TRAINING WOMEN FOR NON-TRADITIONAL OCCUPATIONS

by Karen De Pauw

A Thesis

in

the Department

of

Education

Presented in Partial Fulfillment

of the Requirements for the

Degree of Master of Arts

Concordia University

Montreal, Quebec, Canada

August, 1980

ABSTRACT

TRAINING WOMEN FOR NON-TRADITIONAL OCCUPATIONS

Karen De Pauw

This study is concerned with examining the types of psychological and practical barriers which women are likely to encounter in the process of implementing a non-traditional type of career choice.

In keeping with this aim, the study is divided into three parts. In Part 1, psychological barriers are examined. Three hypotheses are put foreward: Hypothesis (1) that women in non-traditional training programs score significantly higher on a measurement of career maturity, hypothesis (2) that this same group score higher on a measurement of self concept and hypothesis (3) that they score higher on a measurement of attitudes towards women's role in society.

Three scales were involved in testing these hypotheses: The Career Maturity Inventory(CMI), the Texas Social Social Behavior Inventory(TSBI) and the Attitude Towards Women Scale(AWS). An analysis of covariance was performed involving two groups from three community colleges in the Toronto region. One group was composed of female students enrolled in Secretarial Sciences programs and the other of students enrolled in Technical programs(n=38 respectively). The results

of the analysis revealed that hypothesis (1) was accepted and hypotheses (2) and (3) rejected. The implication was drawn that lack of career maturity may mitigate against the choice of a non-traditional career choice.

Part 11 investigates the practical barriers to choice of non-traditional types of training programs. A survey of INTO (Introduction to Non-Traditional Occupations) students was conducted (n=20). Barriers were identified as lack of financial support, child care and counseling services. Negative attitudes for fellow students, instructors and prospective employers were seen to constitute a fourth barrier.

Part 111 makes recommendations based on the two preceding parts. It is suggested that: 1) women be encouraged to follow a pre-skills course to change attitudes towards self and work 2) that existing support services be examined and 3) that a follow up of female graduates be undertaken. It is also suggested that societal views towards women in non-traditional occupations must be changed so that once women are prepared to enter non-traditional work, society will be prepared to accept them.

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

The Problem: Changes in Women's Role

Changing perceptions of the role women play in society have been brought about through the interaction of a large number of factors. Technology has played a central role within the change process. For instance, "household technology" has relieved women of many time-consuming household chores. Medical technology has been responsible for the introduction of the contraceptive pill and the prolonging of human life. These latter two developments have been of primary importance for they have allowed women to plan their child-bearing years in advance and to extend the number of years devoted to outside work. At the same time, the need for change has begun to be reflected in public policies, for instance in the recognition by the government of the value of education for women.

These are but a few of the changes which have interacted to bring about the increasing participation rates of women in the labour force. Table 1 illustrates this increase.

It can be expected, however, that as participation rates rise, conflicts between traditional and modern views of women's role will also increase. Difficulties can also be expected to arise as a result of women having to mesh roles of wife, mother and worker.

TABLE 1

Participation Rates by Sex, Canada

Sex	Labour Force		Participation
	Number	% Distribution	%
1967	'000		
Women	2,354	30.9	34.6
Men	5,277	69.1	79.6
Total	7,635	100.0	56.8
1977			
Women	4,002	37.9	45.9
Men	6,594	62.1	77.7
Total	10,616	100.0	61.5

Source: Women's Bureau, 1978, Table 1b

It is not the purpose of this research to argue whether or not changes in female roles is best for society. The fact is that women have taken on new roles. The discussion, therefore, should center on ways of helping both women and society to adapt to these new roles.

Opening up the range of alternative work roles does not imply that all women should seek careers outside the home. As Schlossberg(1974) remarks, "The goal is to develop human beings who are free to act in ways appropriate to their interests and values, not to their sex" (p.137-139). It is the purpose of this study to examine which barriers may stand in the way of a non-traditional type of career choice and to suggest ways by which such barriers may be overcome.

Research over the past few decades has lent credence to the belief that our present division of labor by sex is not necessarily "natural" or immutable. As early as the 1940's, Margaret Mead (1949) observed that the sex role behavior of three primitive tribes varied according to the way in which each culture defined the ideal roles of men and women. Holter(1970) furthered this observation by tying sex role differentiation in modern society to social structure. Task and behavior differectiation is, she claims, a universal phenomena. However, there is no cross cultural consensus with regards to what is deemed appropriate behavior. Sex stereotyping is the product of the division of labour which has been found to be of greatest efficiency in our social and economic system.

Functionalists argue that role differentiation does increase the efficiency of total performance. However, as Holter points out, sex role differentiation,

> "may also decrease efficiency to the extent that it diminishes substitutability among role incumbents with different types of specialized training, increases status incongruities, diminishes the number of conditions under which the capacities of some people can be used, and undermines the basis of communication and identification within the system " (p.21).

In the language of exchange theory, the benefits of differentiation must be sufficient to keep motivating the exchange. In the past, for instance, women gave up certain liberties in return for economic security. However, changing conditions have resulted in marriage no longer being any guarantee of security. Hence, both women and men are beginning to look for alternatives to traditional sex role definitions.

Occupational Choice

Most people would agree that women have benefited from technological innovations. However, these innovations have also created new pressures. Whereas in the past sex roles were regarded as a given and unalterable fact of life, these roles

are being questioned. The result is that there are more alternatives to consider; more choices to be made. Deciding from among the choices can be a bewildering experience, particularly for those who never envisaged change. This is particularly true in the case of women. As Angrist and Almquist (1976) state, women make a choice of a life style and not merely of an occupation. They must decide whether or not they will marry, whether or not to have children, whether to seek a career and what type of career will best suit their needs. Some writers have called this choice process as the "contingency approach" (Ginzberg, 1966; Angrist and Almquist, 1976) This means that women must,

> "mesh their multiple interests in terms of the larger societal expectations for women. Thus women adopt a contingency orientation: they are indecisive, vague, weighing out alternatives, stalling for time. In other words, direct commitments to advanced education and work are avoided as long as feasible. The avoidance of firm plans may simply reflect the desire for marital prospects to take shape before rather than after other plans " (p.80).

Theories of occupational choice are of two main types. There are those which see occupational choice from a structural standpoint. That is, these theories place occupations within some conceptual framework and see how various characteristics of the individual fit within this framework. The other

group of theorists see choice from a developmental perspective, that is, they focus on an individual's experiences and decisions made thoughout a lifetime and then relate these to career choice.

Most researchers now agree that these theories are inadequate in describing how women arrive at a career choice (Osipow, 1973; Vetter, 1973; Walsh, 1973). Because of this, some researchers such as Super (1957), Psathas (1968) and Zytowski (1969) have attempted to structure a developmental framework within which to place women's career choice process. These theories, however, are mostly descriptive and give little evidence of what external factors influence women's career choice.

With the aim of providing a more appropriate framework within which the choice process may be studied, the present investigator has identified three major determinants to choice. These are 1) personality 2) proximate/practical constraints and 3) socialization. Of these, only the latter two are amenable to change through educational intervention and are the concern of the present study.

Traditional and Non-Traditional Occupations

Merton describes non-traditional occupations as "those in which a majority in them are of one sex and when there is a normative expectation that this is as it should be "(Merton cited in Schreiber, 1979,p.15). Majority is taken to mean

that there are more men or women in an occupation than could be expected according to the ratio of men to women in the labour force.

Even for those women who have discovered interests or aptitudes in non-traditional occupations, the "contingency approach" still makes the choice of such occupations unrealistic. This approach will generally rule out most non-traditional occupations, including those described as blue collar work. These occupations normally require lengthy periods of training as well as a certain degree of commitment and stability on the part of the workers. Adding to this the fact that skilled labour is considered to be "masculine" in nature, it is little wonder that women are more than a little reluctant to enter these occupations.

Table 2 illustrates the number of women in certain occupations of a non-traditional type over a ten year period.

There is an indication that women are now beginning to enter the skilled trades in greater numbers. Hedges and Bemis(1974) report that in 1974, the participation rates of women rose to 5%. Furthermore, in 1978, 12% of students enrolled in trade schools were women (Hedges and Bemis cited in Farmer, 1978,p.23).

Increasing the numbers of women in skilled non-traditional occupations is not simple a question of equality. Women are in particular need of finding well salaried occupations. According to a government official,about half of all families headed by women are below the poverty line (Alexander, 1979,p.9).

TABLE 2

Women's Participation in Trades

Skilled Trades	Percent of Women Participation	
	1960	1970
Aircraft Mechanic	1.5	2.9
Auto Mechanic	.4	1.4
Blacksmith	.5	2.4
Boilermaker	.2	1.3
Cabinetmaker	1.3	5.1
Carpenter	.4	1.3
Dental Laboratory Technician	4.3	22.7
Electrician	.7	1.8
Machinist	1.3	3.1
Metal Rollers and Finishers	4.2	6.4
Metal Tool and Die Setter	.6	2.6
Painter	1.9	4.1

Source: Farmer, 1978,p.23

Furthermore, the statistics show that for most types of occupations, the gap between male and female earnings increased during the period from 1961 to 1971. Table 3 supplies information regarding the ratio of female to male earnings.

TABLE 3

Ratio of Female to Male Earnings

Occupation	1961 All earners	1961 Full time	1971 All earners	1971 Full Time
Manager/Professional	.46	.56	.49	.56
Clerical	.61	.74	.59	.67
Sales	.35	.45	.34	.49
Service	.47	.47	.37	.50
Primary	.43	.60	.38	.50
Blue Collar	.53	.59	.47	.53
Other	-	-	.47	.55
All Occupations	.54	.59	.50	.59

Source: Cook,1976,p.121

There is a tendency in our society to see non-traditional women(ie. women who have selected non-traditional careers) as deviant or abnormal. The present investigator believes that these women may in fact be "more normal" in the sense that their choice of an occupation is an indication that they have not supressed individual needs and aptitudes in order to

conform to sex roles. Perhaps the non-traditional woman is more a harbinger of a time when the needs of either of the sexes will find expression in a greater variety of ways.

Attempts at Remedial Action

The federal and provincial governments have recognized the problem of occupational segmentation by sex and have taken various steps to encourage women to enter non-traditional training programs. What the statistics show, however, is that governmental efforts in this area have been largely unsuccessful. Less than 3% of those apprenticed for trades, for instance, are women (Pearson, 1979, p.46-47). And yet, training has been shown to be an effective means of ensuring that women's abilities are put to good use. The benefits to be gained from training make it crucial that efforts continue to be applied in this area. Table 4 illustrated the benefits which have accrued to women having followed a skills training program. The table indicates that whereas a majority of women earned between two and three dollars before training, the majority earned over four dollars after training.

Purpose of this Study

Much remains to be done if training is to contribute in any significant way to the goal of increasing the participation rates of women in non-traditional occupations. As Roby states,

TABLE 4

Before and After Wages for
46 Non-traditional Placements

Per hour wage	Before Placement		After Placement	
		%		%
1.00-1.99		14		
2.00-2.99		52		22
3.00-3.99		18		13
4.00-4.99		16		30
5.00-5.99				24
6.00-6.99				7
7.00-7.99				4
Total	n=44	100	n=46	100

Source: Bureau of Women, 1978,p.8

> "as more and more women need to earn enough to support themselves and their families, and as it becomes clear that their lower wages result largely from their being restricted to lower paying jobs, vocational education has failed to move significantly to prepare them for the wide range of occupations that pay higher wages" (Roby cited in Briggs, 1978,p.20).

The present study suggests that one of the reasons for which

women have been making so little progress with regards to non-traditional occupations is that training tends to be characterized by a piecemeal approach. Providing women with skills training in not enough. Regardless of the training opportunities available, women cannot be expected to take advantage of these opportunities unless they are able to overcome: 1) the effects of socialization on the perception of work and of their own abilities and 2) the practical barriers which restrict choice. In other words, both psychological and practical barriers must be taken into account when considering strategies for change.

In sum, the purpose of this study can be described as being:

1) to investigate the psychological and practical barriers which may interfere with the choice of a non-traditional training program and

2) to make suggestions with regards to overcoming these barriers.

Contribution to Educational Technology

Mitchell(1975) describes the five main roles of the educational technologist, one of which is described as the "educational planner". According to Mitchell, the latter "analyses, plans (ie. district or national) educational systems or major components to implement educational needs". (p.5) In the present thesis, the educational need

is identified in terms of the necessity of broadening the range of occupations open to women through education. In order to meet this need, it is first necessary to find out more about the target population and the particular barriers which face them. Viewed as a system, training institutions must take into account the relationship of input (ie. female students and their skills and attitudes) to desired outputs (skilled workers who can successfully cope within the working environment). Examining practical and psychological barriers which women face allows the educational technologist/planner to take a systemic and comprehensive view of the role of training in expanding women's career options. Hence, the research contained within the present study is a first step involved in planner's task of solving "comprehensive societal problems by analysing and determining continuously a community's educational needs and goals, translating these into educational plans for implementation by other educational functionaries" (Mitchell, 1974,p.14).

Organization of the Study

The present study has been divided into three parts. Part 1 is concerned with ascertaining whether traditional women differ from non-traditional women on three psychological variables. It is hypothesized that women who choose non-traditional training programs are: 1) higher in career matur-

ity 2) have a more positive self concept and 3) are more egalitarian in their attitudes towards women's role.

Part II is concerned with identifying some of the practical barriers which women face when choosing a non-traditional training program. Findings from past research studies and from a survey conducted in the course of the present research are examined in this section.

Part III is concerned with drawing implications from the two preceding parts. Implications are drawn for 1) a pre-skills, career education course 2) support services and 3) training follow up.

PART 1

PSYCHOLOGICAL BARRIERS TO CAREER CHOICE

Theoretical Framework of the Study

Various types of classification schemas have been proposed in view of describing vocational choice. Tolbert (1974) has divided theories into several categories: developmental, needs psychoanalytical, sociological, decision making and existential theories. Others have classified theories into two main categories: structural versus developmental (Wirtenberg, 1978). For the purpose of the present study, it is deemed sufficient to adopt the latter classification system.

The prevailing view of career behavior before the 1950's was entirely structural. Career choice was described as a largely static event which occurred at the turning point in life between school and employment. Seldom was attention given to the past experiences of the individual and their experience in career decision making. Holland (1966), for instance, proposed a theory in which six occupational environments and personality types were postulated. The environments were described as: realistic, intellectual, social, conventional, enterprising and artistic. Personality types were of the same six types. A person's choice of career was seen as the reflection of personality type.

Structural theories such as Holland's did not attempt

to explain how individuals arrived at particular orientations or how they developed different types of personalities. These theories were more descriptive than explanatory.

The developmental theories, on the other hand, emphasized the stages in the decision making process. Ginzberg (1951) is usually identified as being the first major developmentalist. His theory recognized that choice is actually a culmination of many choices made at various stages in life. The individual is described as moving through the "fantasy" state, to the stage of "tentative choice" and then on to the stage of "realistic choice". Each stage is further subdivided. For instance, in the realistic stage, individuals seek to work out a compromise between interests, capacities and values. It begins with the "exploration" stage, followed by the "crystallization" stage and ends with the "specification" stage.

Super (1957,1963) elaborated upon Ginzberg's theory of career development and introduced the concept of career maturity to denote the "place reached on the continuum of vocational development from exploration to decline" (Super, 1955,p.153).

Super's theory provides the framework for the present study. It is generally thought of as the most highly developed and validated theory and has particular relevance to women's career choice process.

The basic idea behind Super's theory is that career choice represents the development and implementation of a

self concept. The ten propositions on which Super's theory is based are outlined below.

"1. People differ in their abilities, interests and personalities.
2. They are qualified, by virtue of these circumstances, each for a number of occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests and personality traits, with tolerances wide enough, however, to allow both some variety of occupations for each individual and some variety of individuals in each occupation.
4. Vocational preferences and competencies, and situations in which people live and work change with time and experience making choice and adjustment a continuous process.
5. This process may be summed up in a series of life stages, characterized as those of growth, exploration, establishment, maintenance and decline.
6. The nature of career pattern is determined by an individual's parental socioeconomic level, mental ability and personality characteristics, and by the opportunities to which he is exposed.
7. Development through the life stages can be guided partly by facilitating the process of maturation of abilities and interests and partly by aiding in reality testing and in the development of the self concept.
8. The process of vocational development is essentially that of developing and

implementing a self concept; it is a compromise process in which the self concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluation of the extent to which the results of role playing meet with the approval of superiors and fellows.

9. The process of compromise between individual and social factors, between self concept and reality is one of role playing.

10. Work satisfaction and life satisfaction depend on the extent to which the individual finds adequate outlets for his abilities, interests, personality traits, and values; they depend upon his establishment in a type of work, a work situation, and a way of life in which he can play the kind of role which his growth and exploratory experiences have led him to consider congenial and appropriate "(Super cited in Tolbert, 1974,p.32).

The value of these propositions is that they recognize the influence of a number of factors on career choice. In particular, they recognize the three factors which the present researcher has identified as of greatest importance with regards to women's career choice (ie. personality, socialization and proximate constraints). Super links career development with the development of self concepts. This approach is of particular value in understanding women's career choice process because of the great influence of

socialization on the way a woman perceives herself and work in general. Super also notes the important role of the environment and social approval in influencing an individual's career choice. Finally, Super contends that career choice attitudes can be amended through counseling/educational intervention.

It should be mentioned that Super's theory is not free from criticisms which suggest that it is not appropriate for describing women's choice process. Super views the decision making process as linear and "single track" in nature. For instance, each stage in the developmental process is matched to an age category. Women do not generally follow this linear pattern. Furthermore, because of the "contingency approach", the compromise aspect of which Super writes is much more complicated for women than it is for men. Both Ginzberg (1951) and Super (1957) admitted that, for most women, career exploration is mediated by the fact that women expect to combine a variety of roles. Women's career choice process is, as a result, "double tracked" since she chooses an occupation which she expects will allow her to mesh these roles.

