PARENT PARTICIPATION IN CAREER PLANNING FOR ADOLESCENTS WITH VISUAL IMPAIRMENTS

by

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ABSTRACT

The purpose of this study was to investigate a program model in which parents and adolescents examine personal values, career decisions and plans. The subjects were visually impaired students enrolled in regular secondary school and their parents. Twenty volunteer adolescents with visual impairments and their parents from 18 school districts in the province of British Columbia participated in the study. The program consisted of four Partner's Program (Cochran, 1985) booklets: a parent guideline manual, activity self-exploration exercises, career decisions framework, and a planning workbook designed to facilitate parent involvement in career development activities. Two special career reference publications which described a variety of occupations and necessary adaptations and technical devices designed for individuals with visual impairment were also included. These materials were presented in audio tape, large print and braille.

Adolescent subjects and their parents were randomly assigned to two experimental groups. Each group received materials and were given five weeks to complete the program. The Career Decision Scale (Osipow, 1976), Parent Adolescent Communication Scale (Barnes & Olson, 1982), and Career Salience Scale (Greenhaus, 1971, 1977) were employed. All participants were interviewed following the program.
A multivariate analysis of variance was computed, and the combined five dependent variables were significantly affected between groups upon completion of the program by the first group. The combined dependent variables were significantly affected again with the second group upon completion of the program. Examination of effect sizes for each dependent variable attributed the differences to gains in measures of career planning and career salience and a decline in career indecision. The effects on the measures of communication were inconclusive.

The results indicated that students in both experimental groups confirmed their career choices and became more aware of personal career values. The subjects felt they were encouraged to plan and prepare for a career, explore options, and consider their visual disabilities. Career planning was deemed important by all participants. The importance of work and career were confirmed for participants. Students’ attitudes improved with confirmation of plans and career alternatives. The effects of the program in career development of adolescents with visual impairments and the importance of parent-student communication were positive. The comments of the parents suggested that they had acquired understanding of their child’s career choices.
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CHAPTER I

Introduction

Educators and career counsellors, parents, and students with visual impairments have expressed the need for career planning initiatives. Such initiatives can help to prepare students to make decisions about education, training and employment possibilities. Collaborative planning efforts which include the student, parents, school teachers, counsellors and rehabilitation specialists are recommended for many reasons: students need to explore career opportunities; public school teachers and counsellors have limited knowledge about visual impairment and blindness; parents and specialist teachers of visually impaired students often lack information about employment options (Eddy, 1984; Sacks & Pruett, 1992; Schmidt & Grace, 1989; Simpson & Hubener, 1985). Rehabilitation counsellors are aware of the impact of visual impairment in the workplace and community but may lack information about individual high school students. Parents recognize their child’s interests, needs and abilities, but may lack information about opportunities available.
Collaborative effort on career planning needs to engage home, school and community perspectives to provide a solid basis for career planning and
decision-making. Collaborative planning makes use of the interests, skills and knowledge of teachers, counsellors, parents and students. The quality of the collaboration efforts is expressed in well defined roles for each participant.

Career development is a lifelong process which Super (1957; 1963; 1980) describes as a progression of choices throughout the lifespan with a sequence of stages and developmental tasks. Super is one of the few theorists to address the topic of disabilities in vocational development. Super (1957) viewed disability and handicap as,

"...by varying degrees--‘intrinsic’--those attributes that are inherent and essential attributes of conditions with which they are associated and ‘extrinsic’ that is, social or nonessential attributes of the status or condition with which they are associated--handicaps erected by social attitudes, bias or requirements" (p. 272).

Super recognized the need for a conceptual framework in which the important features of vocational maturity are identified. A vocationally mature individual is "one who is oriented towards planning, accepts responsibility for choices, is aware and makes use of available resources in planning, has specific information about preferred occupations and demonstrates competence in decision-making" (Dilley, 1965; Jordaan & Heyde, 1979; Phillips, 1983; Super & Overstreet, 1960).
The conceptual framework Super developed, was based on a 21-year longitudinal study of grade nine boys (Super, 1957, 1963, 1980). Within this framework, concepts such as vocational maturity and satisfaction with career choice correlate with the evolution of self-concept and self esteem.

High school students who are blind or have severe visual impairment must contend with the effects of their particular visual impairments and the limitations these impose on vocational choice and selection. To complicate the matter, in planning their careers, visually impaired students must cope with their own personal experiences as well as the expectations and misconceptions about blindness and visual impairment that their families and society at large may hold.

Lowenfeld (1963) described three limitations that blindness and severe visual impairment imposes on an individual: limitations in the range and variability of experience; limitations in the ability to get about; and limitations in the control of the environment and self in relation to the environment. Tuttle (1984) linked the development of self-concept and self-esteem in blind and visually impaired individuals to the expectations of significant others and to the quality of interaction within the social and physical environment.

