

FACTORS RELATED TO THE CAREER DEVELOPMENT OF
WOMEN IN NONTRADITIONAL CAREERS:
A QUALITATIVE STUDY

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ISABELL DYKE



Memorial University of Newfoundland

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DEVELOPMENT OF
WOMEN IN NONTRADITIONAL CAREERS:
A QUALITATIVE STUDY**

by

Isabell Dyke, B.A.(Ed.)

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Abstract

The primary aim of this qualitative study was to identify factors salient in the career development of a select group of Newfoundland and Labrador women who were training or working in nontraditional occupations, from the perspective of the women. The study included thirteen women with ages ranging from nineteen to fifty. They were recruited through the Women's Advisory Council, Women in Science and Engineering (WISE), Women in Trades and Technology (WITT), and through referrals from individuals and agencies. The data were collected using semi-structured interviews.

A naturalistic method of data analysis was used following the general outline of Marshall and Rossman (1989). The interviews were videotaped and transcribed for data analysis. The factors considered important by the individual women were identified and grouped according to the factors extracted from the literature. Firstly, the organized data were read and reread to identify emerging themes. Secondly, the data were condensed to remove redundancies. Finally, the narrative excerpts from the transcripts of the individual women were related to the theoretical constructs considered salient in the career development of women. During the data analysis process, it was necessary to read the transcripts many times in order not to 'pigeon hole' the responses of the women. Consequently, it was necessary to read the responses as the voices of individual women who shared many of the same personal and environmental factors but who were dissimilar in many ways from one another.

The career development theories proposed by Super (1953, as cited in Herr and Cramer, 1988), Farmer (1985) and Betz & Fitzgerald (1987), formed the basis for the conceptual development framework. The findings of the semi-structured interviews were subsequently examined in light of the theories and the application of same to the real life stories of these women with the theories, thereby relating practice to theory.

Findings indicated that the career paths of the women were similar in that the women were influenced by a number of different factors. As well, the women in this study appeared to consider career development as a continuous process that was necessary for personal satisfaction throughout the life span.

Recommendations for practice focused on the need for improved career education for women and their families in isolated areas of the province. Recommendations for research included studying the development of coping abilities and self-concept of women throughout the life span, the influence of personal attributes on career development, and the influence of significant others such as family and support groups on the career development of women.

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CHAPTER I

INTRODUCTION TO THE STUDY

Purpose

The purpose of this qualitative study was to determine the factors that were salient in the career development of a select group of women from villages and towns across Newfoundland and Labrador. These women, represented various life stages, and were either training in traditionally male dominated fields or had experience working in male dominated occupations.

Introduction to the Problem

Rural Newfoundland

Newfoundland and Labrador is a rural province that has been dependent on primary resources, especially fishing, as the backbone of its economy. However, Newfoundland like many other rural areas of Canada and the United States is presently suffering from a rural crisis due to the changes occurring in the farming and fishing economies (Crosbie, 1992; Heppner, Johnston, Brinkhoff, 1988; Rowe, 1991; and Simms, 1986). Simms investigated the plight of the rural economy and reported that not only was Newfoundland experiencing the worst unemployment of any province in Canada, but there

were also significant disparities between the rural sectors of the province and more urban areas. Simms reported:

Despite the attempts of past development strategies to centralize people, employment and services, Newfoundland's rural sector presently includes over 500 communities and accounts for over 60% of the total provincial population. Most rural communities are still located in coastal areas and are dominated by primary resource sector activities. The rural areas have survived by devising new ways to adapt to changes in economic, social, and cultural traditions. (Simms, 1986, p. 23)

Simms also suggested that the rural areas of the province were characterized by five basic components. Firstly, fishing was the most important industry in rural Newfoundland, secondly, there has been limited growth in other industries, thirdly, many workers had to leave rural areas to find employment to supplement their income from fishing, fourthly, approximately one third of the personal incomes of rural Newfoundlanders was gained either through unemployment insurance or Canada works type projects, and fifthly, the families in rural areas were close knit and helped each other in times of difficulty (Simms, 1986).

When the unemployment problem of rural areas was examined more closely, it became apparent that greater numbers of rural women were unemployed than rural men. Labour Force Statistics (1986) indicated that for the year 1985, 29.5% of the rural female population was unemployed for that year while for the same year 24.9% of the rural male population was unemployed. Within urban areas, employment was lower with 15.5% of the female and 18.2% of the male population unemployed. This was related to the fact most rural women were employed in the processing of fish and therefore reductions in the production of fish resulted in cutbacks in the number of women employed. As explained by Kealey (1986, p. 37), "Outside fish plants, there are few other jobs for rural women since small communities have a limited number of service and clerical jobs to offer."

From an historical perspective, several studies conducted on the role of women in rural Newfoundland society stated that women in outport Newfoundland have always contributed to the family income. They were responsible for particular tasks, for examples, drying fish and picking berries. Although these tasks were not salaried, they were necessary for the economic survival of the family. Several authors (Antler, 1977; Christian-Ruffman 1979; and Porter, 1986) all concluded that although the work was segregated, the woman's role was not considered inferior to the man's role but instead,

both roles were crucial to the economic stability of the family unit. Thus, women were seen as vital and responsible, not only for inside chores, but also for the many tasks involved in the curing of fish for market, which throughout rural Newfoundland was the main source of employment.

However, the methods of processing fish changed over the years from preservation by salting and drying fish outdoors on flakes to filleting and storing the fish on ice. These changes in the production of fish led to a segregation of female workers in a way that was detrimental to their career development. "Female workers who, in the past, combined several jobs now became specialized packers and trimmers, confined to their work stations and highly constrained jobs consisting of repetitious movements" (Rowe, 1991, p. 15). Rowe also reported that while women were confined to less prestigious, lower paying jobs, men were employed in a variety of jobs outside of fish processing (i.e., trucking). Consequently, the skills women "acquired through fish processing are less likely to find an application outside of fish processing as compared to the indirect skills most likely to be acquired by males while working for a fish processor" (Rowe, 1991, p. 48).

The Labrador West Status of Women (1985) and the Women's Involvement Committee, Upper Trinity South (1984), both expressed concerns about the inequality of women in their rural areas and the stereotypical

attitudes towards women that keep them in marginal or secondary work.

"Frustration for us is the fact that even though we are trained and experienced as any man, we are overlooked because, you guessed it, because we are women" (Women's Involvement Committee, Upper Trinity South, 1984, p. 9).

These same concerns were also expressed by the women of the Newfoundland and Labrador Women's Institute (1985). They stated that the following was evident at a meeting of their board:

A full discussion was held and it became evident that there was a tremendous frustration among women in our province who were trying to maintain a standard of living for their families and communities and are deeply concerned about the quality of life here. There is very little employment for women with proven organizational skills, abilities, and interests. There are very few places where these women with ideas about the future of our province can contribute to the growth and well being of provincial life. (p. 2)

The fishery crisis within the province of Newfoundland and Labrador escalated during the 1980's and early 1990's. "For the over ten thousand women employed directly or indirectly in fish processing in our province, plant closures have taken away the only livelihood many of them have ever

known" (Cowan, 1992, p. 2). The many concerns of the rural women involved in the crisis continue to be ignored. Rowe stated:

The failure to identify the fishery crisis as a threat to women's as well as men's paid work, and the failure to design response programmes so that they reflect women's needs has increased the probability that women will suffer more from the crisis, with fewer options than men. (Rowe, 1991, p. 47)

In 1992, the federal government issued a moratorium on the northern cod fishery, which resulted in the lay off of an additional 19,000 fisherpersons and fish processors. "The moratorium on Northern Cod and this adjustment package are a necessary response to an ecological crisis of unprecedented scope" (Crosbie, 1992, p. 1). The adjustment package outlined by Crosbie included money for training either outside the fishery or to increase professionalism within the fishery. Anyone wishing to pursue training outside the fishery will receive benefits "beyond the moratorium depending on the duration of the training" (Crosbie, p. 3). However, as Cowan pointed out:

Previously, the structures created to facilitate the delivery of adjustment and recovery programs rarely included worker or women's representation. The focus tended to be community adjustment rather than individual adjustment and, therefore, the

programs and training designed tend to be general in nature and not necessarily beneficial to women in fish processing. This approach is, of course, contrary to a feminist approach to economics which requires that economic solutions should have as their starting point a consideration of the division of labour by sex. (Cowan, 1992, p. 6)

Thus, in order to ensure that women receive training suitable for their needs "a means must be found whereby the needs and potential of women who work in fish plants can be represented in the design and delivery of government programs designed to address the reduction or loss of employment in fish processing" (Rowe, 1991, p. 49).

National and Provincial Statistics

The segregation of women into limited occupational areas is not unique to rural Newfoundland. According to the Ministry of Supply and Services Canada (1990) the percentage of women in the workforce rose from 33% in 1970 to 44% in 1988. During the same period, the proportion of women who were either working or looking for work increased from 38.3% to 57.4%. However, the majority of women were concentrated in non-unionized service industries and in lower-paying occupations:

Women formed the overwhelming majority in clerical occupations (approximately 80% in 1988) and were significantly represented in service (57%) and sales (46%) occupations. Taken together as a group, clerical sales and services employed the majority of women in 1988 (approximately 58%), while male employment tended to be much more evenly distributed and also more representative in the normally higher-paying occupations. Women do form a strong contingent of professional, managerial and administrative employees (approximately 47% in 1988), but still tend to be over-represented in the more "traditional" fields of teaching, and medicine and health (primarily nursing). (Ministry of Supply and Services Canada, 1990, p. 74)

According to Schmidt and Denhert (1990, p. 11) "Statistics Canada 1986 census figures show that the participation rate of women in skilled trades is less than 1% of the total workforce, yet one in every ten jobs in Canada can be classed as a skilled trade. Of the women who do work in skilled trades in Canada, about three out of four are either a hairdresser or cook."

The earnings of Canadian women who worked full-time in 1987 were 66% that of men (Ministry of Supply and Services Canada, 1990). In

Newfoundland and Labrador for 1988, for every dollar earned by men, women earned only 60.6 cents (Newfoundland Women's Policy Office, 1990). Within Newfoundland and Labrador, women made up approximately 44% of the workforce, but the Women's Unemployment Study Group (1982) found that because fewer women were unionized they received less benefits than men and were often receiving less pay for similar work. Much of the frustration felt by women was due to the fact that they were employed on a seasonal or part-time basis. Women made up 72% of the part-time workers in Canada (Ministry of Supply and Services Canada, 1990) and this group were vulnerable to being the 'last to be hired and the first fired.' The Newfoundland Women's Policy Office (1990) stated:

Women in the Newfoundland labour force have traditionally been employed in a limited number of occupational areas.

Statistics for 1989 verify this trend is continuing.

Women are concentrated in the clerical, sales, and services areas. In 1989, 62.4 percent of Newfoundland women were employed in these three areas. The clerical field alone employed almost 29 percent of the female labour force in Newfoundland, while less than five percent of the male labour force was employed in this area. (No. 1.3)

It is predicted that the numbers of women entering the workforce will continue to increase. The crisis in the rural economy suggest that more women in these areas will be competing for even fewer numbers of jobs in the fishing industry. However, because of changes in technology and the increased demand for skilled workers for mega projects (e.g., Hibernia) women may be able to find employment, depending on their willingness to enter areas that have been traditionally considered male occupations. Women's groups within the province continue to express their concerns about the inequalities in the workforce and the need for women to train for the better paid, more prestigious jobs in trades and technology. However, at present, the majority of women are not entering nontraditional fields and are not preparing for careers as skilled labourers. In their survey of grade twelve students in Newfoundland and Labrador, Sharpe and Spain (1991) observed this:

First, traditional gender-related occupational choices were still very much in evidence, despite some trends toward greater female participation in the traditionally male bastions of construction, transportation, and product fabrication. In addition, there appears to be an avoidance of female choice in the areas of engineering and math. (p. 56)

Statistics compiled by the Department of Education in Newfoundland (1991) indicated that the enrolment by gender in diploma and postdiploma certificate programs supported Sharpe and Spain's comment. For example, enrolment in engineering and applied sciences in 1988-89, throughout the province, was comprised of 15.3% females and 84.6% males. This general area included such programs of study as electrical engineering technology with 3.3% female enrolment, and naval architecture technology with 6% female enrolment. This area also included business computer and computer studies with 60% female enrolment. Within the general subject type of business and commerce, women comprised 69.3% of the total enrolment. However, when the numbers were broken down into programs of study, 100% of registrants in courses such as secretarial science, legal stenography, and medical stenography were female while in small business entrepreneurship the female enrolment dropped to 42.1% and for appraisal assessment technology the female enrolment was 16.3%.

The total enrolment for full-time students at Memorial University in the fall of 1988 was 54.9% male and 45% female. However, these numbers were not representative of the different faculties. Faculties such as Engineering (11.9% female) and Education: Science and Education (29.1% female) were predominately male while faculties such as nursing (96.5%

female) and social work (91.5% female) were predominately female. At the graduate level, 90.9% of the nursing enrolment were female whereas in medicine only 27.5% were female.

In summary, although the gender difference in mathematical attitudes and affect have proven to be small (Hyde, Fennema, Ryan, Frost, and Hopp, 1990) and women have the abilities to do well in areas that require mathematics and science, there is still a large underrepresentation of women in occupations that require these skills. However, "in those cases where women have worked in nontraditional areas and where adjustment programs have provided opportunities for them to find nontraditional work outside, as in the case of St. John's, they seemed to have used these skills in innovative and important ways" (Rowe, 1991, p. 48). Thus, as is suggested by the theories of Farmer (1985) and Betz and Fitzgerald (1987), in order to understand the cause of the under-representation it is important to look at the multi-dimensional factors that will influence the career decision making process of the woman.

THEORETICAL FRAMEWORK

Historically, Frank Parsons is considered to have founded the field of vocational or career psychology when he wrote his book about the career

process of men in 1909. Since then, other psychologists have developed theories concerning the career development process. Many of these theories were developed on the career development of males because it was assumed that "women didn't work since their place was in the home, and if they did work, theories of career development generated with men in mind would be sufficient for the description of women's vocational behavior" (Betz and Fitzgerald, 1987, p. 3). One of the first major theories applied to women was that of Donald Super, who developed his developmental theory of career choice in the 1950's. His theory stressed the importance of situational and personal determinants as well as the importance of the self-concept in career decision making. Super was the first theorist to acknowledge that the career patterns of men and women are different and there was a need to research women's career choices differently from that of men (Sundal-Hansen, 1987).

This section will survey some of the variables that affect the career development of women. The earliest studies of women's career development focused on women's vocational or career orientation (Betz and Fitzgerald, 1987, p. 16). These studies tried not to distinguish between the career choices made by women, but instead tried to identify the characteristics that determined whether a woman would become a home-maker or pursue a career. During the 1970's, the focus changed and studies investigated the factors that

determined the types of careers women would enter. Rand and Miller (1972, cited in Betz and Fitzgerald, 1987, p. 17) "suggested that a new cultural imperative to combine marriage and career had replaced the previous stress on the centrality of marital and motherhood roles in the lives of women."

Research was unable to determine any one variable that could successfully describe the career development of women. Osipow (1983) suggested that:

while there are some similarities between the sexes in the career process, enough substantial differences exist to warrant attempts to develop distinctive theories for each gender, at least until such time as true sexual equality of career opportunity exists and the results have permeated society at all levels. (p. 263)

The theories that were developed based on the career development of men did not need to explore the conflict of roles such as motherhood and homemaking but could "proceed directly toward examination of the content of career choice" (Betz and Fitzgerald, 1987, p. 25). The need to include the involvement and importance of motherhood and homemaking in the career development of women is then a major difference in the study of the career development of men and women. Eccles (1987) suggested that researchers tend to view female achievement from a deficit model and focus on the

question "how are women different from men?" rather than "what influences men's and women's achievement behavior?" (p. 166).

Thus, in addition to the variables that are salient in the career development of both men and women, studies on the career development of women must include variables specific to women. "The variables of marital/familial status, sex role attitudes, and role conflict are the major independent variables considered uniquely pertinent to women's career choices and pursuits" (Betz and Fitzgerald, 1987, p. 25).

Theories which have attempted to include these variables include that developed by Gottfredson (1981). Her theory took into account sex role, sex typing of occupations and the importance of compromise in occupational aspirations. Gottfredson's developmental theory "accepts the fundamental importance of self-concept in vocational development, that people seek jobs compatible with their images of themselves" (Gottfredson, 1981, p. 546). Gottfredson's theory described four major stages that are developmental in nature and affect the individual's occupational aspirations. These stages include:

- Stage 1.** Orientation to size and power (ages 3-5 years).
- Stage 2.** Orientation to sex roles (ages 6-8 years).
- Stage 3.** Orientation to social valuation (ages 9-13 years).

Awareness of social class.

The development of preferences for level of work.

Differences in preferences by social class and ability level.

Circumscriptions of range of preferences.

Stage 4. Orientation to the internal, unique self (ages 14+).

Perception of self and others.

Specification of vocational aspirations. (p. 548-549)

Gottfredson suggested that some aspects of the self-concept will take priority when the individual is compromising occupational goals:

Gender self-concept will be the most strongly protected aspect of self, followed by the maintenance of one's social standing or worth, that is, one's social class and ability self-concepts. Thus, people will tend to sacrifice interest in a field of work to maintain sex type and prestige, and to some extent will sacrifice prestige level of sex type if that is also necessary. (p. 572).

According to Gottfredson's theory, when there are periods of high unemployment, there will be greater need for the individual to compromise occupational aspirations. In a program called "The Hard Hat" Campaign in Newcastle, New South Wales, Gottfredson's model was applied:

Because of severely limited job accessibility, the unemployed female teenagers in Newcastle region were in a situation of having compromised both the field of interest and prestige level facets of their occupational aspirations without obtaining a job. The only further compromise that they could make to obtain employment was sex role stereotype because both interest and prestige had been compromised to no advantage. (Pryor, 1985, p. 281).

The women in the area were willing to enter nontraditional fields in time of high unemployment but when the employment situation changed, the numbers of women willing to enter nontraditional programs decreased. Thus, it was suggested that sex role stereotyping was again being asserted. This study suggested that training required to encourage women's career choices in nontraditional occupations should begin during the early school years.

However, Betz, Heesacker, and Shuttleworth (1990) found that one area of change evident in today's society, as opposed to earlier studies, is the ever increasing number of women who are entering male-dominated and gender-equivalent areas of study. They reported 40% of the women in their study planned to enter gender-equivalent areas, 32% in male dominated areas and 29% in female dominated areas. Males, on the other hand continue to

avoid female dominated areas of study. The authors suggested that their findings provide evidence of the "weakening in the importance of occupational sex type in the circumscription of the range of perceived options among young women, although less so among young men" (Betz, Heesacker, and Shuttlesworth, 1990, p. 274).

Astin (1984) combined the concepts of several other theorists and developed a need-based sociopsychological model of career choice and work behavior which incorporated the following four constructs:

1. Motivation in the form of three primary needs (for survival, pleasure, and contribution) which are the same for both sexes. Work, which can be defined as activity directed to produce or accomplish something, and which can take the form of paid employment, volunteer work, or family work has the capacity of fulfil these needs.
2. Sex role socialization, whereby social norms and values are inculcated, through play, family, school, and early work experiences. In the process of satisfying the three needs through these childhood activities, the individual develops certain experiences that directly influence career choice and work behavior.

3. The structure of opportunity, which includes economic conditions, the family structure, and other environmental factors that are influenced by scientific discoveries, technological advances, historical events, and social/intellectual movements.
 4. Work expectations, including perceptions of one's capabilities and strengths, the options available, and the kind of work that can best satisfy one's needs. The individual's expectations are initially set by the socialization process and by early perceptions of the structure of opportunity. They can be modified, however, as the structure of opportunity changes.
- (p. 124-125)

Brooks (1988) proposed yet another theory of career development. The theory was built on the proposition that:

Women will be motivated to explore a wider variety of occupational options to the extent that they a) believe the options to be attainable and b) view the options as attractive. Thus if we want to stimulate women to broaden their occupational horizons, we need to focus on both their expectations for

attainment and their anticipated gratifications regarding the possible options. (Brooks, 1988, p. 226).

The woman's subjective probability of attainment which Brooks called expectancy contains the three components of self-efficacy, perceived structure of opportunity and perceived social support. The second dimension of the model was the attractiveness of options which Brooks referred to as valence. To determine the attractiveness of a given option for a woman these questions must be answered; "a. What outcomes does the person believe the alternative will provide? and b. How desirable or important are these outcomes for the individual?" (Brooks, 1988, p. 231). This author also added:

In order for nontraditional career and lifestyle options to be viewed as attractive, a) both the outcomes associated with the occupation and the lifestyle must be perceived as desirable, and b) these outcomes will be desirable to the extent they are perceived as congruent with the person's self-schemata, goals, and needs and the consequences of success are viewed as more positive than negative. (p. 233)

However, according to the review of theories by Betz and Fitzgerald, 1987, many theories are not comprehensive enough to fully explain the career choices of women. The authors suggested that the "most comprehensive

attempts to date to explain women's career choices from the standpoint of empirical data are the multidimensional models of Farmer (1985) and of Fitzgerald and Betz as tested by Fassinger (1985)* (p. 250). Therefore, based on Betz and Fitzgerald's assumption, the theoretical framework for this study was developed from the works of Farmer (1985), Betz and Fitzgerald (1987). In addition, the developmental career theory of Super (1953, cited in Herr and Cramer, 1988) was also included.

Super's model of career development is an important theory to consider because it emphasized the development and implementation of the self-concept. "It seems reasonable to assume that all individuals, regardless of sex, share the basic human need for self-fulfillment through meaningful work" (Fitzgerald and Crites, 1980, p. 46). These authors stressed that theories constructed on the career development of men will apply to women on such universal constructs as self-concept because the influence of the self-concept applies to all persons regardless of sex.

As well, "Super gives prominence of an individual's mastery of increasingly complex tasks at different stages of career development" (Herr and Cramer, 1988, p. 138). Super (1970) stated that we all go through the same life stages beginning at birth with the growth stage, followed by the exploration stage which lasts from ages 14 to 24. Exploration is broken down

into three substages called tentative, transition, and trial with little commitment substages. This is followed by the establishment stage made up of trial with more commitment, stabilization, and advancement. Internal and external determinants influence the individual throughout all of the life stages.

Super (1970) listed two categories of determinants, or factors, that influence the decision an individual makes in choosing the worker role. Firstly, situational determinants including family, community, school and employment influence the individual. Secondly, the individual is influenced by personal determinants including intelligence, specific aptitudes, academic achievement, needs, values, interests, attitudes, and self-awareness. At times in a person's life, different determinants may be more dominant than at other times. Thus, it can be suggested that within Newfoundland, the weakening of the rural economy will have an impact on the career process of the individual. More specifically, women who have always contributed to the economic security of the family will continue to feel the importance of an occupation. Without the fishing economy to depend on and the limited jobs available for women in rural Newfoundland will they consider nontraditional jobs as a means of survival?

As discussed earlier, research on the career development of women suggested that, unlike men, there are many factors that contribute to their

career decision making process. These factors interact to affect the career choice of women and determine whether the decision made is to enter traditional careers or to enter more male dominated areas.

Betz and Fitzgerald (1987) have categorized these factors as follows:

Individual Variables	Background Variables
High ability. Liberated sex role values. Instrumentality. Androgynous personality. High self-esteem. Strong academic self-concept.	Working mother. Supportive father. Highly educated parents. Female role models. Work experience as adolescent. Androgynous upbringing.
Educational Variables	Adult Life
Higher education. Continuation in math. Girl's school. Women's college.	Late marriage or single. No or few children.

(Betz and Fitzgerald, 1987, p. 143)

Betz and Fitzgerald explained that the above factors describe women generally and that women are affected differently by different factors. It is not understood how these factors interact on the career development of women nor how the influence of particular factors will change as more women enter male dominated occupations.

