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VOCATIONAL NURSE STUDENT PREDICTORS OF SUCCESS

A Dissertation

Presented to

The Faculty of the School of Education

Counseling Psychology Program

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

by

Mary A. Moore

San Francisco

May 1996

This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the Faculty of the School of Education in partial fulfillment of the requirements for the degree of Doctor of Education.

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CHAPTER I

RESEARCH PROBLEM

A. A General Description of the Area of Concern

Public education in California offers a wide range of opportunities, unparalleled access, and one of the highest rates of college participation of any state (California Postsecondary Education Commission, 1985). Despite these advantages, problems of access, retention, and quality continue to impact the educational system. This research on retention of community college students is a collaborative effort between this researcher and Carol Beck, a doctoral student at the School of Education, The University of San Francisco, whose study is entitled, "Factors leading to academic success at a community college after scholastic probation or dismissal."

The pool of underprepared college applicants has increased significantly during the past several decades (California Postsecondary Education Commission, 1985). High school graduates, the traditional source of college applicants, have scored lower on college entrance examinations. Research has exposed reasons for the decline and dissected these "causes" in a myriad of reports calling for education reform. Critics have blamed watered down, cafeteria-style curricula, poorly prepared teachers who themselves graduated in the lower half of their classes, and lack of emphasis on education at home for the educational plight of schooling at the postsecondary level (A Nation at Risk, 1992; Bloom, 1987; Hirsch, 1987).

Student attrition in higher education has been a subject of concern for many years (Benda, 1991; Spady, 1970; Tinto, 1975; Williamson & Creamer, 1988). Studies of the nature of the dropout process have been misleading and contradictory, partially due to failure in clearly defining dropout. Researchers

have seldom discriminated between academic failure and voluntary withdrawal and between dropping out temporarily and exiting permanently. Minimal attention appears in the literature on the relationship between the characteristics of an individual and the probability of abandoning college (Bean & Metzner, 1985; Williamson & Creamer, 1988; Tinto, 1987, 1975).

Pappas and Loring (1985) claim poor methodology or inadequate sampling in research on adult population make isolating difficult, especially separating out single variables or characteristics that predispose persistence. The most effective variables to enhance student persistence are: (a) clear communication about the availability and nature of education programs, (b) previous educational success or attainment, (c) instruction that addresses student needs and is relevant to life, (d) tailor-made and time-compressed programs, and (e) strong student support services, particularly in the area of financial aid (Noel, Levitz, Saluri, & Associates, 1985).

Why some students stay and others leave is a complex phenomenon. The literature suggests that particular variables may be helpful in describing, explaining, or predicting student persistence (Astin, 1993, 1975; Bean, 1986; Lenning, Beal, & Sauer, 1980; Pantages & Creedon, 1978; Pascarella & Terenzini, 1991; Tinto, 1988, 1987, 1975). Factors found to contribute to the lower persistence rate include pre-college deficiencies in academic skills and abilities, changes in circumstances external to the college, and social and intellectual isolation from the dominant academic culture (Bean, 1986; Pascarella & Terenzini, 1991; Tinto, 1988, 1987, 1975). Persistence of students who leave due to academic failure and later return to school remains a largely unexplored area (Bean & Metzner, 1985; Tinto, 1988, 1987, 1975; Williamson & Creamer, 1988).

In an era of renewed institutional accountability and effectiveness, community colleges take criticism for some real or perceived inadequacies in meeting the needs of their students. Noel and Levitz (1990) cite a 1989 American College Testing (ACT) report that 2-year public colleges have a 47.8% dropout rate. This high level of attrition leads some critics of the community college system to describe these schools as having revolving doors rather than open doors. An increasing demand has emerged for remedial instruction at this level due to the large number of students: (a) who failed to graduate from college, and (b) whose academic preparation and performance in high school were weak. More than half the low and modest achieving high school graduates enrolled in postsecondary education were in the community college system (California Postsecondary Education Commission, 1985).

The 107 community colleges in California have the largest postsecondary enrollment, with an extensive array of academic and vocational courses and a diverse constituency. Students are generally older, more likely to attend college part time, and have different reasons for attending postsecondary schooling than 4-year students (Voorhees, 1987). Many drop out temporarily, come to learn specific skills, have no intention of completing "a prescribed program," or stay just long enough to earn enough money or credits to transfer to a four year institution (Adelman, 1992; Alfred, Peterson, & White, 1992; Voorhees, 1987). Research on community college students is primarily referenced to traditional first year experiences at a 4 year institution (Astin, 1993). For this population, gauging success using traditional measures may not be appropriate, that is, a full time student who completes a degree within the conventional four year time frame and is involved in extracurricular activities. Lenning, Beal, and Sauer (1980) and Tinto (1988, 1987, 1975) have

documented the need for additional research about the attrition of older, part-time, and commuter students enrolled in college courses.

Four sets of variables define a conceptual model of attrition for the nontraditional undergraduate student: (a) background and defining variables, specifically, age, enrollment status, and residence; (b) academic, particularly, study habits, academic advising, and course availability, (c) environmental, such as finances and family responsibility; and (d) psychological outcomes, for example, stress, commitment, and satisfaction. A nontraditional student lacks social integration with peers and faculty, and is affected more "by the external environment than by social integration variables affecting traditional student attrition" (Bean & Metzner, 1985, p. 485).

Tinto (1987) posits that individual persistence in or departure from an institution of higher education originates from a process of interactions between the individual and the institution. Individuals enter the college with a variety of personal attributes, skills, values, family background, and prior educational experience and achievement that form a base for subsequent interactions in the academic and social life at the college. Positive integration serves to strengthen individual goals and institutional commitment and to foster persistence. Conversely, negative experiences may lead students to depart.

Research on student attrition in nursing programs includes students in Bachelor's degree programs; however, exclusive samples of this population are limited. National studies of nursing-education-program attrition rates range from a low of 20% to a high of 41% (Munro, 1980; Rosenfeld, 1988). Rowland (1978) found that one-third of individuals entering nursing programs did not finish. Green (1987) projected 30% to 40% of those enrolled in baccalaureate

nursing programs will not complete any degree.

McKinney, Small, O'Dell, and Coonrod (1988) conducted an ex post facto correlational study to determine measures of academic success in a sample of 136 baccalaureate nursing graduates from a private liberal arts college. Preentrance test scores, Grade Point Average (GPA), Mosby Assess Test scores, and the number of courses subjects repeated were significant predictors of success on the licensure examination.

Lopez (1992) conducted a comparative study of three groups of generic students: those who (a) had graduated from a baccalaureate nursing program, (b) were currently enrolled in the same program, and (c) had dropped out. The only discriminating variable among the three groups was nursing grades, with the dropout group having the lowest scores.

Historically, nursing education programs have a high attrition rate resulting in the loss of fiscal and human resources (Marshall, 1989). Research regarding attrition focuses primarily on registered nurse programs; however, the problem of attrition in vocational nurse programs is just as critical an issue. Identification of the needs of the students enables faculty to address these needs in terms of retention (Cameron-Bucchari & Trygstad, 1989).

Vocational (Practical) nursing schools, first established in the 1950s, prepare registrants to provide basic nursing care. The length of the educational program varies from 12 to 18 months. As a California state agency, the Board of Vocational Nurse and Psychiatric Technician Examiners (BVNPTE) establishes and regulates the curriculum. Completion of a program provides eligibility to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN), and satisfactory results on this test qualify the candidate for licensure. The Licensed Vocational Nurse (LVN) functions under the

supervision of a registered nurse or physician.

Research on Licensed Vocational (Practical) Nurses is insufficient (Bowman, 1992). Information regarding admission criteria that would be predictive of success is relatively non-existent. Roediger (1983) examined the interrelationship of self-concept, life change, stress, certain demographic variables, and student attrition in community college nursing programs. Volunteers from both practical nursing and associate degree registered nursing programs participated. A statistically significant positive relationship appeared between life change, self-concept, and attrition. Statistically significant negative correlation existed between life change, stress, and grades, with a significant negative relationship between grades and attrition.

Leitsch (1988) studied academic and demographic variables to predict success in licensed practical nursing programs. The research found statistically significant correlation between measures of success and Tests of Adult Basic Education (TABE) mathematics scores, age, gender, and ethnicity.

Vocational nurse programs usually are on community college campuses. The community college sector relies almost entirely on older, commuter, and part-time students (Bean & Metzner, 1985; Riesman, 1981). Though all the reasons are unclear, this segment of the college population shows a higher attrition rate than the traditional college student (Astin, 1975; Booth, 1992). Nonresidential institutions have less cohesive social and intellectual communities than residential colleges. Individuals who attend local nonresidential colleges have no need to dissociate from past affiliations. While this lack of over identification may reduce the stress of separation from the previous community, a concurrent potential risk exists that these external forces may make persistence more difficult (Tinto, 1987).

The impact of nursing program attrition is very costly on students in monetary as well as psychological ways. In the educational system, attrition decreases cost effectiveness in an already expensive program. Attrition translates to low faculty morale as instructors expend a great deal of professional time and energy only to see students drop out short of completion of the nursing program. A third negative effect occurs in the health care system when the number of new vocational nurses is insufficient to meet the job market demands. Therefore, in terms of the financial and personal cost, ascertaining factors that may increase student retention is critical. Identifying specific characteristics predictive of success leads to improved applicant screening at the outset and development of programs to meet the needs of those students who gain entrance, but who are more apt to discontinue the nursing program (Lengacher & Keller, 1990).

B. Problem Under Investigation

Although an abundance of research exists on characteristics predictive of academic success for students enrolled in registered nursing programs, corollary data for students in vocational nursing programs is limited. Three approaches for predicting success are testing, interviewing, and gathering biographical data (Huch, Leonard, & Gutsch, 1992). Booth (1992), Kittner (1982), and Leitsch (1988) have identified test scores in reading, mathematics, and English, as well as the demographic variable of age and ethnicity as the most valid and reliable predictor of success in nursing education programs.

C. Purpose of the Research Project

The purpose of this research is to determine the factors that are predictive of success for students admitted to a community college vocational nursing program. Nurse educators are concerned with traditionally high attrition rates

within nursing programs (Leitsch, 1988; Moore, 1989) because of the cost to the educational institution, to the health-care system, and to the students.

Admission to the program involves significant financial and time commitments leading to emotional stress for the student and the family. When a student is unable to complete the program, the effects can be devastating to the student, family, peers, and faculty.

