

AN ABSTRACT OF THE THESIS OF

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Crystallization in Two Types of Adult Career
Programs--Telecourse versus Traditional Group.

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The overall purpose of this study was to investigate certain aspects of the effectiveness of adult career programs. The central focus was to compare the differences in vocational self-concept crystallization among the participants exposed to the classroom group program and the individualized telecourse programs. Further information was desired regarding the differences in vocational self-concept crystallization among the various levels and categories of age, sex, years of education, years of work experience, personality, and voluntary/involuntary career change.

This study focused on four objectives:

- (1) To measure the achievement in vocational self-concept crystallization by adults enrolled in the post-secondary career classes.

- (2) To compare the growth in vocational self-concept crystallization among adults exposed to the two instructional approaches.
- (3) To analyze differences in measurements with relation to age, sex, years of education, work experience, voluntary/involuntary career change, and Holland's Model.
- (4) To develop implications for the future direction of career programs for the adult.

The population of this study consisted of 66 adults who successfully completed a post-secondary career program during the 1981-1982 school year. Thirty-three participants were enrolled in classroom group programs; 33 were enrolled in VOYAGE, a telecourse program. The schools included were four community colleges in the Portland, Oregon, area.

Descriptive data were acquired via personal interview with each participant. The Vocational Rating Scale was administered at the beginning and ending of the school terms. An analysis of covariance was used to determine if there were significant differences between adjusted Vocational Rating Scale scores.

Conclusions

Participants of both programs showed equal achievement in vocational self-concept crystallization in both

the descriptive and statistical data. However, the descriptive data show a significant difference in the tele-course participant's satisfaction in both achievement and the completion of a career process.

A Study to Measure Vocational Self-Concept
Crystallization in Two Types of Adult
Career Programs--Telecourse versus
Traditional Group

by

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A STUDY TO MEASURE VOCATIONAL SELF-CONCEPT
CRYSTALLIZATION IN TWO TYPES OF ADULT
CAREER PROGRAMS--TELECOURSE VERSUS
TRADITIONAL GROUP

I. INTRODUCTION

Career education programs developed in recent years have been successful in assisting the elementary and secondary student who is making a career choice (National Center for Research, 1978). There is, of course, a long-standing tradition of career-planning courses in higher education for the young college graduate (Borow, 1960; Carter and Hoppock, 1961; Haney and Howland, 1978; Holcomb, 1966; Hoppock and Tuxill, 1938).

The need for a more appropriate program to assist the older adult during a career change is rapidly becoming urgent (Gysbers, 1978). The inadequacy of existing services in meeting the unique needs of the adult has been well documented (Comly, 1975; Ironside and Jacobs, 1977). It has been pointed out by Herr and Whitson (1979) that career guidance for the adult has become a national priority.

The need for services for the adult who is making a career choice is no longer at issue. What is at issue is what such services should entail, how they should be

financed, and how they should be organized and articulated with education delivery systems (Darkenwald, 1980).

Post-secondary curriculum developers are adapting the basic career education concepts to meet the complex needs of the adult who seeks a career change (Bolles, 1978; Bolles, 1979; NWREL, in press). Programs of adult career guidance are rich in their diversity (Harrison and Entine, 1977). They generally cover three basic areas of learning:

1. AWARENESS--determining all factors affecting the decisions. (Self-assessment of abilities, interests, and values.)
2. ANALYSIS--coming to terms with the decisions. (Adapting and integrating the information on opportunities and requirements.)
3. ACTION--choosing a course of action that best suits the individuals and their needs. (Career decision-making, job referrals, and the job search.)

There is a growing feeling the programs are most effective when they include an integrated learning experience that combines academic work, experiential learning in the occupation students would like to pursue, and adequate group and/or individual counseling (Boren, 1979). Presently, local career directors from post-secondary

institutions within the Portland area have initiated monthly meetings for cooperatively reviewing, selecting, and expanding the most effective components of their programs.

Adult career programs have become a major thrust of education in Oregon. The programs currently offered are trying to reach a multitude of personalities and needs. Research is urgently needed to determine which approaches produce the most measurable effectiveness, to determine why the success is achieved, and to ascertain which approaches are effecting the best results for various individuals.

Statement of the Problem

A variety of career programs are currently being presented in higher education. The majority of students enrolled in career programs at four-year institutions fall within the young adult age. However, community college programs are filled with students who range in age from a young graduate to the retiree. The program originally developed for a young graduate requires further development to serve adequately the needs of the older adult desiring a career change.

Community college programs are generally divided into two methods:

- 1) On-campus classroom with group interaction.
(Goodman and Waters, 1981; Marlowe, 1981;
Reardon and Regan, 1981.)
- 2) Individualized self-study courses with work-
book assignments (Arthur and Ebbers, 1981;
Froehle, Kurpius, and Robinson, 1981.)

A majority of programs are the classroom approach with group interaction. During the 1981-1982 school year, a consortium of community colleges initiated a telecourse series with workbook assignments.

Formative studies are needed to determine the effectiveness of the various approaches and to provide guidance for future planning. No research has been published on the effectiveness of career programs for education within the adult population (Armstrong, 1981). These programs need to be investigated to discover their unique strengths and weaknesses. Additional analysis of each component is required to determine whether the various groups within the adult population (i.e., age, sex, years of education, work experience, voluntary/involuntary career changers) require separate learning procedures and activities.

Increasingly, adults are deciding to change the direction of their careers by obtaining further education. They are turning to local community colleges for assistance in making a new career decision (Clopton, 1973; Nero,

1975). Scant attention has been given to the decision behavior associated with an adult's returning to school and to the eventual outcome of the career decision-making process (Lowther, 1976). The past approach of only altering the terminology of existing programs in an attempt to make them appear more applicable to the adult is no longer an acceptable procedure. Neither is the concept that counselors can serve as the extra resource to meet the additional adult needs (Armstrong, 1981).

Adult career programs attempt to accommodate an exceptionally complex group of individuals (Harrison and Entine, 1977; Hartwig, 1975; Tittle and Denker, 1977; Tomita, 1975). Program directors are searching for successful concepts to meet the complex pressures within the body of adult career changers (Gould, 1978; Levinson, 1978; Sheehy, 1976; Rubin, 1979).

Research is required to provide information as a basis for the formulation of a program broad enough in scope to reach every adult desiring a career change, yet relevant enough to enable each student to relate personally to the materials being presented.

The major thrust of this study was to measure the vocational self-concept crystallization of the participants enrolled in the career programs in the Portland area community colleges for the adult career changer. This

information will enable program directors to develop a clearer concept of the specific needs that are unique to the adult. This information can also assist the directors in formulating the adjustments required to improve the effectiveness of programs for the adult career changer.

Objectives of the Study

This study focuses on four objectives:

Objective 1: To measure the achievement in vocational self-concept crystallization by adults enrolled in the post-secondary career classes.

Objective 2: To compare the growth in vocational self-concept crystallization between the adult exposed to the individualized telecourse program and the adult exposed to the classroom group program.

Objective 3: To analyze the difference in measurements with relation to age, sex, years of education, work experience, voluntary/involuntary career changers, and location on Holland's Model.

Objective 4: To develop implications for the future direction of career programs for the adult.

Definition of Terms

Definitions are provided in order that terms used frequently throughout this study may be understood within the context. Other terms or phrases used are considered to be self-explanatory.

Career

The totality of work one does in his lifetime (Hoyt, 1975, p.162).

Career Burnout

A term applied to the mid-career deterioration of on-the-job performance, personality changes, job-related alcohol or drug abuse, or even abandonment of the profession (Cardinell, 1981).

Career Education

A combination of all those activities and experiences through which one learns about work (Hoyt, 1975, p.162).

Career Escalation

Advancement up a career ladder.

Career Changer

One who drops out of an established career cycle in search of an alternate lifestyle (Thomas, 1979).

Career Development

A lifelong process of developing work values, crystallizing a vocational identity, learning about opportunities, and trying out plans in part-time, recreational, and full-time work situations (Tolbert, 1974).

Career Maturity

That place, along a continuum of vocational development from exploration to decline, where an individual's maturity can be indicated by the similarity between his behavior and that of the oldest individual in his vocational life stage (Crites, 1961, 1976).

Congruence

The compatibility of the individual personality with the occupation.

Crisis

A decisive, or critical, turning point which is followed by either greater health and maturity or by increasing weakness (Roberts, 1975).

Developmental Task

A task which arises at, or about, a certain period in the life of the individual, successful achievement of which leads to happiness and success with later tasks, while failure leads to unhappiness in the individual,

disapproval by the society, and difficulty with later tasks (Havighurst, 1953, p.2).

Ego-identity

Refers to an individual's feeling of knowing who he is and where he is going (Munley, 1977).

Mid-life Professional Crisis

A period of life, roughly between the ages of 35 to 45 when individuals realize they are growing old and their opportunities ahead are, at best, only equal to what has gone before, and that everyone's career, the status quo, and life itself are measurable and limited (Figler, 1979).

Stress

When an environmental situation is perceived as presenting a demand which threatens to exceed the person's capabilities and resources for meeting it, under conditions where he expects a substantial difference in the rewards of the costs from meeting the demand versus not meeting it (McGrath, 1976).

"The Dream"

The ideal goal (Levinson, 1978).

Vocational Self-concept Crystallization

The degree to which the constellation of vocationally relevant self-attributes are well formulated, i.e., possess

clarity, certainty and internal differentiation of structure (Barrett, 1977a, p.305).

Voluntary Dropouts

Those individuals who were not fired, or released from their occupations at the behest of their employers. Voluntary aspect represents a positive personal action rather than a systematic reaction (Roberts, 1975).

II. RELATED LITERATURE

Interactions between careers and age are currently being studied by developmental psychologists and others interested in middle age and adulthood. Adult development has been a topic for study most of this century; yet only recently has it become popular to view adult development from the standpoint of its relationship to work (Brim, 1975; Gould, 1978; Kohlberg, 1973; Levinson, 1978; Lowenthal, 1975; Neugarten, 1976).

Data on the needs of adults making or contemplating career changes or on the actual frequency of such changes were nonexistent as late as 1976 (Lowther, 1976). There are few studies of adult career changers, and the interpretation of their findings are unclear (Vaitenas and Wiener, 1977).

Little is known about adult students aside from the statistical information of those enrolled in adult education classes and a few demographic characteristics such as age, sex, and education. Furthermore, these data are seldom related to wider issues of a theoretical or practical nature. . . . It must be pointed out that although the literature on work and careers is substantial, studies focusing on mid-career change and mid-life transition are few. (Lowther, 1976, p.1.)

One aspect of the relationship between careers and age, which has many ramifications for society and educational institutions, is the indication that an increasing

number of people will seek career changes at mid-life (Kelleher, 1973; Lowther, 1976). The number of people who would prefer a mid-career change far outnumber the ones who actively seek and achieve it (Sarason, 1976).

Every occupation has numerous factors which hold, attract, or repel a person. A person does not change occupations in mid-career unless that person experiences a balance of minus over plus factors in that person's occupation (dissatisfaction or push) and perceives a balance of plus over minus factors in another occupation (attraction or pull). In most cases, the lack of congruency between the person's desires and rewards in an occupation is due to a lack of proper intrinsic rewards. This dissatisfaction is a necessary force for mid-career occupational change to occur (Easton, 1976; Simon, 1955; Spreitzer and Snyder, 1974).