The Betz and Fitzgerald model of career development, which emphasized the influence of all other factors on the realism of career choice, was tested by Fassinger (1985) who concluded:

Women's career choices are determined by the influence of their orientation toward family and career, which are, in turn, determined by a combination of ability, achievement, orientation, and feminist orientation. More specifically, high ability feminist women who are achievement oriented appear to be strongly career oriented and quite strongly family oriented; this career-family orientation appears to lead to career choice, that tend to be high in prestige and nontraditional for women. (Fassinger, 1985, p. 147)

Super also reiterated Betz's and Fitzgerald's concern about the generalizability of factors contributing to the career development of women, when he discussed the worker role of both men and women and stated:

The decision points of a life career reflect encounters with a variety of personal and situational determinants. The former consists of the genetic constitution of the individual modified by his or her experiences (the environment and its situational determinants) in the womb, the home, and the community. The

latter are the geographic, historic, social, and economic conditions in which the individual functions through adulthood and old age. (Super, cited in Herr and Cramer, 1988, p. 141)

Farmer (1985) stated that she was influenced by the work of Bandura and his social learning theory, and the self-concept theory related to career development as explained by Super. However, she went beyond these ideas and suggested that "in a multidimensional model, no one influence is expected to account for a large amount of variance; instead, the combined influences of several factors are expected to account for substantial variance" (Farmer, 1985, p. 364). Farmer hypothesized that background factors including sex, social status, school location, race, age, and ability influence motivation and the person's self-concept. In addition, the self-concept is also affected by the individual's experiences in the home, school and community. Farmer found in the testing of her theory on 9th and 12th grade students that what was made very clear through the testing was "the powerful role of the changing environment on career and achievement motivation" (p. 388). Farmer also suggested that the career development models proposed by Super (1957) and Holland (1985) did not address this influence of the changing environment adequately.

It appears that women meet with personal and situational determinants that are not experienced to the same degree by men entering the work force. Scott and Hatalla, (1990, p. 26) listed the factors that the female respondents of their study perceived to be most important in their career development. These factors were internal determinants including awareness of skills, perception of interests, educational level and awareness of intelligence. External determinants included family, community, cultural influences, factors specific to the job, enough money to go to school, and awareness of occupations. These determinants can enhance or deter the woman's career decision.

Once a woman has decided to enter a particular career path, in particular one in a nontraditional occupation, there are still other factors that can deter her from continuing. These factors include sexual discrimination and role conflict. In addition to being aware of the factors that encourage or discourage a woman from choosing a nontraditional occupation, it is also important to understand how women within nontraditional courses and nontraditional occupations view sexual discrimination and whether they feel it is a factor that can discourage women from continuing in nontraditional careers.

Within Newfoundland there are factors which may determine whether or not a woman will choose to continue in a nontraditional field after completing training in that field and may be summarized as follows:

Major factors include the structure of the labour market and the economy, generally, as well as the structure of the trade union movement. The sexual division of labour with its emphasis on women's primary domestic responsibilities has also been, and remains, a major structural barrier for women. Gender ideology reinforces these structural inequalities and concomitant social policies supported by the state. (Kealey, 1986, p. 31)

Although women tend to be influenced differently by a variety of factors in their career development throughout the life span, Sundal-Hansen (1987) outlined the following concepts related to the career development of women generally, as researched by Kassner (1981):

- (1) Sex role orientation, sex difference stereotypes, and ego strength all influence the self-concept, which in turn, influences educational-vocational aspirations and expectations.

- (2) Women are more external than internal and tend not to plan or seek information, although this is changing with younger women who see more options available to them.
- (3) Persons who believe they have control over their environment are also likely to be flexible and innovative in the life roles they choose and in their view of themselves.
- (4) Women's expectations of success declines markedly in adolescence, and women tend to underestimate their performance while males tend to have higher aspirations and expect more successful performance.
- (5) Women's traditional role conflicts of concern about home and career have been expanded to concerns about conflicts in meeting the demands of multiple roles as they increasingly are involved in two-earner families.
- (6) Young women's and young men's attitude are changing slowly, but women's attitudes are changing more rapidly than those of men. Young college women expect their future marriage to be egalitarian, with both partners working outside the home, while young college men expect to have traditional marriages with

themselves in the provided role and their spouse in the nurturing role. (Sundal-Hansen, 1987, p. 43)

RATIONALE FOR THE STUDY

As stated earlier in the chapter, many components of the theories discussing the career development of women were developed from research conducted on the career development of men and generalized to the career development of women. The major theorists in the field acknowledge that the career development of women is different from that of men. "Conventional research in psychology has either ignored women completely, assuming that results pertinent to men can be generalized to women, or objectified women by imposing on them unrealistic and irrelevant test situations which produce spurious information" (Osborne, 1991, p. 4). Osborne goes on to argue that research must "rely on sources of information that are women-centered, rather than use data which have been collected in such a way that women's experiences are misrepresented" (p. 4). One methodology which Osborne suggested that may best provide accurate and relevant data pertinent to women is the use of interviews and oral reports of actual experiences.

In addition, many studies designed to investigate the many factors salient in the career development of women focused on particular age groups,

mainly high school students, and women in the professions. Few studies focused on the importance of investigating women at various life span stages for the purpose of assessing how factors that encourage entry into nontraditional areas change over time. Consequently, a three year project, directed by Mildred Cahill (1991), was undertaken at Memorial University of Newfoundland to examine the career development of women in rural Newfoundland.

Initially, the development of the conceptual framework for the three year project and the design of the preliminary protocols for the gathering of data was conducted as Phase I during (1990-1991). During Phase I, this researcher was involved in the review of the literature and protocol development. However, another researcher was responsible for data collection conducted in Labrador.

The present investigator undertook Phase II of this work in 1991. The initial task was to carry out an analysis of the data from the interviews conducted with the Labrador women. On the basis of this analysis, the preliminary semi-structured interview protocol was critiqued, and further developed to obtain more detailed, anecdotal reports of the influences of family, school and environment in the lives of rural women. The protocol was validated by a panel of experts.

The present research was essentially exploratory in nature, designed to ascertain the factors salient to the career development of women across the life span. Women from professional fields, skilled trades and nontraditional careers not requiring post-secondary education participated in the study. The interview protocol permitted the collection of rich descriptive reports. Perhaps, Matthews, (1989) articulated it well when she wrote:

Personal records of lives remind us that we need to be continually aware of how certain life experiences can deflect, overwhelm or obliterate the pursuit of a complex career; and how other life experiences can support, nurture and enrich individual occupational evolution. (p. 12)

Participants were able to elaborate on any of the factors they considered important in their career development. The interviewer, however, was careful to address the core questions outlined by the protocol, thereby ensuring the validity of the process while at the same time capturing the individuality and voice of each woman.

The data collected and analyzed in this study were used to complete Phase III. This involved the development of a program designed to deliver career education to women in rural areas. The video-taped material was used to develop a video tape about women in nontraditional careers. The findings

from the research should assist career counsellors both in the schools and elsewhere to understand the many factors salient in the career development of individual women and to appreciate the need to include personal counselling as well as career counselling with the client. It should also be used to encourage the development of programs directed at parents to help them understand the impact they have on the career development of their children, especially daughters. Finally, it should help counsellors understand the need for programs such as assertiveness training and enhancement of self-efficacy, not only for school aged women but for women who are forced to consider careers in nontraditional areas because of changes in the workforce.

RESEARCH QUESTION

The study was based on the fundamental disciplinary question asked by psychologists who engage in basic research: "Why do individuals behave as they do?" (Patton, 1990, p. 153). The present investigator asked: "What are the factors that are salient in the career decision making of women who have entered nontraditional fields in the workforce?" It was important to hear the women's voices and to become more familiar with their experiences and concerns in order to develop a greater appreciation for the factors that influence the career patterns of women. The results may not be generalizable

to other women entering the work force. However, it was felt by this researcher that counsellors who are more aware of the individuality of women and the many factors that are involved in the career decision making process will be better able to provide the necessary career education.

Research Questions

Several of the factors addressed by the literature became the basis of the research in the semi-structured interviews. However, the women were not restricted to the questions posed by the researcher. This ensured that other factors considered important by the participants could be addressed. The following research questions were based on the assumption that women are influenced in their career decision making by the personal and situational determinants discussed by Super (1970) and the factors considered most important in the multidimensional models of Farmer (1985), and Betz and Fitzgerald (1987).

1. Personal Determinants

- (a) From their perception, do the women who have chosen to enter nontraditional fields have a knowledge of the economy and the labour market? If so, what influence did it have on their career decision making?

- (b) From their perception, what influence did intelligence, specific aptitudes or academic success have on career decision? More specifically, how do the women perceive their own abilities and achievements?
- (c) From their perception, have the attitudes of the women towards marriage and work influenced or determined the women's decision? In particular, what effect has role conflict had on the women's decision making?
- (d) From their perception, how important the roles of worker, citizen and leisurite been in the lives of the women? How active and involved were these women in working, and volunteer activities in years prior to entering the work force and presently?
- (e) Are the occupations the women have chosen similar to their childhood aspirations?
- (f) From their perception, how important are women's support groups in helping these women to continue their careers or deal with problems associated with their work?

2. Situational Determinants

- (a) From their perception, what influence did parents or other family members have on the decision to enter a nontraditional area?
- (b) From their perception, were the women responsible for household chores during childhood?
- (c) From their perception, what role did the community play in the decision to enter a nontraditional career?
- (d) From their perception, were there role models in the community or elsewhere that influenced the career decision? If influenced by a role model, what do the women consider as the positive or negative effects on their career decision making?
- (e) From their perception, did school counsellors or other school personnel influence the career decision process?
- (f) From their perception, to what degree has gender bias been a factor in the career development of these women? What support has there been for their decisions from employers, employees and significant others?

DEFINITION OF TERMS

Aspirations - "Educational and career aspirations related to how much value people assign to formal education and how far they intend to pursue it, i.e., do they seek a high school diploma, a four year college degree or other post-secondary training, or perhaps a Ph.D. or M.D. degree? Career aspirations pertain to what type of vocation." (Cobb, McIntire, Pratt, 1989, p. 12)

Basic Research - The purpose of basic research is knowledge for the sake of knowledge. Researchers engaged in basic research want to understand how the world operates. They are interested in investigating a phenomenon in order to get at the nature of reality with regard to that phenomenon. The basic researcher's purpose is to understand and explain. (Patton, 1990, p. 152)

Personal Determinants - The genetic constitution of the individual modified by his or her experiences in the womb, the home, and the community (Super, 1980 in Herr and Cramer, 1988, p. 141).

Situational Determinants - The geographic, historical, social, and economic conditions in which the individual functions from infancy through adulthood and old age (Super, 1980 in Herr and Cramer, 1988, p. 141).

Nontraditional - Occupations that are presently dominated by males or jobs that are occupied by fewer than 33 1/3 % females (CEIC, cited in Darcy, 1987, p. 16).

Qualitative Research - Qualitative research is concerned with individuals' own accounts of their attitudes, motivations, and behavior. It offers richly descriptive reports of individuals' perceptions, attitudes, beliefs, views, and feelings, the meanings and interpretations given to events and things, as well as their behavior; displays how these are put together, more or less coherently and consciously, into frameworks which make sense of their experiences; and illuminates the motivations which connect attitudes and behavior, or how conflicting attitudes and motivations are resolved in particular choices made. Although qualitative research is about people as the central unit of account, it is not about particular individuals per se; reports

focus rather on the various patterns, or clusters, of attitudes and related behavior that emerge from the interviews (Hakim, 1987, p. 26).

LIMITATIONS OF THE STUDY

1. This is a qualitative study of thirteen women from different areas of the province of Newfoundland and Labrador who were either training for careers in a 'nontraditional' area or working in a 'nontraditional' field. The factors that encouraged these women to enter nontraditional areas may not be generalized to other women in rural Newfoundland or elsewhere in the province.
2. Since the data were collected through the use of interviews, it is possible that the interview method did not reveal all of the factors salient for each individual that may have been apparent if the study had observed fewer subjects for a longer period of time.
3. While interviews provide "richly descriptive reports of individuals' perceptions, attitudes, beliefs, views and feelings" (Hakim, 1987, p. 26) and may best "provide accurate and relevant data pertinent to women" (Osborne, 1991, p. 4) there are several problems that need to be considered:

- (a) The design of the study may lead to subjectivity rather than objectivity on the part of the interviewer. To decrease the possibility of this occurring, the interviewer had to be consistently aware of the problem.
- (b) In the emergent process, the interviewer is constantly growing and learning. The interviewee may respond differently to different subjects as he or she learns more about the topic and brings his or her own 'conceptual baggage' into the interview. Therefore, the consistency over several interviews remains a problem.
- (c) The interviewer improves over the period of the interviewing, and over time becomes more skilled at asking probing questions, or relating to the problems of the subjects. Thus, earlier interviews may not reveal the same as later interviews.
- (d) The women differ in how they responded; also, some of the women were more articulate than others. It was important to allow the women to reflect their own world view and express their own voice.

SUMMARY

In this chapter, a discussion of both national and provincial statistics regarding women in the workforce was presented. The importance of the rural economy and its impact on career development was also addressed. The factors considered by the literature to be important in the career development of women and a theoretical framework were introduced. The strongest argument for this study is the shortage of women entering nontraditional fields. In addition, there is a need to understand the factors influencing the career decisions of women who enter nontraditional fields and to contribute to the theory related to the career development of women.

The next chapter will outline three theories that contribute to the understanding of career development and discuss several of the more important factors considered by empirical studies to impact on the career development of women in nontraditional areas.

CHAPTER II
REVIEW OF THE LITERATURE
OVERVIEW OF THE CHAPTER

In this chapter, three theories of career development are presented. The empirical studies discussing the factors considered salient in the career development of women are included. The steps involved in a qualitative study are also discussed.

CAREER DEVELOPMENT OF WOMEN

The theoretical framework for this study was developed from specific aspects of three different career models including, the causal model of career choices designed by Fitzgerald and Betz, Farmer's career model for women and Super's developmental model of career development.

The developmental model of career development developed by Super during the 1950's was designed on the career patterns of males in the workforce. He suggested that a person's career development was the result of an interaction between the person's environment and personal variables. The ten propositions that make up Super's model of career development are as follows:

1. People differ in their abilities, interests, and personalities.

2. They are qualified, by virtue of these characteristics, each for a number of occupations.
3. Each of these occupations requires a characteristics pattern of abilities, interests, and personality traits, with tolerances wide enough, however, to allow for some variety of occupations for each individual and some variety of individuals in each occupation.
4. Vocational preferences and competencies, the situation in which people live and work, and hence their self-concepts, change with time and experience (although self-concepts are generally fairly stable from late adolescence until late maturity), making choices and adjustment a continuous process.
5. This process may be summed up in a series of life stages characterized as those of growth, exploration, establishment, maintenance, and decline, and these stages may be subdivided into (a) the fantasy, tentative, and realistic phases of the exploratory stage, and (b) the trial and stable phases of the establishment stage.

6. The nature of the career pattern (that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs) is determined by the individual's socioeconomic level, mental ability, and personality characteristics, and by the opportunities to which he is exposed.
7. Development through the life span 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 evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows.
9. The process of compromise between individual social factors, between self-concept and reality, is one of role-playing, whether the role is played in fantasy, in the

counselling interview, or in real life activities such as school classes, clubs, part-time work, and entry jobs.

10. Work satisfactions and life satisfactions depend upon the extent to which the individual finds adequate outlets for his abilities, interests, personality traits and values; they depend upon his establishment in a type of work, a role which growth and exploratory experiences have led him to consider congenial and appropriate. (Herr and Cramer, 1988, p. 137)

As a person develops throughout his or her life, Super (1970) suggested they go through various life stages. These life stages are as follows:

Growth Stage (Birth-14)

Self-concept develops through identification with key figures in family and in school; needs and fantasy are dominant early in this stage; interest and capacity become more important in this stage with increasing social participation and reality-testing.

Exploration Stage (Age 15-24)

Self-examination, role tryouts and occupational exploration take place in school, leisure activities, and part-time work.

Establishment Stage (25-44)

Having found an appropriate field, effort is put forth to make a permanent place in it. There may be some trial in this stage, with consequent shifting, but establishment may begin without trial, especially in the professions.

Maintenance Stage (Age 45-64)

Having made a place in the world of work, the concern is now to hold it. Little new ground is broken, but there is continuation along established lines.

Decline Stage (Age 65 on)

As physical and mental powers decline, work activity changes and in due course ceases. New roles must be developed; first that of selective participant and then that of observer rather than participant. (Super, 1970, pp. 136-137)

Another important aspect of Super's theory as discussed in Herr and Cramer (1988) is the Life-Career Rainbow in which the various role interactions are explained. An individual may have as many as nine major roles in life. They are (1) child; (2) student; (3) leisurite; (4) citizen; (5) worker; (6) spouse; (7) homemaker; (8) parent; and (9) pensioner. Roles are

played out in four theatres including (1) the home; (2) the school; (3) the community; and (4) the workplace (p. 139). Super suggested that an individual may experience several roles at the one time and at times one role may take precedence over other roles. This dominance of one role may create conflict in the theatres in which the person must live. Super suggested that success in one role generally facilitates success in other roles. Difficulties or conflict in a role can create problems for the individual's other roles. This indicates that the roles we play in the different theatres interact with one another.

Elfenbaum (1991) studied 6105 Canadian females over the age of 15 years and found that women's health is positively affected by working and working women are healthier than unemployed women. She concluded that her results were "consistent with role accumulation theory's proposition that as roles increase in number, the result is net gratification, not stress" (p. 198).

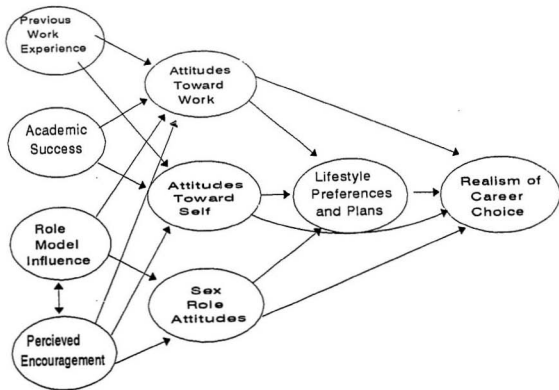
Super (1970) suggested that the individual's worker role is directed by the following personal determinants of intelligence, specific aptitudes, academic achievement, needs, values, interests, attitudes, self-awareness, and situational awareness. The immediate situational determinants of the worker role include family, community, school and employment. Whenever the individual takes on a new role, changes a role or gives up an old role, a

decision must occur and that decision will be determined by the individual's personal and situational determinants. There is however, one other important component in Super's model. That is the importance of the individual's self-concept.

"The basic theme is that the individual as a socialized organizer of his or her experiences chooses occupations that will allow him to function in a role consistent with his self-concept and that the latter conception is a function of his development history" (Herr and Cramer, 1988, p. 137).

Super's model was designed on the career development of men during the 1950's and may or may not be applicable to the career development of women who have entered the workforce in much greater numbers than was true of the 1950's. Gies (1990) suggest that bearing children and other factors in a woman's life may modify the life stages and the age periods indicated in Super's model.

Betz and Fitzgerald's theory of career choice in women integrates the many different factors and variables that are considered influential in the career decision process of women. The theory is outlined in Betz and Fitzgerald (1987, pp. 143-146). Their theory has been presented as the structural model that follows:



Betz and Fitzgerald(1987) theory of career choice in women: A structural model(p.143).

In diagramming a structural model, the circles represent latent variables or hypothetical constructs, which can only be inferred rather than directly observed. The arrows represent both the types and directions of postulated causal relationships between latent variables.

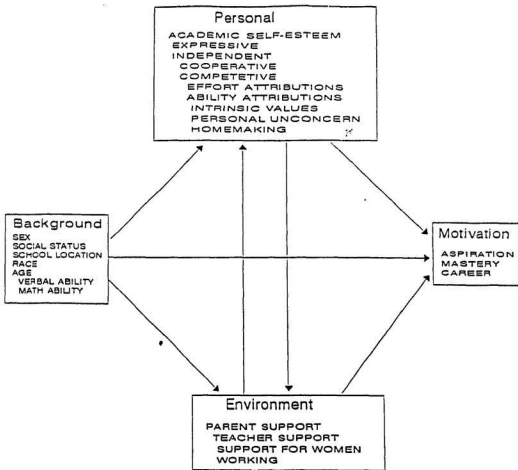
The implicit assumption in the causal ordering of the model shown is that realism of career choice in college women is influenced by all of the other variables previously studied. The model contains four exogenous (independent) latent variables and five endogenous (dependent) latent variables which appear significant based on the research reviewed. It is hypothesized in the model that the independent variables Previous Work Experience, Academic Success, Role Model Influence, and Perceived Encouragement directly affected the dependent variables Attitudes Toward Work, Attitudes Toward Self, and Sex Role Attitudes. These dependent variables in turn affect the dependent variables Lifestyle Preferences and Plans and Realism of Career Choice. In addition, it is hypothesized that there is a relationship between the independent variables Role Model

Influence and Perceived Encouragement. (Betz and Fitzgerald, 1989, pp. 145-146)

Fassinger (1985) tested Betz and Fitzgerald's model on 309 junior and senior female students. Fassinger suggested that,

women's career choices are determined by the influence of their orientation toward family and career, which are, in turn, determined by a combination of ability, achievement orientation, and feminist orientation. More specifically, high-ability feminist women who are achievement oriented appear to be strongly career oriented and quite strongly family oriented; this career-family orientation appears to lead to career choices that tend to be high in prestige and nontraditional for women. (p. 147).

Farmer's (1985) model of career and achievement motivation was designed to address the career development of both women and men. The personal, environmental, and background factors used by Farmer have been researched and found significant by other researchers. The conceptual model is as follows:



Farmer's (1985) Conceptual Model for testing the contribution of Background, Personal, and Environment factors to three dimensions of motivation: aspiration, mastery, and career (p. 365).

Farmer suggested that the background factors listed above influence motivation, the person's self-concept and the way the environment is perceived. Self-concept and motivation are influenced by the environmental factors. The personal factors listed above affect motivation and have reciprocal interaction with the environment factors.

Firstly, according to Farmer, aspiration is significantly influenced by environmental factors such as parental and teacher support and support for women working. Aspiration is significantly influenced by personal factors such as academic self-esteem, competitive, and ability attributions. Social status and sex are mediated by environment and personal variables. Farmer agreed with Astin (1985) and suggested that "an important set of variables to consider in understanding the career choices and work behavior of men and women is the set represented by the structure of opportunity in a person's environment (Farmer, 1985, p. 381).

Secondly, mastery motivation is highly influenced by socialization factors in the environment. "The combined influence of background and environment factors is about as strong as the influence of personal factors" (Farmer, 1985, p. 382).

Third, according to Farmer:

Career was influenced approximately three times as much by personal factors as by background and environmental factors combined. This finding is consistent with previous theory (Super, 1980) and for both sexes. Career motivation is probably set fairly early in life, but varies over the life span of an individual with the salience of the career role compared with other life roles. The dominant influence of self-concept factors on this type of motivation throughout life suggests the need to establish more fully early influences related to its variable importance for different individuals. Changing personal priorities such as homemaking will continue to affect the strength of this commitment throughout a person's life. Also the mediating effect of parent and teacher support on personal variables suggests that changing socialization experiences at home and at school will affect a person's career commitment during the school years. (p. 385)

Other findings stated by Farmer include the following:

- (a) background factors have a greater influence on aspiration than mastery and career. (p. 380)

- (b) the effect of social status was mediated for aspiration and mastery through ability, personal and environmental factors. The fact that both aspirations and mastery were influenced by environment conditions, including perceived support for women working and parent and teacher support, suggests that changes in these might well effect changes in achievement for women and men in the future. The powerful influence of sex role occupational stereotypes (Gottfredson, 1981) might be undercut for women who perceive the economy and related occupational access as equitable. (p. 384)
- (c) for both mastery and career, personal factors had the strongest influence, with environmental factors next in importance and background factors least important. (p. 384)
- (d) for young women aspiration and mastery were enhanced when they perceived support from teachers for their achievements. For young men, aspirations, but not mastery, was enhanced when they perceived support from parents for their achievement. In contrast, for long

range career motivation parent support was more important for young women and teacher support for young men.

(p. 387)

- (e) Finally, the findings for sex differences are optimistic with respect to potential for change. Long range career motivation, for women, is more vulnerable to competing role priorities such as homemaking than are aspiration and mastery. A more androgynous self-concept was related to long-term career motivation for women.

(p. 388)

The factors determining the career choices of women have not remained stagnant. Instead, as was suggested by Farmer, the changing environment will continue to be a powerful determinant of career development. Fitzpatrick and Silverman (1989) reported that the background differences between women making traditional and nontraditional career choices during the last few years may not be as great as the differences discussed by the literature during the 1970's. As society changes so will the personal and environmental determinants of career choice of women. However, as Holms and Esses (1988) concluded after measuring the career motivation of 317 females from

grade 8, 10 and 12, there is a continuing need to consider the internal and external factors when studying the career motivation of women. These authors stated "While it seems clear that career motivation must be conceptualized as a multidimensional phenomenon, further exploration of the factors making up this construct is required" (p. 325). This was also concluded by Darcy (1987) who stated that the decision of high school females to pursue a traditional or nontraditional path would be dependent on a number of factors including involvement in traditional childhood work, parental influence, academic expectations, and role conflict.

FACTORS INFLUENCING THE CAREER

DEVELOPMENT OF WOMEN

The literature focuses on personal and situational factors which affect the traditional or nontraditional career choice of women.

