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Selected Characteristics of Two Levels of Students in Occupational Therapy

M. Jeanne Madigan
Loyola University Chicago

SELECTED CHARACTERISTICS OF TWO LEVELS OF STUDENTS IN OCCUPATIONAL THERAPY

by

M. Jeanne Madigan

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M. Jeanne Madigan

Loyola University of Chicago

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The purpose of this study was to compare biographic characteristics, occupational choice motives, career aspirations, work values and cognitive achievement of baccalaureate degree occupational therapist students (OTRs) and associate degree occupational therapy assistant students (COTAs) to determine similarities and differences between the two levels of students.

Students (100 OTRs and 163 COTAs) from all occupational therapy educational programs in the State of Illinois were administered a survey constructed by the author and the Work Values Inventory designed by Donald E. Super. Cross tabulations using the chi-square statistic were used to analyze data from the survey; work values were compared using T-Tests and discriminant analysis.

Findings suggest that COTA students come from a lower socioeconomic background; there were significant differences for mother's and father's education, father's occupation, sources of financial support for educational expenses and number of college-bound peers. There were also significant differences in the ages and number of previously earned degrees with greater proportions of older OTR students holding higher degrees.

How students first learned about the field was significantly different; more COTAs from printed literature and more OTRs from an occupational therapist or student. More OTR students had experience in the field (observation, volunteer or paid employment) prior to entering

educational programs. Both COTA and OTR students had similar reasons for selecting the field; it is an interesting and challenging occupation in which they can work with people and help others. Only three reasons reached significant levels: more COTAs considered a low pressure job as important, more OTRs thought potential for leadership and independence were important. Data showed that COTA students had less prior contact with those already in the field; this may restrict their choice of occupational level, role objectives and career goals.

There were significant differences in roles student intend to have in five years. More COTAs intend to be working with patients while more OTRs intend to be filling related roles such as managing departments and consulting. Although most students indicated that becoming an expert was an important career-long goal, the two groups exhibited other significant differences: more OTRs selected supervising others, heading a department, writing, teaching, consulting and going into private practice; more COTAs selected creating artistic works.

Work values, deemed important by each group, tended to be in concert with these goals. While altruism and achievement were high for both, intellectual stimulation, variety and independence were significantly more important to OTRs; security and surroundings were more significantly important to COTAs.

In spite of these differences, most COTAs aspire to eventually become OTRs. For many, selecting the COTA program seemed to be in the nature of a trial; many felt they could go on later. Recoding of the data from COTA students who want to become OTRs failed to indicate that they were more similar to OTR students than the COTA students who did not want to become OTRs.

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VITA

M. Jeanne Madigan was born February 21, 1934 in St. Paul, Minnesota to Joseph N. and Marie V. Madigan. She was graduated from Derham Hall High School in 1952 and received a Bachelor of Science Degree with majors in Occupational Therapy and Sociology from the College of St. Catherine in St. Paul in 1956. She received a Master of Arts Degree from the University of Southern California in Los Angeles with a major in Occupational Therapy in 1972.

From 1956 through 1966 she was employed as Director of Occupational Therapy at Driscoll Foundation Childrens Hospital in Corpus Christi, Texas. She moved to Chicago, Illinois in 1967 and was an Instructor of Occupational Therapy at the University of Illinois at the Medical Center until 1970. During this time she was also Supervisor of the Pediatric Unit of the University Hospital. In 1972 she returned to the University of Illinois as Assistant Professor and held the position of Community Coordinator in the Occupational Therapy Department.

In 1974 and 1975 she served as a member of a test development team in the Center for Educational Development for one of the Area Health Education Center projects carried out at the University. Since 1975 she has held the rank of Associate Professor and is presently Curriculum Coordinator and Assistant Department Head of the Occupational Therapy Department.

She has been active in Occupational Therapy professional associations and has served on numerous task forces and committees at state and national levels. She has also presented papers and served as faculty for continuing education programs for educational and health care organizations. She was named a Fellow of the American Occupational Therapy Association in 1979.

Published works include:

LaDuca, A., Madigan, M. J., Risley, M. E., and Engel, J. D. Competence in ccupational therapy. Chicago, Illinois: Center For Educational Development, University of Illinois, 1980.

Madigan, M. J., and LaDuca, A. Assessing higher levels of learning. In Ford, C. W. (Ed.) Clinical education for the allied health professions. St. Louis, Missouri: The C.V. Mosby Company, 1978.

LaDuca, A., and Madigan, M. J. Allied health professions. In Warner, A. R., et al. (Eds.) Clinical experiences and clinical practice in professional education. Houston, Texas: Teacher Center, University of Houston, 1976.

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CHAPTER I

INTRODUCTION

"The demand for health care is predominately a demand for personal services provided for the most part directly by people rather than by machines. The availability of health manpower is thus a critical factor in the ability to meet health service needs" (Jantzen, 1972, p. 67).

The manpower shortage in the allied health fields is chronic. While the available pool of trained personnel grows, the available positions grow at an even greater pace. Occupational therapy, one of the allied health fields, is no exception. Manpower data, in relation to occupational therapy, published by the United States Government is limited and inaccurate because it has not taken into consideration that many therapists maintain their certification even though they are not currently in the labor force. The attrition rate in this field is high. Approximately 96% of occupational therapists are female and several state-wide manpower studies indicated that whatever unemployment rate that exists in the field is largely attributable to therapists leaving the field for marriage and family responsibilities (Flint and Spensley, 1968; Poole and Kassalow, 1968).

Manpower has been a chronic problem in occupational therapy throughout its existence in spite of the increased number of educational

programs and greatly increased number of graduates. There were 37 therapist level programs in 1970 and 53 in 1979; 720 graduates in 1970 and 1,893 in 1979 (AOTA, 1981c). There were 22 assistant level programs in 1970 and 45 in 1979; 354 graduates in 1970 and 943 in 1979 (AOTA, 1981b). "Using our present rate of graduation with a 1.6% annual member attrition and based on 78% employment frequency, we can expect to have 32,000 therapists in the work force by 1990. Comparing this with Department of Labor projections for manpower demand, we will still be approximately 10,000 people short" (AOTA, 1981b, p.4). Langwell, Wilson and Deane (1981) also point out the maldistribution of OT's in the U.S.; approximately 56% of countries have no OTRs and an additional 12% have fewer than five OTRs per 100,000 population.

The literature is replete with figures, proposed solutions and calls for individual and organizational efforts to remedy this situation. In the 1950's, the American Occupational Therapy Association (AOTA) developed the concept of a technical level of occupational therapy as a method of relieving the shortage of registered occupational therapists (OTR) and the resulting narrow distribution of occupational therapy skills. In 1957, occupational therapy assistants were recognized by action of the AOTA Board of Management and a plan for training and certifying them was implemented in 1958 (Crampton, et al, 1958). Adding certified occupational therapy assistants (COTA) to the work force was seen as a method of increasing, strengthening and improving occupational therapy services by allowing OTRs to spend more time evaluating and treating patients and releasing them from duties

which do not require professional education. Duties proposed for the COTA included: clerical, preparation, maintenance, and carrying out treatment programs under the supervision of the OTR (Adamson & Anderson, 1966; Kirchman & Howard, 1966). However, the guidelines for supervision were vague and, to this day, continue to be ambiguous. A recent study (Shapiro and Brown, 1981) indicated that the majority of patient-related tasks that comprise entry-level practice are performed by both COTAs and OTRs. The authors point out, however, that the degree of responsibility, amount of supervision required and the objective of the intervention differ for the two levels. It was reported that COTAs spent more time being supervised, maintaining supplies and equipment, and escorting patients.

Originally developed to assist the professional therapist in psychiatry, the success of the COTA in psychiatry led to the development of standards for training of assistants in general practice just two years later. In 1963, comprehensive preparation and recognition of the generalist role for assistants was approved. At the same time, the locus for educational programs began to shift from hospital based settings to junior and community colleges where the technical courses could be combined with broader based general education courses (Cromwell, 1968). As the educational setting changed (from hospital based programs of several months to two year associate degree programs), and as the employment settings changed (from single specialty to settings where patients had a wide variety of conditions and were referred for individual treatment), the functions of the assistant

broadened and the type of student changed. Younger students, who could be more mobile and better educated, were attracted to the assistant level (Crampton, 1967). More recently, therapists at both levels have advocated for more responsible duties for the assistant (Cantwell, 1970; Carr, 1971; Hasburg, 1979).

As a consequence of these changes, some planned and some unplanned, the profession is now in the throes of examining: (1) the respective roles of the professional and technical levels, (2) the multiple entry routes into the profession, (3) the level of education necessary to enter the profession, and even (4) whether the assistant level should exist at all.

The creation of the assistant level to the profession represented a structural change in occupational therapy that necessitated a behavioral change. New responsibilities were thrust upon the professional level therapists. The OTR student was minimally, if at all, prepared for providing supervision, consultation, administration and inservice training. The acquisition of skills in these areas cannot be left to haphazard experiential learning from modeling of a clinical supervisor (Ritvo, et al., 1970).

There have been several studies concerned with identifying the respective roles of the assistant and the registered therapist, one from a review of the literature (AOTA, 1973) and one from observation and task analysis (AOTA, 1978). As a result of discontent with these role delineations, neither was widely accepted by members of the profession and AOTA. Because a viable role delineation was needed to resolve these

many issues, another group was charged with producing yet another role delineation. It was presented to the AOTA Representative Assembly and approved at their 1981 meeting (AOTA, 1981a).

While a definitive set of role expectations may never be agreed upon by all therapists, and even though the very existence of the assistant has been questioned, it seems unlikely that assistants will cease to exist entirely. It also seems realistic that the professional level therapist will guide the technical level therapist. "The development of midprofessional levels of workers can help, but only if they compliment and relate to the numbers and roles of the professionals with whom they work" (Cromwell, 1971, p. 3A).

Several new developments in occupational therapy in recent years have taken place. Significant among these was that AOTA instituted a career mobility program in 1974 whereby a COTA who had met specified criteria would be eligible to sit for the Certification Examination for Occupational Therapist, Registered. Another recent development is that the numbers of COTAs enrolling in OTR educational programs is increasing. Very few schools have coordinated educational programs which allow COTA students to articulate with OTR programs. Therefore, most COTAs who choose to enter OTR educational programs must first return to school to complete prerequisite courses and then to enroll in an OTR program.

As a result of the above conditions, many questions arise. Are we preparing the students for the same roles or complimentary ones? Is the field, which is already plagued with a high attrition rate because

of its predominance of females, educating COTAs only to reeducate them again at the OTR level? Are we recruiting the same kinds of individuals for both levels?

STATEMENT OF THE PROBLEM

The purpose of the study is to investigate selected characteristics of students enrolled in the professional and technical educational programs. The problems of this study are:

Problem 1. To determine whether biographical differences exist between students in associate degree and baccalaureate degree occupational therapy programs;

Problem 2. To determine whether occupational choice motives differ between students in associate degree and baccalaureate degree occupational therapy programs;

Problem 3. To determine whether career aspirations differ between students in associate degree and baccalaureate degree occupational therapy programs;

Problem 4. To determine whether work values differ between students in associate degree and baccalaureate degree occupational therapy programs; and

Problem 5. To determine whether cognitive differences exist between students in associated degree and baccalaureate degree occupational therapy programs.

HYPOTHESES

This study is guided by the following statistical hypotheses:

Hypothesis 1. There will be no difference in biographic characteristics between students in associate degree occupational therapy assistant programs and baccalaureate degree occupational therapist programs.

Hypothesis 2. There will be no difference in occupational choice motives between students in associate degree occupational therapy assistant programs and baccalaureate degree occupational therapist programs.

Hypothesis 3. There will be no difference in career aspirations between students in associate degree occupational therapy assistant programs and baccalaureate degree occupational therapist programs.

Hypothesis 4. There will be no difference in work values between students in associate degree occupational therapy assistant programs and baccalaureate degree occupational therapist programs.

Hypothesis 5. There will be no difference in cognitive achievement between students in associate degree occupational therapy assistant programs and baccalaureate degree occupational therapist programs.

DEFINITION OF TERMS

For the purpose of the study, the following are important terms:

1. Occupational Therapist, Registered (OTR). This is the professional level of personnel in the field of occupational therapy. Qualifications are completion of a baccalaureate or master's degree educational program accredited by the American Medical Association and the American Occupational Therapy Association, six months fieldwork experience, and passing the AOTA Certification Examination for Occupational Therapist, Registered.

2. Certified Occupational Therapy Assistant (COTA). This is the technical level of personnel in the field of occupational therapy. Qualifications are completion of a certificate or associate degree educational program approved by the American Occupational Therapy Association, two months fieldwork experience and passing the AOTA Certification Examination for Occupational Therapy Assistants.

3. Occupational choice motives. The reasons given by a person for selecting the course and level of study leading to qualification in a particular occupation.

4. Career aspirations. The desire to achieve certain roles and/or accomplishments within their chosen occupation.

5. Cognitive achievement. For the purposes of this study, cognitive achievement is measured by grade point average in high school and/or rank in class in high school.

POPULATION OF THE STUDY

All students enrolled in all occupational therapy educational programs in the State of Illinois in the Fall, 1981 were the subjects for this study. This included OTR students enrolled in the baccalaureate degree program from the University of Illinois at the Medical Center in Chicago and in Urbana, COTA students in associate degree programs from Chicago City-Wide College-Rehabilitation Institute of Chicago, Thornton Community College in South Holland and Illinois Central College in East Peoria.

LIMITATIONS OF THE STUDY

This study was conducted within the limits as described below:

1. The population was limited to the students enrolled in freshman and sophomore classes of the three COTA programs in Illinois and the junior and senior classes of the one OTR program in Illinois. Because of this geographic concentration of the population, caution should be exercised in making generalizations to all COTA and OTR students.

2. Cognitive achievement measures were limited to grade point averages and class rank in high school. Such indices involve subjectivity and situational variability due to teacher expectations and school norms. However, it is also recognized that these same measures

are used for admissions criteria and also contribute to students' self perceptions and therefore, aspirations.

3. Self report data, which were largely used in this study, are affected by subjects' opinions and what they wish to be made known.

4. The instrument used to gather data regarding biographic, occupational choice motives and career aspirations was constructed by the investigator. The instrument was reviewed by a panel of judges to determine each item's appropriateness for the purposes of the research identified in this study and a pilot study was conducted to refine wording of instructions and questions.

SIGNIFICANCE OF THE STUDY

Studies have been made comparing the difference between a number of characteristics of students who select different occupations. Studies have been made concerning effectiveness of certain variables in predicting success in completing educational programs and success in fieldwork experiences. Few studies have been made concerning the differences among students enrolled in different levels of educational programs in the same occupation, and it appears that no such studies have been reported concerning the two levels in occupational therapy.

The character identified of differences would have implications for the profession of occupational therapy. These implications would be especially significant for the field since it is suffering from a critical manpower shortage. It is believed that results of the study

would provide input for considerations regarding: public relations, recruitment, student selection for educational programs, retention of trained personnel and perhaps even roles and responsibilities for each level of personnel.

CHAPTER II

REVIEW OF THE LITERATURE

The first section of this chapter will briefly review basic information on professionalization as a general background to the study. Theories and research findings on career choice and work values will be reviewed in the second and third sections of the chapter. The fourth section details research on student and therapist characteristics in the occupational therapy field.

Professionalization

A profession is an "aggregate of people finding identity in sharing values and skills absorbed during a course of intensive training through which they have all passed" (Friedson, 1970, p. 81). Some social scientists ascribe "professional" only to medicine, law and the clergy because they are the only ones who clearly possess characteristics agreed to be the hallmark of a profession. These characteristics are: possession of a general, systematic body of knowledge, authority over clients, community rather than self-interest, self-regulation, a distinctive culture or value system and recognition by the public (Ritzer, 1972). However, Hirschfield and Peterson (1982) stress that professions are committed to applying knowledge to solve individual and social problems and that they require knowledge to

function. In fact, they frequently demand exclusive service provision (licensure) because their numbers are presumed to have skills and information which others do not.

There is a more general consensus, however, that it is not so clear which occupations are professions -- and that there is, rather a continuum from occupation on one end to profession on the other end. Where a particular field lies on the continuum depends on how many professional characteristics it possesses and to what degree it possesses each (Ritzer, 1972). Sergiovanni, Burlingame, Combs and Thurston (1980) caution that designation of an occupation and being recognized as one is not the same. They maintain that the designation is used more democratically today to refer to almost any organized occupation as a means of differentiating it from amateurs. The claim to professional designation is stronger if licensing, advanced training and guild membership are occupational requirements.