Furthermore, it has been suggested that women cannot be expected to make career choices appropriate to their abilities since they have been brought up to narrow their perceptions of which occupations are open to them. Epstein (1970) suggests that the socialization process influences a woman to the extent that she decides on a career without

ever testing reality. She anticipates consequences and accepts limitations which may not be relevant to her case. Also, the lack of role models of women in non-traditional occupations reinforces the belief that women by nature are not suited to these occupations.

These criticisms, however, do not invalidate the use of Super's theory as a framework for this study. While the process of arriving at a career choice may involve different considerations and display different patterns for men and women, the attitude towards self and work necessary for implementing a career choice is similar for both. Possibly, the criticisms directed against the theory also apply to the theory as descriptive of men's career choice process. As the "androgynous" individual becomes more common to our society (ie. as males and females share previously sex typed traits) there will be a need to develop a new, open ended description of the career choice process which allows for exchange of roles. Such a theory would describe career choice in terms of personality types rather than according to an individual's sex.

It is not the purpose of this study, however, to arrive at a new theory. The purpose of this study is to determine in which ways non-traditional women differ from traditional women (ie. those selecting non-traditional versus traditional careers) with regards to their attitudes towards self, work and women's roles. The latter variable has been included in this study on the basis that

women would not be expected to arrive at an appropriate career choice unless there existed a close match between perceived and enacted roles. The following section will examine the research literature relevant to each of the variables in question.

REVIEW OF THE LITERATURE

The Research on Non-Traditional Women

The research concerning psychological traits of non-traditional women is generally favorable to this group of women. As Ashburn (1976) writes,

> "It appears from available data that the personality characteristics of women in male-dominated professions center on four important factors: independence, intelligence, feelings and ego strength" (p.8).

Non-traditional women are found to more independent, adventurous and not as socially oriented as traditional women. Independence, notes Ashburn, is probably a prerequisite trait to a non-traditional career choice. Also, contrary to common perceptions of the non-traditional woman, the latter are not generally perceived as having sacrificed their sensitivity in making their choice. That non-traditional women have been described as more intelligent than traditional women, continues Ashburn, is a testament to the fact that only those few women with the greatest abilities can be expected to surmount the barriers to achievement. With regards to ego strength, non-traditionals have been described as more assertive

and confident than the majority of women.

Tangri (1972) studied 100 senior college women in order to investigate the relationship between "non-stereotypical" choices , personality and background. She found that role innovators were more likely to be autonomous, individualistic, and motivated by internally imposed demands to perform to capacity. Almquist and Angrist (1975) reported similar results. In their study of univeristy women enrolled in traditional versus non-traditional majors, the researchers found that non-traditional women differ from traditional women with regards to work values. For instance, non-traditional women were attracted to occupations which allowed them freedom from close supervision. Also, they were insistent on the need for selecting an occupation which would allow them to make use of special abilities. Non-traditional women were also found to be strongly career oriented.

Other investigators such as Rossi (1965) found that "pioneers" were more apt to demonstrate high levels of achievement motivation, to characterize themselves as "dominant, occupationally competitive and independent".

As various researchers have noted, however, most of the research surrounding the topic of non-traditional women has involved professional women. As Walshok (1978) points out, "there appears to be little concern with studying the development of career and vocational commit-

ment, the workplace experience,or the integration of work commitments with community and family roles among these women workers" (p.69). In her study, Walshok found that blue collar women tend to see work as central rather than peripheral to their lives. However, they were not found to differ from traditional women with regards to their attitudes towards women's role in society or in their perception of the difficulties arising from combining home and career related roles.

What professional and blue collar women do have in common, however, is that they are both working in male dominated environments. Because of this, they require the same types of personality traits to be successful. Schreiber's (1979) interpreted the finding that non-traditional women were more satisfied with their jobs as being due to the fact that they were able to make use of their special abilities. This finding echoes Tangri's (1972) study of professional women who tended to be more interested in the intrinsic aspects of their jobs.

Overall, it might be said that,

> "There seems to be enough to conclude that for a woman to pursue a male-dominated career, she in all probability must possess a very strong set of internal values and individual identity in order to overcome the numerous societal, environmental obstacles and the conflicts created by them" (Ashburn, 1976,p.8).

With regards to the three variables: self concept, career maturity and attitudes towards women's role, little research has been undertaking linking these variables to career choice. What will therefore be done, is to describe how non-traditional women might be expected to differ from non-traditional women in the light of more general research findings regarding these three variables.

Research Related to Career Maturity

Career maturity is defined by Super (1955) as the "place reached on the continuum of vocational development from exploration to decline" (p.153). An individual's career maturity can be defined as his or her standing in relation to expected life stages or the behavior of others engaged in similar developmental tasks. (CTB/McGraw Hill, 1978,p.4) Whereas the earlier view of career maturity saw career behaviors to mature systematically over time, recent research has tended to support the belief that, "an individual's peer group, not his or her age group, is the reference point for evaluating his or her career maturity" (Crites cited in CTB/McGraw Hill, 1978,p.5).

On the basis of Super's research, Crites proposed that the attitudinal dimension of career maturity be composed of five subscales: 1) decisiveness - the extent to which and individual is definite about a career choice 2) involvement—the extent to which an individual is actively

participating in decision-making 3) independence - the extent to which an individual relies on others in making a choice 4) orientation - the extent to which an individual is task or pleasure oriented and 5) compromise - the extent to which an individual is willing to compromise between needs and realities (CTB/McGraw Hill, 1978)..

Reasearch has linked career maturity to such variables as personality traits, psychological factors and intelligence. The following is an overview of research relevant to the present study.

Hollender and Schalon (1965) reported a correlation between the attitude scale of the Career Maturity Inventory and the Adjective Check List(ACL) for 112 male and female counseling service clients. The conclusion of the study was that clients with higher scores on the CMI were more task oriented and, in general, better adjusted individuals. The previous section noted that non-traditional women tend to attach more value to the intrinsic aspects of work, are more task oriented and satisfied with work (Angrist and Almquist, 1975; Tangri, 1972). Hollender and Schalon's findings might suggest that non-traditional women are also high on CMI measurements.

Capehart(1973) found that a relationship appears to exist between congruency of choice and career maturity. 138 post high school technical students were classified as belonging to one of three groups: congruent, incongru-

eht or undecided. The first two categories were defined according to the agreement or disagreement of traits which the student was known to possess(the traits were determined through Holland's Self Directed Search) and the program of study. Capehart compared groups on the attitude scale of the CMI and found that subjects with a congruent career choice were significantly more mature with regards to career outlooks. In studies of a similar nature, Walsh and Osipow(1973) and Walsh and Hanley (1975) supported this finding.

These studies are of interest because the present study is based on the assumption that due to role constaints, some women may make career choices which are incongruent with their aptitudes or interests. If this is in fact true, then it might be expected that traditionally oriented women might have lower levels of career maturity.

Bartlett (1968) examined CMI scores of 69 male and 81 female Manpower trainees. Attitude scores on the CMI were divided categorically with "high" representing scores over 40, "middle", scores from 30 to 40, and "low" scores less than 30. Bartlett found that trainees with higher CMI scores also scored higher on measures of self-confidence, achievement, autonomy and dominance and low on measures of deference and abasement. Although scores were not supplied according to sex of respondent, it was found that those trainees having higher scores on the CMI were more asser-

tive, persistent, goal oriented, forceful and independent. As shall presently be seen, these are traits commonly associated with men as well as, to a lesser extent, with non-traditional women. Bartlett's study provides a further indication that CMI may be related to career choice of women.

Research Related to Self Concept

The literature on self concept reveals that there is a relationship between self concept and career choice. In the words of Winters and Sorenson,

> "If women have been socialized to view themselves as inadequate in the world of work... then their unrealistic self evaluations will be reflected in inadequate and inappropriate career decisions" (p.57).

Korman (1967) hypothesized that individuals with a positive self concept will be more likely to choose occupations which they perceive to be personally need fulfilling. Furthermore, Korman found that individuals with a positive self concept will be more likely to reject social or other influences which might prevent the satisfaction of this need.

This finding is consistent with Super's contention

that career choice is the implementation of a self concept. With regards to women, negative self concepts would, following Korman, result in inappropriate career choices. According to Wirtenberg (1978), a woman's self concept is of primary importance in determining her occupational preference, type of training undertaken and degree of satisfaction in her work.

Cowan and Moore (1971) found that women aspiring to male dominated fields saw themselves as more independent, self confident and motivated by achievement related aspects of the job. This study concluded that women who fit the traditional stereotype may be less adaptive with regards to career decision making and implementation and will not usually aspire to non-traditional types of work. Thus, this study notes the relationship between perceived sex role constraints and choice of occupation.

As mentioned previously, there appears to be a strong relationship between career commitment and choice of a non-traditional occupation (Angrist and Almquist, 1975). A study conducted by Nagley (1971) supplies additional evidence in support of this finding. The latter study involved 40 college educated working mothers, 20 employed in traditional female occupations and 20 in male dominated occupations. The findings indicated that the non-traditional were more career committed than were the traditionals.

Research has validated the existence of a relation-

ship between self concept and career motivation or commitment (Farmer in Harmon et al, 1978). Using the Edwards Personal Preference Schedule, Hoyt and Kennedy (1958) found that career oriented high school girls were more achievement oriented, self confidence, dominant, and persevering. The traits found to describe career oriented women are similar to those exhibited by non-traditional women. It might be inferred that, because of the relationship between self concept and career commitment, and the latter with career maturity, there might be an indirect tie between self concept and CMI scores.

Research Related to Attitudes Towards Women

This section will review the traditional perceptions of sex roles and suggest how non-traditional women can be expected to differ from traditional women along this dimension.

Fernberger (1948) was among the first to investigate sex role perceptions. Fernberger administered a questionnaire to 217 female and male undergraduate students. The results of the questionnaire indicated that both female and male students perceived sex roles in a stereotyped fashion. There was a general agreement that men are: 1) more aggressive 2) more intelligent 3) more crude 4) more dependent on the opposite sex and 5) possess more

around superiority. Women, on the other hand, were described as being: 1) more sensitive 2) less passionate 3) the cause of trouble 4) too talkative 5) not argumentative.

In a later study, McKee and Sherrifs (1957) found similar descriptions of sex related personality traits. Men were described as being straightforward, intellectually rational, competent, bold and effective in dealing with the environment. Women were described as being sensitive, socially oriented, irrational, overly emotional and snobbish (cited in Goldberg, 1975). Rosencrantz et al. (1968) using the Sex Role Questionnaire , found that the means of the masculinity responses given by men and women correlated almost perfectly (r=.96), as did the means of the femininity responses (r=.95). Rosencrantz concluded that sex role stereotypes cut across sex, socioeconomic status and religion of respondents.

There is evidence that such stereotypes persist even today. Ayers (1977) conducted a study using the Open Subordination of Women Scale and the California Scale of Authoritarianism. Of 220 male and female college educated respondents, both females and males saw women as deserving a role subordinate to men. Furthermore, those who scored higher on the Authoritarianism Scale were more likely to perceive women as subordinate.

The conclusions which can be drawn from previous research in the area of sex role perceptions is that

1) traditional sex role attitudes persist in spite of evidence which contradicts these beliefs and 2) women themselves see the female role in a stereotyped fashion.

Since the implementation of career choice requires that perceived sex role behaviors agree with enacted behaviors, it would be expected that non-traditional women would deviate from traditional role perceptions. There have been few research studies concerned with investigating this possibility. Michaelson's (1974) study is one of the few studies which links attitudes towards women's roles to career choice. Michaelson hypothesized that women selecting majors in academic departments which had a male to female enrollment exceeding 2.5:1 would obtain higher mean feminine scores than those female students enrolled in departments having a female to male ratio exceeding 2.5:1.

The Feminism 11 scale was administered to 205 junior and senior undergraduates selecting either non-traditional or traditional majors. Results from the analysis revealed that the two groups differed on four dimensions: 1) orientation towards people versus things 2) interest in science and technology versus human concerns 3) styles of occupational interactions (ie. working for people versus with people) and 4) differential perceptions of feminine roles.

The fourth dimension is of particular interest to the

present study. The latter will be concerned with investigating whether non-traditional blue collar women differ from traditional women in terms of attitudes towards women's roles and rights in society.

Hypotheses

The present study hypothesizes that non-traditional female students will score significantly higher than traditional students on measurements of:

1) Career maturity, as measured by Crites' Career Maturity Inventory.
2) Self concept, as measured by Helmreich and Spence's Texas Social Behavior Inventory and
3) Attitudes towards women's role, as measured by Helmreich and Spence's Attitudes towards Women Scale.

METHOD

Subjects

The subjects included in the empirical research has been drawn from three community colleges in the Toronto region. The colleges include: Humber, Centennial and George Brown Colleges of Applied Arts and Technology.

The target group is composed of 38 women enrolled in Technical-Vocational and Apprenticeship programs of one to two years in length and leading to non-traditional careers. The traditional group, serving as a control group (n=38), is composed of women enrolled in Secretarial Sciences programs of similar duration.

Research Design

An analysis of covariance was performed in which the target and control groups were compared in a post facto design. The aim of the analysis was to determine whether the groups could be differentiated on three dependent variables. The variables involved in the study are outlined below.

Dependent Variables

Self Concept

Attitudes towards Women

Career maturity

Independent Variable

Choice of training program - Traditional versus Non-Traditional

Covariate

Age

The relevance of choice to the three dependent variables has been examined in the Review of the Literature. Following this review, however, it was decided that a covariate would be introduced into the design. According to Super (1957), career maturity and self concept are related to age. The latter has also been found to be related to women's sex role perceptions (Pearson, 1979). In order to prevent age from interfering in the analysis of main effects, it has been included in the research design as a covariate.

Instrumentation

The respondents were first asked to supply background information pertaining to previous occupational status, previous earnings, educational level, marital status and

age. Information was also collected with regards to parental occupation and education.

Three scales were included in the questionnaire, each of which provided an overall score on one of the variables in question.

The Career Maturity Inventory (CMI) was conceived to measure attitudes which are critical in realistic career decision making. Its stated purpose is to provide a measure of the "subjective reactions and disposition than an individual has toward making a choice and entering the world of work"(CTB/McGraw Hill, 1978, p.3). In addition to an overall score, the CMI supplied scores on five subscales. These subscales are outlined in Table 5.

It is expected that non-traditional women will score higher on overall career maturity scores. Scores on the various subscales will be examined in order to determine whether the two groups of women differ on any particular dimension of career maturity.

The Attitude towards Women Scale (AWS) was developed by Helmreich and Spence (1972). The scale contains statements describing the rights, roles and privileges of women. The respondents are required to indicate their agreement on a four point scale. High scores indicate a pro-feminist or egalitarian attitude. The short form of the scale was used in the present study. This version, which contains 15 of the original 55 items, has

TABLE 5

Variables in the Attitude Scale

Dimension	Definition	Sample Item
Decisiveness in career decision making	Extent to which an individual is definite about making a career choice	"I keep changing my occupational choice."
Involvement in career decision making	Extent to which individual is actively participating in the process of making a choice	"I'm not going to worry about choosing an occupation until I'm out of school."
Independence in career decision making	Extent to which individual relies upon others in the choice of an occupation	"I plan to follow the line of work my parents suggest."
Orientation to career decision making	Extent to which individual is task- or pleasure-oriented in his or her attitudes toward work and the values he or she places upon work	"I have little or no idea of what working will be like."
Compromise in career decision making	Extent to which individual is willing to compromise between needs and reality	"I spent a lot of time wishing I could do work I know I can never do."

Source: CTB/McGraw Hill, 1978, p.10

been found to have a correlation of .91 with the longer version. It is expected that women who have selected non-traditional training programs will score higher on the AWS than women who have chosen traditional programs.

The Texas Social Behavior Inventory (TSBI) was developed by Helmreich and Spence (1974). This scale is designed to measure self concept in a social setting. The scale requires respondents to rate themselves on a five point scale from "not at all characteristic of me" to "very characteristic of me". High scores indicate a positive self concept. The short form of the scale was used in the present study. The 16 item short

form has been found to have a correlation of .96 with the longer version. It is expected that women who have chosen non-traditional training programs will obtain higher scores on the TSBI than women in traditional programs.

Procedure

A number of practical constraints called for different methods to be employed with regards to the selection of subjects and distribution of questionnaires for each of the groups in question.

In the case of non-traditional women, the difficulty of obtaining information concerning name and whereabouts of students made it impractical to assemble all the students at any one time. It was necessary, therefore, to identify programs which would fall into the non-traditional category, visit on-going classes and distribute questionnaires to the women present.

Since class time could not be disrupted, questionnaires were distributed and their purpose briefly explained. The subjects were then given a self addressed, stamped envelope with the instructions to complete the questionnaire and return it within the briefest delay.

Of the forty six questionnaires distributed to the non-traditional group, thirty eight were returned. Eight of these were from Centennial College, forteen from Humber

College and sixteen from George Brown College. The fewer number of responses from Centennial College was due to the fewer number of female students found at this college at the time of the study. Judging from the variety of the programs identified by the respondents, it appeared that the sample was representative of the larger population.

The larger number of women in traditional programs made it possible to distribute and collect the questionnaires in one session at each of the colleges in question. The same information that had been given to the non-traditional group was given to the traditional group (ie. identification, affiliation and purpose of the research). The only instructions read were those typed on the front page of the questionnaire. As no questions were asked with regards to either the questionnaire itself or the instructions, it was assumed that ambiguity of wording did not represent a threat to validity.

One month was set aside for collecting the questionnaires from the non-traditional group of students. The 38 questionnaires received were then divided by college. These were matched by an equal number of questionnaires from the traditional group (ie. 38 were randomly selected from a total of 72). Data from these questionnaires was then used in the analysis of covariance.

RESULTS

Group Characteristics

Demographic Variables

Information was collected with regards to variables such as age, education, previous occupation, marital status, parental occupation and education. These variables have been divided into demographic and career variables. The latter includes variables which are thought to have a bearing on career choice, for instance, previous work experience or parental education. For both types of variables, both frequencies and chi square analyses will be reported.