Some of the personal factors discussed by the literature included:

1. Self-Concept

The development of the individual's self-concept is a vital component in Super's theory. "The basic theme is that the individual as a socialized organizer of his or her experiences chooses occupations that will allow him to function in a role consistent with his self-concept and that the latter conception

is a function of his developmental history" (Herr and Cramer, 1988, p. 137). Although, "Super's research and theory have primarily dealt with men, not women" (p. 137) the importance of the self-concept has been found to play a large role in the career development of women as well as men by later researchers. "In comparison to males, females generally seem to report less confidence in their academic and career-related capabilities and since beliefs are related to achievement behavior, females' lower self-concepts probably serve as a serious barrier to their educational and career achievement" (Betz and Fitzgerald, 1987, p. 119). Not only is the individual's self-esteem related to career choice, it is also related to possibility of a woman pursuing a nontraditional career (Holms and Esses, 1988).

The development of the individual's self-concept as suggested by Super is similar to the theory of self-efficacy developed by Bandura (1977, cited in Herr and Cramer, 1988):

the level of self-efficacy will determine (1) whether or not a coping behavior will be initiated, (2) how much effort will result, and (3) how long the effect will be sustained in the face of obstacles. This model proposes four principle sources from which expectations of self-efficacy are derived: performance

accomplishments vicarious experiences, verbal persuasion and emotional arousal. (p. 108)

Research conducted on the development of self-efficacy has tended to support Bandura's theory. One particular finding suggested that males do not have a higher self-efficacy than do females but rather males and females vary their self-efficacy expectations depending on whether the occupation is male or female dominated (Hannah and Kahn, 1989, Matsui, Ikeda, and Ohnishi, 1989, and Yanico and Hardin, 1986). Matsui, Ikeda and Ohnishi (1989, p. 13) stated that lack of female role models, sex role stereotyping of male/female occupations and lower mathematical confidence are three variables affecting career self-efficacy and consequently the career choices of women. These three variables have been studied by other researchers and will be discussed in greater depth in the following sections.

(a) Academic Self-Concept

According to Betz and Hackett (1986, p. 283) "math self-efficacy expectancies were significantly related to the extent to which students selected math-related college majors, and that college males' stronger math self-efficacy corresponded with their greater likelihood to choose a major in the math/science area." This was supported by further research by Hackett and Betz (1989). These findings were supported in a Newfoundland study by

Taylor and Pope (1986), who found that for the school year 1984-85 more girls than boys took academic MATH 3203. Although the girls achieved as well as the boys in the public exams, the young women reported feeling anxious over mathematics and science and felt they had problems in these areas. Parsons (1989), found in her study of Newfoundland high school females that although there was no difference in mathematical competence as measured by marks reported for mathematics between males and females, the females rated themselves as being less proficient at mathematics than males. The males reported mathematics and physics to be more important than did the females.

Females may refrain from continuing in mathematics and science courses because they are not encouraged to view them as being important for career development. Consequently, they learn to lower their estimation of mathematical abilities. Males not only considered mathematics more important but understand that being good at mathematics is necessary for career success. Hyde, Fennema, Ryan, Frost and Hopp (1990) performed a meta-analysis of studies of gender differences in mathematics attitudes and mathematics affect and concluded that males stereotype mathematics more than females and suggested that the males may, through subtle ways, make the female feel less feminine if she achieves in mathematics and put pressure on the female not to

perform. Consequently, the authors suggested that both male teachers and job interviewers discouraged female participation in mathematics courses and jobs. Spade and Reese (1991) found in their study of undergraduate students that the females reported themselves to be less able than their male peers even though their grade point averages were higher leading the authors to offer support for the "traditional gender socialization model in which males and all things masculine are valued and females and all things feminine are devalued" (p. 318).

The existence of individual differences in cognition styles was also noted by Tapasak (1990). Females tended to underestimate their future performances and had negative cognitive direction which included low performance expectancies and effort rather than ability as the determinant of success. Women avoided fields where they feel ability would determine success. Perhaps Reis's (1990) suggestion regarding the career success of gifted females may apply to women generally, "We must keep in mind that underachievement of gifted females is often not reflected in grade or how well one does in school, but rather in what a person believes can be attained or accomplished in life" (p. 33).

Women may avoid subjects such as mathematics not only because they have a lower academic self-concept than males, but because of their fear of

social disapproval. Pfost's 1990 study showed that women who strive to achieve in nontraditional fields may suffer the consequences of not being chosen as romantic partners and friends. Travis and Wade (1984), cited in Heatherington, Crowns. Wagner and Rigby (1989) stated that perhaps women have the right to worry about the consequences of doing better than men. There is a possibility that achieving greater accomplishments than their male counterparts may arouse the worst in some males. The authors found consistent and negative social consequences of female immodesty toward success.

In addition to studying the influence of mathematics on career self-efficacy, many researchers have studied the overall academic self-concept and its relationship to career self-efficacy. For example, Brown, Lent and Larkin (1989) in their study of undergraduates concluded that students associated academic milestones to superior performances. Students reflected on their mastery of a subject in high school to determine whether they have the skills to obtain the same success in university. The authors stated that self-efficacy was related to vocational interests with interests usually being in the stronger indicator of career choice. Self-efficacy was the stronger predictor of success and persistence in one's chosen options. Women with higher self-efficacy expectations and assertiveness are more willing to pursue nontraditional careers

than are women who are low on these factors (Nevill and Schlecker, 1988, p. 96).

Campbell (1991) examined the self-concept and attributions of Asian American and Caucasian students who have won the Westinghouse Talent Search awards. He found that Caucasian females were lower in technical orientation than were the others in the group. The Caucasian females scored lower on all self-concept scales and on the two attribute scales administered than did Caucasian males. The author concluded that the gender and minority gaps in technical areas will only decrease dramatically if these forces are altered. Campbell also raised the seriousness of the problem when he remarked that if Caucasian women who are talented in technical skills have lower self-concepts than males in these areas, then it is understandable that women who are not especially talented will also have problems.

The challenge for educators is to identify the barriers that discourage mathematical involvement of women and to help overcome the barriers such that women's career options are increased. These barriers are considered to be the most serious barriers to the career development of women (Betz and Fitzgerald, 1987). Intervention designed to build the woman's self-esteem and career aspirations as in pre-trades and technology exploratory programs such as Bridges Programs and Women in Trades and Technology type exploratory

courses have proven to be successful (Braundy, 1991). Braundy reported that 75% of the women who graduated from these programs had gone on to further training in a trade or technical area, 46% were working in a trade or technical area at the time of the survey and 66% were employed. Even those women who had gone on to more traditional occupations "said that it was the confidence gained from the course that had enabled them to seek and be hired to do their jobs" (p. 4).

However, older women from more rural communities in the province of Newfoundland may find it difficult to take advantage of training and job programs offered at larger centers:

"Their attachment to home and community is strong, and since most of them still bear primary responsibility for work in the home and for caring work in the wider community it is usually the male member of the family who will relocate to find work" (Cowan, 1992, p. 3).

Role conflict is an important factor in career development and will be discussed in the following section.

(2) Role Conflict

More women than men experience role conflict when making a decision about pursuing a career. DiBenedetto and Tittle (1990) reported that women

suffered from the conflict of choosing between their work role and their parenting role and debating the consequences of combining the two. Men tended to view the two roles as being independent of one another. The authors added that neither men or women considered making a choice as being a man's problem. Spade and Reese (1991) found that although both the men and women valued marriage and a family, men did not feel it was their role to maintain household activities. The men believed their wives were responsible for family activities and that the wife should stay at home. Women reported being responsible for family matters and expected their spouse to work longer hours. Students expected the father to be the breadwinner and the mother to be responsible for the family. However, Hammersia (1990) concluded that college males were no more goal oriented than females, nor were the males willing to sacrifice relationships for the achievement of career goals.

Another study at the college level by Astin (1990) found that three out of four women planned to work full time, but only one third of the men surveyed expected their wives to work. One fifth of the women surveyed expected to work after their children were born, while all of the men surveyed believed that women should not work while their children were little. There was a discrepancy between the beliefs of males and females which may have increased the role conflict felt by the female when making a career decision.

Kahn and Lichty (1987) studied 20 unemployed women and found that regardless of their present age, at age 18 these women had considered paid employment secondary to family plans. A survey conducted by the Women's Bureau of Labour Canada (1986) indicated that Canadian girls at the eighth grade level were preoccupied with marriage and motherhood and the girls assumed that their husbands would provide for the whole family and support them. Girls in Newfoundland were surveyed by Taylor and Pope in 1986 to determine their feelings on marriage and careers. They questioned 166 girls with ages ranging from 12 to 17 years in 11 schools in rural and urban Newfoundland and found that "ninety-five percent of the young women expected the future to include marriage and two or three children" (p. 12). However, 74% of the girls surveyed expected to work after marriage and to share household tasks with their husbands.

Research studying the career aspirations of women in Newfoundland and Labrador found that women were deterred from entering nontraditional areas because they were hesitant about entering occupations that might possibly interfere with their role of wife and mother (Boak, 1989; Darcy, 1987; Montgomery, 1982; Spain and Sharpe, 1990; Taylor and Pope, 1986). Women tend to see all relationships as connected to each other and intertwined, while men have the ability to see relationships as personally

supportive but separate from work issues (Stonewater, Eveslage and Dingerson, 1990). Bybee (1990) also suggested that school age girls emphasized relationships, connections and expressive functioning while males tended to value agency and autonomy. Fahmy (1990) stated that women in her study cited the need for a balance between work and personal lives, which tended to suggest that the need for relationships continues beyond the high school years.

Parsons (1989) found that Newfoundland females valued truthfulness, sensitivity to others feelings, and working with others. Traits such as patience and compassion were considered more important by females than by males in a career. Males valued the importance of manual dexterity, mechanical orientation and mathematical ability more than did the females. Parsons concluded that this finding fitted with the stereotypical view that women's careers are an extension of their role as wife and mother. However, Alban-Metcalf and West (1991) pointed out that although much has been written about women's lack of commitment to career development their data on women managers in Britain disputed this assumption. They found that women were as,

"concerned as the men with opportunity for advancement and were in fact more concerned with challenge, development, and

feedback than the men, whereas the men were more concerned with extrinsic factors to the job such as high earnings, fringe benefits, and job security" (p. 160).

The possibility for role conflict increased when the pressures of work and family were incompatible with one another (Granrose, 1985). According to Super's theory "each role tends to be played primarily in one theatre, although some roles, such as worker, may spill over; that is, from the workplace to the home, and cause conflict and confusion" (Herr and Cramer, 1988, p. 139). The college students in Granrose's (1985) study indicated that the number of children they intended to have would have no influence on their work plans. Granrose concluded that the reality of working motherhood may change the women's minds at a later time. This was also suggested by Taylor and Pope (1986), when they stated "Our young women must also give serious consideration to the difficulties of combining employment and family responsibilities" (p. 18).

This type of role conflict was recorded in Greenhaus's and Beutell's (1985) examination of the literature on conflict between work and family roles. Greenhaus and Beutell suggested that parents with young children may experience more conflict than parents with older children. Wilson, Weikel and Rose (1982) recorded in their study of women in traditional and nontraditional

careers that the majority of the women identified problems due to their dual role of homemaker and worker. In regards to small children versus older children, the major source of conflict may be the lack of affordable childcare that will provide the care the mother feels is necessary in her absence (Abella, 1985).

From a study of 250 unmarried females enrolled in a university in New England, Baber and Monaghan (1988, p. 201) concluded that "while these young girls have been rethinking their career options and expanding their occupational horizons, there has not been a reciprocal rethinking of their childbearing expectations." They also maintain that women may not be able to realistically separate career and family life because it is the female who is ultimately responsible for young children in our society and even with couples who express egalitarian beliefs, the male does not contribute to the responsibility of parenting and family chores to the same degree that the female does.

Research conducted on women in the male dominated area of engineering by Jagacinski (1987) found that in comparison to male engineers, women engineers were less likely to be married or if married, remain childless. The married women were more likely to have professional spouses that were male engineers. Thus, the author concluded that the males more

often had spouses who were responsible for child raising while the women had the concerns associated with dual-career marriages.

Kerr (1990) discussed the career development of gifted females and stated that many of these females were concerned about the problems involved in combining a career and family. Unlike women in earlier decades, these women were often quite aware that they would not have to decide between a career or a family but continue to have difficulty planning both.

"Uncomfortable with committing themselves fully to a profession which may require extended education, geographical moves, and a difficult daily schedule, they may change majors or retain their majors in pre-med or computer science but avoid psychological involvement and commitment in that profession" (p. 107).

Steil and Weltman (1991) found there was a relationship between salary and the amount of influence the women have within the family. They concluded that the women who earned more than their husbands considered their careers to be more important than women who earned less than their husbands. This study also found that women who earned significantly more than their husbands had more input into financial matters, lower levels of child care and increased respect from their husbands. Unfortunately, the study also

found that women who earned more money than their husbands were more concerned about arousing competitive feelings in their husbands than were other groups. Both men and women wished to protect the husband's breadwinning status. Bird and Bird (1985), also concluded that as women's income went up so did their influence on the mobility of the family. Presently, most women are not considered equal in career status to their husbands and, consequently, the husbands' career plans are predominant. In conclusion, work and family may conflict when:

(a) time devoted to the requirements of one role makes it difficult to fulfil requirements of another; (b) strain from participation in one role makes it difficult to fulfil the requirements of another; and (c) specific behaviors required by one role make it difficult to fulfil the requirements of another" (Greenhaus and Beutall, 1985, p. 76).

The school counsellor will need to assist the female client in understanding the importance of long-term planning in thinking about marriage and career planning. "This assistance would include, (1) developing plans for integrating career and marriage roles, (2) planning for parenthood, (3) planning for possible work continuation after the birth of a child, (4) child care alternatives, and (5) the roles of both spouses in two income families"

(Guttman, 1991, p. 70). Proper career counselling may ensure that the finding by McBain and Woolsey (1986, p. 171) that there is "no evidence of direct attitudinal conflict about life roles and about high career aspiration and that lowered aspirations due to conflict with traditional sex role expectations and home/career conflict appears to be outdated" will be generalizable to the female population everywhere.

(3) Aspirations

The aspirations of young women are considered to be important factors influencing their career development. Wilson and Boldizar (1990, p. 71) concluded that "aggregate high school aspiration is an overwhelming predictor of the eventual major of Bachelor degree recipients." The authors suggest that the importance of high school aspirations imply that the source of gender segregation occurred prior to the formation of high school aspirations, no later than junior high and probably much earlier. Girls aspire to specialities with low mathematics achievement and low income potential. Women at the higher levels tend to avoid mathematical fields and select higher nonmathematical specialities. This supports the idea that women are responding to change within the confines of the present educational and economic systems. Wilson and Boldizar also suggested that women are finding ways to change their

traditional distribution across the curricula without having to move into mathematics-intensive fields.

This concern was also addressed by Sharpe and Spain (1991) who found that the women in their study who did better than males in science and mathematics in high school were avoiding careers in science and engineering. These students had access to career information but "there is no guarantee that they will use it to critically examine alternatives in selecting post-secondary programs. Rather, they would go with traditionally restricted choices, with some limiting themselves to locally available post-secondary opportunities" (p. 168). Darcy (1987) also found that females aspired to nontraditional paths but for unknown reasons finally decided to pursue traditional occupations. Women avoid entering mathematical and science careers not necessarily because of lower ability but due to lower aspirations. Sharpe and Spain (1991) stated that the view women have of themselves and their perceived abilities was greatly influenced by factors outside the school system. These factors will need to be addressed if women are to readily consider careers in nontraditional areas.

However, it appears that many women enter nontraditional careers after they are married. These women listed their husbands as mentors rather than their parents (Wilson, Weikel and Rose, 1982). Kahn (1989, p. 36) stated that "both younger and mature women report their occupational aspirations to be

lower early in life than later when situational and environmental forces may influence them."

Kerr (1990) stated that gifted girls' play interests were similar to gifted boys and during childhood these girls have high aspirations. However, around age fourteen, although their grade point averages remained high, these girls have lower career aspirations than gifted boys. Kerr suggested that the factors which inhibit the aspirations of gifted girls need to be addressed by counsellors in order to help these girls develop their potential.

According to Cooper and Robinson (1989) there is a relationship between girls who are interested in masculine oriented play and later career aspirations. They reported that girls developed the skills necessary to achieve in male dominated occupations by being involved in masculine oriented play. The authors questioned both male and female freshmen who were enrolled in technical science courses with the purpose of investigating their childhood play activities. Although the authors stated that their results needed to be viewed with caution because the study was based on the students' self reported childhood memories, they suggested that their findings:

provide preliminary support for the idea that masculine and androgynous childhood activities may play a role in the development of skills necessary for achievement in math and

physical sciences, which are salient in male-dominated professions, such as engineering and science. (p. 340)

They also found that involvement in masculine and androgynous activities did not decrease femininity. They recommended that counsellors, beginning with elementary counsellors, encourage childhood activities that include masculine and androgynous experiences, and to support females interested in pursuing in male dominated occupations. Counsellors can also make significant others aware of the importance of play in the child's career development and inform parents and others that being involved in masculine activities will not interfere with feminine development.

The type of female who can best develop lower levels of strain, problem-focused and preventative coping, and higher levels of personal self-efficacy, regardless of their occupation are women who score high on the masculine dimension of the Bem Sex Role Inventory (Long, 1989). Holms and Esses (1988), also found in their study of Canadian high school girls that both masculine and androgynous trait dispositions in young women were related to higher career motivation. According to Betz and Fitzgerald (1987), masculinity and self-esteem were positively correlated and both facilitated the career development of women.

The aspirations of female administrators in Newfoundland and Labrador was studied by Guy (1988). She stated that although 54% of teachers in the province were female in 1987, only 19.6 percent of females were school administrators and at the board level the female personnel was 20.1%. This was similar to the 1985/6 statistics for Canadian teachers which reported that women make up 57% of the teaching force and 15% of the school administrators (Canadian Teacher's Federation, 1991). Guy did not find any statistical significance in the aspirations of female administrators in relation to the number of children, family background, and family obligations. However, there was a positive statistical significance between aspirations of female administrators and teaching certificate level, years of teaching, professional involvement and encouragement from family members. Guy also found a statistically significant relationship at the .05 level between sex role ideology and career aspiration. Female administrators who aspired to positions of greater administrative responsibility were found to be more liberated.

Schuttenberg, O'Dell and Kaczala (1990) concluded in their study of male and female educators that female administrators reported greater levels of job satisfaction than their male counterparts and these women who reported greater satisfaction had a high percentage who were androgynous on the Bem Sex Role Inventory. Thus, it appears that women need to become more

androgynous or masculine oriented if they wish to become career oriented. This is happening, according to Erez, Borochou and Mannheim. (1989) who concluded that young women of the feminine type alone are decreasing and more women are developing androgynous and even masculine sex role types. Schuttenberg, O'Dell and Kaczala (1990, p. 70) recommended that women who wish to become administrators "enhance their level of androgyny through reading, workshops and courses."

Harmon (1989) studied the effects of developmental and historical influences on the career aspirations of college women. There were two groups. Group one consisted of approximately three hundred 1968 college freshmen women who were questioned in 1968 and 1981 while group two consisted of approximately two hundred and fifty 1983 freshman women. Both groups attended the same university. It was concluded that "historical change has caused some young women to prepare for greater work involvement and more nontraditional jobs which are associated with higher pay and better potential for advancement than the jobs traditionally held by women" (p. 62). The author cautioned however that counsellors be aware that some young women may be entering nontraditional areas because it is the thing to do and that counselling for young women must challenge the female to

consider all of her options carefully to ensure that her career choice is individually appropriate.

Finally, as suggested earlier by Farmer (1985) the factors determining the career choices of women have not remained stagnant. The changing environment will continue to be a powerful determiner of career development. For example, Astin (1990) studied the characteristics of college women today and concluded that the "educational aspirations of college women have increased substantially in the past two decades" (p. 484). As well, Astin stated that women are changing in the types of plans they are making for their careers and what they expect from their occupation.

(4) Career Awareness and Information

Studies conducted on adolescent females in Ontario (Guttman, 1991) indicated that adolescent females in Ontario had little knowledge about different types of career options. Females tended to seek information, but that information was limited in scope. Eccles (1987) listed several reasons why the individual does not consider all the options when making a career choice:

Many options are not considered because the individual is unaware of their existence. Other options are never considered because the individual has inaccurate information regarding the option itself or the probability of achieving the option. Still

other options may not be considered seriously because they did not fit in well with the individual's gender-role schema. (p. 141)

Although Sharpe and Spain (1991) stated that young women have access to career information, an earlier study on Newfoundland youth found the young women limited in career information. "The most common career choices included both traditional and nontraditional female occupations and were made within a narrow range of occupations" (Taylor and Pope, 1986, p. 5). These authors concluded that young women may not be aware of their career options. In addition to lack of career awareness, it was felt that the young women "lacked accurate information about where to find the education necessary to achieve their career goals" (p. 7).

Another reason why girls do not actively seek out career information may be as suggested by Post Kammer (1985) they do not believe they will attain their career goals. The counsellor must be aware of the issues that female students will encounter and to prepare programs that address these issues. For example, college women surveyed by Yanico and Hardin (1986) said they were less informed about nontraditional occupations than traditionally female occupations. However, when tested on actual knowledge it was significantly apparent that these women had underestimated their degree of

understanding of nontraditional careers while overestimating their knowledge of traditionally female careers. Thus, as the authors suggested, the student's perceived lack of information cannot be separated from her self-efficacy expectations.

Many girls are aware that women may enter careers that are traditionally male, but feel that is okay for other women but not for themselves. The counsellor has a role to play in heightening the female students' awareness of nontraditional occupations that are within their range of interest. Many interventions have been tried but Cini and Baker (1987) concluded these interventions have not all had positive results and are inconclusive. Cini and Baker compared the effectiveness of two career awareness programs established for females in a rural school in Pennsylvania. One group emphasized nontraditional careers while the other did not intentionally introduce nontraditional career awareness. The third group received no treatment. The study showed no significant effect on changing young rural women's career awareness. The authors recommended that counsellors offering career awareness programs for rural students introduce the nontraditional component more gradually and in a nonthreatening manner. It was concluded that the only way to ensure career awareness within the school was to include a career education theme throughout the educational system.

Jagacinski (1987) found that women engineers were more likely than male engineers to have considered becoming an engineer during the high school years and suggested that this may be the result of high school recruitment programs attempting to interest women in an engineering career.

(5) Attitudes and Values

Houser and Gurvey (1985) used the Bem Sex-Role Inventory and found that women in training courses for nontraditional careers were less traditional in their sex role orientation than were girls in traditional programs. Chatterjee and McCarrey (1989) agreed with this finding and added that women training in traditional occupations believed their friends to be more traditional in attitudes than do women in nontraditional training areas. The level of education that one acquires will also determine the person's attitude toward sex roles. Students who have completed four or more years of university exhibit more nontraditional views than students who complete their education at the end of high school (Hawley and Even, 1982). Thus, it can be hypothesized that a person acquiring more education may change from pursuing a traditional to a nontraditional career.

Not only are occupations sex role stereotyped, but so are the characteristics considered appropriate for males and females. Taylor and Pope (1986) found that males were slightly more valued than females for being

independent, career oriented and involved in the community, while females were more often valued for being family oriented. Studies indicate, however, that the stereotyping of gender roles is changing (Alpert and Breen, 1989; White, Kruczek, Brown and White, 1989). Alpert and Breen (1989) studied the attitudes toward gender-role division in occupations and tasks of over 1300 students from grades 1 through 12 living in a semirural school district in the midwestern United States and concluded children's and adolescent's attitudes toward gender roles have become more liberal in comparison to studies conducted in the mid 1970's. The authors suggested that career programs in high school that stress nontraditional careers for women have increased female liberality toward these areas and expanded the number of career areas for them to consider, whereas this may not be true for males. "Nursing was seen as acceptable for either by only 40.6% of the total sample, as compared with doctors (72.9%). It is far more likely that girls and boys are being presented with models of female doctors more often than male nurses, in both career option and real life" (Alpert and Breen, 1989, p. 159).

At the college level, White et al. (1989) studied the gender-based stereotypes among 61 men and 116 women and found a "decline in the degree to which college students stereotype occupations according to gender" (p. 296). However, the authors stressed that this does not mean stereotyping has

disappeared. Instead, traditionally masculine occupations like engineering were still viewed as masculine, while nursing was considered to be feminine although both occupations were stereotyped to a lesser degree than in 1975. Similarly, three feminine fields including flight attendant, dietitian, and elementary school teacher showed little or no change.