People have traditionally defined themselves in terms of work. If you ask people to identify themselves, after their name they are most likely to tell you their occupation or what they do for a living. That is how the names Miller, Carpenter, Baker, Cook, etc. originated. People turn to their jobs as a way of defining themselves and attempting to give meaning to their lives. They now need some way of finding the satisfaction and involvement formerly found in the dignity of work (McDaniels, 1977).

Particularly interesting are those individuals who voluntarily leave upper stratum occupations in mid-career to enter radically different occupations. Sarason (1976) has persuasively argued that there exists a "one-life--one career imperative" in our society regarding upper stratum occupations. Research in this area remains sparse despite the growing interest, and the published studies which do exist are often contradictory (Thomas, 1979).

Also, given the competitive nature of entry into professions, some argue that many people go through life knowing they are not able to prepare for the career of first choice. As they grow older, such people may seek adjustment in their work (Sarason, 1976).

It should be noted that these results tend to contradict the popular notion that occupational change in mid-career results from emotional instability. Rather, these changers were making rational attempts to move from unsatisfactory occupational situations (Neapolitan, 1980).

All people experience periods of turmoil with their occupations, time periods when they can stagnate or leave, a time of opportunity or disaster. The needs of the adult are not constant. All are in a transition period between different stages of the life span (National Center for Research, 1978). People change in different ways. As they grow older, they become more and more different from each

other, and their experiences become less and less universal (Thomas, 1979; Whitbourne and Weinstock, 1979).

Many middle-aged persons will experience a "mid-life crisis," one component of which may be the career relationship, and many will make career changes within and between fields (Lowther, 1976). The combined interaction of the internal biological time clock and the external environmental experiences results in each individual's possessing a distinctly unique set of needs. Individual's reactions to these situations depend on their intellectual and emotional make-up. It can be a danger or an opportunity, depending upon their ability to cope.

Goldstone, Ojemann and Nelson (1975) suggest that intervention at critical life points can both delay the onset of emotional disturbances and improve the quality of life. Program directors are realizing that much of this turmoil might well be prevented with timely intervention, since the period of conflict can be anticipated and recognized (Gould, 1978; Levinson, 1978; Sheehy, 1976; Rubin, 1979).

Complexity of the Adult Career Changer

Frederickson, Macy and Vickers (1978) described the decision behavior of mid-life career changers based upon their experience in a special outreach program for adults.

They characterize the would-be career changer as "operating under time pressures, having little experience in career planning, and using inadequate information in the choice process." (p.167)

A career program designed for adults should cover those aspects of vocational maturity which are common to most adults and be designed for special target populations which have certain experiences and certain career development problems in common.

One of the obvious flaws of career development theory building generally has been its limited application. Most of it is youth oriented. . . . More knowledge of distinct adult groups is needed to improve both theory and guidance service. (National Center for Research, 1978, p.103.)

The youth has recently developed an awareness of individual skills and values through the secondary career education programs (National Center for Research, 1978). The older adult has had no previous encounter with the current career programs and frequently experiences a feeling of "risk" in being forced to go through the self-discovery activities. "Their educational needs differ from those of the typical younger student." (Lowther, 1976, p.5.)

Adults find that many options are closed to them, and the options that are open are only those in which they have prior experience. Even the basic job-search techniques

require special adaptations to serve adequately the mid-career changer's specific needs (Stimac, 1976).

Super (1977) states:

The kind of information needed for 40-year-old adults is different. It differs because the mature adult deals with a much greater store of self- and work-history data, and the external realities relevant to an adult are more clearly defined. It differs in the universality of awarenesses and information needed in adolescence, compared to the particularity required in adulthood. (p.296)

Career program developers are becoming increasingly conscious of that need "particularity required in adulthood." This is the major challenge! Each class includes adults with a multiple and complex combination of needs.

A few basic ones would include:

- The large age span within the adult population (Entine, 1977).
- Males and females of the same age are often experiencing opposite pressures (Hansen and Rapoza, 1978; Lowenthal, Thurnher, Chiriboga, and Associates, 1975; Osipow, 1975).
- The varied degree of commitment to a career among the female population (Cardinell, 1981; Harmon, 1970).
- Both voluntary and involuntary career changers, the voluntary experiencing inner emotional pressures while the involuntary are experiencing

external pressures because of economical and technical changes (Lowther, 1976).

- The individual personal support, which may vary from total support to minimal support (Neapolitan, 1980).
- The special needs of the minority, disadvantaged, and handicapped (Levitan and Taggart, 1977; Miles, 1980).

It would be too lengthy to list all the possible categories involved.

Age Span

Both pre-retirement and retirement years call for special career guidance. This need is increasing because of a growing cohort of retirement-age persons. The economy of retirement has expanded to a wider range, from 55 to 70 or beyond. Approximately 41 million people are now over 55, with the figure expected to be 57 million by the year 2000, when the post-World War II baby crop will be nearing retirement (Entine, 1977).

Studies show that older "folks" express greater satisfaction in their work (Anderson, 1975; DiCaprio, 1974; Tharpe, 1976). "Appropriate counseling responses in the post-retirement period form a different pattern than those at mid-life." (Entine, 1977, p.335.) Among older persons

there appears to be a need for "education for living" as well as a need for "education for learning."

Male/Female Oppositeness

The age span--high school graduate to the retiree--- is the most obvious contrast of needs. The next most apparent contrast would be the male and female that are often experiencing opposite pressures and needs.

The older man becomes more sensitive to incidental pleasures and pains--less aggressive and interested in power. . . more present than future oriented. At the same time, women are aging in the reverse direction, becoming more aggressive. (Brim, 1976, p.6.)

Gail Sheehy (1976) portrayed this contrasting timing in which the male and female role reverses in respect to inner needs, the result being a diamond pattern.

Sometimes the deepest complexity of needs are found within the group of the same sex. The male mid-life is the single most complex unit within a single category and will be discussed in a separate section later in this paper.

Females in the Work World

Female participation in the labor force has risen dramatically during the past two decades. In 1975 it averaged nearly 46 percent for all women over 16 years of age. The participation rate for divorced women--a growing

segment of the total female population--reached a staggering 72 percent in that year (Entine, 1977).

The previous ratio of male and female occupational employment was more than three to one. It is now approaching an equal percentage figure. However, equality between sexes in types of work and income has lagged (National Center for Research, 1978). The newest government report that has just gone to press showed no change in the ratio of earnings from the 1975 Women's Bureau figures. The average woman still earns less than 59 percent of the average male worker's earnings. The median income for a female college graduate is slightly over one-half of the male college graduate's median earnings. A male high school dropout earns more than the average median earnings for a female college graduate (U.S. Department of Labor, 1975).

Seventy-eight percent of the working women are located in low-paying occupations such as clerical work, service work, factory work, and sales. They were clustered into eight percent of today's occupations (Nero, 1975). The most devastating aspect of that figure is that three-fifths of all women workers are single, widowed, or divorced and fall into the single-parent category (Reider, 1977).

Harrison and Entine (1977) reported on a national survey of adult career programs in which 32 percent of all programs surveyed were designed specifically for women. Many more programs were found for middle-class women, educated women who had never worked, or women who had been out of the labor market for a considerable time. Far fewer were found for low-income women and female heads of households, the individuals who frequently work full-time but in low level dead-end jobs.

Hansen (1975), DiSabatino (1976), and Miles (1977) have listed some obstacles which inhibit women's career development. The needs that these obstacles present should be dealt with in adult career programs. They included home-career role conflicts, focus on marriage or marriage prospects, lack of work orientation, sex discrimination, lack of funds, and lack of self-confidence and self-esteem.

Voluntary/Involuntary Career Changers

There are two general reasons for making a career change (Lowther, 1976). The first is a voluntary change and involves the interpersonal relationship of an individual with a particular occupation. A shift may come about because of feelings and attitudes toward an

occupation following a close examination of the meaning of work and how that individual related to it.

The second involves external forces. Social, technological, and economic factors may force career shifts. Some persons change with reluctance and bitterness, the decision having been made for them by events over which they have limited control. Those whose change is voluntary "approach reeducation with a set of attitudes different from those of people forced to change." (Lowther, 1976, p.5.)

Everywhere you look, people are moving around, changing jobs, going back to school, getting divorced. Starting over, in short. At age 30, 40, 50, 60--there's no end to it. (San Francisco Chronicle, 1975, p.1.)

Terkel's (1972) portrayal of the worker in his introduction to Working presents a gloomy picture of the interpersonal relationship with an occupation:

As the automated pace of our daily jobs wipes out name and face--and, in many instances, feeling--there is a sacrilegious questioning these days (work ethic). . . . No matter how demeaning the task, no matter how it dulls the senses and breaks the spirit, one MUST work. Or else. (p.xiv)

Toffler's (1980) portrayal of the future worker is totally opposite. Toffler shows the interpersonal satisfaction a worker can experience. A desire for this satisfaction motivates a voluntary mid-life career changer.

Workers who seek meaning, who question authority, who want to exercise discretion, or who

demand that their work be socially responsible may be regarded as troublemakers in Second Wave (present) industries. But Third Wave (future) industries cannot run without them. (p.403)

Industrial America's present interest in Japan's productivity is beginning to have an impact on the importance of employee satisfaction (Bonner, 1982, p.681).

Our economy is characterized by rapid technological change and cyclical movements in productivity and employment. Terkel also states "The science of medicine has increased our life expectancy, but the science of business frowns upon the elderly." Unemployment, a consequence of these market factors, is particularly serious for the worker over 45 years of age. An unemployed older worker can expect to remain out of work for 30 to 70 percent longer than their younger counterpart (Entine, 1977). A voluntary career changer is not so bold during bad economic conditions and high unemployment.

A large number of individuals are presently being forced into involuntary career choices in order to meet their personal financial needs. When the economy improves these same individuals will need assistance in making a voluntary career change in order to meet their personal satisfaction needs. There will be a constant and growing need for additional help for the older worker changing occupations--the involuntary change due to current

economical stress, and the voluntary change because of interpersonal stress.

Support Systems

A group of adult career changers embody a large variety of support systems. There are many combinations among the four principal factors that constitute the support systems: 1) emotional and 2) financial, who are 3) single or 4) coupled.

Studies on mid-career job or occupational change have found that financial support for the change is important in many cases (Heistand, 1971; Clopton, 1973; Roberts, 1975). Other studies support the findings that dependents can deter or delay occupational or job change (Roe and Baruch, 1967; Haug and Sussman, 1970; Orth, 1974). Neapolitan (1980) found the obstacles to change were mostly financial.

Emotional fears and support needs of the spouses are again in opposite directions between the female and male population (Rubin, 1979; Sheehy, 1976). Sheehy (1976) and Rubin (1979) picture the husband's concern regarding the changes in his wife and within his own life as a cause of his withholding support when she most needs it. Heath (1977) states that a wife was the main deterrent for a male's making a mid-career change.

Again, adult programs are complex, as they must allow for both the financially pressed job seeker and the individual with plenty of time to look for more rewarding work.

Special Needs

Campbell (1975) notes that research on career development of minorities and guidance practices and techniques for them are scarce. Theorists assert that minority group members typically do not have the chance to develop a career. Minorities have a more difficult time choosing and pursuing a career at mid-life than nonminorities. Lack of access to a wide range of career options is a problem for them. Lack of information about career options, lack of self-confidence in academic ability, lack of funds, and lack of adequate counseling all contribute to limited access to educational opportunities during mid-life (Miles, 1980).

In summary, adult career changers present an extremely complex combination of needs and pressures. The only constant appears to be that "fear of overall career failure is related to career change at any age." (Vaitenas and Wiener, 1977, p.302.)

