional degree (JD, MD, DVM, DDS)

11. What is your curriculum major at Virginia Tech?
    _____

12. Rate the importance of **each** reason for beginning your studies at the **community college.**

    1...2...3...4...5
    LOW   HIGH

    ___college location
    ___cost efficiency
    ___opportunity to discover your ability
       and/or interest
    ___special program availability
    ___developmental courses in basic skills
    ___financial aid
    ___easier to transfer to VT than to be
       admitted as freshman

13. Rate the importance of **each** influence for beginning your studies at the **community college**.

    1...2...3...4...5
    LOW   HIGH

    ___parental advice
    ___counselor's advice
    ___friend's advice
    ___yours

14. What **life transition** (significant change calling for adjustment to a new phase in your life) influenced you to attend college? (Check **one**.)
    ___none
    ___job termination
    ___marriage
    ___divorce
    ___death of husband/wife
    ___children out-of-the-nest
    ___inheritance
    ___other (specify_____)

15. If a life transition does not apply, to **whom** (including yourself) do you attribute your decision to attend college? _____

16. Rate the importance of **each reason** in terms of its motivating you to learn.

    1...2...3...4...5
    LOW   HIGH

    ___social (to fulfill need for friendships)
    ___**external** expectations (to satisfy some authority)
    ___social welfare (to serve mankind or community)
    ___professional advancement (to secure advancement)
    ___escape/stimulation (to contrast with routine)
    ___cognitive interest (to satisfy an inquiring mind)

17. Which statement below **most** describes what you perceive to be the ideal role of the instructor at the **community college**? (Check **one**.)
___Instructor dispenses knowledge, which is the student's job to master
___Instructor directs his effort to help students to learn
___Instructor and student work together as both increase their understanding of the subject matter
___Instructor serves mainly as a resource for students while students have the principal responsibility for their studies

18. Did the instructors at the **community college** generally meet the concept that you checked in the above question?
___yes ___no

19. What has been your general pattern of study? (Check **one**.)
___I usually coast but work hard at times
___I work steadily at a moderate level
___I work at a moderate level but sometimes hard and long
___I work intensively most of the time and sometimes hard and long

20. What is the **principal** reason that you study? (Check **one**.)
___To have a sense of mastering the material, of doing a job well
___To complete a requirement for graduation and academic credit
___To broaden my general knowledge, understanding, or background
___To learn something useful for a vocation or future activity
___To enjoy the experience of learning

21. How would you rate the **quality of teaching** at the **community college**? (Circle **one**.)

1...2...3...4...5
LOW   HIGH

22. How would you rate the amount of opportunity to acquaint yourself with faculty at the **community college**? (Circle **one**.)

     1...2...3...4...5
     LOW   HIGH

23. For the items below, write the **number** of the most appropriate option before **each** topic of conversation.
     1. no time at all
     2. less than fifteen minutes
     3. from fifteen to thirty minutes
     4. from thirty minutes to one hour
     5. from one to two hours
     6. more than two hours

     Indicate the amount of time you spent talking with a member of the **faculty** at the **community college**.
     ___academic matters (scheduling, requirements, credits, etc.)
     ___questions and problems about future educational or career plans
     ___issues and concerns in your personal life (academic and social)
     ___topics in the academic field of the faculty member
     ___campus events, activities, issues
     ___other general conversations, humorous, and/or serious

24. For the items below, write the **number** of the most appropriate option before **each** topic.
     1. to a minor extent (a little)
     2. to a moderate extent (some)
     3. to a major extent (a whole lot)

     Indicate the extent you may have been influenced by your relationships with **faculty** members at the **community college**?
     ___becoming more open with people and more understanding of them
     ___developing a more confident self-image (self-concept)
     ___increasing your sense of purpose and direction (goals)
     ___clarifying your values (attitude toward education)
     ___increasing your intellectual curiosity