In an Australian study of women enrolled in computing science courses, it was found that there were major problems both with the low number of women enrolling in the course and the high numbers who quit before the course was completed. Many of the problems were related to opinions regarding traditional male and female roles. These stereotypical gender roles not only "circumscribe the aspirations and expectations of students and potential students" (Kay, Poiner, and Prosser, 1989, p. 525) but influenced staff relationships with the females as well.

Henderson, Hesketh and Tuffin (1988) stated that girls appeared to be more flexible in their occupational preferences than were boys. Girls were able to break away from sex role stereotyped attitudes more easily than boys. The authors suggested that the data may indicate evolving consciousness on the part of women. Betz, Heesacker, and Shuttleworth (1990) also found in their study of college females that more women were choosing their careers based on personal interest than on stereotypical information.

Some of the situational factors discussed by the literature follow.

1. Parental Support

Parental support is considered one of the strongest predictors of young women's career aspirations and motivations (Farmer, 1985). Houser and Garvey (1985) concluded that the one dimension that separated traditional from nontraditional students was the support and encouragement offered to the nontraditional students by family, friends and significant others in their lives. Kelly (1989, p. 197) also found that the female's perceived support from parents was the strongest predictor of future occupational plans.

Fitzpatrick and Silverman (1989) stated that as more women enter nontraditional field, strong parental support may become less necessary. However, in fields such as engineering where there are still few women involved, parental support and the father as a role model are still strong factors. Jagacinski (1987) studied the differences between men and women engineers and concluded that the parents of women engineers were more likely to be highly educated and in professional positions than were the parents of male engineers.

Nevitte, Gibbons, and Coddling (1988) discovered that female science undergraduates were significantly more likely than their male counterparts to have fathers in scientific and technological occupations. The importance of

supportive fathers was also discussed by Ellis (1982) and Lunneborg (1982). Within Newfoundland, Taylor and Pope (1986) found that when students were asked to list people who encouraged them to do well in school, fathers were selected more frequently at 86%, followed by mothers at 81%. The girls saw themselves as being liked by their parents for being obedient, trustworthy, and possessing outgoing social skills. Darcy (1987, p. 22) stated that "encouragement from family members appears particularly important" and family influences were rated as being the most influential of all support on the career decisions of both males and females. Sharpe and Spain (1991) also found that parents were the most helpful people in helping the students choose a career. Students reported that both parents strongly supported their continuing education beyond high school. Earlier research by Lunneborg (1982) found that the support of both parents, not just father or mother, fostered the female's continuation into a nontraditional occupation. Strong support from parents, peers and other adults has a strong influence on female career development.

Fathers, as well as teachers, often considered social studies to be more important for girls than for boys. Fathers tend to stress social studies and humanities for their daughters and mathematics and science for their sons (Leung, 1990). Thus, students' differential achievement in school may well be

the result of the fathers expectations. Eccles (1987) reported that parents believed their daughters had to work harder to accomplish mathematical success than did their sons. Parents believed the reverse to be true for their sons. Girls may suffer low math expectations because their parents have lower expectations of their mathematical abilities and high estimates of their English ability. Kelly (1989) found:

a strong direct link between parental wishes and girls' aspirations; but parents took little account of their daughters' intellectual ability or her own early preferences in deriving their ideas. By contrast, boys' aspirations were more closely related to their academic ability; although parental wishes were important, these were both derived from, and predictive of, academic factors. These differences suggest that occupation represents more of an achieved status for boys and an ascribed status for girls. (p. 197)

Another factor included under parental support is the finding that parents of nontraditional women were better educated, usually having completed high school (Crowley and Shapiro, 1982; Wilson, Weikel and Rose, 1982). Guppy and Pendakur (1989) studied the 1974-75 and 1983-84 Statistics Canada national sample of students registered in Canadian colleges and

universities and concluded that "Access to higher education is strongly related to family socio-economic status. We demonstrate that parental education influences registration status and institutional choice, but has less bearing on choice of field of study within higher education" (p. 59). The authors also stated that gender was a greater determinant of the field of study than parental education. Hannah and Kahn (1989) also stated that social economic status did not affect individuals in the same way as gender barriers did. Guppy and Pendakur (1989) go on to offer reasons why women from more educated families are entering post-secondary institutions. Firstly, the more educated parents recognized the importance of education in times of high unemployment. Secondly, less educated families did not have the resources to send children to post-secondary. Thirdly, parents with more education respected post-secondary education more and encouraged their children to attend.

It is important to educate parents about the importance of work in their daughter's lives and to encourage them to support their children's interest in pursuing nontraditional areas. Kelly (1989) found that females are highly receptive to their parents wishes. Dillman (1990) researched the effect of nonencouraging parents on women attending university. He concluded that the negative attitudes of parents toward their child's education may cause the

female to "struggle with issues such as self-esteem, guilt, and negative feelings toward their parents that will need to be 'worked through' and that may make their quest for independence more painful" (p. 419).

2. Gender Bias

(a) School Influenced Bias

Pervasive sex-role stereotyping in Canadian society was suggested in a study by the Women's Bureau of Labour Canada (1986). There has been much research into this factor and the research has found that sex role stereotyping begins very early in the child's life. Not only is the curriculum biased against girls, but teachers interact more with boys than with girls. Boys were more likely to receive praise, criticism, and constructive feedback (Sadker, Sadker and Donald, 1989). Jones (1989) found evidence of the different experiences of male and female students and concluded that students may interpret the subtle differences in behavior of the teachers to mean certain subjects are not suitable for women. This reinforcement of sex role stereotyping was expressed clearly by Anger, McGrath and Pottle (1986, p. 93) who stated:

Early on, boys learn to move the chairs for art class and the girls learn to clean up afterwards.... The same behavior that is labelled 'brave' in a boy is labelled 'brazen' in a girl. A boy

may be, 'boisterous;' a girl exhibiting the same behavior is 'loud.' Boys are encouraged to compete, girls to comply.

In addition, Jones (1989) goes on to state that teachers are continuing to exhibit gender-bias behaviors toward students in the classroom. Within Newfoundland, students surveyed felt that teachers expect less from female students and were less prepared to spend the time and energy helping them (Taylor and Pope, 1986).

(b) Occupational Stereotyping

At an early age, students stereotype the kinds of occupations suitable for males and females. Hawley and Even (1982) suggested that sex stereotypes were strongest at the high school level and this often resulted in the student limiting his or her options too soon. In studying the career and life-style expectations of rural eighth-grade students, Post Kummer (1985, p. 23) found that "boys and girls differed in their career choices along traditional lines as early as the eighth grade." Alpert and Breen (1989) also identified the eighth grade as being a year of conservative gender-role attitudes but state that this conservative attitude is not necessarily set and can be changed by information and exposure to different options. These authors concluded that first graders were the most conservative in their gender-role attitudes and

students become more liberal as they get older, with the exception of the eighth grade.

Bailey and Nihlen (1989) found that the vocational thinking of younger children in their study differed from that of the older children. Younger students were more willing to ask questions of nontraditional workers visiting their classes. They suggested that sex-role stereotyping may account for the differences in the number of questions asked and resulted in nervousness in older children. These authors stated that this supported Gottfredson's theory that younger children of 6 or 8 years of age eliminate career options that they feel are not gender appropriate. Older elementary children have, therefore, eliminated many careers from the list. Children need more than career information. They need to "personalize the information to add meaning and understanding to the work schema they are internalizing" (Bailey and Nihlen, 1989, p. 144).

O'Neill (1988) studied elementary school children in Newfoundland and found that the children considered occupations such as nurse and secretary as female occupations. Fisher (1985) studied the career aspirations of Newfoundland students and discovered that all of the students who aspired to become nurses were female while all of the students planning to enter the College of Fisheries were male. By breaking down the responses of the

students planning to attend other institutions, Fisher confirmed that the students responses were traditional and sex role stereotyped. According to Bridges (1988, p. 88) women were more likely than men to base their career choices on stereotypical considerations, whereas males were more concerned with such factors as salary, personal interests, and value on achievement in the given field.

(c) Sexual Discrimination

Sexual discrimination is still a major area of concern for women entering nontraditional careers. Research has found, however, that there were few sex differences among graduates completing the same field of training (Lunneborg and Lunneborg, 1985). For example, nontraditional women were on par with their male counterparts in many quantitative abilities. Females appeared to offset the male advantage in mechanical reasoning ability by being better able to express themselves. However, attitudes towards women were discriminatory. Dubno (1985) administered a managerial attitudes scale toward women to MBS students at three graduate schools of business over a period of eight years. Males held a significantly more negative attitude toward women executives than did the females polled. This attitude did not change over the eight years which left the author to conclude that attitudes towards women executives have polarized and "women executives may expect to

continue to suffer from discrimination and stereotyping for some time to come" (p. 238).

In a study of attitudes towards women in nontraditional occupations, Heilman and Martell (1986) concluded that "despite what we see, hear and read, sexual discrimination is apt to be very much with us" (p. 389). Jagacinski (1987) found that women engineers were not receiving the same career advancement opportunities as men. Men were more often found having supervisory responsibility during their first job and with higher salaries. Companies were willing to hire women but were not as willing to promote them. The author did not research the causes of the discrepancies and felt that further research was needed in this area.

The Newfoundland Women's Policy Office (1987) administered a questionnaire to all female students enrolled in nontraditional training in Newfoundland and Labrador for the years 1982 to 1985. The poll indicated that one of the problems for women in the programs was the attitude of both the instructors and classmates to having a female in the course. For women who pursued a career in nontraditional areas the risk of sexual discrimination was greater than for women who pursued a career in a traditional occupation. "Male-dominated occupations allow males more power than females through both occupational position and cultural stereotypes of male domination and

female subordination. In traditionally male occupations, male co-workers also derive power from male group support" (Hemming, 1985, p. 69).

The female who is sexually harassed or discriminated against may develop psychological and physical reactions due to the stress. The woman may not be able to cope with the stress and may change jobs, often for a lesser salary. In addition, the women's self-image, self-confidence and motivation to work can be seriously damaged due to the continual discrimination on the job (Hemming, 1985).

Another concern addressed by Hemming was the fact that women often are hired into nontraditional occupations as token members. Thus, they are seen as representative of all women. If the woman becomes sick or becomes disinterested due to problems caused by sexual discrimination, the employer sees her, and women generally, as incompetent and unable to perform the job. It is the consequences of discrimination itself. One solution suggested by Hemming is the development of support groups for women. Support groups will be discussed more fully in the next section.

3. Support Groups

Women in nontraditional occupations within the province of Newfoundland and Labrador have organized formal support groups for women. For example, there are Women in Science and Engineering (WISE)

groups both nationally and provincial, as well as Women in Trades and Technology (WITT). These organizations not only offer support but help women better understand their roles in the work force.

Gaskill (1991) studied the factors that enabled women to succeed in management and found that both upper and mid-level female executives "identified support related factors such as networks, professional organizations, mentors, role models, friends, and colleagues as being the least important in their career success and advancement" (p. 176). The author suggested that because the women in the study were successful, they placed more of the credit on their own abilities and ambitions supporting Vroom's (1966, in Gaskill) argument that "People tend to take credit when things go well and enhance their own feelings of self-worth, but protect their self-concept when things go poorly by blaming their failure on the environment" (p. 176). For this reason, Gaskill recommended that support groups, mentoring programs, role models, and professional organizations for women continue to be encouraged in order to assist women struggling to succeed in male dominated occupations.

4. Role Models

The role models whom students see around them daily plus the bias in curriculum and instruction take its toll. Girls lose their early advantage and

fall behind (Sadker, Sadker, and Donald, 1989). Almquist and Angrist (1982) stated that women who did not pursue careers may have had limited contact with career role models, or may have been less interested in working in a career. Considering that the lack of role models is a major deterrent to women entering nontraditional career (Betz and Fitzgerald, 1987) then it becomes vital that educators attempt to correct these biases. Greens, Sullivan, and Beyard-Tyler (1982) attempted to change the attitudes of 144 male and 144 female students in the ninth grade by providing "career materials that contain both current, nonsex-typed information about careers and descriptions of real-life nontraditional role models in those careers" (p. 394). They concluded that, as predicted from Bandura's theory of social-learning, exposing students to nontraditional role models and nonstereotypical information was an effective teaching strategy to change attitudes of both males and females. Their results indicated, as well, that students felt it was more acceptable for women to enter traditionally female occupations. Saveyne (1990) also found that students rated traditionally male jobs more suitable for both men and women but had greater stereotypical attitudes toward traditionally female occupations.

Saveyne (1990) investigated "the immediate and delayed effects on students attitudes of career information presented in print form and of the same

information presented in slide/tape form" (p. 7). The purpose of the information was to present males and females in nontraditional gender roles. The results indicated that the students changed their attitude toward the nontraditional careers presented in both print and slide/tape presentation. Unfortunately, the students did not generalize their change in attitude toward other nontraditional careers and the presentations did not have a lasting effect. The authors recommended that programs developed to expose students to nontraditional role models would need to be long term and involve interaction with a variety of models.

An example of another role modelling intervention was conducted by Brooks, Holahan, and Galligan (1985). They offered a five week program and concluded that their study had no significant impact on the sex typing of occupations by middle and high school girls. The authors suggested that this study may support Gottfredson's theory that occupational aspirations are permanently circumscribed by ages 6 to 8. To change the attitudes will take massive intervention. However, they suggested that sex typed aspirations are changeable. Proper interventions have not, yet, been developed or delivered at the critical period when the client is susceptible to change.

Role models for women in rural areas were found to be even more important because of the limited opportunities for observing women in

nontraditional occupations (Post Kammer, 1985). Role models presented either by film, books, or live should be used, not only to address career concerns but also to discuss how women cope with the often conflicting roles of worker, mother and spouse. Counsellors may wish to consider using other types of media to encourage greater participation by girls in careers. O'Neill (1988) and Parsons (1989) both found that one major source of exposure to occupations for females was television. However, whether it is important to encounter female role models has been questioned by the literature. Ellis (1982, p. 80) stated that only two of the 163 female engineering subjects had ever met a female engineer, but more than half of the students knew a woman in another nontraditional occupation. Hackett, Esposito, and O'Halloran (1989) suggested that factors other than role models were more strongly related to college major choices, especially the choice of a science related major. The authors suggested that mathematical self-efficacy was a strong predictor of mathematics and science related college major choices. The authors found that "performance self-esteem was consistently and significantly related to important career related variables" (p. 178). They suggested a connection between "role model influences and the development of a strong sense of competence in one's abilities" (p. 178).

Williams (1990) reviewed the literature on sex-related classroom practices in the post-secondary classroom and concluded that there have not been many studies conducted in Canada regarding this topic. However, Williams did find that many studies found that women did not participate as much as men, especially in male-taught classes. Although, the factors leading to less interaction have not been investigated, Williams suggested that, possible factors include the lack of female role models and gender biased classroom behavior on the part of the professors: differential smiling, eye contact, interrupting, the number of direct questions posed to the students, and the number and kinds of male and female examples given and lack of a female perspective taken on the subject matter. (p. 40)

Williams also questioned whether gender bias was the reason many females drop out of nontraditional training. Women who attended women's colleges with a larger number of female instructors appeared to have higher achievement and self-confidence.

Pilcher, Delamont, Powell and Rees (1989) evaluated the Women's Training Show, a program designed to encourage women to consider training and employment in nontraditional areas. The program included workshops, exhibitions, role models, and films. A questionnaire was used to evaluate the

experiences of 500 girls between 12-18 who had visited the road show. It was suggested that the use of role models could be effective in making girls aware of different occupations. The authors cautioned, however, that this could only be achieved:

provided there is adequate lead-up and preparation, it is made absolutely explicit what the role models do (particularly in those fields where girls do not have access to much information through indirect experience), and there is follow-up work to check that the girls did widen their knowledge, rather than interpret what was presented to them (such as a woman bank manager) in the light of what they know about 'women's work.' The role models themselves need to be briefed adequately to ensure they provide clear information about what they do, in a way that takes account of the school girls' likely perceptions. (p. 64)

5. Significant Others

Another external factor to be considered is the role of the guidance counsellor and significant others. Two studies (Parsons, 1989; Kelly, 1989) suggested that counsellors and teachers should be encouraged to give females information on nontraditional careers because females value teachers' and

counsellors' advice. At the present time, this group are not being fully utilized. Students listed talking to counsellors and teachers as ranking lowest as a source of information (Parsons, 1989). In Taylor's and Pope's study, 85% of the females indicated that they had guidance counsellor's in their schools but only 7% had talked to the counsellor about career related topics. Lunneborg (1982) found that counsellors were not instrumental in the career decisions of nontraditional women but suggested that they may play a vital role. Firstly, counsellors can inform nontraditional girls of the need for supportive personal environments. Secondly, they can encourage females aspiring to nontraditional roles to locate positive role models and avoid persons who will attempt to discourage her ambitions.

Eccles (1987, p. 142) stated that often counsellors failed to provide information about nontraditional careers because the numbers of students on their case load made in-depth career counselling impossible. Thus, students in search of information were given pre-packaged material that often contained gender biased information. However, because research suggested that career counselling was beneficial in helping increase career options, Eccles recommended that counsellors take advantage of programs, including videos, that appeared to impact on career decision making.

In order to help young women address their concerns about career options the counsellor must be aware of his or her own personal stereotypes about career development of women. Anger, McGrath and Pottle (1986) found evidence of women who have been discouraged by educational and employment counsellors from entering nontraditional training. The Women's Policy Office, 1987 surveyed all the female students enrolled in nontraditional training in Newfoundland and Labrador for the years 1982 to 1985 and concluded that career counsellors in high schools were not aware of the growing options for women and often discouraged women from entering nontraditional areas.

Houser & Gervey (1985) reported that the one dimension that most significantly differentiated Nontraditionals from both the Traditionals and the Considereds was the amount of support and encouragement they had received from the important others in their lives. The nontraditional students consistently received more support from male and female friends and family members and from teachers and counsellors. (p. 115)

They also found that nontraditional students also had friends in nontraditional courses and were employed more hours per week than were traditional students.

At the university level, Ethington, Smart & Pascarella (1988, p. 560) found that women's entry into "male dominated science occupations is directly influenced by their participation in leadership activities and their subsequent attainment of a graduate degree and indirectly influenced by their undergraduate academic achievement." The authors suggested that university personnel must promote and encourage women to become involved in leadership activities. University personnel must provide assistance for successful academic achievement in order to improve chances of success in male dominated occupations.

Perhaps Ellis (1987) best stated the importance of providing proper career counselling for females when she addressed the issues of facing reality:

Educators who organize special career days for adolescent girls are fulfilling an obligation to prepare them for the realities of their adult lives. By helping girls see the connection between subject choices at secondary school and later career opportunities, this type of intervention provides valuable information and experience. Girls should be encouraged to

prepare for the most interesting and rewarding careers their abilities permit and should not be limited to those few occupations which have traditionally been considered appropriate for women. (p. 10)

In summary, it appears that when women make a career choice, many personal and situational determinants interact to either deter or enhance their decisions. Many of these factors may be more important at different stages of women's lives and the degree of motivation to enter a nontraditional field may vary with situational and personal changes in women's lives.

QUALITATIVE METHODOLOGY

"There is a need to move beyond the traditional academic understanding that knowledge can be created in a vacuum, and begin to claim and incorporate the personal and political context from which the knowledge springs as part of the data gathering process" (Kirby and McKenna, 1989, p. 22). Much has been written about women in the workforce and the body of literature aimed at women in nontraditional careers is also more prevalent than in the seventies and early eighties. However, a fuller appreciation of the impact of work on the lives of women, requires more involvement with women in the field, and allowing them to discuss their concerns, without

constraints. One research design that permits more in-depth discussion is the use of semi-structured interviews found in qualitative studies.

Reis (1990) also recognized the need for studies using a qualitative design and stated:

Qualitative research relating to the attributes of women who have achieved is also needed. If we can identify the personality and societal factors that enabled women to become successful, we can share this information with parents and educators and provide advice, guidance, and insights needed for young females to successfully embark upon their road to self-fulfillment.

(p. 42)

"In a qualitative study, researchers study the 'ordinary life-world' they are interested in the way people experience their world, what it is like for them, how to best understand them" (Tesch, 1990, p. 68). This requires that the entire data be read carefully and the decision made as to what data are relevant to the research questions asked. If any similar ideas or thoughts emerge from individual protocols then these are grouped together. Tesch (1990) outlined ten principles and practices that are true for ethnomethodological to phenomenological research. They are as follows:

1. Analysis is not the last phase in the research process; it is concurrent with data collection or cyclic.
2. The analysis process is systematic and comprehensive, but not rigid.
3. Attending to data includes a reflective activity that results in a set of analytical notes that guide the process.
4. Data are 'segmented,' divided into relevant and meaningful units, yet the connection to the whole is maintained.
5. The data segments are categorized according to an organizing system that is predominately derived from the data themselves.
6. The main intellectual tool is comparison.
7. Categories for sorting segments are tentative and preliminary in the beginning; they remain flexible.
8. Manipulating qualitative data during analysis is an eclectic activity; there is no one right way.
9. The procedures are neither 'scientific' nor 'mechanistic;' qualitative analysis is 'intellectual craftsmanship.'

10. The result of the analysis is some type of higher-level synthesis. (p. 95-97)

The data analysis procedure used in this study followed the outline suggested by Marshall and Rossman (1989) who stated that analytic procedures fall into five modes summarized as follows:

- (1) Organizing the data. Reading, reading, and once more reading through the data forces the researcher to become familiar with those data in intimate ways. (p. 114)
- (2) Generating categories, themes, and patterns. The analytic process demands a heightened awareness of the data, a focused attention to those data, and an openness of the subtle, tacit undercurrents of social life. Identifying salient themes, recurring ideas or language, and patterns of belief that link people and settings together is the most intellectually challenging phase of data analysis and one that can integrate the entire endeavour. (p. 115-116)
- (3) Testing emergent hypotheses. As categories and patterns between them become apparent in the data, the researcher begins the process of evaluating the

- plausibility of those developing hypotheses and testing them against the data. (p. 118)
- (4) Searching for alternative explanations. As categories and patterns between them emerge in the data, the researcher must engage in the critical act of challenging the very pattern that seems so apparent. The researcher must look for other, plausible explanations for these data and the linkage among them. (p. 119)
- (5) Writing the report. Writing about qualitative data cannot be separated from the analytic process. In fact, it is central to that process, for in the choice of particular words to summarize and reflect the complexity of the data, the researcher is engaging in the interpretive act, lending shape and form-meaning to massive amounts of raw data. (p. 119)

SUMMARY

This chapter has presented theoretical and empirical considerations relating to the factors salient in the career development of women, more specifically women in nontraditional careers. In addition, the methodology

involved in a qualitative study was outlined. In the next chapter, the qualitative methodology will be discussed in detail as it pertains to this study.

CHAPTER III

METHODOLOGY

OVERVIEW OF THE CHAPTER

In this chapter, the overall methodology of the study is discussed. Attention is given to providing a description of the sample population, the development of the interview process, interview protocol, data analysis, and issues of reliability and validity in qualitative research.

RESEARCH DESIGN

The basic purpose of the design was to obtain a sample of women who have chosen to enter nontraditional career fields and to discuss the situational and personal factors that influenced their career development. The women's career choices had to be different. The women were not controlled for either education, abilities or interests.

The data were gathered through semi-structured in-depth interviews containing questions guided by the research questions in Chapter I and the literature review in Chapter II. The questions were designed to be open ended with a free response format; follow-up probing was used if necessary. It was felt that a semi-structured formal interview was necessary in order to "standardize interview topics and general questions" (Marshall and Rossman, 1989, p. 82).

Selection of Participants

There were thirteen women included in this study and they were selected in accordance with certain criteria. The women, who had to be working or training in different nontraditional areas, were to represent different areas from across Newfoundland and Labrador. In addition, the women had to be representative of the different stages of the life span. The women had to be able to devote at least three hours of their time, allowing for interviews and video taped observation at their worksite. The women had to consent to the researcher using the taped interviews in a role modelling video. And finally, for financial reasons, the sites had to be close enough to complete interviews and taping within the working hours of the camera crew. During Phase I, three women from Labrador were interviewed in their home towns of Port Hope Simpson and Goose Bay by a qualified interviewer. During Phase II, ten additional women were interviewed on or near the Avalon Peninsula by this researcher.

The women were recruited in various ways. Some were recruited through letters circulated at a Women in Science and Engineering (WISE) meeting, at which time women from the Women in Trades and Technology (WITT) organization were present. Others were recruited through referrals from individuals and agencies. The women were contacted by telephone and questioned to determine whether they fitted the proposed criteria.

Unfortunately, many women were anxious to participate but did not fit the criteria. To protect the identity of the participants and to ensure confidentiality, the women will not be identified by name, but by occupation only.