Postponement of a career decision can be a healthy experience for an individual if it results in further exploration of the world of work and wider knowledge of

various alternative careers open to an individual (McGowan, 1977). However, some individuals postpone decisions merely to avoid a commitment (Tyler, 1961).

"Mid-life Crisis"

Mid-life career change has been variously labeled as mid-career change, seasons, middlescence, mid-career shifts, middle-age blahs, second careers, mid-life explosion, and mid-life crisis. Studies of mid-life career change focuses on the 35-to-45 age group. It has been estimated that as many as one-third of the Americans in this age bracket are affected by career change (Arbeiter, 1977; Heffernan, Macy, and Vickers, 1976; Sommers and Eck, 1977).

This period of life appears to be a transition point in adult life which is not only common, but quite universal. A systematic review and critique of work of mid-life researchers and theorists such as Gould (1978), Vaillant (1978), Levinson (1978), Rubin (1979), and Sheehy (1976), among others, indicates that:

- 1) a mid-life transition period exists from approximately 35 to 55 years of age and lasts as many as ten (10) years for both men and women;
- 2) a series of unique and fundamental biological,

- psychosocial, interpersonal, and developmental tasks occur during mid-life transition;
- 3) a major reassessment of personal functioning, primary relationships, and the world of work often occurs in this period;
 - 4) the emergency at mid-life of expressive parts of the personality for men and instrumental components for women represents a major source of personal and marital stress.

Some have described mid-life as a time for expressing exuberance, excitement, a time of renewed energy with an increased desire for greater satisfaction, while others refer to it as a time of confrontation with a terror for not having reached a goal and psychosocial decline (Neugarten, 1977; Schlossberg, Troll and Leibowitz, 1978; Lowenthal, 1976; Hall, 1979; Manis and Mochezuki, 1972; Bardwick, 1975; Jacques, 1965; and Gould, 1978).

Mid-life is every bit as turbulent as adolescence, except now we can use all this striving to blend a healthier, happier life. For unlike adolescents, in mid-life we know and can accept who we are. (Gould, 1978, p.307.)

Levinson (1978) described the mid-life turmoil:

Every aspect of their lives comes into question. . . .A profound reappraisal of this kind cannot be a cool, intellectual process. It must involve emotional turmoil, despair, the sense of not knowing where to turn or of being stagnant and unable to move at all. (p.199)

In studies conducted by Lingren (1979) and Roberts (1975), individuals experiencing emotional conflict with their work expressed it in various ways:

I can't seem to shake the feeling of being fenced in.

What's the use, I'm trapped in a job I've had for 20 years and I'm getting nowhere.

You've just passed your fortieth birthday. . . you will remain in your present job for the next twenty years. . . Remember, you can count on doing the same things from now until retirement.

Let's say I'm a successful failure.

We realize we are not going to make it to the top like we anticipated at age 25. Is it really worth it? We wonder what other men feel and think. Of course, we don't ask because that isn't the way men do things.

Suddenly, everything seems like a terrific struggle--with our children, our marriage, on the job.

My wife enjoys her job more than me, my kids have their own friends, have I only been a paycheck?

Terkel (1972), after spending three years interviewing people in their work roles, found there was no concealed discontent. "The blue-collar blues is more bitterly sung than the white-collar moan." Terkel also states:

I was constantly astonished by the extraordinary dreams of ordinary people. No matter how bewildering the times, no matter how dissembling the official language, those we call ordinary are aware of a sense of personal worth--or more often a lack of it--in the work they do. (p.xxix)

Freud (1962) said ". . .his work at least gives him a secure place in a portion of reality, in the human community." (p.98) This secure feeling is only experienced, however, if that individual is what Super (1977) refers to as a "vocationally adjusted person." He describes that person as

. . .one who is doing what he likes to do and is a success at doing it. . .is coping with tasks appropriate to his life stage in ways which are likely to produce desired outcomes. (p.294)

The meaning of work changes as adults move through predictable, though often unanticipated, life phases. Elements of dissatisfaction are a result of unrealistic expectations in their careers, or a changing sense of values which some say occurs particularly at middle age (Levinson, 1978; Neugarten, 1976).

Female and male mid-life has often brought opposite patterns of pressures and commitments to a career. Sheehy (1976) referred to it as the diamond pattern. Rubin (1979) describes the female mid-life stage as

For women, at least, mid-life is not a stage tied to chronological age. Rather, it belongs to that point in the life cycle of the family when the children are grown and gone, or nearly so--when, perhaps for the first time in her adult life, a woman can attend to her own needs, her own desires, her own development as a separate and autonomous being. (p.20)

Previously, the main restrictions for the female were restrictions she placed on her own self. She also often

suffered from a lack of an internal dream (Touchton and Magoon, 1977). Studies show the female who has pursued a career experiences improved feelings of self-esteem and achievement but not marriage satisfaction (Nero, 1975).

Today's liberated women are now beginning to feel another pressure. They have succeeded with a career but now find the biological time clock is running out and they are dropping out of a work force to raise families. Chapman (1982), Director of the U.S. Census Bureau, in an interview in U.S. News & World Report, states:

The expectation of women now is that they will have a career, marry late, have children, stay home for a period and then resume their careers. This pattern has all kinds of social and economic consequences. (p.52)

Levinson (1978) concludes that an inevitable result of these changes and pressure is alteration. These career changers are not desiring an occupational change because of an emotional instability, but rather the emotional pressures are often due to unsatisfactory occupational situations. Researchers have found mid-career changers to be well adjusted people (Heistand, 1971; Clopton, 1973; Roberts, 1975).

Choices congruent at earlier periods can become incompatible if the individual's interests, values and goals change. Mid-life career changers need help in exploring the incongruence between themselves and their jobs, help

in considering their resources, and help in setting new goals based upon alternatives considered and means to achieve them (Lingren, 1979).

Usually, a "marker" event, such as the death of a parent or loss of a job, triggers this time of reevaluation and restructuring (Levinson, 1978). Readiness is a very important variable in human behavior. Vines (1979) suggests that it may be an interaction between this developmental stage of life and a chronic conflict-producing situation (e.g., high marital conflict) that acts as a catalyst to start the transition. Previous problems that seemed tolerable become intolerable, resulting in an urgency to "change my life before it is too late."

Levinson (1978) sums it up when he characterizes a mid-life season as "occurring whether or not an individual succeeds or fails in his search for affirmation by society." (p.37) Levinson maintains that all individuals stop at mid-life to analyze what they really want from life.

Adult Developmental and Vocational Theories

Educators have been attempting to meet the needs of a growing number of adult students. At the same time, psychologists and sociologists have been attempting to develop an understanding of the adult developmental stages. A psychology of the adult stages has lagged far behind the

child and adolescent stages (Bischoff, 1969; Neugarten, 1968).

Freud (1962) maintained a man would never tire of his work if he found the right occupation. He did not elaborate on career development. Jung (1971) gives us a concept of his awareness of mid-life:

Middle life is the moment of greatest unfolding, when a man still gives himself to his work with his whole strength and his whole will. . . .The second half of life begins. Passion now changes her face and is called duty. 'I want' becomes the inexorable 'I must' and the turnings of the pathway that once brought surprise and discovery become dulled by custom. . . .One begins to take stock to see how one's life has developed up to this point. (p.535)

Jung also stated he felt such insights were difficult to achieve and "they are gained only through the severest shocks." (p.535)

Erikson (1964) is recognized for laying the groundwork for the stages of adult development. Erikson divided the life cycle into eight psychosocial stages that extend from birth to death; each stage represents a major crisis or turning point. He also felt that success in the later stages depended on how well the foundation had been laid during earlier stages.

Havighurst (1953) felt tasks arose at designated periods of time in an individual's life and were a result of changes within an individual and inner pressures of aspirations and values.

A developmental task is a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks. (p.2)

Vaillant (1972) found that life experiences occur at appropriate, predictable times without becoming a crisis. He saw little emotional upset within the adult. He did feel that career consolidation occurred during the thirties and generally resulted in termination of mentors. Brim (1976) sees the mid-life as a "crisis" if several problems are occurring simultaneously.

Lowenthal (1976) does not believe that external changes necessarily bring crises, but rather are occasions for both incremental and decremental changes, in which one stage is left behind, a phase of life over, but new growth and development are ahead. Lowenthal concludes that intimate relationships with significant others will result in less trauma at these time periods. She agrees middle-age men are a high-risk group. She predicts there will be less disruption and conflict in the future because our society is developing more openness, sensitivity, and self-revelation.

Neugarten (1976) disagrees with theorists concerning the influence of external events. She states "a psychology of the life cycle is not a psychology of crisis

behavior so much as it is a psychology of timing." (p.20) She asserts a biological approach (social clock) to viewing adult development is sufficient. She feels that an individual is freer at mid-life than any previous period. Mid-life is a time when an individual starts counting the years left to live rather than the years since birth.

Sheehy (1976) proposes there are predictable changes that occur throughout the life cycle. She identifies six passages through which adults pass, with the male and female rhythms often going in opposite directions. Sheehy reports that the "catch 30" stage finds individuals restless, dissatisfied, and self-reflective; they reassess their "dream" and desire a change. Both men and women seek to broaden their lives. Women are often found going in opposite directions within their own group. A homemaker is ready to attack the world of work, while a career woman shows a renewed interest in marriage and children.

Gail Sheehy's bestseller, Passages, popularized a fresh psychological theory of a way adults develop, change and grow. One of the primary sources for Passages was Daniel J. Levinson, Professor of Psychology at Yale University, and author of The Seasons of a Man's Life. Levinson (1978) states in the introduction to his book the reason for doing this particular study:

At 46, I wanted to study the transition into middle age in order to understand what I had

been going through myself. . . .Over the previous 10 years my life had changed in crucial ways; I had 'developed' in a sense I could not articulate. (p.x)

Levinson's (1978) study only included the mid-life male. The period he called the "mid-life transition" appeared to be a critical turning point between two periods of relative stability. This period was filled with confusion and turmoil for many because of the disparity between one's aspirations and actual accomplishments. The males had to deal realistically with their declining physical abilities, along with their false hopes, illusions and fantasies. A more feminine side of their individuality was allowed to emerge. Some experienced satisfaction and fulfillment and became more secure, ordered and regulated. Levinson has arranged a one-year leave of absence with headquarters on the Berkeley campus while he finalizes his research just completed with a female population.

Gould (1972) states that mid-life is a "trade-off" period for risk-taking, security, and vitality. Men working in large organizations appeared dissatisfied in their fifties after seeming content with their family and personal lives in their thirties. This period of life was referred to as a "second adolescence." Individuals are confronted with their mortality and revealed concern that

the time necessary to make changes was rapidly coming to an end.

Bridges (1980) sees the mid-life as a return to openness of the youth with 20 years information and experience. Bridges sees a remodeling period, the extent dependent upon how much previous changes have been made during earlier stages.

As people age and move into different life stages, their values, interests, and even self-perceptions grow and develop. While radical changes in personality usually do not occur with age, different facets of one's personality may emerge and have greater potency than at earlier stages of one's life.

It is clear that transitional periods and critical turning points occurring throughout the life span do not create turmoil and confusion for all individuals. Differences between individuals influence the degree to which significant life events are experienced as traumatic. All basically agree that every developmental transition presents a new opportunity for integration. To the extent that individuals do this, they create a firmer basis for their life in the ensuing phase. To the extent that they fail, they form inner barriers that will be reflected as flaws in their next life phase.

