THE SELF-CONCEPT AND VOCATIONAL CHOICE OF THREE DEVELOPMENTAL TASK AGE GROUPS OF ASSOCIATE DEGREE NURSING STUDENTS

by

Yvonne Wolf Darr

B.A. in Psychology, Kansas Newman College, 1974

M.S. in Adult Education, Kansas State University, 1976

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Redacted Signature

Dean, School of Nursing

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ABSTRACT

This study investigated the possible variance of Self-Concept level, Medical Science/Medical Service vocational interest level, and Introversion/Extroversion level between first and second level associate degree nursing students and among three developmental task age groups comprising the same nursing students. Self-concept level data were obtained by the combined Total Positive, Self-Criticism, Personal Self, and Self-Satisfaction scores on the Tennessee Self-Concept Scale. Medical Science/Medical Service vocational interest level and Introversion/Extroversion level data were obtained from scores on the Strong-Campbell Interest Inventory. Demographic data obtained concurrently included: sex, marital status, age, number of children living at home, educational preparation, and number of hours employed weekly.

Thirty-five first level and twenty-one second level associate degree nursing students in a small Midwestern Community College completed the Tennessee Self-Concept Scale and the Strong-Campbell Interest Inventory at the end of the 1983 academic semester. Selected demographic data were obtained from a questionnaire administered concurrently.

The scores obtained among the three developmental task age groups and between the first and second level students were subjected to a simple statistical analysis of variance. Also, a Pearson's linear correlation was performed on the Self-Concept scores obtained from the Tennessee Self-Concept Scale and the Medical Science/Medical Service vocational interest levels obtained from the Strong-

Campbell Interest Inventory. Analysis indicated that no significant variance existed in Self-Concept scores between the first and second level students or among the three developmental task age groups. While no significant variance existed in Medical Science/Medical Service vocational interest scores among the three developmental task groups, significant variance was found between the first and second level students. No significant variance was found among the three developmental task groups with respect to Introversion/ Extroversion scores. Neither were any correlations found between the Self-Concept scores and the Medical Science/Medical Service vocational interest scores.

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CHAPTER 1

INTRODUCTION

Associate degree nursing (ADN) programs in community colleges have opened the door to students of widely divergent backgrounds and life experiences. Today's ADN student contrasts to the "typical" diploma or baccalaureate nursing student who could be described as a single female under 21 years of age with personality characteristics quite similar to her classmates.

Current ADN student groups present clear evidence that the previous typical student is less in a majority, as older married women and men are enrolling in greater numbers. Also, Frerichs (1973) found that a growing percentage of ADN students are licensed practical nurses.

Little empirical evidence is currently available to compare the older married students with the typical younger and unmarried nursing student, however, Katz (1968), in a study of nursing students in a community college, found that older adult students performed better in both academic and clinical subjects than did the typical college-age students.

During the last decade, students increasingly have returned for education on college campuses after extensive experience with adult roles and responsibilities. Houle (1961) has drawn a picture of the older student who emphasizes self-direction and energetic pursuit of highly individualized goals as compared to the younger college student who views college education as a "perparation" for adult roles.

Much of the motivation of adult learners may be inherently remedial. According to Zahn (1969) that is, adults may return to college to eliminate deficiencies in their educational experience that have reduced their range of choices in adult life. Zahn (1969) stated, adult students have retreated out of the work force in order to advance later, but this may not hold true for students in the 80's. In returning to college, adult students may be activating feelings of powerlessness and other negative perceptions that Zahn (1969) has linked to failure and attrition.

The self-concept is an important factor in career development; Super (1963) stated its stability over the high school years is one characteristic of those who are successful at age 25 years. Researchers are not analyzing how the self-concept is translated into the vocational self-concept, a key process in vocational development as noted by Super. Evidence from several studies suggested that when self-concept and vocational self-concept were congruent, individuals tended to be better satisfied with their work. Super (1963) indicated that changes in self-concepts for those entering new occupations tended to be in the direction of expected roles in the desired work. Individuals with poorly crystallized views of themselves or with poorly organized self-concepts had more difficulty selecting vocational areas than those with better-organized and more positive self-concepts, thus, adding emphasis to the key role of the self-concept in career planning.

Other evidence is accumulating to support the theoretical assumptions that occupational maturity increases with age. Strategies for occupational information search and elaborateness of reasons for choice increased over the high school years, suggests that more involvement in finding and using information and relating it to occupational choices and career development increased systematically over the same period.

Purpose

The purpose of this study was to investigate the vocational choice and self-concept levels of three developmental task age groups and first and second level associate degree nursing students.

Theoretical Framework

The theoretical framework for this study was based upon the work of Donald E. Super. According to Super (1970), a person expressed a vocational preference by putting into occupational terminology his idea of the kind of person that he is: in entering an occupation, a person sought to implement a concept of himself; and in getting established in an occupation, a person achieved self-actualization. A person's occupation, thus, made it possible to play a role appropriate to his self-concept.

Super (1963) agreed with Sarbin (1963) in defining the self as what the person is. The self is sometimes defined as the perceiver and sometimes defined as that which is perceived. Development of the self-concept begins with self-percepts. Self-percepts are observed facts or impressions of the raw materials of self which

the individual received by way of the senses. Gradually, these percepts acquire meaning through association with other percepts, but at this point, they are at a lower level or considered simple concepts. As percepts and meaning become firmly connected, percept and concept become functionally synonymous such that the stimulus evokes the concept without any intervening process taking place. A self-concept is, therefore, the individual's picture of himself.

Since a person cannot ascribe meaning to himself in a vacuum, the concept of self is generally a picture of the self in some role, in some situation, in some performance or function, or in some web of relationships. In their most complex form, self-concepts are organized around some status or role. Roles in which the individual engages in tasks and performs functions are termed functional roles.

Each person has a number of self-concepts, but only one self-concept system exists at any point in time. A self-concept system is the constellation, more or less well organized, of all the self-concepts. A vocational self-concept is part of this system. The constellation of self-attributes which the individual considers vocationally relevant comprised the vocational self-concept. These attributes may or may not have been translated into a vocational preference. The self-concept cannot exist without the individual's being aware of it; therefore, continuity of the self-concept through periods of minimal self-awareness is provided by perceptual set.

Super (1963) believed that vocational choice could be viewed as an expression of self-concepts formulated and reformulated throughout life stages. The life stages used by Super were those of growth, exploration, establishment, maintenance, and decline. The life stages of most concern to this study are those of exploration or adolescence and of establishment or adulthood. Super included three substages in the exploratory stage. These substages were the tentative substage, the transition substage, and the trial substage. Substages included in the establishment stage are the trial and stabilization substages and the advancement substage.

Super identified vocational developmental tasks that are commonly accomplished by all individuals. The task of crystallizing a vocational preference usually was accomplished between the ages of 14 and 18 and occurred in the tentative substage. At this time, the individual is expected to begin formulating ideas as to fields and levels of work which are appropriate for him. The task of specifying a vocational preference is a developmental task of the 18 and 21 year old. This development occurred during the transition substage, and the individual is expected to identify a specific vocational choice and to make a final commitment by embarking upon a specialized educational or training program or by taking a beginning job as entry into a chosen field. The implementation task usually occurred during the 18 to 25 year period when the individual is expected to convert his specified vocational

preference into a reality, that is, to implement his choice. Motor behavior, not verbalization, is central to the concept of implementation. Stabilization as a developmental task usually occurred between the years of 21 to 30 and sometimes beyond. During these years, the individual is expected to settle down in a field of work which is compatible with his interest, abilities, and aspirations. Having begun the implementation of his self-concept by entering an appropriate field of work, the individual is expected to pursue self-actualization by finding and securing a place in his chosen field of work. Changes may occur during this time, but the changes are generally changes of position, or job, or of enterprise, not of occupation in the strict sense of the term. According to Super (1963) the task of consolidation of status and advancement generally began around the age of 30 and continued until the maintenance stage begins.