White and Epston (1990, p. 3) propose "that it is the meaning that members attribute to events that determines their behavior." The authors' discussion of "narrative texts" proposes that humans give meaning to experiences through "storying" and/or "re-storying" their lives. They further suggest that as an individual becomes more knowledgeable about a life story, the effect is empowerment to perform these stories. Life stories can result in negative impacts with regard to the self and relationships with others. On the other hand, a life story may promote positive attributes such as competence. Tomm (1990, p. x) states, "The particular story that prevails or dominates in giving meaning to the events of our lives determines, to a large extent, the nature of our lived experience and our patterns of action."

D. Major Research Question

What are the common themes, if any, that contribute to the successful completion of a community-college vocational nursing program?

E. Additional Research Questions

1. What variable, or combinations of variables, contribute to success in the vocational nursing program? The following data, tests, and surveys may provide the answer to this question.

a. Standardized test scores e.g., the Diagnostic Test of Language Skills (DTLS), the Diagnostic Test of Mathematics Skills (DTMS), and the

Nelson-Denny Reading Test.

b. Academic achievement e.g., high school grade point average (GPA), and completion of college courses.

c. Demographic factors e.g., age, gender, ethnicity, number of hours employed, sociocultural attributes, and the number of years the individual has spoken English.

2. What are the relationships between standardized test scores, academic achievement, personal demographic characteristics, and successful completion of the vocational nursing program?

3. What correlations exist between high school achievement, high school completion, previous successful completion of college courses, and successful performance in a vocational nursing program?

4. What relationships exist between family support, support from others, and success in a vocational nursing program?

5. What variable or combination of variables should be used as a criterion or as criteria for program admission to increase student retention?

6. How does fluency in English relate to retention?

F. Significance of the Problem and Justification for Investigation

Historically, nursing education has a high attrition rate resulting in the loss of fiscal and human resources (Marshall, 1989). Even though research regarding attrition among nursing trainees has focused primarily on registered nurse programs, the problem of attrition in vocational nurse programs is also a critical issue. One reason for this level of importance is that current political attention to the health-care system has intensified the focus on sound fiscal management. The result of this increased attention is an increased demand for the Licensed Vocational Nurse as a member of the health

care team. Identifying the needs of vocational nursing students enables faculty to address student needs in order to increase retention (Cameron-Bucchari & Trygstad, 1989).

G. Setting and Sample Population

This study was conducted at a community college in northern California. The President of the institution granted permission to the researcher to conduct the study (Appendix A). The sample consisted of 28 students in the final semester of a vocational nursing program. There were 2 men and 26 women, ranging in age from 22 to 49. Potential participants were informed about the purpose of the study. Each participant gave written consent (Appendix B) and completed the subject survey questionnaire (Appendix C). Fourteen participants were selected randomly from the 6 ethnic backgrounds, American Indian, Asian, Black, Filipino, Hispanic, and White for individual interviews (Appendix D).

H. Limitations

Since the researcher was concurrently employed at the college where the investigation took place a possibility of bias existed. The researcher was also an instructor for the subject group. The role of interviewer could have been incompatible with the role of a director and instructor. This potential impairment of a professional relationship, or dual relationship, could have been a violation of ethical, legal, and clinical standards (Appendix E, from Cone & Foster, 1993). To safeguard against any detrimental effects of concurrently serving as program administrator and participating researcher in the project, the primary investigator for this study: (a) made her role in the project completely explicit, and (b) removed herself from any direct role in decisions about retaining or dismissing any enrollee in the program during

the time frame of the investigation.

I. Delimitations

Twenty-eight students were in the group completing the final semester of the vocational nursing program. All students answered the survey questionnaire. To elicit meaningful information regarding variables that may be predictive of success for these students, the researcher limited the number of interviews to 14 students. The candidates were identified by ethnicity and selected randomly to assure representation from each ethnic group. Two students declined to participate without explanation. A third student did not follow through and did not make an appointment for the interview.

CHAPTER II

REVIEW OF LITERATURE

The intent of this review of the literature is to (a) describe the problem of attrition that exists in higher education, (b) identify related studies on the characteristics of students who exit prematurely, (c) describe research about attrition in nursing programs and factors related to dropping out, (d) review studies of nontraditional undergraduate student attrition, including vocational nursing students, and the characteristics related to early departure, (e) discuss factors unique to nursing education programs with regard to attrition, and (f) describe a thorough narrative analysis to investigate those themes and patterns that might be predictive of success for students in a community college vocational nursing program.

A. Historical Background

The theoretical model of dropout that Tinto developed has its roots in Durkheim's theory of suicide. Durkheim (1951) stated that suicide was more likely to occur when an individual was "not sufficiently integrated into the fabric of the society" (Tinto, 1975, p. 91). Specifically, the chance of a person committing suicide notably increases when two types of integration are lacking: "insufficient moral integration and insufficient collective affiliation" (Tinto, 1975, p. 91). Individuals are more susceptible to suicide when they hold values that are highly divergent from those of the larger society, and when they lack personal interaction with other members of the "community."

Spady (1970), viewing the college as a unique social system, identified the analogy between suicide and dropping out. An interdisciplinary approach explains the dropout process as an interaction between individual students and a particular college environment in which their interests, attitudes, and skills

come into contact with influences, expectations, and demands from a variety of sources, including courses, faculty, and peers. The resulting interaction provides students with the opportunity of assimilating successfully into both the academic and social systems of the college. Spady stated that if the students' values differed substantially from the institutional norms, they are more likely to drop out and thus remove themselves from the environment.

Tinto (1975) described college as a society from which an individual may withdraw for lack of interactions with others in the college and for insufficient conformity with the prevailing value patterns. Tinto's theoretical model explaining dropping out of higher education, delineates a "process of interactions between an individual with given attributes, skills, and dispositions (intentions and commitments) and other members of the academic and social systems of the institution." (Tinto, 1987, p.113). If students' experiences are positive (integrative), they will tend to persist, while negative events may lead them to a decision to leave.

Astin (1975) conducted a longitudinal, multi-institutional research study to determine incoming students' characteristics that are most predictive of college persistence. He examined the records of approximately 101,000 entering freshmen of 1968 who had completed a 175-item entry survey covering background information such as demographics, goals, study habits, daily activities, and self-prediction about possible college outcomes. In 1972, this same sample received a follow-up questionnaire concerning educational progress since entering college; 41,356 students returned their surveys.

Astin (1975) found that high school grade point average (GPA) was the most consistent predictor of college persistence. As high school grades and Tests (SAT) decrease, students' chances of stopping out or dropping out of

college increase. The educational level of the students' parents was also a factor contributing to dropping out. Astin suggested that the more educated parents exerted pressure on the wavering students causing the students to feel compelled to complete college.

Astin found that older students, especially women, were more likely to drop out than students who were 17-19 years of age. Historically, men tended to persist at a higher rate than women (Anderson & Darkenwald, 1979), which would confirm Astin's findings. However, more recent studies have shown women's retention rates that are equal to or greater than men's rates of retention (Knoell, 1983; Voorhees, 1987).

B. Literature Relevant to Research Questions

1. General Attrition

Bean (1980) applied a causal model of attrition at a four-year university in an investigation that focused on the intent to leave factor among 907 freshman students--366 men and 541 women. The sample consisted of single full-time students under 22 years of age, Caucasian, and United States citizens.

The results identified the level of institutional commitment as the most important indicator associated with dropping out of college for subjects of either gender. The men in the study who dropped out of college: (a) had no commitment to the institution, (b) did not have a high college GPA, (c) did not perceive education as leading to self-development, (d) did not know the academic and social rules of the institution, and (e) found college life repetitive.

The women in the study who dropped out of college: (a) had no commitment to the institution, (b) carried a record of not performing well in high school, and (c) did not perceive education as leading to self-development

commitment to the institution, (b) carried a record of not performing well in high school, and (c) did not perceive education as leading to self-development or employment. These female subjects knew the academic and social rules of the institution, but did not meet with faculty or staff informally or participate in decision making.

Bean (1981) again implemented the causal path model of student attrition. The sample consisted of 1,909 university first year students; men and women with high and low confidence. In examining students' intent to leave, Bean found that grades did not significantly influence their intent to leave if their confidence was high. When their confidence was low, however, grades took on increasing importance in reducing their intent to leave.

A significant difference was found between males and females related to academic program competitiveness. Men with both high and low confidence who found the program to be competitive were likely to believe their education was of practical value and this significantly reduced their intent to leave. Women with high confidence who participated in competitive academic programs were less apt to leave. Academic program competitiveness had no significance in reducing the intent to leave for women with low confidence.

The conclusion was that intent to leave was the most important predictor of dropping out with grades being second. The variables under study described about 50% of the variance among dropouts. Bean (1981) states that variables associated with dropping out at one institution may differ considerably from another institution and, therefore, generalization of the results can be a problem.

Stoecker, Pascarella, and Wolfe (1988) reported on a national, 9-year multi-institutional study designed to assess the applicability and ability to

generalize Tinto's model. Data for this study were obtained from respondents to the 1971 and 1980 Cooperative Institutional Research Program (CIRP) surveys. The research consisted of 10,326 students attending 487 four year colleges and universities. The final sample contained 5,240 participants. Four separate groups were studied: (a) 2,021 white men, (b) 381 black men, (c) 2,312 white women, and (d) 526 black women.

The researchers developed a model that included six variable sets: (a) student precollege characteristics, (b) students' precollege commitments, (c) institutional characteristics, (d) college major, (e) college academic and social integration, and (f) persistence-withdrawal behavior. Investigators computed direct, indirect, and total effects and tested these data for significance using least squares regression.

Results of this large scale study generally were consistent with Tinto's model. Data supported his premise that academic and social integration is a critical determinant of persistence. Additionally, college academic achievement, interaction with faculty, and social leadership activities had direct effects on persistence.

Williamson and Creamer (1988) designed a study of student persistence in commuter institutions. The data for the study were drawn from a sample of 974 community college students and 2,969 four-year college students who were 1980 seniors enrolled for the 1980-1981 school year.