Another way of viewing the phenomenon is to identify the steps in the process of professionalization. According to Caplow (1954), they are: establishment of a professional association, change of name or title which is its exclusive domain, development and adoption of a code of ethics, political organization to gain popular and legal support. Wilensky (1964) adds two additional steps: creation of a full-time occupation and establishment of a training school. Goode (1969) also includes: competition between the new occupation and neighboring ones, conflicts between the old timers and the new person who seek to upgrade

the job and redefinition of the core tasks so as to shift the less valued work to subordinates.

Much has been written about teaching, nursing and social work speculating about whether they qualify as professions. Ornstein (1978) points out the relationship in teaching between status as a profession and the predominance of females, high rate of attrition, low educational attainment and large membership. While the first three characteristics mentioned are similar to many allied health care fields, the last is not indicative of occupational therapy. Other stumbling blocks pointed out by Ornstein (i.e., exclusive body of knowledge and autonomy) are also characteristic of occupational therapy. Control over entrance into the field, still a problem in teaching, is not one in occupational therapy.

Teaching, nursing, and other similar occupations, such as occupational therapy, have been termed semiprofessions or middle-level occupations. A critical barrier to their professional status is the fact that they are more often employees in a bureaucracy (Ritzer, 1972). All of the above mentioned factors contribute to their marginal status, but also, women are generally socialized to achieve less (Simpson & Simpson, 1969). Women workers favor friendly relations with coworkers, pleasant working environment, giving personal service rather than technical mastery of skills; they leave a job for family reasons rather than advancement or administrative posts; client responses provide work rewards. Other behaviors of female workers identified by the Simpsons are: emotional urge to give of oneself, weakly developed occupational groups, lack of lifelong career orientation and below average academic

performance. Women see a career in terms of personal growth and satisfaction, as self-fulfillment and contributing to others, as opposed to recognition, reward and advancement.

Underlying the development and maintenance of a profession is the system of education. Of importance is the interaction between the profession and the educational system and the pattern of education within the profession because they have impact on both the structure (i.e., the institutions, curricula and teaching methods) and the process (i.e., professional socialization) (Millerson, 1973).

Millerson identified changes in the educational system which impact on a profession: (1) opportunities for specialization in education which lead to greater occupational differentiation, (2) movement from reliance on practical education and experience as a means of acquiring expertise towards a strong academic, theoretical base, (3) reduction of self-recruitment and increasing openness or freedom of entry for a wider section of society, (4) succession of barriers built at different stages in the education process which must be overcome to qualify for admission to subsequent stages and eventual recognition of competence, (5) progress through the educational system gradually restricts choice of occupational careers; and (6) education as the chief means of access of high status occupations and therefore to social mobility.

While occupational groups have become cognizant of the characteristics of a profession, rate themselves on each and point out ways to strengthen their positions (Ornstein, 1978; Johnson, 1978),

there can be negative effects of professionalism. Sergiovanni, et al., (1980) contend that giving increased attention to the maintenance and development of a professional image may be done at the expense of serving people. They claim that the rights and perogatives of position, status, protocol and propriety can get in the way of helping, sharing and problem solving. The question as to whether occupational therapy is a profession, a semi-profession or a helper-occupation is asked by those both outside the field of occupational therapy (Pavalko, 1971) and inside the field (Fidler, 1979: Johnson, 1978). Regardless of the answer, the field must be concerned with recruiting, training and retaining manpower for its ranks.

Occupational Choice

Most individuals in our society face the problem of choosing an occupation. This is important from two points of view: an individual must seek a place from among the range of possibilities, and the health and welfare of the larger society must be safeguarded by staffing certain occupations. Society must be concerned with the occupational choice so that it makes the best use of human resources. Individuals inherit talents and aptitudes and it is important for society to develop talents and use them. From the perspective of the total society the problem is one of manpower allocation -- assuring an adequate supply of persons with skills needed to carry out the work tasks that must be performed. For individuals, this creates a decision-making problem.

These decisions are of great importance in an industrial society where identity, prestige, income and life style are related in large measure to one's occupation.

Although sociological, psychological and vocational guidance literature indicates numerous attempts to conceptualize occupational choice, a testable theory of occupational choice has yet to be developed. Pavalko (1971) has categorized these endeavors under three labels which characterize their approaches: rational decision-making, fortuitous and sociocultural influence.

Ginzberg and his associates (1951) first attempted to develop a theory of occupational choice by studying a group of upper middle class boys. The result was a framework whereby occupational choice was viewed as a developmental process, rather than a single decision, which is influenced by (a) self-capacities, interests, goals and values, (b) reality - environmental, economic, and educational; family background and occupational requirements, and (c) key persons -- help or pressures by relatives, teachers and friends.

Ginzberg identified three distinct periods in the occupational choice process. The first, fantasy, from six to eleven years of age, occurs when the child is not bound by time, capacities, realities or barriers and he chooses that which interests him. The tentative period goes from twelve to seventeen years, occurring as the individual becomes more aware of self and reality and as negative and positive elements make an impact on him. As he matures the bases for his choice go from interests, to capacities and then to values, and he begins to use choice

as a guide for action. The period of realistic choice is from eighteen onward until he takes a job. As the individual acquires more confidence in his knowledge of himself and his abilities, he begins to plan for the future. The first stage is exploration when the individual tries to acquire experience; the second stage is crystallization when he assesses many factors and commits himself; and the third stage is specification when he selects a field of specialization and particular career objectives. The process ends in a compromise, that is, finding a balance among interests, capacities and opportunities.

Ginzberg conducted two other studies. He briefly investigated males from the working class and middle class females to determine if the process which he identified in his original study was the same for these two groups. He concluded that they go through similar periods and stages but there were some differences. In the case of the lower class males, their expectations differed from middle class males regarding level of education, types of jobs to which they aspired. They gained exploration and testing from early working years rather than from continued education. In the case of females, the primary focus was different: marriage and family were their first considerations, then work. A college education was viewed as an opportunity for broadened social experience and self improvement; many regarded work as a form of insurance or as a means of maintaining interests outside their homelife.

Originally Ginzberg felt the process was irreversible in that later decisions were limited by previous ones. Some twenty years later Ginzberg revised his earlier theory and stated that the occupational

choice process may be reopened at any time. This is especially true of women who interrupt education or careers for marriage and family. Another modification related to the idea that the process is a compromise. His later term was optimization, wherein a person seeks to find the best fit between aspirations and circumstances -- a continuing consideration of gains against costs (Ginzberg, 1972).

Super (1970b) criticized Ginzberg's theory as too simplistic and culturally laden. His theory, which he termed "vocational development," is also developmental in nature but adds maintenance and decline and relates these periods to self concept. Other important elements include: (1) people differ in their abilities, interests and personalities and are qualified by virtue of these characteristics for a number of occupations; (2) vocational preferences, competence and self concept though quite stable, change with time and experience thus making choice and adjustment a continuous process; (3) nature of career pattern is determined by parental socioeconomic level, mental ability and personality characteristics and the opportunities to which the individual is exposed; (4) work and life satisfactions depend upon the degree to which the individual has been able to merge his personal self-concept with his work.

Holland (1959) also takes a developmental view of vocational choice but stresses that the individual is a product of the interaction of his heredity with social and physical environment. Out of this experience the person develops a hierarchy of habitual or preferred methods for dealing with environmental tasks. These habitual methods

are associated with different kinds of environments and patterns of abilities. The person making a vocational choice in a sense searches for situations which satisfy his hierarchy of adjustive orientations. Within a class of occupations, his choice of a specific one is a function of self-evaluation and ability mediated by knowledge of the occupation and external forces such as family and peer pressure, and socioeconomic resources.

Blau and Duncan (1967) point to a wide variety of factors that help to explain why people enter the occupations they do: biologically conditioned ability, personality characteristics, the economy, and level of technological development. Sherlock and Cohen (1966) regard occupational choice as a compromise between reward preferences and expectancies of access to specific occupations and termed their theory "minimax strategy".

All these ideas are similar in that the individual's occupational choice is seen as a well thought out, deliberate choice and that there is rational planning on the part of selection agencies in regard to whom they recruit into certain occupations. The fortuitous approach views occupational choice as less purposive and deliberate and more adventitious. It is more a case of drifting wherein alternatives are eliminated (Pavalko, 1971). Caplow (1954) stated that the bases for decisions are often trivial. Pavalko concludes that these theories may be a more valid explanation for occupations which require little or no preparation and experience while the rational, decision-making theories are more valid for professional fields. Phillips (1982) in a

longitudinal study of 95 men did not find that individuals who display an increasing commitment would experience higher levels of desirable career outcome. She concluded that following the theoretically prescribed sequence of development does not necessarily lead to better outcomes in adulthood and suggests that different patterns are associated with different outcomes (e.g., provisional commitment may allow more flexibility to negotiate movement toward goals). Findings of a study by Laing, Lamb and Predigar (1982) showed that basic interests were strongly related to occupational interests and college students' majors. Those who changed majors had lower interests than those who did not and often had lower levels of interest, generally. This led the researchers to believe that other reasons (e.g., skills, economics or social pressures) than interests may prompt some individuals to change fields.

Much investigation has focused on the level of occupational aspiration or the types and status of occupations to which young people with different social characteristics aspire (Haller and Miller, 1971). These characteristics are generally external influences over which individuals have little or no control and they set limits upon the kinds of occupational choices and decisions that individuals make. The main characteristics studied are: social class background, geographical residence, race and sex.

Social class studies, whether measured by family income, parental occupation or education, show that those who come from higher status backgrounds have higher occupational aspirations (Blau and Duncan, 1967). Studies have shown that the proportion of students with

high occupational aspirations increases as community size increases and that both aspirations and expectations of white youth were higher than those of black youth (Boocock, 1972). In general, women tend to have lower occupational aspirations than men but these differences are mediated by SES (McLaughlin, Hunt and Montgomery, 1976), geographic location (Dunne, Elliott and Carlsen, 1981), educational attainment (Sewell, Hansen and Wolf, 1980), and other social forces such as economic development, divorce and fertility rates (Semyonov, 1980).

The question has been raised of how valid the theories of occupational choice, which have largely been derived from the study of males, are for females. The interests, abilities, values and self-concepts deemed important in these studies may be interfered with by life circumstances of women. Havighurst and Levine (1979) describe trends of not only more women in the work force but more married women with young children. They also point out the importance of different socialization experiences (i.e., the expectations of parents, teachers and peers).

Almquist and Angrist (1970) suggest two important considerations when studying female career choice. They make the distinction between women who work at jobs off and on and ones for whom work is a central feature of adult life (career salience) and between women who choose conventional "feminine" occupations and ones who choose "masculine" ones (atypicality). Their study showed that career salient and atypical choosers do not differ from non-career salient and typical choosers in their relationships with parents, dating frequencies and participation

in most extra-curricular activities. However, career salient, atypical choosers tend to favor occupations which allow use of special abilities, freedom from close supervision by others, and high income. Typical choosers and non-career salient women were more interested in working with people rather than things, in helping others and conforming to their parents' ideas of success. The study also demonstrated a strong association between career salient, atypical choosers and mothers who are better educated and currently employed full-time. They were also more often influenced by college professors and persons in the occupation to which they aspired. Weishaar, Green and Craighead (1981) found that females as well as males, were most often influenced by males. However, they also found that those students who were primarily influenced by individuals in fields closely related to their own vocational choice, were more certain of their choices than those students citing influencers in unrelated fields.

Work Values

Rokeach (1973) defines a value as an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence. Williams (1979) states that, along with norms, they are the most important orientations which people develop. Rescher (1969) emphasizes that they are abstract and mentalistic -- things of the mind that have to do with the vision people have of the good life for themselves and others.

Rokeach and Williams agree that values have cognitive, affective and action components. Whether explicit and fully conceptualized or implicit and unreflective, values perform as grounds for decisions in behavior and to resolve conflicts. They are also backward-looking in that they provide a basis for rational self-justification. Rescher, however, states that the principle role of values is to provide rationalization of action, i.e, deliberation and decision making, advising and counseling, and justification and critique.

Rokeach says there are two kinds of values: (1) instrumental values which are desirable moral or competence modes of conduct and (2) terminal values which are desirable personal or social end-states of existence. Rescher further explains that instrumental or means values are subordinate, facilitating values that lead to the realization of other, more fundamental values. Terminal or ends values are prized on their own account.

Feather (1975) says that while values are enduring, they are not completely stable. This is because they are initially taught and learned in isolation in an all-or-none manner and that it is only gradually, through experience that we learn to integrate what has been taught into a context and an organized system in which individual values are ordered in priority or importance relative to other values. Colemen (1979) identifies four key sources of values: culture, science, religion and history or experience. Williams (1979) on the other hand, says values are developed through some kind of experience of pain or pleasure, deprivation or gratification, goal attainment or frustration,

social approval or disapproval. Because similar repeated and pervasive experiences are often characteristic of large numbers of persons, they come to be commonly held values. Inlow (1972) stresses that values are dynamic and circular; existing in individuals, they shape culture and existing in culture, they condition individuals. Presense or absence of particular values is not the only difference among individuals but also the arrangement of those values, i.e., their hierarchies of priorities. Social class has been found to be the most important single variable accounting for differences in patterns of values. Among the components of class, education is the most important, followed by occupation; income adds little to predictions (Williams, 1979).

Because values influence behavior, they are associated with occupational choice, attainment and change. Pryor (1979) claims that theorists and researchers are only talking about preferences and not attitudes when they refer to work values; what a person likes rather than what ought to be done. As a consequence, he suggests using the term "work aspect preferences" rather than "work values" and defines them as statements of the relation between a person (subject) and a particular quality of work (object). However, Zytowski (1970), through an extensive review of literature on work values, makes a strong case for the concept as being a viable one for theory, research and practice. He defines work values as a set of concepts which mediate between the person's affective orientation and classes of external objects offering similar satisfactions. He identifies the similarity among leading theorists' inventories and taxonomies of work values but points to great

divergence in how to treat the findings and indicates that considerably more empirical work must be done.

Persons of lower education and occupational positions value security, fringe benefits, physical conditions and nature of supervision. Persons with higher level education and occupation value self-expression and development, creativity, active personal relationships, worthwhileness of work, challenge, opportunity for personal achievement and leadership (McLaughlin, Hunt and Montgomery, 1976; Williams, 1979). Kinnane and Gaubinger (1963) found that life values were correlated with work values. Drummond, McIntire and Skaggs (1978) reported that more females than males rated extrinsic values, relating to the personal work environment, as important. More males than females tended to rate intrinsic values, such as intellectual stimulation, independence and creativity, as important. Lauderman and Griffeth (1978) found that college seniors' personality types and values corresponded with their major field of study but raised the question of whether or not these findings were affected by socialization inherent in the educational process.

Sampson and Loesch (1981) demonstrated that work values are independent of job knowledge. Ivey (1963) found little correlation between work values and interests and speculated that interests may shape the direction of a person's career but work values affect a person's attitudes and satisfaction with a particular position.

Student and Therapist Characteristics

According to Moore (1970), "In most established fields the professional schools act as the first formal gatekeepers: in setting admission standards, standards for performance in the course of training, and requirements for the appropriate degree." Millerson (1973) identifies four phases in the total pattern of education: recruitment, induction, initiation and maintenance.

The recruitment phase is of particular interest for this study. While much activity has been carried out in occupational therapy, it has been haphazard and unorganized. Two studies shed light on its character and effectiveness. Pickett (1962) conducted a nation-wide survey and found that the average time of choice of an occupational therapy career ranged from 17 years of age for freshmen women, to 21 years of age for advanced standing women. The average age for male students was 24 years. If the student had been previously employed, it was often in a health related field. A striking finding from this study was that the source of information about the field was from personal contact (78% of the respondents). These contacts were usually from a relative or friend (36%), an occupational therapist (14%), vocational counselor (10%) or O.T. student (3%). Only 6.5% of the respondents learned about the field from printed matter and 4.5% from radio or T.V.

Bailey (1968) compared findings from O.T., P.T., medical technologists, nurses and education students on a career choice questionnaire. Occupational therapy students, in relation to the

others, were more interested in fine arts, humanities and government in high school, participated in broad extra-curricular activities with tendencies toward band, chorus or newspaper and sharply rejected science clubs. Their mothers had achieved a high level of education and about half were employed, most in a professional field. Their fathers' occupational and educational levels were heterogeneous but had a reasonably high socio-economic background. They had a tendency to be the oldest child in a family in which there were few brothers. Initially they were unsure about a career choice. Their first choice at age 10 or 11 was either nursing, another health field or teaching. The decision of occupational therapy as a career was influenced by contact with professional people at college and usually not made until 17 or 18 years of age. However, once made, they were very committed to it (96% were not considering other careers).

The next logical question of concern might be factors which are pertinent in making the selection. Holland and Lutz (1967) examined the predictive validity of a student's choice of vocation by comparing self expressed choice with scores on a vocational preference inventory and found expressed choice to be superior. In Pickett's (1962) study, the most often motivating factors for entering the field of occupational therapy were: to work in direct contact with people, to help mentally or physically disabled people, to combine interests in crafts and medical science, and have a special interest in sick or handicapped children. Of less importance were: varied activities, hospital atmosphere and job opportunities.