Blind and visually impaired students are concerned about the limitations a visual impairment may impose on their career options (Heinze & Rotatori,
Parents of blind and visually impaired children have many concerns about the future careers of their children (Jan, Freeman & Scott, 1977; McCallum, 1985). These concerns are well founded as blind and visually impaired people have a chronically high rate of unemployment (Kirchner & Petersen, 1979; Miller 1992; Schmidt & Grace, 1989; Wolffe, Roessler & Schriner, 1992). They are frequently underemployed in low status, low pay positions not commensurate with their qualifications and abilities (Sacks & Pruett, 1992; Scholl, Bauman & Crissey, 1969). They may experience discriminatory employment practices that inhibit normal advancement (Tuttle, 1984).

Rusalem (1972) stated that many students leave school with "... their academic abilities clearly defined, but with many questions about their vocational interests and capacities." Visually impaired adults identified poor career planning, inadequate vocational training, and diminished self-concept as the most problematic issues related to employment (Wolffe et al., 1992; Salomone & Paige, 1984).
The perceptions and expectations that many people hold about blindness can have a significant negative effect on personal and social development (Scott, 1969). There is a tendency for parents of blind children to expect less or expect differences which may lead to lesser accomplishments and slower development of the child (Warren, 1984). Overprotection, overassistance, denial and negative parental attitudes inhibit a visually impaired child's development of initiative, independence and realization of individual abilities (Cook-Clampert, 1981; McBroom, Tedder, Kang Ji, 1992; Warnke, 1993).

Parent behaviour in areas such as childrearing, socialization of children, family structure and family interaction are also important to an individual's vocational development and subsequent career choices (Schulenberg, Vondracek & Crouter, 1984; Young, Friesen & Pearson, 1988). The development of self-concept has been associated with patterns of family interaction such as sharing of perspectives and challenges in a supportive environment (Grotevant & Cooper, 1985). Adolescent self-esteem has been linked to the quality of the parent-adolescent relationship as perceived by both parent and adolescent, as well as the control and reciprocal nature of parent-adolescent communication (Demo, Small & Savin-Williams, 1987; Walker & Greene, 1986). The family is a facilitator of experiences that expand or limit personal growth and also a primary source of knowledge about occupations (Grotevant, 1980). Parents
provide a range of opportunities relative to their socioeconomic position such as educational and financial opportunities, role models and knowledge sources. The family and specifically the parents provide a reinforcement system of contingencies and expectations that subtly or directly shape work behaviour (Herr & Cramer, 1988). Parent expectations of children depend a great deal on their having access to information about career possibilities.

The importance of parental and family influence on the vocational development of blind and visually impaired individuals is widely recognized (Graves, 1985; Rabbi & Croft, 1989). The consequences of positive and negative attitudes, expectations and adjustments are key issues in the career development of children with visual impairments (Heinze & Rotatori, 1986; Rogow, 1988; Warren, 1984).

The value of parent involvement in early intervention programs has been well recognized. Parents of children with impairments are encouraged to become involved in these programs (Ferrell, 1985; Gallagher & Vietze, 1986). Early intervention programs with a high level of parental involvement for children with disabilities are more effective than those that disregard the parental role (Krauss & Giele, 1987). These programs offer information, advice and emotional support for parents as well as information about the child’s handicap and the limitations it may impose. Participating families may
also receive advice and assistance in the use of the service system and information about financial support, health and education services. Other benefits of parent participation include support, meetings with other families, parent support groups and contacts with clergy or other agencies both in times of crisis and over the long term. Such information and support has a profound effect on parental attitudes towards the child’s handicap and the parents’ expectations of their children (Brotherson, Houghton, Turnbull, Bronicki, Roeder-Gordon, Summers & Turnbull, 1988; Krauss & Giele, 1987; Warnke, 1993). Parent participation models are also helpful to older children and adolescents.

Parents Involvement in Career Planning

In the field of blindness and visual impairment, the question of career choice has traditionally been directed to education and rehabilitation professionals (McBroom et al., 1992). Although parents are encouraged to introduce childhood responsibilities and early career development activities in the home, there are few opportunities of actually involving them in career education programs (McConnell, 1984; Wolffe, 1985). A criticism has been made that efforts are only made to focus families on short-term, day-to-day goals rather than involve them in the long-term planning (Kaarela, 1959).
Parents are concerned about the future careers of their children and how they can best contribute (Dowdy, Carter & Smith, 1990; McCallum, 1985). Their in-depth knowledge of their child is a valuable and essential resource for education and rehabilitation professionals.

Current legislation in some provinces and in the U.S. requires that parents participate in individual educational planning meetings and approve specific goals and objectives recommended during elementary and secondary school years. Efforts to establish school and rehabilitation transition teams have been made which encourage collaborative team planning amongst students, teachers, rehabilitation counsellors and parents. The potential for parent involvement is obvious, yet not always realized. The literature suggests that the parent-professional relationship is an uneasy one (Brotherson, et al., 1988; Ferguson, Ferguson & Jones, 1988; Mendelsohn & Mendelsohn, 1986; Simpson & Hubener, 1985).