Students who received a degree or certificate or who persisted beyond June 1982 met the definition for the dependent variable, persistence. Persistence was also classified in dichotomy form according to whether the student stayed in the initial institution or continued at a different institution. A student was identified as a dropout only after remaining out of higher education for at least

20 months. The independent variables were: (a) background, including, gender, race, socioeconomic status, self-concept, aptitude, high school grades, locus of control, parental aspiration, and educational aspiration; (b) academic and social integration; and (c) goal and institutional commitment.

A computer program that analyzes recursive structural equation models was employed to provide standard errors of the direct and indirect effects of the variables in the Tinto based model. In the two year student samples, background variables had no effect on institutional persistence, however, locus of control had direct effects on persistence in higher education. In the four year student samples, five of six variables directly affecting higher education persistence, and two of five variables affecting institutional persistence were background variables. Previous research found minimal effects from background variables.

Goal commitment had the strongest direct effects on persistence of all variables, as Tinto (1975) postulated. Institutional commitment had no demonstrable effect on persistence, possibly due to inadequate assessment measures. These results differ from prior research, possibly due to the differentiation between a dropout and a temporary withdrawal. At the institutional level, academic and social integration directly influenced persistence except for two year students. This exception suggests that background, rather than institutional, characteristics may have more long term effects.

2. Nursing Program Attrition

Quality education for nurses is costly compared to other academic courses. Since national studies show attrition rates ranging from 20% to 41% (Munro, 1980; Rosenfeld, 1988), improving selection and retention methods becomes a

crucial matter. Selecting students who will be successful depends on test data, interview data, and biographical data. Huch, Leonard, and Gutsch (1992) conducted a longitudinal study of 151 nursing majors at a southern public university using the Sixteen Personality Factor Questionnaire (16PF).

Subjects fell into three groups--those who graduated (G) from nursing school versus those who transferred (T) to other academic areas and those who dropped (I) from the nursing school. Stepwise discriminant analyses identified three areas where G subjects scored significantly higher on specific factors than T or I students. All subjects were enterprising, incisive, and resilient, but the I and T groups sought situations in which they received rewards for those behaviors. Compared to G group members, I subjects were less inclined to be team players while T subjects were more easily frustrated, dependent, and temperamental. The most variance in personality makeup was found in factor F, with G subjects cheerful and enthusiastic whereas T and I subjects were more pessimistic and reticent. An equation to determine the potential for incoming students to complete the program of study was reported in detail with no indication that it had been applied.

C. Theoretical Model for Research Question

Constructivist theories emphasize the proactive, self-organizing features of human knowing and their implications for psychotherapy. Four clinical areas share a constructivist philosophy: (a) personal construct theory, (b) structural-developmental cognitive therapy, (c) constructivist family therapy, and (d) narrative reconstruction (Neimeyer, 1993). Constructive therapists view clients as becoming engaged in a building process, with a respectful partnership between client and therapist. The emphasis is on the competency of the client. One should never underestimate the power of

respectful listening, seeking strengths, and practical problem-solving in assisting the client construct a different reality (Barber, 1990; Hoyt, 1994; Spoerl, 1975; Talmon, 1990, 1993).

The narrative approach is a collaborative interaction in which individuals make meaning of their lives by organizing key events into stories that can produce a larger life picture (White & Epston, 1990). Collaboration is the key element. The counselor and client are co-investigators in constructing the identification and revision of central themes in their personal narratives. Narrative therapists believe they can facilitate the human process of change, but cannot direct it (Neimeyer, 1993).

Narrative analysis begins with the interview, using a guide of 5 to 7 broad questions. If an individual finds it difficult to begin an interview, probing questions may be employed. Open-ended questions may be combined with closed-ended items or self-administered surveys (Reissman, 1993). To be effective, one uses deconstructive listening, assuming an attitude of "not-knowing" or requesting clarification to improve understanding (Hoyt, 1994).

A narrative approach is intrinsically the language of therapy (Parry & Doan, 1994). The therapist attends to the manner of speech, analyzing pause and pitch, and noting nonverbal cues. Clients affect the meaning by the way they choose to begin and end their narrative (Reissman, 1993).

Friedman (1993) suggests a therapist stay simple and focused, centering attention toward information that indicates movement and change. With a client, a therapist constructs solutions that lead directly to the client's goals and emphasize possibilities. This approach maximizes the clients'

self-sufficiency and resourcefulness and minimizes dependency on the therapeutic relationship.

Reconstruction becomes helpful when people over identify with their problem, subjecting themselves to a "dominant narrative" that limits, denies, constrains, or disqualifies their personhood. Externalizing refers to the process of obtaining an objective view of a situation, which, in turn, encourages clients to personify and objectify any situation they experience as oppressive (White & Epston, 1990).

Analytic interpretations then enlarge clients' understanding and aid in constructing the experience to make sense of these events and actions, possibly by identifying themes (Reissman, 1993). A story that a person tells in his or her own words does not have to plead its legitimacy because no narrative has any greater legitimacy than the person's own (Parry & Doan, 1994).

Participatory research, a related collaborative model, emerged from work with oppressed people. Paulo Freire (1994, 1993, 1985) used a dialogic process to raise people's critical consciousness. This process was a method of deepening awareness of their sociocultural reality and their capacity to transform that reality (Freire, 1985, p. 93).

Participatory researchers emphasize the value of useful knowledge and developmental change. Since clients participate and control the process, they are themselves the researcher (Hall, 1981). Participant and researcher "embark together on an exploration of the unknown and the unnamed" (Ada & Beutel, 1993, p. 12). Questions are formulated to evoke a dialogue, respecting the participant's ability to reflect and respond to extend our knowledge.

CHAPTER III METHODOLOGY

A. Restatement of Major Research Question

What theme or themes, if any, are common for students who successfully graduate from a community college vocational nursing program?

B. Research Design

This ex post facto study used descriptive statistics to identify those variables that would be predictive of success in a vocational nurse program. This correlation research was a controlled inquiry into the factors that may be predictive of success for the individuals in this sample. The sample was small, but the aim was to study correlations that would reveal the relative incidence, distribution, and interrelations of sociological and psychological variables (Kerlinger, 1973). Correlation analysis was used to measure covariance or the relation between the identified reference variables and the outcome variables--academic success and achievement in a vocational nurse program (Babbie, 1990; Kerlinger, 1973).

All subjects completed a self-administered survey (Appendix C) that provided demographic, personal, and academic information. To assure representation from the various ethnic groups, the researcher randomly selected 14 subjects from each of the ethnic groups for individual follow-up interviews (Appendix D). Only eleven subjects participated in an interview since 3 had declined or failed to follow through with the request for an interview.

The interviews were audio taped and transcribed to increase accuracy and facilitate analysis. Narrative theory (Hoyt, 1994; White & Epston, 1990) served as the conceptual framework for identifying themes the subjects

reported as enabling them to attain the goal of completing the vocational nursing program. To insure independence, a second researcher evaluated the interview responses.

C. Research Design Schematic

Reissman (1993, p. 8) asserts "there are, at a minimum, five levels or kinds of representation in the research process." The interview is the primary experience as the researcher participates along with the subject. The researcher encounters the world of the subject without injecting perceptions or analyzing the situation from afar. The first level, attending, involves reflecting and recollecting observations to construct reality in new ways (Figure 1). The second level, telling, involves relating these events to others in order to give existence and meaning to the experience. Transcribing the spoken language into a written text, the third level, requires decisions that affect the interpretations. The challenge for the investigator comes at the fourth level, analyzing the transcripts and identifying similarities. The fifth level, reading, involves others' interpretation of the published report.

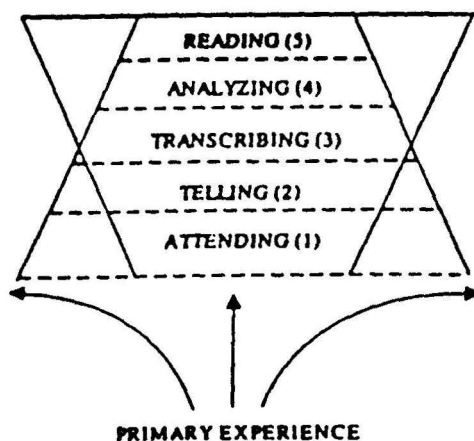


Figure 1. Levels of Representation in Research Project
 Note: From Reissman (1993) on narrative analysis (p. 10).

The researcher constructed the interview questions in order to assist the subjects in identifying personal themes that they report have contributed to their achievement and success. The interviewer listened deconstructively to the interviewee as the expert on their own behavior. That is, the interviewer believed that there are many possible meanings to the responses. The meaning that the listener ascribed to the statements may not be the meaning the speaker intended. When ambiguities occurred the interviewer sought elaboration or asked for clarification (Hoyt, 1994).

The second level in this research process involved informing a second researcher about the interviews. Transcribing the interviews was the third level and required accurate reflection of the verbal and nonverbal interactions in the process. Analyzing the transcript was a challenging task, made more objective by a second researcher validating the identified similarities.

D. General Characteristics of the Study Population

This study took place at a medium-sized community college in the San Francisco Bay area. The population in the Vocational Nursing Program was approximately 90% female between the ages of 30 and 45. Approximately 40% were married with children. Ethnic distribution was primarily Asian and White, with a small percentage of Black and Hispanic enrollees. Many spoke English as a second language. All students had completed high school or its equivalency and many immigrants held degrees from their previous country of residence. Most students had passed college assessment tests in reading, English, and mathematics at about 70%, most often after remediation and multiple test-taking efforts. Roughly one-third of these academic students had completed prior health programs, most commonly,

the nursing assistant program.

This sample group consisted of 28 students, 2 men and 26 women, completing the final semester in this vocational nursing program. After the investigator explained the purpose of the study, all students agreed to participate and signed a consent form (Appendix B). The subjects ranged in age from 22 to 49 with a mean of 30.44 years. All but one subject were high school graduates, with 48% holding either an Associate or Bachelor degree. Fifty-seven percent of the sample were born outside the United States. Forty-six percent spoke English as a second language with a mean average of 18.4 years among this group. The subjects represented well the sociocultural diversity of the surrounding community.

The researcher interviewed 11 of the subjects individually. The interview subjects ranged in age from 22 to 43 with a mean of 30.5, comparable to the entire sample. This group had a lower mean high school GPA (1.85) than the larger group. Forty-six percent of the subjects were born outside the United States and spoke English as a second language. This group had spoken English for an average of 25.7 years.