Super's theory of vocational development can be stated in a series of ten propositions:

1. People differ in their abilities, interests and personalities.
2. Each person is qualified, by virtue of these characteristics for a number of occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests and personality traits, with tolerances wide enough, however, to allow both some variety of occupations for each individual and some variety of individuals in each occupations.
4. Vocational preferences and competencies, the situations in which people live and work, and hence their self-concepts, change with time and experience (although self-concepts are generally fairly stable from late adolescence until late maturity), making choice and adjustment a continuous process.

5. This process may be summed up in a series of life stages characterized as those of growth, exploration, establishment, maintenance, and decline, and these stages may in turn be subdivided into (a) the fantasy, tentative, and realistic phases of the exploratory stage and (b) the trial and stable phases of the establishment stage.
6. The nature of the career pattern (that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs) is determined by the individual's parental socioeconomic level, mental ability, and personality characteristics, and by the opportunities to which he is exposed.
7. Development through the life stages can be guided, partly by facilitating the process of maturation of abilities and interests and partly by aiding in reality testing and in the development of the self-concept.
8. The process of vocational development is essentially that of developing and implementing a self-concept: a compromise process in which the self-concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows.
9. The process of compromise between individual and social factors, between self-concept and reality, is one of role playing, whether the role is played in fantasy, in the counseling interview, or in real life activities such as school classes, clubs, part-time work, and entry jobs.
10. Work satisfactions and life satisfactions depend upon the extent to which the individual finds adequate outlets for his abilities, interests, personality traits, and values; they depend upon his establishment in a type of work, a work situation, and a way of life in which he can play the kind of role which his growth and exploratory experiences have led him to consider congenial and appropriate.

Review of Literature

Studies of the self-concept were numerous in the literature. Studies about self-concept of nurses or nursing students were not so numerous. Fewer studies are available concerning typical nursing students and students at different levels within a given program. Nursing has a long history of interest in the self-concept

of clients but has not manifested an equal concern in the development of nursing practitioners.

Ellis (1980) administered the Tennessee Self Concept Scale to 177 nursing students during the third week of the fall semester before the students had experienced a clinical component. A profile comparison of the nursing student population with the norms of the TSCS showed the nursing student group mean to be lower for both self-criticism and physical self and higher for moral-ethical self. All other self-concept measures fell closely on the mean standard score norm. Self-concept levels were highest at the beginning of the sophomore year and lowest at the beginning of the senior year.

Frerichs (1973) studied 1,435 associate degree nursing students in 22 Illinois community colleges. She studied the relationship of age, marital status, and previous nursing experiences to self-esteem and internal and external control. The married students showed significantly more internal control and significantly higher self-esteem levels than their single counterparts. The study concluded that at times marriage and family present problems for students, but academic success and better total social adjustment were more easily attained following marriage. An exploratory study based on self theory was conducted by Komorita (1972) to determine the significance and relevance of the self-concept in nursing education. Five hundred and three students were tested by use of the Bills Index of Adjustment and Values. Subjects who perceived

their self-concepts to be higher than their peers's self-concept tended to make higher clinical grades; in addition, self-concept measures were more effective predictors of clinical grades than theory grades or total grade point average. The three hypotheses of the study were supported, and the author concluded that the self-concept has relevance to nursing education, and particularly for clinical practice.

Morrison (1968) administered Q-sort tasks to 43 sixth quarter education students and the 44 second semester nursing students, all females. The students were to sort out their self-concepts, their concept of a teacher, and their concept of a nurse. Morrison predicted that the education students were more likely to report self-perceptions similar to those of teacher than nurse, while the nursing students were likely to report self-perceptions more similar to those of nurse than teacher. The results of the study supported the predictions.

Analysis of similarities and differences among 188 students in three types of nursing programs were studied by Meleis (1974). She found that biographical characteristics were in agreement with previous research findings on students in different nursing programs. The associate degree seniors had a greater age range and average age than those for either Baccalaureate or diploma seniors, and a higher proportion of associate degree students were married and had children. The author concluded that these factors might have accounted for their greater feelings of autonomy, and their greater

ability to structure their own roles and those of subordinates when compared with both diploma and baccalaureate seniors. A particularly significant factor found was that seniors in all three types of programs rated low on self-esteem.

A study by Schild (1979) to determine whether there was a significant difference between self-concept of older adult participants and non-participants in a post-secondary education program, showed statistically significant determinants between the experimental and control group with regard to Total Positive score, and Physical Self-score, and the Social Self-score, as measured by the Tennessee Self-Concept Scale.

In her dissertation, Dietz (1974) hypothesized that the self-concept scores of freshman students and students who had matriculated in diploma schools of nursing for several years were significantly different from the self-concept scores of college students of similar age and that the self-concept scores of the freshman students and students who had matriculated in diploma schools of nursing for several years were significantly different from each other. The sample consisted of 270 freshman and 209 senior students from five diploma schools of nursing. The study assured that the students were similar in achievement, variables, and high school grade averages. The results did not support the hypothesis, and it was concluded that the self-concept scores of the freshman and senior nursing students in the five diploma

schools were not significantly different from the self-concept scores of college students in general, and they were not significantly different from each other.

Burgess (1980) studied beginning baccalaureate nursing students to gather baseline data regarding their self-concepts. The TSCS was utilized as the tool. The overall level of self-esteem displayed by the sample group in terms of means were almost identical to group norms used in standardizing the test. Burgess was unable to demonstrate a significant relationship between self-concept of undergraduate nursing students and clinical performance. In a follow-up study with an additional 100 subjects, Burgess was again unable to demonstrate a significant level a relationship between the self-concept and clinical performance.

Achord (1973) used the Tennessee Self-Concept Scale and the Speilberger Trait Anxiety Inventory to assess the impact of attrition from a Baccalaureate nursing program on female freshman students. Fifty-two students comprised the control group who continued in nursing beyond the freshman year and twenty-six students comprised the experimental group who withdrew from the nursing program during the freshman year. The scales used from the TSCS included the Total Positive score, the Self-Satisfaction score, and the Identity score. Results indicated that a significant difference did occur at the 0.05 level for the Total Positive score on the posttest of the control group and the experimental group. In terms of the Speilberger Trait Anxiety data, no significant difference was reported in the control and experimental groups.

In 1968, Davis studied the differences in self-concept and occupational role expectations of 100 women students in nursing and social work. The Gough Adjective check list was used which described (1) the self, (2) characteristics needed in the nursing role, and (3) characteristics needed in the social work area. A significant positive relationship existed between the students self-concept and the role expectations of their respective occupations. The nursing students' self-concepts were best described as dependable, methodical, capable, and conscientious with some tendency to be submissive and subordinate.

Morgan (1981) used the Tennessee Self Concept Scale to test the self-concept of baccalaureate nursing students and their clinical practicum. Data analysis showed no significant relationship existed between the self-concept of the subjects and selected demographical data and clinical practicum grade. The only significant difference between pre and posttest scores was the number of Deviant Signs score. Morgan recommended replicating the study using a greater number of subjects to validate the number of Deviant Signs scores. However, Komorita (1971) found in her study that subjects who perceived their self-concepts to be higher than their peers self-concept tended to make higher clinical grades and that self-concept measures were more frequently related to clinical grades than to theory grades.

Hypothesis

1. There is no significant difference among the self-concept levels of the three developmental task age groups of associate degree nursing students.
2. There is no significant difference in the self-concept levels between the first level and second level associate degree nursing students.
3. There is no correlation between the Medical Science/ Medical Service score and self-concept among associate degree nursing students.
4. There is no significant difference in Medical Science/ medical Service scores among the three developmental task age groups of associate degree nursing students.
5. There is no significant difference in Medical Science/ Medical Service scores between first level and second level associate degree nursing students.
6. There is no significant difference in Introversion/ Extroversion scale among the three developmental task age groups of associate degree nursing students.

Definition of Terms

For the purpose of this study, the following terms will be defined:

First Level Student. An associate degree nursing student in their first, second, or third semester of nursing.

Developmental task group 1. Associate degree nursing students aged 18 to 23 years.

Developmental task group 2. Associate degree nursing students aged 24 to 29 years.

Developmental task group 3. Associate degree nursing students aged 30 years and beyond.

Introversion/Extroversion scale. Indicates if persons prefer to work with people or things as identified by SCII.