A great deal of research has been conducted on the differences among students in different curricula but few have been related to allied health care professions and even fewer have included occupational therapy students.

Data from nation-wide longitudinal surveys by the American Council on Education, was re-analyzed by Holmstrom (1975) to compare individuals choosing therapist careers (including O.T., P.T. and speech) with those choosing other health careers (e.g., physician, dentist, etc.), showed that health career aspirants as a group seemed to be altruistic and people-oriented and this was especially true for those who named therapy as their career choice. The potential therapist group gave high priority to the goal of helping others. Their reasons for choosing the therapist career were the opportunities it offered to work with people, to be helpful to people, and to make an important contribution to society. They were similar to the other health career aspirants in their high academic ability, their drive to achieve and their valued professional achievement goal of becoming an authority on a special subject in the field and obtaining recognition from colleagues. Potential therapists differed from the others in that they were relatively unconcerned about high salary, status and administrative authority over others. They were more concerned with artistic interest and valued originality and working with ideas. Most outstanding was their social self confidence (Holmstrom, 1975).

Patterson, Marron and Patterson (1970) compared occupational therapy students with female freshmen, male and female psychology and

education students using an instrument which measures expressed and wanted inclusion, control and affection. Responses of O.T. students most closely approximated those of the psychology students but differed in terms of expressed control (less) and wanted inclusion (more). Compared to female freshmen, they showed less expressed control and more expressed affection and inclusion. They differed most with education students, wanting and expressing more inclusion, less wanted and expressed control and more expressed affection.

In comparing O.T. and nursing students, Schmidt (1951) found the O.T. students were more purposeful, extroverted and adaptive. They also scored higher on verbal and performance subtests of the Wechsler Bellevue Scale. Rezler and French (1975) examined learning styles and personality of students from six allied health fields including occupational therapy. The differences between groups in learning styles were not great, the majority of all groups preferred to devote their attention to concrete tasks assigned by their teachers. The occupational therapy students were found to have a common personality pattern that was absent from the other groups. Approximately 45% of the O.T. students were either extrovert-intuitive- feeling-perceptive or extrovert-sensing-feeling-perceptive. The investigators' conclusion was that O.T. attracts significantly more extrovert, imaginative, emotional, spontaneous and flexible students than do programs in medical art, medical record administration or medical laboratory sciences.

Another dimension that can be examined is the variables that affect whether a student will successfully complete the academic

program. An early study by Thompson (1951) led to the conclusion that no single or reliable measure could distinguish in advance the occupational therapy student who would do well from the one who would have difficulties. Areas in which good students differed from poor students were: interest in social sciences, ability to deal imaginatively with problems in construction, and dexterity. Crane (1962) found that reading scores correlated highly with success in the academic program. He also found the better students scored higher on the personality traits of order, succorance, scientific interests and theoretical values and low on sociability, change and autonomy. He also found a moderate correlation with father's employment in professional, semiprofessional, managerial, technical, clerical and service fields. Since he did not compare non-O.T. students, he stated there was no way of knowing if these were specific to O.T. or college success in general.

Blaisdell and Gordon (1979) ran discriminant and multiple regression analyses on thirty-three variables to preselect O.T. students. The variable with the greatest p-value was interest in physical and life sciences. Other positive variables identified were they scored higher on support and they took anthropology in high school. Reverse values were: interest in mathematics, percentage of graduates of their high school who go to a four year college and high conformity scores. Lucci and Brockway (1980) compared students' scores on a preadmission interview and found no differences on the grade point averages in the educational program and the Certification Examination for Occupational Therapist, Registered between the top and lower half of

the applicants. Scores on fieldwork experience were significantly higher for the top half than the lower half. The investigators speculated that this finding may have been due to some subjective factor such as a good personal impression that influenced both the interviewer ratings and the fieldwork supervisor ratings.

Studies specifically attempting to predict success on clinical performance with grades have netted little useful information except that there is little correlation. Anderson and Jantzen's (1967) study showed correlations ranging from -.45 to .25. Ford (1979) found only one course grade, neurology, to be significantly correlated to physical dysfunction fieldwork grades using a chi-square test. It was not significant using a regression analysis. A study by Lind (1970) examining the relationships between values, personality, vocational interests and grades from selected courses produced low correlations and was of limited value in predicting fieldwork performance.

A few studies have been concerned with characteristics of working occupational therapists. Hendrickson (1962) reported results from a personality test given to occupational therapists working in psychiatry. She found they differed on nine factors from the norms published for college women. The resulting composite was that the psychiatric occupational therapist is warm, friendly, intelligent, agressive, practical, tough, unpretentious, highly flexible and broad-minded.

Brollier (1970) tested Holland's theory by investigating differences and similarities between physical therapists and

occupational therapists working in physical disabilities, and social workers and occupational therapists working in psychiatry. The findings showed that the four groups scored similarly on the personality measures of achievement, intraception and nurturance. The social worker and psychiatric occupational therapists scored significantly more autonomous and dominant; the physical therapists and physical disabilities occupational therapists scored significantly more deferent and orderly.

The single study found relating to certified occupational therapy assistants was one which examined relationships between job performance after graduation with academic grades, fieldwork grades, schooling prior to enrollment and previous experience as an O.T. aide. Maynard, Bilkey & Hyre (1972) found that fieldwork grades and course grades showed a small positive correlation with job performance. Similarly, little information is available which compares the two levels of occupational therapists. Jantzen (1970) compared employment patterns of the two levels and found that OTRs were more likely to work in pediatrics as compared to COTAs who worked more frequently in geriatrics.

Conclusion

Occupational Therapy, along with other female dominated occupations whose numbers are principally employed in bureaucratic organizations, is struggling for recognition as a profession. It fails to fully meet all the commonly accepted characteristics of a profession

and would, therefore, be termed by some as a semi-profession or helper-occupation. Its recent rapid growth and creation of a technical level of personnel has failed to remedy its manpower shortage and has raised additional questions as to recruitment and training of individuals for the field.

While many theories indicate that occupational choice is a long-term developmental and rational process, some claim that it is a more adventitious one. In fact, research indicates that factors such as family SES, race and sex, factors out of an individual's control, figure strongly in a person's occupational aspirations and attainment. Values, especially work values, which also are pertinent to an individual's occupational choice and career aspirations, are heavily influenced by the individual's environment.

Research concerning occupational therapists has consisted largely of comparisons of OTR level students with students who are majoring in other fields. Similarly, the character of recruitment and traits of successful occupational therapy students has focused on the OTR level. Very little has been written about COTA students and no comparisons between OTR and COTA students could be found in the literature. The differing employment patterns of the two levels of therapists raise questions as to whether abilities and values act as a predilection for working with different client populations or in different work settings. Information regarding characteristics identified as relevant to occupational choice, career aspirations and work values could provide data about characteristics of the two levels

of students in occupational therapy and determine if the same kinds of individuals are being recruited for both levels.

CHAPTER III

METHODOLOGY

This is an exploratory/descriptive study of professional and technical levels of occupational therapy students in the State of Illinois. The data were collected through the use of self-administered questionnaires. The purpose of this chapter is to explain the research procedures used in this study, describe measures used and specify how data were treated.

Procedures

Directors of the three occupational therapy assistant and the one registered occupational therapist educational programs in Illinois were contacted for permission to administer the instruments to their students. Prior to the administration of the instruments, the investigator explained the purpose of the study and gave assurances of confidentiality of individual student data to the student groups. A release form, allowing the investigator to obtain information concerning grades was signed by each student consenting to be part of this study.

The instruments were administered to each class group in each institution of higher learning. No time limit was placed on completing the instruments since the purpose was entirety and quality of response rather than speed or right answers.

Measures

Data gathering instruments were constructed and selected based on factors extracted from the review of the literature as variables important to career choice in general and occupational therapy in particular. Measures used in this study consisted of three instruments:

Part I was a self administered questionnaire constructed by the investigator and consisting of fixed alternative questions to obtain biographic data, occupational choice motives and career aspirations information;

Part II was a self administered instrument, The Work Values Inventory, constructed by Donald E. Super to measure certain salient values which are extrinsic to, as well as those which are intrinsic in, work. (Super. 1970a)

Part III was a data sheet for recording students' prior cognitive achievement.

Data Gathering Methods

A self administered questionnaire was selected as the data gathering method for Parts I and II because it was capable of obtaining information from large groups of subjects in a short period of time, required little skill to administer and ensured a high degree of uniformity from one situation to another by standardized wording, order and instructions.

The disadvantages of this method are: (a) appropriate only for subjects with a considerable amount of education and (b) respondents may answer with a different interpretation of the meaning of the question from that intended by the investigator. (Selltiz, 1959) The first disadvantage was assumed not to be a problem in this study since all respondents were from a college population. The second disadvantage was minimized by pretesting Part I, which was constructed by the investigator, and by using a reliable and valid instrument for Part II.

It was assumed that the most reliable information regarding grades would be from school records and, therefore, the investigator proposed to obtain data for Part III from this source. This plan had to be altered because the data were not available for all students. Respondents were asked to supply their high school grade point average and class ranks when they completed the other two instruments.

Instrument Specification

The Student Survey represents Part I of the measures used for this study and is listed in Appendix A. It was constructed by the investigator to elicit data on biographic information, occupational choice motives and career aspirations. Items were designed to gain information which was identified from the review of the literature as having some type of influence on occupational choice and aspirations.

Items one through five cover basic information such as age, sex, race, finances and prior schooling. Items six through eight ask for

biographic information which may influence career selection, such as college bound peers, mothers' and fathers' education and occupation. Items nine through twelve relate to occupational choice motives and elicit data such as: how did respondents learn about occupational therapy, who was influential in their decisions and reasons for selecting the field. Items thirteen and fourteen cover career aspirations by asking what respondents intend to be doing in the future, what role they wish to play in their chosen occupation and what are their career goals. Item fifteen elicits information about their prior knowledge of the other level of personnel in occupational therapy and why they selected the level they did. Item sixteen, for the COTAs only, asks if they intend to go on to the OTR level at some future time.

The Student Survey was submitted to a panel of judges, members of the Research Special Interest Group of the Illinois Occupational Therapy Association, who reviewed it to determine if items were worded clearly and if they elicited the intended information. Several items were added, deleted and reworded as a result of their input. The instrument was then administered to ten volunteer senior students from the University of Illinois Occupational Therapy educational program. Additional items were deleted and changed, and instructions were modified as a result of analyzing these pilot study responses.

Part II of the measures used in this study was the Work Values Inventory developed by Super (1970). Instructions, the rating scale and a sample question can be found in Appendix A. It measures fifteen values

which people consider important in their work: Altruism, esthetic, creativity, intellectual stimulation, achievement, independence, prestige, management, economic return, security, surroundings, supervisory relations, associates, way of life and variety. (These values are defined below.)

Altruism:

Work which enables one to contribute to the welfare of others; social service.

Esthetic:

Work which permits one to make beautiful things and to contribute beauty to the world.

Creativity:

Work which permits one to invent new things, design new products, or develop new ideas.

Intellectual Stimulation:

Work which provides opportunity for independent thinking and learning how and why things work; a liking for using one's intellectual abilities and for exercising one's judgement.

Achievement:

Work which gives one a feeling of accomplishment in doing a job well; a liking for work with visible, tangible, results.

Independence:

Work which permits one to work in his own way, as fast or as slowly as he wishes.

Prestige:

Work which gives one standing in the eyes of others and evokes respect.

Management:

Work which permits one to plan and lay out work for others to do.

Economic Return:

Work which pays well and enables one to have the things he wants.

Security:

Work which provides one with the certainty of having a job even in hard times.

Surroundings:

Work which is carried out under pleasant conditions; the material environment rather than the work itself.

Supervisory Relations:

Work which is carried out under a supervisor who is fair and with whom one can get along.

Associates:

Work which brings one into contact with fellow workers whom he likes.

Way of Life:

Work that permits one to live the kind of life he chooses and to

be the type of person he wishes to be.

Variety:

Work that provides an opportunity to do different types of jobs. (Super, 1970a)

The Work Values Inventory was first developed in 1951. Literature on values and job satisfaction served as a basis for the items. Refinement of items was done several times and forced-choice, rank order and rating formats were tried. The present short form was standardized on a national sample of 10,083 seventh to twelfth grade boys and girls.

The present Work Values Inventory is a forty five item self-report rating form. Respondents are asked to rate each work related statement on a five-point scale ranging from "very important" to "unimportant." Although this method sacrifices some differentiating power accomplished by a forced-choice format, it has been found to be more reliable and less annoying to subjects.

Reliability and validity data on the Work Values Inventory reported in this section is from the manual (Super, 1970a). The fifteen scales of the Inventory were found to be internally consistent and stable over a time interval of two weeks when administered to ninety nine high school students. The lowest retest reliability was .74 (associates), the highest .88 (economic return), and the median was .83.

As a measure of construct validity, the Work Values Inventory has been studied in relation to the Allport-Vernon-Lindzey Study of Values (AVL) as direct measures of values and to the Strong Vocational Interest Blank (SVIB) and the Kuder Preference Record (Vocational) as indirect measures of values.

The altruism scale correlates significantly and positively with the social service scale of the Kuder (.67) and the AVL (.29). The esthetics scale correlates with the artist key of the SVIB (.55) and the artistic scale of the Kuder (.45). The creativity scale correlates moderately with the artistic (.34) and scientific (engineer. 25, physicist .21) scales of the SVIB. It also correlates with the artistic (.37) and the literary (.35) scales of the Kuder. The intellectual stimulation scale correlates positively with the scientific interests (.34) and negatively with the persuasive (-.31) and clerical (-.19) scales of the Kuder.

The prestige scale correlates positively with social contact occupational interest (Y secretary .27, life insurance salesmen .29) and negatively with the artistic (-.24) and scientific (-.25) scales on the SVIB. It has low but statistically significant correlations with the political (.14) and aesthetic (-.17) scales of the AVL. The management scale is positively correlated with social and contact occupation interests (Y secretary .57, life insurance salesmen .53, purchasing agent .43) and negatively with artistic (-.60) scientific (engineer -.33, physicist -.37) and technical (farmer -.42) occupational

interests, on the SVIB. It also correlates positively with business interests of all types and negatively with artistic, musical and social service interests on the Kuder. It correlates positively with political values and negatively with the aesthetic scale on the AVL.

The economic returns scale correlates with economic and political scales of the AVL. The security scale is negatively correlated with artistic (-.24) on the Kuder and aesthetics (-.11) on the AVL. The surroundings score is positively correlated to technical interests and negatively to social service, business contact and literary interest on the SVIB. The supervisory relations scale shows slight negative relationships with business contact and legal interests on the SVIB and with artistic and literary preferences on the Kuder. No significant or useful correlations could be found with other value and interest scales for achievement, independence, associates, way of life and variety scales.

Content validity was accomplished by field testing the items, labelling and card-sorting experiments and by essays written by students about the items to insure comprehensibility and adequacy in measuring intended values. Concurrent validity studies have shown little relationship between the Work Values Inventory and personality traits, academic ability, school achievement and extra-curricular activities. Super concludes that work values are not appreciably related to these variables.

Earlier forced-choice and rating forms of the Inventory have been used with a number of occupational groups and have shown relationships with several occupations. Altruism is particularly characteristic of Peace Corps volunteers. Creativity values are rated high by psychologists and engineers but low by office workers. Achievement values are stressed by psychologists, teachers, lawyers but not by school counselors, police or fire applicants. Independence is stressed by office machine repairmen, electronics technicians, and business students and does not seem very important when compared to other values of teachers, school counselors, psychiatrists, psychologists, accountants or engineers.

Prestige is given most emphasis by police and fire applicants and school counselors and is least important to most technical and office workers. Management is stressed by business students and is given little stress by police and fire applicants, teachers and school counselors. Associates are valued very highly by various office and mechanical groups. Way of life is stressed by teachers, school counselors, psychologists and priests. Variety tends to be rated neither high nor low, except by Peace Corps teachers, who put relatively more emphasis on it than other groups.

Economic returns and surroundings are given moderate weight by most occupational groups. Security and supervisory relations are given little weight, compared to other values, by most groups.

Part III of the measures represents a data sheet used to record measures of cognitive achievement of students. These measures consist of grade point average from high school and class rank in high school. Even though some students may have considerable post secondary grade information, it was necessary to use high school data so that data could be comparable for all students.

It is recognized that grading practices vary from teacher to teacher and that grade point averages are therefore not a standardized measure. However, this is the cognitive criterion most consistently used for admission to higher education programs and is therefore pertinent to the question of selection of an occupation which requires college level preparation. The second measure, high school class rank, is also based on grade point averages and therefore varies from school to school. However, class rank contributes to students' self concept and therefore, perception of their ability to handle additional schooling and selection of an occupation. These measures then, were utilized because they are pertinent to the problems which this study addresses.