Demographic variables include: age, educational level and marital status of respondents. Table 6 illustrates the distribution of responses with regards to age. The table indicates that 89.5% of traditional students were below 21 years of age at the time of the research. Of the non-traditional students, 39.5% were less than 21 years of age and 34.2% were between 21 and 25 years old. A chi square revealed that choice and age are significantly related, $\underline{x}^2$ (5) = 27.45306, $p < .01$.

Table 7 illustrates the distribution of responses with regards to marital status. 94.7% of the traditional students were unmarried at the time of the research, whereas 66.7% of the non-traditional students fell into this ca-

tegory. A chi square revealed that choice and marital status were significantly related, $\underline{x}^2$ (1) = 9.4969, $\underline{p} < .01$.

Students were asked to supply information with regards to the highest level of education which they had completed. For the traditional students, answers tended to be concentrated under the category of "high school graduate" (86.8%). The distribution of answers from the non-traditional students revealed a more dispersed pattern, with the concentration in the categories of "some high school" (23.7%) and "high school graduate (28.9%). Table 8 illustrates the pattern of distribution. A chi square revealed that there exists a significant relationship between choice and educational level, $\underline{x}^2$ (7) = 27.712, $\underline{p} < .01$.

Career Variables

Career variables include: previous occupation, parental education and occupation, source of advice and attitude towards future occupation.

Subjects were asked to indicate their occupational status prior to beginning their program of studies. As indicated in Table 9, answers from both groups were concentrated in the categories of "student" and "full time worker". The majority of traditional students (68.5%) indicated that they had previously been students, while 18.4% indicated that they had worked full time. Of the

non-traditional students, 31.6% had been students and 60.5%, full time workers. A chi square revealed that a significant relationship exists between choice and previous occupational status, $\underline{x}^2$ (4) = 23.192, $p < .01$.

Answers to the question concerning previous occupation were also classified in another manner. Those who indicated that they had worked were further divided into two groups according to whether their previous occupation had been traditional or non-traditional in nature. As Table 10 illustrates, all 11 traditional students had worked in traditional occupations. Of the non-traditional students, 59.1% had worked in traditional occupations and 40.9% in non-traditional occupations. The chi square yielded a significant relationship with regards to the relationship between choice and type of previous occupation, $\underline{x}^2$ (1) = 6.187, $p < .02$.

Table 11 illustrates the highest level of education completed by the respondents' parents. With regards to father's educational level, about 55% of each group had the the equivalent of high school or less in terms of years of schooling. A chi square failed to reveal a significant relationship between choice and father's educational level, $\underline{x}^2$ (7) = 8.0056, $p < .3322$.

With regards to mother's eductional level, the pattern of distribution of the responses was dispersed for both groups. Most responses fell into the categories of "grade school" and "some high school". A chi square failed to

reveal a significant relationship between choice and mother's educational level, $\underline{x}^2$ (7) = 9.45669, $\underline{p}$ .2215.

Parent's past or present occupation was classified into one of eight groups according to the Pineo-Porter Prestige Scale. The latter is a widely used Canadian index of socioeconomic status which classifies and ranks occupations into the eight categories illustrated in Table 12. The table shows that, with regards to father's occupation, responses from both groups most frequently fell under the "skilled" category (25.7% for the traditional group and 36.3% for the non-traditional group). With regards to mother's occupation, the answers from both groups tended to fall into either the "clerical and sales" category or that labeled "not in the labour force". A chi square failed to reveal a relationship between choice and either father or mother's occupation. For father's occupation, $\underline{x}^2$ (7) = 3.5302, $\underline{p} < .7000$. For mother's occupation, $\underline{x}^2$ (7) = 8.8630, $\underline{p} < .3800$.

Respondents were also asked to indicate who had been most important in influencing their career choice. Table 13 illustrates the distribution of responses. Traditional students tended to answer either mother or boyfriend in response to this question (23.7% respectively). Non-traditional students tended to answer that the choice had been of their own making or influenced by a counselor (51.7% and 30.3% respectively). A chi square revealed a significant relationship between choice and source of career ad-

vice.

Students also were asked to indicate whether they saw their future occupation as a job or as a career. Responses from traditional students were almost evenly divided between job (47.4%) and career (52.6%). As Table 14 indicates, almost all of the non-traditional students said that they saw their future occupation as a career. A chi square revealed a significant relationship between choice and perception of future occupation, $\underline{x}^2$ (1) = 15.26786, $\underline{p} < .0000$.

Group Responses

A preliminary analysis revealed that age was related to two of the three scales involved in the present study. A relationship was identified between age and self concept, $\underline{F}$ (1,73) = 6.048, $\underline{p}$=.016. A second significant relationship was also found to exist between age and attitudes towards women, $\underline{F}$ (1,73) = 161.723, $\underline{p}$=.032. Age was not found to be significantly related to career maturity, $\underline{F}$ (1,73) = .497, $\underline{p}$=.483. On the basis of these results, it was decided that age would be used as a covariate in the analyses involving self concept and attitudes but left out of the analysis involving career maturity.

Table 15 illustrates the results of the analysis of variance with choice as the independent variable and career maturity as the dependent variable. The results indicate that there is a significant relationship between the tradi-

tional and non-traditional groups with regards to career maturity, F (1,73) = 44.766, p=.001. A Multiple Classification analysis indicated that choice was useful in explaining 38.3% of the variance (adjusted multiple r^2).

Table 16 illustrates tha results of the analysis of covariance with choice as the independent variable, self concept as the dependent variable and age as the covariate. The analysis failed to reveal a significant difference between the two groups, F (1,73) = 3.853, p=.052. A Multiple Classification Analysis revealed that choice of training program was useful in explaining 12% of the variance of self concept (adjusted multiple r^2).

Table 17 illustrates the results of the analysis of covariance with choice as the independent variable, attitude towards women as the dependent variable and age as the covariate. The results of the analysis failed to reveal a significant difference between the two groups with regards to attitudes towards women, F (1,73) = 1.316, p=.255. A Multiple Classification Analysis indicated that choice explained 7.7% of the variance of the scores on the Attitude Towards Women Scale (adjusted multiple r^2).

TABLE 6

Age of Students

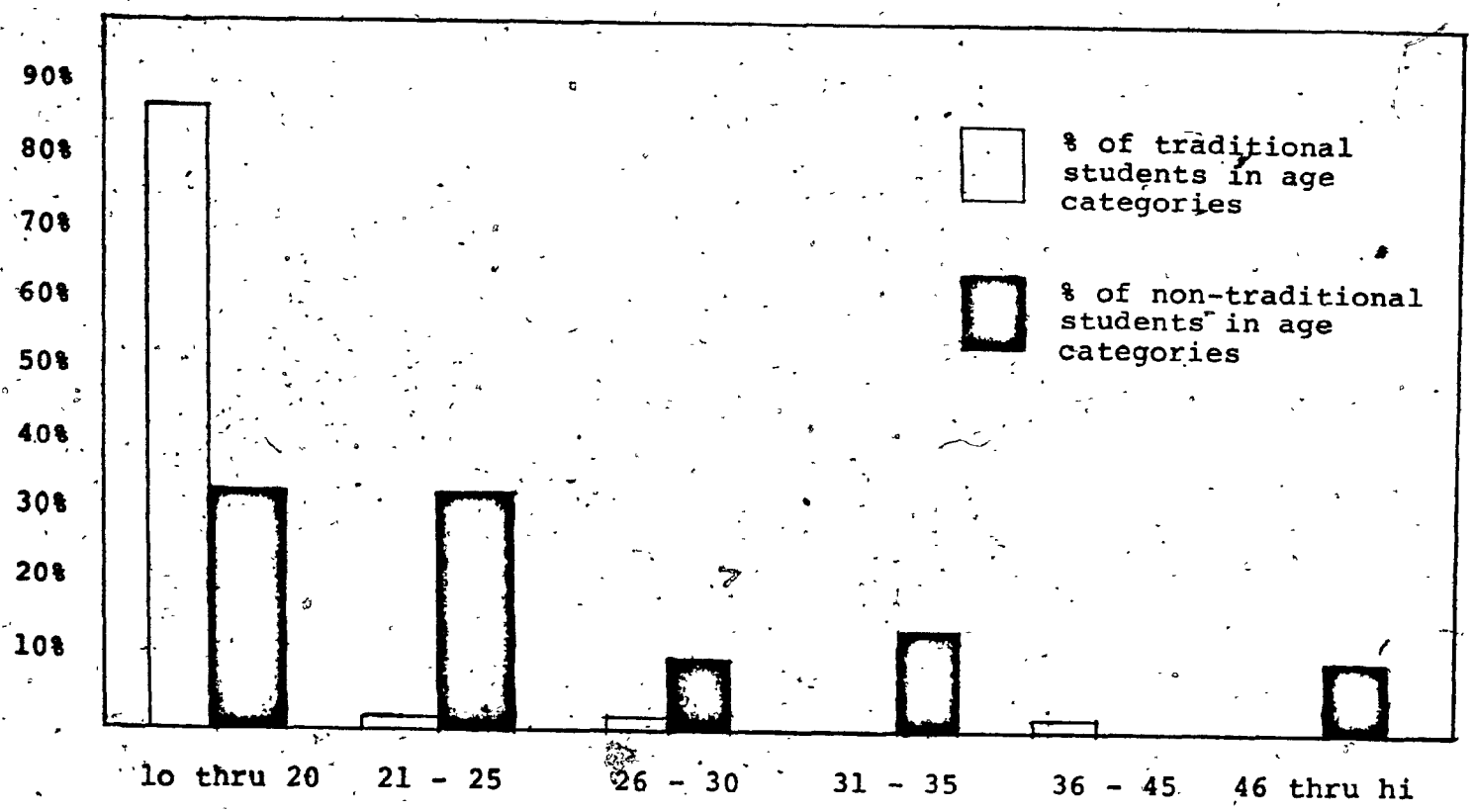


TABLE 7

Marital Status of Students

CHOICE	Number / %	MARITAL STATUS: Married	Not married	
Traditional		2	36	38
		5.3	94.7	
Non-Traditional		12	24	36
		33.3	66.7	
		14	60	74

TABLE 8

Student's Educational Level

Category	Traditional		Non-Traditional	
	Number	%	Number	%
Grade school	-	-	1	2.6
Some high school	2	5.3	9	23.7
High school graduate	33	86.8	11	28.9
Training past high school	-	-	3	7.9
Some college	3	7.9	8	21.1
College Graduate	-	-	4	10.5
Some university	-	-	-	-
University Graduate	-	-	2	5.3
Total	38	100.00	38	100.00

TABLE 9

Student's Previous Occupation

Category	Traditional		Non-Traditional	
	Number	%	Number	%
Student	25	68.5	12	31.6
Housewife	2	5.3	-	-
Unemployed	-	-	3	7.9
Worked, Full time	7	18.4	23	60.5
Worked, Part time	4	10.5	-	-
Total	38	100.00	38	100.00

TABLE 10

Previous Occupation classified as Traditional or Nontraditional

	Number %	PREVIOUS OCCUPATION Traditional	Non-Traditional	
CHOICE OF PROGRAM	Traditional	11 100.00	13 59.1	24
	Non-Traditional	—	9 40.9	9
		11	22	33

TABLE 11

Parent's Educational Level

Category	Father				Mother			
	Traditional		Non-Trad.		Traditional		Non-Trad	
		%		%		%		%
Grade school		21.2		28.9		27.2		28.9
Some high school		36.3		23.7		42.5		21.0
High school graduate		24.3		23.7		15.5		26.3
Training past high school		9.1		10.5		-		5.3
Some college		-		5.3		-		5.3
College graduate		3.0		2.6		9.1		7.9
Some University		-		5.3		3.0		-
University graduate		6.1		-		3.0		5.3
Total	N=33	100.00	N=38	100.00	N=33	100.00	N=38	100.00

TABLE 12

Parents' Past or Present Occupations

	Father		Mother	
Category	Traditional	Non-Trad.	Traditional	Non-Trad.
	%	%	%	%
Professional	14.2	12.1	11.1	5.3
Semi-Professional	-	-	5.6	2.6
Proprietor ,managers(large)	2.9	-	-	-
Proprietors,managers(small)	22.9	21.2	5.6	5.3
Clerical and sales	2.9	-	25.0	39.5
Skilled	25.7	36.3	5.6	5.3
Semi-skilled	17.1	9.1	8.3	-
Unskilled	14.3	18.1	11.1	-
Farmer	-	-	-	-
Not in labour force	-	-	27.8	42.1
Total	N=34 100.00	N=32 100.00	N=36 100.00	N=37 100.00

TABLE 13

Person most Helpful in Career Decision

Category	Traditionals		Non-Traditionals	
	Number	%	Number	%
Mother	9	23.7	-	-
Father	3	7.9	3	9.0
Other family	3	7.9	-	-
Boyfriend/husband	9	23.7	-	-
People in occupation	1	2.6	-	-
Other friends	4	10.5	3	9.0
Previous teacher	1	2.6	-	-
Counselor	1	2.6	10	30.3
Self	7	18.4	17	51.7
Total	38	100.00	33	100.00

TABLE 14

Occupation seen as Job or Career

	Number %	ATTITUDE TOWARDS OCCUPATION Job	 Career	
CHOICE	Traditional	18 23.7	20 26.3	38
	Non-Traditional	2 2.6	36 47.4	38
		20	56	76

TABLE 15

Analysis of Variance: Career maturity by Choice

SOURCE	df	SS	MS	F	p
Choice	1	842.224	842.224	44.766	.001
Explained	2	851.578	425.789	22.632	.001
Residual	73	1373.409	18.184		
Total	75	2224.987	29.666		

TABLE 16

Analysis of Covariance: Self concept by Choice with Age as Covariate

SOURCE	df	SS	MS	F	p
Choice	1	332.645	332.645	8.358	.052
Age	1	521.423	521.423	6.048	.016
Explained	2	845.067	427.034	4.953	.010
Residual	73	6293.867	86.217		
Total	75	7174.934	95.306		

TABLE 17

Analysis of Covariance: Attitudes towards Women by Choice with Age as Covariate

SOURCE	df	SS	MS	F	p
Choice	1	44.263	44.263	1.316	.255
Age	1	161.723	161.723	4.808	.032
Explained	2	205.986	102.993	3.062	.053
Residual	73	2455.541	33.638		
Total	75	2661.526	35.487		

DISCUSSION

A number of demographic and career variables were found to be significantly related to choice of training program. Relationships were found to exist between choice and student's age, educational level, marital status, previous occupation , source of career advice and perception of occupation as job or career.

Research to date has not explored the relationship between choice of training program and age. However, some possible explanations for this relationship can be suggested. One explanation may be that older women do not feel the pressure to conform to sex role ideals as acutely as do younger women. The former are perhaps beyond the stage where it is important to adopt appropriate sex role behaviors and to possess traits which are thought to be attracted to men. This interpretation finds support in the finding that traditional women are more likely to rely on boyfriends and mothers in making a career choice (refer to Table 13). Hawley's (1972) study notes the influence of significant males' opinions on career choice. Furthermore, many of the older women have already shown proof of their "normalacy" by the fact that they have had children.

A third relationship was found to exist between choice and marital status. Factors such as family size and marital status have been shown to influence women's choice of career. Buss (1974) found that degree of "self orientation" is negatively related to age but, on further examination, it was found that

number of children accounted for this relationship.

Family responsibilities may be the key to the relationship between choice and marital status. The married women who, for the most part had dependents, might be expected to be more attracted to occupations offerring high wages (ie. most non-traditional occupations). Referring back to the age difference, the latter could be explained in part by the fact that more older, non-traditional women could be expected to be financially motivated. For many younger women, working may represent a way of meeting social needs. The greater family responsibilities of non-traditional women may make economic considerations supersede social ones. Angrist and Almquist (1975) found that non-traditional women were more inclined to stress the importance of income in deciding upon a career. Possibly, it is the difference in motivation which makes married women overcome their reservations about non-traditional work.

A fourth relationship was found to exist between choice and previous occupation. More non-traditional women demonstra- a continuous work history. Again, this brings up the possibility that age per se may not by itself be the most important factor linked to choice. Rather, it may be that age related characteristics such as work experience may be important determinants of choice. Possibly, work experience allows women to develop different attitudes towards work in general and to be exposed to non-traditional types of work. In fact,

over half of the non-traditional women with work experience had already worked in non-traditional occupations.

A fifth relationship was found to exist between choice and source of career advice. The majority of non-traditional women indicated that they had arrived at their career decision independently of others. This self reliant attitudes corresponds to Tangri's (1972) findings that non-traditional women tended to have a more independent personality type.

Finally, with regards to the career variables, a relationship was found to exist between choice and perception of future occupation as job or career. The non-traditional women were nearly unanimous in seeing their future occupation as a career. It is quite possible that this finding is related to work experience. The latter would serve to dispel any misconceptions concerning the economic role of working in women's lives. This finding is reinforced in the findings of the main analysis which links the non-traditional choice with high levels of career maturity.

The traditional and non-traditional women did not differ on other variables such as educational level and previous occupation of parents. Kane and Frazee (1978) found similar results in their study. Whereas women entering professional non-traditional occupations were found to come from high income families, the same did not hold true for women in vocational training. Household income and race, for instance, were not found to be different for traditional and non-traditional women. Briggs (1978) also found evidence in support

of the fact that non-traditional women do not differ from traditional women except in that they tend to be older and come from urban areas.

In the main analysis, age rather than choice was found to be significantly related to both self concept and attitudes towards women. Again, previous research suggests that it is not age per se which determines choice. Rather, it is the traits or circumstances which correspond to different age levels which may account for occupational choice.

Again, the distinction must be made between older women with and without work experience. The housewife returning to school may feel a decrease in self confidence due to the fact that she is on unfamiliar ground and perhaps lacks the ability to take an objective view of her abilities (Pearson, 1979). On the other hand, older career-oriented women might not be as unsure of their ability to succeed in unfamiliar situations. Farmer (1978) found a significant relationship between self confidence and career orientation. The same may hold true of the relationship between age and attitudes towards women. Housewives re-entering the educational system might be expected to conform to traditional sex role expectations more than women who have been exposed to a variety of work roles. Nye (1963) found that the attitudes of working women towards feminine roles changed with age. Working women over 45 tended to be more egalitarian in their attitudes than women under 45 years of age.