Personal Self-Score. An individual's perception of his personal worth, his feeling of adequacy as a person, and his evaluation of his personality apart from his body or his relationship to others as measured by TSCS.

Second Level Student. An associate degree student in the fourth or fifth semester of nursing.

Self-Concept. The sumtotal of the view which an individual has of himself; composed of a unique set of perceptions, ideas, and attitudes which an individual has about himself.

Self-Criticism Score. An individual's capacity for self-criticism as measured by TSCS.

Total Positive Score. The overall level of self-esteem as measured by TSCS.

Assumptions

1. Anonymity tends to ensure honest responses in the self reports of subjects.

2. All students will have met academic requirements for admission to the nursing program.
3. The self-concept can change in response to life experiences.
4. Self-concept and vocational self-concept are equivalent.
5. Changes in self-concepts for those entering new occupations tend to be in the direction of expected roles in the desired work.
6. Individuals with poorly crystalized views of themselves or poorly organized self-concepts have difficulty selecting vocational areas congruent with their self-concept.
7. Academic performance will be randomly distributed among all groups.

CHAPTER 2

METHODOLOGY

Setting and Subjects

The setting for this study was a small community college situated in a rural community of approximately 16,000 persons. Although this community college is the oldest in the state, the nursing program was first established in 1970 as a practical nursing program and then expanded to include an associate degree program in 1976.

The subjects consisted of 21 second level associate degree nursing students and 35 first level associate degree nursing students. Confidentiality of all data collected was maintained by asking participants not to include their names on any of the instruments used in the study. Students signified their consent by filling out the instruments.

Instruments

The instruments used for this study were the Tennessee Self Concept Scale (TSCS) and the Strong-Campbell Interest Inventory (SCII).

Tennessee Self-Concept Scale

The TSCS consisted of one hundred self-descriptive statements. The scale was self-administered and required about twenty minutes. The scale used several subscores that gave a full picture of the self-concept. The scores with the most relevance to this study were the Total Positive Score, the Personal Self-score, the Self-Criticism score and the Self-Satisfaction score. Other scores

of value but not included in this study were the Identity score, Behavior score, Moral-Ethical score, Physical Self score, Family Self score, Social Self score and the Empirical Scale scores.

According to the TSCS manual (1965) the Total Positive score (total P score) reflected the overall level of self-esteem. The Total P score consisted of three sub-scores which indicated an internal frame of reference. The first of the internal frame of reference scores dealt with Identity and included the "what am I" items. The second sub-score dealt with Self-Satisfaction and was derived from those items in which the individual described how he felt about the self he perceived. Generally, this sub-score reflected the level of self-acceptance. The third sub-score was derived from those items that said, "this is what I do or this is the way I act." The individual's perception of his own behavior or the way he functions was, thus, reflected in this sub-score.

The sub-scores that comprised the external frame of reference dealt with various aspects of the self. The Physical Self-score indicated the individual's personal view of his body, his state of health, his physical appearance, his skills, and his sexuality. The Moral-Ethical Self-score included the individual's perception of his moral worth, his relationship to God, his feeling of being a "good" or "bad" person, and his satisfaction with or lack of religion. The Personal-Self score reflected the individual's perception of his personal worth, his feeling of adequacy as a person, and his evaluation of his personality apart from his body

or his relationship to others. The Family-Self score reflected the individual's perception of self in reference to his closest and most immediate circle of associates. In contrast to the Family-Self score, the Social-Self score reflected the individual's sense of adequacy and worth in his social interaction with other people in general.

The Self-Criticism scale consisted of 10 items. These were all mildly derogatory statements that most people admitted being true for them. High scores generally indicated a normal, healthy openness and capacity for self-criticism. Low scores indicated defensiveness and suggested that the Positive scores were probably artificially elevated by this defensiveness.

High Total Positive scores identified persons who tended to like themselves, who felt that they have value and worth, who had confidence in themselves, and who acted accordingly. Low scores identified persons who were doubtful about their own worth, who saw themselves as undesirable, who often felt anxious, depressed, unhappy and who had little faith or confidence in themselves.

According to the Tennessee Self-Concept manual (1965) the TSCS showed reliability. Fitts offered a good deal of data in the TSCS manual to substantiate validity of the instrument. Predictability also was documented in the TSCS manual. Research was presented to show that predictions concerning certain scores on the scale were substantiated by the majority of the results.

Strong-Campbell Interest Inventory (SCII)

The Strong-Campbell Interest Inventory consisted of three hundred and twenty five items grouped into seven parts. The examinee recorded his preference in the categories of occupations, school subjects, activities, amusements and day-to-day contact with various types of people. Preferences were recorded by marking L, I, or D to indicate "Like," "Indifferent," or "Dislike." The remaining two parts required the respondent to express a preference between paired items (for example, dealing with things vs. dealing with people) and marking a set of self-descriptive statements, "yes," "no," or "?."

The General Occupational Themes were derived from the classification of interests by Holland. Each Theme characterized not only a type of person but also the type of working environment that such a person would find most congenial.

The administrative Indexes were designed to detect carelessness and test-taking response sets. The Academic Orientation scale predicted chiefly the tendency to continue one's education through high school, college, and graduate school. The Introversion/Extroversion scale reflected the person's interest in working alone or with people.

Regardless of the sex of the respondent, each inventory was scored for all Occupational Scales. Standard scores were reported in terms of both male and female criterion groups for each

occupation when available. The profile, however, was plotted only against the same sex norms.

According to Fitts (1965) the median retest reliabilities over a 30 day period for General Occupational Themes, Basic Interest Scales and Occupational Scores were all in the high 0.80's. Long term stability of the Occupational Scales for periods ranging from one year to over 20 years was also high, the correlations fell mostly in the 0.60's and 0.70's.

Concurrent validity was indicated by the degree of differentiation among different occupational samples and between occupational samples and reference samples. Predictive validity showed substantial correspondence between the initial occupational profile and the occupation eventually pursued.

Data Collection Procedures

The Tennessee Self-Concept Scale and the Strong-Campbell Interest Inventory were administered at the end of the academic semester 1983 to 21 second level and 35 first level associate degree nursing students. Selected demographical data were obtained by having the participants complete a questionnaire at the same time that they completed the TSCS and Strong-Campbell Inventory.

Statement of Risk

There was no physical risk to the participants in this study. A possibility of some potential emotional response to questions

on the TSCS may have existed, but this possibility was believed to be minimal.

A consent form was signed by the chairman of the Department of Nursing to allow the TSCS and Strong-Campbell Interest Inventory to be administered to students enrolled in nursing.

CHAPTER 3

ANALYSIS OF DATA

The purpose of this study was to investigate the vocational choice and self-concept levels of three developmental stages of first and second level associate degree nursing students. The Strong-Campbell Interest Inventory was administered to obtain the vocational choice information. Self-concept data were obtained by administering the Tennessee Self-Concept scale. Selected demographic data were obtained prior to the administration of the inventory and self-concept scale. Statistical analysis used included the analysis of variance and the Pearson Product correlation with simple linear regression.

Description of Demographic Data

Sex, Marital Status, Children, Age

The number of subjects completing the demographic questionnaire and Strong-Campbell Inventory was 58. Two of the subjects dropped the nursing courses prior to the administration of the Tennessee Self-Concept Scale and were dropped from the study. Fifty-six questionnaires then were suitable for analysis. The average age of all students was 28.9 years with the youngest 18 years of age and the oldest 52 years of age.

Of the 56 subjects, three or approximately 5 percent were males, and 50 or approximately 95% were females. Twenty-one of the subjects were single, 26 were married, 8 were currently divorced and 1 widowed. Table 1 illustrates other marital status, age and sex data by developmental task age groups.

Table 1

Sex, Marital Status, Age

	Developmental Task Age Group			
	1	2	3	Total
Male	2	1	0	3
Female	18	13	22	53
Single	18	2	1	21
Married	4	8	14	26
Divorced	0	4	4	8
Widowed	0	0	1	1
Average Age in Years	20.66	25.5	38.65	28.9

Thirty four of the subjects had children making a total of 84 children for the respondents and 61 children were still living at home. Table 2 illustrates this data further.