E. Instruments, Tools for Measuring Variables, Schedules, and Questionnaires

Although some information was available on the admission records, the researcher developed a self-administered survey form (Appendix C) to provide the desired data. An individual interview questionnaire (Appendix D) served as a vehicle for facilitating discussion with each expert subject. The goal was to gain information for determining common themes that may contribute to successful completion of this educational goal.

F. Validity and Reliability

These tools which the researcher developed specifically for this study

have not been used before, and, therefore, no validity and reliability norms of the instruments exist. No pre-testing of the data collection instruments was conducted.

G. Operational Definitions

The following terms are defined in order to establish a common base for this study:

1. Academic achievement: the level of accomplishment at the high school level with a minimum grade point average of C; completion of the General Education Diploma (GED); or completion of college courses with a minimum grade point average of C.
2. Academic success: the level of achievement students attain in didactic and clinical courses with a minimum level of C or satisfactory.
3. Admission criteria: a set of objective measurements to determine an applicant's acceptance into the program.
4. Attrition: the loss of a student from the vocational nursing program due to voluntary withdrawal, transfer, or dismissal.
5. Dropout: the failure to finish the vocational nursing program; or the failure to enroll in a clinical experience for at least 2 semesters.
6. Retention: the completion of the vocational nursing program with a minimum grade of C in all subjects.
7. Satisfactory results on the state licensure examination: the completion of the national examination (NCLEX-PN) with a passing grade to qualify for licensure as a vocational nurse in the state of California.
8. Standardized tests: a group of assessment measures that conform to specific validity and reliability norms, e.g., DTLS, DTMS, and the Nelson-Denny Reading Test.

9. Vocational Nursing Program: a three-semester vocational course of study with specific theoretical courses and clinical experiences the Board of Vocational Nurse and Psychiatric Technician Examiners (BVNPTE) has approved.

H. Data Processing Procedures Including Computer Procedures and Coding Instructions

A correlation analysis measured covariance, or the relation between the identified variables in the subject survey questionnaire. Inferences flowed from the data collected through the survey instrument. Two statistics, skewness and kurtosis, helped to determine the degree to which the distribution of scores approximated the standard normal distribution. The value of the coefficient of skewness and kurtosis was calculated through the Statistical Package for the Social Sciences (SPSS). An index of +1.00 indicated a perfect positive relation, while a -1.00 denoted a perfect negative relation, and 0 indicated no discernible relation. The sample was small, but the aim was to study correlations that would reveal the relative incidence, distribution, and interrelations of sociological and psychological variables (Kerlinger, 1973).

A narrative analysis of the oral interviews helped determine themes common to these subjects who have been successful in attaining their goal of completing a vocational nurse program. A second researcher reviewed the tape transcriptions and independently evaluated the themes.

I. Human Subject Consideration

This research study adhered to the ethical standards of the American Psychological Association (APA, Appendix E). The community college administration granted permission for the researcher to conduct the

study (Appendix A). All participants were informed: (a) of the purpose and nature of the study in advance of completing the surveys, (b) that participation was voluntary and that they could withdraw at any time without adverse effects of any kind, and (c) that all data were confidential and anonymous. The University of San Francisco Institutional Review Board approved a Protection of Human Subjects Form (Appendix B). Prospective participants received no inducements and students choosing not to participate experienced no negative effects.

CHAPTER IV

RESULTS

The major purpose of this study was to identify a common theme or themes that contributed to the student's successful completion of a community college vocational nursing program. A secondary focus was to determine whether any other variables could be predictive of success in a vocational nursing program. The study looked for correlations that would reveal the relative incidence, distribution, and interrelations of sociological and psychological variables.

The sample population consisted of 28 students completing the final semester of a vocational nursing program at a community college in the San Francisco Bay area. Two men and 26 women completed a self-administered survey that included demographic, personal, and academic information. The researcher randomly selected 11 subjects for individual interviews. Since these evaluative tools had not been used before, the validity and reliability of the instrument have not been established. The study was based on self-reported responses to a survey questionnaire (Appendix C) and an interview questionnaire (Appendix D), both of which the researcher developed.

Eleven randomly selected subjects from the six ethnic groups came in for individual follow-up interviews. These interviews were audio taped and transcribed to increase accuracy and facilitate analysis. Narrative therapy (Hoyt, 1994; White & Epston, 1990) served as a theoretical framework for identifying themes the subjects reported as enabling them to attain the goal of completion of the vocational nursing program. A second researcher coverified the findings by evaluating the interview responses.

A. Narrative Analysis of Student Interviews

Following Reissman's (1993) schematic, the researcher invited the subjects to participate in the interview process. The respondents, as the experts about their own behavior, answered open ended questions designed to allow them to examine their own strengths and motivations (Hoyt, 1994). The interviewer asked "meaning questions", that is, questions that encouraged the subjects to comment on the thoughts and feelings they experienced as they related their stories. This structured metacommunication exercise helped the researcher and the co-verifier to sort out the topics that the subject had evaluated as particularly personal, satisfying, and relevant. Common themes emerged through careful study and analysis of both the verbal and the nonverbal behaviors of the subjects.

Major Research Question

What are the common themes, if any, that contribute to the successful completion of a community college vocational nursing program?

The predominant themes, that will be elaborated on later, fell into five general categories: (a) emotional and economic support from various sources, (b) prior experience in the health care field, (c) commitment, (d) confidence, and (e) organization. Although no substantial correlations emerged from the student survey, support was a strong theme throughout the interviews. This support took several forms with the most notable being statements about financial assistance. Of the 11 subjects interviewed, 7 or 64%, worked an average of 24.9 hours per week. Some students had decreased their work time and expressed concerns about the financial impact and the fact that working more decreased their study time.

. . . really get priorities straight . . . if working another job, cut down on the hours or not work at all. I mean I'm working and then it's hard for

me to work retail and then have to study.

. . . not working at all now . . . financially it was a problem at first. I thought it would be a bigger problem than it turned out because I did apply for loans and I met the qualifications for a loan but not any grants because my husband and I had both been working full time.

I thought I wouldn't be able to continue for financial purposes when I had to quit my job after clinicals . . . because it was a PM rotation. The office I worked at was a doctor's office, open from 8:30 to 5:30, so it seemed almost useless to continue working there. So I resigned from that position and I wasn't sure we'd be able to manage financially but I was lucky to get the loan . . . and then we have to watch our pocketbooks for the next three months and then we'll be okay.

When I was accepted, I was in the GAIN (Greater Avenues for Independence) program, and they couldn't help me anymore. I used financial aid, EOPS (Extended Opportunity Programs and Services).

The responses in the student survey were reflected in the interviews with frequent comments regarding support. Graduates made statements that indicated the importance of positive interactions with family, friends, coworkers, employers, counselors, and even patients.

From my own experience, I wouldn't say this (acceptance into the vocational nursing program) was very hard for me. Actually I was, when I came in, I had to go to the right person, which was the counselor.

My mother . . . always encourage us . . . wonderful mother though, parent you know, because she always tell me that you can only get what you want through education. She always tell me that you must get your meal ticket. That's what she calls it . . . so I'm very positive.

My co-worker, Rachel, she's a, you know. I go into work in uniform to pick up my check or a few things. She sees me and . . . she makes me feel good. You're doing such a good job you know . . . I'm really interested in that (vocational nursing program).

I do give good patient care myself. I am confident person and in A semester, you know, that I have got a letter, one out of students in A semester. I have recommend letter from a patient so from then that give me spirit to not give up. You know I did something good, you know.

Prior experience in the health care field was mentioned by 8 of the 11 subjects. Several insisted it was a prerequisite to entry to this program.

Have they had any experience with health care? And if not, I think I would probably advise them to maybe, before they put the time and energy into trying to get into a program, or either while they're trying to get into a program, to go out and maybe apply for a job, or get their CNA first and kinda work in the field because I think it gives you an idea of what's goin' on in the health care field. You're at the base of it. You're doin' the patient care. You get to see a lot so I think it would really probably answer a lot of questions for you that you might not. It gives you a view of something you're going to dedicate a lot of time to. If you have a background in the hospital, CNA or anything, medical assistants, pharmacy tech, lab assistant, that would be helpful. I think for my situation if you don't have those backgrounds, I would jeopardize the patient situation.

Different words were used to express a very common theme. Dedication, commitment, and motivation were used interchangeably by almost every subject.

You really have to be dedicated in terms of what you want, your goal. It took a year and a half to get into the program just taking all the prerequisites. You know it might be a waste of time if it's not really what you wanta pursue.

I really wanted to be a nurse already. I was really interested in this. I wanted to be successful in it. I was really motivated.

. . . it does take a lot of determination and sacrifice and motivation to get in and to get to continue and succeed in it and again self-discipline and organization. That's what's gotten me through.

I know what I want, then I go for it because if not, I tell you, initially my husband never wanted me (to return to school) he said because actually what he's saying is that it's too much for me. You have a lot going on. You have the kids. But sometimes I'm stubborn, stubborn to myself (laugh). Sometimes it's nice to do that because if you had listened to that, where would you be? . . . I want something and I really know it, then go for it.

I think it's just determination and knowing that this is what you wanta do and going for it and not letting anything keep you back.

Never thought about quitting the program. I have too much invested. I have to finish and get a return.

Nursing . . . is a commitment and job security too.

Confidence was a very common theme, with more than half of the subjects mentioning the concept in one form or another.

Probably having to go through post partum . . . became more confident in what I was doin' so the patients saw I knew what I was doin' and they had nothin' to worry about and I, uh, just, uh, knew they might be uncomfortable with me as well. . . besides, the fact that I'm a male just made things a lot worse.

And certain instructor will treat you differently. Keep yourself as PMA, positive mental attitude.

. . . sometimes I wake up early in the morning, 3 or 3:30, and finish (studying). Knowing how I was brought up and then I haven't let myself be. It's for pride you know, and then I make good grades too though I said that is not important, but if it comes. I know when you actually, if you study, there is no way you will not pass, you know.

You focus on something you wanta get done, it's gonna get done, no matter what. When I put my mind to it that this (nursing) is what I'm gonna do, I really worked hard at it and I'm really happy where I am right now because I really, really put a lot into this. This is what I wanta do. I concentrated on it and put all my energy into it. Make your own judgments, don't listen to what other people say, but get in there and make your own decisions about things.

Organization was brought up under the guise of self-discipline, time management, and study skills.