25. What percentage of your professors welcomed a visit
    from you to their offices to discuss **ideas** encountered
    in a course at the **community college**? (Check **one.**)
    ___less than 10%
    ___11 to 30%
    ___31 to 50%
    ___51 to 70%
    ___71 to 90%
    ___over 90%

26. What percentage of your professors welcomed a visit
    from you to their offices to discuss **difficulties**
    encountered in a course at the **community college**?
    (Check **one.**)
    ___less than 10%
    ___11 to 30%
    ___31 to 50%
    ___51 to 70%
    ___71 to 90%
    ___over 90%

27. How many acquaintances did you consider to be intimate
    friends at the **community college**? (Circle **one.**)
    1. None   2. 1-3   3. 4-9   4. 10 or more

28. For the items below, write the **number** of the most
    appropriate option before **each** topic.
    1. no time at all
    2. less than fifteen minutes
    3. from fifteen to thirty minutes
    4. from thirty minutes to one hour
    5. from one to two hours
    6. more than two hours

    Indicate how much time you spent in a week talking
    with **friends and acquaintances** at the **community
    college.**
    ___academic matters (scheduling, requirements,
       credits, etc.)
    ___questions and problems about future education
       and/or career plans
    ___issues and concerns in your personal life (academic
       and/or social)
    ___topics in academic areas of study
    ___campus events (activities, issues, etc.)
    ___international affairs (U.S. foreign policy,
       military activities, etc.)
    ___domestic affairs (civil rights, environmental
       problems)

243

29. For the items below, write the **number** of the most
    appropriate option before **each** topic.
    1. to a minor extent (little)
    2. to a moderate extent (some)
    3. to a major extent (a whole lot)

    What part of the relationship with the **group of
    students** with whom you most associate is **each** of the
    following at the **community college**?
    ___intellectual exchange and challenge
    ___exploring moral or religious issues
    ___working out aspects of a mutual relationship
    ___venturing together in new ways of behaving
    ___enjoying spontaneous friendly relationships

    How much have these relationships influenced you?
    ___becoming more open with people and more
       understanding of them
    ___developing a more confident self-image (self-
       concept)
    ___increasing your purpose and direction (goals)
    ___clarifying your values (attitude toward education)
    ___increasing your intellectual curiosity

30. For the items below, write the **number** of the most
    appropriate option before **each** topic.
    1. no participation
    2. limited participation
    3. full-fledged participant
    4. leadership responsibilities as officer, chairman,
       captain, etc.

    Indicate your participation in **extra-curricular
    activities** at the **community college**.
    ___student government
    ___varsity or intramural sports
    ___activities sponsored by religious groups
    ___on-campus organizations for students interested
       in a special vocational or academic field
    ___school spirit and hospitality organizations
       (including freshman orientation committees, guides,
       and pep rally groups)
    ___drama, music, and art activities
    ___social service or special educational work
       (tutoring, leading youth groups, leading
       recreation, etc.)
    ___groups for student recreation (folk dancing, hobby
       groups, etc.)
    ___journalism, broadcasting, literary activities

244

31. Were you a member of **Phi Theta Kappa** at the **community college**? ___yes ___no

32. Where did you live while attending the **community college**?
     ___with parents
     ___at your own place

33. Where do you live **presently**?
     ___on-campus
     ___off-campus

34. For the items below, write the most appropriate option before **each** topic.
     1. to a minor (little)
     2. to a moderate extent (some)
     3. to a major extent (a whole lot)

     Indicate the extent you may have been influenced generally by your **experiences** at the **community college**.
     ___becoming more open with people and more understanding of them
     ___developing a more confident self-image (self-concept)
     ___increasing your sense of purpose and direction (goals)
     ___clarifying your values (attitude toward education)
     ___increasing your intellectual curiosity

35. Check **all** barriers that interfered with your academic experience at the **community college**.

     Situational barriers
     ___financial aid
     ___child care
     ___tutoring
     ___transportation

     Personal barriers
     ___no confidence in ability
     ___too old to begin
     ___unrefined study habits