Other factors such as family size and marital status

have been shown to influence women's career choice. Both of these variables are related to age. Hawley (1972) found that a woman's perception of the ideal feminine attitudes is significantly related to attitudes of significant males. Buss (1974) found that degree of "self orientation" was negatively related to age but, on further examination, it was found that number of children accounted for this relationship.

An interesting finding of the present research is that age is not significantly related to career maturity. This confirms previous research findings that the stages in women's career choice process do not follow the traditional age related stages set up by vocational development theorists (Osipow, 1973: Vetter, 1973: Walsh, 1973). It also provides additional evidence for the strength of the relationship between choice and career maturity.

While the findings of the present study confirmed that there does exist a relationship between choice and career maturity, a similar relationship was not found to exist between choice and either self concept or attitudes towards women.

The majority of the studies concerning the relationship of self concept with a non-traditional career choice involve professional women. It is possible that women enrolled in blue collar types of training programs are effected by the lower prestige conferred on these types

of occupations. Further research would be needed to investigate this possibility.

It is also possible that the failure to find a significant relationship stems from the scale selected to measure self concept.

The Texas Social Behavior Inventory (TSBI) measures one dimension of total self concept, that is, self concept in a social setting. It may well be that a more useful index of self concept would be obtained by measuring the latter in terms of personal worth and/or work abilities.

A number of explanations can be found with regards to why choice was not found to be related to attitudes towards women. One explanation may be that the responses of the traditional group were influenced by "egalitarian ideals". In other words, traditional women might have been responding according to what they perceived to be the "correct" answer.

A number of studies have noted the discrepancy between ideal and enacted roles. Walshok (1978) found that the behavior of both traditional and non-traditional women conflicted with their egalitarian ideals. Tyler (1964) found that while high school girls agreed with statements of feminist opinion, they held traditional attitudes with regards to their own limitations.

A second explanation may be that non-traditional women are lowering their scores on the AWS scale. Tangri (1972) found that non-traditional women tend to avoid

the extreme feminist position. Various authors have suggested that supressing egalitarian ideas functions as a sort of defense mechanism. Non-traditional women may feel the need to reassure themselves that their work role does not effect their femininity. O'Leary (1977) comments,

> "The range of alternative role definitions deemed acceptable for women has increased in recent years, and yet it appears that for many women, the realization of choosing a non-traditional role is contingent upon the demonstration that they can meet the traditional criteria for femininity" (p. 129).

Sociological studies offer another explanation. Kanter (1975) explains that the woman entering a male dominated environment presents a threat to peer group cohesion. Because the token women does not possess the primary bonding characteristic (ie. masculinity), she is excluded from the peer group network. In order to prove that she does not represent a threat to established norms of behavior, the woman may set herself apart from other women and accept the peer group's perceptions of women as her own. When a non-traditional woman denies women equal rights, perhaps she is speaking of the stereotyped woman and not of herself. This would explain the tendency of non-traditional women to avoid the extreme feminist position.

PART 11:

PRACTICAL BARRIERS TO CHOICE

Socialization and proximate constraints have been identified in the present study as two of the determinants of occupational choice. This section will be concerned with examining some of the proximate constraints or practical barriers which stand in the way of the implementation of a non-traditional career choice. This section will be concerned with a) presenting a brief overview of the literature regarding practical barriers and b) examining demographic characteristics and the nature of barriers as perceived by women enrolled in a pre-skills training course.

From an attitudinal standpoint, it has been shown that mature women are more likely candidates for non-traditional skills training. However, it is also evident that these women face a greater number of practical constraints than do younger women. The presence of these constraints makes the implementation of a non-traditional choice particularly difficult. Hence, this section will be primarily concerned with examining practical barriers with regards to mature women.

Review of the Literature

Most of the research regarding practical barriers applies

to mature women entering traditional and non-traditional programs alike. Richards(1976) conducted a study of the special needs of adult women entering post-secondary institutions. One hundred and fifty eight questionnaires were distributed, of which eighty two were used in the final analysis. The study found eight main barriers confronting adult women. These were identified as: 1) shortage of time 2) anxiety 3) role conflicts and guilt feelings 4) money problems 5) child care 6) study skills 7) counseling deficiencies and 8) problems with instructors.

In addition, Richards divided the women into three main types. The type one woman was single, in her twenties or thirties, divorced or separated with children. This group identifie 1) time 2) money and 3) child care as constituting their main problems. The type two woman was described as married, in her twenties or thirties, with children and seeking both job skills and personal enrichment courses. The type three woman was described as married, in her thirties or forties, with children over 14. She was attending school either to fill empty time or in hopes of getting a job. Her main problems were identifies as 1)anxiety and 2) role conflicts. Table illustrates the eight problems as they apply to each type of woman.

Lyman-Viera conducted a study involving 368 adult women residents of the Chaffey College district. Her findings were that: 1) family responsibilities 2) child care 3) transporta-

TABLE 18

Eight Most Common Problems
Rank Order for 3 Types of Women

Problem	# mentioning problem	% mentioning problem
1) Time	26	32
2) Anxiety	18	22
3) Role Conflict	18	22
4) Money	15	18
5) Child Care	12	15
6) Study skills	10	12
7) Counseling	9	11
8) Instructors	9	11

Source: Richards, 1978, p.46

TABLE 19

Restrictions on Choice

Type of Restriction	# mentioning restriction	% mentioning restriction
Transportation	78	21.2
Child Care	95	25.8
Work	73	19.8
Finances	81	22.0
Family Feelings	117	31.8
Personal Feelings	72	19.6
Other	35	9.5

tion 4) personal feelings 5) employment and 6) finances were the main barriers facing adult women entering post-secondary institutions. Table 19 illstrates the results of this study.

Other researchers have examined specific barriers in greater depth. Gallup(1978) reviewed the research concerning financial barriers standing in the way of participation in post-secondary education. Costs of education was defined not only as direct expenses incurred but was also calculated in terms of child care, transportation and time away from employment. In a study conducted by the Commission on Non-Traditional Study(1972), 25% of the sample of 3,910 female household residents identified cost as the major barriers to attendance (cited in Gallup, 1978,p.8). Cross(1971) points out that family income level,in particular, affects women's educational participation, Women of lower socio-economic levels have represented, in the past, the largest pool of academically qualified persons not participating in post-secondary education. Gallup(1978) concludes that:

> "The relationship between choice and financial barriers has not been fully explored, but the concept is raised within several reports that educational courses selected by adults might not be representative of the choices individuals would make if there were a broader range of options by which the individuals could finance their education." (p.10)

It has also been shown that women are less likely than

men to make long term, costly commitments to education. In a study conducted by Wolman and Cambell(1972), 48% of students were female but were represented in programs of short duration and of less expense than men; 23% of men as opposed to 8% of women were in programs of greater than twenty four months in length, and only 3% of women versus 32% of men were in programs costing more than $2,500.00.

Furthermore, there is evidence that women are also less likely to be recipients of financial grants or other forms of assistance. This is in part because many women are ineligible for assistance because of their part time status. Of the older female students who presently represent a high proportion of the increase in past-secondary institutions, more than half are part time students (Magarevrell cited in Gallup,1978). Cohen(1978) claims that 1978 cutbacks in training allowances also adversely affected more female than male students.

Lack of adequate or reasonably priced day care services has also been the source of controversy. In a study conducted by Botsman(1975) it was found that child care expenses were the major barrier to the educational participation of blue collar women. The report <u>One in a World of Two</u> describes the particular problems faced by sole support mothers. The report notes that the inadequacy of day care networks across Canada allows little hope for these women and their families. Without adequate day care services, sole support mothers cannot afford the time or the money required to upgrade themselves in terms of job skills.

Demand for day care services in Canada is still far greater than the supply. Furthermore, there is evidence to show that the number of families using commercial child care centers is high, but the majority of users are from middle income homes.

Most of the barriers described in this section apply to all women who either seek to enter post-secondary institutions or employment. However, as will be made evident in the following section, these barriers are particularly relevant to women wishing to enter skills training programs. As is often the case, it is the women who need assistance the most who have the least access to it.

A SURVEY OF NON-TRADITIONAL STUDENTS

The purpose of this section is to present the results of a survey concerning practical barriers to entry into skills training programs.

A questionnaire was distributed to 20 female students enrolled in a pre-skills called INTO (Introduction to Non-Traditional Occupations). The questionnaire used in the survey was adapted from one developed for use in the Lyman-Viera study.

In order to best arrive at information regarding practical barriers, it was decided that the ideal target population would be composed of women who, while demonstrating an interest in non-traditional occupations, has not yet decided to enter skills training. The women who follow the INTO program are concerned with acquainting themselves with the various kinds of non-traditional work. The graduates from this course either proceed into employment or skills training.

The survey results are intended to serve as a tentative assessment of practical barriers. The word tentative is used because the numbers involved in the survey are too small to draw any definite conclusions. What the results can do is suggest possible implications which future research can investigate in greater detail.

Characteristics of the sample

Information was obtained from the students with regards to age, marital status, number of children, educational level and parent's educational level and occupation.

Table 20 illustrates the distribution of respondents by age. The table indicates that the greatest percentage of the women were between the ages of 26 and 35 (50%).

With regards to marital status, the majority of women reported that they were either single or divorced (40% respectively). As illustrated in Table 21, none of the respondents indicated that they were married at the time of the study. However, according to the distribution of responses illustrated in Table 22, 60% of the respondents reported that they had children. The most common age of these children fell within the 6 to 10 year old category (30%).

As indicated in Table 23, 47.4 % of the students indicated that they had worked full time prior to the course. Adding to this the percentage of women who had worked part time, the figure rises to 73.7%. Of these women, 86 % had previously worked in a traditional type of occupation.

Table 24 illustrates the responses to questions concerning educational level of student and parents. With regards to students' educational levels, the responses were distributed across almost all categories. The highest percentage (25%) indicated that they had graduated from high school. The

smallest percentage indicated that they had not gone beyond grade school.

With regards to mother's and father's educational levels, the responses tended to be concentrated across the first three categories. 40% of respondents' fathers had obtained some high school education. 45% of respondents' mothers had not gone beyond grade school.

Table 25 illustrates the distribution of responses with regards to parental occupation. The largest percentage of respondents' fathers (40%) were reported to fall into the category of "unskilled labour" . Of the respondents' mothers, an equal number had either been outside of the labour force (usually meaning housewives) or had been employed in the category "clerical and sales" (40% respectively).

The demographic information allows us to make certain tentative observations concerning this population. Some useful information can be obtained from contrasting demographic characteristics of the sample of women selected from skills training programs and those of the INTO sample.

Whereas non-traditional and traditional women involved in the empirical research did not appear to differ in terms of socioeconomic background, the INTO sample appeared to be drawn from lower socioeconomic levels. Table 26 illustrates the differences between the group of women in skills training and the INTO women on this variable. As can be seen, the proportions of fathers in skilled versus un-

unskilled categories is almost reversed for the two groups.

Differences also appear to emerge when comparing the two groups with regards to age and marital status. Table 27 draws comparisons with regards to age categories. Whereas the greatest number of women in skills training were found to be below the age of 25, the majority of INTO women were between the ages of 26 and 35.

Table 27 illustrates the differences between the two groups with regards to marital status. It is worth noting that none of the INTO women were married at the time of the survey. Even more interesting is the fact that, although none of the INTO women were married, a majority (60%) had children. Only 15.8% of the women in skills training fell into this category (ie. married, without children).

These comparisons are useful for two reasons. First of all, they reinforce the point made earlier that women who choose non-traditional occupations tend to be mature, working women, many of whom must overcome the difficult task of combining career and family responsibilities.

Secondly, the comparisons raise the question of whether sufficient efforts are being made to recruit women like those in the INTO sample who are perhaps most motivated to choose non-traditional types of training programs. Women face a double deterrent to entering skills training, ie. that it is non-traditional and that it is low in prestige. Because of their blue collar backgrounds and present situation, women

such as those enrolled in the INTO course are probably more likely candidates for skills training. For these women, any lack of prestige is probably offset by the financial rewards of learning a non-traditional trade.

Yet, as Gallup (1978) points out, women of lower socio-economic levels represent the largest pool of academically qualified persons not participating in post-secondary education. Gallup attributes this fact to a practical barrier, ie, lack of financial aid. Again, we come across facts which reinforce the underlying assumption of the present study, that is, that both psychological and practical barriers must be dealt with. The next section will outline some of the practical barriers.

TABLE 20

Age of INTO Students

Caregory	Number	%
18-25	3	15
26-35	10	50
36-45	3	15
46-hi	4	20
Total	20	100

TABLE 21

Marital Status of INTO students

Category	Number	%
Single	8	40
Married	-	-
Separated	8	40
Divorced	3	15
Widowed	1	5
Total	20	100

TABLE 22

INTO Women with/without Children and Ages of Children

Category	Number	%
With children	8	40
Without children	12	60
Ages of children:		
0-2	4	20
3-5	2	10
6-10	6	30
11-15	-	-
16-18	2	10
18 plus	4	20
Total	18	100

TABLE 23

Students' Previous Occupations

Category	Number	%
Student	1	5
Housewife	1	5
Unemployed	3	16
Worked. part time	5	26
Worked, full time	9	48
Total	19	100

TABLE 24

Educational Level of Student, Father and Mother

Category	Student	Father	Mother
	%	%	%
Grade school	5	30	5
Some high school	15	40	5
High school graduate	25	15	35
Training past h/s	10	5	-
Some college	-	5	-
College graduate	20	-	5
Some university	15	-	5
University graduate	10	5	5
Total	n=20 100%	n=20 100%	n=20 100%

TABLE 25

Parental Occupation

Category	Father		Mother	
	%		%	
Professional	5		10	
Semi-Professional	10		5	
Manager, Proprietor (large firm)	-		-	
Manager, Proprietor (small firm)	25		-	
Clerical	-		40	
Skilled	5		-	
Semi-Skilled	15		-	
Unskilled	40		5	
Farmer	-		-	
Not in Labour Force	-		40	
Total	n=18	100%	n=20	100%