Table 2

Number of Children

Subjects	Total Number of Children	Number of Children Living at Home	Number of Children 1	2	3	4	5	6	7
Developmental Task Age Group									
1	2	2	2	0	0	0	0	0	0
2	16	18	3	4	1	1	0	0	0
3	66	41	5	6	5	4	1	1	1
Total	84	61	10	20	18	20	5	6	7

Employment, LPN with Advanced Standing, GED, High School Diploma

Six of the subjects, or approximately 10%, had completed their secondary schooling by GED exam. The remaining 90% of subjects received a diploma from high school. Six or approximately 28% of the second level students were LPN's with advanced standing while the other 72% were also LPN's without advanced standing. Table 3 illustrates this data.

Table 3

Educational Preparation by ADN Developmental Task Age Groups

Subject	Developmental Task Age Group		
	1	2	3
High School Graduate	20	14	16
GED	0	0	6
Advance Standing LPN	0	3	3
Generic Student	20	11	19

Twenty-seven of the subjects were employed 8 hours a week or more. Table 4 further illustrates this employement data.

Table 4

Number of Hours Students Were Employed

Hours	Developmental Task Age Group		
	1	2	3
None	2	0	1
1 - 8	1	2	1
9 - 16	2	1	3
17 - 20	1	0	2
21 - 24	2	2	1
25 - 40	4	0	2

Comparison of Self-Concept Means of the Three Developmental Task Age Groups

A wide range of mean scores on the Tennessee Self-Concept scale were evidenced. The Total Positive scores for the 56 subjects, ranged from 266 to 416 with 334.37 being the mean. The Total Positive score was the most important single score on the scale and reflected the overall level of self-concept. The sample means were within ten points of the norm mean of 345.57 reported by Fitts, the developer of the Tennessee Self-Concept Scale. The Total Positive mean score for first level subjects was 342.25 and second level mean score was 342.09. The Total Positive mean score for developmental task age group 1 was 332.8, developmental task age group 2 was 333.5, and developmental task age group 3 was 339.54.

The Self-Criticism score contained all mildly derogatory statements that most people admitted as being true of them. Individuals who denied most of these statements most often were being defensive and making a deliberate effort to present a favorable picture of themselves. High scores generally indicated a normal, healthy openness and capacity for self-criticism. Extremely high scores (above the 99th percentile) indicated that the individual may be lacking in defenses and may in fact be pathologically undefended. Low scores indicated defensiveness, and suggest that the Positive Scores were probably artifically elevated by this defensiveness. In this manner, the Self-Criticism score provided a check on the accuracy of the Total Positive score

for each subject. Scores of the Self-Criticism score test ranged from 20 to 46 with a total mean score of 34.85. The subjects means deviated only slightly from the norm mean. Table 5 illustrates these data from the three developmental task age groups and first and second level subjects.

The Personal Self score reflected the individuals sense of personal worth, his feeling of adequacy as a person, and included his evaluation of his personality apart from his body and relationship to others. The Personal Self-score mean for the sample was 64.94. The Personal Self-score means were slightly higher than the normative mean of 64.55 reported by Fitts. Table 5 illustrates each developmental task age group data and first and second level data.

The Self-Satisfaction score came from those items where the individual described how he felt about the self he perceived. In general, this score reflected the level of self-satisfaction or self-acceptance. Scores ranged from 63 to 137. The sample total mean was 97.52. This sample mean was lower than the norm mean of 103.67 as established by Fitts. The Self-Satisfaction score mean for developmental task age group 1 was 100; developmental task age group 2 mean was 102.64; and developmental task age group 3 mean was 100.09. First level mean was 99.45 and second level mean was 103. Self-Concept data is illustrated in Table 5.

Table 5

Comparison of Means of Tennessee Self-Concept Scores Norm Group and Nursing Students

Tennessee Self-Concept Scores	Norm Group (N=626)	Nursing Group (N=56)				
		Total Sample	Level		Developmental Task Age Group	
			1	2	1	2	3
	Norm $\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
Total Positive	345.57	334.37	342.25	342.09	332.8	333.5	339.54
Self-Criticism	35.54	34.85	35.04	36.90	36.71	34.00	35.04
Personal Self	64.55	64.94	66.34	65.76	64.28	65.64	65.18
Self-Satisfaction	103.67	97.52	99.45	103.00	100.00	102.64	100.09
Self-Concept		536.39	543.94	523.80	533.00	535.78	539.86

Discrepancies indicative of isolated distortions may have been revealed by individual analysis. However, the data indicated the sample group of associate degree nursing students for this study was similar to the established means for selected dimension subscores of the Tennessee Self-Concept Scale with the exception of the Self-Satisfaction score which was lower than the established mean but still within norm group upper and lower limits.

Mean Score of Vocational Medical Science/Service Choice

The Vocational Medical Science/Service scores for the study group obtained from the Strong-Campbell Interest Inventory indicated a personal preference of career choices. Previous research showed that the individuals had a better chance of being satisfied in an occupation if their interests are similar to those people already employed in the field. The results on the SCII Medical Science/Service were measures of interests and not of abilities or aptitudes. The mean score for vocational medical science/service of first level subjects were 127.62 and second level subjects were 113.26. Table 6 illustrates the vocational medical science/service scores for first and second level associate degree nursing students and for the three developmental task age groups of associate degree nursing students.

Mean Score of Introversion/Extroversion

Data obtained on the Introversion/Extroversion scale of the Strong-Campbell Interest Inventory indicated if a person preferred working with things or groups of people. Skilled trade workers,

Table 6

Vocational Medical Science/Service Scores by SCII

Group	N	$\bar{X}$
First Level	35	127.61
Second Level	21	113.26
Task Group 1	20	126.45
Task Group 2	14	123.86
Task Group 3	22	121.82

research workers, and technicians tended to have high scores on this scale, while sales and social-service occupations tended to have low scores.

The mean score on the Introversion/Extroversion dimension for developmental task age group 1 was 51.6; developmental task age group 2 mean was 53.92 and developmental task age group 3 mean was 57.5. No norm mean was reported on the inventory for the Introverion/ Extroversion Dimension. Table 7 illustrates the data obtained for the three developmental task age groups of associate degree nursing students.

Table 7

Introversion/Extroversion Score of SCII by Developmental Task Age Group

Group	N	$\bar{X}$
Task Group 1	20	51.6
Task Group 2	14	53.92
Task Group 3	22	57.5

Defining the Variables

Four Tennessee Self-Concept Scale dimension scores were reported as the actual summed scores. Developmental task age groups were reported according to Super's age groups. First and second level students were reported as defined by the nursing department at the community college. The remaining demographical data were converted to categories. The medical science/service scores and introversion/extroversion scores were used as reported by the Strong-Campbell Interest Inventory.

Statistical Analysis

The three developmental task age group Self-Concept scores data were subjected to a simple analysis of variance. The Self-Concept scores consisted of four selected dimensions including the Total Positive score, the Personal Self score, the Self-Satisfaction score, and the Self-Criticism score.

Hypothesis one. There is no significant difference among the Self-Concept levels of the three developmental task age groups of associate degree nursing students.

An F value of more than 3.18 was necessary in order for the statistically significant relationship to exist. The F value of the Self-Concept scores were 0.09 indicating no statistical significance. The analysis of variance is presented in Table 8.

Table 8

Analysis of Variance for Self-Concept Levels Among the Three Developmental Task Age Groups

Source	ss	df	ms	F
Between Groups	400.04	2	200.03	0.09
Within Groups	121,252.00	52	2287.75	

These findings would support Super's (1963) theory that Self-Concept stability over the high school years is one characteristic of those who are successful at age 25 years. Super (1963) also stated that changes in Self-Concepts for those entering new occupations tended to be in the direction of expected roles in the desired work. The mean Self-Concept scores of developmental task age group 3 were higher than mean scores of developmental task age groups 1 and 2. This finding would tend to support Super's belief that Self-Concept does increase when ones vocational choice is similar to how individuals view themselves, however for this sample, the findings were not significant. Married and single subjects were not compared by analysis. There was no significant difference found among the Self-Concept level of the three developmental task age groups. Frerich's (1973) study, that found higher Self-Esteem levels among married students would not be supported.