Developmental psychologists want to know in particular whether career change is preceded by identity change. Or is there identity change after the career change? The concept of vocational maturity is relatively new in psychology, and although it has gained currency among counseling and vocational psychologists as well as career education specialists, the concept is still virtually unknown to other educators.

Vocational maturity is defined as the ability to cope with the vocational or career development tasks with which one is confronted. This ability is compared with that of others who are at the same life stage and facing the same developmental tasks, and has been central to the theoretical and research activities of the career pattern study and to the work of a number of other researchers in vocational choice and adjustment, career development, and career education. (Super, 1977, p.19.)

Several vocational theorists have examined the process by which individuals make a series of occupational decisions. Ginzberg (1972) in a revision of his theory, noted that he now views occupational decision-making as an open-ended process that can coexist with an individual's working life. In 1952 he advocated three major principles: 1) occupational choice is a developmental process; 2) this process is largely irreversible; 3) this process is terminated in a compromise between interests, capacities, and values and realistic job opportunities. However, in 1972, optimization replaced his original

concept of compromise:

Men and women seek to find the best occupational fit between their changing desires and their changing circumstances. Their search is a continuing one. As long as they entertain the prospect of shifting their work and career, they must consider a new balance in which they weigh the putative gains against the probable costs. Our studies of talented men, educated women, and career shifts after age thirty-five have persuaded us to move from the static concept of compromise to the dynamic counterpart of optimization. (Ginzberg, 1972, p.171.)

Super (1957) also concludes that career development is a lifelong process. One of the most significant components of Super's theory is that vocational satisfaction is a result of the extent to which individuals have been able to implement their self-concept and to find outlets for interests, abilities, and values. Super states:

In expressing a vocational preference a person puts into occupational terminology his idea of the kind of person he is; that in entering an occupation he seeks to implement a concept of himself; that in getting established in an occupation he achieves self-actualization. The occupation thus makes possible the playing of a role appropriate to the self concept. (p.116)

In recent years, Super and Kidd (1977) have proposed a "career rainbow" for depicting major fields of occupation an individual enters within a life span. Super and Kidd (1977) state:

Vocational or career development tasks change with chronological age, civil status, experience, changing social or economic conditions,

and the physical and mental changes that take place with these other changes. The term 'mid-career crisis' is not professional jargon or scientific terminology, but everyday English. The role changes that come with middle age and with old age confront people with developmental tasks throughout their entire lifetime, and readiness to cope with vocational development tasks continue to be important as the tasks change. (p.255)

Holland's (1973) theory of vocational choice has clear implications concerning the relationship between personality and career choice and stability (Holland and Gottfredson, 1976). Individuals tend to gravitate toward and remain in occupations compatible with their personality structure. They are less likely to choose or remain in occupations that do not fit in with their personalities. Thus, midcareer changers are expected to possess personality characteristics incompatible with the demands of their present occupation.

Holland proposes six personality types and six matching occupational environments. These types are summarized by Hall (1966, p.13) as follows:

1. REALISTIC--involves aggressive behavior and physical activities requiring skill, strength, and coordination. (Examples: forestry, farming)
2. INVESTIGATIVE--involves cognitive (thinking, organizing, understanding) rather than affective (feeling, acting, or interpersonal and emotional) activities. (Examples: biology, mathematics, oceanography)

3. SOCIAL--involves interpersonal rather than intellectual or physical activities. (Examples: clinical psychology, foreign service, social work)
4. CONVENTIONAL--involves structural, rule-regulated activities and subordination of personal needs to an organization or person of power and status. (Examples: accounting, finance)
5. ENTERPRISING--involves verbal activities to influence others, to attain power and status. (Examples: management, law)
6. ARTISTIC--involves self-expression, artistic creation, expression of emotions, and individualistic activities. (Examples: art, music, education)

Holland's model of careers and personality depicts the six areas he has designated. The combinations of those areas that are of interest to each individual is dependent upon his personality.

Adjacent are most alike.

Opposites are most unlike.

Intermediate are somewhat
unlike.

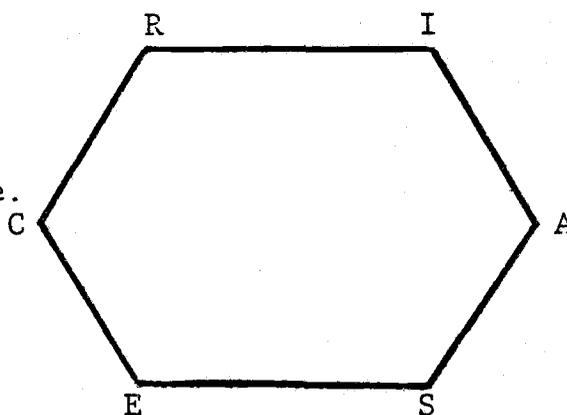


Figure 1. The Holland Model.

Congruence is the compatibility of the individual's personality type with their occupational environment. People are described as congruent if their occupation matches their personal orientation. Conversely, an individual whose highest scale on the Vocational Preference Inventory is conventional (C) and whose occupation is artistic (A) would be described as incongruent. According to Holland and Gottfredson (1976), incongruence leads to conflict. Individuals who are not in occupations congruent with their personality characteristics are predicted to be dissatisfied and unsuccessful. (Holland, 1973, p.67.)

Holland believes that reasons for career shifts in the adult years can be explored through use of this person-environment model. Furthermore, clients can be helped to find more appropriate, satisfying occupations. He feels if accurate self-knowledge and occupational information are supplied, individuals tend to make more adequate vocational choices.

Career development can be viewed as one specific component of adult development that occurs against the background of the general life adjustments. Current career development theories recognize that forces outside individuals also have an influence on their behavior.

Summary

Recent years have brought a public awareness of the interaction of adult development and its relationship to work. A mid-life career changer is no longer being

considered an unstable individual. Rather, a changer's values and goals have modified to make a previous occupation uncomfortable, as it is no longer an expression of a changer's self-concept. The number of adult career changers is growing and will continue to grow.

Career decision programs have previously been developed for elementary, secondary, and young students in higher education. Presently, educators are adapting these same concepts for programs to meet specific needs of adult career changers. Research on the effectiveness of these programs is needed for guidance in further development.

The basic question is whether a single program can adequately produce the desired results for a population containing such a complexity of needs. The first step would be to determine whether there is a measurable difference in outcome between the two approaches now offered --the classroom group programs and the individualized telecourse programs. Research is also needed to determine the effectiveness of present programs within various groups found within the entire population.

Educators are aware there is a growing number of adult career changers. Educators are also aware of a need for data that will determine the most effective means of meeting the unique needs of adult career changers.

III. DESIGN OF THE STUDY

This study was an investigation of the effectiveness of certain aspects of post-secondary career programs within the adult population. It was designed as a pilot study to create formative information for further development of adult career programs.

In seeking answers, the study considered if there was a significant difference in vocational self-concept crystallization by the participants within the classroom group programs as compared to the individualized telecourse programs. Consideration was also given to age, sex, years of education, years of work experience, voluntary/involuntary career changer, and placement on Holland's Model.

The following sections are included in this chapter: selection of the population, instruments used in the study, collection of data, and analysis procedures.

Selection of the Population

The population of this study consisted of adults who successfully completed a post-secondary career program during the 1981-1982 school year. Schools included in the study were Clackamas Community College, Clark Community

College, Mount Hood Community College, and Portland Community College.

There is no statistically representative way to locate mid-career occupational changers (Neapolitan, 1980). Consequently, for the purpose of this study, students were chosen from classes offered by the above schools, who met the following additional requirements:

- 1) minimum of 25 years of age,
- 2) minimum of two previous work experiences,
- 3) successful completion of career course requirements,
- 4) completion of both the pre- and post-administration of the Vocational Rating Score instrument,
- 5) verification of placement on Holland's Model,
- 6) personal interview with author upon completion of above requirements.

Sixty-six participants were used in this study.

Thirty-three were enrolled in the classroom group programs; 33 were enrolled in VOYAGE, the telecourse programs. The participant involvement, by schools, were:

- 20 from Clackamas Community College,
- 16 from Clark Community College,
- 16 from Portland Community College, and
- 14 from Mount Hood Community College.

There were a total of eight programs: Programs One through Four were comprised of classroom groups, Five through Eight included the telecourse programs. A complete profile and categorical data concerning the participants can be found in Figure 1.

Instrument Used in the Study

Extensive search was required to locate an instrument that contained questions and vocabulary appropriate for the adult population. There was also a desire to find an instrument that was sexually non-biased. The Vocational Rating Scale, developed by Dr. Thomas Barrett (1977a, b) met both of these special requirements. (Copy of instrument in Appendix A.)

The Vocational Rating Scale (hereafter referred to as the VRS) was developed as a global measure of vocational self-concept crystallization. The VRS consists for 40 self-descriptive statements on how individuals perceive their vocationally relevant attributes and characteristics. Each statement is rated on a five-point Likert scale as to how true the statement is at the time of the testing. The keying direction of the items is balanced to minimize the acquiescence in responding.

The VRS and the Tennessee Self-Concept Scale (TSCS) were administered to 31 male and 16 female undergraduate

students in an introductory psychology class. Internal reliability of the VRS was measured at .94 using the Cronbach's Alpha Coefficient. Twenty of the students were retested on the VRS after a short interval. The product moment correlation was found to be +.76, which established the VRS to be a stable measure over short periods of time.

The convergent validity was obtained by comparing the relationship between VRS scores and the Distribution Scale on the TSCS. The Distribution Scale measures the respondent's certainty regarding self-descriptions on the scale of self-concept content; therefore it was thought that individuals would differ significantly in mean VRS scores if they placed high or low on the Distribution Scale. A t-test was calculated on the person's falling into the top third and bottom third ranges. There was a significant difference ($p < .01$), as was predicted. The product moment correlation between the two scales was +.38, which proved significantly different from zero using a two-tailed test ($p < .01$).

The career commitment was tested with the analysis covariance, using the VRS as the dependent variable. There was a significant difference ($p < .01$) in the group main effect, but neither the sex nor the sex-by-group interaction was significant. A priori comparisons (using the Newman-Keuls test) revealed that the graduate students'

VRS mean scores were significantly higher ($p < .05$) than undergraduate students and career counseling clients. The VRS scores were associated with differences in career commitment as they appeared, even when age was held constant.

The self-esteem testing involved the administration of the VRS, the TSCS, and the Marlowe-Crowne Social Desirability Test to 50 male and 52 female undergraduate introductory psychology students. A 2x2 analysis of covariance was used with the VRS scores as the dependent variable and level of self-esteem and sex as the independent variables. Barrett's study indicated that both sexes with high self-esteem were significantly higher ($p < .01$).

The Vocational Rating Scale proved to be reliable on a test-retest basis, internally consistent and valid in discriminating career commitment and self-esteem for university students.

Collection of Data

The career program directors for the schools were contacted by telephone regarding their participation in the study. In each case the directors gave enthusiastic approval, wishing to obtain information concerning the effectiveness of career programs presently being offered. Arrangements were then made for an appointment in each

career director's office to discuss an additional list of details:

- 1) the purpose of the study was to measure the effectiveness of vocational self-concept crystallization within the career programs for the adult;
- 2) the VRS instrument must be administered at the beginning and ending sessions of the term;
- 3) the participants' test results were to remain anonymous;
- 4) the individual schools would not be compared--only group and telecourse programs were to be compared;
- 5) the participation of individuals would be voluntary;
- 6) the administration of the VRS was to be incorporated into the other regular class activities conducted by the teacher;
- 7) the student's personality profile in connection with Holland's Model must be determined;
- 8) the personal interviews with the participants were to be arranged and conducted entirely by the investigator without the assistance of the career program directors;

- 9) the project would be explained to the students, and the investigator would be a participant and observer of the classroom activities;
- 10) the participating schools would receive a copy of the report when the project was completed.