Protocol Development

Borg (1963, cited in Thompson, 1990, p. 46) cautioned that the purpose of a pilot study is "to evaluate and improve the guide and the interview procedure and help the interviewer develop experience in using the procedure before any research data for the main study is collected." In this study, the present investigator viewed the women from Phase I who had been video-taped and determined whether the instrument would provide the necessary information. Phase I of the work was conducted in Labrador, in March, 1991, using three participants. Following the data analysis of the interviewing from Phase I, a decision was made to modify the interview protocol. The same research questions were addressed but in a more open-ended, and less structured approach, which this researcher concluded would be more facilitative to the purpose of the study. However, the women from Phase I were included in the final analysis because they voiced the concerns of

women in remote rural areas and it was felt the information gathered contributed to overall understanding of women and their career development.

In Phase II, ten more women were interviewed at their convenience, often times at their place of work or study. The interviews and observations of the women at work were videotaped. Later the tapes were transcribed and the transcripts were checked against the audio tapes to ensure accuracy.

SPECIFIC PROCEDURE AND INTERVIEW APPROACH

Interview Protocol

The preliminary interview protocol used during Phase I was based on the review of the literature. In order to ensure validity, the protocol was scrutinized by a panel of experts including two educators in career development. Questions were added or deleted and checked for redundancy. The interviews from Phase I were viewed to determine the effectiveness of the questions. This served as a guide to determine the need to extend the number and types of questions and to ensure that the factors mentioned in the literature were addressed. Viewing the tapes also provided a means whereby the questions could be checked for clarity, language development and appropriateness.

Headings for the final protocol followed the situational and personal determinants outlined by Super's theory and included the issues deemed important by Farmer, and by Betz and Fitzgerald:

- Family Experiences
- Community Influences
- School Influences
- Role Conflict
- Gender Bias.

INTERVIEW PROCESS

The essential components of the interviews followed the guidelines proposed by Kirby and McKenna (1989):

- (1) The questions were developed using the theoretical framework of women's career development which ensured that the researcher stayed close to the research focus.
- (2) The interviews were approximately one hour to one and a half hours in length and were conducted at the interviewee's convenience at their site of work or training. This sometimes involved getting permission from employers or from their training institution to allow the interviewee

time to be interviewed, and permission for a camera crew to work at the site.

- (3) All interviewees were informed of the purpose of the interview in the initial telephone conversation. This was repeated again at the beginning of the recorded interview.
- (4) Interviewees were told that at any time they wished to hear a question again or needed explanation then they could ask. In addition, the women were told that if there were questions that they felt uncomfortable about answering, they were under no obligation to answer.
- (5) The interviewers established good rapport and the women were aware of how to contact the researcher if the need arose.
- (6) The interviewees were informed of the potential use of the data and that selections from their video-taped material would be used in a film about women in nontraditional careers.
- (7) All the women felt comfortable with the idea that their experiences would be used to help others and appreciated the idea of becoming role models. In addition, the women often asked for and received the raw footage of their own interviewed session. All women involved will receive a copy of the edited video developed from this research.

- (8) It was necessary to meet with the participants for a brief informal interview before the taped sessions. Several of the women wished to meet the researcher first, and to share thoughts and feelings.

The Phase I interviews had been conducted during March, 1991 and the other ten interviews were conducted during July and August of 1991. The women were called the day prior to the interview to remind them of the appointment. The interviews were scheduled such that no more than two interviews were conducted on any one day. This gave participants as much time as possible and allowed additional time to observe and video tape the women at their worksites.

Participants were asked to begin by discussing their present occupation and what was involved in this role. This was followed by questions about the participants' home town. This line of questioning was designed to put the participants at ease and to encourage spontaneous description. The areas addressed later became more personal. It was felt that the introduction of risk free type questions at the beginning would help develop rapport with the participants. The interviewer had an interview guide which "is a list of questions or issues that are to be explored in the course of the interview" (Patton, 1990, p. 283). The interviewer freely departed from the protocol when necessary, to explore topic further. "Thus the interviewer remains free

to build a conversation within a particular subject area, to word questions spontaneously, and to establish a conversational style - but with the focus on a particular subject that has been predetermined" (Patton, 1990, p. 283).

Following each interview, the researcher played the tapes and recorded her own reflections of the interview in a personal log. The purpose of this was not only to look for any emerging themes but also to identify and critique the interview style.

DATA ANALYSIS

Data analysis is the process of bringing order, structure, and meaning to the mass of collected data. It is a messy, ambiguous, time-consuming, creative, and fascinating experience. It does not proceed in a linear fashion; it is not neat. Qualitative data analysis is a search for general statements about relationships among categories of data; it builds grounded theory. (Marshall and Rossman, 1989, p. 112)

As stated in Chapter II, the data was analyzed following the guidelines outlined by Marshall and Rossman (1989).

Organizing the Data

Careful, meticulous reading of the data resulted in the researcher becoming intimately familiar with the data. The first step in the data analysis was to view the original transcripts, checking them against the audio tapes to ensure accuracy. In addition, this process helped the researcher in identifying with the experiences of each woman and in understanding what each woman considered significant in her life. The search for emergent themes and ideas began in this stage but was the major emphasis of the second stage.

Generating Categories, Themes and Patterns

The analytic process demanded a heightened awareness of the data, a focused attention to those data, and an openness of the subtle, tacit undercurrents of social life. Identifying salient themes, recurring ideas or language, and patterns of belief that link people and settings together was the most intellectually challenging phase of data analysis. (Marshall and Rossman, 1989, pp. 115-116)

During this phase of analysis, salient themes were identified. Similarities among the women's responses were grouped together, thereby creating a data base of factor files.

Testing Emergent Hypotheses

"As categories and patterns between them became apparent in the data, the researcher began the process of evaluating the plausibility of those developing hypotheses and testing them against the data" (Marshall and Rossman, 1989, p. 118). It was the decision of this researcher to choose and isolate larger segments that related to a particular emerging theme. In addition, at this time it was the goal of the researcher to begin comparing general statements and deleting redundancies.

Searching for Alternative Explanations

As categories and patterns between them emerged in the data, the researcher must engage in the critical act of challenging the very pattern that seems so apparent. The researcher must look for other plausible explanations for these data and the linkage among them. (Marshall and Rossman, 1989, p. 119)

This involved the most critical time for the researcher in that it was necessary to determine the inclusion of personal biases. The transcripts were reviewed

again, as a whole, to determine whether the conclusions drawn were appropriate to the woman's whole experience.

Writing the Report

Writing about qualitative data could not be separated from the analytic process. In fact, it was central to that process. In the choice of particular words to summarize and reflect the complexity of the data, the researcher was engaging in the interpretive act, lending shape and form-meaning-to massive amounts of raw data. (p. 119)

At this point the researcher condensed the statements, eliminated redundancies, while at the same time ensured that the included statements were as close as possible to the original statements. It was the intent of the data analysis in the written report to identify the themes emerging from the data and to present these themes using nonredundant statements in a descriptive manner that would not lose the voice of the individual women involved.

Several models for report writing exist. Taylor and Bogdan (1984, cited in Marshall and Rossman, 1989) suggested five different approaches.

First, the purely descriptive life history... Second, presentation of data gathered through in-depth interviews and participant

observation, where the participants' perspectives are presented, their world views forming the structural framework for the report. The third approach attempts to relate practice (the reality of social phenomena) to theory. Here descriptive data are summarized, then linked to more general theoretical constructs. Taylor and Bogdan's fourth approach is the most theoretical while their fifth approach is the attempt to build theory by drawing on data gathered from several types of institutions and under various research conditions. (p. 119)

This research used the third approach suggested by Taylor and Bogdan which was the attempt to relate practices to theory. The descriptive data were summarized, then linked to the theoretical constructs considered salient in the career development of women by the use of narrative excerpts from individual samplings.

RELIABILITY AND VALIDITY CONCERNS

Tesch (1990) stated that qualitative research is to a large degree an art.

He also maintained that:

the question of its validity does not depend on replicable outcomes. It depends on the employment of a data 'reduction'

process that leads to a result that others can accept as representing the data. The result of the analysis is, in fact, a representation in the same sense that an artist can, with a few strokes of the pen, create an image of a face that we can recognize if we saw the original in a crowd. The details are lacking, but a good 'reduction' not only selects and emphasises the essential features, it retains the vividness of the personality in the rendition of the face. In the same way a successful qualitative data reduction, while removing us from the freshness of the original, presents us instead with an image that we can grasp as the 'essence,' where we otherwise would have been flooded with detail and left with hardly a perception of the phenomenon at all. (p. 304)

Qualitative studies, such as this study, should not be evaluated using the traditional modes of reliability and validity so well suited to quantitative studies. Validity, in the quantitative sense, has been defined as "the degree to which a test measures what it is supposed to measure" (Gay, 1987, p. 128). Reliability in the quantitative sense refers to the "degree to which a test consistently measures whatever it measures" (Gay, p. 135). However, Patton (1990) argued that the validity and reliability of qualitative data "depend to a

great extent on the methodological skill, sensitivity, and integrity of the researcher" (p. 11). Patton goes on to suggest that:

Systematic and rigorous observation involves far more than just being present and looking around. Skillful interviewing involves much more than just asking questions. Content analysis requires considerably more than just reading to see what is there. Generating useful and credible qualitative findings through observation, interviewing and content analysis requires discipline, knowledge, training, practice, creativity, and hard work (p. 11).

Perhaps, as was suggested by Patton (1990) and argued by Sandelowski (1986), the researcher must measure validity not in the quantitative sense but to consider the four factors discussed by Guba and Lincoln (1981, cited in Sandelowski, 1986, p. 29). They are, (1) truth value, (2) applicability, (3) consistency, and (4) neutrality.

Sandelowski stated:

The truth value of a qualitative investigation generally resides in the discovery of human phenomena as they are lived and perceived by subjects rather than in the verification of a prior

conception of those experiences. Significantly, truth is subject oriented rather than researcher defined. (p. 30)

By allowing the participants in this study to respond to open ended questions in a semi-structured format, the participants took the lead and reflected at will as to what they considered important. Therefore, truth was subject oriented , not researcher defined. Data analysis was also facilitated during the interview stage by the use of questions posed by the researcher to help clarify participants viewpoint and to ensure understanding on the part of the researcher.

The criterion used to evaluate the truth value of a study is 'credibility.' "A qualitative study is credible when it presents such faithful descriptions or interpretations of a human experience that the people having that experience would immediately recognize it from those descriptions or interpretations as their own" (Sandelowski, 1986, p. 30). Credibility was maintained throughout this study by keeping a journal of personal reflections, questions about interview style, feelings toward each participant and jotting down emergent themes as they surfaced in the interview. This research was a component of a larger research project into the career development of women, and the transcripts and condensed meaningful statements were scrutinized by

the program co-ordinator and director. In addition, follow up discussions with a select group of participants provided further credibility to the findings.

With regard to external validity, or the generalizability of findings and representativeness of the sample, Sandelowski argued that such factors are not sought in a qualitative study. Instead, the applicability of qualitative research is determined by 'fittingness.' This is achieved when "its findings can fit into contexts outside the study situation and when the audience views its findings as meaningful and applicable in terms of their own experience" (Guba & Lincoln, 1981 in Sandelowski, 1986, p. 32).

In addition, Sandelowski also suggested that reliability in the quantitative sense may not necessarily be a criterion suitable for the evaluation of qualitative studies. Instead, it is important that the findings be auditable such that "any reader or another researcher can follow the progression of events in the study and understand their logic" (p. 34). For example, to insist on repeatability may be detrimental to the qualitative study. The emphasis is on the uniqueness of the experience. The same open-ended question posed at a later date may result in a different response as the participant grows in self-awareness. For example, in this study, the reflection was made by one participant in a follow-up discussion of the interview that she had never consciously been aware of the influence of her father on her career

development until she was asked to discuss the influence of her family during the interview. In addition, voice develops with confidence and experience and this factor cannot be ignored. One of the women pointed out, she would not have said yes to any type of interview two years ago.

The fourth factor of conformability refers to the findings themselves and "is achieved when auditability, truth value, and applicability are established" (Sandelowski, 1986, p. 33). In conclusion, as Tesch (1990) pointed out:

In qualitative research no two scholars produce the same result, even if they are faced with exactly the same task. Their differences in philosophical stances and individual styles will lead them to perceive and present the phenomenon each in her/his own way. There is no correct way of doing qualitative analysis (which does not give the researcher permission to be a dilettante); there is no one correct way of drawing a face, either. No two artists will produce exactly the same drawing of someone's features. If they are skillful and competent, we will nevertheless recognize the same person in their renditions. Pictures of an experience, social phenomenon, or culture don't have to look exactly alike to be valid, either. If the research is

conducted competently, each individual exploration will give us a different perspective on the phenomenon studies. One study alone will not provide the whole picture (just as no single quantitative study does). As qualitative descriptions accumulate, they will make it possible for us to gradually 'recognize' the phenomenon in the sense of a second, fuller knowing. That is the goal of qualitative research. (p. 305)

SUMMARY

This chapter has presented the overall methodology of the study. The following chapter will discuss the research findings obtained from the semi-structured interviews.

CHAPTER IV
RESULTS AND DISCUSSION
OVERVIEW OF THE CHAPTER

This chapter presents the research findings obtained from the semi-structured interviews. Each of the factors considered important in the career development of women in nontraditional careers that were explored in the literature are discussed and presented using quotes from the participants. The women present their personal career development in their own words.

INTRODUCTION

The women, in this study, represented different age groups. The purpose was to discuss each factor while being cognizant of the important concept that career is a life span issue. The influence of particular factors may change from one stage to another, but each stage of development impacts on the next. With respect to the life span the following factors are discussed: importance of leisurite and citizenship roles, parental support, community influences, role models, role conflict, gender bias, career aspirations, and school influences.

The data presented in this chapter are the culmination of the data analysis process. The process began by listening to the video-tapes produced during Phase I. The careful analysis of the transcribed video-tapes was

necessary in order to determine whether the semi-structured interview technique would produce the necessary information for the study. It was felt that the material was rich in information and that the Phase II, investigation would continue in a similar format, allowing the women to share their voice while ensuring that all core questions were addressed.

Each video-tape was viewed after completion and the researcher recorded her own reflections regarding the responses of the interviewee and how the responses contributed to understanding the factors suggested by the literature. Thus, the data analysis can be described best as an emergent process with each interview contributing a better understanding to the interviewer's own knowledge of career development. (See Appendix A for the interview guide).

Transcriptions of the taped interviews were made and were scrutinized against the original tapes to ensure accuracy. The transcripts were then photocopied to allow the researcher to code and record on each file. The originals were kept as they were to allow for continuous referral. The researcher felt this was important because each reading of the original transcripts provided a greater understanding of the individual women, as a whole, while focusing on each factor.

The researcher experimented with different approaches to data management. The first approach used was to cut the responses into meaningful units and colour code the material into different file folders. However, this was not the best approach for the management of this particular data because of the overlapping of units that contributed to different factors. Therefore, a second approach was tried and found to be more successful. This required creating factor file inventories on the word processor and storing the discriminate units of meaning into one or more appropriate files. This was the first step in the data analysis and the files served as the data base.

Second, each of the meaningful statements from the transcripts were studied to determine the variables within each factor. Data management proved to be a on-going task. The goal of the analysis at this stage was to condense the units within each factor to nonredundant statements with all nonessentials removed. Finally, only selected responses representing each variable within the factor remained. It should be noted that many of the women were influenced by many variables within a factor. For example, several women were influenced by two or more role models from their school, community and place of work. The study was designed to glean out as many variables as possible. It did not provide significant differences but instead concentrated on the range of responses.

As discussed in Chapter III, the introductory questions in the interview guide provided an introduction to the women and their present field of training or occupation. The remainder of this chapter, presents the research findings, obtained from questions that pursued each of the factors related to the career development of women, as discussed. As stated in Chapter III, the women will be identified by occupation only.

FAMILY

The majority of the women in this study came from nonprofessional family backgrounds. The majority of the fathers were employed as fishermen and labourers. Only one father was employed in a professional occupation. Approximately one half of the mothers were employed, either in the fishing industry or traditionally female occupations, while the rest were homemakers. The number of siblings varied from family to family with the majority of the women being from families with several offsprings. None of the women were only children, however, one was raised by her grandparents, while another was an only child until the age of sixteen.

Household Chores

All of the women interviewed consider their 'primary' family to have been important in their career development. All of the women reported being

responsible for traditional chores within the household, and this does not appear to have changed over the years. A large majority of the women worked with their mothers to clean the house, to cook, and to wash dishes. Many stated that they were involved with their fathers with outside chores. Others indicated that they were not allowed to do traditionally male chores but that the homes were undoubtedly segregated into male/females roles while other homes expected total integration of chores. The common theme running through all of the women's reflections on household task is responsibility. As is expressed by one of the professional women (the policewoman): "With a family that large, we always had to, you know, take our turns,...and we didn't get the privileges without taking the responsibility." Whether the chores were typically female or not, these women learned at an early age that there were household tasks they were expected to do. Regardless of the age group, none of the women were excused from household commitments. However, what was apparent from the womens' responses was the difference in expected chores from family to family.

Interestingly, although the girls may have had their assigned chores many of the girls were allowed to do chores normally assigned to their brothers but the reverse was not always true. As one respondent said, "...it seemed like we could do the boys' chores, but they couldn't do ours, male or female.

For example, well, I could go out and bring in the wood but my brothers couldn't make the beds, that sort of thing..." (linesperson)

In addition to helping their mothers in the house, a majority of the women stated that they were equally involved with activities with their fathers. However, the reasons appeared to vary. In the engineer's case she was the only child during her childhood years and she became a surrogate son. "He wanted to make me into a boy. Treated me like a child, not a girl. I watched him build model boats and did everything outdoors with him, like fishing." Another professional (aquaculture instructor) who was from a very nontraditional family was also treated like the eldest son until her brother was old enough to assume the role.

I was the oldest, so I was the one that first went out in the boat with him to fish because he had to have an extra hand in the summer time fishing. That changed eventually when my brother was the one. But we still did a lot of nontraditional things around the house. There was no distinction, really.

Only two of the women expressed their dislike for housework and their preference for outside chores. The auto-mechanic, for example, grew up in a traditional home and was expected to help her mother while her brother was expected to help their father in the garage. She explained how she changed

that by doing typically female chores in the garage which lead her to being accepted in the garage and being introduced to less 'feminine' kinds of chores.

Well, first I had to do my chores, I had to do the dishes every time there was a meal and clean up. But when I got out in the garage I used to clean up around out there.... And dad would say this is great, you know, she's doing stuff around the garage and I don't have to do it. And that's what basically led me into doing chores out there, and now I don't do anything in the house.

Career Choice and Parental Support

The career choices made by the women in this study were diverse. All of the women felt their career decisions were influenced by parental and family support and although several of the women chose one particular parent as being most influential in their career development, many of the women cited both parents as being instrumental in their career decision.

Some parents desired that their daughters enter traditional fields, and tried to persuade their daughters to enter careers they felt would be best. The auto-mechanic tried to oblige her parents and became a word processor operator. However, she wanted to work as an auto-mechanic. Her parents

accepted this and supported her decision to return to the community college and complete her auto-mechanic course. Her parents appreciated her interests and also appreciated the added bonus that she might earn more money as a mechanic than as a secretary.

Well, mom really wanted me to stay with computers, but she realises I didn't like to be a secretary as such, and there's not that much money in it.... And first, my father was saying 'you can't really stay and work in the garage around. You can, if you like, there's lots of business here, but your best bet is to, you know, get into technology and work your way up, and you might run Hickman Motor's someday.'

Other parents did not object to their daughter entering a nontraditional career but objected to particular nontraditional areas. They were concerned about the abilities of their daughters to cope with the pressures of the job and the type of working conditions. The forestry student's parents did not wish her to pursue her desires to become a sea captain "because I'd be on a ship with all kinds of men." However, they did not discourage her from continuing with her present training in forestry management.

Or in the case of the policewoman, her parents knew she wanted to enter the RCMP but her father was more hesitant than her mother about her

joining once the force was opened to women. "My dad was supportive, but he held back a little more because he saw this as kind of being dangerous work for a woman and he wasn't sure that I could handle it."

In the minister's case, she was in her thirties when she made the decision to pursue her dream of becoming a minister. The idea of her becoming a minister of the church was unsettling for her mother and family. Her mother wanted her to "get off the bandwagon" and the support was not forthcoming. For the minister this was a disappointment.

Nobody said, "This is great, I always knew you wished to be a minister." I wish they had. It would have given me a sense of support. They all knew I do things differently from the rest of them so they weren't surprised. Most of the comments came from my sister who said, "That's fine, but don't ask me to do it."

On the other hand, many of the parents, of the women who entered university, did not try to directly influence their daughter's choice of occupation. Instead they stressed the importance of higher education and its relationship with the world of work.

Business Student:

Yes, both of them really feel that an education is important.

Especially my father, he didn't want me to stay home and end up becoming a fisherman's wife. Well, he realises that there isn't much in the inshore fishery so he didn't want me staying there becoming a fisherman's wife, he really wanted me to get out and get more education and just really encouraged me.

Aquaculture:

I think right from the time we were young, I mean, education was always very important in our family.... Both my parents were involved in the education. I mean, my father was there in the school, and my mother was there in the night with you, making sure that your books were done and things like that.

Parental support went beyond the desire for their daughters to become educated. Parents were important in the development of their daughters self-esteem. Many of the women indicated that parents have a major role to play in the girl's search for affirmation. The editor referred to her father as the person who built her confidence towards her fishing ability when she heard him tell her mother "Oh, she's good as any boy, mother, and a darn sight

better than most." It was he she referred to when she mentioned she had won the Labrador South Electoral Scholarship. "My dad was proud."

Several of the women attributed the values they have today as being the result of their parents influences on their lives. Parents instilled a sense of community in the women and modelled community involvement and service to others.

Entrepreneur:

And my parents always instilled in all of us, you know, there is a certain part of you that you owe to someone else.... And I think my parents really inspired me to give of myself as much as possible. And I hope I have done that, I really do.

Painter:

They've always allowed my brother and my sisters to do whatever we thought was best for us. You can get mixed up along the way, but I think that's where the root of it comes from to go out and do it....

The majority of the women spoke of their parents in a positive light and indicated having a good relationship with their parents. None mentioned long-term conflicts with their parents. For the majority of the women their adolescent years were not spent in rebellion against their parents, but instead

there appeared to be ongoing communication. The policewoman, for example, preferred to stay at home with her parents watching television to going out with her peers on the weekends and stated, "even my mother used to say to me, why don't you go out with your friends. I'd just say no, I don't want to go out."

Parental support continued with all of the women who had to leave home to further their education. Parents continued to provide financial support, but more importantly, emotional support. However, although parental support appeared to be necessary for the women to cope away from home, responses indicated that peers became extremely important for the women. Many of the friendships formed at this time have continued over the years.

Entrepreneur:

I missed my family a lot. There were no telephones here then at the time so it was just the letters you could write and there was no mail service then. So you know, you got your last letter in December.... Only my father would periodically send me a message, you know. It came on ship to shore, or whatever it was.

Minister:

They knew I was lonely, and I had a lot of letters from my family, brothers and sisters and my mom, who struggled to write her letters but they came regularly. I was allowed to call home every two weeks. Although my mom had no money to pay the phone bill, if I wanted to call every night she took the call collect.

However, not everyone experienced the same homesickness nor does it appear that it was necessarily the women from the most isolated areas of the province who encountered homesickness when away from home.

Business Student:

I absolutely loved it. It was almost like, wow, I'm away from home, away from my parents, I can do whatever I want and sort of like party or something! I was suppose to call home a few weeks after I got in here and it was a month or so afterwards and mom was beginning to wonder where I was, I forgot to call home.

In summary, family was an important factor to be considered in the career development of these women. The majority of the women were supported by both their parents. They were encouraged to be responsible not

only at home but also in the community. The parents understood the importance of school achievement and supported the daughters financially and more importantly, emotionally. It is not to be assumed, however, that the parents discussed actual careers with their daughters. Instead, many parents just expressed the relationship of education to finding successful employment in the world of work. Finally, there appeared to be a lack of rebellion toward the family by the majority of the women during the childhood years. All of the women have maintained contact with their primary families now that they have left home.

SCHOOL

This section will deal with the influence of school personnel, guidance counsellors, extracurricular activities and course selection on the career development of the women in the study. The majority of the women went to schools that did not have guidance counsellors. This section will first discuss the women who attended schools with counsellors, and then the women without counsellors. The section will continue with the involvement of other school personnel in the lives of the women.