Hypothesis two. There is no significant difference in the Self-Concept levels between first level and second level associate degree nursing students.

A simple analysis of variance was performed on the self-concept scores data of the first and second level associate degree nursing students. The previously reported four dimensions were utilized in determining the self-concept score. An F value of 4.02 was necessary in order for a statistically significant relationship to have existed. The F value of the first and second level associate degree nursing students self-concept scores were 2.31, therefore, no statistical significance was found. Table 9 illustrates the results of analysis of variance of the first and second level self-concept scores.

Table 9

Analysis of Variance for Self-Concept Level of First and Second Level Associate Degree Nursing Students

Source	ss	df	ms	F
Between Groups	4,746.81	1	4,746.81	2.31
Within Groups	111,035.00	54	2,056.20	

Super (1963) stated that having begun the implementation of his self-concept by entering an appropriate field of work, or academic persual of a vocation, the individual is expected to pursue self-actualization by finding and securing a place in his

field of work. Since no significant difference in self-concept levels between first level and second level associate degree nursing students were found, this finding supported Supers' theory of congruent self-concept and vocational self-concept and that both levels of associate degree nursing students were persuing self-actualization. These findings would not support Ellis' (1980) findings that self-concept levels were highest at the beginning of the sophomore year and lowest at the beginning of the senior year of baccalaureate nursing students.

Hypothesis three. There is no correlation between the Medical Science/Medical Service score and self-concept among associate degree nursing students.

A Pearson's r linear correlation was performed on the vocational medical science service score data obtained from the Strong-Campbell Interest Inventory and the Self-Concept scores obtained from the Tennessee Self-Concept Scale for the associate degree nursing students. A correlation coefficeint or r value greater than 0.262 was necessary for statistical significance. The r was 0.1879 for the vocational medical science/service scores and not statistically significant. The results of these correlations are shown in Table 10.

Table 10

Pearson's Product Correlation Between Medical Science/Service of SCII and TSCS Self-Concept Scores for Subjects

N = 56

Estimated Equiation is	Y = 1.238 X + 454.799
Correlation Coefficient	= 0.1879
Coeff. of Determination	= 0.0353
Standard Error of Estimate	= 46.643

The data did not support Super's statement that changes in Self-Concepts for those entering new occupations tended to be in the direction of expected roles in the desired work, for this group of associate degree nursing students.

Hypothesis four. There is no significant difference in Medical Science/Medical Service scores among the three developmental task age groups of associate degree nursing students.

The data obtained on Vocational Medical Science/Service score of the SCII for the three developmental task age groups and submitted to an analysis of variance needed an F of 4.67 to show statistical significance. An F of 2.26 was obtained and, therefore, no statistical significance was found. Table 11 shows the results of the analysis of variance on the Medical Science/Service scores.

Table 11

Analysis of Variance on Medical Science/Service Score for Three Developmental Task Age Groups

Source	ss	df	ms	F
Between Groups	747.90	2	373.95	2.26
Within Groups	8766.27	53	165.40	
Total	9514.17			

These findings did not support Super's theory that crystalizing a vocational preference was accomplished by ages 14 to 18 and stabilization usually occurred between the years of 21 to 30 years. These subjects had implemented their vocational self-concept by having entered an appropriate field of academic study which supports Super's contention that they are pursuing self-actualization. The fact that one third of the subjects translated their vocational self-concept into a vocational preference at an age older than 30 years would further not support Super's theory of stabilization of vocational choice and vocational self-concept by age 25 years.

Hypothesis five. There is no significant difference in Medical Science/Medical Service scores between first and second level associate degree nursing students.

Analysis of variance was performed on the data obtained from the Vocational Medical Science/Service of SCII scores for first and second level associate degree nursing students. An F of 16.12

was obtained and an F of 4.02 was necessary to evidence statistical significance. An F of 16.12 indicated a statistically significant finding. Table 12 illustrates the results of the analysis of variance.

Table 12

Analysis of Variance on Vocational Medical Science/Service Scores of SCII for First and Second Level Associate Degree Nursing Students

Source	ss	df	ms	F
Between Groups	2789.12	1	2789.12	16.12
Within Groups	6551.31	54	172.97	
Total	9340.43			

These findings supported Super's theory that individuals with crystalized views of themselves and well organized self-concepts had little difficulty selecting vocational areas. These subjects were putting into occupational terminology the kind of person they were and they had entered an occupation that implemented a concept of themselves.

Hypothesis six. There is no significant difference in Introversion/Extroversion scale among the three developmental task age groups of associate degree nursing students.

The data obtained from the Introversion/Extroversion scale scores on the Strong-Campbell Interest Inventory were subjected to an analysis of variance with a statistical finding of F as 1.16.

To be statistically significant an F of 3.18 was necessary, Therefore no statistical evidence was found. Table 13 illustrates the results of the analysis of variance.

Table 13

Analysis of Variance of Introversion/Extroversion for Three Developmental Task Age Groups of Associate Degree Nursing Students

Source	ss	df	ms	F
Between Groups	360.77	2	180.38	1.16
Within Groups	8197.23	53	154.66	
Total	8558.00			

Frerich's (1973) demonstrated that married students showed significantly more internal control and significantly higher self-esteem levels than their single counterparts. While data on married and single subjects were not analyzed more developmental task age groups subjects were single than subjects in developmental task age groups 2 and 3. The analysis of data found about Introversion/Extroversion would seem not to support Frerich's (1973) findings.

Testing the Hypotheses

Hypothesis One: There will be no significant difference among the self-concept levels of the three developmental task age groups of associate degree nursing students. This hypothesis was supported by the data.

Hypothesis two: There will be no significant differences in the self-concept levels between the first level and second level associate degree nursing students. This hypothesis was supported by the data.

Hypothesis three: There will be no positive correlation between the Vocational Medical Science/Service score and self-concept among the associate degree nursing students. This hypothesis was supported by the data.

Hypothesis four: There will be no significant difference in Vocational Medical Science/Service Scores among the three developmental task age groups of associate degree nursing students. The data supported this hypothesis.

Hypothesis five: There is no significant differences in Vocational Medical Science/Service scores between the first and second level associate degree nursing students. This hypothesis was not supported by the data.

Hypothesis six: There is no significant difference in Introversion/Extroversion scale among the three developmental task age groups of associate degree nursing students. This hypothesis was supported by the data.

Summary

The data analysis indicated that there was no significant relationships existing between the self-concept of the first and second level associate degree nursing studnet or the three developmental task age groups of associate degree nursing students.

No significant difference existed between the Medical Science/ Service scores among the three developmental task age groups, but significant differences were found in the Vocational Medical Science/Service scores between the first and second level associate degree nursing student. No significant differences were found in the Introversion/Extroversion scales of associate degree nursing students as well as no correlations were found between the Vocational Medical Science/Service scores and the self-concept scores of associate degree nursing students.

CHAPTER 4

SUMMARY, IMPLICATIONS FOR NURSING, AND RECOMMENDATIONS FOR FURTHER RESEARCH

The purpose of this study was to investigate the vocational choice and self-concept levels of three developmental task age groups of first and second level associate degree nursing students. Self-Concept data were obtained by administering the Tennessee Self-Concept Scale to first and second level associate degree nursing students. Vocational choice data were obtained by administering the Strong-Campbell Interest Inventory to the same groups of students. Demographic data were obtained by having each student fill out a data form prior to administration of the Tennessee Self-Concept Scale or the Strong-Campbell Interest Inventory.

Summary

The Strong-Campbell Interest Inventory SCII was used to collect data on the Vocational Medical Science/Service interest and Introversion/Extroversion of 56 associate degree nursing students. The Tennessee Self-Concept Scale was used to collect data on the self-concept of the same 56 associate degree nursing students. The Inventory and Self-Concept scale were administered near the end of the second or fifth semester for the students. The students consented to participate by completing the data form, Tennessee Self-Concept Scale and Strong-Campbell Interest Inventory.

Statistical Analysis used included an analysis of variance and Pearson's Product correlation.