The VRS was administered at the beginning and ending of the school terms. Observation and participation was conducted in each class session throughout all the programs included in the study. "Break periods" and the time preceding and following the classes were utilized to become individually acquainted with each participant. Conversations were directed towards discovering a clearer picture of the individual needs of the students and how those needs were being met during the term. Following the completion of the course, a personal interview was arranged with each of the 66 participants. A guide used for the interviews can be found in Appendix B.

Analysis Procedures

In seeking an answer to the effectiveness of the adult career programs, the study considered the retention or rejection of the following null hypothesis:

H_0 : There is no significant difference between the adjusted Vocational Rating Scale scores for group and individual programs.

A one-way analysis of covariance was used to determine whether there were significant differences between the adjusted VRS scores for classroom group programs and the individualized telecourse programs. The dependent variable was the student's adjusted VRS scores.

Courtney (1982, pp.249-250) explained analysis of covariance as a statistic which combines analysis of variance and regression to handle situations where the researcher cannot completely control all of the variables in a study. It is a procedure for testing the significant differences between means of final experimental data by taking into account and adjusting for initial differences in the data.

The one-way arrangement for analysis of covariance utilized the pretest score as the covariate. The mathematical model used for analyzing the data is detailed below:

$$Y_{ij} = \mu + \alpha_i + \beta(X_{ij} - \bar{x}) + \epsilon_{ij}$$

where

μ is an unknown constant,

α_i is the differential effect associated with groups,

$\beta (X_{ij} - \bar{x})$ is the adjustment of the post-test measures,
and

ϵ_{ij} is the residual effect, independent and
normally distributed with a mean of zero
and a variance of σ^2 .

The sampling design matrix representing a one-way ar-
rangement is shown in Table 1.

Table 1
Sampling Design Matrix

Programs	Pre-test	Post-test
Classroom	N = 33	N = 33
Telecourse	N = 33	N = 33

The sample size provided for a power level of at
least .80 when the effect size was set at .35. These lev-
els were considered to be adequate in terms of providing
valid inferential information.

Usually a power level of .80 is considered as
the convention for most problems. This level
provides at least an 80% probability that a
false null hypothesis will be rejected. In
other words, real population differences will
be found to be statistically significant in a
sample of replication 80% of the time. (This
level is consistent with the idea that the
general seriousness of Type I and Type II
errors are considered as being four (4) times

more serious than Type II errors when α is
set at .05.) (Courtney, 1982, p.15.)

IV. PRESENTATION OF THE FINDINGS

The analysis of the data collected for this study is presented in two sections. The first section is descriptive data that reports the tabulation of responses as to how each participant perceived the value of the various segments of the program. The second section presents the results of the analysis of covariance statistical technique used in testing for differences among adjusted mean scores of the two programs.

Descriptive Data

Upon completion of the class requirements, personal interviews were conducted with each of the 66 participants. Participants were reminded that:

- 1) they would remain anonymous;
- 2) the research was to compare the vocational self-concept crystallization among adults enrolled in community college career programs;
- 3) the research WAS NOT a comparison of one school to the other three;
- 4) the research WAS a comparison of the classroom group programs to the individualized telecourse programs.

Age

The participants' ages varied from 25 through 57 years of age. The largest group of participants were between the ages 30 and 34. The average age for the classroom groups was 34.9; while the average age for the telecourse programs was 33.0; resulting in an entire population figure of 34.0 for the combined average age (Appendix C, Figures 2 and 3).

Male/Female Ratio

The male/female ratio for the classroom group was 12 males and 21 females; the telecourse programs' ratio was 16 males and 17 females; and the ratio for the entire population was 28 males and 38 females. The ratio was nearly equal within the telecourse programs, but nearly twice as many females were involved in the classroom group programs (see Appendix C, Figure 2).

Years of Education

Years of education for the classroom group averaged 13.4 years; the average years of education for the telecourse programs was 14.0. There was a combined average of 13.7 years of education for the entire population. The classroom groups had the largest enrollment of individuals with 12 years of education, while the telecourse programs

had the largest enrollment of individuals with 13 to 14 years of education (Appendix C, Figures 2 and 4).

Personality--Holland's Model

Participants with their two highest personality scores falling within the social, enterprising and artistic categories on Holland's Model were placed in the SEA category. Participants with their two highest scores falling within the realistic, conventional and investigative categories were placed in the RCI category. The classroom groups included more SEA participants--19 SEA and 14 RCI, while the telecourse programs included more RCI participants--14 SEA and 19 RCI. The combined total for the entire population was 33 in each personality category (Appendix C, Figure 2).

The above figures correspond with Holland's (1962) findings that of the six types, the social and enterprising individuals relied most on other persons for their vocational information. Osipow (1973) and Walsh (1973) further confirmed the relationship and also suggested that two of the other types, investigative and realistic, prefer an environment in which there is little contact with others. These types rely on self-examination in their vocational decision-making.

Work Experience

Work experience ranged from a returning housewife with minimal work experience to an individual with 37 years of work experience. The average years of work experience for the classroom groups was 11.2 years. The average for the telecourse programs was 11.4 years. Thus, there was an average of 11.3 years of work experience for the entire population (Appendix C, Figures 2 and 5).

Voluntary/Involuntary Career Change

There were 29 voluntary career changers within the classroom group programs and four involuntary career changers. The telecourse programs included 22 voluntary and 11 involuntary career changers. There were 51 voluntary and 15 involuntary career changers within the entire population (Appendix C, Figure 2).

Profile of Typical Participant

A profile of a typical participant, using the means of the various descriptive variables, showed the participant to be a female, 34 years of age, with 13.7 years of education, having 11.3 years of work experience, and a voluntary career changer.

Reasons Participants Enrolled
in Career Program

Table 2 gives the reasons participants enrolled in a career program. The combined responses for numbers: 1, 3, 4, 6, 8 and 12 yield a total of 41 (62%) participants--21 classroom and 20 telecourse--enrolling because of intrinsic interests, and 25 (38%) participants--12 classroom and 13 telecourse--enrolling because of extrinsic reasons.

Nearly twice as many individuals unhappy with their present occupations chose to pursue a career change through a telecourse program in their own homes. However, when there was immediate pressure for answers, twice as many chose a more aggressive action by enrolling in the campus classroom programs. Respondents indicated they felt an urgency for group interaction, hoping it would "expand and crystallize" their thinking.

Two gentlemen were contemplating starting their own businesses and expressed need for multiple input and feedback when making such a major decision. (Both indicated that the interaction gave them the confidence and motivation needed to make the decision but were delaying the actual change until Fall for further observation of the economy.)

Table 2

Reason Participants Enrolled in a Career Program

Reason	Class	TV	Total
1. Unhappy with present occupation	6 (18%)	11 (33%)	17 (26%)
2. Unemployed	6 (18%)	3 (9%)	9 (14%)
3. Personal growth	6 (18%)	3 (9%)	9 (14%)
4. Assurance presently in "right" job	5 (15%)	3 (9%)	8 (12%)
5. Needed credit for a degree	1 (3%)	5 (15%)	6 (9%)
6. Wanted to enter job market	2 (6%)	2 (6%)	4 (6%)
7. Were forced to enter job market	1 (3%)	2 (6%)	3 (4½%)
8. Wanted to start a business	2 (6%)	0	2 (3%)
9. Needed supplemental income	2 (6%)	0	2 (3%)
10. Injured/forced change of jobs	1 (3%)	1 (3%)	2 (3%)
11. Improve skills, teacher	1 (3%)	1 (3%)	2 (3%)
12. Improve skills, corporate trainer	0	1 (3%)	1 (1½%)
13. Curious	0	1 (3%)	1 (1½%)
Total	33	33	66

Seven of the eight who questioned their occupational fields determined they were in the right field; however, five of those decided to make major changes or adjustments (i.e., insurance administrator to private consultant). The eighth individual decided to change fields entirely.

Credits received were used to fulfill various academic requirements. These included elective hours, psychology and career education requirements.

The displaced homemakers were included in three groups: #6) wanted to enter the job market, #7) were divorced and forced to enter the job market, and #9) needed additional family income. Several women indicated they felt free to enroll in the telecourse programs but would have been unable to enter a campus setting because of feelings of inadequacy and stagnation.

Achieved Desired Goal

Fifty-seven (86%) of the participants felt they had achieved their desired goal for taking the program.

	<u>Yes</u>	<u>No</u>
Classroom Group	32 (97%)	1 (3%)
Telecourse	<u>25 (76%)</u>	<u>8 (24%)</u>
Total	57 (86%)	9 (14%)

The one individual in the classroom group with a negative response said she felt she already was aware of her own abilities, skills, and values and was looking for more direct information regarding careers and their availability. There were also two in the classroom group who registered frustration that they had not made a career decision. An emphasis had been placed on making a decision rather than "the process" of becoming aware of self and occupations. Thus, there failed to emerge an overview of the entire field of why certain occupations are rewarding or frustrating.

Telecourse participants showed a positive response in 25 individuals. Of the eight negative responses, five expressed a problem with "getting into" the written assignments for self-awareness. Two felt that the lack of support resulted in complete failure in achieving the desired outcome, and again, another was looking for more career information, and offered the suggestion that lack of success was perhaps compounded by the fact she did not complete the career research assignment.

The nine (14%) participants responding negatively were enrolled in a program that some individuals (Holland, 1962; Osipow, 1973; Walsh, 1973) believe is opposite to their personal learning style. The one (3%) participant in the classroom group who responded negatively was within

the RCI personality group and should have been enrolled in an individualized program. The eight (24%) telecourse participants giving a negative response were within the SEA personality group and should have been enrolled in a classroom group program.

Table 3

Why Participants Chose Group vs. TV Program

Reason	Group	TV	Total
Hoped for group interaction	21	--	21
Desired time convenience	--	19	19
Needed support	10	--	10
Desired convenience (travel, family)	--	10	10
Unaware of telecourse program	2	--	2
Feared campus setting	--	1	1
Hoped less work was required	--	1	1
"Happened" to view first program	--	1	1
Total	33	33	66

Only six participants had taken a telecourse previously. Five of those rated this program as a success, the sixth did not feel the content of this particular telecourse was equal to previous courses she had taken. She desired more career information regarding the availability of employment in various occupations, etc.

Findings suggest that the majority (94%) of classroom participants chose the group programs because of a need for group interaction and support. The majority (88%) of the telecourse participants chose their program because of convenience of time, travel, and family responsibilities. However, participants of the Spring telecourse were unanimously vocal with negative comments regarding the 11:00 to 11:30 p.m., Wednesday and Friday evening schedule. This schedule presented a double problem: the late hour, and also the fact that Friday evening is considered a part of the weekend. The preferred time was early evening, Monday through Thursday.

Reruns on Saturday and availability of showings on the campus are imperative for the success of the program.

A preference was not apparent for scheduled showings over access to tapes upon personal request.

Twenty-five (76%) of the telecourse participants described feelings of frustration because they were unable to discuss the new concepts with anyone while the concepts were being presented to them. Twenty-three (70%) of the telecourse participants said they felt deeply a need for some type of support.