TABLE 26

Father's Past of Present Occupation

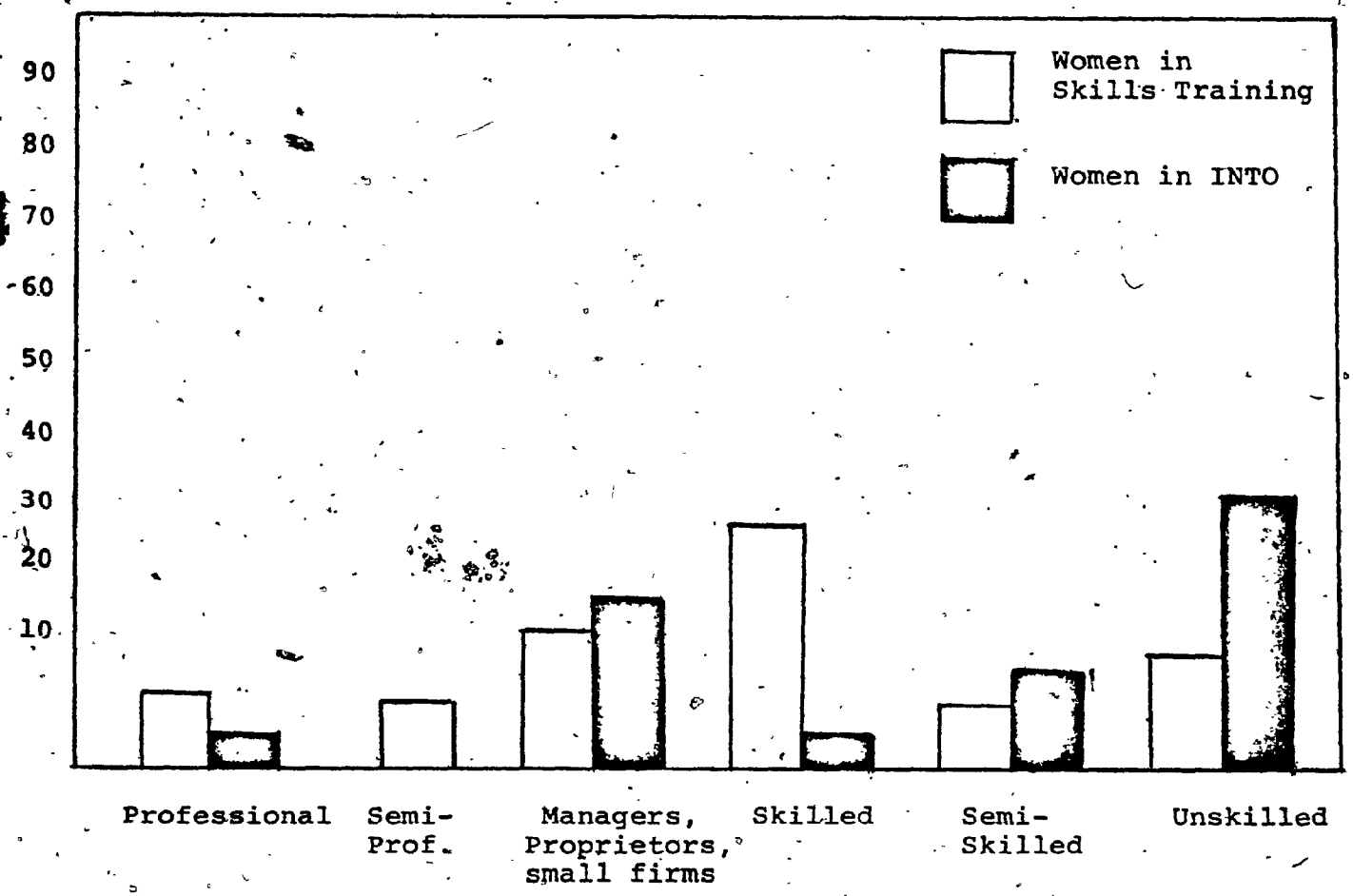


TABLE 27

Age of Students for
Two Samples of Women

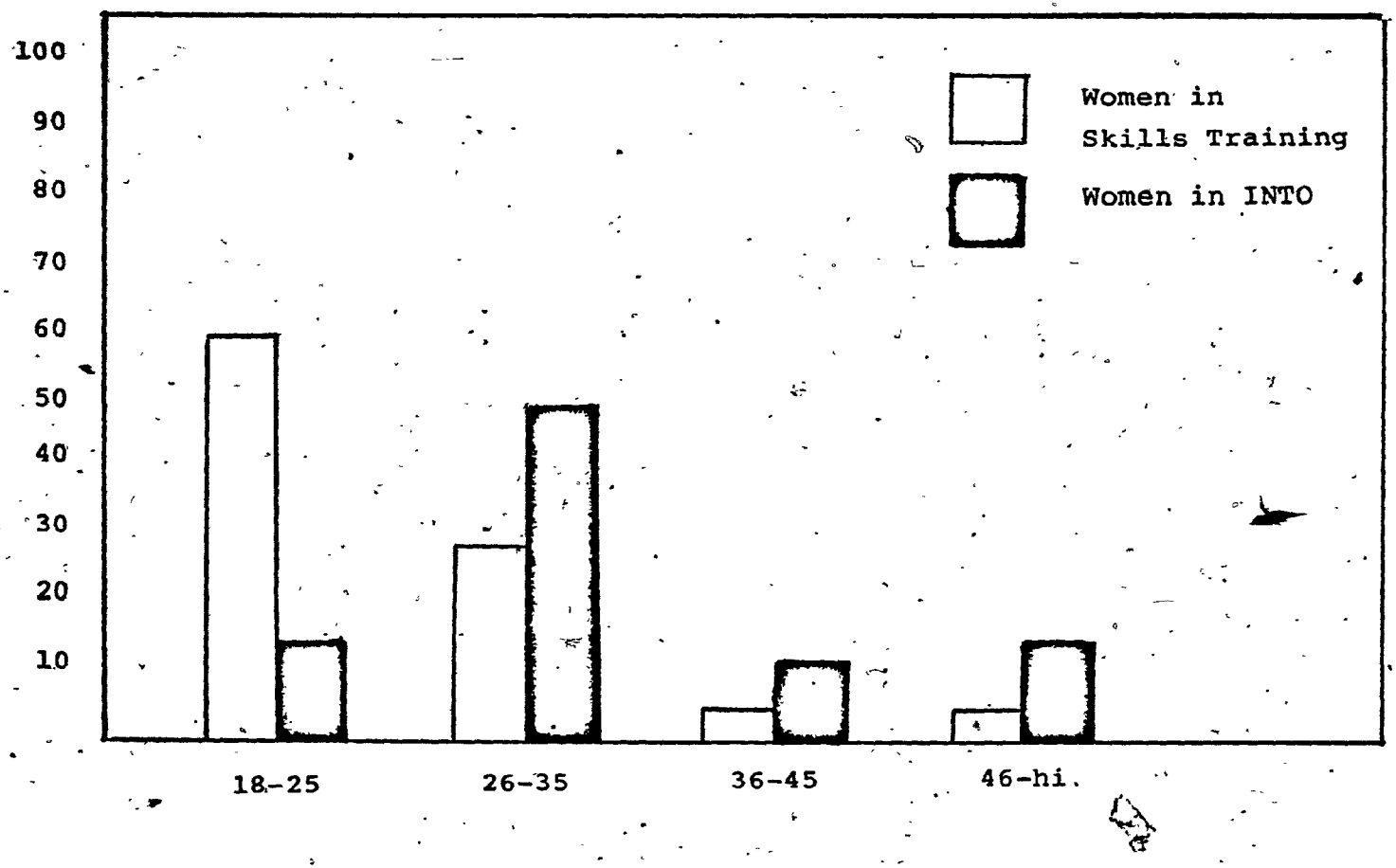


TABLE 28

Marital Status for Two Samples of Women

MARITAL STATUS	PROGRAM: Skills	PROGRAM: INTO	
Married, no children	6 15.8	—	6
Married, with children	4 10.6	—	4
Not married, no children	22 57.9	8 40.0	30
Not married, with children	6 15.8	12 60.0	8
	38	20	58

Practical Barriers to Entering Skills Training

Of the 20 women who completed questionnaires, only 3 indicated that they did not perceive any particular barriers. The other 17 women mentioned at least one barrier each.

Table 28 summarizes the responses of the INTO students. Lack of time and money is a theme which recurs under each category. This finding is similar to that of Richards(1976) who identifies time, money and child care as constituting the main barrier to education. In addition, the INTO women mention the problems created by personal and family feelings. In their descriptions of these barriers, many of the women noted the difficulty of making their career decision without the support of family and friends. One woman wrote that,

> "I really feel that a lot of women my age and older are unaware of the possibilities other than typing, nursing and teaching. Also because we have been out of school so long, we are afraid to retrain or look for new possibilities. It seems to be harder to start again at somesomething entirely different and new when you're 35 or 40 and alone."

The implications of the survey of practical barriers will be examined more closely in Part III. For now, it can be suggested that many women who might find the prospect of training for non-traditional occupations attractive are faced with a number of practical barriers. Certainly, it is not the motivation to enter skills training which is

lacking. In spite of the barriers, 11 of the women had specific plans for the future, 4 had tentative plans and only 1 replied that she did not intend to enter some sort of skills training. However, this enthusiasm is perhaps a result of their being in the INTO course. It is doubtful whether women in similar situations and without support of others are as optimistic about future educational plans.

One final question asked, "If you could be or do anything you wanted, what would you be?". Although related more to attitudes than to the purpose of the survey, the question elicited some interesting responses. It was notable that 12 out of 18 women mentioned that they would like to be doing some sort of professional, white collar work. This is probably due to the fact that blue collar work is regarded as inferior in status to white collar work. It was not interpreted to mean, however, that the women wished to be employed in traditional work since most of the responses involved professional work but of a non-traditional nature (eg. stockbroker, manager, antique salesperson). What the responses may indicate is that women need to become aware not only of the stereotypes surrounding the female role, but also of stereotypes of blue and white collar work.

TABLE 29

Perceived Barriers to Entry into Skills Training

Barrier Mentioned	No. Mentioning Barrier
Transportation	
a. Expensive	5
b. Time consuming	4
Child Care	
a. Lack of conveniently located services	3
b. Lack of flexibility with regards to hours of existing centers	3
c. Lack of financial aid with regards to child care costs	4
d. Time constraints resulting from lack of services	4
Work Schedule	
a. Inflexibility of work hours	2
b. Lack of time left over for studies	5
Family Feelings	
a. Resentment stemming from opinion that education is a luxury	2
b. Lack of support for a woman doing a "man's" job	3
Personal Feelings	
a. Guilt about leaving children	6
b. Insecurity about it being worthwhile	7
c. Lack of confidence	3
d. Lack of leisure time for personal interests and relationships	6

Attitudes of Male Students, Instructors and Prospective Employers as Barriers

The practical barriers cited in the previous section apply to mature women entering either traditional or non-traditional training programs. However, through research and through talks with the women in question, another barrier was identified which applies only to non-traditional women. Attitudes of students, instructors and employers represent a deterrent to women who wish to enter skills training.

Komarovsky (1962) described the existence of the male clique as it operates both in the work and social spheres of blue collar workers. When a woman enters the male dominated work environment, she is upsetting the accepted norms of behavior as well as the relationships within the peer networks. Kanter (1975) claims that the experience of the "token" is more a result of the contrast of that person with the rest of the group than of the sex or colour of the individual. In the case of a woman entering a male dominated environment, her femininity is regarded as an intrusion and as such, results in her being excluded from information channels and hence, from power. Hostile attitudes are not only unpleasant for the new worker, they act as a barriers to her occupational mobility.

Cohen (1978) describes the problems of women in apprenticeship programs as consisting of: isolation, ridicule,

lack of co-operation, sexual harassment, pressures to over-achieve, sabotage of efforts and constant criticism.

The importance of positive attitudes towards women both in the colleges and in the workplace cannot be overstated. Meyer, Lee and Dean (1978) conducted a study of the experiences of ten utility companies in the United States. Most of the women appeared to be performing well in their new jobs. Their main problem was apparently that of harassment from male peers. The problem, according to Meyer et al. is that, "in contrast to white collar jobs, the use of women in manual blue collar jobs is a more conspicuous violation of cultural norms" (p.10). Another aspect of the problem is that quite often male workers are unaware that women are doing non-traditional work. Briggs(1978) found that in 50% of shops which had women doing work requiring mechanical ability, 45% of the male workers questioned indicated that they did not know of any women doing work which required such abilities.

Instructor attitudes also represent barriers to entry and persistence in skills training programs. There is evidence that the "egalitarian" attitudes professed by instructors is only superficial. This conclusion has been based on a number of observations. Some instructors admitted their reservations concerning the abilities of female students to handle job responsibilities. Some of the reservations appeared to be based on stereotyped perceptions of women rather than on fact. For instance,

one instructor in particular claimed that women were suitable for the work but that most were afraid to get their hands dirty. Other instructors were preventing the acceptance of the female student by her peer group because they granted her certain unecessary privileges (eg. getting the male students to do all the lifting and dirty work).

With regards to employer's attitudes, Cohen (1978) found that many of the reasons given for not hiring women are based on stereotyped perceptions of women's abilities and interests. Some of the reasons given were that:

1) women cannot hold up physically
2) women distract men and reduce productivity
3) wives of male workers object
4) profanity is offensive to women
5) women prefer light, repetitive work
6) women are not generally interested in bettering themselves
7) women require extra help
8) women's inability to "pull their own weight leaves men with the dirty work.

(p. 5)

Apprenticeship programs are particularly effected by negative attitudes. A person wishing to be an apprenticeship must first find an employer. To qualify as an apprentice, a qualified journeyman has to agree to work

with the apprentice in a variety of aspects of the trade. A good number of journeyman openly admit that they refuse to train a woman under any condition. Nor is encouragement likely to come from the Apprenticeship Board which is composed of 11 men and with 110 men on the advisory committees (White, 1978). As for the unions, an unpublished study by Pat Armstrong notes that in interviews with carpenter's, plumber's and electrician's trade unions, only one representative from the carpenter's union felt positive towards the idea of hiring women. The reason given was that conditions for men would improve if women were hired (Armstrong cited in White, 1978).

Women interested in non-traditional jobs are caught up in a vicious circle. Negative attitudes and the lack of employment opportunities deter women from following training programs. The lack of skills in turn results in women entering only the lowest level jobs - a situation which reinforces negative attitudes. In order to break out of this vicious circle, both training and mechanisms to facilitate the integration of women into skilled occupations are needed. This will be futher discussed in the following section.

PART 111

IMPLICATIONS OF THE STUDY

The purpose of examining both practical and psychological barriers to choice of a non-traditional training program is to provide a comprehensive understanding of the many factors which enter into the choice process.

Most current theories of occupational choice recognize the influence of internal and external influences on choice (ie. pertaining to the individual versus the environment).

However, different theorists attribute varying degrees of importance to each. The present author believes that the factors which influence women's career choice to the greatest extent are: 1) personality 2) practical/proximate constraints or pressures and 3) socialization. This part of the study will examine how the latter two can be dealt with through educational intervention.

Table 30 outlines the results of the present study and draws implications for each of these. The remainder of part 111 will be concerned with examining these implications in greater detail.

Implications of Findings with Regards to Psychological Barriers

TABLE 30

Findings of the Study and
Corresponding Implications

Findings	Implications
1) Psychological variables, ie. self concept, career maturity, may interfere with career choice.	Women should be encouraged to follow a pre-skills, career education course.
2) Practical barriers to entry into non-traditional training programs include lack of: a) financial support b) child care services c) counseling services and d) attitudes of fellow students, instructors and prospective employers.	Support services and special needs of mature women should be examined. Follow up of female trainees should be undertaken.

Implication # 1. Attitudes towards work and self should be altered before any choice of training program is made.

The findings of the main analysis of the present study suggest that unrealistic and immature attitudes towards work and to a lesser degree, negative self concepts, may interfere with career choice. The implications of this is that if women are to make appropriate career choices, attitudes towards work and self should be altered before any choice is made.

One way of accomplishing this is through a career education course. The career education concept is particularly well suited to the task of developing a realistic attitude towards work and positive self concepts. Career education is based on the concept of vocational development, which sees the individual moving through a series of life stages to arrive at a career choice. Following Super's (1957) research, career education emphasizes the relationship between development of the self concept and the progress towards the implementation of an appropriate career choice.

As career maturity is a product of various aspects of attitudes towards work, career education takes on a number of tasks. Marland (1974) describes career education as,

> "an instructional strategy, aimed at improving educational outcomes by relating teaching and learning to the concept of career development...A complete program of career education includes

> awareness of self and the world of work, broad orientations to occupations and in depth exploration of selected clusters, career preparation, and understanding of the economic system of which jobs are part" (p. 105).

The most common way of implementing the career education concept has been to integrate it into the curriculum from the earliest school years until the student graduates from high school. Beginning the educational process at an early age is clearly the best way to help women arrive at choices which are compatible with their interests and aptitudes. In this way, career education tasks can be matched to life stages (the reader should refer to Appendix C for a more detailed discussion of models of career education and how they apply to girls career choice process).

With regards to the present study, there is evidence of a pressing need to raise women's career maturity levels. Furthermore, the strong relationship between choice and self concept suggests that the latter could be a secondary focus of a career education course. Both of these tasks should be undertaken before any choice of training program is made.

The model in Figure 1 illustrates the form which such a pre-skills, career education course might take. The emphasis of such a course would be on knowledge about individual aptitudes and interests and matching this to an occupation. The course would follow the same developmental stages as apply to adolescents (ie. stages of "exploration", "crystallization", "making a tentative choice" and "implementation".

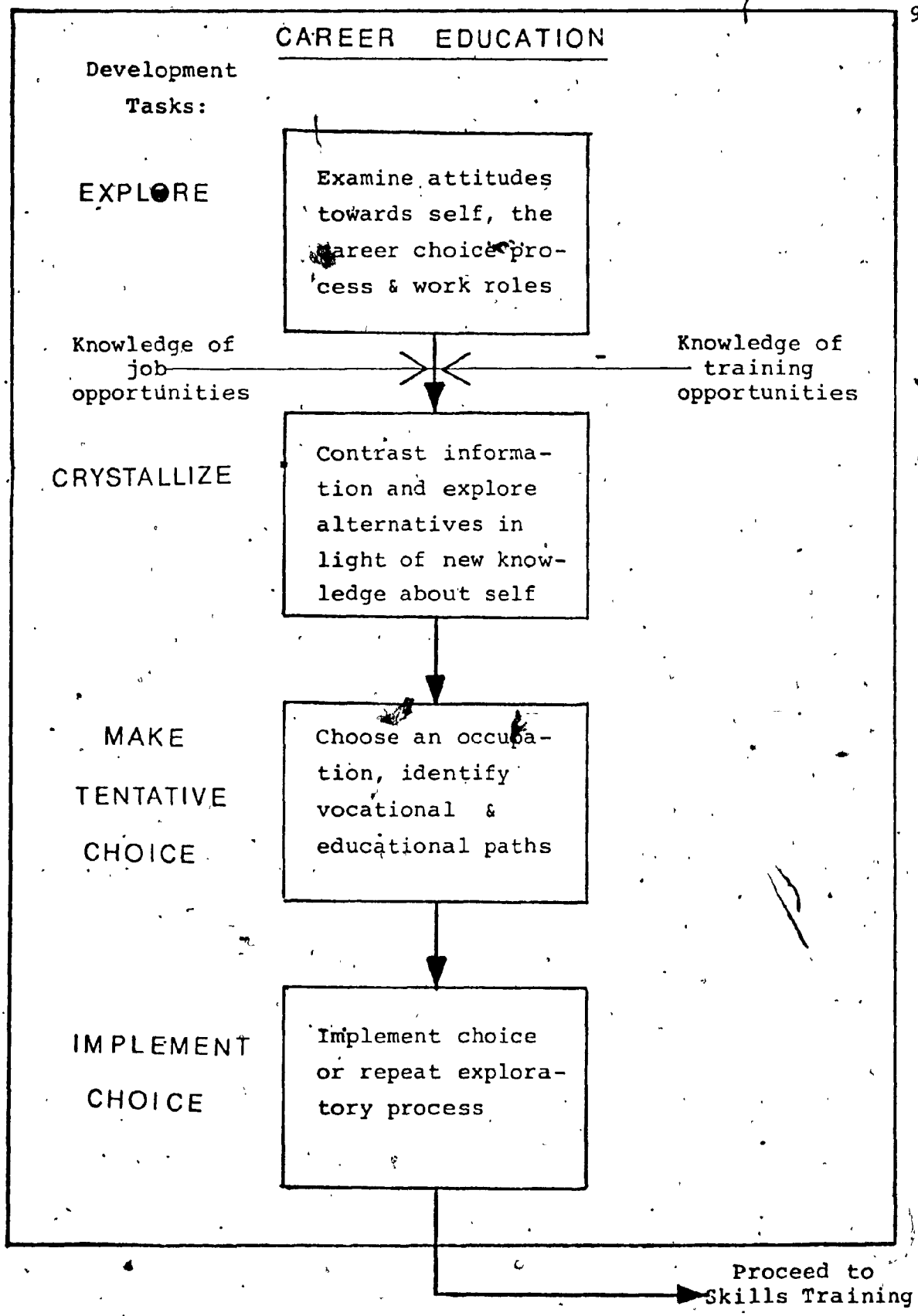


Figure 1: Model of Pre-Skills, Career Education Course

Implications of Demographic and Career Variables for Career Education

Information supplied by the demographic and career variables allows us to develop a profile of the non-traditional woman. Specifically, the latter was found to be older, married and to have had work experience. In addition to these characteristics, the non-traditional group was found to differ from the traditional group on two attitudinal variables, ie. perception of future occupation as a career and independence in career decision making.