While parents value the knowledge, expertise and support of childhood, education and rehabilitation professionals, they may feel intimidated by the formal procedures which accompany meetings with professionals. Too many meetings, consultations, suggestions, and advice from professionals may undermine or unintentionally usurp parental roles and responsibilities in personal, social or vocational planning (Cook-Clampert, 1981; Goodall &
Bruder, 1986; Jan, et al., 1977; McNair & Rusch, 1987; Mehan, Hertwick & Meihls, 1986). Even when parent participation is presumed, a specific role for parents has not been defined (Elksnin & Elksnin, 1990; Graves & Lyon, 1985; Ferguson, Ferguson & Jones, 1988; Mendelsohn & Mendelsohn, 1986).

Collaborative models in which the parent as well as the professional has a clearly defined role have been proposed. Collaborative models encourage professionals to relinquish their "expert" roles and to recognize parents as co-equals in the problem-solving and educational planning process (Brotherson, et al., 1987; Elksnin & Elksnin, 1990; Ferguson, 1988). Collaborative consultation (Idol, et al., 1986) recognizes the need for planning which includes persons with diverse experience and expertise to generate creative solutions to mutually defined problems. This type of consultative process recognizes that parents have a far greater emotional investment than professionals, and have unique information not available to professionals. Students' needs can be accommodated more effectively when important individuals are involved in educational planning (Elksnin & Elksnin, 1990; Hart & Ferrell, 1990). This model treats parents as colleagues in the consultation process and they are required to review educational records prior to meetings, and note those items with which they agree or disagree. Parents may reinforce professional perceptions and present additional information based on their own observations.
or those of close family members. An important aspect of the parent role is to objectively observe and record their child’s skills and abilities in specific behaviours such as communication, social relationships and independence (Everson & Moon, 1987; Goodall & Bruder, 1986).

**Career Planning Programs**

Many students have difficulty explaining how they make career decisions and consistently identify parents as a significant influence in this process (Birk & Blimline, 1984; Dowdy, Carter & Smith, 1990; Trudeau-Brosseau, Brosseau, Cahrette & Boissière, 1982). Parents endorse career goals for their children and want to assist in career planning (Bratcher, 1982; McNair & Rusch, 1987; Palmer & Cochran, 1988). Parents of children desire more information and collaboration with counsellors and teachers in the career planning process (Elksnin & Elksnin, 1990; Humes & Hohenshil, 1985; McNair & Rusch, 1987).

A number of career planning programs have been developed which involve parents, such as Osguthorpe’s (1976) *The Career Conversation*. Parent interest, influence and confirmation of parents’ ability to assist their children in career planning was demonstrated by Osguthorpe. In a six year longitudinal study, Greenough (1976) explored parental guidance and planning with senior
students. The results of Greenough's study indicated high rates of student satisfaction with occupational choices. Lea (1976) conducted career workshops for parents of high school students in order that they might be a more helpful resource in career planning. Many studies have demonstrated the value of parent involvement in career planning (Bearg, 1979; Myers et al., 1972; Thompson, 1978; Schulenberg, Vondracek & Crouter, 1984).

The Partner's Program (Cochran, 1985) provides self-awareness, career exploration and career planning workbook activities for high school students and their parents. This program was tested with 20 families and was found to effectively enhance family cohesion. Measurable gains were demonstrated in the career development of the participating adolescents (Palmer, 1986). Pierson (1988) also studied the Partner's Program and found that the program increased the self-awareness of the participating adolescents and allowed them to gain important information about the career choices they made. This program has not previously been used with students with disabilities.

There are few programs which include parents and their blind or visually impaired children in career planning. The career planning programs that do exist have been offered as weekend workshops, career days and conferences held by schools and blindness agencies (Houser, Moses & Kay, 1987; Wolfe, 1985). Successful visually impaired or blind individuals are often invited to act
as role models, speak at workshops or conferences, or meet informally with parents (Eddy, 1984; Sacks & Pruett, 1992; Schmidt and Grace, 1989). There is a clear need for parents of blind and visually impaired children to have access to collaborative career planning programs. The Partner's Program provides such a model.

**Purpose of the Study**

The purpose of this study was to examine the applicability of the Partner's Program (Cochran 1985) model to a population of students with severe visual impairments and their parents. This study was designed to determine the extent to which the Partner's Program facilitated career planning and to explore the effects of participation on parent-adolescent communication. The adolescent's understanding of the importance of a career or work roles was also investigated. The Partner's Program (Cochran, 1985) was adapted and extended for this population with additions of two resources; the Canadian National Institute for the Blind (CNIB) Survey of Occupations (Campbell, 1985) and Career Choices for the Visually Impaired (Eddy, 1984). These resources provided case histories and information about adaptations used by individuals with visual impairments in a wide variety of occupations.
The Partner’s Program consists of a parent guidance manual and three workbooks of career development activities. The workbooks were completed by the adolescent together with his or her parent. Career resource information which described a wide variety of careers held by blind and visually impaired individuals was also included. It was hoped that the study would add to the sparse body of knowledge regarding the career development of visually impaired and blind individuals.