Counsellors' Role

Of the thirteen women, only five had counsellors in their schools. From their responses, it appeared that there was not a lot of input from the counsellors in the decision making of the women. The comments indicated that the counsellor was seen more as a dispenser of information, than as a guidance counsellor. For some of the women that information was limited. The engineer, who graduated from high school in 1973 stated that "in general, the counsellors didn't know everything that was available and I think the advice you got from them was very traditional, try nursing, teaching is always popular." Or as the forestry student, who graduated in the 1980's expressed about her school counsellor:

Well, he wasn't really that helpful. He didn't know anything about forestry or about the navy program that I wanted to go into. He helped me to find out about it, I suppose, the navy program. But the forestry program, I never ever knew much about it until I came to university and actually started the program.

The petroleum technology student expressed concern that the counsellor was too busy to help with her career exploration during high school. She had access to a computerized program to help with her career decision making.

However, she was not made aware of the limitations of the program and how it was best utilized:

One thing I was really disappointed with, they have this career program and our guidance counsellor, she picked this computer program, for picking your career in the future. And what she done is you plug it in and you spend about an hour plugging information in and what your courses are like, who you are, how old you are, and what your strong points were in school. And the things that came up for me were clerk accounting, things that were in the office, not high up in position or anything.... I was disappointed because I thought it would come up with something that you could do, like the highest thing you could do with your thing.... I didn't think it matched my abilities at all. She didn't really elaborate on anything really. She just gave me the computer sheet of it and sent me on my way.

Another concern about the limitation of school career education, was in the area of career days. While she felt that career days were beneficial and her interest in oil stemmed "mostly from career days and things and speakers from Mobil Oil" she added that because of limited space for each speaker and

the necessity of signing up to listen to particular speakers, "What ended up happening is one of the girls who wanted to go to, say mechanical autobody, didn't feel like they could go, probably, you know the rough boys went and she didn't feel like going or something. "... it's most discouraging that way."

Other women found it difficult to share their major interests and inner conflicts about particular careers with their counsellors and consequently did not present accurate pictures of themselves. The auto-mechanic, for example, stated "He didn't know that I was going into auto-mechanics. He thought I was just going to do word processing." However, the auto-mechanic related that it was her counsellor who first made clear to her that if she went into the armed forces, which was her initial choice, she could take whatever trade she wished. It appears then, counsellors today are more aware of the importance of considering nontraditional careers for women as opposed to the awareness of counsellors during the 70's. "And he said you can go into a nontraditional trade. You can be a welder, or anything like that. And so I just decided, I guess then, to be a mechanic."

The majority of the women did not have counsellor input into their career decision making, but several did mention teachers who helped increase students' career awareness. The teachers organized trips to larger centres, discussed occupations, administered group aptitude testing, provided calendars

from different institutions and most importantly instilled into the women that they had the abilities to become productive members of the workforce. The most important theme, for all the women who were encouraged by school personnel, is the personal interest these teachers showed toward the women, that went beyond the simple sharing of information to providing a caring positive relationship. Women, in all the different age groups mentioned particular teachers, both male and female, who impacted on their lives.

Minister:

There was this woman, she was a teacher and a super volunteer.... I think she always presented to the children in our school. "You can do what you want to do, the sky is the limit." I always appreciated her leadership and role modelling.

For the policewoman, two teachers had a positive influence on her dream:

...they were brothers and I think I looked up to those two teachers more than almost anyone else because they didn't show any partiality but because they sort of ingrained in you that you can do anything and you can be the best you can be if you put your mind to it.

Another concern addressed by the business student was the need for counsellors and teachers to appreciate that without exposure to the outside world many rural students may not have the developed schemata to comprehend the complexities of the world of work that exists in urban areas. For example, she spoke to one of her teachers and the teacher assumed she knew about different careers. In fact, she could not relate to the teacher's information. The Business Student humorously expressed her concern by relating another of her mistaken beliefs about her environment:

It's like if you're around St. John's, you know what's available, but here you aren't experienced or exposed to the different things then you don't really know what's out there. For instance, in the summer down home there is tons of mosquitoes and when I came up here I thought everything is going to be like down home. When you're not exposed you think when you do somewhere else you think it's going to be the same thing.

Others did not talk to anyone about their career plans and as is stated by the linesperson, education was the important issue and beyond that there were no plans. "And I never talked to anyone about my future or what I could do when I got out of high school. Like you never had time to zone in on what you wanted to do in the future."

Teachers should be cognizant of the impact they may have on the lives of their students, especially since a kind word and a genuine caring may encourage the student to remain in school. The editor had a very negative experience with one of her teachers. That combined with other factors, for example, she had to leave her parents and go to a larger centre to complete her last year of high school, caused her to quit school. She became "really homesick and I had a bit of weird teacher, so I ended up quitting before the end of the year." In retrospect, she feels that ultimately she had to take the responsibility for dropping out of school and added "I didn't hurt her, I hurt myself."

Extracurricular Activities

The results indicated that the majority of the women were involved in the extracurricular activities organized by the school. All of the younger women and the majority of the women in their thirties and forties indicated being involved either with school sports or activities such as student councils or with both. Perhaps the interesting finding here is that the engineer, whose profession is considered to be one of the most nontraditional areas for women, was not involved with extracurricular activities. She stated that she was not interested in team sports and that "Mostly I did a lot of studying."

The forestry student exemplifies the majority of the younger women when she indicated that she "was into everything. I was into basketball, softball, cross country, running, Red Cross, computer club, pretty much everything that was on the go." Within the middle aged group, there was also a great amount of involvement in extracurricular activities, as expressed by the policewoman; "Whatever was on the go I wanted to be involved in it some respect or other."

Course Selection

Women who continued into professional careers that required additional mathematics and science were asked about their high school course selection and whether school programming had impacted on their success during post-secondary training. The majority of the women were unable to acquire the necessary sciences in high school or had by choice decided not to pursue them. It appeared that the majority of these women were very good to excellent students in high school, academically. The results indicated that not acquiring the necessary prerequisite courses in high school was not detrimental to women who pursued higher education. The aquaculture instructor noted that while living in a rural area may have its disadvantages especially academically, "you can pick it up later." A theme that recurred throughout the women's

responses is the love of a challenge and the ability to do it if you have the determination.

One of the women felt that particular sciences were too difficult for her and even when the opportunity was there decided not to pursue it. The petroleum technology student avoided chemistry in high school because she felt it was one of the more difficult courses. She completed it for her present program and admitted that to do it later required a lot of hard work and study but added; "I don't think anyone should turn down from a challenge, that if they're going to go into any career after high school, then I think a science background and a math background would be beneficial.

The business student indicated that she felt she would be unable to study chemistry in university because she had not done it in high school. However, she put in terms of a challenge and thought "...well, chemistry is going to be a challenge for me, I came through and got an A in all my chemistry courses. So I'm glad."

In summary, schools and the services they provided did not always adequately prepare these women for the world of work. Reasons included: limited course selection, the lack of career guidance, and stereotypical attitudes toward women in the workforce. However, teachers who encouraged and

supported independent thinking were mentioned by several of the women as being significant in their career development.

COMMUNITY INFLUENCES

The community at large will be discussed in this section, with particular emphasis on the importance of community involvement for the women, as well as the roles of socio-economics and career awareness on the career development of women.

Leisure and Citizenship Activities

The majority of these women have been involved in a wide variety of leisure and citizenship activities throughout their lives. Involvement for the women has been ongoing and began in childhood. During the teenage years it appeared that for the majority of the women, school and community activities were intertwined and citizenship and leisure roles were extensions of each other.

Aquaculture Instructor:

Coming from a small community, school and the things that go on after school are really what makes up the life of the community. So we were involved in a lot of sports after school, and I was on the student council. Because if you didn't

organize your own dance, then you weren't going to have a dance. So, you know, you have to make your own fun in a small community and you have your own parties.

Minister:

I was involved in the AYPAs, which is a youth group. It was good clean fun. The sports weren't organized, we made our own fun. We played hockey, softball, skating, swimming and we lived outdoors. I was the first student council president of our new school.

The youngest group of women, who were still in training, indicated that although the student role became the dominant role in their lives, the majority still had time to contribute to community efforts as well as leisure activities. For example, the forestry student stated, "We go camping...and I swim a lot. I walk a lot and I'm involved in the Red Cross, and that's a fair amount for university." Or in the auto-mechanic's case: "I have rowing after supper and we're into the Regatta every year. Every year, we're hoping to get better and better."

All of the working women indicated that they were involved with community efforts. The minister verbalized the meaning of the citizenship role in her life:

It gave me the avenue to develop gifts and talents. I saw I had something I liked to do. I could offer it and it wasn't hard work because I enjoyed what I was doing. I just called it my Tom Sawyer theology. Work you enjoy is play.

Many of the women were involved in charitable organizations such as the Red Cross while others were involved with community minded groups such as the Lion's Club or community development organizations. Several of the women indicated an involvement in their professional organizations. The women with children included fund raising for their children's schools as another area of involvement.

The women were also asked about the things they do specifically for leisure. The majority of the women were involved in leisure activities, however, these activities were as diverse as the women themselves. Many reported being involved in active kinds of leisure such as swimming and travelling while others named more sedentary activities such as embroidery. Others were involved in more group oriented types of activities from church work to rowing.

The difficulty of separating leisure and citizenship roles was expressed by the entrepreneur who said "...I cross country ski quite a bit. I am on the Recreation Committee so I consider it leisure time when I run a physical

education program for some of the kids here. So I count that as being leisure time, cause I thoroughly enjoy it, and I look forward to it."

Three of the women spent a period of their lives out of the paid workforce raising their families. During this period they devoted a tremendous amount of time to community activities. The editor was a member of the Labrador Heritage Society, while the entrepreneur was actively involved in the local development association. The painter spent time working with her husband who was a fisherman, doing fundraising for the school, and helping others in the community with bookkeeping tasks. It appeared, in the case of the editor and the entrepreneur, their worker roles were extensions of their citizenship roles.

Socio-Economics of the Community

The women were questioned about their understanding of the socio-economics of the province. Many expressed concern over the plight of the fisheries and the national economy. One recurring response was the need to be prepared for the future job market and to weigh the positives and negatives of entering particular fields. The petroleum technology student suggested that women look at the future job market and stressed that "In the future there's going to be a real need for technologists and engineers and women in science."

Many of these women appreciated the need to develop skills that would allow them flexibility in order to quickly find other suitable employment during times of economic recession. Due to downtime in the company, the engineer had to change her role from engineer to financial analysis. She stated "You have to be flexible because of bad economic times." The women also stated that the economy was reason to have both spouses working to maintain a decent standard of living. Although many of the women indicated that they were aware of the economic situation of the province, and had been encouraged to continue their education to get a better job, the woman whose life is presently most influenced by the socio-economics of the community was the fishplant operator.

She has spent her life involved with the fishery and the change occurring with the fishery have impacted greatly on her life. Her grandfather introduced her to fishing when she was five years old. Before she left high school she had her own twenty foot boat and motor. At that time her grandfather kept a watchful eye on her and if her engine broke down, "he would tow me to a little point where he used to leave me until he went and hauled his own trap and his other gear, and come back and tow me back in with whatever catch I had in between."

This woman failed two or three courses during her last year of high school, and decided to enter the fishery on a full-time basis. She realized the importance of a high school diploma and completed her high school equivalents through night school. However, she has been unable to financially and emotionally afford to leave her home and attend a trade school due to family commitments. The decline in the fisheries has resulted in a lower economic situation for her and an increase in the amount of stress and sense of helplessness.

Well, they says there is no fish, and then they're letting the draggers come and drag away all the inshore fish, and there's not going to be nothing left for us fellows.... So if there's no fish you can't operate a plant, and there is nothing to look forward to. So I'd like to get into something else...I tried to get into Fisheries College. I was accepted but due to some changes in the policy and money, lack of money, I didn't get in. I found out there was two million dollars turned over for the same thing. I mean I was after turning down an apartment in Goose Bay and everything. I had everything moved down, and I just couldn't go any more then.

She reflected on the status of the fishery throughout her interview and at the present time it has taken precedence over the rest of her life. She was more concerned about fulfilling her basic needs than dealing with more higher level needs.

Career Awareness

When asked about the general awareness of different occupations many of the women indicated they were not aware of the occupational choices available to women. A larger majority of working women in their communities were limited to stereotypical female occupations. The business student expressed her amazement at the number of occupations available. She had not been aware of these occupations while in high school; "...then when you come in here, well, there is so many things you can be you can't name them on your fingers anymore." The painter listed the occupations she had been aware of; "secretary work, teaching, anything that women did at the time." To do anything other than traditional women's roles created a problem for two of the women, in particular. The policewoman had seen RCMP officers and aspired to become one but could not because at that time women were not permitted to join. The minister aspired to become a minister but was not permitted by the church to do so.

A majority of the women who entered mathematics and science majors at university were not able to identify with many of the occupations associated with their present areas while in high school. The reason many of the women and their parents talked about pursuing further education rather than a particular career may have been because they were unaware of the many occupations available to women. They assumed that a particular occupation would evolve from the education, which in the case of many of the women was what happened. In the case of the aquaculture instructor, aquaculture was nonexistent in the province during her university years and it was only with exposure to others in the science field did she become aware of the growing interest in the area.

In summary, the women in this study were influenced by their communities in a variety of ways. For some, the socio-economics of the community played a major role in shaping their career decisions. The community provided the stage on which to play many of their life roles including citizen and leisurite. For others, the inaccessibility to different occupational figures within the community made it difficult to consider career options.

ROLE CONFLICT

As can be seen from other sections, a large majority of the women learned to balance a number of roles over their life span. They actively balanced the roles of student, worker, leisurite, child, and citizen. However, the literature suggested many women were deterred from pursuing nontraditional roles because of the conflict between the worker role and the roles of spouse and parent. Therefore, the women in this study were asked about the concerns they had about combining the roles of spouse and parent with a nontraditional career and how they managed to balance their roles.

The responses indicated that each woman, whether married or single, considered the conflict associated with combining the many different roles. The majority of the married women did report problems. The role conflicts encountered have declined over time as the women and their families learned to adjust to the demands of a working mother and spouse. As suggested by the policewoman about her new husband's adjustment with her job, "...he just sort of learned to cope with it, I think, although it was a pretty difficult transition period for him." They did not consider the conflict they experienced to be any different from the conflict experienced by women in more traditional occupational roles. Many of the women said their husbands

supported their career decisions and this support made it possible to continue working.

For many women, the different life roles have taken precedence over other roles at different periods of their lives, while for others there has been a balance over the years. In all cases, it appeared that family support made it easier for the women to fulfil and maintain their career aspirations. However, as is discussed in this section, there were women, who did not have role conflict when their positions were stable, but had problems if there was a need for career change that included leaving home for training.

The worker role was mentioned by several of the women to be important for personal satisfaction and happiness. The worker role began for the majority of the women while they were still in secondary school. At that time they worked; in the fishery, in local stores, babysitting, housecleaning, in offices, and at anything available to them. Their understanding of the importance of work was introduced at an early age. The few women who did not enter paid employment were involved with household responsibilities. The majority of the women indicated that work was a source of accomplishment for them. They enjoyed their work most of the time and consider the intrinsic rewards they receive to be more important than the salary. "For me, it's a

sense of accomplishment. I like what I do, I love it, and it's become very important to me."

The women who are presently in training are not married. This group did not perceive a difference between women working and men working. They did not feel working in nontraditional fields was any different than working in traditionally female jobs. The petroleum technology student expressed her opinion about this:

There's no difference in being in this field and being in another one. The job hours are flexible, the different jobs you can take, they are sort of nine to five or shift work, whatever you prefer. It's much the same as a nurse being on shift work, like so many days off and so many days on...I think there can be a balance between family and your career.

However, one student indicated that although she wished to settle into her career before marriage, there was a time during high school when she seriously considered being married. Some of the pressure to marry appeared to be peer related.

Business Student:

I used to think I'd love to get married and have kids...I thought I would get married young. Down home now that's how it is.

One of my good friends is married and she has five children...For a while, not too long ago, it was hard to make up your mind.

According to these women, in today's society there is an economic need for both spouses to work in order to maintain a decent standard of living. "Well, I figure if my husband is going to work, then I have to work. You need two people working in these days to make any money."

While the students thought about marriage, they did not consider it to be a priority at this time in their lives. Instead, they felt they needed the time to devote to their studies. "I love to have time to study so there is no interference. A boyfriend sort of gets in the way of that...."

All of the women who pursued post secondary education, completed their training before marriage and children. They all considered continuing their education as being of the utmost importance. The minister pursued a degree in education and felt that she had "more to offer than to just look for a boyfriend and get married at some point." Interestingly, the majority considered mothers as being ultimately responsible for the children.

Engineer:

When I finished high school, I only had one goal, that was to attend university. I thought that marriage was something that

should come after...I worked for a year before I married my husband who is also an engineer. The time to do your education is before you get married and have children, certainly. I think that for whatever reason children seem to be the responsibility of the woman. We spend a lot of time with the children but from the day they were born, I felt primarily responsible. When I had to be away, I would say "I have to go such and such a place. Can you watch the children?" whereas he would sort of leave. For whatever reason, whether it's maternal instinct or whatever...you feel you have to be there all the time.

However, the sentiment expressed by the minister about her roles represented the feelings of the majority of the mothers.

I fully believe that when I was home I was no better housekeeper, no better mom, because I was frustrated....I believe in quality time and if I'm with the kids for two hours of quality time that's as good as fifty hours.

Of the four women who completed post-secondary education, two entered the education faculty and were in more traditional roles before pursuing their present occupations. The minister indicated that her present

role as minister was no more demanding then her previous responsibilities. "I don't think it any different then being a mother and a teacher. At that time I had five roles. I was a mother, teacher, and a church worker. I've not been a wife for a while and I get help for those areas that I don't like."

The linesperson reported the conflict associated with her nontraditional job was much greater than that associated with her former traditional job in the company. The new position required her to work longer distances away from home, to cope with discrimination, and be considered a token female by the company. Although she loved the work, her involvement with her job lead to conflicts at home and changed her relationship with her husband.

This job took precedence over my family and it was what I wanted to do. I put everything I had into the job. My husband kept telling me that this role that they had given me had changed me...it was just nobody had done it except the men and I enjoyed that part as well. I enjoyed having the ability to do it as well.

However, although she changed, her husband supported her. If he had not supported her, either she would have had to quit or end the marriage. This was expressed by other women including the editor who said "I had a husband who was fantastic....When I started work, I knew a lot of my friends

would ask their husbands. And I would not ask...if I could get a job, I told him I was getting a job, and he just said, it's about time.

The entrepreneur worked part time while her nine children were growing and needed to find a babysitter. She gave an example of a way in which women have coped with and devised ways to alleviate problems associated with managing their many roles. Out of necessity, she organized a volunteer day care, presently in its 14th year of operation, in order that she might be able to work part-time.

Often problems in a marriage make the decision to reenter the workforce a viable option, as in the case of the painter. She planned to stay with her children until they were grown, but circumstances changed, her marriage dissolved and she had to leave home to find work. It was not an easy decision for her, but her desires for independence were great. "I almost gave up and went back home but I just couldn't because I'd never finish the course that I was into, and I'd probably just get caught in a rut." To deal with the changes, she left her children with her former husband and she has to deal with the conflict of leaving them in his care.

In the case of the plant operator, her role as plant manager was seasonal, and for the months the plant was in operation, the role consumed her and her role as wife and mother became secondary. This lead to frustration

and she discussed her concerns about not seeing her sons regularly. Fortunately, as is seen with the majority of the women, she had a strong support system and her children were cared for by her grandparents. However, family took precedence over career and forced her to put her career plans on hold. She explained she could not go to Fishery College "...right now I got a family and wherever I goes, I got to take the family, so you know, when you got children involved, you just can't go wherever you like. Whereas, if it was a few years back I could probably get into a dormitory...and it would only be me to take care of."

In summary, all of the women have dealt with problems associated with role conflict. All of the younger women and older women who pursued further post-secondary training in nontraditional careers made a conscious decision to delay marriage and children until training was completed. The older women who entered nontraditional careers, after marriage and children, considered the attitudes and support of their spouses to be important in their decision making. The majority of the women considered the worker role to be necessary for life satisfaction and were introduced to work at an early age. They felt that the stress was no greater than for women who must balance traditional careers with family concerns. Finally, marriage and family

commitments determined whether or not one of the women could leave home to pursue career opportunities.

ROLE MODELS

While a few of the women indicated they could not identify role models in their lives, many of the women were influenced over their life span by a number of role models, both male and female. Many of the role models discussed by the women were workers in their communities, teachers, and family members. Therefore, role models are discussed in a separate section that combines the influences of home, school and community. None of the women mentioned the influence of different media, such as television, on their career decision making and no mention was made of noted individuals who have received national or international recognition.

Role Models in the Family

None of the women mentioned their mothers as work role models. However, several of the women indicated that male figures in their families played an important role in their career plans. The fish plant operator's grandfather taught her how to fish and encouraged her involvement with the fisheries. The engineer's uncle was an engineer, who involved her in problem-solving activities as a child and suggested that she go into the

engineering faculty. She had no idea of the role of an engineer and he explained the role to her. The auto-mechanic's father was an auto-mechanic and she stated:

Actually, I always said I wanted to be like my dad because you know, he's pretty independent and he doesn't have his own boss. He is the boss. And he helps me a lot, anything I want to know, he'll say, well there's no sense in going along in life pretending you know something. You got to ask about it if you don't know.

Community Role Models

None of the women felt that any one community worker had a greater influence on their lives, but several, noted people from their communities who either consciously or unconsciously made them aware of different occupational possibilities. Women role models brought the awareness that certain nontraditional fields were open to women. Although the majority of traditionally male occupations are presently open to both males and females, the women in their late thirties and older did not have the same options and rejection on the basis of sex was a reality.

The policewoman was influenced by several community workers including a police officer.

...without him really knowing how much of a role model he was, because at that time, like I said, women weren't accepted into the force. So it was just something that I thought would be nice to do, and I was irritated by the fact that women couldn't do it, but then I just put it on the back burner, I left it there, and never thinking that I would actually, you know, be able to finally realize my dream. So I sort of went about in between looking for something to do, but I was never fully happy or satisfied with whatever I was doing.

Another important role model for her was an older female doctor, who came to her town to work, the first she had ever met. The doctor helped her question male/female roles and to think, "if she can do it, why can't another girl do it."

For another, the encouragement she received from the community helped her gain the confidence to succeed. The editor, on several occasions, contemplated leaving her job as editor but was inspired by the very people she was writing about.

I went to see her (older Labradorian lady) one day and she said, I'm passing the responsibility over to you and I said what responsibility. I didn't need any more responsibility. I had Them Days, that was enough, you know. And she said the responsibility is to make sure that the name, Labrador, never dies.

School Role Models

Another source of role models for women was the school system. In addition to teachers providing encouragement for the girls to continue their education and to be the best they could be, another role for teachers is that of role model. The minister was encouraged into the Ministry by a female high school teacher whom the minister described as being not only an excellent teacher but also a community volunteer and church layreader. Their shared interest in the church and education provided the basis of what may also be considered a mentoring situation. The minister stated "I will always appreciate her leadership and role modelling."

Others indicate how different teachers' personalities impacted on their decision making. The forestry student was encouraged by a Catholic Sister who kept in contact with her throughout high school. She stressed it was not

the sharing of information that she remembers but the sister's approachable manner and the fact that "she really went all out to try to make it interesting for you." The business student expressed similar sentiments about a female teacher from her home town who "did what she wanted to do and that's the way I like to be."

The majority of the women were able to reflect on the influences of role models on their career development. Fathers, and other family members were considered by several of the women to be the role models. For others, either male or female members of the school and the community impacted on their attitudes and determination to enter nontraditional fields. For many, it was the personality of the role model they admired, not the role model's actual career.

SUPPORT GROUPS

This section will discuss the women's need for support, other than family, and their involvement on both a formal and informal level.

For many women the first major reliance on friendship support began when they left home to begin further training. At that time they could no longer depend on parents and family for support to the same degree. Women who remained in their own communities did not develop the same peer support

systems as those who left, especially amongst the younger women. The auto-mechanic, for example, did her training in her home community and stated that at this time she relied heavily on her parents rather than on her friends for support.

Often the support needed by the women was not for academic help. Instead they needed support to help cope with the feelings of loneliness and homesickness. Many of the women said they survived the stress of the first years away from home by turning to peers who often were experiencing the same feelings. Many of the friendships formed during this period remained important throughout the women's lives and they maintained contact. As one of the women remembered, "I was fine as long as I had friends around, but if I found myself alone then I was still very much afraid of the crowds." Another stated that she and her friends supported each other and they were "basically the ones who got me through, you know, being away from home and everything and being lonely."

Providing training for women, as a group, may be important for particular groups of women. The painter's course in painting and plastering was with an all female group. They offered support to one another during training. In addition, "We all keep in touch and if one found work somewhere, then we went to them and we helped each other out that way."