The most commonly cited factor was, "I could not relate to the group discussions on the telecourse programs." Others added, "I couldn't offer my comments!" Another

stated, "I want to take it again with a group for the interaction and additional growth." One participant summed it up this way, "It fit into my schedule, and I think you get as much out of it as you put into it--it was valuable because I learned about me."

Classroom groups were consistent in their comments that group interaction and support was the most important aspect of the entire program. They felt the group gave them the confidence and motivation to take the necessary steps for a change or adjustment. They all began the program with feelings of fear and inadequacy, but seeing that others had felt inadequate also yet were making progress gave them the assurance they could succeed too, if they had the courage to try.

Most Helpful Component of Career Program

An open-ended question, geared to gather information on what was the most helpful component of the entire program, brought unanimous responses of approval regarding the amount of self-knowledge and its benefits. Participants from both programs registered equal positiveness for both the quantity and quality of self-knowledge they acquired.

Participants from both programs were equally unaware of the transferability of their previously developed skills

to new occupations. They frequently offered information on how this insight had given them confidence.

A number of individuals from both programs expressed amazement to discover that their values had changed, especially when they were of the opinion they had been updating them consistently. The fact that they were forced to analyze, prioritize, and then defend their reasoning developed an entirely new outlook in a number of situations.

One source of knowledge was especially interesting. As participants became aware of their unique interests and abilities, they often mentally raced back through previous jobs to apply this knowledge for clues as to why they did or did not like a particular job. As one participant stated, "It's like turning on a light bulb in a dark room."

Because the self-knowledge gained was the most often mentioned and caused the most widespread changes in other areas of the participant's life style, several of the comments should be included:

This course gave me the confidence to do what needed to be done.

The amazing aspect is I now have more confidence in all areas of my life.

I had no self-worth and was amazed to find how many skills I have developed through the years.

I know what type of a job will bring positive rewards, but better yet, I think I can get positive rewards out of some jobs that I thought were impossible.

I thought I knew myself completely. I can't believe how many values changed without my realizing it was happening.

I learned a process, a process I can use again when I find I have changed enough that this new job no longer 'fits.'

I resisted the whole process in the beginning, but I saw others doing it (self-assessment) so I entered in and the outcome has been an entirely new outlook in all areas of my life.

Realizing others in the room were also confused and scared really helped. If they could change their world, I could too. Not being the 'only one' was so important to me.

Private Counseling

A minimum of one counseling session was required of each participant in all programs. Participants often referred to this activity as the "catalyst" that brought the whole process into focus. The telecourse group, however, frequently voiced the need of additional appointments with the counselor for discussing the issues presented on the television. The telecourse program appears to require more contact hours of private counseling than the classroom group program.

The satisfaction level for the telecourse participants appeared to be directly related to the amount of contact hours with the teacher or counselor. This should be included in a future study. Perhaps the administration is not fully aware of this extra demand on the teacher's time

and should allow for it when looking at the cost/ effectiveness of this particular telecourse program.

Imagery/Autobiography/Perfect Work-Day

Various terms were used for the exercise of visualizing what the participants' ideal work situation would be ten years in the future. Participants were in two very separate camps concerning their opinions of the effectiveness of this activity. One group was unable to imagine, while the others experienced vivid and "big" concepts. One individual stated six months later that he was still receiving some very positive input and direction from that particular exercise. He felt that the delay in time had made him more aware of actual benefit received, even to a change of direction in his occupational future.

In the opposite camp, several only laughed when asked about the exercise. Outcome of this activity appears to be affected by each individual personality rather than by how various exercises are presented. While some receive no benefit, a large number do receive a great deal of help from this projected thinking exercise. Thus, it is recommended that the exercise be included in the curriculum.

Interviews

All participants were required to arrange and conduct a set number of interviews with individuals employed in occupations that they felt they would be interested in pursuing. This component of the course was of equal effectiveness and response in both programs.

Outcome of the exercise is directly related to the amount of creativity and effort the participant put into it. Participants felt it was the most fact-finding of all activities concerning what each occupation had to offer.

If this assignment was done after the participant has a complete self-knowledge assessment, it often became the determining factor when individuals were considering a given occupation. It seems to be a valuable part of the course that enables them to finally pinpoint the reason why they have made their choices.

Career Resources

The majority of participants from both programs had never been in the Career Centers before. They were amazed with the wealth of career information available. Both groups were aware that career research assignments had served as a vehicle for teaching research skills. These same skills could afterwards be used for an additional adjustment or career change.

Suggestions for Improvements/Additions

The general consensus of the classroom group, other than the suggestions for more one-on-one interaction time, was an expression of total satisfaction. One-third of the classroom group participants did express a desire for an increased opportunity for interaction in smaller groups of only two or three individuals. It seems evident that, since this suggestion came from all four of the classroom groups, it was not a suggestion for one program but rather a vital concept to be enlarged in all future programs.

The following ideas were also submitted by the classroom group: additional job search techniques, include follow-up courses in life planning and motivation, and additional help in resumes, interviewing, and general hiring procedures. One 47-year-old male suggested to a male program director that a class that included only successfully employed middle-aged males would be helpful, as he felt they had a set of unique needs that called for specific discussion and activities.

Thirty-two (97%) of the telecourse participants voiced a need for additional group meetings and/or support systems. There were numerous references to a need for a meeting after viewing the second or third program, to assure individuals they were acquiring a correct concept and direction for the program. Two individuals suggested including an

option of receiving additional credit for attending extra group meetings on campus, allowing a more intensive program for those desiring it.

Twenty-seven (82%) of the telecourse participants suggested the time schedule was a serious problem. They understood a need for scheduling one quarter of the year in the mid-afternoon (winter), for the convenience of the housewife and night workers; however, the spring schedule for 11:00 to 11:30 p.m., with the double disadvantage of Wednesday and Friday nights (weekend), was a definite problem.

Program directors had no voice in final time schedules nor in choosing the 20 of 30 programs used for broadcasting. Perhaps this needs some consideration.

Nearly one-fifth of the telecourse participants stated they felt it would be of benefit if a more thorough orientation were included in the first group meeting. This correlates with a prior suggestion by others in the telecourse program that a second group meeting be held after viewing the second or third broadcast. The same orientation, with reference to what concepts would be covered in career programs was given at all sessions. The two above suggestions would make it appear that the weekly classroom sessions enable participants in the classroom groups to become attuned earlier to the program format and goals.

Participants of both programs suggested inclusion of guest speakers who are professionals in their fields. Telecourse guest speakers were mentioned as a positive on several occasions. However, five telecourse participants stated they did not have confidence in comments offered by the telecourse participants in the group discussions. They felt it appeared to be staged and the participants reminded them of being "primed actors."

Need for Further Assistance

Thirty-three (100%) of the participants in the classroom group programs stated they had no need of further help. They knew what should be done and how to go about doing it. Twenty-four (73%) of the telecourse participants stated they had no need of further help. Three wanted additional counseling sessions with their instructor; three felt they needed to do additional research for career information; two felt they did not have the home support necessary for making a needed change, and one was waiting to make a final decision until Fall, in hopes the economy would improve.

Six-month Follow-up

The first classroom group program was completed in December. The participants were contacted again in June

by the investigator to gather opinions of the effectiveness of the program in their individual situations after a six-month time period. The entire class was contacted with the exception of one male who had moved and left no forwarding address or phone number.

The entire group told stories of satisfaction and success in adjustments or job changes as a direct result of things they learned in the career program. The following are some of the comments:

It opened doors for me.

I am still getting spin-offs from that class on my job.

I am attacking my work problems successfully, rather than withdrawing.

My boss told me I was chosen as state representative for Buxton Leather because of my approach and tenacity--they were skills I learned in the career program.

I analyzed what was causing my stress, corrected it, kept my old job, and I couldn't be happier.

I found a good position in marketing with better money and where being a woman is appreciated.

I created a new job, which I had planned and started before the class, but after doing the self-assessment activities I decided it was not what I really wanted so I gave it away--and I feel good about it.

I started over again. The group gave me the motivation to break out of my comfort zone and succeed.

I feel so secure, I can redo the process again whenever I desire.

This research has not attempted to look at the residual problems of career changing, such as problems faced by the significant other person, nor the changes within the career changer if he is unable or unsuccessful in accomplishing an acceptable change. All of these areas suggest a need for additional programs.

The Analysis of Covariance

The vocational self-concept crystallization was measured by the administration of the Vocational Rating Scale. The pretest, which was utilized as the covariate, was administered during the first session and the post-test was administered at the completion of the program.

The dependent variable was the students' adjusted scores on the Vocational Rating Scale. The statistical tool utilized was analysis of covariance. The .05 alpha level was used as the criterion for retaining or rejecting the null hypothesis. For purposes of decision-making, if the computed values were less than the tabular values, the null hypothesis was retained. Conversely, when the computed value was equal to or greater than the tabular value, the null hypothesis was rejected.

The hypothesis tested in the study was as follows:

H_0 : There is no significant difference between the adjusted Vocational Rating Scale scores for group and individual programs.

On the Vocational Rating Score, which provided an overall measure of the participants' vocational self-concept crystallization, the mean score differences were not found to be significant when the classroom group program was compared to the individualized telecourse program. Thus, the null hypothesis was retained. (Appendix D includes the analysis of covariance table.)

The adjusted means scores for the two groups were as follows:

<u>Group</u>	<u>Cell Size</u>	<u>Adjusted Means</u>
Classroom	33	3.83
Telecourse	33	3.96

There was no significant difference in the adjusted means scores of the classroom and telecourse programs.

Summary

Participants of both programs, classroom group and individualized telecourse, made equal progress in

vocational self-concept crystallization in both the descriptive and statistical data. There was a significant difference in the telecourse participants' reported satisfaction in achievement and completion of the career process. (Appendix E includes the Chi-Square tables.) Further research is needed to discover what element is responsible and to implement appropriate changes.

V. SUMMARY, CONCLUSIONS, AND SUGGESTIONS
FOR FURTHER STUDY

Summary

Purpose

The overall purpose of this study was to investigate certain aspects of the effectiveness of adult career programs. The central focus was to compare the differences in vocational self-concept crystallization among the participants exposed to the classroom group programs and the individualized telecourse programs. Further information was desired regarding the differences in vocational self-concept crystallization among the various levels and categories of age, sex, years of education, years of work experience, personality, voluntary/involuntary career change.

A review of recent literature indicated that the number of mid-life career changers is increasing and will continue to increase. (It will be of interest to observe whether a depressed economy may change the present prognosis.) Mid-life career changers present many unique and complex needs. Research is needed to determine whether

career programs developed for the young graduate are effective for the experienced adult making a career change.

Method

The population of this study was composed of 66 adults enrolled in career programs offered by four community colleges in the Portland, Oregon, area. The data were gathered by two procedures: a personal interview with each participant following the completion of the program; the administration of the Vocational Rating Scale instrument at the beginning and end of the class term. The analysis of covariance was selected to provide appropriate statistics to test the hypothesis regarding the two programs.

Findings

Participants in the study resembled the literature's description of the adult career changer. Classes included individuals who ranged in age from 17 to 57. The largest group was 30 to 34 years of age. The majority were looking for intrinsic rewards. Each program contained a complex mixture of work experiences, education, personal support systems, and varying degrees of commitment.

Application of the analysis of covariance indicates that there was no significant difference between the adjusted mean scores of the classroom group program and the

individualized telecourse program. Scores did not show a significant difference between the categories and various levels of age, years of education, years of work experience, personality, sex, and voluntary/involuntary career change.

Descriptive data showed that participants from both programs responded with equal satisfaction regarding their growth in vocational self-concept crystallization (self-knowledge of abilities, interests, and skills). However, findings suggest that feelings of frustration and lack of accomplishment were reported by the telecourse participants.