Treatment of Data

Hypotheses 1, 2, and 3: There will be no differences in biographical characteristics, occupational choice motives, and career aspirations between students in associate degree occupational therapy assistant programs and baccalaureate degree occupational therapist

programs. The distribution of each variable from the Student Survey was examined using contingency tables (cross-tabulation) analysis. The statistical test used was Chi-square at the .05 level of significance. The Chi-square test was chosen because both variables in the tables are measured at the nominal level.

Hypothesis 4: There will be no difference in work values between students in associate degree occupational therapy assistant programs and baccalaureate degree occupational therapist programs. The fifteen value scores from the Work Values Inventory were examined using the T-test. This test was chosen as the procedure for determining if there is a difference between the means of two independent samples. However, since it is not known if the samples are from normally distributed populations, a second test, the Mann-Whitney U, was also performed on those values which showed a significant difference on the T-test. The Mann-Whitney U test is less sensitive and more conservative than the T-test as it uses the sum of ranks of each case.

A discriminant analysis was performed on the Work Values Inventory scores to determine if these values were capable of distinguishing between COTA and OTR students. Using this procedure, linear combinations of variables can be found that maximally distinguish between cases in each category (COTA vs. OTR). Discriminant analysis is preferable to multiple regression analysis when variables are not entirely independent (Tatsuoka, 1970).

Hypothesis 5: There will be no difference in cognitive achievement between students in associate degree occupational therapy assistant programs and baccalaureate degree occupational therapist programs. The T-test and the Mann-Whitney U Tests were used with a .05 level of significance.

CHAPTER IV

RESULTS

One hundred sixty three certified occupational therapy assistant students (COTAs) and one hundred registered occupational therapy students (OTRs) were the subjects of this study. They represent students enrolled in all basic occupational therapy educational programs existing in the State of Illinois at the time this study was conducted, that is during the Fall of 1981. (See Table 1 for the breakdown of schools and years of students.)

The primary objective of the study was to examine selected characteristics of two levels of occupational therapy students. COTA students were compared with OTR students to determine if they were similar or different and the ways in which the similarities and differences were manifested. This chapter, which presents the major findings of the study, is divided into five sections. These sections present variables related to: (1) biographic characteristics, (2) occupational choice motives, (3) career aspirations, (4) work values, and (5) cognitive achievement.

BIOGRAPHIC CHARACTERISTICS

The data presented in this section include: sex, race, age, previously earned degrees, source of financial support, college bound peers, mother's and father's education and occupation.

TABLE I
STUDY POPULATION

SCHOOL	LEVEL	YEAR	N
Illinois Central College	COTA	Freshmen	12
Illinois Central College	COTA	Sophomores	10
Chicago City-wide College - Rehabilitation Institute of Chicago	COTA	Beginning Sophomores	29
Chicago City-wide College - Rehabilitation Institute of Chicago	COTA	Finishing Sophomores	19
Thornton Community College	COTA	Freshmen	64
Thorntorn Community College	COTA	Sophomores	29
University of Illinois	OTR	Juniors	52
University of Illinois	OTR	Seniors	48

Sex and Race

There was no significant difference between COTA students and OTR students in relation to their sex and race. Both groups were predominately female (see Table 2). While there tended to be somewhat more minority students in the COTA group, this difference did not reach a statistical level of significance. Both groups were predominately white (see Table 3).

Age

As might be expected, the COTA students had the highest proportion of respondents in the 19 or younger category while the OTR students had the lowest proportion in this age bracket. The OTR students had the highest proportion of respondents in the 20 - 22 category, more than twice the percentage of COTA's in this age group (see Table 4).

Previous Degree

As with age, the difference between the groups as to the number of previous degrees earned was expected; OTR students had earned more degrees than COTA students (see Table 5). A further examination of the information was made by recoding the data into three categories: (1) no degree or a degree at a lower level than granted for the present program in which the student was enrolled, e.g., COTA: none, OTR: none or associate; (2) degrees at the same level, e.g., COTA: associate, OTR: baccalaureate; and (3) degrees at a higher level e.g., COTA: baccalaureate, OTR: masters. When this comparison was made, it showed that slightly more COTA students had earned a higher level, degree but

TABLE 2

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY SEX

SEX	COTA	OTR	TOTAL
Male	13 (8.0%)	4 (4.0%)	17 (6.5%)
Female	150 (92.0%)	96 (96.0%)	246 (93.5%)
n	163	100	263

Corrected Chi-sq. = 1.02926, df = 1, Sig. = .3103

TABLE 3

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY RACE

RACE	COTA	OTR	TOTAL
White	130 (79.8%)	89 (89.0%)	219 (83.3%)
Black	27 (16.6%)	9 (9.0%)	36 (13.7%)
Hispanic	5 (3.1%)	1 (1.0%)	6 (2.3%)
Asian	1 (.6%)	1 (1.0%)	2 (.8%)
n	163	100	263

Chi- sq. = 4.51000, df = 3, Sig. = .2114

TABLE 4

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
By AGE

Age	COTA	OTR	TOTAL
19 or younger	46 (28.4%)	3 (3.0%)	49 (18.7%)
20 - 22	39 (24.1%)	53 (53.0%)	92 (35.1%)
23 - 25	24 (14.8%)	21 (21.0%)	45 (17.2%)
26 - 28	13 (8.0%)	8 (8.0%)	21 (8.0%)
29 or older	40 (24.7%)	15 (15.0%)	55 (21.0%)
n	162	100	262

Chi-sq. = 40.19852, df = 4, sig. .0001

Note: Missing cases (no answers) were not calculated in percentages or the Chi-square statistic for this variable or any that follow.

TABLE 5

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY PREVIOUSLY EARNED DEGREES

Degree	COTA	OTR	Total
None	149 (92.0%)	61 (61.0%)	210 (80.2%)
Associate	7 (4.3%)	15 (15.0%)	22 (8.4%)
Baccalaureate	6 (3.7%)	22 (22.0%)	28 (10.7%)
Masters	0	2 (2.0%)	2 (.8%)
n	162	100	262

Chi-sq. = 38.40712, df = 3, Sig. .0001

many more OTR students had already earned degrees at the same level (see Table 6).

Source of Finances

Item five of the Student Survey asked the respondents to indicate whether the five sources listed were a major source, a minor source or not a source by which they intended to finance their present education. Four of the five showed a significant difference between the two groups of students (see Table 7). Family was a major financial source for more OTR students compared with the COTA students. It was a minor source for only slightly more of the OTR students. Grants or scholarships which do not have to be repaid was a major source for more COTA students. Loans which have to be repaid sometime in the future and personal savings were major and minor sources for more OTR students. Current personal employment as a source of finances for their education failed to show a significant level of difference between the two groups.

College Bound Peers

Item six on the Student Survey asked respondents to estimate how many of their close high school friends went to college. There was a significant difference between the COTA students and the OTR students (see Table 8). Clearly, the baccalaureate students (OTR) had more college bound peers as close friends.

Parents' Education

There was a significant difference between COTA students and OTR students for both mother's and father's level of education. The COTA students had a larger proportion of parents whose highest level of

TABLE 6

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY HIGHER DEGREES EARNED

Degree	COTA	OTR	Total
None or lower level	149 (92.0%)	76 (76.0%)	225 (85.9%)
Same level	7 (4.3%)	22 (22.0%)	29 (11.1%)
Higher level	6 (3.7%)	2 (2.0%)	8 (3.0%)
n	162	100	262

Chi-sq. = 19.87, df= 2, Sig.= .001

TABLE 7

DIFFERENCE BETWEEN COTA AND OTR STUDENTS BY
SOURCES OF EDUCATIONAL FINANCES

Financial Source	COTA			OTR			Chi-sq. df = 2	Sig.
	not a source	minor source	major source	not a source	minor source	major source		
Family	72 (45.0%)	32 (20.0%)	56 (35.0%)	24 (25.3%)	25 26.3%)	46 (48.4%)	9.91568	.0070
Grants, scholarships (need not be repaid)	92 (57.9%)	12 (7.5%)	55 (34.6%)	60 (62.5%)	15 (15.6%)	21 (21.9%)	7.15256	.0280
Loans (need to be repaid	125 (79.6%)	11 (7.0%)	21 (13.4%)	39 (41.5%)	12 (12.8%)	43 (45.7%)	39.37111	.0001
Personal Savings	61 (38.1%)	54 (33.8%)	45 (28.1%)	14 (14.7%)	49 (51.6%)	32 (33.7%)	16.38695	.0003
Personal Employment	74 (47.1%)	47 (29.9%)	36 (22.9%)	47 (50.0%)	34 (36.2%)	13 (13.8%)	3.30243	.1918

Note: Number of cases differ because 'no answers' varied from 8 to 12 in each category.

TABLE 8

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY COLLEGE BOUND PEERS

% To College	COTA	OTR	Total
less than 25%	47 (28.8%)	9 (9.0%)	56 (21.3%)
25% - 49%	48 (29.4%)	15 (15.0%)	63 (24.0%)
50% - 75%	43 (26.4%)	23 (23.0%)	66 (25.1%)
more than 75%	25 (15.3%)	53 (53.0%)	78 (29.7%)
n	163	100	263

Chi-sq. = 46.77609, df = 3, Sig. .0001

education was at the elementary and high school level while more OTR students' parents had some college or college degrees. Other post secondary schooling (e.g., trade school) was about the same for both groups (refer to Tables 9 and 10).

Parents' Occupation

While more mothers of OTR students held positions in the professional, technical, managerial and the clerical, sales categories than mothers of COTA students, the differences between the two groups were not statistically significant (see Table 11). The differences between the two groups in relation to their fathers' occupation was more striking. Twice as many fathers of OTR students held professional, technical and managerial positions and almost twice as many COTA fathers held positions in the machine and structural trades (see Table 12).

The null hypothesis stated that there would be no difference between COTA students and OTR students in relation to biographic characteristics. Of the ten variables studied, seven showed significant differences between the two groups of students. These variables were: age, previously earned degrees, sources for educational finances, number of college-bound peers, mother's and father's education and father's occupation. Only sex, race and mother's occupation failed to demonstrate a significant difference between the two groups. Thus it can be seen that a majority of the data fail to support this null hypothesis and it is therefore rejected. The data shows important differences between the socioeconomic status of the two groups.

TABLE 9

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY MOTHER'S EDUCATION

Highest Level of Education	COTA	OTR	Total
Elementary school	19 (11.7%)	6 (6.0%)	25 (9.5%)
Some High School	32 (19.6%)	9 (9.0%)	41 (15.6%)
High School Graduate	66 (40.5%)	32 (32.0%)	98 (37.3%)
Postsecondary School	16 (9.8%)	9 (9.0%)	25 (9.5%)
Some College	18 (11.0%)	24 (24.0%)	42 (16.0%)
College Graduate	12 (7.4%)	20 (20.0%)	32 (12.2%)
n	163	100	263

Chi-sq. = 22.47379, df = 5, Sig. = .0004

TABLE 10

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY FATHER'S EDUCATION

Highest Level of Education	COTA	OTR	Total
Elementary School	21 (13.0%)	6 (6.0%)	27 (10.3%)
Some High School	32 (19.8%)	5 (5.0%)	37 (14.1%)
High School Graduate	52 (32.1%)	25 (25.0%)	77 (29.4%)
Postsecondary School	13 (8.0%)	10 (10.0%)	23 (8.8%)
Some College	22 (13.6%)	18 (18.0%)	40 (15.3%)
College Graduate	22 (13.6%)	36 (36.0%)	58 (22.1%)
n	162	100	262

Chi-sq. = 28.60422, df = 5, Sig. .0001

Table 11

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY MOTHER'S OCCUPATION

Occupation	COTA	OTR	Total
Professional, technical, and managerial	32 (19.9%)	29 (29.3%)	61 (23.5%)
Clerical, sales	61 (37.9%)	46 (46.5%)	107 (41.2%)
Service	34 (21.1%)	10 (10.1%)	44 (16.9%)
Farming	3 (1.9%)	1 (1.0%)	4 (1.5%)
Processing	3 (1.9%)	1 (1.0%)	4 (1.5%)
Machine	1 (.6%)	0	1 (.4%)
Bench	4 (2.5%)	1 (1.0%)	5 (1.9%)
Miscellaneous	7 (4.3%)	5 (5.1%)	12 (4.6%)
Never worked	16 (9.9%)	6 (6.1%)	22 (8.5%)
n	161	99	260

Chi-sq. = 10.85255, df = 8, Sig. = .2102

TABLE 12

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY FATHER'S OCCUPATION

Occupation	COTA	OTR	Total
Professional, technical and managerial	31 (19.5%)	43 (43.9%)	74 (28.8%)
Clerical, sales	21 (13.2%)	15 (15.3%)	36 (14.0%)
Service	10 (6.3%)	9 (9.2%)	19 (7.4%)
Farming	9 (5.7%)	2 (2.0%)	11 (4.3%)
Processing	8 (5.0%)	1 (1.0%)	9 (3.5%)
Machine	27 (17.0%)	8 (8.2%)	35 (13.6%
Bench	4 (2.5%)	0	4 (1.6%)
Structural	33 (20.8%)	12 (12.2%)	45 (17.5%)
Miscellaneous	15 (9.4%)	8 (8.2%)	23 (8.9%)
Never worked	1 (.6%)	0	1 (.4%)
n	159	98	257

Chi-sq. = 27.19576, df = 9, Sig. = .0013

OCCUPATIONAL CHOICE MOTIVES

Items nine through twelve on the Student Survey related to various aspects of occupational choice motives. There were significant differences between COTA and OTR students on the item which asked respondents how they first learned about occupational therapy. The most noteworthy difference being that most COTAs learned about it from printed literature while OTRs learned about the field from another occupational therapist or occupational therapy student (see Table 13).

The two groups also differed on their responses to the item which asked if they had had any direct contact with the field of occupational therapy before entering their educational program. More COTA students had no experience or they or their family members had received occupational therapy services, whereas more OTR students had been employed, volunteered or observed in an occupational therapy department (see Table 14). This data is somewhat biased because of the fact that one of the requirements for admission to the OTR program is to spend at least eight hours observing in an O.T. department. This pre-admission experience requirement may also be satisfied by doing volunteer or paid employment in an O.T. department. However, it is noteworthy that the greater involvement (i.e., volunteering or working) even though not required, is still a much more frequent occurence in the OTR group than the COTA group (64.6% vs 10.5%).

The item which asked who was most influential in their decision to go into occupational therapy failed to reveal any significant

TABLE 13

DIFFERENCE BETWEEN COTA AND OTR STUDENTS BY HOW THEY FIRST LEARNED ABOUT O.T.

How learned	COTA	OTR	Total
Radio, T.V., Films	2 (1.2%)	0	2 (.8%)
Printed Literature	49 (30.2%)	17 (17.2%)	66 (25.3%)
Career Days	12 (7.4%)	5 (5.1%)	17 (25.3%)
School Counselor	18 (11.1%)	10 (10.1%)	28 (10.7%)
Family Member (not an O.T.)	18 (11.1%)	10 (10.1%)	28 (10.7%)
Family (O.T.)	1 (.6%)	3 (3.0%)	4 (1.5%)
O.T. or O.T. Student (not related)	21 (13.0%)	28 (28.3%)	49 (18.8%)
Other	41 (25.3%)	26 (26.3%)	67 (25.7%)
n	162	99	261

Chi- sq. = 16.05571, df = 7, Sig. = .0246

TABLE 14

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY PREVIOUS EXPERIENCE WITH O.T.

Experience	COTA	OTR	TOTAL
None	99 (61.1%)	10 (10.4%)	109 (42.2%)
Self Received O.T.	8 (4.9%)	0	8 (3.1%)
Family Member Received O.T.	11 (6.8%)	2 (2.1%)	13 (5.0%)
Employed in an O.T. Department	7 (4.3%)	19 (19.8%)	26 (10.1%)
Volunteer in an O.T. Department	10 (6.2%)	43 (44.8%)	53 (20.5%)
Observed in an O.T. Department	16 (9.9%)	17 (17.7%)	33 (12.8%)
Other	11 (6.8%)	5 (5.2%)	16 (6.2%)
n	162	96	258

Chi-sq. = 105.27171, df = 6, Sig. .0001

differences between the two groups. Both COTAs and OTRs indicated themselves as being most influential (see Table 15).

Item twelve listed fifteen reasons that influence people in their choice of a career and asked if each was very important, somewhat important or not important to the respondent in deciding on O.T. as a career. There was a difference on only three of the fifteen reasons listed. Low pressure job was not an important reason for more OTR students. Leadership possibilities and a great deal of independence was more often a very important reason for the OTR students (see Table 16).