Hypothesis one. There is no significant difference among the self-concept levels of the three developmental task age groups of associate degree nursing students. Analysis indicated there was no difference between the self-concept level and the three developmental task age groups. These findings supported Super's theory that self-concepts remain stable in successful persons. The findings did not support Frerich's study that found higher self-esteem levels among married students.

Hypothesis two. There is no significant difference in the self-concept levels between first level and second level associate degree nursing students. Statistical analysis indicated no difference in the self-concept levels of first and second level students. These findings supported Super's theory of congruent self-concept and vocational self-concept and that both levels of subjects were persuing self-actualization. The findings did not support earlier findings by Ellis that indiated self-concept levels were higher at the beginning of the sophomore year and lowest at the beginning of the senior year for baccalaureate nursing students.

Hypothesis three. There is no correlation between the Medical Science/Service score and self-concept among associate degree nursing students. No correlation was found, and these findings did not support Super's theory that changes in self-concepts for those entering new occupations tended to be in the direction of expected roles.

Hypothesis four. There is no significant difference in Medical Science/Service scores among the three developmental task age groups of associate degree nursing students. Analysis indicated there were no significant differences among the developmental task age groups. These findings did not support Super's theory that crystalizing a vocational preference was accomplished by ages 14 to 18 and that stabilization occurred between the years of 21 to 30.

Hypothesis five. There is no significant difference in Medical Science/Service scores between first level and second level associate degree nursing students. Analysis indicated there were significant differences between first and second level students and supported Super's theory that individuals with crystalized views of themselves had little difficulty selecting vocational areas.

Hypothesis six. There is no significant difference in Introversion/Extroversion scales among the three developmental task age groups of associate degree nursing students. Analysis indicated no statistical difference. The data did not support Frerick's study that indicated married students showed more internal control and higher self-esteem thatn their single counter parts.

Implications for Nursing

This study investigated the vocational choice and self-concept levels of three developmental task age groups and first and second level associate degree nursing students. No significant

relationship among the three developmental task age groups or between the first and second level was found. This indicated that for this sample of associate degree nursing students, placement in first or second level or developmental task age group 1, 2, or 3 made no difference in the self-concept of the students. This may be attributed to the fact that self-concept does not change significantly due to the educational process or as persons grow older.

These findings would indicate that older nursing students had as high a self-concept as younger students and were as likely to succeed in nursing school and the profession, therefore age should not be a significant factor in the selection of students.

No significance was found among the Vocational Medical Science/Service score of the three developmental task age groups. This would indicate that for this sample of associate degree nursing students their interest in vocational choice was similar as measured by the Strong-Campbell Interest Inventory and that vocational choice is not always crystalized as early as was previously believed. Significant difference, however, was found in Vocational Medical Service/Science scores between the first and second level associate degree nursing student. The data showed first level students had a closer interest in Vocational Medical Science/Service occupations than did second level students. This could be attributed to the fact that second level students had been exposed to greater general educational requirements and thus

have interests other than those usually thought of as medical science/service occupations.

Nursing as a profession involves a broad base of knowledge beyond the usual science courses. These findings indicated that for these associate degree nursing students the broad base had been established and gives support to continue requiring general education requirements.

No significance was found in the Introversion/Extroversion scale among the three developmental task age groups. This would give credence to the fact that each age group is as task oriented as they are person oriented which is a balance and is a goal of associate degree nursing instruction.

No positive correlation was found between the Vocational Medical Science/Service score and the self-concept of the associate degree nursing students testes. This would indicate that while Super stated that changes in self-concepts for those entering new occupations tended to be in the direction of expected roles in the desired work, for this group of ADN students this was not evidenced.

Recommendations

1. Additional studies are needed to involve greater numbers of subjects to verify that self-concept is not different between first and second level students or within the three developmental task age groups.

2. A comparison of the Introversion/Extroversion score needs to be made between associate degree and baccalaureate nursing students.
3. Additional studies involving greater numbers of subjects are needed to verify if the Vocational Medical Science/ Service scores would be different between first and second level associate degree students.
4. A study needs to be designed to measure the self-concept levels of associate degree nursing students and baccalaureate nursing students.
5. A study needs to be designed to measure the self-concept of associate degree nursing students and staff nurses graduated from an associate degree nursing program.
6. A study needs to be designed to measure the self-concept of associate degree nursing students upon entrance into the nursing curriculum and at the completion.
7. Further research is needed to identify if crystalized self-concepts exist in relation to vocational choice.

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APPENDIX A

Letter of Request for Consent

fort scott community college
2108 s. horton street / fort scott, kansas 66701 / 316 223-2700

January 10, 1983

Mrs. Carline Helton, Chairman
Department of Nursing
Fort Scott Community College
2108 South Horton
Fort Scott, Kansas 66701

Dear Mrs. Helton,

As you know I am working on my Master's thesis to complete my Masters in Nursing from the University of Kansas.

I plan to study the self-concept and vocational choice of first and second level nursing students currently enrolled in the Associate of Science Degree Nursing program at Fort Scott Community College. I would like permission to administer the Strong-Campbell Interest Inventory and the Tennessee Self-Concept Scale to these students in spring semester, 1983.

For the purpose of confidentiality no student will be identified by name and the data gathered will not be used for purposes other than those specified without further permission.

Your approval of this request will be greatly appreciated.

Sincerely,

Yvonne E. Darr, R.N., M.S.

APPENDIX B

Statement of Consent from Director of Nursing Education

fort scott community college
department of nursing education
2108 s. horton street / fort scott, kansas 66701 / 316 223-2700

February 1, 1983

Yvonne E. Darr, R.N.
2108 S. Horton
Fort Scott Community College
Fort Scott, Kansas 66701

Dear Yvonne:
This is to officially notify you that you may administer the Tennessee Self-Concept Scale and the Strong-Campbell Interest Inventory to the first and second level associate degree nursing students during the spring semester 1983.

I wish you the best of luck in your endeaver to finish your thesis.

Sincerely yours,

Caroline Helton, Director
Department of Nursing

APPENDIX C

INTRODUCTORY LETTER

fort scott community college
2108 s. horton street / fort scott. kansas 66701 / 316 223-2700

January 10, 1983

Associate Degree Nursing Students
Department of Nursing Education
Fort Scott Community College
2108 South Horton
Fort Scott, Kansas 66701

Dear Students,

As part of my thesis, I request that you participate in my study by completing a Data Base form, the Strong-Campbell Interest Inventory and the Tennessee Self-Concept Scale. The three will take approximately one and one half hours of your time.

Confidentiality will be maintained as only group data will be reported. The three questionnaires will be identified with the same identification number. No names will be used on the instruments, only identification numbers so data can be analyzed. The raw data will be available only to myself. No risk, physical or psychological is expected.

Permission has been given for the study by Mrs. Caroline Helton, Director of Nursing Education.

Thank you for your cooperation.

Sincerely,

Yvonne E. Darr, R.N., M.S.

APPENDIX D

DEMOGRAPHIC DATA SHEET

DATA BASE

1. Last 4 numbers of Social Security Number:_____
2. Year of Graduation from High School:_____
3. Number of Children Still at Home:_____ Ages:_____
4. Year Entered Nursing School:_____
5. Total Number of Children:_____
6. Level of Nursing:_____
7. Marital Status:_____
8. Age:_____ Sex:_____
9. Currently Employed:_____
10. Number of Hours Per Week:_____
11. If an LPN with Advanced Standing, Number of Years you Have Practiced:_____

APPENDIX E

STRONG CAMPBELL INTEREST INVENTORY

STRONG - CAMPBELL INTEREST INVENTORY

This inventory is used to help you understand your work interests in a general way, and to show you some kinds of work you might be comfortable in. The following pages list many jobs, activities, school subjects, and so forth, and you are asked to show your liking or disliking for each. Your answers will be compared with the answers given by people already working in a wide range of jobs, and your scores will show how similar your interests are to the interests of these people. But this is not a test of your abilities; it is an inventory of your interests. Your scores will be presented to you later, on a special sheet called a profile, with information on how to understand the scores.