One thing which these variables tell us is that women enrolled in non-traditional training programs represent a type of woman different from the average female community college student in a number of ways. By identifying some of these characteristics, it is possible to suggest ways by which career education can either substitute for (in the case of demographic variables) or develop (in the case of attitudinal variables) characteristics found to be associated to a non-traditional choice. The demographic information is also useful in pointing out future areas of research.

Difference in age has particular implications for career education. As was suggested in the course of this study, it is perhaps not age per se but rather age related characteristics which may best account for a non-traditional choice. More research is needed to determine the specific na-

ture of these characteristics. However, the findings of the present study indicate what some of these characteristics might be.

Marital status and work experience, for instance, are two age related characteristics which were found to be related to choice. It was previously suggested that the relationship between choice and marital status could be explained by differences in motivation which family responsibilities create (ie. working is financially motivated for married women). The implication of this is that an attempt must be made to bring about an awareness in younger women of the economic role which work can be expected to play in their lives. It also means that younger women must be made aware of the fact that most traditional jobs do not permit women to achieve a high degree of financial independence and/or security.

Secondly, more of the non-traditional women were found to have had work experience. As was previously mentioned, the importance of work experience lies in the fact that it allows women to gain experience in or to be exposed to a variety of work options. A career education course could substitute for work experience in one of two ways. One way would be to bring in women currently working in non-traditional occupations to act as role models and resource people. By this means, women can become aware of the different options open to them. Bringing students in

contact with role models would also allow students to gain a realistic picture of the barriers which they should expect to emerge as well as the various mechanisms of coping with these barriers. A second way of substituting for work experience would be to include a "hands on" component in the career education course. Such a component would involve sending the students out to various companies to try out various types of non-traditional jobs.

Non-traditional women were also found to be more independent in the decision making process and more inclined to see their future occupation as a career. A career education course should aim to develop independence and career orientation. One of the results of feminine socialization is that women are either unwilling or unable to assume control over their lives. A career education course should help women to accept this responsibility. It can do so by bringing about an awareness of the economic need to work and the advantages to be gained from taking on a job which is congruent with both interests and aspirations.

Implications of Findings with Regards to Practical Barriers

Implication # 2. There is a need to examine existing support services in post-secondary institutions, particularly with regards to mature women of lower socio-economic backgrounds.

Three types of support services will be examined in this section: 1) financial aid 2) child care and 3) counseling.

The present research suggests that skilled blue collar work may be more attractive to mature women of lower socio-economic levels. However, the very conditions which prompt the interest (eg. financial situation), give rise to practical barriers.

The difficulty of meshing multiple roles is particularly evident in the case of INTO students. Most of these women must combine the roles of mother, wage earner and student. The result is that lack of time and energy is repeatedly mentioned.

In fact, many of the barriers listed under "transportation", "work schedule" and "child care" can be tied to one principle barrier, ie. lack of financial resources. Adequate financial resouces would permit women to manage time and energy by delegating more of their responsibilities. For instance, problems of work schedule would not interfere with education if the women's financial situation did not dictate the need to work. Money to cover child care costs would also make it easier for women to devote themselves to their studies. Freedom from time constraints made possible by financial aid would make transportation less of a problem and increase leisure time.

The problem is either that financial aid or information concerning financial aid is inadequate. From information collected from the women in skills training, it is evident

that aid is primarily limited to tuition costs. Living expenses and child care do not appear to qualify for financial aid. It needs to be determined whether financial needs are being met or whether women are unaware of sources of financing. Furthermore, since financial aid in the form of bursaries, training allowances, etc. is the respon- of the government, it should be determined whether women who do not enter through government channels are aware of funds available for skills training.

Child care services also need to be examined One aspect of the child care issue is cost. Another aspect is convenience and availability of services. The latter is mentioned by INTO students as a barriers to further education.As for the sample of women in skills training, 75% of women with dependents indicated that they paid for child care themselves. Again, either the problem lies in the lack of good quality child care services or the lack of information regarding these services. The implication is that child care should be examined in terms of cost, availability and adequacy of information made available to the public.

Before leaving the topic of practical barriers, it should be mentioned that solutions to the problems which women face can be found by other means than looking at the traditional schooling methods. The present study has been concerned with investigating how the community college

can be made to adapt to women's needs. However, solutions might also be found by examining alternative educational delivery systems.

For instance, long distance education via radio and television might be considered as a means of providing training for women while eliminating barriers stemming from lack of child care services or transportation problems. The advantages of using media for educational purposes include: immediate access, teacher independency, reproducibility of instructional content, etc. However, the biggest disadvantage to long distance education is its limited applicability. With regards to skills training, for example, the "hands on" component is central to the learning process. Two important components, ie. trying out the skill and receiving feedback on performance, are not generally adaptable to long distance education.

Another alternative to the community college system of teaching would involve the use of self pacing modules or computer assisted instruction. The graphic capabilities of modules and computers, used in conjunction with immediately accessible equipment is well adapted to teaching specific, measureable skills. The advantage of using these alternative methods lies is their flexibility. One of the major barriers confronting women is that their many responsibilities interfere with course scheduling.

While the above-mentioned alternatives are useful in overcoming certain practical barriers, they mainly apply

to skills training and not to career education. With regards to the latter, the traditional group instruction may still be the best method of instruction. The reason for this can be understood by referring to the third practical barrier identified in the present research. This barrier emerged as a result of lack of support from family and friends. Due to this lack of support, women feel a great deal of pressure which may serve to make personal feelings of guilt and anxiety more acute. The responses of the INTO students suggest that women need to be given the opportunity to meet with others in similar situations and share common problems.

Community colleges do offer personal counseling services but it is questionable whether this type of counseling can meet the needs of the women in question. Table 2 in Appendix C illlstrates a preference for counseling techniques which allow the student to become actively involved in working out personal difficulties. The implication of this is that alternatives to one-to-one counseling should be explored. Career education can be suggested as a possible alternative. In addition to providing a means of changing negative attitudes towards self and work, such a course would allow women to come into contact with women in similar situations.

Implication # 3. There is a need for a follow up of female graduates of skills training programs.

It is particularly important that skills training be perceived as a means rather than as an end. Negative employer attitudes may result in skills of female trainees being underutilized. The real measure of the value of skills training for women can only be assessed once women are in the occupational setting. For this reason, a follow up of female trainees should be undertaken.

Hagerman (1978) suggests that training does not benefit men and women equally. This is explained by the fact that women are placed in low level positions which offer few opportunities for training and advancement. Such jobs often require skills which women are thought to possess and/or prefer, ie. repetitive, unskilled operations (Hunt cited in Cohen, 1978).

An effort must be made to ensure that women are not placed in stereotyped roles. While training institutions such as community colleges can monitor the progress of female graduates, a follow up should go beyond this. A simultaneous attempt must be made to change employer's attitudes. Change will not be effective unless a commitment is made by management to change discriminatory attitudes and practices.

Conclusion

The discussion of attitude change brings up an important point with regards to the present study. An underlying assumption of the study has been that education can play an active role in bringing about social change. This is not meant to be taken, however, that change is a one sided issue. Just as women need to be equipped with the skills and attitudes needed of non-traditional work, society must be prepared to accept them. In Rowntree's (1977) words, "Education cannot help to change society through the enhancement of human potential unless it has the active connivance of society" (p. 167).

It is a point of contention whether the educational technologist/planner can act to initiate change or whether action can only be taken in reponse to expressed societal needs. The present author takes a stance somewhere between the two points of view. The educational technologist's task involves observing the changed conditions in women's lives and responding to these changes by identifying educational needs. However, change is also being initiated in the sense that the planner must identify ways of meeting these new needs. By both responding to and initiating change, the educational technologist can help to bridge the gap between the emergence of the conditions which prompt change and the re-establishment of the societal system's equilibrium.

Further research is needed to confirm the results of the present study. With regards to psychological differences between non-traditional and traditional women, it might be of value to examine the same hypotheses but using different measurement scales. For instance, in the present study, only one dimension of self concept was measured, ie. "social" self concept. Further research should investigate the possibility that non-traditional women differ from traditional women in terms of other dimensions of self concept such as perceptions of personal worth and/or abilities.

With regards to the scale measuring attitudes towards women's roles in society, it would be useful to determine whether the use of a more sophisticated, less direct scale would yield a result similar to that of the present study. This would serve to verify the suggestion that responses were influenced by popular perceptions of sex role behaviors.

The present study identified the relationship of age to choice, levels of self esteem and attitudes towards women. Further research should be undertaken to determine whether it is age per se which is related to these variables or whether the interaction is due to age related variables such as work experience, family size or marital status.

Research should also be undertaken to investigate the nature of practical barriers. A future study should be concerned with obtaining more information with regards to

availability and awareness of support services and should involve a larger number of women. Furthermore, it would be of value to determine the influence of both practical and psychological barriers on perseverance in non-traditional occupations.

Finally, research could be undertaken to identify different populations of women (eg. women with a continuous work history versus re-entry women, mature versus younger women, sole support versus married women), and how motivations and support needs vary. The present research has also raised the question of whether community college students are likely candidates for skills training or whether efforts would be better spent in recruiting mature women presently working in blue collar types of occupations. Further research could be concerned with answering this question.

REFERENCES

Alexander, Lincoln. Race and sex equality in the workplace. A challenge and an opportunity. Paper presented at McMaster University (Hamilton, Ontario), September 28, 1979.

Angrist, Shirley and Almquist, M. Careers and contingencies. Port Washington, New York: Kennikat Press Corp., 1975.

Ashburn, Elizabeth. Motivation, personality, and work related characteristics of women in male-dominated professions. Ruth Strang Research Award Monograph Series no. 2. Washington, D.C.: National Association of Women's Deans, Administrators and Counselors, 1976.

Astin, Helen Stavridou. Continuing education and the development of adult women. The Counseling Psychologist, 1966, 6(1), 55-60.

Baddock, Cora V. Vocational choice and opportunity. New Zealand: University of Canterbury, 1971.

Bailyn, L. Career and family orientations of husbands and wives in relation to marital happiness. Human Relations, 1970, 23(2), 97-113.

Baker, S. Women in blue collar and service occupations. In Stromberg and S. Harkness (Eds.), Women Working. U.S.A.: Mayfield Publishing Co., 1978.

Baltes, P.B. and Goulet, L.R. Status and issue of life span developmental psychology. New York: Academic Press, 1970.

Bandura, Albert. Behavioral modification through modeling procedures. In Krassner and Ullman (Eds.), Research Modification. New York: Holt, Rinehart and Winston, Inc., 1975.

Baruch, Grace K. Maternal career-orientation as related to parental identification in college women. Journal of Vocational Behavior, 1974, 4(2), 173-180.

Bartlett, W.E. Vocational maturity and personality variables of Manpower trainees. Vocational Guidance Quarterly, 1967, 17, 104-108.

Battenschlag, J. Career achievement skills delivery system. Journal of Research and Development in Education, 1974, 7(3), 91-99.

Bossen, Marianne. L'emploi a temps partiel dans l'economie Canadienne. Ottawa: Labour Canada, October, 1975.

Bottom, Gene and O'Kelley, G.L. Vocational education as a developmental process. American Vocational Education Journal, 1971, 46(3), 21-24.

Briggs, Norma. Women and the skilled trades. Information Series no. 132. Washington, D.C.: National Institute of Education, 1978.

Brown, D.G. Sex role development in a changing culture. Psychological Bulletin, 1958, 1955,232-242.

Bureau of Women. Forty six pioneers: Louisiana women in non-traditional jobs. Baton Rouge, Louisiana: Louisiana State Department of Health and Human Resources, November, 1977.

Burkhart, Mary Quinn. Career development of women. In R. Reardon and H.O. Burke (Eds.), Facilitating Career Development. Springfield, Illinois: Charles E. Thomas Publisher, 1975.

CTB/McGraw Hill. Career maturity inventory. Theory and research handbook. Monterey, California: McGraw Hill, Inc., 1978.

Capehart, J.L. The relationship of career maturity to Holland's theory of vocational choice. Unpublished doctoral dissertation, University of North Carolina, 1973.

Cohen, Leah. Women's participation in apprenticeship training. Canada Employment and Immigration Commission, 1978.

Collar Change. The Globe and Mail. Thursday, May 1, 1980.T-1.

Cook, Gail. Opportunity for choice. Montreal, Quebec: C.D. Howe Research Institute, 1976.

Cowan, G. and Moore L. Female identity and occupational commitment. Paper presented at the meeting of the American Psychological Association (Denver, Colorado), April, 1971.

Cox, S.G. A study of the relationships between student scores on various predictor measures and vocational success of students who were followed up one and five years following training in selected private trade, technical and business schools. Unpublished doctoral dissertation, University of Iowa, 1968.

Crites, J.O. Measurement of vocational maturity in adolescence. Psychological Monographs. U.S.A.: American Psychological Association, 1965.

Crites, J.O. and Semler, I.J. Adjustment, educational achievement and vocational maturity as dimensions of development in adolescence. Journal of Counseling Psychology, 1964, 14, 486-496.

Decision Marketing Research. Women in Canada. Ottawa: Office of the Co-ordinator, Status of Women, 1976.

Economic and Social Opportunities,Inc. Career development needs of women. Washington,D.C: Office of Education, Department of Health, Education and Welfare, May, 1975.

Elton, C.F. and Rose, H.A. Significance of personality in the vocational choice of college women. Journal of Personality and Social Psychology, 1976, 5, 260-267.

Enderlein, T.C. Causal patterns related to post high school employment satisfaction. Journal of Vocational Behavior, 1975, 7, 57-80.

Epstein, Cynthia Fuchs. Women's place; Options and limits in professional careers. Berkeley: University of California Press, 1970.

Farmer, Helen. Career counseling. In R. Clare (Ed.), Meeting women's new educational needs. California: Jossey-Bass Inc., 1975, 1-31.

Fernberger, S.W. Persistence of stereotypes concerning sex differences. Journal of Abnormal and Social Psychology, 1948, 43, 97-101.

Gallup, Jane Marie. Financial barriers to participation in post-secondary education perceived by New York State employed women. Unpublished masters thesis, Cornell University, 1978.

Gilbert, Gratia. Career maturity of vocationally undecided middle aged women. Unpublished doctoral dissertation, University of South Dakota, 1976.

Ginzberg, Eli. Occupational choice; An approach to a general theory. New York; Columbia University Press, 1951.

Glaze, Avis. Factors which influence career choice and future orientations of females. Unpublished doctoral dissertation, University of Toronto, 1979.

Goldberg, Ruth. Sex role stereotypes and career versus home-making orientations of women. In S. Osipow (Ed.), Emerging woman. Career analysis and outlooks. Coumbus, Ohio: Charles E. Merrill Publishing Co., 1975, 91-115.

Gordon, Anthony. Self-esteem, sex role orientation and career orientation of women in two stages of development, childbearing stage and beyond. Unpublished doctoral dissertation, University of California, 1978.

Gordon, F.E. and Strober, M.H. Bringing women into management. New York: McGraw Hill Book Cov, 1975.

Graves, T.D. A study of vocational maturity and college student's certainty and commitment to career choice. Unpublished doctoral dissertation, University of Northern Colorado, 1974.

Grescoe, Andrey. The new woman's work. Homemaker's Magazine. May, 1980, 52-70.

Haan,N. Smith, M.B. and Block J. Moral reasoning of young adults: Political-social behavior, family background and personality correlates. Journal of Personality and Social Psychology, 1968, 10, 183-201.

Hagerman, Dave. Women in non-traditional jobs: A review of Manpower policies and programs. Ottawa: Women's Employment Division, Canada Employment and Immigration Commission, March, 1979.

Harmon, L.W., Birk, J.M., Fitzgerald, L.E., and Tanney, M.F. (Eds.), Counseling women. Monterey, California: Brooks/Cole Publishing Co., 1978.

Hawley, P. Perceptions of male models of femininity related to career choice. Journal of Counseling Psychology, 1972, 19, 308-313.

Hedges, J., and Bemis, S. Sex stereotyping: It's decline in the skilled trades. Monthly Labor Review, May, 1974, 4-22.

Helmreich, R., and Spence, J. Taylor. Masculinity and femininity: Their psychological dimensions, correlates and antecedents. Austin, Texas: University of Texas Press, 1978.

Hoffman, Lois Vladis. Psychological factors. In L. Hoffman and I. Nye (Eds.), Working mothers. California: Jossey-Bass Publishers, 1974, 32-63.

Holland, J.L. The psychology of vocational choice. Waltham, Mass.: Blaisdell Publishing Co., 1966.

Holland, J.L., and Whitney, D.R. Changes in the vocational plans of college students. Orderly or Random? Iowa City: Research and Development Division, American College Testing Program, April, 1968.

Hollender, J.W., and Schalon, C.L. Client differences in personal correlates. Paper presented at the meeting of the Iowa Psychological Association, (Des Moines, Illinois), May, 1965.

Holstein, Herbert M. Career education. A curriculum model

Harmon, L.W., Birk, J.M., Fitzgerald, L.E., and Tanney, M.F. (Eds.), Counseling women. Monterey, California: Brooks/Cole Publishing Co., 1978.

Hawley, P. Perceptions of male models of femininity related to career choice. Journal of Counseling Psychology, 1972, 19, 308-313.

Hedges, J., and Bemis, S. Sex stereotyping: It's decline in the skilled trades. Monthly Labor Review, May, 1974, 4-22.

Helmreich, R., and Spence, J. Taylor. Masculinity and femininity: Their psychological dimensions, correlates and antecedents. Austin, Texas: University of Texas Press, 1978.

Hoffman, Lois Vladis. Psychological factors. In L. Hoffman and I. Nye (Eds.), Working mothers. California: Jossey-Bass Publishers, 1974, 32-63.

Holland, J.L. The psychology of vocational choice. Waltham, Mass.: Blaisdell Publishing Co., 1966.