Of the classroom participants, 97% felt they had achieved their goal, while only 76% of the telecourse participants were of the same opinion. None of the classroom participants felt a need for further assistance, while 27% of the telecourse participants stated they needed further counseling and/or assistance.

Of the classroom participants, 94% chose the group programs because of a desire for group interaction and support. Within the telecourse participants, 88% chose the telecourse program to avoid travel, and to accommodate time schedules and family demands. Nonetheless, 82% of the 88% voiced a problem with the broadcast schedule. Also, 97% of the telecourse participants requested more

group meetings; 76% expressed feelings of frustration because they were unable to discuss new concepts with anyone, and 70% felt the need for some type of support system.

More individuals within the social, enterprising, and artistic personality category on Holland's Model, chose the classroom group program. More individuals within the realistic, conventional, and investigative personality category chose the individualized telecourse programs. There was no significant difference in the VRS scores for individuals enrolled in programs congruent with their personalities; however, individuals who stated they did not feel they had achieved their goals were enrolled in programs that were not congruent with their personalities.

In summary, the surprising element in these figures was that there was no significant difference in vocational self-concept crystallization between the two types of programs. Yet there is a feeling of frustration and lack of completion among a number of telecourse participants.

Conclusions

The classroom group and the individualized telecourse programs are equally effective in the area of vocational self-concept crystallization for adults.

Classroom participants appear to have learned a process which, they are confident, enables them to recognize the required adjustments or changes to achieve vocational satisfaction. A number of telecourse participants report frustration and a feeling of lack of achievement. Further research should endeavor to pinpoint specific areas that are causing this unrest, and to determine what changes are necessary.

The findings from this study suggest the following elements for initial consideration:

1. The ideal program includes three components:

ACADEMIC ACTIVITIES--Guest speakers,
program director's presentations,
small group interaction, and
assigned projects.

PRIVATE COUNSELING--Minimum of three
sessions for the telecourse, and a
minimum of one session for the group
participants who are involved in
weekly interaction.

EXPERIENTIAL LEARNING--Personal inter-
views and two exploratory work
experiences.

2. The telecourse programs need an additional
number of group meetings, more orientation

at the first session with a second meeting following the second or third broadcast, and additional private counseling sessions. (Career development requires more contact hours than the average telecourse.)

3. Guest speakers should be utilized frequently to provide information concerning occupations and employers' expectations.
4. A segment should be included on recent findings of adult development and its interaction with work. This segment should also include recent publications on the concept and process of making transitions.
5. Since a deeper probing of issues is desirable, where a larger enrollment makes wider study possible, participants should be divided into separate classes to include individuals with the same general needs. When the population does not permit separate classes, individuals with similar needs should be grouped together during small group activities.
6. A special and separate session for the "significant others" that includes a

presentation on adult development, pressures, and need for support, would be beneficial.

7. Addition of basic "how to" techniques, i.e., resume, job search, interviews, etc., with additional concentrated classes the next quarter, would be desirable. Also, coordination of classes to follow in life-planning and motivation would be beneficial to a number of the participants.
8. Program directors should participate in the selection of tapes to broadcast when not all 30 are presented. The directors should also have input on scheduling of broadcasts.
9. An addition of an exploratory work experience component would add a deeper dimension. Participants felt the interviews were most informative and that the class requirement gave them confidence to make an initial contact. An additional requirement, or option, of two days of exploratory work experience would open an in-depth observation of a new work world.

10. Every program must include a consistent evaluation and follow-up program.
11. Too much emphasis cannot be placed on the fact that making a career decision involves:

Choosing and preparing for a cluster of careers, rather than a career.

Internalizing the career process--
it can be used again.

Discovering a present career might
be the right one, after some minor
adjustments.

Suggestions for Further Study

The following recommendations for further research were based on the conclusions of the study.

1. Because of the intense interest in and rapid expansion of adult career programs, this study should be replicated in the near future.
2. Further studies should be conducted concerning what elements are needed to effect equal satisfaction of achievement among the participants of both career programs.
3. Investigation should be conducted on a larger population of personality types concerning their preference of programs, and a comparison of achievement made within congruent programs.
4. Further research should compare growth between a group that includes only similar needs with a group that includes multiple needs.
5. Investigation should be conducted to determine the difference in the number

of contact hours required for teachers and participants in the classroom and telecourse programs.

6. Follow-up studies of previous participants should be conducted to determine the quantity and length of effectiveness of the programs, and for future direction.

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A P P E N D I C E S

APPENDIX A

VOCATIONAL RATING SCALE

APPENDIX A

VOCATIONAL RATING SCALE

I. Personal Data

Please fill in the information called for below.

1. Number _____
2. Sex _____
3. Age _____
4. Years of Education _____

- II. Directions: The statements are to help you describe yourself in relation to the world of work. Please respond to EACH of the items as if you were describing yourself to yourself. Do not omit any items. Rate each statement in terms of how true it is for you right now. In making your ratings, use the following scale:

Completely False	Mostly False	Partly False & Partly True	Mostly True	Completely True
1	2	3	4	5

After each statement, circle the number corresponding to the most appropriate response.

1. I think I'm at the same point as most other people my age in terms of planning a future career. 1 2 3 4 5
2. I just can't make up my mind what type of work I'm cut out for. 1 2 3 4 5
3. My past work experiences have taught me a lot about myself. 1 2 3 4 5
4. I'm really not sure of my occupational interests. 1 2 3 4 5

5. I know myself well enough to know what kind of a job fits me. 1 2 3 4 5
6. I'm not sure of what abilities I have that I can build a career around. 1 2 3 4 5
7. I have a clear idea of my own needs and desires with respect to a career. 1 2 3 4 5
8. I'm not certain about what type of job environment I'd really be happy in. 1 2 3 4 5
9. I know my own values well enough to make a career decision right now. 1 2 3 4 5
10. I just can't put my finger on the best way to describe myself. 1 2 3 4 5
11. I know pretty much what I'm looking for in a college major and a career. 1 2 3 4 5
12. If somebody was to describe me in terms of my personality, interests, etc., I'd have trouble deciding if the description was accurate or not. 1 2 3 4 5
13. I haven't got the faintest idea what type of job (or college major) I'm looking for. 1 2 3 4 5
14. On the basis of my past experience, I have a clear picture of what kind of person I am. 1 2 3 4 5
15. With respect to the kinds of things which would be important for a career, I don't know where my abilities lie. 1 2 3 4 5
16. I'm very aware of my own values and how they will influence my choice of a career. 1 2 3 4 5

17. My weak point in this area is that I just don't know myself well enough yet to be able to make a good career decision. 1 2 3 4 5
18. I feel confident that my career plans match my personality, interests, etc. 1 2 3 4 5
19. If I had a clearer idea of what I'm like and what I want, I'd be able to make a decision about a major or a career. 1 2 3 4 5
20. I just don't know if I have the traits that some lines of work require. 1 2 3 4 5
21. I have a real clear picture of my work-related attributes and characteristics. 1 2 3 4 5
22. If someone asked me to describe my vocational strengths, I wouldn't know where to start. 1 2 3 4 5
23. If I was told that my requirement in a job was security, I wouldn't know for sure how accurate that was. 1 2 3 4 5
24. I've had a lot of different work experiences and I've learned what I need and want in a career. 1 2 3 4 5
25. I really don't know myself as well as most other people my age. 1 2 3 4 5
26. I am certain that my knowledge of my own interests, abilities, etc., is accurate. 1 2 3 4 5
27. I have only a foggy idea of what I'm interested in. 1 2 3 4 5
28. I can easily think of five adjectives which I am certain would describe my most important work-related characteristics. 1 2 3 4 5

29. I don't know my values with respect to careers as well as I would like to. 1 2 3 4 5
30. I can easily name three types of occupations in which I would feel satisfied. 1 2 3 4 5
31. I have just a hazy notion of what "payoffs" or rewards I'm looking for in a career. 1 2 3 4 5
32. I am as certain of what I'm like and what I have to offer to the world of work as anybody else my age. 1 2 3 4 5
33. There are several occupations in which I know I would not fit. 1 2 3 4 5
34. I don't know if I have the right personality for the kind of work I'm considering. 1 2 3 4 5
35. I would have some problems answering the question, "What sort of person are you?" 1 2 3 4 5
36. If I had to choose between a business job and a people-helping job, I would be able to decide very easily. 1 2 3 4 5
37. I honestly feel that I don't need any counseling in making my future career plans. 1 2 3 4 5
38. I can't make up my mind whether I have the "drive" necessary to go to graduate or professional school. 1 2 3 4 5
39. I know enough about my interests and abilities to be able to predict what career I will be in 5 years from now. 1 2 3 4 5
40. When it comes to choosing a college major or an eventual career, I'm really up in the air. 1 2 3 4 5

APPENDIX B

INTERVIEW GUIDE

APPENDIX B

INTERVIEW GUIDE

Name _____ Phone _____

Address _____

Age _____ Sex _____ Education _____ Personality _____

Work Experience: Years _____ Jobs _____ Satisfaction _____

Why enrolled in career program?

Why choose TV/Group?

Successful in achieving goal for enrolling?

Need further help?

Value of activities:

Self-assessment (abilities, interests, skills)

Values

Career Research

Imagery/Perfect Work-day

Interviews

Private Counseling

Most helpful element of the program?

Suggestions/improvements in future programs?

APPENDIX C

PARTICIPANTS' PROFILE

Program	Group No.	Average Age (years)	Sex		Average Education (years)	Average Work Experience (years)	Holland Model		Voluntary/ Involuntary Career Change	
			M	F			SEA	RCI		
Classroom	1	33.3	5	7	13.8	9.0	7	5	10	2
	2	34.3	2	4	12.0	14.3	2	4	6	0
	3	37.3	3	7	13.2	10.4	7	3	9	1
	4	34.6	2	3	14.4	14.6	3	2	4	1
Total	4	34.9	12	21	13.4	11.2	19	14	29	4
Teacher	5	34.0	0	2	15.0	14.0	2	0	1	1
	6	36.5	3	3	13.0	10.2	2	4	3	3
	7	32.2	7	2	14.1	12.2	2	7	7	2
	8	32.0	6	10	14.1	11.1	8	8	11	5
Total	4	33.0	16	17	14.0	11.4	14	19	22	11
COMBINED TOTAL	8	34.0	28	38	13.7	11.3	33	33	51	15

Figure 2. Profile of the participants.