The null hypothesis stated that there would be no difference in occupational choice motives between COTA and OTR students. There was a significant difference in the way the two groups first learned about O.T. Differences also emerged as to previous experience which the students had in the field before entering their respective educational programs. No difference appeared to exist in who influenced their decision to go into occupational therapy. Regarding the reasons which were important in their decision to choose an occupational therapy career, only three of the fifteen variables showed a significant difference between the two groups. Since the results were mixed on occupational choice motives, the hypothesis cannot be unequivocally rejected.

CAREER ASPIRATIONS

Data on the subjects' career aspirations were obtained from two

TABLE 15

DIFFERENCE BETWEEN COTA AND OTR STUDENTS BY
WHO WAS INFLUENTIAL IN DECISION TO GO INTO O.T.

Most Influential Person	COTA	OTR	Total
Mother	11 (6.8%)	5 (5.1%)	16 (6.2%)
Father	2 (1.2%)	0	2 (.8%)
Other Relative	7 (4.3%)	6 (6.1%)	13 (5.0%)
Friend	14 (8.7%)	8 (8.1%)	22 (8.5%)
Teacher, Counselor	5 (3.1%)	1 (1.0%)	6 (2.3%)
Self	116 (72.0%)	78 (78.8%)	194 (74.6%)
Other	6 (3.7%)	1 (1.0%)	7 (2.7%)
n	161	99	260

Chi-sq. = 5.15308, df = 6, Sig. = .5243

TABLE 16

DIFFERENCE BETWEEN COTA AND OTR STUDENTS BY
REASONS WHICH INFLUENCED DECISION TO GO INTO O.T.

Reason	COTA			OTR			Chi-sq.	
	not imp.	somewhat imp.	very imp.	not imp.	somewhat imp.	very imp.	df = 2	Sig.
Subjects Interesting	11 (6.7%)	57 (35.0%)	95 (58.3%)	11 (11.2%)	28 (28.6%)	59 (60.2%)	2.26227	.3227
Jobs Available	11 (6.8%)	54 (33.3%)	97 (59.9%)	3 (3.0%)	38 (38.4%)	58 (58.6%)	2.08131	.3532
Respected Occupation	31 (19.0%)	78 (47.9%)	54 (33.1%)	16 (16.5%)	55 (26.8%)	26 (26.8%)	1.93555	.3799
Low Pressure Job	85 (52.5%)	61 (37.7%)	16 (9.9%)	69 (69.7%)	28 (28.3%)	2 (2.0%)	10.17300	.0062
High Earnings	49 (30.2%)	92 (56.8%)	21 (13.0%)	36 (36.7%)	54 (55.1%)	8 (8.2%)	2.07831	.3538
Rapid Career Advance	45 (27.8%)	79 (48.8%)	38 (23.5%)	26 (26.5%)	52 (53.1%)	20 (20.4%)	.51282	.7738
Leadership Possible	32 (19.8%)	87 (53.7%)	43 (26.5%)	11 (11.2%)	41 (41.8%)	46 (46.9%)	11.85251	.0027

Table 16 continued on next page

TABLE 16 (continued)

Reason	COTA not imp.	COTA somewhat imp.	COTA very imp.	OTR not imp.	OTR somewhat imp.	OTR very imp.	Chi-sq. df = 2	Sig.
Work With People	1 (.6%)	11 (6.7%)	151 (92.6%)	0	3 (3.0%)	96 (97.0%)	2.32344	.3129
Work With Ideas	3 (1.8%)	31 (19.0%)	129 (79.1%)	1 (1.0%)	16 (16.3%)	81 (82.7%)	.60867	.7376
Health Care Field	3 (1.8%)	16 (9.8%)	144 (88.3%)	3 (3.0%)	14 (14.0%)	83 (83.0%)	1.52145	.4673
Originality/Creativity	5 (3.1%)	40 (24.5%)	118 (72.4%)	3 (3.0%)	18 (18.2%)	78 (78.8%)	1.46172	.4815
Independence	10 (6.2%)	88 (54.3%)	64 (39.5%)	3 (3.0%)	36 (36.4%)	60 (60.6%)	11.14730	.0038
Contribute to Society	5 (3.1%)	35 (21.6%)	122 (75.3%)	3 (3.0%)	29 (29.3%)	67 (67.7%)	1.97603	.3723
Helpful To Others	1 (.6%)	7 (4.3%)	155 (95.1%)	0	7 (7.1%)	92 (92.9%)	1.52631	.4662
Interesting/Challenging	0	7 (4.3%)	156 (95.7%)	0	10 (10.0%)	90 (90.0%)	2.45999[a]	.1168

[a] df = 1 because no cases in the not imp. cell
Note: Number of cases differ because 'no answers' varied from 0 to 3 in each category.

items of the Student Survey. These questions were what their intended primary role would be in five years and what goals were important to have accomplished before they left the field of occupational therapy. There was a significant difference between the two groups in several responses having to do with intended role. Most noteable were: 63.5% of the COTA students intended that their primary role would be treating patients whereas only 49% of the OTR students intended it to be; 21.4% of the OTRs intended to be managing departments in contrast to only 7.5% of the COTAs; 8.2% of the OTRs intended to be acting as consultant as opposed to 4.4% of the COTAs. There was also a large contrast in the respondents who were undecided as to their primary role in five years: 15.1 of the COTA students and only 7.1% of the OTR students (refer to Table 17).

Differences also surfaced between the two groups on seven of the possible responses having to do with goals the respondents considered important for themselves before they left the field of O.T. Supervising the work of others, heading an O.T. department, writing books or journal articles, teaching O.T. students, being a consultant, and going into private practice were selected by significantly more OTR students than COTA students. Creating artistic works was selected by significantly more COTA students than OTR students. Although other goals were selected more frequently by one of the other group (e.g. becoming active in the national professional organization: 20.2% of the COTAs and 32% of the OTRs), the remaining seven goals and the 'other' category failed to reach the level of statistical significance (refer to Table 18).

TABLE 17

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY INTENDED PRIMARY ROLE IN FIVE YEARS

Role	COTA	OTR	TOTAL
Not Working	3 (1.9%)	2 (2.0%)	5 (1.9%)
Working in an Occupation Other Than O.T.	3 (1.9%)	4 (4.1%)	7 (2.7%)
Working in O.T.:			
Treating Patients	101 (63.5%)	48 (49.0%)	149 (58.0%)
Teaching Students (Academic)	5 (3.1%)	2 (2.0%)	7 (2.7%)
Managing a Department	12 (7.5%)	21 (21.4%)	33 (12.8%)
Acting as a Consultant	7 (4.4%)	8 (8.2%)	15 (5.8%)
Doing Research	2 (1.3%)	2 (2.0%)	4 (1.6%)
Other	2 (1.3%)	4 (4.1%)	6 (2.3%)
Undecided	24 (15.1%)	7 (7.1%)	31 (12.1%)
n	159	98	257

Chi-sq. = 19.61797, df = 8 , Sig. = .0119

TABLE 18

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY IMPORTANT GOALS TO ACCOMPLISH

Goal	COTA	OTR	Chi-sq.[a]	Sig.
Becoming an Expert	119 (73.0%)	77 (77.0%)	.33160	.5647
Recognition from Colleagues	46 (28.2%)	30 (30.0%)	.02852	.8659
Supervising Others	41 (25.2%)	52 (52.0%)	18.38605	.0001
Head an O.T. Department	44 (27.0%)	52 (52.0%)	15.65900	.0001
Make a Theoretical Contribution	52 (31.9%)	29 (29.0%)	.12764	.7209
Creating Artistic Works	61 (37.4%)	19 (19.0%)	9.08750	.0026
Doing Research	52 (31.9%)	39 (39.0%)	1.08410	.2978
Writing Books or Journal Articles	10 (6.1%)	29 (29.0%)	23.87666	.0001
Officer, State Professional Organization	12 (7.4%)	9 (9.0%)	.05829	.8092
Active, National Professional Organization	33 (20.2%)	31 (31.0%)	3.33095	.0680
Peace Corps, etc.	19 (11.7%)	11 (11.0%)	.0	1.0000
Teaching O.T. Students	30 (18.4%)	37 (37.0%)	10.32959	.0013
Consulting	42 (25.8%)	42 (42.0%)	6.78483	.0092
Private Practice	39 (23.9%)	40 (40.0%)	6.87382	.0087
Other	12 (7.4%)	2 (2.0%)	2.55172	.1102
n	163	100		

[a] All Chi-square statistics are corrected and all degrees of freedom = 1.

The null hypothesis stated that there would be no difference in career aspirations between COTA and OTR students. The responses to the intended primary role in five years question showed a significant difference between the two groups and half of the very important career goals were significantly different for the two groups. Therefore, the data failed to support the null hypothesis and it is rejected.

Both groups of students were asked if they had considered entering the educational program for the other level before enrolling in the one they were in presently. The first option for both levels was that they did not know about the other level program (19.6% of the COTAs and 21% of the OTRs indicated that they did not). None of the COTAs indicated that they had been in an OTR program previously. Ten OTRs had been in COTA programs, eight having completed the program and practiced as a COTA for varying lengths of time. The other options for this question differed for the two separate forms given to the two groups (see Tables 19 and 20 for complete results).

Only the COTAs students were asked if they intended to become an OTR at some future time. Nearly three fourths of the respondents indicated that they did (see Table 21).

WORK VALUES

Four COTA and four OTR students did not complete the entire Work Values Inventory. In each case, they failed to answer any item on the second page and were therefore eliminated from the statistical computations for this variable.

TABLE 19

COTA STUDENT RESPONSES:
CONSIDERED ENTERING OTR PROGRAM

Response	Frequency	Percent
Did not know about it	32	19.6%
Knew about it but decided against because:		
wanted assistant level type work	10	6.1%
did not want to go to school for 4 years	11	6.7%
couldn't afford 4 years of schooling	28	17.2%
OTR program too difficult	1	.6%
see if like O.T. before invest time & money	25	15.3%
could start working sooner	3	1.8%
could not get in because admissions limited	3	1.8%
too many prerequisite courses	0	0
could always go on later if wanted	26	16.0%
not available where wanted to go to school	12	7.4%
encouraged by others	5	3.1%
friends entering this kind of program/school	0	0
other	4	2.5%
Was in OTR program previously but left	0	0
No answer or multiple responses	3	1.8%
n	163	

TABLE 20

OTR STUDENT RESPONSES:
CONSIDERED ENTERING COTA PROGRAM

Response	Frequency	Percent
Did not know about it	21	21%
Knew about it but decided against because:		
wanted baccalaureate degree	14	14%
not available where wanted to go to school	0	0
better opportunity for advancement	10	10%
wanted more responsibility/status	15	15%
better salary	0	0
kind of job	24	24%
encouraged by others	1	1%
friends entering this kind of program/school	0	0
other	0	0
Was in COTA program previously:		
but did not complete	1	1%
but never practiced	1	1%
and practiced for 2 years or less	2	2%
and practiced more than 2, less than 5	4	4%
and practiced 5 years or more	2	2%
No answer or multiple responses	5	5%
n	100	

TABLE 21

COTA STUDENT RESPONSES:
INTEND BECOMING OTR IN FUTURE

Response	Frequency	Percent
Never thought about it	18	11.0%
No	23	14.1%
Yes, upon completion	17	10.4%
Yes, within 5 years	25	15.3%
Yes, undecided when	76	46.6%
No answer or multiple responses	4	2.5%
n	163	

Of the fifteen values represented in the Work Values Inventory, nine scores were statistically different between the COTA and OTR students using both the T-Test and the Mann-Whitney U Test (see Table 22). COTA students 'means were significantly higher then the OTRs' for achievement, surroundings, supervisory, security, and esthetics. OTR students' means were significantly higher than COTAs' for way of life, independence, variety and intellectual stimulation.

A discriminant analysis was also performed on the Work Values Inventory data. For this procedure, a random sample of 20% of the subjects in each subfile (e.g., freshmen from each of the selected colleges, etc.) or a total of fifty cases were removed from the data base and reserved for later testing of the classification. The remaining 205 cases were used for the original discriminant analysis.

The results of this analysis showed that eight values were used in a step-wise fashion to discriminate between the COTA and OTR students. They were (in order of their contribution to distinguishing between the two groups): independence, supervisory, way of life, surroundings, achievement, variety, esthetics and associates. This analysis correctly classified 76.1% of the cases. In order to test the true discriminating ability of these values the fifty cases that were removed from the group and which were not included in the original analysis were then processed using the coefficients from the original analysis. This procedure correctly classified 82% of the cases (results of both analyses are found in Table 23).

TABLE 22

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY WORK VALUES

Value	COTA		OTR		T-Test	Mann-Whitney
	mean	sd	mean	sd	p	U Test P
Creativity	12.21	1.75	12.50	1.78	.200	
Management	9.38	2.24	9.81	2.34	.141	
Achievement	14.01	1.32	13.32	1.77	.001	.0012
Surroundings	12.42	1.94	11.31	2.35	.001	.0003
Supervisory Relationships	12.87	2.13	11.58	2.76	.001	.0002
Way of Life	13.48	1.62	13.90	1.53	.046	.0203
Security	12.49	2.21	11.47	2.53	.001	.0014
Associates	10.64	2.00	10.62	1.83	.914	
Esthetics	9.66	2.63	8.68	2.44	.003	.0014
Prestige	11.10	2.26	10.90	2.15	.476	
Independence	11.12	2.11	12.39	1.68	.001	.0001
Variety	12.09	1.74	12.73	1.87	.007	.0044
Economic Return	12.17	2.20	11.81	2.26	.215	
Altruism	14.50	1.24	14.31	1.28	.257	
Intellectual Stimulation	12.09	1.77	12.63	2.00	.026	.0061
n	159		96			

TABLE 23

CLASSIFICATION RESULTS OF DISCRIMINANT ANALYSIS
WORK VALUES

	ACTUAL GROUP Membership	n	Predicted Group Membership COTA	OTR	Total Corrected
Original Analysis	COTA	128	110 (85.9%)	18 (14.1%)	156 (76.1%)
	OTR	77	31 (40.3%)	46 (59.7%)	
Test Analysis	COTA	31	25 (81.0%)	6 (19.0%)	41 (82.0%)
	OTR	19	3 (16.0%)	16 (84.0%)	

The null hypothesis stated that there would be no difference in work values between COTA and OTR students. Of the fifteen values included in the Work Values Inventory, nine showed a statistical difference between the two groups. Further, a discriminant analysis was able to classify 76.10% of the cases in the original analysis and in 82% in the test analysis. Thus, the data fail to support the null hypothesis and it is rejected.

COGNITIVE ACHIEVEMENT

The data gathered for the cognitive achievement variable were anticipated to be less than desirable and, as the data gathering phase of the study progressed, it became even more apparent that obtaining valid information would be difficult. High school grade point averages and class ranks were selected as the only comparable data available for all students in the study, and it was to be obtained from school records. Not all schools had this information in their records and, even when it was present, it may have been supplied by the student upon admission rather than from high school transcripts. The investigator therefore asked subjects to supply their high school GPA and class rank when they completed the questionnaires. It was obvious that many respondents did not have exact recall and estimated the numbers or, in many cases, omitted reporting them.

Information regarding high school GPA and class rank is therefore, frequently missing, or if present, maybe the result of either student recall or from school transcripts. Since the data are somewhat

questionable, little credence can be given to the findings on these two variables. Both measures of cognitive achievement were significantly lower for the COTA students than for the OTR students (see Table 24).

SUMMARY OF THE FINDINGS

The findings of the study show that COTA students differ from OTR students in many ways. The most outstanding differences seem to be in the areas of career aspirations and work values. More than half of the OTR students indicated they had career goals of supervising others and managing O.T. departments as compared to approximately a quarter of the COTA students (significant at the .0001 level). Writing, teaching, consulting and private practice were also chosen more frequently by OTR students (significant at the .01 level). The work values of independence, variety, and intellectual stimulation and way of life were valued more by OTR students(at the .01 level of significance), while achievement, surroundings, supervisory relationships, security and esthetics were more valued by COTA students (at the .01 level of significance). These values were sufficiently characteristic of the two groups that 82% of a test group of fifty subjects could be correctly categorized using them.