It's not that hard. You have to manage your time, focus on what needs to be done, and reduce your social life.

It's hard, but you can do it if you want to. You have to work hard . . . plan, prioritize, and reorganize. I work 17 to 20 hours a week now but I worked full time the first semester.

It wasn't really easy because I'm working and I have family and then I have children. You know it was really a challenge, but I know that this is what I want. We really planned like knowing that I would, like I use weekends. I do all my cooking for the week. I put in my freezer, but, you know, really (laugh) I'm planning and organizing and that was the thing I found with the program, and that was how I was able to make it because you still have to fulfill your job as a wife, fulfill your job as a mother and everything. Sometimes I wake up early in the morning, 3 or 3:30, and finish.

It's not something that's easily done . . . to continue and succeed in it and, again, self-discipline and organization. That's what's gotten me through. I think if I didn't have the self-discipline, I wouldn't have continued 'cause it's easy to just stay up and watch TV, versus studying or try to read while the TV sets on or something.

I did well in the VN program. . . It's really disciplining myself, a lot of self-discipline.

Time is short for me to get everything. You know because I'm very busy person. I worked hard and then there's schooling and so it's very hard. Some people, they don't have to work and they don't have family and they have more time to concentrate on things. For my situation it's different. I have to know what's coming up. If you have paper due, start a week or 10 days, or even a month if you have to. Do things ahead of time. Don't wait till last minute because nursing program is something that's important. Program not something you study the night before and then take a test. Prepare and organize.

Well, B semester was kinda stressful (nervous laugh). I thought at the time it was more than I could handle. You just, you really have to (pause) plan out your time, you know, uh, it just goes by so fast and you got so many things you gotta do and if you don't organize yourself, you'll get behind and (pause) well, there are so many tests. I guess I needed more time to study for them (laugh). We're going back to that time element, yeah.

B. Data Collection and Analysis of Student Surveys

The self-administered survey instrument (Appendix C) asked the subjects to answer questions using a Likert scale from 1, indicating strong disagreement with the statement, to 5, indicating strong agreement with the statement. Statistical calculations provided a coefficient of correlation as a means of examining the source of variance common to these variables. To make this number meaningful, the coefficient of correlation was squared. This number, the coefficient of determination, expressed the percentage of the factors held in common between variables X and Y (Kerlinger, 1973).

The highest correlations were found among the various service areas that the college provides. A study of the correlation matrix (Table 1) yielded four substantial correlations:

a. The coefficient of correlation between Extended Opportunity Programs and Services (EOPS) and Greater Avenues for Independence (GAIN) was 0.89. The coefficient of determination indicated that 79% of the variance of EOPS

Correlation Matrix (pairwise deletion)

	8A	8B	8C	8D	8E	8F	8G	8H	8I	9A	9B	9C	9D	10A	10B	10C	10D
8A	1	0.41	0.47	0.35	0.18	0.02	0.74	0.61	-0.04	0.14	0.14	-0.04	-0.35	0.27	0.09	0.09	0.58
8B	0.41	1	0.28	0.49	0.29	0.31	0.56	0.58	0.02	0.28	0.54	0.31	0.38	0.26	0.25	0.38	0.35
8C	0.47	0.28	1	0.65	0.54	0.38	0.24	0.49	0.59	0.32	0.25	-0.08	0.11	0.26	0.02	-0.01	0.26
8D	0.35	0.49	0.65	1	0.50	0.47	0.23	0.26	0.44	0.37	0.22	-0.23	0.01	0.61	-0.07	-0.14	0.00
8E	0.18	0.29	0.54	0.50	1	0.89	0.05	0.69	0.78	-0.25	0.28	-0.03	-0.27	0.38	0.03	-0.02	-0.19
8F	0.02	0.31	0.38	0.47	0.89	1	-0.02	0.67	0.81	-0.24	0.30	0.00	0.18	0.53	0.24	-0.11	-0.32
8G	0.74	0.56	0.24	0.23	0.05	-0.02	1	0.40	0.05	0.08	0.26	0.12	0.06	0.24	0.43	0.22	0.04
8H	0.61	0.58	0.49	0.26	0.69	0.67	0.40	1	0.30	0.17	0.61	0.42	-0.04	0.20	0.20	0.23	0.36
8I	-0.04	0.02	0.59	0.44	0.78	0.81	0.05	0.30	1	0.05	0.06	-0.29	0.00	0.53	-0.06	-0.04	-0.48
9A	0.14	0.28	0.32	0.37	-0.25	-0.24	0.08	0.17	0.05	1	0.34	0.42	0.25	0.12	0.04	0.29	0.48
9B	0.14	0.54	0.25	0.22	0.28	0.30	0.26	0.61	0.06	0.34	1	0.55	0.27	0.02	0.50	0.36	0.36
9C	-0.04	0.31	-0.08	-0.23	-0.03	0.00	0.12	0.42	-0.29	0.42	0.55	1	0.01	0.13	0.04	0.36	0.53
9D	-0.35	0.38	0.11	0.01	-0.27	0.18	0.06	-0.04	0.00	0.25	0.27	0.01	1	0.06	0.53	0.42	0.10
10A	0.27	0.26	0.26	0.61	0.38	0.53	0.24	0.20	0.53	0.12	0.02	0.13	0.06	1	0.01	-0.05	0.31
10B	0.09	0.25	0.02	-0.07	0.03	0.24	0.43	0.20	-0.06	0.04	0.50	0.04	0.53	0.01	1	0.54	0.06
10C	0.09	0.38	-0.01	-0.14	-0.02	-0.11	0.22	0.23	-0.04	0.29	0.36	0.36	0.42	-0.05	0.54	1	0.39
10D	0.58	0.35	0.26	0.00	-0.19	-0.32	0.04	0.36	-0.48	0.48	0.36	0.53	0.10	0.31	0.06	0.39	1

Vocational Nursing Student Questionnaire Responses
Questions 8 A-I, 9 A-D, and 10 A-D

was held in common with GAIN.

b. The coefficient of correlation between the Disabled Students Program and Services (DSPS) and Tutoring was 0.74. The coefficient of determination indicated that approximately 55% of the factors that determine these two variables are held in common.

c. The coefficient of correlation between the Health Center and EOPS was 0.69. The coefficient of determination indicated that slightly fewer than 50% of the factors that determine these two variables are held in common.

Descriptive Statistics

	Mean	Standard Dev.	Count	Minimum Score	Maximum Score	Number Missing	Skewness	Kurtosis
DTMS	25.25	4.87	28	15	35	0	-0.06	-0.54
N/D	92.25	17.96	28	65	129	0	0.34	-0.95
DTLS	27.61	5.51	28	13	36	0	-0.94	0.68
Age	30.44	6.93	27	22	49	1	0.84	0.15
HS GPA	2.92	0.69	22	1	4	6	-1.33	2.88
Yrs of English	23.70	8.78	27	5	39	1	-0.36	-0.19
Hrs of Work	15.60	13.43	25	0	40	3	0.09	-1.17
8A	3.78	0.94	18	2	5	10	-0.41	-0.61
8B	4.15	0.72	27	3	5	1	-0.22	-0.98
8C	3.82	0.92	27	2	5	1	-0.23	-0.84
8D	3.32	1.60	19	1	5	9	-0.28	-1.41
8E	3.38	1.26	16	1	5	12	-0.12	-0.99
8F	3.00	1.46	15	1	5	13	0.14	-1.10
8G	3.36	0.92	11	2	5	17	0.82	-0.28
8H	4.00	0.93	22	2	5	6	-0.37	-0.96
8I	2.90	0.99	10	1	5	18	0.20	1.18
9A	4.68	0.82	28	2	5	0	-2.65	5.87
9B	4.46	0.69	28	3	5	0	-0.89	-0.41
9C	4.29	0.81	28	2	5	0	-0.98	0.48
9D	3.76	0.97	25	2	5	3	-0.35	-0.79
10A	3.11	1.12	27	2	5	1	0.28	-1.43
10B	3.59	0.80	27	2	5	1	-0.54	-0.19
10C	3.96	0.59	27	3	5	1	0.00	0.00
10D	4.33	0.56	27	3	5	1	0.00	-0.75

Table 2. Student Responses to Survey Questions
Means, Standard Deviations, Skewness, and Kurtosis

d. The Job Placement Center and EOPS had a coefficient of correlation of 0.78. The coefficient of determination indicated that approximately 61% of the variance between these two are held in common. Note that only 35% of the subjects rated the services of the job placement center, and 70% of them were undecided about the usefulness of the job placement center.

The data for the standardized tests, age, and high school GPA reflected a fairly normal distribution pattern (Table 2). The passing score for the DTLS was 26. Student scores ranged from 13 to 36, with a mean of 27.61. The DTMS minimum score was 15 with a maximum of 35 and a passing score of 23. The mean was 25.25 with a standard deviation of 4.87. The Nelson-Denny Reading test scores ranged from 65, the passing score, to 129 with a mean of 92.25 and a standard deviation of 17.96. The mean GPA was 2.92 for the 22 subjects who provided this information.

Although 39% of the subjects were not working at the time of the study, 11% indicated they worked 40 hours per week. The mean for the group was 15.6 hours per week. The age of the subjects ranged from 22 to 49 with a mean of 30.44 and a standard deviation of 6.93. These distributions were relatively normal (Table 2).

The country of origin for 57% of the sample was outside the United States.

	<u>Count</u>	<u>Percent</u>		<u>Count</u>	<u>Percent</u>
Afghanistan	1	4	American Indian	1	4
Guyana	1	4	Asian	3	11
India	1	4	Black	4	14
Nigeria	3	11	Filipino	9	32
Philippines	8	29	Hispanic	1	4
USA	12	43	White	<u>10</u>	<u>36</u>
Vietnam	<u>2</u>	<u>7</u>			
Total	<u>28</u>	<u>100</u>	Total	28	100

Table 3. Student Distribution by Country of Origin and Ethnicity

The ethnicity of the sample closely resembled the surrounding community. The sample was composed of: (a) 4% American Indian, (b) 11% Asian, (c) 14% African American, (d) 32% Filipino, (e) 4% Hispanic, and (f) 36% White (Table 3). The number of years that the subjects had spoken English varied from 5 to 39 with a mean of 23.7.