Definitions of Terms

Blind - No functional vision, total blindness with possible light perception.

Legal Blindness - Central vision acuity does not exceed 20/200 in the better eye with a correction (glasses) or limitation in the field of vision so that the widest diameter of visual field subtends an angle no greater than 20 degrees; includes severe vision impairment and blindness and is the legal definition used by Federal and Provincial Governments to determine entitlement to benefits such as income tax exemptions or special education materials (B.C. Ministry of Education, 1985).
Visual Impairment - A loss of visual acuity or one or more functions of the eye or visual system. An impairment may give rise to a disability (Faye, 1976).

Visual Disability - The lack, loss, or reduction of an individual’s ability to perform certain tasks due to visual impairment. It is not necessarily seen as a handicap (Faye, 1976).

Visual Handicap - The total negative effect of the condition, which includes restrictions imposed by society and the attitudes of others as well as the person’s self concept. The degree of handicap is determined by the expectations that the individual and others have about visual performance (Faye, 1976).

NOTE: "Visual impairment", "visual disability" and "visual handicap" are used interchangeably in the literature. In this study impairment refers to the basic functions performed by a part of the body; disability refers to tasks performed by the person; and handicap includes perceived or actual disadvantages with respect to societal expectations (Faye, 1976).

Career Development - The process people undergo, consciously or unconsciously, as they interact with their environment and develop the attitudes and skills to explore, plan for, and participate in the world of work. It is a process that focuses on understanding the factors underlying free and informed
choice, the evolution of personal identity in regard to work, and the transition, induction and adjustment to work (Herr & Cramer, 1988).

**Self Concept** - An individual’s perception of who he/she is supported by accumulated judgements about him/herself (Cook-Clampert, 1981).

**Self-Esteem** - The affective dimension of self concept. An individual’s measure of their own value, worth, competence, adequacy and self satisfaction (Tuttle, 1984).

**Career Salience** - (a) the degree to which a person is career motivated, (b) the degree to which occupation is important as a source of satisfaction, (c) the degree of priority ascribed to occupation among other sources of satisfaction (Masih, 1967).

**Transition** - A bridge between the security and structure offered by the school and the risks of adult life (Goodall & Bruder, 1986).
CHAPTER II

Review of Related Literature

This study addresses the career development of adolescents who are blind or severely visually impaired. This chapter will discuss a model of career planning which includes parents as participants. Research literature related to the model, parents and career planning and the relevance of this model to students with visual impairments will be reviewed.

The research literature reviewed includes five elements that are central to this study:

1. Conceptual Models of Career Development
2. Stages of Career Development
3. Career Development of Adolescents with Visual Impairments
4. Families, Parents and Career Planning
5. The Partner's Program (Cochran 1985) and Adolescents with Visual Impairments

1. Conceptual Models of Career Development

There is not one theory of vocational development, but many; themes overlap and different authors approach the subject in a variety of ways.
Concern with career choice has been a major emphasis. The interdependence of career decisions, and the interaction of personal attributes, environment and choice strategies are also dominant themes in the literature (Herr & Cramer, 1988).

Osipow (1990) categorized four different theoretical approaches. The categories are: 1) personality focused, 2) trait oriented, 3) social learning, and 4) developmental based approaches.

Personality-focused approaches stress personal behavioral styles, such as motivation. The major assumption behind this psychological approach is that individuals develop certain needs or drives, and seek satisfaction of these needs or drives through occupational choices (Herr & Cramer, 1988).

Roe (1956) linked early childhood experiences with career interests. Her model of career choice emphasized the satisfaction of needs as a means of self realization suggested by Maslow (1954). Roe considered career directions to be formulated by the patterns of childhood satisfactions and frustrations. The manner and degree of need for satisfaction determined which needs will become the strongest motivations. Although Roe now questions the directness of the link between early childhood-parent relations and occupational choice, she and her colleagues continue to emphasize needs and interests as determinants of motivation and accomplishment (Roe & Lunneborg, 1984). Parent career
choice is an important element of this personality focused model (Bordin, 1984; Roe, et al., 1984).

Trait-oriented theories address the effect of personality type on career choice. The trait-oriented model emphasizes the match between an individual's personal orientation to the world and the work environment (Holland, 1977). Holland proposed that there are six categories of personality types into which most people in North American culture can be placed and that there are six work environments suited to each of the personality types. Holland (1977) believes that people search for those work environments which allow them to exercise their particular skills, abilities, interests and to express their individual attitudes and values. Further, he proposed that an individual's behaviour is determined by the interaction between one's personality pattern and the environment. Holland's model classifies personality types as "realistic", "investigative", "artistic", "enterprising", "social", and "conventional".