Differences in the characteristics of friends and family of the two groups were also outstanding. College-bound peers were more numerous for OTRs (significant at the .0001 level); more than 50% of the OTRs indicated that 75% or more of their close high school friends went

TABLE 24

DIFFERENCE BETWEEN COTA AND OTR STUDENTS
BY COGNITIVE ACHIEVEMENT

Measure	COTA			OTR			T-Test	Mann-Whitney
	n	mean	sd	n	mean	sd	P	U Test P
H.S. GPA	109	2.8415	.521	48	3.1327	.450	.001	.0002
H.S. Class Rank	75	66.6533	22.267	94	77.6064	19.047	.001	.0006

NOTE: GPA is figured on a 4 point scale (i.e., A = 4)

NOTE: The number of cases for COTA and OTR should be 163 and 100 respectively; because of the paucity of responses and the widely varying sources of data, the statistics are questionable.

on to college as contrasted with only 15% of the COTAs. The differences between mother's and father's education and father's occupation was significant at the .01 level. Only 18% of the COTA students' mothers had some college education or were college graduates compared to 44% of the OTR students' mothers. Similarly, 27% of COTA students' fathers had some college education or were college graduates as compared to 54% of OTR students' fathers. Forty-four percent of the OTR fathers' occupations were in the professional, technical or managerial arenas as compared to only 20% of the COTA students' fathers. The trend was similar, though less remarkable for the occupation of the subjects' mothers, 29% of the OTRs vs 20% of the COTAs.

Also noteworthy were the differences in the sources of financing their education three sources were significant at the .01 level and one at the .05 level; COTA students relying more heavily on grants and scholarships that need not be repaid in contrast to OTR students relying more on family, loans that have to be repaid and personal savings. Significant differences also existed in how the subjects first learned about O.T. (at the .05 level) and their experience in the field before entering their educational programs (at the .0001 level). Though only three reasons for going into O.T. reached a .01 level of significance, they were important. COTAs selected 'low pressure job' as somewhat or very important more often than OTRs and OTRs selected 'leadership possibilities' and 'great deal of independence' more often than COTAs.

Intended primary role in five years reached the .05 level of significance. While 'treating patients' was the most commonly selected

primary role in five years by both COTA and OTR students, the COTAs selected it in greater numbers. Their second most frequent choice was 'undecided' as compared to 'manage an O.T. department' for OTR students.

Age and previously earned degrees showed significant differences but were in the expected direction. The quality of the data intended to determine cognitive achievement was such that validity of the results are questionable. Findings on other variables failed to reach statistical significance.

CHAPTER V

DISCUSSION OF FINDINGS

The principle objective of this study was to examine characteristics of the two level of students in occupational therapy to determine if they are similar or different and the ways in which the differences are manifest. This chapter examines the findings presented in Chapter IV in six sections. These sections deal with variables related to: (1) biographical characteristics, (2) occupational choice motives, (3) career aspirations, (4) work values and (5) cognitive achievement. An additional section will discuss: (6) COTA students who indicated that they intend to become OTRs as contrasted with those who indicate that they do not intend to do so.

BIOGRAPHIC CHARACTERISTICS

The two levels of occupational therapy students, COTAs and OTRs, are quite different with respect to biographical characteristics examined in this study. Most remarkable is the difference in the key persons which theorists say are influential in career choice. Half or more of the close high school friends of 75% of the OTR level students went to college as compared to just over 40% of the COTA students. Likewise, mothers of 44% of the OTRs and fathers of 54% of the OTRs had some college education or a college degree as compared to less than 20% of the COTAs' mothers and less than 30% of the COTAs' fathers. The

influence and role modeling of peers and parents would seem to be a powerful influence on the student's choice of level within the occupational therapy field. The difference is also quite striking in the occupations of the parents though more so in the case of fathers than mothers. Almost 44% of OTRs' fathers hold positions in the professional, technical and managerial fields whereas less than 20% of the COTAs' fathers do. Similarly almost 30% of the OTRs' mothers, as compared to about 20% of the COTAs' mothers, are in professional, technical and managerial positions. Many more of the mothers of both levels of students hold clerical or sales positions (46% and 37% respectively).

In addition to the apparent valuing and modeling inherent in the parents' education and occupation cited above, it appears that parents of OTR students are also more able to give material support to their children was well. Family was a major or minor source of educational finances for nearly 75% of the OTR students but only 55% of the COTA students. Personal savings was either a major or minor support source for 85% of OTR students. Current personal employment was only slightly more often a source of support for COTA students. Grants or scholarships that need not be repaid were a major source for educational finance for more COTA students and a minor source for more OTR students. However, loans that need to be repaid in the future were a much more utilized source for educational funds for the OTR students. It is not known if this is due to availability, a value orientation or the feeling

that the professional level student had more hope of repaying such loans from their higher earnings once they had embarked on their careers.

The other two variables which showed significant difference between the two groups were age and previous degrees. Some of the difference in the age of the two groups is as expected given their present year in school: more 19 years or younger students in the COTA group and more 20 to 22 years olds in the OTR group. However, the proportion of students in the age group that would be expected if they continued immediately to college following high school is quite different for the two groups - 28% for COTAs and 56% for the OTRs. There is also a larger proportion of 29 years or older students in the COTA group - 24% COTAs vs. 15% OTRs. Thus, while individuals who are entering O.T. assistant programs are younger than they were when formal training programs were established more than 20 years ago, there are still many individuals who apparently delay entering educational programs for one reason or another. Considering the data regarding financial resources, one possible reason could be the need to work in order to partially finance one's own education.

There was a significant difference between the two groups in the number of students who have previously earned degrees. Thirty-nine precent of the OTRs had degrees as contrasted to 8% of the COTAs. An interesting phenomenon can be observed, however, when the data is recoded into the degrees earned at the lower, same or higher levels than the degree awarded for the program in which the student is presently enrolled. Twenty-four percent of OTR students have already earned degrees at the same or higher level as opposed to 8% of the COTAs.

Again, the contributing reasons are not known but it may be that some of the COTA group are working before entering the program, while some of the OTR group are going to school in different types of educational programs. This is in keeping with Ginzberg's (1951) findings that lower working class individuals explored and tested interests and abilities in their early working years as contrasted to upper middle class individuals who did their exploring by taking different types of subjects in school.

The differences in the sex and race composition of the two groups are not statistically different. While there are slightly more males and non-white students in the COTA programs, both groups are predominately female (93.5%) and white (83.3%). Efforts to recruit and retain males and minorities have not been effective if evidence from this study is indicative of the nationwide O.T. student population.

OCCUPATIONAL CHOICE MOTIVES

The way in which the two groups of students first learned about the field is, in general, similar to the findings of Pickett (1962). Personal contact with a relative, friend, therapist, O.T. student or counselor was most often the source of information about the field. However, the magnitude of that frequency is quite different for the students in this study. While printed literature was cited by only 6.5% of the subjects in Pickett's study, it was cited by 30% of the COTAs and 17.2% of the OTRs in this study. The fact that many more COTA students

first learned about O.T. through printed literature than did OTRs and more OTR students first learned about it through other therapists or O.T. students may reflect less access to members (or aspiring members) of the profession by the COTA students.

This survey item was the only one in which a substantial number of respondents (approximately 25%) chose "other" as their response. Some of those who did, evidently wished to clarify more specifically their source of information, e.g., college catalog, high school teacher who was a quadriplegicand a social worker. A majority of the "other" responses for both COTAs and OTRs were divided among three main categories: (1) work/volunteer experiences in a health care setting, (2) people in other health related fields, and (3) experience with O.T. either directly receiving it as a patient or indirectly by having a family member or friend receiving it.

These data, though not as extreme as Pickett's, still point to the fact that most prospective recruits to the field become interested through personal contact with an O.T. and O.T. students, or personal contact with a member of another health care profession. While the percentage of students who first learn about O.T. through printed literature has increased, it is not known if this is a result of increased availability of relevant literature or some unidentified variable in the two populations. It could be speculated that concerted effort by AOTA in recent years to increase the visibility of the profession has been effective in making known the existence and merits of the profession to potential recruits.

The study also showed a very large difference between the two groups in the amount and character of direct previous experience with O.T. before entering educational programs. As explained in Chapter IV, these results were biased by the pre-admission experience requirement for admission to the OTR program. There were also nine COTAs enrolled in the OTR program who would have had previous experience in the field. These individuals would account for some of the differences between the two groups in the number of individuals who worked in O.T. departments previous to enrolling in the educational program. There remains, however, the large difference in the category of volunteering (6.2% for COTAs vs. 44.8% for OTRs). Again it is not known if this is due to the ability of the OTR level student to avail themselves of non-paid commitment of time, a value orientation or a greater interest in exploring first hand possible occupations and/or levels within a particular occupation.

An attempt was made to identify who was most influential in the students' decision to go into O.T. but little useful information was gained. Seventy-four percent of the students selected themselves. It seems apparent that the respondents were considering the specific decision and felt that they, themselves, had made it.

Regarding the reasons which influenced their decision to go into O.T. both COTAs and OTRs overwhelmingly indicated that very important to their decision was the chance to work with people, to be helpful to others and that the work seemed interesting and challenging. This supports the findings of previous surveys. (Holmstrom, 1975; Pickett,

1962). Also very important to both the OTR and COTA students in this study were: chance to work with ideas, that it was in the health care field, and that there were opportunities for originality and creativity. Low pressure job, high earnings and rapid career advancement were not important to their decisions. This may have been either because these attributes are not desirable to the students or that these attributes are not seen as inherent in O.T.

The three reasons on which the two groups differed significantly were: low pressure job (9.9% COTAs vs. 2% OTRs), leadership possible (46.9% OTRs vs. 26.5% COTAs) and independence (60.6% OTRs vs. 39.5% COTAs). It appears that the students have realistic notions of the responsibility involved in the two levels.

From this information it appears that both levels of students selected the profession for the same reasons - it is a challenging position in which they can work with people and be helpful to others. The few differences may suggest perceived differences in leadership roles.

CAREER ASPIRATIONS

Very few students at either level see O.T. as a stepping stone to some other endeavor as evidenced by the very small number (less than 5%) who indicated that in five years they intended to be not working, or working in another occupation. This seems to support Bailey's (1968) conclusion that students' decisions to pursue an O.T. career were made somewhat later than students in other fields but, once made, they are

very committed. There was a contrast between the two groups in that more COTAs (15% vs. 7%) were undecided as to what their primary role would be. One could surmise that this may be due in part to the greater number of COTAs who had no direct experience in O.T. before enrolling in the educational program.

Of the more than 80% in both groups who intended to be working in O.T. in five years, a greater proportion (63.5% vs 49%) of COTAs chose treating patients as their primary role. Managing a department was the distant second choice for both levels but almost three times as many OTRs (21.4% vs 7.5%) selected this option. The "other" responses to this question were few but very interesting in their differences between the two groups. Two COTAs indicated that they intended to become OTRs, one of the OTRs intended to be getting an advanced degree and the other three OTRs indicated they planned to own and operate their own treatment centers.

The responses to the question regarding career goals was similar to the finding of Holmstrom (1975) in that 73.7% of COTAs and 77% of OTRs selected becoming an expert in a special area of practice. The proportion of the other responses was quite different, from Holmstrom's finding both in rank order and magnitude of selection. There were significant differences between the two groups in this study for half of the options listed: writing books or journal articles (6.1% of COTAs vs. 29% of OTRs), supervising others (25.2% of COTAs vs. 52% of OTRs), heading an O.T. department (27% of COTAs vs. 52% of OTRs), teaching (18.4% of COTAs vs. 37% of OTRs), consulting (25.8% of COTAs vs. 42% of

OTRs), private practice (23.9% of COTAs vs. 40% of OTRs), and creating artistic works (37.4% of COTAs vs. 19% of OTRs).

By examining more closely the responses of each group, an interesting phenomenon comes to light, that is, the relatively lower proportion of COTAs who selected any of the responses. Other than "becoming an expert," no other response was selected by more than 40% of the COTAs and only eight goals were selected by 25% or more as compared to eleven goals selected by 25% or more of the OTRs. These goals are those generally associated with a profession and it could be that COTAs do not see them as attainable or appropriate goals for themselves or the COTA level.

It is also interesting to contrast the magnitude of responses from the question relating to primary role in five years and the comparable career goals responses. There are much higher proportions of students in both groups who selected career goals of managing a department, teaching, consulting and doing research. What might seem like an inconsistency at first is probably a very realistic estimate that these goals are attained after more than five years of experience in the field.

In an attempt to find out why the students chose the level of educational program that they did, it was disconcerting to find that approximately 20% of both groups did not even know about the existence of the other level. This means that they could not have made a fully informed decision in this respect.

Only 6% of the COTA students said they wanted to do assistant level type of work and 31% indicated that they wanted to see what O.T. was like first or that they could always go on to become an OTR later. The remaining 63% indicated some type of outside influence or constraint, e.g., financial, as the reason. These responses would seem to indicate that for the vast majority of COTAs the decision was either out of their hands or they were employing a preliminary, fact finding tactic by selecting the assistant level program. This was born out in their responses to the question about their intention of going on to become an OTR; more than 72% indicated that they intended to become an OTR and only 14% said they did not intend to do so.

Ten percent of the OTR students had previously been in COTA programs. The responses of the remainder were much more positively slanted in that most of them wanted the kind of job or status that the OTR level provides.

WORK VALUES

The results from the Work Values Inventory yielded many interesting findings about both levels of occupational therapy students.

Both levels of students as a whole scored items which were indicative of altruism higher than any of the other work values. This tendency is consistent with other studies which have shown that contributing to the welfare of others is a highly valued goal of therapy students in general and occupational therapy students in particular (Holmstrom 1975).

The O.T. students scored high on achievement or work which gives one a feeling of accomplishment in doing a job well. Holmstrom (1975) also found this true of subjects in her study. While both levels of students indicated a very positive preference for work with visible, tangible results, the COTAs scored significantly higher than the OTRs. The way of life value which permits one to live the kind of life he chooses and to be the type of person he chooses, was rated very high by both groups. However, OTRs had a significantly higher score that COTAs. Super (1970a) states that this value means different things to different groups and therefore is difficult to compare specifically between groups.

Although the OTRs gave creativity more importance than the COTAs, the difference was not significant. Super (1970a) reported that the creativity value, which is associated with designing or developing new things or ideas, was related to artistic and scientific interests on the Strong and Kuder Inventories. This fits very well with peoples' notions that occupational therapy combines artistic and scientific interests in helping others to help themselves. Super also reported this value particularly in Peace Corps teachers, electronic technicians and other self-expressive occupations as contrasted with time-serving occupations. The OTRs scored significantly higher on variety and intellectual stimulation than the COTAs. Since Super describes intellectual stimulation as associated with work which provides opportunity for independent thinking and for learning how and why things work and for exercising one's judgement, it can be argued that these results match

very well the two levels in O.T. The COTA courses generally do not devote as much time to teaching the theoretical underpinnings of the techniques used in the field. Also, COTAs generally are expected to work under the supervision of OTRs and are restricted as to the interpretation of evaluative findings and the planning of treatment for clients. According to Super, variety reflects a pleasure rather than a task orientation and relates to the opportunity to do different types of jobs. While the O.T. field as a whole provides a wide range of jobs and tasks, COTAs are more limited than OTRs as to the different responsibilities and tasks that are normally allotted to them.

On two other values, management and independence, the OTRs scored significantly higher on independence than the COTAs. Because of this difference it is interesting to note the difference between the two values; management is associated with work which permits one to plan and lay out work for others to do, whereas independence is work which permits one to work in his own way. Management was the lowest or second lowest scored value; only esthetics was valued less by the OTRs.

The remaining four values, surroundings, security, supervisory relationships and esthetics, were scored significantly higher by the COTAs than by the OTRs. Concern for the extrinsic values is apparently of more concern to the COTA students than to the OTR students.

Thus, it can be seen that there are some striking differences between the two O.T. groups. After altruism, achievement and way of life, which both groups value very highly, the OTRs give relatively high value to variety and intellectual stimulation as contrasted to COTAs who

value highly supervisory relationships and security. Both groups are low on prestige, associates, management and esthetics but differ in that COTAs give relatively low value to independence and OTRs to surroundings. The OTR group seems to be very similar to Super's Peace Corps Teacher subjects who seek to serve others in unusual ways, and who value variety and intellectual stimulation rather than supervisory relations and associates. COTAs share a number of values characteristics of skilled or semi-skilled workers (e.g., supervisory relationships, security). This would seem to fit in with their holding a lower level position in a helping profession.

COGNITIVE ACHIEVEMENT

The data regarding cognitive achievement were questionable and it can only be said that, given the data available in this study, it appears that the OTR students have significantly higher high school grade point averages and class ranks than the COTAs. It appears from the responses to the question relating to the COTA students considering going into an OTR program that these lower grades were not of particular concern since only one COTA indicated that the program would be too difficult and only three were concerned about limited admissions to the OTR program. Further, in responses to the question that asked if they intended to become an OTR at some future time, 75% indicated that they did.