Holland, J.L., and Whitney, D.R. Changes in the vocational plans of college students. Orderly or Random? Iowa City: Research and Development Division, American College Testing Program, April, 1968.

Hollender, J.W., and Schalon, C.L. Client differences in personal correlates. Paper presented at the meeting of the Iowa Psychological Association, (Des Moines, Illinois), May, 1965.

Holstein, Herbert M. Career education. A curriculum model

and stategies for implementation. Washington, D.C.: Office of Education, 1971.

Holter, Harriet. Sex roles and social change. Acta Sociologica, 1971, 14, 1-2.

Hoyt, D.P., and Kennedy, C.E. Interest and personality correlates of career motivated and homemaking motivated college women. Journal of Counseling Psychology, 1958, 5, 44-48.

Johnson, Michael. The study of the effects of life career counseling on the self concept and career maturity of community college students. Unpublished doctoral dissertation, College of William and Mary in Virginia, 1976.

Kagan, Jerome. The concept of identification. Psychological Review, 1958, 65, 296-305.

Kane, R. and Frazee, P. Occupational choice: Do traditional and non-traditional women differ? Washington, D.C.: Women's Bureau, Department of Labor, April, 1978.

Komarovsky, Mirra. Blue collar marriage. New York: Vintage Press, 1962.

Korman, A.K. Self esteem as a moderator of the relationship between self perceived abilities and vocational choice. Journal of Applied Psychology, 1967, 51, 65-67.

Krashinsky, M. Day care and public policy in Ontario. Toronto: Economic Council, University of Toronto Press, 1977.

Lyman-Viera, Karen, and Boggs, John. Societal attitudes and educational needs of women in the Chaffey Community

College district. California: Chaffey College, November, 1976.

Machie, Lindsay, and Patullo, Polly. Women at work. London: Tavistock Publications, 1978.

Maccoby, E.E., and Jacklin, C.N. The psychology of sex differences. Stanford: Stanford University Press, 1974.

Marland, Sidney. Career education: A proposal for reform. U.S.A.: McGraw Hill Publishing Co., 1974.

Maslow, A.H. Motivation and personality. New York: Harper and Brothers, 1970.

Mead, Margaret. Male and female. New York: William Morrow and Co., 1949.

Meyer, Herbert, and Lee, Mary Dean. Women in traditionally male jobs: The experience of ten public utility companies. R & D Monograph no. 65. Washington, D.C.: Employment and Training Division, Department of Labor, 1978.

Michaelson, Bonnie Lee. Vocational interests, self concepts, and attitudes towards feminine roles as related to the educational and vocational choice of college women. Unpublished doctoral dissertation, Temple University, 1974.

Mitchell, P.D. A system for education permanente. Programmed learning and Educational Technology, September, 1975, 12 (5), 306-324.

National Council of Welfare. Women and poverty. Ottawa:

National Council of Welfare, 1979.

Nagley, D.L. Traditional and pioneer working mothers. Journal of Vocational Behavior, 1971, 1, 331-341.

O'Leary, Virginia. Toward understanding women. Monterey, California: Brooks/Cole Publishing Co., 1977.

Organization for Economic Co-operation and Development. Equal opportunities for women. Paris: O.E.C.D., 1979.

Osipow, Samuel. Perspectives and issues. In S. Osipow (Eds.), Emerging woman: Career analysis and outlooks. Columbus, Ohio: Charles E. Merrill Publishing Co., 1975.

Pearson, M. The second time around: A study of women returning to the work force. Ottawa: Canadian Advisory Committee on the Status of Women, 1979.

Peoples, Vicki. Measuring the vocational interests of women. In S. Osipow (Ed.), Emerging woman. Career analysis and outlooks. Columbus, Ohio: Charles E, Merrill Publishing Co., 1975.

Picou, P., and Cambell, R. Career behavior of special groups. Columbus, Ohio: Charles E. Merrill Publishing Co., 1975.

Pineo, P. and Porter, J. Occupational prestige in Canada. Canadian Review of Sociology and Anthropology, 1967, 4 (1), 24-40.

Pohlman, E. The psychology of birth planning. Cambridge, Mass.: Shenkman, 1969.

Psathas, G. Towards a theory of occupational choice for women. Sociology and Social Research, 1968, 52, 253-268.

Raphael, Edna E. Working women and their membership in labor unions. Monthly Labor Review, May, 1974, 27-33.

Richards, Lillian S. Women's perception of their psychological and practical needs upon re-entry to a community college: Implications for restructuring the learning environment. Ed. D. Practicum, Nova University, 1976.

Richardson, Mary Sue. Vocational maturity in counseling girls and young women. In Measuring vocational maturity for counseling and evaluation. Washington, D.C.; The National Vocational Guidance Association, 1974.

Riesman, David. The lonely crowd. New Haven: Yale University Press, 1950.

Rosencrantz, P.S., Vogel, S.R., Bee,H., Broverman, I.K., and Broverman, M. Sex stereotypes and self concepts in college students. Journal of Consulting and Clinical Psychology, 1968, 32, 287-295.

Rowntree, Derek. Educational technology in curriculum development. New York: Harper and Row Publishers, 1974.

Schreiber, Carol. Changing places. Men and women in transitional occupations. Cambridge,Mass.: The MIT Press, 1979.

Schlossberg, N.K. A framework for counseling women. Personnel and Guidance Journal, 1974, 137-139.

Sears, P.R., Maccoby, E.E and Levin, H. Patterns of child rearing. New York: Row Peterson, 1957.

Sease, Dorothy Radcliffe. An analysis of career development among selected groups of women. Unpublished doctoral dissertation, University of Colorado, 1979.

Shaeffer, Ruth, and Lynton, Edith. Corporate experiences in improving women's job opportunities. New York: The Conference Board, 1979.

Sherrifs, A. C., and McKee, J.P. Qualitiative aspects of beliefs about men and women. Journal of Personality, 1957, 25, 451-464.

Sobol, Marion Gross. Commitment to work. In L. Hoffman and F. I. Nye (Eds.), Working mothers. Californai: Jossey-Bass Publishers, 1974, 63-80.

Sommerkorn, Ingrid. Women's careers. London: PEP, 1970.

Steele, Gertrude M. The mature woman student at Skyline College. Research report no. 1. California: Skyline College, February, 1974.

Super, Donald. Psychology of careers. New York: Harper, 1957.

Super, Donald. Self concepts in vocational development. CEEB Research Monograph no. $. New York, 1963.

Tangri, Sandra Schwartz. Determinants of occupational role innovation among college women. Journal of Social Issues, 1972, 28 (2), 177-199.

Tennyson, W., and Wesley, W. Career exploration. In J.H. Magisos Ed.), Career exploration. Washington, D.C.: American Vocational Association, 1973, 100-113.

Tolbert, E.L. Counseling for career development. Boston, Mass.: Houghton Mifflin Co., 1974.

Tyler, L. The development of career interests in girls. Genetic Psychological Monographs, 1964, 70, 54-64.

U.S. Department of Labor. Steps to opening the skilled trades to women. Washington, D.C.: Dept. of Labor, 1974.

Vetter, L. Career counseling for women. The Counseling Psychologist, 1973, 4, 54-64.

Walsh, Molly. Beliefs of women in role innovative and traditional professions about themselves and their female colleagues. Unpublished doctoral dissertation, George Washington University, 1976.

Walsh, W.B.,and Hanley, N.A. Consistent occupational preferences, vocational maturity and academic achievement. Journal of Vocational Behavior, 1975, 89-97.

Walsh, W.B., and Osipow, S.H. Career preferences, self concept and vocational maturity. Research in Higher Education, 1973, 1, 287-295.

Walshok, M.L. Occupational values and family roles: A descriptive study of women in blue collar and service occupations. The Urban and Social Change Review, 1978, 11 (2), 12-20.

Waters, O.P. Sex role attitudes and manifest needs, vocational maturity and career orientation of college women. Un-

published doctoral dissertation, Arizona State University, 1978.

Winters C., and Sorenson, J. Individual factors relating to career orientation in women. In S. Osipow (Ed.), Emerging woman: Career analysis and outlooks. Columbus, Ohio: Charles E. Merrill Publishing Co., 1975.

White, Julia. Women in trades association. Winipeg, Manitoba: Women in Trades Association, February, 1978.

Wirtenberg, Jeana. Improving girls occupational potential. A review of the literature. Washington, D.C.: Department of Health, February, 1978.

Women's Bureau. Women in the labour force. Facts and figures. Part 1, 1977. Ottawa, Ontario: Labour Canada, 1978.

Zaccaria, Joseph. Theories of occupational choice and vocational development. Boston, Mass.: Houghton Mifflin, 1970.

Zissis, C. A study of the life planning of 550 freshman women at Purdue University. Journal of the National Association of Women's Deans and Counselors, 1964, 153-159.

Zytowski, D.G. Toward a theory of career development for women. Personnel and Guidance Journal, 1969, 47, 660-664.

APPENDICES

A. Questionnaire sent to women in skills training programs

B. Questionnaire sent to INTO women

C. The Value of Career Education in Expanding Career Choice Options for both Girls and Women

APPENDIX A

Dear student:

Thank you for agreeing to participate in my study. I have enclosed a questionnaire as well as a self-addressed, stamped envelope for your convenience.

I am a graduate student in Educational Technology at Concordia University in Montreal. The information which I shall obtain from your answers will be used within my thesis which is to be entitled "A Systems Approach to Training Women for Non-Traditional Occupations".

Briefly stated, my thesis is concerned with finding out about some of the factors which influence the choice of training programs leading to occupations generally considered non-traditional for women. By filling out the questionnaire, you will be helping me to learn more about why you have chosen the occupation for which you are training.

As you are not required to give your name, you may be assured that the confidential nature of your answers will be respected. Should you be interested in finding out about the results of my study, write me a note apart from this questionnaire indicating where you may be reached. I will be pleased to send you a letter outlining the main results of the study.

Again, I thank you for your co-operation and hope that you will be able to send me back the questionnaire as soon as possible.

Sincerely yours,

Karen De Pauw

QUESTIONNAIRE

GENERAL DIRECTIONS

This questionnaire is divided into four sections. The first section asks you questions relating to your family and personal background. The other three sections which follow are aimed at gathering information with regards to your attitudes and opinions towards the roles of women in society, towards yourself and towards your choice of occupation.

Your answers to all four sections are to be written directly onto the questionnaire. Sections 2, 3 and 4 provide additional information with regards to how you should answer each section.

Your help in answering this questionnaire is greatly appreciated. The confidentiality of this questionnaire will be respected.

Section 1:

Background Information

Name of program presently enrolled in: _____

Length of program: _____ weeks.

College which you are attending: _____

1) What is your age? _____

2) What was your main occupation during the year preceding the course?

a) student _____
b) housewife _____
c) unemployed _____
d) worked, part time _____
specify _____
e) worked, full time _____
specify _____

3) IF EMPLOYED, how much did you earn per year? _____

4) What is the highest level of education which you had completed before entering the present program?

a) grade school _____
b) some high school _____ grade _____
c) high school grad. _____
d) training past high school _____
e) some college _____
f) college grad. _____
g) some university _____
h) university grad. _____

5) Are you presently living with your parents? Yes _____ No _____

6) Are you presently married? Yes _____ No _____

7) Do you have any children? Yes _____ No _____
If yes, how many? _____

8) IF MARRIED, what is your husband's occupation? _____
About how much does he earn per year? _____

9) IF MARRIED, what is the highest level of education which your husband completed?
   a) grade school _____
   b) some high school _____ grade _____
   c) high school grad. _____
   d) training past high school _____
   e) some college _____
   f) college grad. _____
   g) some university _____
   h) university grad. _____

10) What is (or was) your father's occupation?_____

11) What is (or was) your mother's occupation?_____

12) What is the highest level of education which each of your parents completed? (Select answer from choices in question 9)
   father:_____
   mother:_____

13) Who gave you the most help in making your decision regarding your present choice of training program?
   a) mother _____
   b) father _____
   c) other family _____
   d) husband or boyfriend_____
   e) People you know who are already in your future occupation _____
   f) other friends _____
   g) previous teacher _____
   h) counselor_____ specify _____
   i) other_____specify_____

14) Do you consider your future occupation as a job _____ or a career _____? (check one)

15) Before enrolling in this course, were you ever in the INTO program? (ie. Introduction to Non-Traditional Occupations)
   Yes_____No_____

Section II:

Attitudes toward Women

The statements listed below describe attitudes toward the roles of women in society which different people have. There are no right or wrong answers, only opinions. You are asked to express your feeling about each statement by indicating whether you (A) agree strongly, (B) agree mildly, (C) disagree mildly, or (D) disagree strongly. **Circle the letter of your choice.**

1. Swearing and obscenity are more repulsive in the speech of a woman than a man.

A B C D

Agree strongly | Agree mildly | Disagree mildly | Disagree strongly

2. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.

A B C D

Agree strongly | Agree mildly | Disagree mildly | Disagree strongly

3. It is insulting to women to have the "obey" clause remain in the marriage service.

A B C D

Agree strongly | Agree mildly | Disagree mildly | Disagree strongly

4. A woman should be as free as a man to propose marriage.

A B C D

Agree strongly | Agree mildly | Disagree mildly | Disagree strongly

5. Women should worry less about their rights and more about becoming good wives and mothers.

A B C D

Agree strongly | Agree mildly | Disagree mildly | Disagree strongly

6. Women should assume their rightful place in business and all the professions along with men.

A B C D

Agree strongly | Agree mildly | Disagree mildly | Disagree strongly

7. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.

A B C D

Agree strongly | Agree mildly | Disagree mildly | Disagree strongly

8. It is ridiculous for a woman to run a locomotive and for a man to darn socks.

A B C D

Agree strongly | Agree mildly | Disagree mildly | Disagree strongly

9. The intellectual leadership of a community should be largely in the hands of men.

A	B	C	D
Agree strongly	Agree mildly	Disagree mildly	Disagree strongly

10. Women should be given equal opportunity with men for apprenticeship in the various trades.

A	B	C	D
Agree strongly	Agree mildly	Disagree mildly	Disagree strongly

11. Women earning as much as their dates should bear equally the expense when they go out together.

A	B	C	D
Agree strongly	Agree mildly	Disagree mildly	Disagree strongly

12. Sons in a family should be given more encouragement to go to college than daughters.

A	B	C	D
Agree strongly	Agree mildly	Disagree mildly	Disagree strongly

13. In general, the father should have greater authority than the mother in the bringing up of children.

A	B	C	D
Agree strongly	Agree mildly	Disagree mildly	Disagree strongly

14. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men.

A	B	C	D
Agree strongly	Agree mildly	Disagree mildly	Disagree strongly

15. There are many jobs in which men should be given preference over women in being hired or promoted.

A	B	C	D
Agree strongly	Agree mildly	Disagree mildly	Disagree strongly

Section III:

Texas Social Behavior Inventory

The Social Behavior Inventory asks you to describe your reactions and feelings when you are around other people. Each item has a scale, marked with the letters A, B, C, D, and E, with (A) indicating "not at all characteristic of me" and (E) "very characteristic of me," and the other letters, points in between.

For each item, choose the letter which best describes how characteristic the item is of *you*.

1. I am not likely to speak to people until they speak to me.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

2. I would describe myself as self-confident.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

3. I feel confident of my appearance.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

4. I am a good mixer.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

5. When in a group of people, I have trouble thinking of the right things to say.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

6. When in a group of people, I usually do what the others want rather than make suggestions.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

7. When I am in disagreement with other people, my opinion usually prevails.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

8. I would describe myself as one who attempts to master situations.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

9. Other people look up to me.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

10. I enjoy social gatherings just to be with people.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

11. I make a point of looking other people in the eye.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

12. I cannot seem to get others to notice me.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

13. I would rather not have very much responsibility for other people.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

14. I feel comfortable being approached by someone in a position of authority.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

15. I would describe myself as indecisive.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

16. I have no doubts about my social competence.

A	B	C	D	E
Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me

DIRECTIONS Section IV

There are a number of statements about career choice in the following section. Career choice means the kind of work which you think you will probably be doing when you have finished all of your schooling.

Read the statements and mark your answer beside each statement. If you agree or mostly agree with the statement, circle the letter T. If you disagree or mostly disagree with the statement, circle the letter F.