The "realistic" type prefers ordered systematic manipulation of tools, machines and materials. Occupational examples of this type are surveyor or mechanic. An "investigative" type has a preference for jobs which are observational and involve creative investigation, such as a chemist or physicist. The "artistic" type prefers activities which include manipulation of verbal, human or physical materials. Artist and writer are examples of this type.
"Enterprising" types have preferences for activities which require manipulation of others to attain organizational or economic goals. Salesman, executive, or political scientist are representative of this type. The "social" type prefers activities which involve the manipulation of others to inform, train, or enlighten. Social science teacher or counsellor exemplify this classification. The "conventional" type prefers activities that entail explicit ordered manipulation of data, such as keeping of records. Occupations in this category include accountant and data clerk (Holland, 1973 cited in Herr & Cramer, 1988). Holland devised a coding system to describe combinations of personality types and occupational environments. Holland (1977) contends that choice behaviour is an expression of personality type.

Holland, like Roe and others, recognized the importance of parental influence on career choice. Parents influence their offspring by the environments they create, biological features they transmit and the reinforcements and resources they provide. Holland suggests that these influences reflect parent personality types which in turn should affect child personality types. Holland's model allows predictions to be made on the basis of fitting the individual to the appropriate work environment and thus achieving a "person-environment fit".
Another example of the trait oriented model is the work of Dawis and Lofquist (1984) who proposed a "work adjustment" theory. These authors suggest that individuals develop a work personality based on attitudes, values, needs, abilities and skills. The work personality is expressed by choice of occupation and the rewards sought from the chosen occupation. Dawis and Lofquist believe that a good fit between work personality and work choice can predict satisfaction with career or work choice. When there is satisfaction with work choice, a worker will continue in his/her chosen career. This approach has proven useful in rehabilitation counselling and placement for individuals with disabilities. Vandergoot (1987) studied the application of this model with disability groups and reports increases in job tenure could be predicted by job performance and job satisfaction.

A third conceptual model is based on social learning theory. Social learning theory accounts for career choice on the basis of environmental influences which tend to reinforce certain choices (Krumboltz, Mitchell & Jones, 1979 as cited in Herr & Cramer, 1988). Career development models based on social learning theory recognize that individuals strive to control their environments to suit their needs. The acceptance or rejection of career options is dependent on the positive, or negative reinforcement supplied by the social environment and the role models that are valued by society. According to this
model, occupational choice is based upon biological and psychological factors; environmental conditions and events; learning experiences; and specific skills (e.g., problem solving). Outcomes important to career choice include self observation generalizations (e.g., "I am able to do that") and task approach skills (goal setting, planning, values clarification). Decision-making skills and self confidence enable the individual to make and implement career choices. Social learning theory acknowledges the importance of adult role models including parents.

The developmental approach to career planning is illustrated by the work of Super (Super, 1957; 1969; 1980). Super regards the process of career development as continuing and developing over the life span of individuals, and is, therefore, developmental in nature. Super's model is based on the theories of Ginzberg (Ginzberg, Ginzberg, Axelrad & Herma, 1951). Within the developmental model, vocational choice is a process which begins in early childhood and evolves through a series of stages. Each stage is built on the experiences of the previous stage. The stages include: 1) the "fantasy" stage of early childhood in which the child can imagine him/herself in a variety of careers. This stage extends from early childhood to the beginning of adolescence (under 11 years); 2) the "tentative" stage in which young people become successively more aware of their own interests, capacities and values
(from ages 11 to 17 years); 3) the "realistic" stage in which individuals first explore, and then specify a vocational choice (at age 17 years plus). Super recognized that people change their minds and careers and considered the process ongoing throughout the lifespan. In this regard, Super elaborated on Ginzberg’s approach and considered such issues as the nature of interests in vocational choice, definitions of choice, and the process of compromise. Super’s model is more comprehensive than that of Ginzberg and others. The importance of individual activities, interests and personality are acknowledged within this conceptual model.

The level of satisfaction individuals experience within their occupational choice is attributed to the fit between the personal characteristics of the individual and the occupational role. Further, Super argued that there is no single job-person match. People have the potential to be qualified for a variety of occupations, and this potential evolves throughout the individual’s life. The perceptions of self, vocational preferences, skills, interests and life situations change over time and with experience.

The model under investigation in this study is based upon Super’s (1957, 1963, 1980) theory of career development which views a career as a progression through various stages during a person’s lifetime. The focus of the program is on the period of late adolescence when initial occupational
preferences are explored and tentative decisions and plans for implementing a vocational preference are made. The model is based upon Super’s theory of career development stages in particular the Exploration Stage.

2. **Stages of Career Development**

Super’s conceptual model categorized developmental stages of vocational development: Growth (Birth to 14 years), Exploration (Ages 15-24), Establishment (Ages 25-44), Maintenance (Ages 45-64) and Decline (Ages 65 to death). Personal growth and career maturity increase as an individual progresses from one stage to another with the accomplishment of successive career-related tasks.

Super (1969) described the Growth Stage as dominated by activities and interaction with significant people that affect a child’s career choices. During early childhood, children develop an image of themselves and build their self concepts. Children develop strong self concepts and self esteem with opportunity, interaction and positive attention from other people. Positive experiences in and interaction within the family, school and local community instructs children about their own abilities. Young children imagine themselves in different work roles. Experience with peers enables learning and sharing with others. Career related developmental tasks include the notions that
children have about themselves and the talents they possess. Children also construct their notions about "work" and the meaning of work. As children develop their personal interests and capacities they become interested in the variety of work roles, e.g., doctor, teacher, etc.