COTAS WHO WANT TO BECOME OTRS

Additional reorganization of the data was performed to determine if the COTA students who indicated they they wanted to become OTRs were different from the COTA students who indicated that they do not, or if they were more similar to the OTR students. First COTAs were re-categorized into three groups: (1) those who do not want to become OTRs, (2) those who want to become OTRs immediately or within five years, and (3) those who want to become OTRs but are undecided as to when. There were significant differences on several important variables. Since the COTAs who want to become OTRs immediately or within five years differed from the COTAs who want to become OTRs but are undecided as to when, it was surmised that perhaps the latter group was not as committed to the goal (as evidenced by their less definite response). Therefore, the COTAs who want to become OTRs immediately or within five years were used for comparison.

The data were then recoded and the three groups (COTAs who do not want to become OTRs, COTAs who do, and OTRs) were compared employing the crosstabulation procedure using the Chi-square statistic at the .05 level of significance. Twenty-five of the forty-nine variables from the student survey showed significant differences between the groups. Rather than being more similar to one or another of the two groups on these variables, they were different from both. The COTAs who want to be OTRs have a higher proportion of blacks, older students, reliance on grants or scholarships which do not need to be repaid, fathers with lower educational attainment, mothers with professional, technical or

managerial occupations, fathers in the structural trades, relatives who influenced their decision to go into O.T., low pressure job and high earnings as important reasons for going into O.T., career goals of research, being an officer in the state association, being active in the national association and private practice. They had lower proportion of reliance on family and personal savings for educational financing, college-bound peers, fathers in professional, technical and managerial occupations. They scored part-way between the other two groups in the proportion that relied on loans that need to be repaid, previous degrees earned and career goals of supervising others, heading a department, writing, teaching and consulting.

Work values of the COTAs who want to become OTRs were compared with COTAs who do not want to become OTRs. Using T-Tests, there were significant differences on only three values. The COTAs who want to become OTRS scored higher on associates, prestige and altruism . The group was also compared with OTRs and ten values were significantly different. The COTAs who want to become OTRs scored higher on the following values: achievement, surroundings, supervisory relationships, security, prestige, economic return and altruism. They also had lower high school GPAs and class ranks.

Thus it seems that COTAs who want to become OTRs are unique from both the other groups in many demographic and career aspiration variables but they are more like COTAs who do not want to become OTRs on work values and cognitive achievement. Consequently, they cannot be

viewed as "misplaced" OTR students awaiting identification and counseling into OTR programs.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

Although the population of this study was from a limited geographical area, a number of observations can be made about technical and professional levels of students in occupational therapy. Biographical data suggest that COTA and OTR students come from somewhat different backgrounds. Several commonly accepted SES parameters (eg., parent's education, occupation) indicate that COTA students are from a lower socioeconomic group than the OTR students. This, in turn, puts natural constraints on the students' selection of a career level that would require a four year college education.

Occupational choice motives data show that COTA students have less prior contact with those already in the profession as evidenced by how they first learned about the field and the type of contact they had before enrolling in the educational program. This, in turn, may restrict their role objectives, career goals and even choice of occupational level.

Technical and professional level students have similar reasons for selecting the field of occupational therapy. Both see O.T. as an interesting and challenging occupation in which they can work with people and help others. However, they are much more divergent in what

they intend to do once they complete their education and obtain some work experience. More OTR students see additional avenues open to them as to the roles they intend to hold and the career-long goals they will pursue. Many OTR students hope to move beyond exclusively patient treatment positions within the professions.

The work values deemed important by the two groups tend to be in concert with these goals. While altruism and achievement are high for both levels of students, work which offers opportunities for intellectual stimulation, variety and independence appeal more to OTR students. This is in contrast to security and surroundings which are seen as important by the COTA students.

In spite of these many differences, most COTA students apparently aspire to eventually go on to become OTRs. Data indicated that for many, their decision in selecting the COTA educational program was in the nature of a trial. Many felt that they could always go on later and that they wanted to see what O.T. was like before spending the considerable amount of time and money needed to become an OTR. However, data on the characteristics of those COTAs who want to become OTRs failed to indicate that they were more similar to the OTR students than the COTA students who did not want to go on. In fact, they were different from both the other groups on many of the biographic, occupational choice and career aspiration variables, but they were more similar to the COTAs who do not want to become OTRs concerning their

work values and cognitive achievement. This may be one of the reasons why many do not, in fact, follow through to become OTRs.

This study has contributed to the literature in several ways. It has described in greater detail characteristics of occupational therapy students and it has differentiated characteristics of future occupants of the two levels of the occupational therapy profession. Since occupational therapy, which is suffering from a manpower shortage, is currently re-examining the educational degree requirements for entering the field, the advisability of its career mobility plan and the roles and functions of the technical and professional levels of therapists, findings from this study offer additional information for consideration and cues for further research.

Since this study was limited to an examination of student characteristics, it would be beneficial to study working and non-working OTRs and COTAs as to their goals and values to determine which they consider important and how they relate to success and satisfaction with their career and thus, retention in the profession.

Similar studies of students using a larger and more diverse population would determine if these findings apply to occupational therapy students from different schools and areas of the country. For example, do prospective OTR students generally have more access to therapists and direct experience in the field before enrolling in an educational program and does this affect students' choice of level, commitment and retention in the field? Do dropouts from the educational

program differ in any characteristics which could be identified early and used for advising purposes?

A follow-up study of those COTAs who actually do go on to become OTRs would allow an investigator to re-examine their characteristics to see if these individuals could be identified and counseled before entering a COTA educational program. Such information would cut down on inefficient use of dollars and time for both students and educational programs and the waste of scarce spaces available in the programs when COTAs go immediately from technical to professional level programs.

Findings from this study also offer implications for educators and the profession. There needs to be more and expanded information available to prospective students from all walks of life. The existence and nature of both levels of the profession should be explained in printed literature, audiovisual materials and during career days, health career courses and the like. Roles and functions of both levels should be emphasized so that prospective students and counselors have realistic knowledge about appropriate expectations. Improved counseling which encourages exploration of both levels in the field and self examination of values and goals would equip students to make more informed and congruent educational and career decisions.

This study also has some implications for curriculum development. One such implication would be to include content in OTR programs which better prepare students for their future supervisory and leadership responsibilities. This would, of necessity, have to cover both skills

and attitudes since most females are not socialized early in life for these kinds of roles Elective courses could be made available for those students who show an interest in research, writing, managing departments or leadership roles in the professional organization. These courses would expand the students' knowledge of available options and provide beginning skills in their special areas of interest, thus facilitating their pursuit of these goals. At present there are few COTA and OTR educational programs which are designed to articulate. More cooperative planning among schools could perhaps reduce the loss of the time now often inherent in COTAs moving into OTR programs.

REFERENCES

Adamson, M. J., & Anderson, M. A. A study of the utilization of occupational therapy assistants and aides. American Journal of Occupational Therapy, 1966, 20, 75-79.

Almquist, E. M., & Angrist, S. S. Career salience and atypicality of occupational choice among college women. Journal of Marriage and the Family, 1970, 32, 242-249.

American Occupational Therapy Asociation, Task inventory for entry-level occupational therapy personnel in direct service roles (Contract No. NIH 72-4172). Rockville, Md.: AOTA, 1973.

American Occupational Therapy Association, Continuation of study of measures of proficiency in occupational therapy (Contract # 231-76-0052). Rockville, Md.: AOTA, 1978.

American Occupational Therapy Association. The annual conference held in San Antonio was a real success. Occupational Therapy Newspaper, 1981, 35 (4), 1. (a)

American Occupational Therapy Association. Data line. Occupational Therapy Newspaper, 1981, 35 (2), 4, (b)

American Occupational Therapy Association. Data line. Occupational Therapy Newspaper, 1981, 35 (1), 5, (c)

Anderson, H. E., & Jantzen, A. C. A prediction of clinical performance. American Journal of Occupational Therapy, 1967, 19, 76-78.

Bailey, J. P. Some comparisons of occupational therapist biographical facts with implications for recruiting. American Journal of Occupational Therapy, 1968, 22, 259-263.

Blaisdell, E. A., & Gordon, D. Selection of occupational therapy students. American Journal of Occupational Therapy, 1979, 33, 223-229.

Blau, P. M., & Duncan, O. D. The American occupational structure. New York: John Wiley and Sons, 1967.

Boocock, S. S. An introduction to the sociology of learning. Boston: Houghton Mifflin Company, 1972.

Brollier, C. Personality characteristics of three allied health professional groups. American Journal of Occupational Therapy, 1970, 24, 500-505.

Cantwell, J. L. The community-junior college: Challenges to occupational therapy education. American Journal of Occupational Therapy, 1970, 24, 576-579.

Caplow, T. The sociology of work. Minneapolis: University of Minnesota Press, 1954.

Carr, S. H. Models of manpower utilization. American Journal of Occupational Therapy, 1971, 25, 259-262.

Crampton, M. W. Educational upheaval for occupational therapy assistants. American Journal of Occupational Therapy, 1967, 21, 317-320.

Crampton, M. W., et al. The recognition of occupational therapy assistants. American Journal of Occupational Therapy, 1958, 12, 269-275.

Crane, W. J. Screening devices for occupational therapy majors. American Journal of Occupational Therapy, 1962, 16, 131-132.

Cromwell, F. S. Nationally speaking, The newest of our member categories: The COTA. American Journal of Occupational Therapy, 1968, 22, 377-379.

Cromwell, F. S. Nationally speaking. American Journal of Occupational Therapy, 1971, 25, 3A-7A.

Drummond, R. J., McIntire, W.G., & Skaggs, C. T. The relationship of work values to occupational level in young adult workers. Journal of Employment Counseling, 1978, 15, 117-121.

Dunne, F., Elliott, R., & Carlsen, W. S. Sex differences in the educational and occupational aspiration of rural youth. Journal of Vocational Behavior, 1981, 18, 56-66.

Feather, N. T. Values in education and society. New York: The Free Press, 1975.

Fidler, G. Professional or nonprofessional. In Occupational therapy 2001 AD. Rockville, Md.: American Occupational Therapy Association, 1979.

Flint, R. T., & Spensley, K. C. Career patterns of Minnesota occupational therapists. American Journal of Occupational Therapy, 1968, 22, 30-34.

Ford, A. L. A predication of internship performance. American Journal of Occupational Therapy, 1979, 33, 230-234.

Friedson, E. Professional dominance. New York: Atherton Press, Inc., 1970.

Ginzberg, E. Toward a theory of occupational choice: A restatement. Vocational Guidance Quarterly, 1972, 20, 169-176.

Ginzberg, E., Ginzberg, S.W., Axelrod, S., & Herma, J. L. Occupational choice an approach to a general theory. New York: Columbia University Press, 1951.

Goode, W. J. The theoretical limits of professionalization. In Etzioni, A. (Ed.) The semi-professions and their organizations. New York: The Free Press, 1969.

Haller, A. O., & Miller, I. W. The occupational aspiration scale: Theory, structure and correlates. Cambridge, Mass.: Schenkman Publishing Company, Inc., 1971.

Hasburg, M. COTAs want more. American Journal of Occupational Therapy, 1979, 33, 262.

Havighurst, R. J., & Levine, D. Society and education (5th ed.). Boston: Allyn and Bacon, Inc., 1979.

Hendrickson, D. Personality variables significant departures of occupational therapists from population norms. American Journal of Occupational Therapy, 1962, 16, 127-130.

Hirschfield, I.S., & Peterson, D. A. The professionalization of gerontology. The Gerontologist, 1982, 22, 215-220.

Holland, J. L. A theory of vocational choice. Journal of Counseling Psychology, 1959, 6, 35-44.

Holland, J. L., & Lutz, S. W. Predicting a student's vocational choice. Iowa City, Iowa: American College Testing Program, 1967.

Holmstrom, E. I. Promising prospects: Students choosing therapy as a career. American Journal of Occupational Therapy, 1975, 29 608-614.

Inlow, G. M. Values in transition. New York: John Wiley and Sons, 1972.

Ivey, A. E. Interests and work values. Vocational Guidance Quarterly, 1963, 11, 121-134.

Jantzen, A. C. The current profile of occupational therapy and the future-professional or vocational? In Occupational Therapy 2001 AD. Rockville, Md.: American Occupational Therapy Association, 1970.

Jantzen, A. C. Some characteristics of female occupational therapists, 1970 Part 2: Employment patterns. American Journal of Occupational Therapy, 1972, 26, 67-77.

Johnson, J. A. Issues in education. American Journal of Occupational Therapy, 1978, 32, 355-358.

Kinnane, J. F., & Gaubinger, J. R. Life values and work values. Journal of Counseling Psychology, 1963, 10, 362-367.

Kirchman, M. M., & Howard, B. The role of the certified assistant in a general hospital. American Journal of Occupational Therapy, 1966, 20, 293-297.

Laing, J., Lamb, R. R. & Predigar, D. J. An application of Strongs's validity criteria to basic interest scales. Journal of Vocational Behavior, 1982, 20, 203-214.

Langwell, K. M., Wilson, S. D. & Deane, R. T. Geographic distribution of occupational therapists. American Journal of Occupational Therapy, 1982, 35, 299-305.

Lauderman, K. A., & Griffeth, P. Holland's theory of vocational choice. Educational and Psychological Measurement, 1978, 38, 1165-1175.

Lind, A. I. An exploratory study of predictive factors for success in the clinical affiliation experience. American Journal of Occupational Therapy, 1970, 24, 222-226.

Lucci, J. A., & Brockway, J. Student selection process; A follow-up study. American Journal of Occupational Therapy, 1980, 34, 27-32.

Maynard, M., Bilkey, A., & Hyre, K. Predicting job performance. American Journal of Occupational Therapy, 1972, 26, 265-268.

McLaughlin, G. W., Hunt, W. K., & Montgomery, J. R. Socioeconomic status and the career aspirations and perceptions of women seniors in high school. Vocational Guidance Quarterly, 1976, 24, 155-162.

Millerson, G. Education in the professions. In Cook, T. G. (Ed.), Education and the professions. London: Methuen and Co. Ltd., 1973.

Moore, W. E. The professions: Roles and Rules. New York: Russell Sage Foundation, 1970.

Ornstein, A. C. Education and Social Inquiry. Itasca, Il.: F. E. Peacock Publishers, Inc., 1978.

Patterson, T. W., Marron, J. P., & Patterson, N. B. Behavioral patterns of occupational therapy students on the FIRO-B. American Journal of Occupational Therapy, 1970, 24, 269-271.

Pavalko, R. M. Sociology of occupations and professions. Itasca, Il.: F. E. Peacock Publishers, Inc., 1971.

Phillips, S. D. The development of career choices: The relationship between patterns of commitment and career outcomes in adulthood. Journal of Vocational Behavior, 1982, 20, 141-152.

Pickett, B. J. Factors influencing choice of occupational therapy as a career. American Journal of Occupational Therapy, 1962, 16, 84-88.

Poole, M. A., & Kassalow, S. Manpower survey report - Wisconsin Occupational Therapy Association. American Journal of Occupational Therapy, 1968, 22, 304-306.

Pryor, R. In search of a concept. Vocational Guidance Quarterly, 1979, 27, 250-258.

Rescher, N. Introduction to value theory. Englewood Cliffs, N. J.: Prentice-Hall, Inc. 1969.

Rezler, A. G., & French, R. M. Personality types and learning style preferences of students in six allied health professions. Journal of Allied Health, 1975, 4, 20-26.

Ritvo, M. M., Lyons, M., & Howe, M. C. Planned or haphazard change. American Journal of Occupational Therapy, 1970, 24, 409-412.

Ritzer, G. Man and his work conflict and change. New York: Appleton-Century-Crofts, 1972.

Rokeach, M. The Nature of Human Values. New York: Free Press, 1973.

Sampson, J. P., & Loesch, L. C. Relationships among work values and job knowledge. Vocational Guidance Quarterly, 1981, 29, 229-235.

Schmidt, H. O. Comparisons of women students in occupational therapy and nursing. Journal of Psychology, 1951, 31, 161-174.

Selltiz, C. Research methods in social relations. New York: Holt, Rinehart and Winston, 1959.

Semyonov, M. The social context of women's labor force participation: A comparative analysis. American Journal of Sociology, 1980, 86, 534-550.

Sergiovanni, T. J., Burlingame, M., Combs, F. D., & Thurston, P.W. Educational governance and administration. Englewood Cliffs, N.J.: Prentice-Hall, 1980.

Sewell, W. H., Hansen, R. M., & Wolf, W. C. Sex, schooling and occupational status, American Journal of Sociology, 1980, 86, 551-583.

Shapiro, D., & Brown, D. The delineation of the role of entry-level occupational therapy personnel. American Journal of Occupational Therapy, 1981, 35, 306-311.

Sherlock, B., & Cohen, A. The strategy of occupational choice: Recruitment to dentistry. Social Forces, 1966, 44, 303-313.

Simpson, R. L., & Simpson, I. H. Women and bureaucracy in the semi-professions. In Etzioni, A. (Ed.) The semi-professions and their organizations. New York: The Free Press, 1969.