The need to support other women entering nontraditional fields of study was suggested by the petroleum technology student. She stated that she helped organize a formal support group to help new female students enrolled in nontraditional programming at her institution. The purpose of the group was to help students deal with any problem encountered during training and to help the women identify with other women involved in nontraditional programs.

None of the women indicated the use of mentoring or the influence of role models at their place of work. The workplaces did not have organized women's support groups and the women did not suggest there was a need for them. However, the women differed in their opinions of the value of organized groups for women in nontraditional occupations. For example, the aquaculture instructor indicated that she was very involved in the local Women in Science and Engineering (WISE) organization. She stated that there was a need to encourage girls to enter nontraditional fields. Her comments reflected the opinions of several of the women concerning women supporting women when she said:

I don't think women always support each other....If anybody is probably supportive, it's probably the men who are in the industry with you....Women have got to work more with each other to say, yes, what you're doing is okay, and it's alright.

The linesperson also expressed concerns about the support offered by other women on the job site. She felt that many women in the workplace will only support you "If you are not a threat to them....They'll do everything in their power, and it's been that way over the past, over my past 25 years anyway."

Another expressed concern was that women are doing themselves an injustice by segregating themselves into women's groups. The engineer felt that "sometimes the strongest advocates of women's liberation do the most damage to women by making people think we are so different when we are not when it comes to working." She has never worked with another woman engineer but stated that in her opinion "men seem to have a more easy going attitude. Women worry more, they analyze things more, but too many women can analyze things to death."

The women differed in their views concerning the support offered to women by other women and how effective formal women's groups may be in helping women with concerns about their nontraditional occupations. The negative comments about support from other women came from women working in the field, whereas many of the women in training have not had this experience. There may be a difference between the support offered during training and the type of support needed in the workplace. Although several of

the women indicated problems working with other women, they also indicated a need for female friends.

The results indicated that attitudes concerning women as support in the workplace and women as friends in other role context appeared to conflict. The linesperson, felt strongly that women did not support each other in the workplace. However, she indicated that she had a close female friend who tended to place her "so high on a pedestal there's just no way I'm ever going to get down." Like several of the women, she indicated that her friends come from a variety of backgrounds and she tended to keep her co-workers separate from other roles. Still unclear from this research is the degree of women's dependence on women outside their place of work to discuss work related problems and to receive support.

The need for support from others was a significant factor for all of the women interviewed. Support may be very informal and consist of discussing concerns about work and job related issues with a friend. On the other hand, support may mean formal organizations designed to assist women integrate successfully into the world of work.

GENDER BIAS

Gender bias may occur throughout different life stages and often begins during the socialization process in childhood. Society has stereotypical attitudes toward both females and males which has repercussions for female career development. Many young women lower their career aspirations, as a result. Women who aspire to nontraditional occupation may encounter sexual discrimination or a form of gender bias during training or in the workplace. The women encountered a wide range of gender related problems in their nontraditional work role. The bias comprised many factors including the woman's perception of appropriate career choices for women, community attitudes, instructor and student bias, employer attitudes, and sexual discrimination on the job. This section will discuss the women's perceptions of gender bias and their experiences related to the issue.

Community Attitudes

The majority of the women did not indicate problems rising from the community; however, it was raised as an issue by the plant operator. It appears that during good economic times a community may be divided in their attitude towards women working in male dominated roles. During poorer economic times when employment is scarce, attitudes may change with more

people feeling that it is the man's responsibility to support his family. A woman working at what is considered a male job is seen as taking a job away from the male breadwinner. The community may believe the woman should be home with her children and in the plant operator's case, she has been told to "give up the job I got, let somebody else do it. Let the men take it." She added, "I've had people poke fun at me because I went in the fishing boat...That's not the place for a girl. You should be in the house doing house work...."

Training Biases

All of the women whose training was with predominately male students indicated the male students adjusted very quickly to females in the classroom and over the course of study saw women as equal. The engineer noted that the male students became like big brothers but at first she sensed they "may sort of think, I wonder what's she going to be like, I mean, is she going to be able to do it." The petroleum technology student indicated that she had problems with one of her male colleagues. She solved the problem by speaking to him about his behavior when outside the classroom. The male student did not repeat the behavior.

Many found their instructors to be very helpful. For example, the auto-mechanic's instructors came to her and said "if you got any problems or anything with the guys, just come and see us, but I never had any problems. They treated me like one of the guys." The actions of the instructors often made it easier to become a group member, however, there was a chance of encountering positive discrimination as instructors attempted to accommodate the female student.

The forestry student felt that a couple of her professors discriminated against her by doing things "like making some kind of a sexist comment." Many of the women indicated that they worked hard to ensure they achieved as well as anyone in the class. Often what they reacted to were their perceptions of the situation, rather than actual comments. This suggests that in addition to the actual biases encountered, women may have to deal with their own reactions to being the only female, or one of a minority in the classroom.

For those who experienced difficulties in training, perhaps their own determination and commitment was the driving force that determined whether or not they continued with the training. The minister trained to become a minister in England, where women were still not accepted as priest. She used this experience as a time to "reflect on what it would mean to other folk too, to do something nontraditional. I didn't have difficulty working it through

because I had strong convictions that what I was doing was right." She also drew on her past experiences as a teacher to help cope with the discrimination and stated "I had a career in teaching and women in Newfoundland in teaching have stuck their ground for a long time."

On the other hand, the painter attended an all-female course sponsored by the Women's Advisory Council. She felt that the all-female group made it possible for her to accomplish the course. She stated "I think it would have been difficult if there were some guys around because when we first started we had to get strength and all this and the guys already would have had that which would probably would have been very discouraging for us." However, a concern addressed by the painter about all-women classes was the emphasis placed on the types of sexual discrimination the women would encounter in the real world. She felt women were often discouraged from attempting nontraditional occupations by the very information that was meant to help them.

Another concern for women entering nontraditional trades, was the design of the facility itself. Many of the older buildings were not designed to accommodate females and women often need to walk to the other end of the building to use female restrooms. The petroleum technology student stated

that for many of the women in her institution, this was an issue but that it didn't bother her.

Employer and Employee Discrimination

Another source of discrimination occurred in the actual workplace, either from the employer, the employees, or both. Potential employers often believed women were unable to perform the necessary task and refused to hire them, or hired a woman as a token employee. On the other hand, many employers agreed with work equity and hired women. Fellow employees may discriminate, thus creating a stressful working atmosphere for the women.

The painter experienced employer discrimination after completing her painter course. She stated:

Another girl and I just went to every contractor and knocked on their door, and we got turned down and turned down and turned down, and we wouldn't give up. So eventually a contractor from St. John's hired us, and we didn't have any problems afterwards...the guys didn't seem to have problems trying to find work painting and there was lots of it in Goose Bay, but I guess they were a bit sceptical, figured we couldn't hold up to it

is what we found out afterwards. We did have a couple that just laughed at us. I'd never work for them right now."

The policewoman and the minister both entered professions where entry to women became available only in the last twenty years. Their employers realized the importance of including women in their ranks. However, this does not mean that other employees readily accept the changing policies. These women felt that time will be a great equalizer, and as more women are trained alongside men, fears and stereotypical view may dissipate. The policewoman experienced many frustrating experiences over the years. She believed "the prejudices came from people who were from the old school. You don't find it with the people that you trained with or the people that you are working with on a daily basis." As well, male officers may need to see a female officer in action before they can make the decision to depend on that person to back them up in an emergency.

The minister, also expressed the view that the amount of discrimination felt by female ministers differed depending on the dioceses in which they work. She worked with a younger group of ministers and had not found any major discrimination but added "Other dioceses are not the same, unfortunately. There are older clergy and it is common to enter 'the old boy's club.'"

Employees may try to discredit the female employee by making references to what types of behaviors they feel are appropriate for a woman. Like the community attitudes toward the plant operator, some fellow employees may snicker and make comments like "you should be home making beds." However, others may be very courteous and polite. The women managed to deal with the discrimination by realizing the differences between workers and being prepared for the problems. The painter stated: "you'll get that everywhere you go. There's always one person like that."

In addition to remarks, employees may try to discredit or discourage the female by not valuing her opinion or by not including her in on discussions concerning work related problems; in effect viewing her as a nonperson. This may be quite stressful for the women and as the linesperson pointed out, one that needed to be addressed in order for her to accomplish her work properly. The linesperson went to a manager of one of her clients and told him his people were not cooperating and she could not get her work done. As the policewoman found in her role, so did the linesperson, "After a while they got to realize that I could do the jobs, and they would come and ask me questions and we finally got to work together, but it used to be hot and cold for awhile."

For many clients, this may be the first time they have had to work with a woman. They may feel hostility towards the arrangement and demand a man

for the job. The engineer experienced this and explained "I think very reluctantly he accepted me." The women gained approval by applying their professional talents and through hard work.

For the linesperson's, discrimination continued from different levels. Although she gained the respect of co-workers in the field she was constantly overlooked for promotions and could not get a transfer to be closer to her home. Consequently, she resigned her outdoor job. She was transferred to an office job which she enjoyed but did not find it as stimulating or exciting as her years on the road.

In summary, throughout all the discrimination, the reoccurring theme for the women was taking the time to deal with problems when they arose and finding creative ways to overcome the problems. The linesperson, for example, shared how she dealt with the problem of drawing attention to herself in the field. She wore a yellow hard hat as opposed to her white hat which indicated management. This allowed her to work more freely in the field and not distract males who reacted to the appearance of the supervisory white hat in a different manner than the yellow. She wore her white hat when supervisors came to inspect her work or to discuss plans with her. The majority of the women indicated the need for a good sense of humor and the

need to work hard to prove their capabilities and skills to fellow employees as well as employers and others in the community.

SELF-CONCEPT

Although this study did not formally test the self-concept levels of the women, several characteristics common to the majority of the women surfaced. These characteristics were useful to the researcher to develop insight into the self-concept of the women. The majority of the women experienced feelings of doubt concerning their abilities. They believed their confidence towards their jobs increased over time as they acquired skills while on the job. The development of the self-concept was influenced by parents, education, the community, and for the married women, their spouses. All of the women indicated the need for support from their parents initially, and from their spouses as they continued to grow and develop in their career path. This section will discuss the women's perceptions of their own abilities, their aspirations and how they have been influenced by home, school and the community at large. In addition, several characteristics common to the women will be discussed.

Aspirations

The majority of the women felt they were working towards a goal and their current occupations were considered stepping stones to the next stage of career development. They did not see themselves stagnating in their present occupations but were willing to consider other options. The majority of the women indicated they had career plans for the future that, for several, were promotions within their present careers. Others indicated their aspirations for the future differed from their current occupations. The majority of the women aspired to nontraditional careers in high school, and the majority have worked in other occupations, including traditional female occupations before having employed or trained in their present careers.

While several of the older women aspired to nontraditional occupations while in high school, their paths were blocked by the societal attitudes of the times. This is apparent with both the policewoman and the minister. They both entered traditional careers, but never lost sight of their ambitions. Being unable to enter the RCMP created a void that no other profession was able to fill and she said, "I sort of went about in between looking for something else to do, but I was never fully happy or satisfied with whatever I was doing." The aspirations of others of that generation had to be within the confines of what was acceptable for women to do in order to be realistic. Two other

professionals wanted to continue into science and mathematics in university, but were unsure of the actual occupations they would pursue. In addition, for many of the older women, marriage became the primary occupation and they did not hesitate to retire from the workforce once their families were started.

While many of the older women worked within a much smaller number of occupational choices, the younger women appeared to be aware of the wider range of occupations. Many had not internalized the concept that the nontraditional occupations were within their own personal reach. For example, several of the younger women indicated they had felt limited to traditional female occupations during high school and had not considered entering traditional male occupations. The business student stated that even if she had read about women in traditionally male roles she would still have felt it was a man's job and would not have been influenced by it. The auto-mechanic, on the other hand, considered a nontraditional course of study and was accepted into the auto-mechanics course directly after high school. She changed to word processing because she thought, "well, I don't think I should maybe, it's too hard on me where I'm so small." This suggested that the rejection of a nontraditional career may occur during any number of developmental stages. Socialization may create such diverse roles for men and women that the women do not even consider a nontraditional role. For others,

the desire may be there but the self-doubts persist, leading to changes in career choice to accommodate the self-concept.

One of the reasons which surfaced as a cause of lowered aspirations was the community in which the women grew up. The painter indicated that she thought about many different occupations. An aptitude test completed during high school indicated she shared interests with RCMP members but all she felt about this option was that it was "fantastic." She would have liked to try different options but "because I was in an isolated community I thought that I couldn't."

The community played a role in the development of the editor's self-concept and she stated quite clearly that a low self-efficacy in one area may not necessarily mean having a lower self-efficacy in all areas.

I think when you grow up in a community like Cartwright where it's always the teachers and the doctors and the store managers and that who have all the say about everything. You grow up feeling that you're not as bright, you're down a level or so. I always felt inferior, but when I was on my salmon net or working with the fish, I was equal to anyone. And I guess I still feel inferior at times, and there are times when people make

me feel that way, and times I think I feel that way because I think they make me feel that way.

Often pressure from peers encourage women to hide their natural abilities and talents in order to become accepted socially. The business student discussed how she hid her marks away and did not want anyone including her family to know how she was doing in school. She explained why:

I sort of felt they would treat you different. Like you weren't really in with everybody else. I seemed to be always in the books. If they were going out they would sort of hesitate to call you up because they thought that if I'm studying I don't want to be interrupted.

However, school personnel, in accordance with the changing times, have changed the career information offered to young women. The engineer's experiences with the counsellor in the early seventies was very limiting. At that time, the "advice you got from them was very traditional, you know, try nursing, teaching is always popular." The women in the youngest group were introduced to a wider range of occupational choices and information was more readily available to them. The problem with the information offered by the schools was it did not include the career counselling. Career counselling is necessary to help the women fully appreciate the options available to them and

to help deal with concerns which are foremost in the students' minds, including areas such as role conflict and gender bias.

The women who entered nontraditional careers, considered their chosen area to be suitable for women and did not hesitate to recommend the job to other women. This does not imply, however, the women considered all career areas suitable for women. Women, like men, do not necessarily generalize acceptance of one nontraditional area to another. The linesperson worked outside and was a pioneer in her field. She felt her position was quite appropriate but added "Construction work, I think, is totally male. I don't think it's any place for a woman because, she likes to keep her femininity...and I think that robs her of it."

All of the women were determined to get ahead and to succeed at the work they do. This trait occurred throughout the different stages of their lives. All were goal oriented and yet, capable of being flexible when necessary. The painter said, "I have this goal I want to reach, and it may take me five or ten years to do that, but I will do it." The majority were aware of the need to be able to transfer their skills and several indicated the need for extra training to be prepared for changes in the workforce.

Another trait that the majority of the women were proud to possess was independence. Many quoted examples of their "stubbornness" or in a more

positive frame, their "independence." The auto-mechanic explained; "I want to do it first and try....If something is too heavy or you need strength, you know, you just get a longer bar and you pry on it until it comes off. Come or bust, they say." This desire for independence often necessitated being at odds with peers who were more willing to accept things as they were. The policewoman felt her desire for independence caused her not to have close friends when she was growing up. "They were always satisfied with the way things were. But I wasn't satisfied, I wanted more and I didn't know what it was for a long time..."

Independence and the willingness to attempt anything were rewarded. The editor, a former fisherperson, expressed her feelings of accomplishments with solving the problem of dealing with worms in the fish she had to clean. "I got one on my hand, and boy, I'm telling you it took every bit of willpower I had to keep from fainting. And I got through the day, and I went home that evening, I said to mom I got to have something to wear on my hands....So she got me some cotton gloves and sewed the backs in so that they wouldn't keep sliding off, and I used gloves the whole summer."

All the women indicated a very strong work ethic and the importance of giving one hundred percent to the job. The majority stated they loved their work and would not want to change it. Many suggested they would consider

another type of work if the satisfaction they now feel were to disappear. Money was often considered a secondary issue, and several indicated they would continue the work regardless of the pay. The problems that occurred were associated, not with the actual work, but with extenuating circumstances. The plant operator felt the stress associated with not knowing how long the job will continue; the linesperson was distressed by sexual discrimination.

Another trait shared with the majority of the women was the love of a challenge. Many of the women indicated the importance of challenge in their lives and the need to prove they can do anything they put their minds to. The policewoman said "it seems the harder people think it is, the more I want to prove that it can be done. And it doesn't seem to matter what it is, I think I can do anything and I've always felt that way." Overcoming roadblocks and achieving provided intrinsic motivation for the majority of the women. The business student explained that for her "The more risky it is, the more interesting it seems to me." And the petroleum technology student claims in the same vein: "I was always an optimistic person, I've never turned back on anything. I never turn nothing down. I always take a challenge, I've never backed down from anyone or anything in my life, and I'm not going to now."

However, not all of the women felt the confidence they have on the job was there from the beginning. There were many self doubts about abilities. Their confidence was acquired through experience. The women who continued with university education all indicated they were confident about their academic abilities and felt their high grades were the result of being willing to study diligently. The aquaculture instructor reflected "Science, math, I got to work at, but I still got good marks. If you worked at a subject, you did good." However, the engineer pointed out the transition from training to the world of work may be stressful and the training may not always prepare you for the real world. At the beginning of her first engineering position she did not ask for help and was somewhat naive about what the job entailed because she felt she was supposed to know everything. She added:

Eventually as time goes on it becomes clear that what you are feeling other people in the same circumstances would feel as well...and one of the things we really learn with experience is where you go to get the information. I think the things you have to have to get use to is you don't have to invent everything. You learn to go easy on yourself and to not expect so much of yourself and not to think other people can do it better.

Most of the women were involved in the community in some way. The linesperson used her creativity to design a slogan for the drug campaign her organization was involved with. Others donated time to different charities and organizations. The majority of the women believed in sharing their talents with others and understood the importance of good citizenship. This sense of responsibility was established for many of the women during childhood by their parents who stressed the importance of giving back to the community. The plant operator appreciated the difficulty of many of the fishermen in getting their unemployment stamps, so she called on one who needed the work to "come and do a hour's splitting, and he'll get his hours pay and sometimes two."

SUMMARY

This chapter presented the research findings obtained from subject responses to semi-structured interviews. The findings, which were not to be considered statistically significant, were intended to present the actual experiences of women who have chosen to pursue a nontraditional field. The factors the women considered important to their career development were addressed. The transcripts of the women were analyzed to chose quotes from

the interviews that facilitated the presentation of factors and to reflect the voice of the women.

In conclusion, the majority of these women shared many of the same general characteristics, while living distinctively different personal lives. Most shared the bond of enjoying their work and the satisfaction associated with it and view their worker role as an important component in the development of life span issues. Through a combination of the many roles, the women developed the ability to become self-reliant. Finally, each of the women, and the roles they developed were influenced by both personal and environmental factors. Their adult lives reflected the influence of these factors from their rural past.

Chapter V will summarize the findings. Educational and research recommendations will be suggested.

CHAPTER V

SUMMARY, EDUCATIONAL AND RESEARCH RECOMMENDATIONS

OVERVIEW OF THE CHAPTER

The intent of this chapter is to relate the findings discussed in Chapter IV with the different theories of career development and review of the literature outlined and explored in Chapter II. In addition, this chapter discusses recommendations for education and further research.

SUMMARY OF THE STUDY

The purpose of this study was to determine the factors that were salient in the career development of a select group of women from different regions of the province of Newfoundland and Labrador. The women were either studying in a nontraditional area or were working in a nontraditional career. The intent was to investigate the different factors that emerged from the semi-structured interviews. It was not intended that the findings be considered significant findings. Specifically, the factors discussed by the literature were addressed in the interview. The factors included the situational and personal determinants outlined by Super's model. In addition, the influence of factors specific to the career development of women but not necessarily men, such as gender bias and role conflict, discussed by the theory of Farmer (1985) and that of Betz and Fitzgerald (1987) were addressed.

The design of the study involved identifying thirteen women who represented not only different nontraditional occupations but also different stages of the life span. The group included four women in nontraditional areas of training at post-secondary institutions, four working in professional nontraditional careers, one working in a skilled trade occupation, and four working in occupations, which did not require post-secondary training.

Potential subjects were interviewed by telephone to determine their eligibility for the sample. Women raised in St. John's and Corner Brook were excluded from the study in order to concentrate on the factors salient in the career development of women from more rural areas. Subjects were interviewed using a semi-structured interview guide. Each session was video-taped and later transcribed for further analysis. The researcher read the transcripts carefully to identify the factors discussed by each of the participants. A data bank was developed in which each of the factors was organized to contain the reflections and perceptions of each woman relative to each factor. Each of the factors discussed was analyzed to identify similarities and differences among the responses. Only a representative sample of each factor was presented in the final data analysis. This was to allow individual women to present their unique voice while eliminating redundancies.

Overall, it appeared the women were influenced by the factors established in the literature. The factors discussed were prominent at different life stages with the women growing from the culmination of experiences that occurred throughout their life time. In this section, the perceptions of the women and their career development will be compared to existing theories of career development as discussed in Chapter II.

The career development of women is a continual process that is intertwined with the many life experiences to which they must and do attend and as Super (1980) contends:

The decision points of a life career reflect encounters with a variety of personal and situational determinants. The former consist of the genetic constitution of the individual modified by his or her experience (the environment and its situational determinants) in the womb, the home, and the community. The latter are the geographic, historic, and economic conditions in which the individual functions from infancy through adulthood and old age. (p. 80)

This study is not intended to be generalized to the population at large. However, for these women the personal and situational determinants influenced their life role decisions. Therefore this chapter will first highlight

the situational or environmental determinants that have helped mould the career development of the women. Secondly, the personal determinants will be discussed, followed by a discussion of the factors suggested by Betz and Fitzgerald as unique to women, including gender bias and role conflict.

SITUATIONAL OR ENVIRONMENTAL DETERMINANTS

Family

A dominant environmental determiner, identified by this group of women was the role of family on career development and life role decisions. This was supported by the literature. Kelly (1989) found that the female's perceived support from parents was the strongest predictor of future occupational plans. Taylor and Pope (1986) found that fathers first and then mothers were most frequently listed by Newfoundland high school students as offering the most encouragement to do well in school. Sharpe and Spain (1991) also concluded that parents were listed by Newfoundland students as being the most influential of all support in choosing a career. For the majority of the women, parents and family members encouraged and motivated them to succeed while they were still in elementary and secondary school. The women felt it was necessary to have parental support.

Parents helped mould their daughters' character, and provided the values and attitudes not only to succeed in the world of work, but to succeed in roles normally considered more suitable for men. Many of the personality traits which helped the women cope with the stress associated with their student and worker roles stemmed back to the family. For many of the women there was a need to participate in leisure and citizenship roles. They attributed their desires to return their talents to the community as the result of parental attitudes and behaviors that encouraged community minded activities.

The majority of the women communicated well with their families. Both mothers and fathers encouraged their daughters to pursue their education. The fathers valued their daughters' individuality and many of the women indicated an open communication with their fathers who maintained an interest in their daughters' lives. Parents provided the necessary feedback that helped develop the women's sense of identity and increased their self-esteem about their abilities to achieve within the context of the rural community.

For the women who had to leave home to pursue either, their education or their jobs, family continued to play an important role. In addition, friendships formed at this time have remained important to the women. The women who succeed away from home had the ability to develop support systems to help deal with homesickness and problems encountered in the new

environment. All of the women interviewed appeared social by nature and as children and young adults they turned to their families for support and advice. They needed people in their lives and therefore when they left home they developed new support groups to provide friendship and moral support.

Family, friends and significant others must learn to express to the female their affirmation of support, since it is apparent that many women need verbal approval in order to feel supported. Dillman (1989) concluded that the lack of encouragement from parents may cause many women to "struggle with issues such as self-esteem, guilt, and negative feelings toward their parents that will need to be 'worked through' and that may make their quest for independence more painful" (p. 419).

Formal and Informal Support Groups

Farmer (1985) suggested that support for working women was an added factor to be included under environmental influences. She contended that "the fact that both aspiration and mastery were influenced by environment conditions, including perceived support for women working and parent and teacher support, suggests that changes in these might well effect changes in achievement for women and men in the future" (p. 386).

The women differed from one another in their beliefs about formal and informal support systems. This may be for reasons similar to the findings of Gaskill (1991) who found that women identified support groups as being least important to their career development, but suggested that this may be because the women in the study were successful and did not credit others with their success.

The women who were active in formal support groups believed the group provided the positive reinforcement necessary to continue in the nontraditional occupations. On the other hand, many of the women felt their informal supports were adequate and suggested that formal groups that segregated men and women may create a rift between male and female workers. However, what is noted by all the women is the need for positive support from others within their immediate families and from the community at large. With increasing support from the community, women will need to devote less of their energies to acceptance of their particular talents in nontraditional occupations and more energies to improving the workplace for both sexes.