     Institutional barriers
     ___course scheduling
     ___information about courses
     ___availability of courses
     ___part-time enrollment

     Other barriers
     _____
     _____
     _____

36. For the items below, write the most appropriate option
    before **each** topic.
    1. to a minor extent (little)
    2. to a moderate extent (some)
    3. to a major extent (a whole lot)

    How well did your work at the **community college** prepare
    you to transfer in terms of...
    ___courses that easily transferred to VT
    ___general knowledge and skills expected upon transfer
    ___difficulty of courses

37. How well are you satisfied with your educational
    experience at the **community college**? (Check **one**.)
    ___very well
    ___fairly well
    ___not at all

38. What was our **source** for transfer information?
    ___catalogue/course schedule
    ___community college counselors
    ___VT transfer guide
    ___other (specify_____)

39. Gender ___male ___female

40. Ethnicity ___African-American
              ___American Indian
              ___Asian
              ___Caucasian
              ___Hispanic

41. Birthdate _____

42. Highest educational level of **father**
    ___less than high school diploma
    ___high school diploma
    ___associate degree
    ___baccalaureate
    ___masters degree
    ___doctorate
    ___advanced professional degree
       (JD, MD, DVM, DDS)

Highest educational level of **mother**
___less than high school diploma
___high school diploma
___associate degree
___baccalaureate
___masters degree
___doctorate
___advanced professional degree
   (JD, MD, DVM, DDS)

43. Father's occupation _____
    Mother's occupation _____

44. Estimated yearly (parental) family income_____
    Number of children in (parental) family_____

45. Financial aid (Check **all** that apply.)
    ___grants   ___loans   ___scholarships
    ___college work-study   ___other (specify_____)

Appendix D
Interview Guide

1. Was your **first semester** at the community college a positive or negative experience? Explain.

2. What is your **educational goal**? How important is it to you?

3. What are your **study habits**?

4. **Upon entry** to the **community college**, what was your highest aspiration? And **after transfer**?

5. What **life transition** (significant change calling for adjustment to a new phase in your life) or **individual** motivated you to attend college?

6. List and explain five adjectives that you would associate with your **self-concept**.

7. Describe a **faculty-student** relationship that you experienced at the community college.

8. Describe your **campus involvement** at the **community college.**

9. Detail a **friendship** in terms of its contribution and influence toward your development.

10. Discuss the contributions of the **community college** toward providing assistance with **situational, personal,** and **institutional barriers** that could have interfered with your academic experience.

11. Why did you select the community college? Were you originally eligible for Virginia Tech?

12. What is your **attitude toward education**? What are your **expectations** for learning?

13. How do you feel about the **teaching** at the community college and the university?

14. Tell me something about the early childhood years and the quality of your **family life.**

15. How do you feel about your experience at the community college?

16. Is there anything else that you would like to tell me about the community college that you haven't told me?

Appendix E
List of Domains

(arranged alphabetically with major categories high-lighted)