Super, D. E. Manual: Work values inventory. Boston: Houghton Mifflin Company, 1970. (a)

Super, D. E. A theory of vocational development. In Roth, R. B. (Ed.) The psychology of vocational development. Boston: Allyn and Bacon, 1970. (b)

Tatsuoka, M. M. Discriminant analysis, the study of group differences. Champaign, Il.: Institute for Personality and Ability Testing, 1970.

Thompson, C. G. Some preliminary notes on selecting students for training in occupational therapy. American Journal of Occupational Therapy, 1951, 5, 191-192.

Weishaar, M. E., Green, B. J., & Craighead, L. W. Primary influence of initial vocational choices for college women. Journal of Vocational Behavior, 1981, 18, 67-78.

Wilensky, H. The professionalization of everyone? American Journal of Sociology, 1964, 70, 137-158.

Williams, R. M. Change and stability in values and value systems: A sociological perspective. In Rokeach, M. Understanding human values. New York: Free Press, 1979.

Zytowski, D. G. The concept of work values. Vocational Guidance Quarterly, 1970, 18, 176-186.

A P P E N D I X A

INSTRUMENTS

CONSENT FOR PARTICIPATION

I acknowledge that the purpose of this research project has been explained to me, i.e., to examine characteristics of COTA and OTR students and to identify similarities and differences.

I understand participation in this study involves:

1. my completing a Student Survey and Work Values Inventory
2. my permission to release my high school grade point average and class rank

I understand that this study is not involved in my education, that the decision to participate, or not, will not affect my education and that I will not personally benefit from this study.

I have been informed that there is no personal risk involved; that a code number will be used for identification and that only group data will be reported.

_____ give my consent to participate in this
(name)
search project conducted by Jeanne Madigan.

_____
(date)

NOTE: ADMINISTERED TO OTR STUDENTS

Code # _____

Level Code _____

School Code _____

Year Code _____

STUDENT SURVEY

Instructions

In this booklet you are asked certain personal information. Please read each question and the possible answers completely. Then mark the alternative that comes closest to the proper response for you or supply the information requested.

When answering questions about your mother and father, use your biological mother and father unless you had no contact with her/him. In this case use your stepmother/stepfather or mother/father surrogate.

If none of the answers provided for a question seem exactly right, choose the one that is nearest to being right or fill in the "other" response where provided.

IT IS IMPORTANT THAT YOU ANSWER ALL QUESTIONS BECAUSE MISSING DATA MAY DISTORT THE OUTCOME OF THE STUDY. DO NOT SKIP ANY QUESTIONS.

Please begin on the next page . . .

PLEASE CIRCLE ONE ANSWER CODE NUMBER FOR EACH QUESTION UNLESS OTHERWISE INSTRUCTED.

1. What is your sex?

Male	1
Female	2

2. What is your racial background?

White/Caucasian	1
Black	2
Hispanic	3
Asian/Oriental	4
American Indian	5

3. What is your age?

19 or younger	1
20 - 22	2
23 - 25	3
26 - 28	4
29 or older	5

4. Have you earned any previous College degrees?

None	1
Associate	2
Baccalaureate	3
Masters	4

5. Through what sources do you intend to finance your present education: (MARK ONE COLUMN FOR EVERY ITEM A THROUGH E.)

	major source	minor source	not a source
A. Family (parents, spouse or other relatives).	3	2	1
B. Grants or scholarships (do not need to be repaid) . . .	3	2	1
C. Loans (need to be repaid in the future)	3	2	1
D. Personal savings	3	2	1
E. Personal employment (current) . .	3	2	1

6. How many of your close high school friends would you estimate went to college?

Less than 25% . . . 1

25% - 49% 2

50% - 75% 3

More than 75% . . . 4

7. What is the highest level of formal education obtained by your mother and father? (MARK ONE IN EACH COLUMN.)

	Mother	Father
elementary school or less	1	1
some high school	2	2
high school graduate	3	3
postsecondary school other than college, e.g., trade school.	4	4
some college	5	5
college graduate or professional degree	6	6

8. What is/was your mother's and father's occupations?

(IF DECEASED OR RETIRED, CHECK THE BOX TO THE RIGHT NOW PLEASE CIRCLE HER/HIS PRINCIPLE OCCUPATION WHEN SHE/HE WAS EMPLOYED. CIRCLE ONE IN EACH COLUMN.)	Mother	Father
Professional, Technical and Managerial Occupations (e.g., architecture, medicine, law, engineering, education, physical & social sciences)	01	01
Clerical and Sales Occupations. (e.g., secretarial, filing, all salesmen, merchandising)	02	02
Service Occupations (e.g., domestic, food & beverage preparation, barbering & hairdressing, police, firemen)	03	03
Farming, Fishery, Forestry and Related Occupations	04	04
Processing Occupations (e.g., refining, foundry, processing food, tobacco, paper, petroleum, coal, gas, wood, textiles & other products)	05	05
Machine Trades Occupations (e.g., metal, wood, stone & textile working, mechanics and machinery repairman)	06	06
Bench Work Occupations (e.g., fabrication of metal, wood, textile products, electrical, photographic and medical apparatus)	07	07
Structural Work Occupations (e.g., construction, painting, plastering, excavating, paving, welding and electrical assembling)	08	08
Miscellaneous Occupations. (e.g., transportation, packaging and materials handling, production & distribution of utilities)	09	09
Never worked	10	10

9. How did you first learn about occupational therapy?

Radio, T.V., films, ... 1

Printed literature (book, magazines, newspaper). 2

Career days at school 3

School counselor 4

Family member (not an O.T.) 5

Family member (is or was an O.T.) 6

An O.T. or O.T. student (not related to you) 7

Other, specify: _____ 8

10. Before you entered this educational program, did you have any direct experience with O.T.?

Had no direct experience with O.T. 1

You, yourself received O.T. 2

A family member received O.T. 3

You were a paid employee in an O.T. department 4

You were a volunteer in an O.T. department 5

You visited/observed in an O.T. department 6

Other, specify: _____ 7

11. Who do you feel was most influential in your decision to go into O.T.?

Mother 1

Father 2

Other relative, specify _____ 3

Friend 4

Teacher, counselor 5

Self 6

Other, specify: _____ 7

12. Below are some reasons that influence people in choosing a career. How important was each for you in deciding on occupational therapy? (MARK ONE COLUMN FOR EACH ITEM A - O.)

		very important	somewhat important	not important
A.	Subjects in the educational program seemed interesting	3	2	1
B.	Job openings are readily available	3	2	1
C.	Well respected or prestigious occupation	3	2	1
D.	Low pressure job	3	2	1
E.	High anticipated earnings	3	2	1
F.	Rapid career advancement possible	3	2	1
G.	Has leadership possibilities	3	2	1
H.	Able to work with people	3	2	1
I.	Able to work with ideas	3	2	1
J.	Able to work in the health care field	3	2	1
K.	Chance for originality and creativity	3	2	1
L.	Great deal of independence	3	2	1
M.	Can make an important contribution to society	3	2	1
N.	Can be helpful to others	3	2	1
O.	Work seems interesting and/or challenging	3	2	1

13. What do you intend to be doing five (5) years from now? (PLEASE CIRCLE ONLY ONE ALTERNATIVE - THE PRIMARY ROLE YOU WOULD LIKE TO HAVE.)

Not working 1

Working in an occupation other than O.T. 2

Working in O.T.:

... treating patients 3

... teaching students (academic) 4

... managing a department . . 5

... acting as a consultant . . 6

... doing research 7

other, specify _____ 8

undecided 9

please go to next page .....

14. Below are listed some goals associated with the field of occupational therapy. Circle any that you consider very important for you to accomplish before you leave the field of occupational therapy.

Becoming an expert in a special area of practice 01

Obtaining recognition from colleagues for my contributions 02

Supervising the work of others 03

Heading an O.T. department 04

Making a theoretical contribution to the field 05

Creating artistic works 06

Doing research in the field 07

Writing books or journal articles 08

Becoming an officer in the state professional organization 09

Becoming active in the national professional organization 10

Participating in an organization like the Peace Corps or Vista 11

Teaching O.T. students 12

Being a consultant 13

Going into private practice 14

Other, specify: _____ . . 15

15. Before you entered this educational program, did you consider entering a COTA program?: (PLEASE CIRCLE ONLY ONE ALTERNATIVE.)

No, I did not know about COTA programs 01

I knew about COTA programs but decided not to enter because...

--- I wanted to get a baccalaureate degree 02

--- a COTA program was not available where I wanted to attend school. 03

--- I thought the opportunity for advancement was better as an OTR 04

--- I wanted more responsibility and/or status 05

--- I thought I could get a better salary as an OTR 06

--- I felt that the assistant level could not provide the kind of job I wanted 07

--- I was encouraged to go into the OTR level by my family, friends or counselor, etc. 08

--- my friends were entering this kind of program/school 09

--- other reason, specify:_____ .10

Yes, I was in a COTA program previously...

--- but did not complete the program 11

--- but have never practiced as a COTA 12

--- and practiced as a COTA for two years or less 13

--- and practiced as a COTA for more than two years but less than five 14

--- and practiced as a COTA for five or more years 15

THANK YOU FOR YOUR COOPERATION

NOW PLEASE GO ON TO THE NEXT BOOKLET

NOTE: ADMINISTERED TO COTA STUDENTS

Code # _____

Level Code _____

School Code _____

Year Code _____

STUDENT SURVEY

Instructions

In this booklet you are asked certain personal information. Please read each question and the possible answers completely. Then mark the alternative that comes closest to the proper response for you or supply the information requested.

When answering questions about your mother and father, use your biological mother and father unless you had no contact with her/him. In this case use your stepmother/stepfather or mother/father surrogate.

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Female	2

2. What is your racial background?

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Black	2
Hispanic	3
Asian/Oriental	4
American Indian	5

3. What is your age?

19 or younger	1
20 - 22	2
23 - 25	3
26 - 28	4
29 or older	5

4. Have you earned any previous College degrees?

None	1
Associate	2
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5. Through what sources do you intend to finance your present education: (MARK ONE COLUMN FOR EVERY ITEM A THROUGH E.)

	major source	minor source	not a source
A. Family (parents, spouse or other relatives).	3	2	1
B. Grants or scholarships (do not need to be repaid) . . .	3	2	1
C. Loans (need to be repaid in the future)	3	2	1
D. Personal savings	3	2	1
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high school graduate	3	3
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some college	5	5
college graduate or professional degree	6	6

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(IF DECEASED OR RETIRED, CHECK THE BOX TO THE RIGHT NOW PLEASE CIRCLE HER/HIS PRINCIPLE OCCUPATION WHEN SHE/HE WAS EMPLOYED. CIRCLE ONE IN EACH COLUMN.)	Mother	Father
Professional, Technical and Managerial Occupations (e.g., architecture, medicine, law, engineering, education, physical & social sciences)	01	01
Clerical and Sales Occupations. (e.g., secretarial, filing, all salesmen, merchandising)	02	02
Service Occupations (e.g., domestic, food & beverage preparation, barbering & hairdressing, police, firemen)	03	03
Farming, Fishery, Forestry and Related Occupations	04	04
Processing Occupations (e.g., refining, foundry, processing food, tobacco, paper, petroleum, coal, gas, wood, textiles & other products)	05	05
Machine Trades Occupations (e.g., metal, wood, stone & textile working, mechanics and machinery repairman)	06	06
Bench Work Occupations (e.g., fabrication of metal, wood, textile products, electrical, photographic and medical apparatus)	07	07
Structural Work Occupations (e.g., construction, painting, plastering, excavating, paving, welding and electrical assembling)	08	08
Miscellaneous Occupations. (e.g., transportation, packaging and materials handling, production & distribution of utilities)	09	09
Never worked	10	10

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You were a volunteer in an O.T. department 5

You visited/observed in an O.T. department 6

Other, specify: _____ 7

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Father 2

Other relative, specify _____ 3

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Other, specify: _____ 7

12. Below are some reasons that influence people in choosing a career. How important was each for you in deciding on occupational therapy? (MARK ONE COLUMN FOR EACH ITEM A - O.)

		very important-tant	some-what impor-tant	not import-tant
A.	Subjects in the educational program seemed interesting . . .	3	2	1
B.	Job openings are readily available . . .	3	2	1
C.	Well respected or prestigious occupation . . .	3	2	1
D.	Low pressure job . . .	3	2	1
E.	High anticipated earnings . . .	3	2	1
F.	Rapid career advancement possible . .	3	2	1
G.	Has leadership possibilities . . .	3	2	1
H.	Able to work with people . . .	3	2	1
I.	Able to work with ideas . . .	3	2	1
J.	Able to work in the health care field . . .	3	2	1
K.	Chance for originality and creativity . . .	3	2	1
L.	Great deal of independence . . .	3	2	1
M.	Can make an important contribution to society . . .	3	2	1
N.	Can be helpful to others . . .	3	2	1
O.	Work seems interesting and/or challenging . . .	3	2	1

13. What do you intend to be doing five (5) years from now? (PLEASE CIRCLE ONLY ONE ALTERNATIVE - THE PRIMARY ROLE YOU WOULD LIKE TO HAVE.)

Not working 1

Working in an occupation other than O.T. 2

Working in O.T.:

... treating patients 3

... teaching students (academic) 4

... managing a department . . 5

... acting as a consultant . . 6

... doing research 7

other, specify _____ 8

undecided 9

please go to next page .....

14. Below are listed some goals associated with the field of occupational therapy. Circle any that you consider very important for you to accomplish before you leave the field of occupational therapy.

Becoming an expert in a special area of practice 01

Obtaining recognition from colleagues for my contributions 02

Supervising the work of others 03

Heading an O.T. department 04

Making a theoretical contribution to the field 05

Creating artistic works 06

Doing research in the field 07

Writing books or journal articles 08

Becoming an officer in the state professional organization 09

Becoming active in the national professional organization 10

Participating in an organization like the Peace Corps or Vista 11

Teaching O.T. students 12

Being a consultant 13

Going into private practice 14

Other, specify: _____ . . 15

15. Before you entered this educational program, did you consider entering a OTR program: (PLEASE CIRCLE ONLY ONE ALTERNATIVE.)

No, I did not know about OTR programs 01

I knew about OTR programs but decided not to enter because...

--- I wanted to do assistant level type of work 02

--- I did not want to go to school for four years 03

--- I could not financially afford to go to school for four years 04

--- I felt the OTR program was too difficult 05

--- I felt I wanted to see if I like the O.T. field first before investing the time and money 06

--- I could start working sooner 07

--- I felt I could not get in because of the limited admissions 08

--- I would have had to take too many prerequisite courses before I could get in 09

--- I could always go on to become an OTR if I wanted to later 10

--- an OTR program was not available where I wanted to go to school 11

--- I was encouraged to go into the OTA level by family friends or counselor, etc. 12

--- my friends were entering this kind of program/school 13

--- other reason, specify:_____ .14

Yes, I was in an OTR program previously but left. 15

16. Do you seriously intend to become an OTR at some future time?

I never thought about it 1

No 2

Yes, as soon as I complete this program 3

Yes, within 5 years after I complete this program 4

Yes, but undecided exactly when 5

THANK YOU FOR YOUR COOPERATION

Now please go on to the next booklet

Instructions, rating scale and sample question from the Work Values Inventory by Donald E. Super.

"The statements below represent values which people consider important in their work. These are satisfactions which people often seek in their jobs or as a result of their jobs. They are not all considered equally important; some are very important to some people but of little importance to others. Read each statement carefully and indicate how important it is for you.

5 means "Very Important"
4 means "Important"
3 means "Moderately Important"
2 means "Of Little Importance"
1 means "Unimportant"

(Fill in one oval by each item to show your rating of the statement.)

Work in which you . . .

1. . . . have to keep solving new problems. 5 4 3 2 1 "

STUDENT DATA SHEET

NAME_____ CODE #_____

LEVEL_____ CODE #_____

SCHOOL_____ CODE #_____

CLASS_____ Starting DATE_____ CODE #_____

HIGH SCHOOL CLASS RANK_____ CONVERTED TO PERCENTILE_____

HIGH SCHOOL GRADE POINT AVERAGE_____

STUDENT SURVEY COMPLETED: YES _____ NO _____

WORK VALUES INVENTORY COMPLETED: YES ____ NO ___

ADMINISTRATION DATE _____

APPROVAL SHEET

The dissertation submitted by M. Jeanne Madigan has been approved by the following committee:

Dr. Allen C. Ornstein, Director
Professor of Curriculum and Instruction, Loyola

Dr. Todd J. Hoover
Assistant Professor of Curriculum and Instruction, Loyola

Dr. Ernest I. Proulx
Professor of Curriculum and Instruction, and of
Guidance and Counseling, Loyola

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

4/28/82
Date

Allen Ornstein
Director's Signature