The Exploration Stage encompasses adolescence (Super, 1969). "Exploration", the adolescent stage (ages 15-24), is the focus of the present study and hence is of particular interest. This stage is one of self examination and role tryouts in a variety of situations. These explorations take place in environments such as school, leisure activities and part-time work. The "Exploration" stage is further subdivided into three substages: the Tentative Stage (15-17), Transition Stage (18-21), and the Trial-Little Commitment Stage (22-24). The Tentative stage includes consideration of needs, interests, values and opportunities. During this first substage, tentative choices are made and possible fields and preferred types of work are identified. A major task of this substage is the choice of a vocational preference.

At the next substage, Transition (18-21), the young person is expected to make a specific choice in preparation for specialized training, education or entry into the job market. The primary career development task is specifying a vocational preference. At the final substage, Trial-Little Commitment (22-24) the young person experiences an initial tryout in the specified educational or
occupational role. The individual's commitment may still be exploratory. If the potential work role is not experienced as satisfying, the process of exploration to begin another choice may begin again (Herr & Cramer, 1988). The main vocational task of this final substage is implementing a vocational preference.

Super (1969) regarded the Establishment Stage (25-44) as a period of "settling in" into an occupational area. There may be changes of position or employer but the broad occupational category has been selected. The career tasks at this stage are consolidation and advancement.

The Maintenance Stage begins in the middle years (mid-forties). There is a continuation of an established career pattern or there may be a change and the establishment of a new career. Preservation of achieved status or gain in status is the main task of the Maintenance Stage.

Super (1969) characterized the next substage as reflective, a slowing in the pace and capacity for work. He called this the Declining Stage which may include shifts to part-time work or further specialization. In some cases leisure activity may replace full-time work. Super considered the main tasks of this stage to be deceleration, disengagement and retirement.

The theoretical model developed by Super and his associates emerged from his longitudinal study of 142 grade nine boys whom he followed over a
twenty year period (1950-1971). The model was tested and developed with a series of studies (Jordaan & Heyde, 1979; Super, Bohn, Forrest, Jordaan, Lindeman & Thompson, 1971; Super & Nevill, 1984; Super & Overstreet, 1960)

Super considered an individual to have achieved career maturity when "he or she is oriented towards planning, accepts responsibility for choices, is aware of and makes use of available resources in planning, has specific information about preferred occupations and demonstrates competence in decision-making" (Dilley, 1965: Jordan & Heyde, 1979; Super & Overstreet, 1960; Phillips, et al., 1983).

Super further elaborated the model with a concept he called "Emergent Decision-making" (Super, 1980). Emergent decision-making describes the process that occurs before and during the time of taking on a new career role. Super's model described how preferences, choices, new roles and role changes are influenced by personal determinants (biological, home, community) and situational determinants (geographic, historical, social economic).

Super's work demonstrated that Grade 9 students in the Exploration Stage were not yet ready to determine their career decisions. He advised that major curricular decisions should be postponed to Grade 10 or 11 (Super & Overstreet, 1960). Additional studies of career development confirmed Super,
et al.'s findings that high school seniors have limited knowledge of careers: while students in Grade 9 and 10 may know something about the education and training requirements of the occupations to which they aspire, they have little knowledge of the job requirements, duties of the work, or other career demands (Borgen & Young, 1982; Brighouse, 1985; Grotevant & Durrett, 1980; Jordaan & Heyde, 1979; Noeth, et al., 1984; Super & Nevill, 1984). Super (1980) maintained that during adolescence emphasis should be placed on opportunities for exploration, rather than preparation for a specific occupation. Many people continue to explore career options after formal schooling. The majority of people in their early twenties have not yet reached a degree of maturity that permits a career commitment. Super stressed the need for planned exploration, experience, and trial experiences in order to facilitate a mature career choice (Harrington, 1982). Super and Nevill (1984) reported that commitment to a work role and the importance of the work role to an individual is positively related to their career maturity.

Super (1980) considered "career" to be "...the combination and sequence of roles played by a person during the course of a lifetime" (p. 282). These roles include, but are not limited to, those of student, citizen, worker and homemaker (including spouse and parent), and leisure roles. Some roles occur in sequence, others are complementary and simultaneous. The commitment to
these roles and their relative importance to the individual have been defined as career salience or work role salience.

The importance of work role has been associated with occupational aspirations, motivation to choose an ideal occupation and satisfaction with career decisions (Esposito & O'Halloran 1989; Greenhaus 1973; Greenhaus & Simon 1976). Low career salience is associated with career indecision and high career salience is related to high self esteem, self exploration and work exploration (Greenhaus 1973; Greenhaus & Simon 1973; Greenhaus & Sklarew 1981). Jones and Chenery (1980) suggested that students with low career salience were people who had not related individual interests to an occupational field. Jones and Chenery found that students with a clear sense of identity and a distinct career preference tended to be those who had made career-vocational decisions. This finding concurs with other studies on vocational indecision (Greenhaus, 1971; Holland & Holland, 1977).