Additional Research Questions

1. What variable, or combinations of variables, contribute to success in the vocational nursing program?

This sample perceived financial services, such as EOPS and GAIN, in a favorable light. Subjects enrolled in DSPS received tutoring as an integral part of the service. Combinations of these services may have contributed to successful completion of this program.

Although the correlations did not indicate meaningful relationships, counseling was obviously very important to this sample. As many as 81% of the respondents identified this service as helpful to their learning.

The inquiries regarding support yielded information that was not reflected as meaningful in the correlation matrix (Table 1). However, between 64% and 93% of the respondents indicated that family, employers, coworkers, and friends were supportive to their education.

2. What are the relationships between standardized test scores, academic achievement, personal demographic characteristics, and successful completion of the vocational nursing program?

All subjects achieved the minimum level or higher on the reading test. The majority of the subjects, 68%, had mathematics scores above the minimum level, and 71% passed the English test above the minimum score. The mean high school GPA was 2.92 and 48% of the subjects had already

achieved either an Associate or Bachelor degree.

3. What correlations exist between high school achievement, high school completion, GPA, previous successful completion of college courses, and successful performance in a vocational nursing program?

All subjects were successful in reaching their goal of completing the vocational nursing program. High school or its equivalent was completed by all subjects. High school graduates had an average GPA of 2.92. The majority of the graduates, 68%, had completed college courses.

4. What relationships exist between age, family support, support from others, and success in a vocational nursing program?

No relevant information was obtained about the effect of age. As indicated previously in response to question 1, support common to all subjects emerged as a definite theme. For this study, support was characterized as the tenacity to persevere and withstand the rigors of the vocational nurse program. Subjects expressed the support in terms of social, moral, financial, and psychological assistance from family, friends, employers, coworkers, counselors, and faculty.

5. What variable or combination of variables provide clues to a criterion or criteria for program admission to increase student retention?

Since this study was not a comparison between students who were successful and students who had dropped out, this question can only be answered pragmatically. High school GPA has long been used as a standard criterion for college admission. This sample supported that norm. College assessment tests have been used to identify competency levels and to guide the student in areas needing remediation.

The sociological and psychological factors identified through the

interview process need further study. In response to the query asking why a student might drop out of the program, the dominant concerns were around stress. Academic demands were perceived as pressures that had to be balanced with the demand of fulfilling several roles in the family, including the responsibilities of being a wife, mother, and financial provider. An intense program involving heavy academic loads and clinical internships placed additional stress on the subjects and their families. Respondents emphasized the absolute necessity of family participation and organization to facilitate their continuation in the program.

This sample expressed concerns that expenses incurred during the program were possible causes of dropout. Financial pressures were cited by 63.6% of those interviewed. Between 27% and 48% of the group were recipients of financial aid, while 57% worked between 16 and 40 hours each week.

Specific personal attributes were perceived as factors contributing to student retention. The primary requisite was identified as commitment. In both the interviews and the questionnaire, subjects discussed the need to experience the role of the nurse and the demands entailed in this career. Only then could one be secure in their dedication to this goal.

Organization, the second most frequently mentioned trait, required self-discipline to schedule time for study, family, and work. This discipline involved managing one's time, planning ahead, scheduling activities, prioritizing, reorganizing, and focusing on the goal of completing this program.

Although confidence was not a word that all students used, many expressed the term repeatedly during the interviews. Most commonly this concept was expressed as maintaining a positive attitude. Other comments

included indications that individuals knew what they wanted and never doubted that they could complete the program.

The use of academic measures such as high school GPA, completion of some college courses, and assessments tests in reading, English, and mathematics appeared to be strong predictors for retention in this sample of successful vocational nursing students. These students identified psychological and sociological factors, that is, commitment, confidence, organization, prior health care experience, and social, emotional, financial, and moral support as critical to their retention. This sample of successful vocational nursing students suggested that a combination of specified levels of achievement on academic measures along with personal variables was most successful in student retention in this vocational nursing program.

6. How does fluency in English relate to retention?

The instruments here did not provide an answer to this question. The interviews elicited responses from two students specific to their sense that some instructors in the program were less respectful toward students who were less fluent in English. Student comments in the interviews indicated that some of them perceived English fluency as a source of attrition in this vocational nursing program.

CHAPTER V

DISCUSSION

A. Summary

This study investigated the variables that would be predictive of success for students in a community college vocational nursing program. The purpose of this investigation was to scrutinize and analyze factors and themes common to this student group that successfully completed a vocational nursing program.

Subjects completed a self-administered survey questionnaire that requested demographic, personal, and academic information. Eleven subjects participating in individual interviews answered open ended questions concerning their experiences prior to acceptance into the program as well as throughout the program. The researcher audio taped the interviews to increase accuracy and facilitate analysis. Narrative therapy provided a theoretical framework for identifying the themes which the subjects reported had enabled them to attain their goal.

The predominant themes that emerged from the interviews were: (a) support--moral, emotional, and financial, (b) prior experience in the health care fields, (c) commitment--an unwavering sense of persisting in the chosen path, (d) confidence--an unqualified conviction of being able to do whatever is necessary in academics and internship to succeed in the LVN program, and (e) organization--mastering the logistics of college work, nursing practices, and managing one's personal demands and occupational structure. Subjects indicated their educational efforts were supported by family, friends, employers, coworkers, faculty, counselors, and patients. They cited prior experience as a nursing assistant, medical assistant,

or pharmacy technician as very helpful. Several words repetitively conveyed the importance of commitment, including dedication, motivation, and focus. More than half the subjects described confidence as being inner directed, self-directed, or having a positive mental attitude. Organization included references to self-discipline, time management, and study habits. Most subjects mentioned their responsibilities related to the demands they must meet with their families.

Correlation analysis found meaningful relationships between service areas of the college, that is, between DSPS and Tutoring, and between EOPS and GAIN, Tutoring, and the Health Center. Although the coefficient of determination did not indicate important relationships, the respondents indicated a very positive view of the benefit of these practical support services. Subjects' past academic achievements represented a fairly normal distribution of data in the area of high school GPA, level of educational attainment, prior successful completion of college courses, and performance on assessment tests.

B. Discussion of Results

None of the results of this study were statistically significant, probably due to the small sample size. The information from the interviews contributed to the search for themes that might be common among students enrolled in vocational nursing programs at a community college. White and Epston (1990) proposed that behavior is a function of clients' knowledge about their life story and the meaning they attach to life events. The sociological and psychological factors this group identified support this suggestion. Subjects attributed success to hard work, commitment, confidence, a positive mental attitude, and support from many resources. The interviews allowed them to express these feelings in

the context of a life story. Some subjects expressed a new awareness of past actions and seemed genuinely surprised at the reality of their feelings.

Not surprisingly, the subjects' past academic performances were generally successful, and this positive record appeared to contribute to the present achievement in the vocational nursing program. The analysis of such common demographic variables as age, gender, ethnicity, and experience with the English language did not impact the subjects' performance in the program.

C. Recommendations

This study could be conducted in other areas of the state or country. A larger number of subjects might yield more meaningful and measurable statistics. An experimental design comparing successful students with students who have experienced program probation or dismissal might reveal variances that would further understanding about characteristics that might be predictive of successful completion of vocational nursing programs. Such a study could also suggest methods that might be useful in remediating those students experiencing difficulties so that they too can find success.

The instruments need further development to provide additional information about socioeconomic levels and family levels of education. The Likert scale options might be expanded to allow more fine tuning since several questions showed a relatively high percentage of responses in the undecided category. Question number 10--the degree of interest in the program and the ease in applying theory to the clinical experience--did not yield practical information in the context of this study. The responses to question 10, however, were helpful as a way of evaluating the program.

The interview questions were broad enough to allow probing questions and requests for clarification. The dual relationship of the researcher as

program director and instructor proved a problem. Some individuals declined to participate in the interview. Other subjects discussed with the researcher that some students were leery of participation. This distrust may also have had an impact on those students who did willingly agree to participate. Subsequent studies that insure complete objectivity by the researcher will correct this problem.

Finally, the findings of this qualitative research point to a profile of LVN program applicants most likely to succeed. Thus a profile of a successful graduate comes into focus. The findings indicate, preliminarily, the following profile:

- A high school graduate or the equivalent.
- A 10th to 12th grade competency level on assessment tests in mathematics, reading, and English.
- Prior experience in a health care field e.g., as a nursing assistant, medical assistant, emergency medical technician, or paramedic.
- Confidence
- Organizational ability
- Commitment/determination to the goal of becoming an LVN
- A support system--financial, moral, psychological, and emotional

Questions related to these important goals, talents, attitudes, and social support networks could become part of the application and admission process. Future screening procedures might include the following questions:

1. In thinking about your educational experiences, what would you identify as your strong points?
2. What areas can you identify as sources of difficulty for you in completing your studies the last time you were in school?
3. Where will you be and what will you be doing 5 years from now?

4. Focusing on your personal traits and ignoring such physical characteristics as your height, weight, or eye color, how would you describe yourself?

5. How would you respond if an instructor told you that in the future you were to move to the front of the room whenever you were taking a test?

6. Can you describe one failure that you have experienced in your life and your reaction to that setback?

7. Imagine that you have been accepted into the LVN program. How would you describe the ideal situation that would assure your success in completing this program?

Subjects' responses to these questions could identify such personal characteristics as motivation, commitment, confidence, self-discipline, and organization. Additionally, the availability and utilization of financial, moral, and emotional support systems could be analyzed.