DIRECTIONS:

1. With this booklet, you should have a special answer sheet on which to mark your answers.

2. Please make no marks on this booklet; it will be used again by other people.

3. Use any soft, black, lead pencil (such as a No. 2) to make your marks on the answer sheet.

4. Fill in your name and other information on the answer sheet. Follow carefully the instructions for filling in your name.

5. Instructions for marking your answers are given on the next page of this booklet and also on the answer sheet.

6. Make a heavy, dark mark for each answer -- not a cross or a check mark.

7. If you make a mistake or change your mind, erase carefully and thoroughly.

8. Your answer sheet will be processed by computer. Please keep it free from wrinkles or stray marks, so that it will be scored correctly.

9. Try to answer each question. Work quickly; first impressions usually give the best results with this inventory. Turn the page and begin.

PART I. OCCUPATIONS

Many occupations are listed below. For each of them, show how you would feel about doing that kind of work.

Mark on the answer sheet in the space labeled "L" if you would like that kind of work.

Mark in the space labeled "I" if you are indifferent (that is, if you think you wouldn't care one way or the other).

Mark in the space labeled "D" if you think you would dislike that kind of work.

Don't worry about whether you would be good at the job or about not being trained for it. Forget about how much money you could make or whether you could get ahead. Think only about whether you would like to do the work done in that job.

Work fast. Answer every one.

1. Actor/actress
2. Advertising executive
3. Architect
4. Art museum director
5. Art teacher
6. Artist's model
7. Artist
8. Astronomer
9. Athletic director
10. Auctioneer
11. Author of children's books
12. Author of novels
13. Author of technical books
14. Auto mechanic
15. Auto racer
16. Auto sales
17. Bank teller
18. Beautician and hair care consultant
19. Biologist
20. Bookkeeper
21. Building contractor
22. Business teacher
23. Buyer of merchandise
24. Carpenter
25. Cartoonist
26. Cashier in bank
27. Chemist
28. Children's clothes designer
29. Church worker
30. City or state employee
31. City planner
32. Civil engineer
33. College professor
34. Computer operator
35. Corporation lawyer
36. Costume designer
37. Courtroom stenographer
38. Criminal lawyer
39. Dancing teacher
40. Dental assistant
41. Dentist
42. Designer, electronic equip.
43. Dietitian
44. Draftsman
45. Dressmaker/Tailor
46. Editor
47. Electrical engineer
48. Electronics technician
49. Elementary School Teacher
50. Employment manager
51. Factory manager
52. Farmer
53. Fashion model
54. Florist
55. Foreign correspondent
56. Foreign service officer
57. Free-lance writer
58. Governor of a state
59. High school teacher
60. Home economics teacher
61. Hospital records clerk
62. Housekeeper

63. Hotel manager
64. Illustrator
65. Income tax accountant
66. Interior decorator
67. Inventor
68. Jet pilot
69. Judge
70. Labor arbitrator
71. Laboratory technician
72. Landscape gardener
73. Librarian
74. Life insurance agent
75. Machine shop supervisor
76. Machinist
77. Manager, Chamber of Commerce
78. Manager, child care center
79. Manager, women's style shop
80. Manufacturer
81. Mechanical engineer
82. Military officer
83. Minister, priest, or rabbi
84. Musician
85. Newspaper reporter
86. Nurse
87. Nurse's aide/orderly
88. Office clerk
89. Office manager
90. Opera singer
91. Orchestra conductor
92. Pharmacist
93. Photographer
94. Physician
95. Playground director
96. Poet
97. Police officer
98. Politician
99. Private secretary
100. Professional athlete
101. Professional dancer
102. Professional gambler
103. Psychologist
104. Public relations director
105. Rancher
106. Realtor
107. Receptionist
108. Retailer
109. Sales manager
110. School principal
111. Scientific illustrator
112. Scientific research worker
113. Sculptor
114. Secret service agent
115. Social worker
116. Specialty salesperson
117. Sports reporter
118. Statistician
119. Flight attendant
120. Stockbroker
121. Surgeon
122. Toolmaker
123. Treveling salesperson
124. Travel bureau manager
125. Typist
126. TV announcer
127. Vocational counselor
128. Waiter/Waitress
129. Wholesaler
130. X-ray technician
131. YMCA/YWCA staff member

PART II. SCHOOL SUBJECTS

Show in the same way whether you are interested in these school subjects, even though you may not have studied them.

Mark "L for Like.
Mark "I" for Indifferent (when you don't care one way or the other).
Mark "D" for Dislike.

132. Agriculture
133. Algebra
134. Arithmetic
135. Ancient languages (Latin, Sanskrit, etc.)
136. Art
137. Bible history
138. Bookkeeping
139. Botany
140. Calculus
141. Chemistry
142. Civics (government)
143. Dramatics
144. Economics
145. English composition
146. Geometry
147. Home economics
148. Industrial arts
149. Journalism
150. Literature
151. Mathematics
152. Mechanical drawing
153. Military drill
154. Modern languages (French, German, etc.)
155. Nature study
156. Penmanship
157. Philosophy
158. Physical education
159. Physics
160. Physiology
161. Political science
162. Psychology
163. Public speaking
164. Sociology
165. Statistics
166. Typewriting
167. Zoology

PART III. ACTIVITIES

Show your interests in the same way as before. Give the first answer that comes to mind.

168. Making a speech
169. Doing research work
170. Repairing a clock
171. Cooking
172. Operating machinery
173. Writing reports
174. Discussing politics
175. Taping a sprained ankle
176. Adjusting a carburetor
177. Going to church
178. Heading a civic improvement program
179. Raising flowers and vegetables
180. Interviewing job applicants
181. Teaching children
182. Teaching adults
183. Meeting and directing people
184. Taking responsibility
185. Sewing
186. Making statistical charts
187. Operating office machines
188. Giving first aide assistance
189. Decorating a room with flowers
190. Interviewing prospects in selling
191. Drilling soldiers
192. Pursuing bandits in a sheriff's posse
193. Watching an open-heart operation
194. Checking typewritten material for errors
195. Repairing electrical wiring
196. Organizing cabinets and closets
197. Adjusting difficulties of others
198. Starting a conversation with a stranger
199. Cabinetmaking
200. Being a forest ranger
201. Bargaining ("Swapping")
202. Looking at things in a clothing store
203. Buying merchandise for a store
204. Displaying merchandise in a store
205. Competitive activities
206. Regular hours for work
207. Continually changing activities
208. Interviewing clients
209. Arguments
210. Developing business systems

211. Doing your own laundry work
212. Saving money
213. Contributing to charities
214. Raising money for charity
215. Expressing judgements publicly, regardless of what others say
216. Climbing along the edge of a steep cliff
217. Living in the city
218. Discussing the purpose of life

PART IV. AMUSEMENTS

219. Golf
220. Fishing
221. Jaz or rock concerts
222. Looking at things in a hardware store
223. Boxing
224. Poker
225. Bridge
226. Solving mechanical puzzles
227. Planning a large party
228. Religious music
229. Drilling in a military company
230. Amusements parks
231. Conventions
232. Formal dress affairs
233. Electioneering for office
234. Art galleries
235. Leading a scout troop
236. Writing a one-act play
237. Symphony concerts
238. Night clubs
239. Church young people's group
240. Sports pages in the newspaper
241. Poetry
242. Skiing
243. Business magazines
244. Popular mechanics magazines
245. Reading the Bible
246. Magazines about art and music
247. Building a radio or stereo set
248. Attending lectures
249. Family pages in newspapers
250. Performing scientific experiments
251. Camping
252. Playing chess
253. Preparing dinner for guests
254. Entertaining others
255. Trying new cooking recipes
256. Being the first to wear the latest fashions
257. Organizing a play

PART V. TYPES OF PEOPLE

Most of us choose jobs where we can work with people we enjoy. Show in the same way as before how you would feel about having day to day contact with the following people. Work fast. Don't think of specific examples. Just give the first answer that comes to mind.