Career Maturity Inventory | ATTITUDE SCALE

1	I often daydream about what I want to be, but I really haven't chosen a line of work yet.	T	F
2	If I can just help others in my work, I'll be happy.	T	F
3	Everyone seems to tell me something different; as a result I don't know which kind of work to choose.	T	F
4	It's probably just as easy to be successful in one occupation as it is in another.	T	F
5	In order to choose a job, you need to know what kind of person you are.	T	F
6	It doesn't matter which job you choose as long as it pays well.	T	F
7	I plan to follow the line of work my parents suggest.	T	F
8	As long as I can remember, I've known what kind of work I want to do.	T	F
9	You should decide for yourself what kind of work to do.	T	F
10	I don't know how to go about getting into the kind of work I want to do.	T	F
11	Work is worthwhile mainly because it lets you buy the things you want.	T	F
12	I know very little about the requirements of jobs.	T	F
13	When choosing an occupation, you should consider several different jobs.	T	F
14	If you have some doubts about what you want to do, ask your parents or friends for advice and suggestions.	T	F
15	I often feel that there is a real difference between what I am and what I want to be in my occupation.	T	F
16	There are so many things to consider in choosing an occupation, it is hard to make a decision.	T	F
17	You should choose an occupation which gives you a chance to help others.	T	F
18	The best thing to do is to try out several jobs, and then choose the one you like best.	T	F

GO ON TO NEXT PAGE

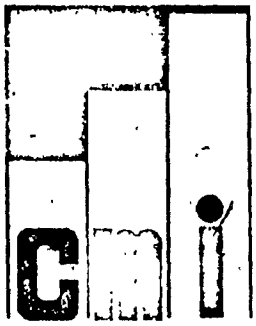
19	There is no point deciding on a job when the future is so uncertain.	T	F
20	Working is much like going to school.	T	F
21	There is only one occupation for each person.	T	F
22	Your parents probably know better than anybody else which occupation you should enter.	T	F
23	I want to really accomplish something in my work — to make a great discovery or earn a lot of money or help a great number of people.	T	F
24	When it comes to choosing a job, I'll make up my own mind.	T	F
25	I don't know what courses I should take in school.	T	F
26	The greatest appeal of a job to me is the opportunity it provides for getting ahead.	T	F
27	I can't understand how some people can be so certain about what they want to do.	T	F
28	I spend a lot of time wishing I could do work I know I can never do.	T	F
29	Work is dull and unpleasant.	T	F
30	Sometimes you have to take a job that is not your first choice.	T	F
31	I keep changing my occupational choice.	T	F
32	Once you choose a job, you can't choose another one.	T	F
33	As far as choosing an occupation is concerned, something will come along sooner or later.	T	F
34	I'm not going to worry about choosing an occupation until I'm out of school.	T	F
35	You can do any kind of work you want to do as long as you try hard.	T	F
36	You get into an occupation mostly by chance.	T	F
37	You can't go very far wrong by following your parents' advice about which job to choose.	T	F

GO ON TO NEXT PAGE

Career Maturity Inventory | ATTITUDE SCALE

38	Whether you are interested in a particular kind of work is not as important as whether you can do it.	T	F
39	Choosing an occupation is something you have to do on your own.	T	F
40	I seldom think about the job I want to enter.	T	F
41	By the time you are 15, you should have your mind pretty well made up about the occupation you intend to enter.	T	F
42	I have little or no idea of what working will be like.	T	F
43	I keep wondering how I can reconcile the kind of person I am with the kind of person I want to be in my future occupation.	T	F
44	I would like to rely on someone else to choose an occupation for me.	T	F
45	I'd rather not work than take a job I don't like.	T	F
46	I'd rather work than play.	T	F
47	I guess everybody has to go to work sooner or later, but I don't look forward to it.	T	F
48	I don't know whether my future occupation will allow me to be the kind of person I want to be.	T	F
49	It's who you know, not what you know, that's important in a job.	T	F
50	Your job is important because it determines how much you can earn.	T	F
51	You shouldn't worry about choosing a job since you don't have anything to say about it anyway.	T	F
52	I don't want my parents to tell me which occupation I should choose.	T	F
53	You almost always have to settle for a job that's less than you had hoped for.	T	F
54	If someone would tell me which occupation to enter, I would feel much better.	T	F
55	I am having difficulty in preparing myself for the work I want to do.	T	F

GO ON TO NEXT PAGE



Career Maturity Inventory | ATTITUDE SCALE

56	I can't seem to become very concerned about my future occupation.	T	F
57	I really can't find any work that has much appeal to me.	T	F
58	I'm not going to give up anything to get the job I want.	T	F
59	Knowing what jobs are open is more important than knowing what you are good at when you choose an occupation.	T	F
60	The job I choose has to give me plenty of freedom to do what I want.	T	F
61	I don't know whether my occupational plans are realistic.	T	F
62	When trying to make an occupational choice, I wish that someone would tell me what to do.	T	F
63	I have so many interests it's hard to choose any one occupation.	T	F
64	You should choose a job in which you can someday become famous.	T	F
65	You should choose a job that allows you to do exactly what you want to do.	T	F
66	Entering one job is about the same as entering another.	T	F
67	Parents usually can choose the most appropriate jobs for their children.	T	F
68	You should choose an occupation, then plan how to enter it.	T	F
69	I feel that I should do what my parents want me to do.	T	F
70	Making an occupational decision confuses me because I don't feel that I know enough about myself or the world of work.	T	F
71	When I am trying to study, I often find myself daydreaming about what it will be like when I start working.	T	F
72	It's hard to imagine myself in any occupation.	T	F
73	I feel that my occupational goals are so high that I'll never be able to attain them.	T	F
74	The most important part of work is the pleasure which comes from doing it.	T	F
75	There may not be any openings for the job I want most.	T	F

STOP

April 20th, 1980

Dear Student:

I am a graduate student in Educational Technology at Concordia University in Montreal. I am currently undertaking research related to my thesis which is entitled " A Model for Training Women for Non-Traditional Occupations".

As a graduate of the INTO program, you are in a position to supply me with some very useful information with regards to my research topic. The enclosed questionnaire asks questions relating to your personal background, future plans and possible restrictions on your ability to take additional courses.

I would appreciate your help in filling out this questionnaire. This type of research is greatly needed to encourage more women like yourself to enter non-traditional occupations. You may rest assured that the confidential nature of this questionnaire will be respected. Should you, however, be interested in finding out about the results of my research, write down your name and address on a separate sheet of paper. I will be pleased to send you a brief summary of the results of the study.

I thank you in advance for your co-operation.

Sincerely Yours,

Karen De Pauw

QUESTIONNAIRE

1) What is your age? _____ 18-25 _____36-45
_____ 26-35 _____46-60

2) What is your present occupation?
a) student _____
b) Housewife _____
c) unemployed _____
d) working, part time_____specify _____
e) working, full time ____specify _____

3) IF EMPLOYED, how much do you earn per year? _____

4) What was your main occupation during the year preceding the INTO program?
a) student _____
b) housewife _____
c) unemployed _____
d) worked, part time _____specify_____
e) worked, full time _____specify_____

5) IF EMPLOYED, how much did you earn per year? _____

6) What is the highest level of education which you had completed before you entered the INTO program?
a) grade school_____
b) some high school_____
c) high school grad._____
d) training past high school_____
e) some college_____
f) college grad._____
g) some university_____
h) university grad._____

7) Are you presently _____single
_____married
_____separated
_____divorced
_____widowed

8) Do you have any children? _____Yes _____No

IF YES, what are their ages?
(Indicate number in each age group)

_____0-2
_____3-5
_____6-10
_____11-15
_____16-18
_____18 plus

9) IF MARRIED, what is your husband's occupation? _____

How much does he earn per year? _____

10) What is (or was) your father's occupation? _____

11) What is (or was) your mother's occupation? _____

12) Which is the highest level of education completed by the following people? (select answer from those given in no. 6)

Father _____

Mother _____

Husband (if applicable) _____

13) Do you have any plans for taking classes in the future?

_____Yes Which school? _____

What area of study? _____

When? _____

_____No

_____Undecided

14) Are there any vocational skills that you would like to learn to improve your employment opportunities?

_____Yes Specify _____

_____No

15) Would you like to get a college degree?

_____Yes Specify _____

_____No

_____Undecided

16) Do any of the following represent a restriction on your ability to take classes?

a) Does transportation (eg. time spent travelling or costs) restrict your ability to take classes? IF YES, in what way?

b) Do child care needs restrict your ability to take classes? IF YES, in what way?

c) IF YOU WORK, does your work schedule restrict your ability to take classes? IF YES, in what way?

d) Do family responsibilities or feelings restrict yor ability to take classes? IF YES, in what way?

e) Do personal feelings restrict your ability to take classes? IF YES, in what way?

f) Are there any other restrictions? IF YES, specify.

The Value of Career Education in Expanding Career Choice Options for Girls and Women

Marland (1974) defines career education as,

> "An instructional strategy, aimed at improving educational outcomes by relating teaching and learning to the concept of career development... A complete program of career education includes awareness of self and the world of work, broad orientations to occupations and in depth exploration of selected clusters, career preparation and understanding of the economic system of which jobs are part "(p. 105).

The value of career education with regards to raising levels of self concept and career maturity is becoming increasingly apparent. The concept of career education is based on the career development process as set out by Super (1957). Underlying the concept of career education is the assumption that there is a close relationship between attitudes towards self and work. Insufficient knowledge about the self, for instance, will result in an inappropriate career choice.

Table 1 illustrates some career education elements and outcomes. Since career education involves a variety of aspects such as attitudes towards work, awareness of op-

TABLE 1

Career Education Elements and Outcomes

Elements	Outcomes
1. Career awareness - Knowledge of the total spectrum of careers.	1. Career identity - personalized future roles or roles within the world of work; Options remain open for the individual to move among occupations
2. Self-Awareness - knowledge of the components that make up self	2. Self identity - know himself; consistent value system; abilitiy to make decisions based on values
3. Appreciations, Attitudes - life roles; feelings towards self and others in respect to society and economics	3. Self-Social Fulfillment - active work role; satisfying work role; responsibility beyond self to civic and individual needs
4. Decision-Making Skills - applying information to rational process in production, distribution and consumption	4. Career Decisions - career directions; has a plan for career development; bases decisions on information as distinct from fantasy
5. Economic Awareness - perception of processes in production, distribution, and consumption	5. Economic Understanding - solve personal and social problems of an economic environment
6. Skill Awareness and Beginning Competence - skills in ways in which man extends behavior	6. Employment Skills - competence in performance of job related tasks
7. Employability Skills - social and communication skills appropriate to career placement	7. Career Placement - Employed in line with career development plan
8. Educational Awareness - perception of relationship between education and life roles	8. Educational Identity - ability to select educational avenues for career plans

Source: Marland, 1974, p. 101-104

portunities and of one's own skills, most women could probably benefit from such a course.

The most obvious way of helping women arrive at appropriate career choices is to begin the process at an early age. In fact, incorporating career education into the curriculum itself is the traditional way of implementing the concept. The United States adopted this perspective of career education in the early seventies.

Tennyson (1973) outlines one model of career education in terms of the developmental stages involved and how they correspond to life stages of adolescents. In the junior high school stage, the career education tasks involve: 1) clarifying the self concept 2) learning to assume the responsibilities of vocational planning 3) formulating tentative career goals 4) acquiring knowledge of occupations 6) acquiring an awareness of the decision-making process and 7) acquiring a sense of independence. With regards to the senior high school life stage, the tasks involve: 1) reality testing of a self concept 2) acquiring awareness of a preferred life style 3) formulating tentative career goals 4) increasing one's knowledge and experience of occupations 5) acquiring knowledge of vocational and educational paths 6) clarifying the decision-making process and 7) making a tentative commitment to a goal and means of achieving this goal (Tennyson, 1974, p. 107). The way to accomplish the various tasks

is left to the curriculum designer who develops both general goals and specific objectives. The Ohio State center, for instance, has developed an operation means of defining career education by creating a Comprehensive Career Education Matirx involving 32 subordinate themes, 1500 goals and 3000 general performance objectives (cited in Marland, 1974,p.100).

It is not the purpose of this paper to discuss specific models of career development. The present author merely wishes to point out the fact that many school systems are now recognizing the need to prepare individuals with the attitudes and skills necessary to a successful career choice.

Although intended for all students, career education can play a particularly important part in women's career choice process. For one thing, career education brings the whole career decision making process to a concious level. This is of great importance for young women. Unlike boys who pick up cues concerning appropriate career related behavior from the environment, girls are taught to disregard these same cues. Cues as observeable to children in the actions and behaviors of role models such as parents, teachers and characters in the media.

Social learning theorists generally believe that the mechanism of learning social responses involves that of observing and imitating role models. Acquisition of an imitative behavior depends on whether the individual is re-

warded for her or his responses. According to Bandura (1961), reinforcement of imitative behavior is the basis of all socialization. Kagan (1958) emphasized that the child identifies with the parent because she or he observes that the parents have the power to give or withold necessary resources. Consequently, in order to achieve this power, the child tries to emulate the behavior of the parents.

It is important to note that in social learning theories, role models are considered to play a central role in the acquisition of behaviors. Because we are in an age of transition with regards to sex roles, most girls still do not benefit from exposure to female role models who can transmit the value of planning for a career and information regarding how to mesh various roles. Most girls never come into contact with any non-traditional role models. Hence, it is not difficult to see how the career exploration process is constrained. Girls interests never develop to the point where appropriate career choices can be made.

Because the social environment is constrictive, it becomes necessary to present girls with possibilities not observable in their environment. Career education can be of assistance in accomplishing this task.

No special form of career education need be devised for girls. On the contrary, as Glaze (1979) points out, the problem of past career education programs has been that they have assumed that the career choice process operates differently for girls and boys. Girls need equal, not

special attention. They need an environment which is free of preconceived sex role idealities.

Simpson (1973) suggests various ways by which current career education programs can be ameliorated. Suggestions include that: 1) from pre-school on, females should be encouraged to pursue interests which they have expressed and/or abilities which they have demonstrated 2) employed women from a variety of fields should serve as resource people 3) new student text materials should be developed 4) counselors and educators should be made aware of the role that they play in helping girls develop their potentials 5) training should included opportunities to prepare for multiple combinations of career/homemaking roles and 6) alternatives and supplements to school instuctional programs should be developed in view of expanding training options for both sexes.

While the best means of changing role perception is by starting from an early age, there is also a pressing need to help mature women with this task. Research supports the view of career education as a facilitator of career choice implementation. Kane and Frazee (1978) investigated which guidance techniques were found to be most effective by students and teachers in community colleges. The study concluded that the techniques which are most frequently used in post-secondary institutions are the ones which students find the least satisfactory. Individual counseling, vocational testing and group counseling were per-

ceived as being of value by less than 27% if respondents. Of those who had participated in career education, however, 65% thought that it had been very influential with regards to their career choice. The results are illustrated below.

TABLE 2

Best versus Least Liked Counseling Methods

Most Preferred Methods	Least Preferred Methods
Career education	Individual counseling
Career orientation	Vocational testing
Job sit visitation	Group counseling (all)
Industry representative visit	Group counseling (women)

Source: Kane and Frazee, 1978, p.104

Two other findings of Kane and Frazee's report were that:1) educators generally viewed one-to-one counseling as the most useful method and 2) students seemed to prefer proactive rather than reactive methods. That is, students preferred to get involved in the activity rather than be "talked to".

According to Tennyson (1973), this need for involvement is characteristic of individuals in the exploration stage of career development. Tennyson describes this stage as being composed of ...

> "those activities, both mental and physical, which purposely use the stimuli and information provided by work, to perpetuate a continual clarification of self including one's needs, interests, values and work role expectations and competencies "(p. 104).

It is suggested that adult women returning to post-secondary education be encouraged to follow a career education program focussing on the career exploration process. Such as course would be based on the same developmental tasks incorporated into the career education model geared to adolescents. The model in figure 1 outlines the form of a career education course for mature women.

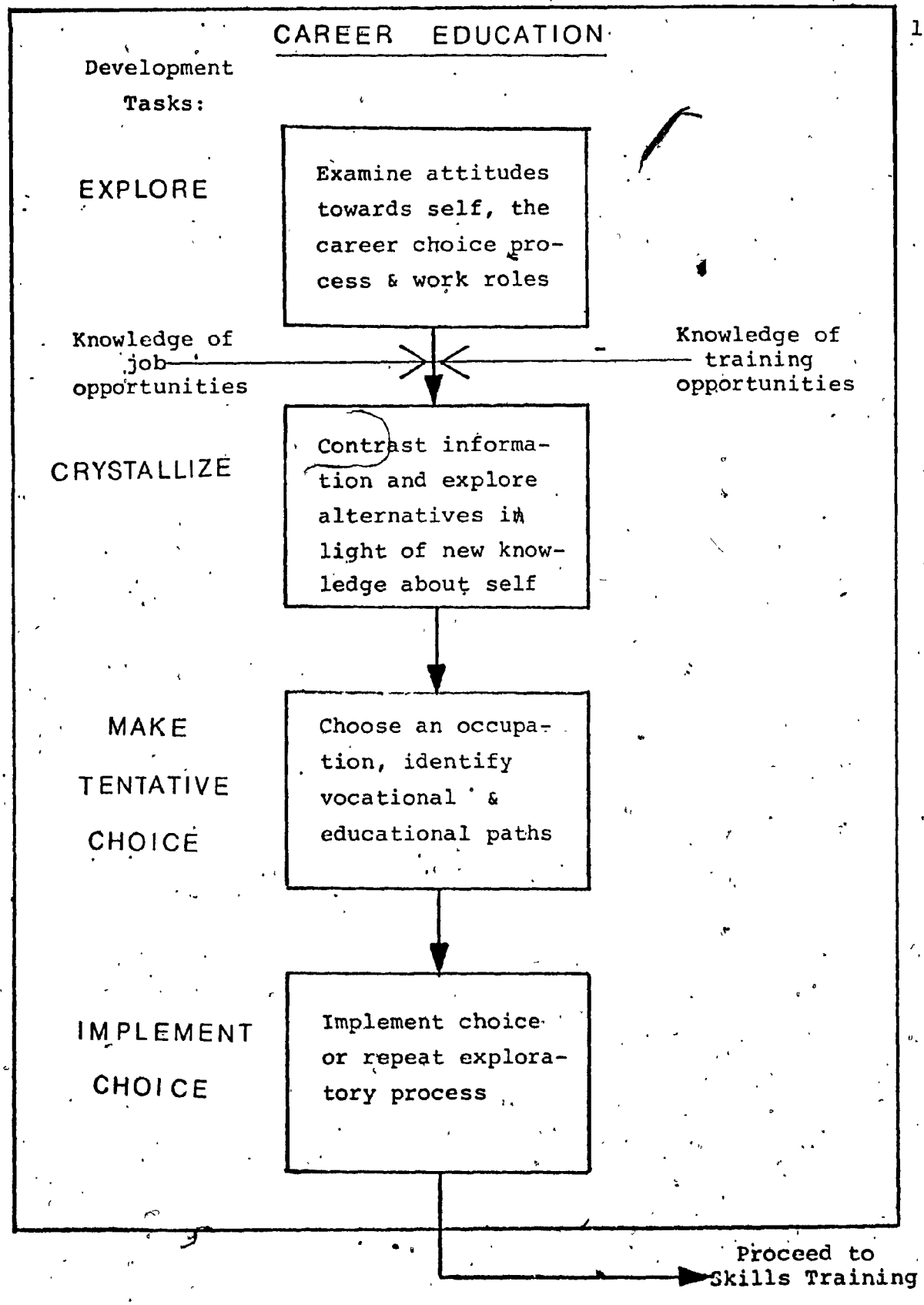


Figure 1: Model of Pre-Skills, Career Education Course