REFERENCE LIST

REFERENCES

- Ada, A. F., & Beutel, C. M. (1993). *Participatory research as a dialogue for social action*. San Francisco, CA: Self Published.
- Adelman, C. (1992). *The way we are: The community college as American thermometer*. Washington, DC: U. S. Government Printing Office.
- Alfred, R., Peterson, R., & White, T. (1992). *Making community colleges more effective: Leading through student success*. Ann Arbor, MI: Community College Consortium.
- Almeida, E., Sanchez, M. E., Soto, B., Felix, L., & Perez, V. (1983). Development of a participatory research center as part of an ongoing rural development program. *The Journal of Applied Behavioral Science*, 19(3), 295-306.
- A nation at risk*. (1992). Publisher Conference Board (Report No. 1041). New York: Lund.
- Anderson, R., & Darkenwald, G. (1979). *Participation and persistence in American adult education*. New York: College Entrance Examination Board.
- Astin, A. W. (1972). *College dropouts: A national profile*. Washington, DC: American Council on Education.
- Astin, A. W. (1975). *Preventing students from dropping out*. San Francisco: Jossey-Bass Publishers.
- Astin, A. W. (1993). *What matters in college?: Four critical years revisited*. San Francisco: Jossey-Bass.
- Babbie, E. (1990). *Survey research methods* (2nd ed.). Belmont, CA: Wadsworth Publishing Company.
- Barber, J. (1990). Miracle cures: Therapeutic consequences of clinical demonstrations. In J. K. Zeig, & S. G. Gilligan (Eds.), *Brief Therapy: Myths, Methods, and Metaphors* (pp. 437-442). New York: Brunner/Mazel.
- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12(2), 155-187.
- Bean, J. P. (1981). *Student attrition, intentions, confidence: Interaction effect in a path model. Part I: The 23 variable model*. Los Angeles: American Educational Research Association (ERIC Document Reproduction Service No. ED 202 443).
- Bean, J. P. (1986). Assessing and reducing attrition. *New Directions for Student Services*, 14, 47-61.
- Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research*, 55(4), 485-540.

- Benda, E. J. (1991). The relationship among variables in Tinto's conceptual model and attrition of bachelor's degree nursing students. *Journal of Professional Nursing*, 7(1), 16-24.
- Bloom, A. (1987). *The closing of the American mind*. New York: Simon and Shuster.
- Booth, E. G. (1992). Predicting success in practical nursing programs. *Dissertation Abstracts International*, V53(03), SECB. (University Microfilms No. ADG92-20988. 9209).
- Bowman, E. G. (1992). LPN preference for BSN or ADN and criteria utilized by faculty as predictors of success (Nursing Education). *Dissertation Abstracts International*, 53, 276. (University Microfilms No. ADG92-21979. 9209).
- Brown, L. D., & Tandon, R. (1983). Ideology and political economy in inquiry: Action research and participatory research. *The Journal of Applied Behavioral Science*, 19(3), 277-294.
- California Postsecondary Education Commission. (1985). *From ninth grade through college graduation: Who makes it in California education*. Sacramento, CA: California Post-Secondary Education Commission.
- Cameron-Bucchari, R., & Trygstad, L. (1989). Retaining freshman nursing students. *Nursing & Health Care*, 10(7), 389-393.
- Cone, J. D., & Foster, S. L. (1993). *Dissertations and theses from start to finish*. Washington, DC: American Psychological Association.
- Corey, G., Corey, M. S., & Callanan, P. (1988). *Issues and ethics in the helping professions* (3rd ed.). Pacific Grove, CA: Brooks/Cole Publishing Company.
- Durkheim, E. (1951). *Suicide*. Translated by J. A. Spaulding and G. Simpson. Glencoe: The Free Press. Originally published as *Le Suicide: Etude de sociologie*. Paris: Felix Alcan, 1897.
- Freire, P. (1985). *The politics of education: Culture, power and liberation*. New York: Bergin & Garvey.
- Freire, P. (1993). *Pedagogy of the oppressed*. New York: Continuum.
- Freire, P. (1994). *Education for critical consciousness*. New York: Continuum.
- Friedman, S. (1993). Staying simple, staying focused: Time-effective consultations with children and families. In Hoyt, M. F. (Ed.), *Constructive therapies*, pp. 217-250. New York: The Guilford Press.
- Green, K. C. (1987). What the freshman tell us. *American Journal of Nursing*, 87, 1610-1614.
- Hall, B. (1981). Participatory research, popular knowledge and power: A personal reflection. *Convergence*, XIV (3), 6-19.

- Hirsch, E. (1987). *Cultural literacy: What every American needs to know*. Boston: Houghton Mifflin.
- Hoyt, M. F. (Ed.). (1994). *Constructive therapies*. New York: The Guilford Press.
- Huch, M. H., Leonard, R. L., & Gutsch, K. U. (1992). Nursing education: Developing specification equations for selection and retention. *Journal of Professional Nursing*, 8(3), 170-175.
- Kerlinger, F. N. (1973). *Foundations of behavioral research* (2nd ed.). New York: Holt, Rinehart and Winston, Inc.
- Kittner, M. L. (1982). Validating the use of the tests of adult basic education for predicting success in selected vocational/technical programs. *Dissertation Abstracts International*, V43(12), SECA. (University Microfilms No. ADG83-09684. 9000).
- Knoell, D. (1983). *Serving today's diverse students: Issues for community college leaders in a new era*. San Francisco: Jossey-Bass.
- Leitsch, P. K. (1988). Relationship between selected academic and demographic variables and success in licensed practical nursing programs (TABE). *Dissertation Abstracts International*, V50(06), SECA. (University Microfilms No. ADG89-22387. 9000).
- Lengacher, C. A., & Keller, R. (1990). Academic predictors of success on the NCLEX-RN examination for associate degree nursing students. *Journal of Nursing Education*, 29(4), 163-169.
- Lenning, O., Beal, P., & Sauer, K. (1980). *Retention: Evidence for action and research*. Boulder, CO: National Center for Higher Education Management Systems, Inc.
- Lopez, R. (1992). *A comparison of generic graduates, dropouts, and current students in a nursing-education program: The influence of selected demographic, academic, and personal characteristics and accessibility variables*. Unpublished doctoral dissertation, University of San Francisco.
- Marshall, J. (1989). Student attrition: Is lack of support a key? *Nursing Outlook*, 37(4), 176-178.
- McKinney, J., Small, S., O'Dell, N., & Coonrod, B. A. (1988). Identification of predictors of success for the NCLEX and students at risk for NCLEX failure in a baccalaureate nursing program. *Journal of Professional Nursing*, 4(1), 55-59.
- Moore, G. W. (1983). *Developing and evaluating educational research*. Glenview, IL: Scott, Foresman and Company.
- Moore, J. F. (1989). *An investigation of multiple variables to measure success in a baccalaureate nursing program*. Unpublished doctoral dissertation, University of Wyoming, Laramie.

- Munro, B. H. (1980). Drop-outs from nursing education: A path analysis. *Nursing Research*, 29, 371-377.
- Neimeyer, R. A. (1993). An appraisal of constructivist psychotherapies. *Journal of Consulting and Clinical Psychology*, 61, 221-234.
- Noel, L., & Levitz, R. (1990). *National dropout rates freshman to sophomore year by type of institution*. Iowa City: IA: ACT Institutional Data File, 1989 for the National Center for the Advancement of Educational Practices.
- Noel, L., Levitz, R., Saluri, D., & Associates. (1985). *Increasing student retention*. San Francisco: Jossey-Bass Publishers.
- Pantages, T., & Creedon, C. (1978). Studies of college attrition, 1960-1977. *Review of Educational Journal*, 5, 57-72.
- Pappas, J. P., & Loring, R. K. (1985). Returning learners. In L. Noel, R. Levitz, D. Saluri, and Associates, *Increasing Student Retention* (pp. 138-161). San Francisco: Jossey-Bass Publishers.
- Parry, A., & Doan, R. (1994). *Story revisions: Narrative therapy in the postmodern world*. New York: Guilford Press.
- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass Publishers.
- Reissman, C. K. (1993). *Narrative analysis*. Newbury Park, CA: Sage Publications.
- Riesman, D. (1981). *On higher education: The academic enterprise in an era of rising student consumerism*. San Francisco: Jossey-Bass.
- Roediger, J. L. (1983). Relationship of self-concept, life change, stress, and student attrition in community college nursing programs. Doctoral dissertation, University of Washington, 1983. *Dissertation Abstracts International*, DA 8308640.
- Rosenfeld, P. (1988). Measuring student retention: A national analysis. *Nursing and Health Care*, 9, 199-202.
- Rowland, H. A. (Ed.). (1978). *The nurse's almanac*. New York: Aspen Systems.
- Spady, W. (1970). Dropouts from higher education: An interdisciplinary review and synthesis. *Interchange*, 1, 64-85.
- Spoerl, O. H. (1975). Single-session psychotherapy. *Discases of the Nervous System*, 36, 283-285.
- Stoecker, J., Pascarella, E., & Wolfe, L. (1988). Persistence in higher education: A nine year test of a theoretical model. *Journal of College Student Development*, 29(3), 196-209.

- Talmon, M. (1990). *Single session therapy: Maximizing the effect of the first (and often only) therapeutic encounter*. San Francisco: Jossey-Bass.
- Talmon, M. (1993). *Single session solutions*. Reading: MA: Addison-Wesley.
- Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1), 89-125.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: The University of Chicago Press.
- Tinto, V. (1988). Stages of student departure: Reflections on the longitudinal characteristics of students leaving. *Journal of Higher Education*, 59, 438-455.
- Tomm, K. (1990). Foreword. In M. White & D. Epston, *Narrative means to therapeutic ends* (pp. vii-xi). New York: W. W. Norton & Company.
- Voorhees, R. (1987). Toward building models of community college persistence. *Research in Higher Education*, 26(2), 115-129.
- White, M. & Epston, D. (1990). *Narrative means to therapeutic ends*. New York: W. W. Norton & Company.
- Williamson, D. R., & Creamer, D. G. (1988). Student attrition in 2- and 4-year colleges: Application of a theoretical model. *Journal of College Student Development*, 29, 210-217.

APPENDIX A

INSTITUTION CONSENT FORM



February 12, 1996

School of Education
Counseling Psychology Faculty
The University of San Francisco
2130 Fulton Street
San Francisco, CA 94117

To Whom It May Concern:

As part of the requirement for completion of the requirements for the Degree Doctor of Education, Mary A. Moore has requested permission to survey and interview students in their final semester of the Vocational Nursing Program at Mission College. The purpose of the study is to identify factors that may have contributed to successful completion of the program.

I have reviewed her proposal and grant her permission to complete this study.

Sincerely,

A handwritten signature in cursive script that reads "Mike Rao".

Michael Rao,
President

APPENDIX B
SUBJECT CONSENT FORM

Appendix B

UNIVERSITY OF SAN FRANCISCO
CONSENT TO BE A RESEARCH SUBJECT

A. PURPOSE AND BACKGROUND

Mary Moore, a doctoral student in the Counseling Psychology Department, is doing a study of factors contributing to student success in completion of the Vocational Nurse Program at Mission College, in which I am being asked to participate.

Note: All research subjects will be adult students at the community college where the investigator is employed.