School

School was identified by Super (1970) and Farmer (1985) as another important situational determinant in the development of the worker role. With the women in this study, school had varying effects from being very positive to very negative. Consequently, one of the women attributed school as the deciding factor in dropping out of school, even though she had received a scholarship for academic achievement. However, other women spoke fondly of teachers who instilled in their students the need to believe in themselves and to consider obstacles they would meet as challenges to be overcome. Kelly (1989) and Parsons (1989) both stated that counsellors and teachers should give unbiased accurate information to young women because the women valued advice from their teachers.

Other women who pursued further education in science and technology, were unable to acquire the necessary prerequisites in high school, but this was not a deterrent to success at the post-secondary level. Mastery of mathematics and sciences at the post-secondary level by women who did not have prior experience in these areas may be because "female motivation is influenced over a longer period of time by parents, compared with that of young men, and this influence is mediated by personal characteristics, especially an

expressive and an independent (i.e., androgynous) self-concept (Farmer, 1985, p. 385).

Many of the women were not exposed to guidance counsellors and only had a general understanding of what to pursue at the post-secondary level. The older women who had access to counsellors reported that they were channelled into traditional areas. However, the younger women were given more information about nontraditional careers but did not credit their counsellors with being influential in their decision making. This was supported by Lunneborg (1982) who found that counsellors were not instrumental in the career decisions of young women. Counsellors need to be aware that career information alone may not encourage women to enter nontraditional areas. The counsellor must have an awareness of the situational and personal factors that influence the women's career decision and that "the mediating effect of parent and teacher support on personal variables suggests that changing socialization experiences at home and in school will affect a person's career commitment during the school years" (Farmer, p. 385).

Community and Economic Environment

As suggested by Super (1970), the majority of women have been and continue to be influenced by the community and the economic environment in

which they live. For the younger women, family members often encouraged them to become educated so that they would have greater options during difficult economic times. One woman stated that her father did not want her to stay in rural Newfoundland as a fisherman's wife even though both he and his wife were fisherpersons. They wanted more for their daughter.

One woman was forced to pursue a nontraditional career as a result of a marriage break up which required her to become self-sufficient. Her entry into nontraditional work occurred because she needed a course of study and the only course open to her was a nontraditional course sponsored by the Status of Women. This appeared to support the suggestion made by Gottfredson (1981) and investigated by Farmer who verified Gottfredson's finding that "the powerful influence of sex role occupational stereotypes might be undercut for women who perceive the economy and related occupational access as equitable" (Farmer, 1985, p. 386). In addition, it may support the suggestion by Farmer that "aspiration level continues to be influenced positively by the environmental support system and is not necessarily a fixed or stable motivational level in the individual" (p. 374). In addition, one of the women mentioned that she had obtained qualifications in another field in order to be prepared for possible lay off in the future.

Role Models

The women were aided by role models who encouraged their nontraditional choices. Often the role model was a female teacher, a parent, especially fathers, as well as friends and relatives in the field. The importance of encouragement from role models may support Betz and Fitzgerald's (1987) hypothesized relationship between the independent variables of role model influences and perceived encouragement. For example, the engineer in the group was encouraged by her engineer uncle. None of the women mentioned role models seen on television or other media, however, this may be an option for women in rural Newfoundland because as Post Kammer (1985) stated there are limited opportunities to observe women in nontraditional occupations in smaller communities.

However, as found by Savenye (1990), females may change their attitudes toward some nontraditional areas, but may not generalize this to other areas. Although the women suggested that other women, like themselves, were capable of pursuing nontraditional fields, it should be noted that the linesperson felt construction work was too masculine for a women. Perhaps women in nontraditional occupations are not necessarily liberated in attitudes toward all nontraditional areas.

PERSONAL DETERMINANTS

Personality Traits

The women had personal qualities such as determination, risk taking, and independence which contributed to their success. For most of the women their attitude toward achieving goals was a deciding factor in their success and they were able to generalize their ability to succeed in one area to their ability to succeed in other unknown areas. For example, success and positive reinforcement in high school made it possible to attempt courses for which they had not obtained necessary prerequisites. This appears to support Farmer's suggestion that "career was influenced approximately three times as much by personal factors as by background and environment factors combined" (Farmer, 1985, p. 385).

Lack of high school courses and career education, did not inhibit these women, who appeared to see obstacles as challenges. If background and environmental factors were the greatest influences, many of these women might never have entered a nontraditional occupation.

The women developed the characteristics of independence and responsibility at an early age and one can not exclude the importance of family and significant others in the development of these traits. Their contributions to

the community and understanding of good citizenship may also be related to their strong sense of responsibility.

Self-Concept

Super's theory stresses the importance of the self-concept on life role decisions. As stated by Betz and Fitzgerald (1987) "In comparison to males, females generally seem to report less confidence in their academic and career related capabilities and since beliefs are related to achievement behavior, females' lower self-concepts probably serve as a serious barrier to their educational and career achievement" (p. 119). Choices and adjustment must be seen as a continuous process and this process of vocational development is essentially that of developing and implementing a self-concept. How much one can sacrifice for the self-concept must be recognized. Thus, in times of sexual discrimination or role conflict the self-concept will be the product of compromise. Perhaps, in the case of the linesperson, the toll on the self-concept resulted in a change of the career path in order to accommodate the self-concept. Farmer (1985) stated that "the dominant influence of self-concept factors on career motivation throughout life suggests the need to establish more fully early influences related to its variable importance for different individuals" (p. 386).

The women who achieved professional careers appeared to have high academic self-concepts and reported being successful with mathematics and science. However, even with successful academic achievement, the engineer in the study reported feeling inadequate on the job. Her confidence in herself lessened for awhile until she learned to appreciate her own talents and to accept that all people, male and female, ask for help. Therefore, there may be transitional difficulties to be addressed.

ROLES AND ROLE CONFLICT

Life Roles

The life roles the women are involved with are important to consider because as is suggested by Super (1984, cited in Herr and Cramer, 1988) there is a relationship between the nonoccupational roles that the child and young adult occupied and later performances. "Success in one facilitated success in others, and difficulties in one role are likely to lead to difficulties in another" (p. 140). According to Super "The nonoccupational positions occupied before the adult career begins influence the adult positions which may be occupied and the way in which their role expectations are met" (Super, 1980, cited in Herr and Cramer, 1988, p. 140).

One of the most common elements running through the lives of the women interviewed was their continual involvement in many different life roles. The majority of the women indicated that the leisure and citizenship roles were very important as young adults and continued to be throughout all stages of the life span. As students, involvement in sports, the student council, and other extracurricular activities was an important component of their lives. Support for involvement in extra-curricular activities and positive feedback of these involvements being encouraged was provided by Ethington (1988) who found that women's entry into "male dominated science occupations is directly influenced by their participation in leadership activities and their subsequent attainment of a graduate degree and indirectly influenced by their undergraduate academic achievement' (p. 560).

Previous work experience is an important factor in the career decision process of women (Betz and Fitzgerald, 1987). The majority indicated working at part-time jobs during high school or being responsible for baby sitting younger members of the family. The women indicated being responsible for household chores as children and they all learned the importance of responsibility at an early age. Thus, they learned, while still young adults, the importance of juggling many roles at the one time. They continued to provide avenues for interests and talents by activity pursuing roles

outside the worker role. The women saw their many roles as necessary for life satisfaction and personal growth and as suggested by Super, success in one role facilitated success in other roles.

Elfenbaum (1991) suggested that involvement in additional roles lead not to more stress but to greater gratification. The women in this study appreciated the importance of work and believed that working provided satisfaction and purpose in their lives. Several of the women admitted that if their jobs lost the lustre and became a burden, they would willingly leave and find other occupations. They have learned to identify conflict in their lives and were not afraid to make decisions that requires change. The majority of the women had long term goals and were prepared for the changes that would occur at different stages of the life span. However, these goals were influenced by the economic climate. For the plant operator, her long-term goals were frustrated by lack of money and lack of training close to home.

Role Conflict

The literature suggested that many women do not pursue nontraditional fields because of role conflict, especially the conflict between career and the role of spouse and mother (DiBenedetto & Tittle, 1990 and Spade & Reese,

1991). The women experienced varying degrees of conflict between the worker role and that of spouse and mother. However, they cited examples of ways they and their families had adjusted to the stress created by working. It appeared that with time, conflicts decreased or become easier to contend with. At periods in their lives certain roles took precedence over the worker role and the importance of individual roles continued to change. This is suggested by Super (1980) and supported by Farmer (1986) who stated that "career motivation is probably set fairly early in life, but varies over the life span of an individual with the salience of the career role compared with other life roles" (p. 386).

The women who entered post-secondary institutions considered the importance of future spouses and children in their plans. The decision to delay marriage and or children was a conscious decision. On the other hand, the majority of the women who married and had children, and took leave from the worker role, considered the effects of returning to work on their families. It appears that the women supported Fassinger's (1985) study which researched Betz and Fitzgerald's theory when she suggested women who choose nontraditional career choices were not only career oriented but were also strongly family oriented. Farmer (1985) also found that role conflict influenced career decision making but suggested that the changing environment

will continue to impact on decision making such that the influence of role conflict may be a decreasing determiner.

Interestingly, the majority of the women in this study implied as did the women in a study by Baber and Monaghan (1988), that they are ultimately responsible for their children. Husbands contributed to household chores, but the women felt that they had a maternal instinct which created a bond with their children that fathers do not have. This resulted in women feeling primarily responsible for the children. According to the majority of these women it is possible to establish a successful career in a nontraditional occupation and still balance the responsibility of motherhood. The ability of the women and their spouses to cope with the role conflict and develop coping strategies helped determine life satisfaction for both partners.

Although the worker role is important for monetary reasons, these women appreciated the importance of work for personal satisfaction. It appeared as though each role complimented the other, thereby allowing the women to find personal satisfaction and a satisfactory lifestyle that is acceptable to their self-concept. The roles contained meaningfulness and connectiveness. The career development of women is not a linear process but is intertwined with the many roles. Each role and stage of development influences the next step in the process.

Gender Bias

Another factor that influenced the worker role of women more than that of men's was the effect of gender bias. Support for women in nontraditional roles must include, not only the support offered by family and close friends but also the support extended by fellow workers and employers. The women who succeed in post-secondary schools and the workplace have all experienced sexual discrimination to some degree. Although many experienced only minor discrimination, others have experienced encounters that created stress in their lives. For one of the women, the isolation and discrimination in her job was cause for her to resign. The evidence of sexual discrimination in schools, and the workplace was supported by the literature and "despite what we see, hear, and read, sexual discrimination is apt to be very much with us" (Heilman and Martell, 1986, p. 389). Young women entering the workforce need to be proactive and develop networks that will assist, if necessary. However, it should be cautioned that instruction aimed at preparing women for the workforce should be designed in such a way as to not discourage and or frighten women from continuing in their chosen area. This may be particularly true for women who in difficult economic times who have chosen a nontraditional career as a last resort, (i.e., courses sponsored by women's groups, designed for women only). These women may be deterred from

finding work in the nontraditional area if the training has presented information on sexual discrimination without the strategies to cope and react to it.

SUMMARY

This chapter discussed the situational and personal determinants which impact on the career decisions of women.

Situational Determinants

One of the most important determinants for women is family. The importance of parental support begins during childhood and continues throughout the life span. The women, in this study, indicated their need of support from their families. Another important determinant for women is the perceived support and encouragement received from significant others and role models. The women reported being influenced in their careers by parents, teachers and community workers. However, very few mentioned other women in nontraditional areas who served as role models and influenced their career development. The school and school personnel are also significant factors in the career development of women. The literature indicated that career awareness should be an ongoing theme throughout the whole school experience. The experiences of the older women indicated that career

information and the acceptance of women into nontraditional careers has improved over the years. The concern was expressed by the younger women that career counselling is still not an integral part of the school program. Finally, the community and the economic environment are influential determinants in the career development of women. The women were aware of the changing economic environment and the impact on job security and the community.

Personal Determinants

The personality of the women contributed to their entry into nontraditional careers. This included their attitudes toward career development, their needs and interests, academic ability and self-awareness. An important factor suggested by the theorists is the self-concept. A lowered self-concept is a serious barrier to career achievement and women generally report less confidence in career and academic achievement than do men. The women in this study were very goal oriented and appeared to be independent and responsible. Several mentioned their abilities to handle a challenge and the importance of working hard at what you do.

The final factors important to the career development of women, but not men, include role conflict and gender bias. The literature suggested that

women may be deterred from entering nontraditional careers because of conflict with the roles of spouse and mother. The women in this study dealt with this issue and concluded that the stress associated with a nontraditional role is no greater than with any worker role. However, all the post-secondary students and graduates decided to postpone marriage until after completion of their studies. In addition, it was suggested that conflict decreased over time.

The women were exposed to sexual discrimination in the workplace, school and community and found ways to deal with it. For a few, the experiences were unpleasant and lead to additional stress in their lives. Support from family and significant others helped the women deal with this issue.

In summary, these findings seem to indicate that the career development of women is all pervasive and cannot be separated from the many roles and life experiences of the individual. For the women who told their stories so willingly, relationships and emotions appear to be very much key to their career development. This researcher concluded that research into the career development of women must first be cognizant of the fact that career development is not a linear process but is intertwined with other life roles.

Any theory related to women must, as suggested by Betz and Fitzgerald (1987), include not only the situational and personal determinants relevant to

both male and female but also include the impact of the importance of children and relationships in the lives of women. The importance of emotions and relationships is supported by Alban-Metcalf and West (1990) who state in their article on women managers that women "were as concerned as the men with opportunity for advancement and were in fact more concerned with challenge, development and feedback than the men, whereas the men were more concerned with extrinsic factors to the job such as high earnings, fringe benefits, and job security" (p. 160).

Perhaps, then, there needs to be a greater importance and value placed on the development of emotions and relationships in our society. The characteristics exhibited by women, including the importance of relationships and emotions, must be encouraged by the many sectors within which women must operate.

RECOMMENDATIONS

The present study has resulted in the identification of several recommendations for both practice and further research.

Recommendations for Practice

- (1) It is recommended that parents be made aware of the influence they have on the career development of their children. Parents need to be

exposed to workshops and educational material that suggest ways to encourage their daughters develop to their full potential.

- (2) It is recommended that the school offer a parenting program to senior high school students. They should be aware of the effect of stereotypical behaviors on the pre-school child and how to prevent this behavior.
- (3) It is recommended that teachers and counsellors be instructed as to the situational and personal determinants that influence the career making decision as well as the impact of role conflict and gender bias.
- (4) It is recommended that counsellors provide career education which addresses the concerns and doubts that the women may have about entering nontraditional areas. This may include implementing programs, within the school. Such programs should include teaching assertiveness training and self-esteem building to students.
- (5) It is recommended that school personnel identify role models within their communities who are willing to talk to students about their experiences.
- (6) Teachers need to be made aware of the impact of gender biased materials and behaviors on career development and programming.

- (7) The research indicated that career education should be an integral part of the whole school curriculum. Students should be aware of the many career options and encouraged to fulfil their potential. This is not to imply that women be discouraged to enter traditional occupations, instead, they be made aware of the full range of career options.
- (8) It is suggested that the community provide a viable alternative to the teaching of career awareness to young women through leisure and volunteer programming.
- (9) Career counselling should be more readily available for women who are experiencing career difficulties, especially women in the fishery, whose jobs have become redundant. For women in more rural areas, this may include:
 - the development of career hotlines that are easily accessible and staffed by career personnel who are trained in career counselling and capable of directing the women to suitable retraining programs.
 - courses via distance education such that married women or women with dependents may have better access to programming without the stress and problems associated with moving to larger centers for training.

- access to a provincial or national computer network of role models who would be willing to correspond with rural students through electronicmail.

Recommendations for Further Research

The present study has resulted in the identification of several directions for further research:

1. More research needs to be conducted to determine the coping issues of women during the transition from their training into the workplace. Women from different age groups need to be interviewed to determine whether the coping skills differ throughout the life span, or whether the type of coping skills remain the same at different stages.
2. Extensive research is required to determine the development of the self-concept and the factors that influence its development in women. To what degree is the development of the self-concept influenced by the home, school and the community?
3. Further research is needed to determine the type of programs that are most effective in delivering nontraditional material to students. How effective are short-term programs as opposed to long term programs? What is the best age group for which to design and deliver programs?

4. Further research is needed to ascertain the influence of role conflict on young women making career decisions at the grade twelve level and to determine the influence of career counselling at this stage. How do we evaluate the talents of women such that child rearing, personal and professional life are included?
5. The involvement of parents in the career development of women needs to be researched to determine the types of involvement parents have with their daughters and how it influences career development. Are girls who have a close relationship with their parents more likely to enter nontraditional fields than girls who do not have this relationship?
6. This was a limited study which explored the factors salient in career development for a select group of women in the province of Newfoundland and Labrador. A more extensive study is warranted that will interview larger representative samples of women from each nontraditional field in order to compare similarities and differences of responses in greater detail to determine the core characteristics both intra-organizational as well as inter-organizational. There should be a representative sample of women within each group belonging to different stages of the life span. How generalizable are the

characteristics of nontraditional women? Do core characteristics differ from one profession to another?

7. Further research needs to be conducted to study how the responsibility of children is shared in families of dual career couples.
8. Extensive research needs to be conducted to determine the influence the importance of formal support groups on the career development of women in nontraditional careers and to ascertain how the organizations may best serve the interests of its members.
9. Research needs to be conducted to determine the influence of personality on career development. Are the personalities structured such that the women who succeed must be good time managers capable of many tasks? How flexible must the women be to succeed at nontraditional careers?
10. What are the perceived barriers before, and after entry into a nontraditional career? Are the perceived barriers different for men and women?
11. Further research is needed to determine the impact of the inability to obtain prerequisite courses such as science and mathematics on the career development of women. How do women who are unable to

acquire particular courses perceive the nontraditional careers that require the prerequisite?

12. Extensive research to investigate the influence of gender bias on the career development of women in nontraditional careers needs to be conducted. How have stereotypical attitudes toward women changed over the last ten years and what has influenced the changes? The amount of stress incurred by women in nontraditional occupations caused by sexual discrimination needs to be further examined.
13. An extensive study should be conducted to examine the coping strategies and self-esteem of women whose jobs are in jeopardy. This study should include women of all educational and occupational backgrounds, in order to determine the influence of education on the coping strategies of women.
14. A study needs to be conducted to compare parental attitudes toward education. Do the academic abilities of the children determine the parent's views of the importance of further education? In addition, do parents involved in the fishing industry view the need for further education in a different light for daughters than for sons?
15. There is need for an in-depth study to determine the influence of leisure and volunteer activities on the personality development. How

important is involvement at the childhood level on future career development?

16. A qualitative study be conducted to compare the responses of males to the questions posed in this study to females in nontraditional fields. This may be conducted on males in nontraditional roles and or traditional fields for men.

APPENDIX A

INTERVIEW QUESTIONS

The questions that covered the research questions are as follows:

Situational Determinants

(A) **Family Experiences**

- (1) When you were growing up did you spend time with your father and mother doing chores or other activities? What kinds of things did you do together or with one or the other parent?
- (2) What kind of work did your father do? What was his educational level?
- (3) What kind of work did your mother do? What was her educational level?
- (4) Were there other children in the family? What position were you?
- (5) Did your father and or mother influence your decision to go into your chosen career? What kind of encouragement did you receive from them? Which, of the two, had the greatest impact on your career decision making?

(B) **Community Experiences**

- (1) What kind of community did you grow up in? Was it rural or urban?

- (2) Was there high unemployment or were the majority of the people employed? Was the work seasonal or year round?
- (3) What kinds of things were there to do in the community to do for entertainment? Were you involved in sports or other activities such as youth groups, or other?
- (4) Was there anyone in your community that you feel influenced your career decision? For example, someone on the town council, manager of industry or other?
- (5) Were your friends similar to you in their career choices? Did any of your friends pursue nontraditional careers? Were they supportive of your decision?

(C) Influence of School and School Personnel on Career Decision Making

- (1) Was there a teacher whom you feel was a positive role model for you? What kinds of things did that person do that encouraged you?
- (2) Were there counsellors or teachers that openly discouraged your involvement in sports, activities or your career choice?
- (3) Were you involved in sports or extracurricular activities?

- (4) What was your favorite subject? Was there a course that you were discouraged from doing or were unable to do?
- (5) Was there a school counsellor? If yes, then what role did he or she play in your career planning?

(D) Employment Factors Including Sexual Discrimination and the Role it has Played in the Career Development of the Women

- (1) Many women are faced with barriers in the training programs they pursue. In your experience, were you ever discriminated against in the program or discouraged from continuing?
- (2) Once completing your training, was it difficult to find a job in your area? How many jobs did you apply for?
- (3) Were there reasons given to you when you did not get the job for which you were qualified?
- (4) Have the people you have worked with been supportive of your role? Is it difficult for some to accept you?
- (5) From your experience, do you feel that women are generally supportive of one another in the workplace?
- (6) Have you ever quit a job because of sexual discrimination?
- (7) How important is a sense of humor in a nontraditional career?

Personal Determinants**(A) Influence of Intelligence, Specific Aptitudes and Academic Abilities
on the Career Development of the Women**

- (1) Were you a good student in school? Did you feel capable with all subjects?
- (2) Many people have a particular ability that they are better at than other areas. For example, some people have the ability to do arithmetic quickly while other people are extremely competent at driving a car, or writing a story. Are there particular areas in which you feel especially competent?
- (3) How would you rate your ability to catch on to things or to understand instructions and the principles underlying things? This includes, as well, your ability to reason and make judgements.
- (4) What level of education have you acquired?

(B) The Attitudes of the Females Regarding Sex Roles, Work and Family

- (1) How has pursuing a nontraditional role affected other areas of your life? For example, marriage and children?

- (2) (For women with a significant other). What role has your spouse played in the development of your career?
- (3) How are household tasks divided?
- (4) What kind of time do you need with your spouse and family?
- (5) How does your spouse and family view your work?
- (6) Many people believe that women who work are in conflict with their role as wife and mother. Do you ever feel affected by this type of conflict? How have you learnt to cope with it?
- (7) Many people feel that women in nontraditional careers are masculine, and aggressive. How do you feel about this statement?

(C) Self-Awareness of the Importance of Work on the Sense of Well-Being and Self-Esteem

- (1) What do you think is the relationship between working and self-esteem?
- (2) Many women in our society have to work, either because they are single parents, or they supplement their husbands income. They work to survive. Other women work because it gives them a sense of accomplishment. How do you feel about work?

What advice would you give young women entering the work force, in terms of working to fulfil their needs?

- (3) At times when you feel the stress of your work, or you have feelings that the job is not worth it, what kinds of things do you do to cope with the situation?
- (4) In order to have become successful at your chosen career seems to suggest a need for self-confidence and an awareness of who you are and what you want out of life. Do you feel that you have grown in your positive attitudes about yourself or has that been pretty much stable during your life?
- (5) Do you feel that there is anything about your occupation or type of training that provides for you what you could not find in another area of work?

(D) The Awareness of the Women of Traditional and Nontraditional Occupations. At What Stage of Development Did the Individual Make the Decision to Enter a Nontraditional Area

- (1) Was there anyone else in your family, or, friends that had entered a nontraditional career before you? How did you feel about it at the time?

- (2) Had you decided in high school to pursue the career you are now working with? Can you remember other options that you considered?
- (3) Many girls consider a nontraditional career in high school but change their minds when they make the final decision. What factors do you feel encouraged you to continue your education in a nontraditional career?
- (4) Have you changed your career from a traditional to a nontraditional career? At what age or point in your life did you make that decision?

(E) What Types of Activities Were the Women Involved Within High School and as Volunteer Work as Adults

- (1) Were you involved with sports or school activities? For example debating, year book?
- (2) In what kinds of activities are you involved other than your work?

(F) Importance of Friendships and Support Groups

- (1) Do you have close friends?
- (2) Do your friends also have careers in nontraditional areas?

- (3) Are you aware of any support groups for women in nontraditional fields?
- (4) Do you feel that women are supportive of each other?
- (5) How do you cope with negative criticism?

(G) The Interests and Values of the Women Toward Work in Nontraditional Areas

- (1) In many ways, a career, in a nontraditional areas is considered go be a difficult decision for many women. What was it that inspired you to pursue this role. Has it ever conflicted with your personal values or those of the people in your life?
- (2) Do you share similar interest to others in your profession?
- (3) What do you enjoy most about your job or training? What do you most dislike?
- (4) Do you see yourself staying with this career for the rest of your work life?
- (5) Do you feel you are a risk taker, in your career path and in other areas of your life?

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