associate degree attainment

academic characteristics

age

attitude toward education

barriers to academic experience

characteristics of faculty

community college campus activities

community college GPA

community college influence

community college location

community college location and VT GPA first semester

community college teaching

comparison of teaching at CC and VT

demographic characteristics

early childhood years

educational aspirations

ethnicity

expectations for learning

experiences with faculty at community college

faculty influence

faculty-student interaction

family's attitude toward education

family environment

financial aid

first semester at the community college

five adjectives associated with self-concept

goals and expectations

greatest satisfaction in life

GPA and gender

GPA and transfer shock

highest aspiration <u>upon entry</u> to community college

highest aspiration <u>after transfer</u> to community college

honors program

hours transferred to VT

ideal role of instructor

individual who motivated student to attend college

importance of educational goal to student

life transition

major at VT

motivation

opportunity to interact with faculty

original eligibility

original eligibility and transfer shock

original ineligibility

peer influence

personal characteristics

principal reason for study

professors welcoming visit to discuss course **difficulties**

professors welcoming visit to discuss **ideas**

quality of teaching at community college

reasons for attending community college

residential housing

satisfaction with community college experience

self-concept

self-confidence

semester hours transferred

socioeconomic status

student-faculty interaction

student involvement

student perception of character traits

study habits

terms of attendance at community college

topics of conversation for faculty-student interaction

transfer experience

transfer attitude

transfer source of information

VT GPA first semester

Appendix F
Sample Domain Analysis

1.   Semantic relationship: STRICT INCLUSION
2.   Form: X̲ is a kind of Y̲
3.   Example: an oak is a kind of tree

Included Examples

>   .   A professor at the community college, a well-rounded
>   engineer, gave me a lot of ideas and stuff about
>   things. A Hindu, **he taught me about his religion.**
>   tr21Ap3
>
>   .   Considering that this is a community college without
>   a lot of lee-way in course selection, **he went out on**
>   **a limb for me and three other students and got us a**
>   **class in animal behavior with just five students.**
>   (He didn't even get paid for it!) tr5Ap3
>
>   .   I could relate to him because **we played intramural**
>   **softball together:** he was on the faculty team and we
>   played for the other team.   tr23Bp2
>
>   .   The drafting instructor at the community college
>   **helped the engineering students build a bateau** for
>   the technology festival.   tr16Ap2

X̲ (the example) is a kind of Y̲ (faculty-student
interaction).

Appendix G
State Policy on Transfer

Endorsed by State Board for Community Colleges
November 21, 1991
Endorsed by State Council of Higher Education
December 10, 1991

I. Admissions

   A. Senior institutions have authority over admissions
       decisions to their institutions and to programs
       within their institutions. However, each senior
       institution should have a policy, approved by
       appropriate institutional parties and reviewed
       regularly, on admission of transfer students.

   B. This policy should be based upon sound information
       about performance of transfer students at the
       institution and should be consistent from year to
       year. It should address matters such as the number
       of Virginia community college transfer students who
       will be offered admission, whether students from the
       local area are given preference, and whether
       preference is given to students who have been
       awarded a transfer associate degree or to those who
       have completed the transfer module. (See Section
       III for a description of the transfer module.)

   C. Each student who satisfactorily completes a
       transfer-degree program at a community college in
       Virginia should be assured the opportunity to
       transfer to a state-supported baccalaureate
       institution. It is the responsibility of all senior
       institutions to provide reasonable access to
       community-college graduates who meet the typical
       admissions criteria of a given institution. Student
       performance in a transfer-degree program is a strong
       indicator of success in senior institutions and,
       therefore, should count heavily in the evaluation of
       transfer applicants.

   D. Transfer admissions priority should be given to
       students who have completed a transfer degree over
       those who have not.

E. Admission to a given institution does not guarantee admission to particular degree-granting programs, majors, minors, or fields of concentration. Nevertheless, every baccalaureate degree program should provide reasonable avenues for admission of transfer students.

F. Admission to specific programs, majors, minors, and fields of concentration may require, for example, a minimum grade point average and specific prerequisite courses. Such requirements should be applied equally to native and transfer students.

II. Acceptance and Application of Credits

A. It is the intention of the Commonwealth of Virginia that students who begin their work toward the baccalaureate degree by enrolling in transfer programs in community colleges will have this work recognized as legitimate and equivalent to that offered at senior institutions.

B. Articulation between community colleges and senior institutions is a reciprocal process. Community colleges have the responsibility of ensuring that their programs and courses are equivalent to those offered at senior institutions, and senior institutions have an obligation to recognize such work as equivalent, once the two parties have determined equivalency.

C. Students who have earned an associate degree based upon a baccalaureate-oriented sequence of courses should be considered to have met lower-division general-education requirements of senior institutions. These students will be considered to have attained junior standing (typically defined by credits completed at the senior institution.) It may, however, take transfer students longer than two years to complete the baccalaureate because of prerequisites in the major or other requirements or circumstances.