B. PROCEDURES

If I agree to be in the study, the following will occur:

1. I will complete a brief questionnaire.
2. I will be interviewed by the investigator about my opinions of what has helped me to be successful in completion of the Vocational Nurse Program.
3. If I agree, audio tapes will be made of the interview.

These procedures will be done in a private office at Mission College and will take approximately 1 hour.

C. RISKS/DISCOMFORTS

1. No risks are anticipated in participation in the study. I am free to ask questions or to stop the interview at any time.
2. Confidentiality: Study records will be kept as confidential as is possible. No individual identities will be used in any reports or publications resulting from the study. Study information will be kept in locked files at all times. Only study personnel will have access to the audio tapes. After the study has been completed and all data has been transcribed from the tapes, the tapes will be destroyed.

D. BENEFITS

There may be no direct benefit to me from participating in this study.

E. ALTERNATIVES

I am free to choose not to participate in this study.

F. COSTS

There will be no costs to me as a result of taking part in this study.

G. REIMBURSEMENT

There is no reimbursement for participation in this study.

H. QUESTIONS

I have talked to Mary Moore about this study, and have had my questions answered. If I have any further questions about this study, I may call her at (408) 748-2748.

If I have any questions or comments about participation in this study, I should first talk with the investigator. If for some reason, I do not wish to do this, I may contact the IRBPHS, which is concerned with protection of volunteers in research projects. I may reach the IRBPHS office between 8:00 AM and 5:00 PM, Monday to Friday, by calling (415) 666-2416, or by writing to the IRBPHS, Psychology Department, University of San Francisco, 2130 Fulton Street, San Francisco CA 94117-1080.

I. CONSENT

I have been given a copy of this consent form to keep. PARTICIPATION IN RESEARCH IS VOLUNTARY. I am free to decline to be in this study, or to withdraw from it at any point. My decision as to whether or not to participate in this study will have no influence on my present or future status as a student at Mission College.

Date

Subject's Signature

Person Obtaining Consent

APPENDIX C

SUBJECT SURVEY QUESTIONNAIRE

Appendix C

VOCATIONAL NURSING STUDENT QUESTIONNAIRE

This survey is being conducted to identify factors that will be most predictive of success for students entering the vocational nursing program. This form is designed for your convenience. Your participation is entirely voluntary but the answers to the questions are very important. I appreciate your cooperation in answering the questions as accurately as possible. All answers will be held in strict confidence.

1. Gender M _____ F _____
2. Ethnicity_____Country of Origin_____
3. Age _____
4. Highest level of education completed?_____
5. What was your high school GPA?_____
- OR your GED score?_____
6. How long have you spoken English?_____
7. How many hours/week are you currently employed? _____

For the next 3 questions, please indicate whether you Strongly Disagree (SD), Disagree (D), Neither Agree nor Disagree (U), Agree (A), Strongly Agree (SA), or Not Applicable (NA).

8. These services and facilities at Mission College have been helpful to my learning:

	<u>SD</u>	<u>D</u>	<u>U</u>	<u>A</u>	<u>SA</u>	<u>NA</u>
A. Tutoring	1	2	3	4	5	6
B. Counseling	1	2	3	4	5	6
C. Library	1	2	3	4	5	6
D. Financial Aid	1	2	3	4	5	6
*E. EOPS	1	2	3	4	5	6
*F. GAIN	1	2	3	4	5	6
*G. DSPS	1	2	3	4	5	6
H. Health Center	1	2	3	4	5	6
I. Job Placement	1	2	3	4	5	6

9. The following have been supportive of my education at Mission College:

	<u>SD</u>	<u>D</u>	<u>U</u>	<u>A</u>	<u>SA</u>
A. Family	1	2	3	4	5
B. Friends at Mission College	1	2	3	4	5
C. Friends outside Mission College	1	2	3	4	5
D. Employer and/or Coworker	1	2	3	4	5

10. In the Mission College Vocational Nurse Program, I thought that:

	<u>SD</u>	<u>D</u>	<u>U</u>	<u>A</u>	<u>SA</u>
A. Theory classes were very difficult	1	2	3	4	5
B. It was easy to apply theory to clinical	1	2	3	4	5
C. Faculty were supportive	1	2	3	4	5
D. The program was interesting	1	2	3	4	5

11. What do you think might be reasons that you, or a friend, might consider dropping out of this nursing program?

* NOTE: EOPS -- Extended Opportunity Programs and Services
 GAIN -- Greater Avenues for Independence
 DSPS -- Disabled Students Program and Services

APPENDIX D

INTERVIEW QUESTIONNAIRE

Appendix D

VOCATIONAL NURSING STUDENT INTERVIEW QUESTIONS

1. Gaining admission to a nursing program today is very difficult. How would you describe your experience of receiving acceptance into the Mission College Vocational Nurse Program?

Possible responses and/or contingency questions:

- Very Easy: Were you accepted the first time you applied?
 - Slightly Difficult: Did you pass the tests the first time but found you had to take courses to get enough points to be accepted?
 - Moderately difficult: Were you below the cut off scores on 1 or 2 tests so that you had to take a course for equivalency and/or did you need to take courses to raise the number of points necessary for acceptance?
 - Very Difficult: Were you below the cut off scores on all 3 tests so that you had to take courses to gain an equivalency?
2. What was the greatest challenge you experienced during the program? What did you do to overcome the difficulty?
 3. What experiences have you had in the health care or related fields that may have helped you be successful in this program?
 4. Were there times when you thought you might not reach the end of this program? What helped you through those times?
 5. This discussion has been meaningful for me. I hope you found our conversation valuable as well. If your friend were to begin a similar program, are there any "gems" in the way of suggestions or helpful guidance you would offer to incoming students that would help them be as successful as you have been?

APPENDIX E

AMERICAN PSYCHOLOGICAL ASSOCIATION

SELECTED ETHICAL STANDARDS

Appendix E

This research project conformed in all respects to the Ethical Principles of Psychologists and Code of Conduct of the American Psychological Association (APA, 1992) relevant to the conduct of research in psychology, especially:

1.14 Avoiding Harm

Psychologists take reasonable steps to avoid harming their patients or clients, research participants, students, and others with whom they work, and to minimize harm where it is foreseeable and unavoidable.

5.01 Discussing the Limits of Confidentiality

(a) Psychologists discuss with persons and organizations with whom they establish a scientific or professional relationship (including, to the extent feasible, minors and their legal representatives): (1) the relevant limitations on confidentiality, including limitations where applicable in group, marital, and family therapy or in organizational consulting, and (2) the foreseeable uses of the information generated through their services.

(b) Unless it is not feasible or is contraindicated, the discussion of confidentiality occurs at the outset of the relationship and thereafter as new circumstances may warrant.

(c) Permission for electronic recording of interviews is secured from clients and patients.

5.02 Maintaining Confidentiality

Psychologists have a primary obligation and take reasonable precautions to respect the confidentiality rights of those with whom they work or consult, recognizing that confidentiality may be established by law, institutional rules, or professional or scientific relationships.

6.06 Planning Research

(a) Psychologists design, conduct, and report research in accordance with recognized standards of scientific competence and ethical research.

(b) Psychologists plan their research so as to minimize the possibility that results will be misleading.

(c) In planning research, psychologists consider its ethical acceptability under the Ethics Code. If an ethical issue is unclear, psychologists seek to resolve the issue through consultation with institutional review boards, animal care and use committees, peer consultations, or other proper mechanisms.

(d) Psychologists take reasonable steps to implement appropriate protections for the rights and welfare of human participants, other persons affected by the research, and the welfare of animal subjects.

6.07 Responsibility

(a) Psychologists conduct research competently and with due concern for the dignity and welfare of the participants.

(b) Psychologists are responsible for the ethical conduct of research conducted by them or by others under their supervision or control.

(c) Researchers and assistants are permitted to perform only those tasks for which they are appropriately trained and prepared.

(d) As part of the process of development and implementation of research projects, psychologists consult those with expertise concerning any special population under investigation or most likely to be affected.

6.08 Compliance with Law and Standards

Psychologists plan and conduct research in a manner consistent with federal and state law and regulations, as well as professional standards

governing the conduct of research, and particularly those standards governing research with human participants and animal subjects.

6.09 Institutional Approval

Psychologists obtain from host institutions or organizations appropriate approval prior to conducting research, and they provide accurate information about their research proposals. They conduct the research in accordance with the approved research protocol.

6.10 Research Responsibilities

Prior to conducting research (except research involving only anonymous surveys, naturalistic observations, or similar research), psychologists enter into an agreement with the participants that clarifies the nature of the research and the responsibilities of each party.

6.11 Informed Consent to Research

(a) Psychologists use language that is reasonably understandable to research participants in obtaining their appropriate informed consent. Such informed consent is appropriately documented.

(b) Using language that is reasonably understandable to participants, psychologists inform participants of the nature of the research: they inform participants that they are free to participate or to decline to participate or to withdraw from the research; they explain the foreseeable consequences of declining or withdrawing; they inform participants of significant factors that may be expected to influence their willingness to participate (such as risks, discomfort, adverse effects, or limitations on confidentiality, except as provided in Standard 6.15, Deception in Research); and they explain other aspects about which the prospective participants inquire.

(c) When psychologists conduct research with individuals such as

students or subordinates, psychologists take special care to protect the prospective participants from adverse consequences of declining or withdrawing from participation.

(d) When research participation is a course requirement or opportunity for extra credit, the prospective participant is given the choice of equitable alternative activities.

6.13 Informed consent in Research Filming or Recording

Psychologists obtain informed consent from research participants prior to filming or recording them in any form, unless the research involves simply naturalistic observations in public places and it is not anticipated that the recording will be used in a manner that could cause personal identification or harm.

6.18 Providing Participants with Information About the Study

(a) Psychologists provide a prompt opportunity for participants to obtain appropriate information about the nature, results, and conclusions of the research, and psychologists attempt to correct any misconceptions that participants may have.

(b) If scientific or humane values justify delaying or withholding this information, psychologists take reasonable measures to reduce the risk of harm.

6.21 Reporting of Results

(a) Psychologists do not fabricate data or falsify results in their publications.

(b) If psychologists discover significant errors in their published data, they take reasonable steps to correct such errors in a correction, retraction, erratum, or other appropriate publication means.

6.22 Plagiarism

Psychologists do not present substantial portions or elements of another's work or data as their own, even if the other work or data source is cited occasionally.