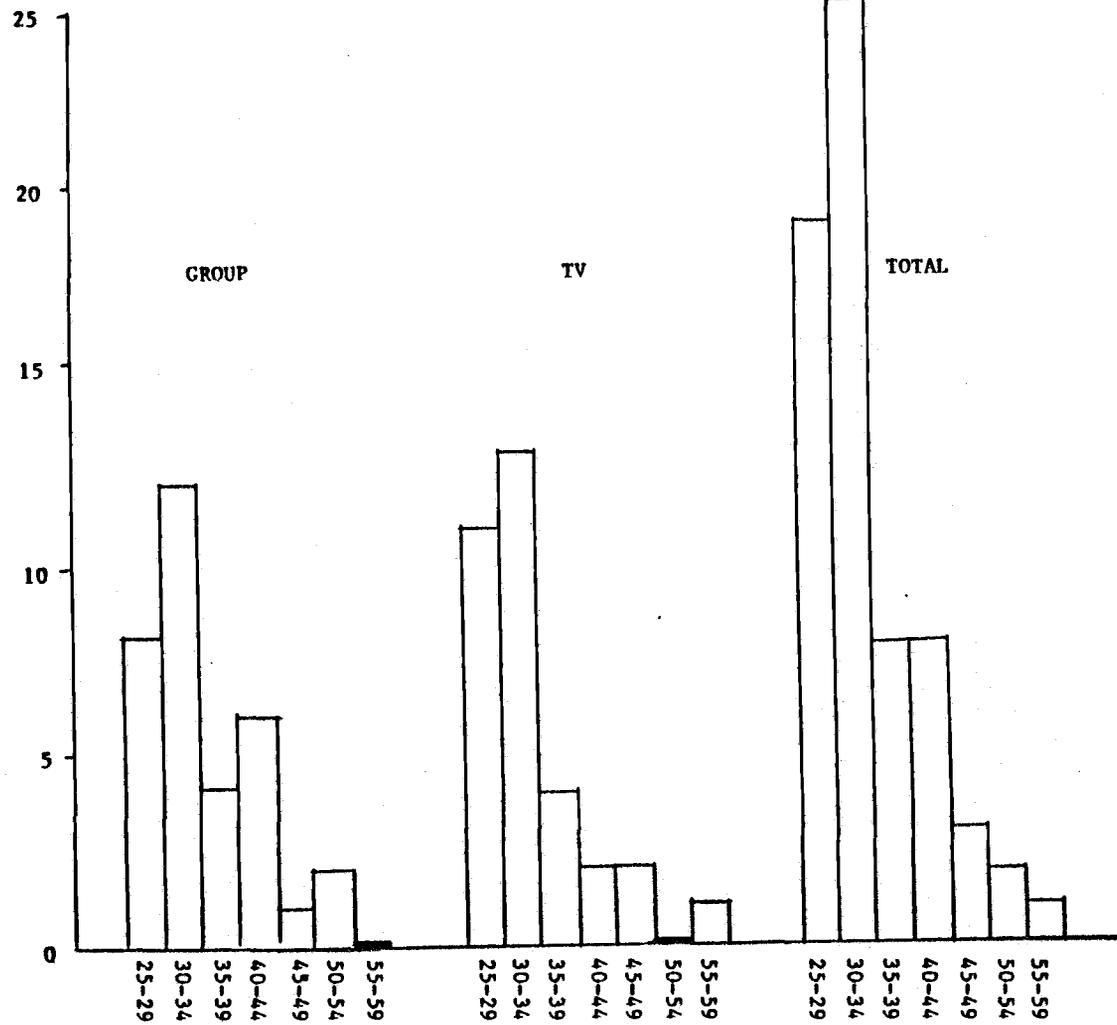


Figure 3. Frequency distribution of age.

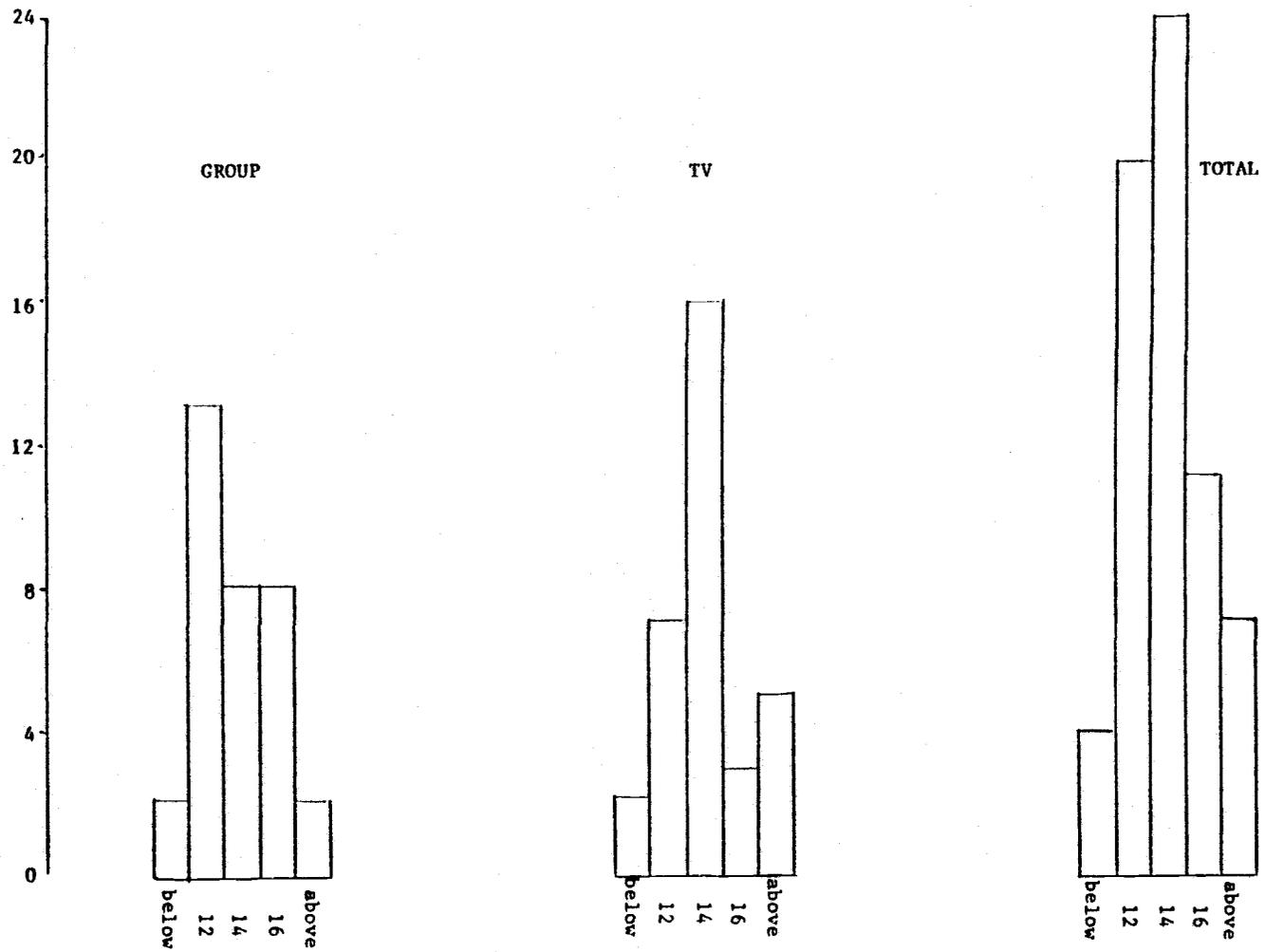


Figure 4. Frequency distribution of years of education.

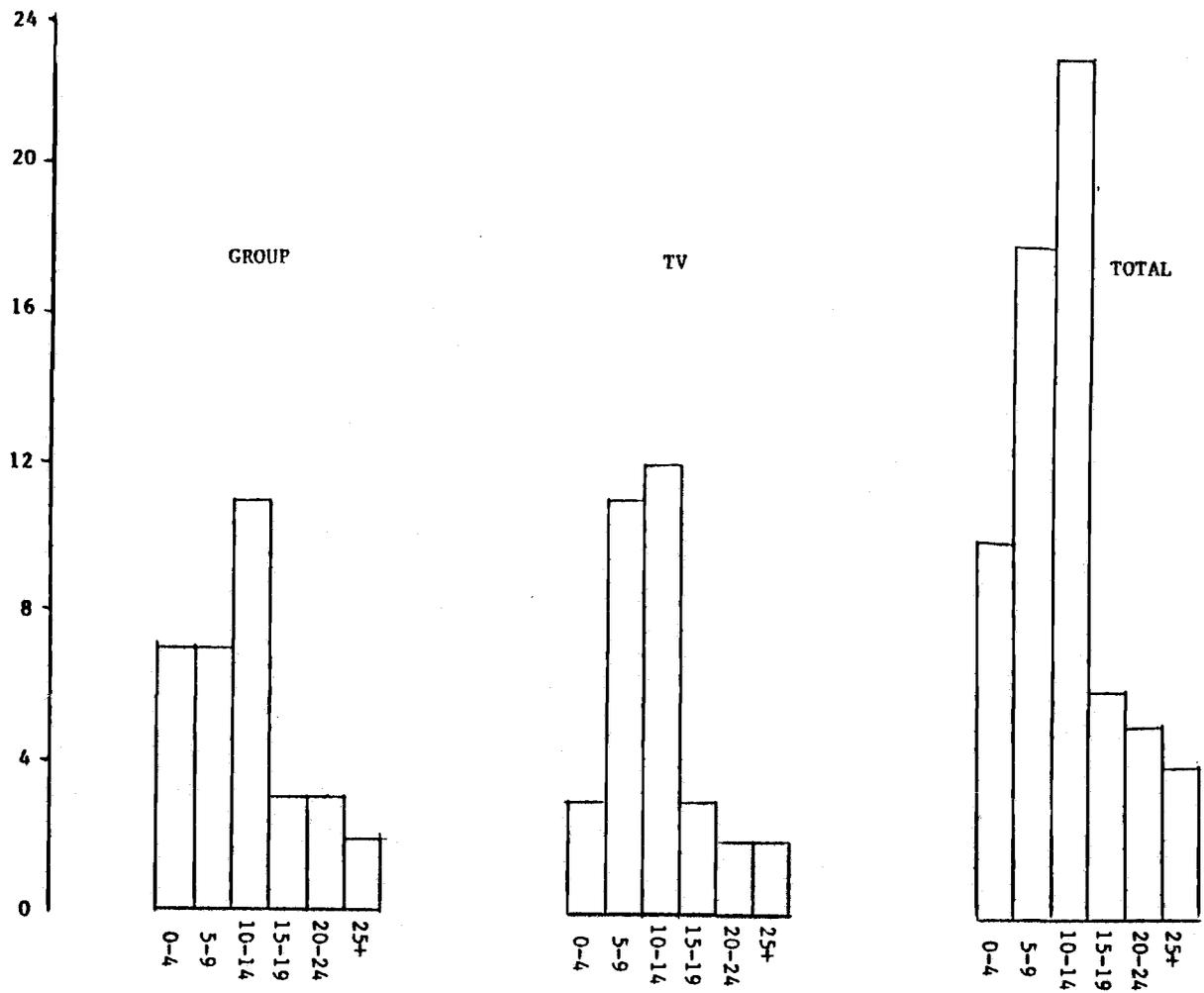


Figure 5. Frequency distribution of years of work experience.

APPENDIX D

ANALYSIS OF COVARIANCE

TABLE

Table 4

Results of Analysis of Covariance for
Classroom and Telecourse Programs

Sources of Variation	Adjusted			F	P-values	Decision
	Degrees of Freedom	Sum of Squares	Mean Squares			
Group	1	.2687	.2687	1.00	.3206	Retain
Error	63	16.8909	.2681			
TOTAL	64					

APPENDIX E

CHI-SQUARE TABLES

Table 5

Results of Chi-square for
Achieved Desired Goal

Observed		Expected	
32	1	28.5	4.5
25	8	28.5	4.5

Given: $\alpha = .05$
 $df = 1$
 χ^2 tabular = 3.84
 χ^2 computed = 6.30

Decision: reject null hypothesis

Table 6

Results of Chi-square for Need
for Further Assistance

Observed		Expected	
0	33	4.5	28.5
9	24	4.5	28.5

Given: $\alpha = .05$
 $df = 1$
 χ^2 tabular = 3.84
 χ^2 computed = 10.42

Decision: reject null hypothesis