Super’s model and stages of career development are comprehensive in nature and encompass the exploration of many career and work roles throughout the lifespan.
3. **Career Development of Adolescents with Visual Impairments**

Unproven assumptions and misconceptions surround persons with disabilities and their career development. These assumptions are based on the notions that (a) career options for the disabled are limited, (b) career development for disabled individuals is unimportant to them, and (c) that career development for persons with a disability is primarily influenced by chance (Osipow, 1976). The particular needs of persons with disabilities have not been fully addressed in the research literature (Hershenson 1974; Navin & Myers, 1983; Osipow, 1976).

Conte (1983) stated that current career development theory is too abstract to apply to the special needs of disabled individuals. O'Leary (1980 cited in Curnow, 1989) contended that since career development theory is based on the normal developmental process, these theories might not be relevant to persons with disabilities. The assumptions of many vocational development writers is that: people possess an array of potential career choices; interests are satisfied through career choices; and that once a choice is made, training and job opportunities will be available regardless of whether or not individuals might be disabled (O'Leary, cited in Curnow, 1989).

Super (1969) emphasized that what is needed was not a separate theory of vocational development for disabled individuals, but rather a special
application of existing vocational developmental theory. Harrington (1982) also stated that the vocational needs of persons with disabilities can be accommodated within the current theoretical framework. He suggested that to argue otherwise perpetuates myths, misconceptions, and discrimination against persons with disabilities (Harrington, 1982). Thomas and Berven (1984) maintain that individuals with disabilities are more similar than dissimilar to other individuals in need of career counselling.

Super (1957) considered disability or handicap to affect career development in a variety of ways. 'Intrinsic' attributes, such as the conditions with which the disability is associated, and 'extrinsic' attributes, such as social beliefs, societal attitudes, and lack of opportunity, affect the career development of individuals with disabilities in different ways. Negative social biases are a factor in shaping vocational possibilities (Super, 1957). Such biases are frequently cited in the literature on career development of the visually impaired (Graves & Lyon, 1985; Kirchner & Petersen 1979; Rusalem 1972; Salomone & Paige, 1984; Tuttle, 1984). Conte (1983) observed that most vocational theories assume that vocational information and vocationally related experience are available to all individuals. This is often not the case for individuals with disabilities.
Super (1957) distinguished between the "precareer" and "midcareer" individuals with disabilities:

"A disability or handicap may be one which the individual has had since birth or childhood, before embarking on a career; or it may be one which he has acquired later in life, after having begun work and a career. In the former case, he has lived with his handicap for some time, and has to some extent, even if inadequately, incorporated it into his self concept. It does not have the effect of disrupting his career, although it may affect his orientation and planning, and particularly his ability to plan, for his dependency experiences may make him fear to expose himself to competition or to chances of failure. In the latter type of case, the effect of the newly acquired disability or handicap is disorganizing for it must be incorporated into a modified self concept, and the individual must go through reality testing, find a role in which he can meet social expectations and satisfy his own aspirations" (p. 272).

Super (1957) considered disabilities to be conditions to be overcome. In themselves, disabilities need not be barriers to most occupations. Students with disabilities may be discouraged from entering their field of choice because their counsellors and advisors are ill-informed (Roberts, 1992). Super offered the example of a blind student who excelled in mathematics, yet was discouraged
by instructors for doing graduate work because of his visual impairment. Nevertheless, the student completed a graduate degree in social psychology and found employment in this field. Although extrinsic influences may modify or change career choice, they need not prevent career choice or deter individuals from making career choices. What one person perceives as a different hurdle may be seen by another as something of little consequence depending upon personality structures, information and needs (Block 1955, Super 1957).

The above illustration demonstrates Rusalem’s (1972) contention that blind and visually impaired individuals are often confronted with stereotyped and prejudicial thinking. A frequently cited barrier to employment is employer prejudice, resistance or misinformation (Lowenfeld, 1975; Roberts, 1992; Salomone & Paige, 1984). Rusalem (1972) identified common barriers to the achievement of suitable career goals for individuals with visual impairments:

"The lack of general readiness of the blind person to use tools and techniques that have been devised to overcome some of the effects of blindness; the lack of creativity and imagination on the part of some rehabilitation workers who tend to cast blind workers into stereotyped vocational roles, and the lack of sufficient systematic occupational research to devise improved means of performing more jobs without sight" (p. 22).
Phillips, Strohmer, Berthaume and O’Leary (1983) suggest a useful framework to examine career development theory with special populations. Phillips, et al. maintain that despite considerable variety and biased representation within the world of work, members of special populations who work do so in the same arena as other people. They also maintain that general theories and constructs of career development offer useful and valid concepts for investigation of special populations. Vocational behaviours are multidetermined. Both individual and environmental variables are powerful determinants and different combinations of these variables may be significant for different groups of individuals.