D. Where students must satisfy additional general-education requirements--credits in upper-division general education or foreign languages required of native students, for example--senior institutions should publish such requirements.

E. Some occupational-technical programs (the Associate of Applied Science and the Associate of Applied Arts) have counterparts in senior institutions (e.g., nursing, engineering technology, hotel and restaurant management.) Senior institutions and community colleges should look for ways to facilitate student transfer into these programs. Transfer from occupational-technical programs will continue to be worked out through articulation agreements or on a case-by-case basis.

F. Community colleges should counsel carefully those occupational-technical students who express an interest in transfer in their choice of appropriate courses. And senior institutions should be well informed about community-college curricula so that students do not need to retake courses that essentially repeat courses from the community-college program.

III. Transfer Module

A. Although community colleges typically recommend that students complete the associate degree prior to transfer, many students choose to transfer before graduating.

B. It would be beneficial, therefore, to adopt a mechanism that a) provides a recommended program of study for students who begin at community colleges without a clear sense of their future educational goals, b) assists students in planning a rigorous and well-rounded program of study prior to transfer, and c) provides them with certain guarantees about the acceptability of the courses in this program of study.

C. At the same time, this mechanism could help senior institutions by a) presenting to them transfer applicants who had fulfilled many of their general-education requirements, and b) relieving them of the need to review student transcripts on a course-by-course basis.

D. The transfer module, identified in the appendix, presents such a mechanism. In essence, the transfer module is a coherent set of courses that forms the foundation of a solid liberal education for college students and assures students that a core of courses will transfer. Although the module may not satisfy all general-education requirements at a senior institution, the institution should guarantee at a minimum that it will accept these courses and that they will apply toward meeting general-education requirements.

E. All courses must be completed with the Virginia Community College System, and students must earn a grade of C or better in each course if they wish to transfer the set of courses as a module.

F. Each senior institution should publish the set of courses that it considers equivalent to this module and the extent to which the module satisfies its general-education requirements. If necessary, senior institutions should specify those courses beyond the module that students must satisfy to have completed the general-education requirements of that institution or its individual programs. The senior institution may have, for example, additional lower-division credit requirements, upper-division general education requirements, and may also require demonstrated competency in foreign languages.

G. Some professional schools--such as engineering, fine arts, and pharmacy--may determine that the transfer module is not congruent with their lower-division requirements. In such cases, these schools or colleges should sign general articulation agreements with the Virginia Community College System that specify a more appropriate lower-division general-education program of study. If the professional school does not publish specific criteria and does not enter into an agreement with the community colleges, then the transfer module will apply and be honored by those schools.

H. Community-college students fulfilling the module with satisfactory performance will be certified by the VCCS as having completed the module. This will assure them that they will receive 35 credits at any state-supported senior institution to which they have been admitted. Students are not required to complete the associate degree to have their transfer module accepted.

IV. Communication and Information

A. Community colleges and senior institutions--and state agencies as well--share an obligation to facilitate transfer. Good communication is the single most important factor in successful student transfer and articulation. Therefore, all parties should ensure effective communication with one another. Such communication needs to take place statewide as well as on a local or regional basis.

   1) Faculty in the same disciplines in community colleges and senior institutions should meet periodically to discuss common issues.

   2) Community colleges should create opportunities for students who have transferred from their college to meet with current students who are considering transferring.

   3) Senior institutions should provide periodic advising sessions to potential transfer students prior to the time they transfer.

   4) Community-college counselors should meet at least once a year with key transfer decision-makers from senior institutions to discuss program changes. (For example, the associate dean of the business school who handles all transfer students would discuss changes, if any, in program requirements needed to transfer to the business school of that institution.)

   5) Counselors and faculty at community colleges who advise students on transfer should meet periodically to discuss issues such as program changes.

6) Transfer decision-makers at senior colleges and universities should meet periodically with the faculty in their institutions who advise students on transfer to update them on possible changes.

7) Senior colleges and universities should provide students who transfer with a formal evaluation of their transfer credits prior to their initial registration.