258. Highway construction workers
259. High school students
260. Military officers
261. Artistic persons
262. Foreigners
263. Ballet dancers
264. Nonconformists
265. People who assume leadership
266. Religious people
267. Aggressive people
268. Physically sick people
269. Babies
270. Very old people
271. Emotional people
272. People who have made fortunes in business
273. Thrifty people
274. Musical geniuses
275. Outspoken people with new ideas
276. Fashionable dressed people
277. Prominent business leaders
278. Athletic persons
279. People who daydream a lot
280. Outstanding scientists
281. People who live dangerously

PART VI. PREFERENCE BETWEEN TWO ACTIVITIES

Here are several pairs of activities or occupations. Show which one of each pair you like better; if you prefer the one on the left, mark in the space labeled "L" on the answer sheet; if you prefer the one on the right, makr in the space labeled "R"; if you like both the same, or if you can't decide, mark in the space labeled "=". Work rapidly. Make one mark for each pair.

282. Airplane pilot - Airline ticket agent
283. Taxicab driver - Police officer
284. Headwaiter/Hostess - Lighthouse keeper
285. Selling things house to house - Gardening
286. Developing plans - Carrying out plans
287. Doing a job yourself - Telling somebody else to do the job

288. Dealing with things - Dealing with people
289. Taking a chance - Playing safe
290. Drawing a definite salary - Receiving a commission on what is done
291. Outside work - Inside work
292. Work for yourself - Carrying out the program of a superior whom you respect
293. Superintendent of a hospital - Warden of a prison
294. Vocational counselor - Public health officer
295. Physical activity - Mental activity
296. Dog trainer - Juvenile parole officer
297. Thrilling, dangerous activities - Quieter, safer activities
298. Physical education director - Free lance writer
299. Statistician - Social Worker
300. Technical responsibility (in charge of 24 people doing scientific work) - Supervisory responsibility (in charge of 25 people doing business-office work)
301. Going to a play - Going to a dance
302. Teacher - Salesperson
303. Experimenting with new grooming preparations - Experimenting with new office equipment
304. Being married to a reasearch scientist - Being married to a sales executive
305. Working in a large corporation with little chance of being President before age 55 - Working for yourself in a small business
306. Working in an import-export business - Working in a research laboratory
307. Music and art events - Athletic events
308. Reading a book - Watching TV or going to a movie
309. Appraising real estate - Repairing and restoring antiques
310. Having a few close friends - Having many acquaintances
311. Work in which you move from place to place - Work where you live in one place

PART VIII. YOUR CHARACTERISTICS

Show here what kind of person you are; if the statement describes you, mark in the space labeled "Y" (for Yes); if the statement does not describe you, mark in the space labeled "N" (for No); if you cannot decide, mark in the space labeled "?". (Be frank in pointing your weak points, because these are as important to you as your strong points in choosing a career.)

312. Usually start activities of my group
313. Have more than my share of novel ideas
314. Win friends easily
315. Make decisions immediately, not after considerable thought
316. Prefer working alone rather than on committees

317. Have mechinical ingenuity (inventiveness)
318. Am concerned about philosophical problems such as religion, meaning of life, etc.
319. Can prepare successful advertisements
320. Stimulate the ambitions of my associates
321. Can write a concise, well-organized report
322. Enjoy tinkering with small hand tools
323. Can smooth out tangles and disagreements between people
324. Put drive into an organization
325. Have patience when teaching others

APPENDIX F

TENNESSEE SELF-CONCEPT SCALE

TENNESSEE SELF-CONCEPT SCALE

INSTRUCTIONS

On the top line of the separate answer sheet, fill in your name and the other information except for the time information in the last three boxes. You will fill these boxes in later. Write only on the answer sheet. Do not put any marks in this booklet.

The statements in this booklet are to help you describe yourself as you see yourself. Please respond to them as if you were describing yourself to yourself. Do not omit any item. Read each statement carefully; then select one of the five responses listed below. On your answer sheet, put a circle around the response you chose. If you want to change an answer after you have circled it, do not erase it but put an X through the response and then circle the response you want.

When you are ready to start, find the box on your answer sheet marked time started and record the time. When you are finished, record the time finished in the box on your answer sheet marked time finished.

As you start, be sure that your answer sheet and this booklet are lined up evenly so that the item numbers match each other.

Remember, put a circle around the response number you have chosen for each statement.

Responses	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

You will find these response numbers repeated at the bottom of each page to help you remember them.

1.	I have a healthy body	1
3.	I am an attractive person	3
5.	I consider myself a sloppy person	5
19.	I am a decent sort of person	19
21.	I am an honest person	21
23.	I am a bad person	23
37.	I am a cheerful person	37
39.	I am a calm and easy going person	39
41.	I am a nobody	41
55.	I have a family that would always help me in any kind of trouble	55
57.	I am a member of a happy family	57
59.	My friends have no confidence in me	59
73.	I am a friendly person	73
75.	A am popular with men	75
77.	I am not interested in what other people do	77
91.	I do not always tell the truth	91
93.	I get angry sometimes	93

2.	I like to look nice and neat at all times	2
4.	I am full of aches and pains	4
6.	I am a sick person	6
20.	I am a religious person	20
22.	I am a moral failure	22
24.	I am a morally weak person	24

38.	I have a lot of self-control	38
40.	I am a hateful person	40
42.	I am losing my mind	42
56.	I am an important person to my family and firends	56
58.	I am not loved by my family	58
60.	I feel that my family doesn't trust me	60
74.	I am popular with women	74
76.	I am mad at the whole world	76
78.	I am hard to be friendly with	78
92.	Once in a while I think of things too bad to talk about	92
94.	Sometimes, when I am not feeling well, I am cross	94

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7.	I am neither too fat nor too thin	7
9.	I like my looks just the way they are	9
11.	I would like to change some parts of my body	11
25.	I am satisfied with my moral behavior	25
27.	I am satisfied with my relationship with god	27
29.	I ought to go to church more	29
43.	I am satisfied to be just what I am	43
45.	I am just as nice as I should be	45
47.	I despise myself	47
61.	I am satisfied with my family relationships	61
63.	I understand my family as well as I should	63
65.	I should trust my family more	65

79.	I am as sociable as I want to be	79
81.	I try to please others, but I don't overdo it	81
83.	I am no good at all from a social standpoint	83
95.	I do not like everyone I know	95
97.	Once in a while, I laugh at a dirty joke	97

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8.	I am neither too tall nor too short	8
10.	I don't feel as well as I should	10
12.	I should have more sex appeal	12
26.	I am as religious as I want to be	26
28.	I wish I could be more trustworthy	28
30.	I shouldn't tell so many lies	30
44.	I am as smart as I want to be	44
46.	I am not the person I would like to be	46
48.	I wish I didn't give up as easily as I do	48
62.	I treat my parents as well as I should Use past tense if parents are not living)	62
64.	I am too sensitive to things my family say	64
66.	I should live my family more	66
80.	I am satisfied with the way I treat others	80
82.	I should be more polite to others	82
84.	I ought to get along better with others	84
96.	I gossip a little at times	96
98.	At times I feel like swearing	98

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13.	I take good care of myself physically	13
15.	I try to be careful about my appearance	15
17.	I often act like I am "all thumbs"	17
31.	I am true to my religion in my everyday life	31
33.	I try to change when I know I'm doing things that are wrong	33
35.	I sometimes do very bad things	35
49.	I can always take care of myself in any situation	49
51.	I take the blame for things without getting mad	51
53.	I do things without thinking about them first	53
67.	I try to play fair with my friends and family	67
69.	I take a real interest in my family	69
71.	I give in to my parents (Use past tense if parents are not living)	71
85.	I try to understand the other fellow's point of view	85
87.	I get along well with other people	87
89.	I do not forgive others easily	89
99.	I would rather win than lose in a game	99

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14.	I feel good most of the time	14
16.	I do poorly in sports and games	16
18.	I am a poor listener	18
32.	I do what is right most of the time	32
34.	I sometimes use unfair means to get ahead	34

36.	I have trouble doing the things that are right	36
50.	I solve my problems quite easily	50
52.	I change my mind a lot	52
54.	I try to run away from my problems	54
68.	I do my share of work at home	68
70.	I quarrel with my family	70
72.	I do not act like my fammily thinks I should	72
86.	I see good points in all the people I meet	86
88.	I do not feel at ease with other people	88
90.	I find it hard to talk with strangers	90
100.	Once in a while I put off until tomorrow what I ought to do today	100