B. Articulation agreements between community colleges and senior institutions and their individual programs are beneficial to student transfer and should be encouraged. Articulation agreements work only if

a) they are developed and maintained mutually between representatives from community colleges and senior institutions,
b) they are widely disseminated and clearly stated,
c) they spell out clearly what, if anything, is guaranteed to students,
d) both parties abide by them, and
e) community colleges and senior institutions inform one another promptly whenever they change program or degree requirements.

Institutions should abide by their original agreements long enough for transfer students to adjust to the changes.

C. Consistent with current practice, all senior institutions should publish a transfer guide annually. Transfer guides are the most important method by which baccalaureate-bound students can plan an appropriate program of study at a community college. Transfer guides work best if

a) the information on transferability of credit is current,
b) the information and format are consistent among senior institutions,
c) they are easily available to students, faculty, and counselors,
d) program-specific requirements are available in the guides, and
e) they are provided prior to fall registration.

258

D.   The current transfer guides do not make use of available technology for the efficient transmission of information. Therefore, the state should establish an on-line electronic database in an interactive format that assists prospective transfer students in making course selections in such a way as to maximize transferable credits to the senior institutions.

V.   Administrative Responsibility for Transfer

A.   One person should be designated as chief transfer officer at each institution or campus.

B.   Each senior institution should establish a central source of information on transfer. This clearinghouse function might be housed in the admissions office or be served by a central data base that can be accessed widely on campus.

C.   In addition, a person at each school or college at the senior institution, preferably someone within each dean's office, should be designated as the person with final authority on transferability of courses in the major. A process for students to appeal decisions about transfer of credits should be established and well publicized.

VI.   Services for Transfer Students

Transfer students to senior institutions should have, to the extent possible, the same opportunities as other native students of comparable standing in such areas as course selection, registration, access to campus housing, and financial aid.

VII.   Transfer Student Responsibilities

Students intending to transfer need to take responsibility for planning their course of study to meet the requirements of the institution(s) to which they desire to transfer. The student is responsible for seeking out the information and advice that is necessary to develop such a plan. Students are encouraged to choose as early as possible the senior institution and program into which they would like to transfer. Delays in developing and following an appropriate plan or

changes in plans (e.g., change in major) may
reduce the applicability of transfer credit to the
degree program a student ultimately selects.

VIII   Minority Students and Transfer

In order to ensure that minority students are
being encouraged to pursue the bachelor's degree,
community colleges should determine whether
minority students are being counseled into or
otherwise enrolled disproportionately in programs
that are not designed to transfer.

IX.   Tracking Transfer Students

A. Senior institutions should report community-
college transfer-student progress to the community
colleges in a consistent, identifiable form. This
information should track students for at three
years or until the student graduates or withdraws
from the senior institution, whichever comes
first.

B. Community colleges should use these data to
improve upon or confirm the success of their
programs and should demonstrate how these data are
being used in their annual reports on assessment
to the State Council of Higher Education. In
analyzing the data, community colleges should pay
particular attention to the performance,
retention, and graduation rates of students by
race.

C. Likewise, senior institutions should track the
subsequent progress to the baccalaureate of
transfer students by race.

Virginia Anne Walker
200 Woods Edge Court
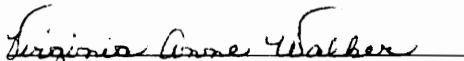Blacksburg, VA 24060

Education:

    Virginia Polytechnic Institute and State University
        Ph.D. Community and Junior College Education
    Auburn University, M.A. English
    High Point College, B.A. English and Music

Field of concentration: English, 19th c. American Literature
                        Community College Transfer Studies

Professional Experience:

    New River Community College, '89-'91
    Anne Arundel Community College, '66-'88
        (Assistant '66-'68; Associate '69-'73; Professor
        '74-'88 with tenure)
    Old Dominion University, '60-'66
        (Instructor '60-'63; Assistant '64-'66
        with tenure)

Virginia Anne Walker