Few studies have addressed the career development of blind and visually impaired adolescents (Bagley, 1985; Mann and Harley, 1986). Davidson (1974) explored career development of students with visual impairments in Grade 8-12 who attended both residential and public schools. Davidson found that adolescents with visual impairments made similar career choices, held similar attitudes, and had similar occupational and career planning experiences as non disabled students. However, those with visual impairments were more limited in opportunities for career exploration. Davidson also found that students who had high self esteem, felt more in control of events in their lives and did better in career planning exploration activities than those who did not.
Davidson noted the need for further study of occupational preparation requirements, goal selection and decision-making, as well as those personal and social variables related to career development. Similar needs were documented by Clayton (1973) in a survey of graduates of a residential school for the blind and other studies of students and adults with visual impairments (Bagley, 1985; Mann & Harley, 1986; Sacks & Pruett, 1992; Wolffe, 1985; Wolffe et al., 1992).

Graves and Lyon (1985) investigated the career development needs of ninth grade students in both residential and public schools. Subjects were aware of their need for information, requested help in making realistic career plans and expressed interest in having work experiences incorporated in the high school program. These subjects wanted to know more about current and future occupations and how to plan for specific jobs. Subjects from both public and residential schools did not think that they were given sufficient career information or career discovery programs by their schools. Graves and Lyon (1985) concluded that Grade 9 students placed a high value on career development services. These findings were consistent with those of Super (1969) and Jordaan & Heyde (1979) (Graves & Lyon, 1985).

Neely and Kosier (1977) studied the effects of a short term vocational exploration program designed for high school students who were physically
impaired, visually impaired, and non-impaired. Neely and Kosier (1977) acknowledged the importance for all students to be able to "... process their vocational plans, verbalize their values, and engage in feedback with classmates and significant adults" (p. 138). The vocational exploration program was designed to provide opportunities for discussion with peers and counsellors. The "real" versus the "imagined" limitations related to disability were explored to facilitate meaningful decision-making. Neely and Kosier (1977) found that students with disabilities increased the number of vocational possibilities considered personally relevant. Aspirations were linked to statements of self confidence and independence for students with or without impairments (Neely & Kosier, 1977). Sacks and Pruett (1992) reported similar findings of increased career awareness, greater sense of self worth and career direction with a group of adolescents who participated in a summer career transition training program.

Baker, White, Reardon and Johnson (1980) adapted The Self Directed Search (Holland, 1977a) program for use with blind and visually impaired persons. This program also provided opportunities for subjects to explore different vocations. This study demonstrated that a self directed approach was viable, and effective in encouraging individuals to pursue their unique interests and competencies.
The Self Directed Search (SDS) made use of brailed and audiotaped versions of self-administered exercises designed by Holland (1977a)(Baker, et al., 1980). Five hundred occupations listed alphabetically were included together with the pamphlet entitled "Understanding Yourself and Your Career" (Holland, 1977b). Results of this study demonstrated that this type of program increased the number and variety of career options considered. More certainty of choice and satisfaction with potential vocational plans were also demonstrated (Baker, et al., 1980). These authors suggested that existing career planning programs can be adapted for special populations without risk to their effectiveness.

Although younger blind and visually impaired individuals have more vocational opportunities than older people, the effort required to prevail over blindness and concomitant social hurdles to full-time employment, remains problematic. Bauman (1963) stated that "... dogged persistence, through years of effort, and in the face of unnumbered rebuffs" is required for students with visual impairments to succeed.

In their survey of the vocational success of blind adults Scholl, Bauman and Crissey (1969) found that men have been more successful than women. These authors concluded that factors inhibiting vocational success included
"discrimination encountered in seeking employment, inadequate preparation for job placement and lack of creativity in expanding career opportunities" (p. 46).

Salomone and Paige (1984) explored the experiences of persons with visual handicaps as they attempted to secure work. This study identified several factors that interfered with job finding. These were: negative public attitudes, diminished self concept, employer resistance to hire, poor career planning, inadequate vocational training, and limited transportation. Negative public attitudes about blindness and blind people related to public lack of information of knowledge of blind people. Blindness was often equated with reduced mental and physical capabilities. The authors recommended public education, and inclusion or involvement of successful blind individuals in community education programs. Poor career planning and inadequate vocational training were identified as the source of many problems.

Most blind individuals who participated in the study felt that positive personal attitudes and self confidence, improved employment prospects. Parents, schools, rehabilitation agencies and blind persons who are role models help to shape self confidence in visually impaired youth. Salomone and Paige argued that career planning and development can be improved for people with visual impairments with career exploration in elementary schools and career counselling during the early high school years (Salomone & Paige, 1984).
Corn and Bishop (1985) administered an occupational aptitude survey and interest schedule (Oasis-IS) to Grade 8-12 students with visual handicaps in both public and residential schools. The results of this study indicated that the occupational interests of visually handicapped adolescents were as varied as those of their normally sighted peers. One notable exception to this general finding was the preference expressed by visually handicapped subjects for repetitive factory work. Corn and Bishop speculated that this may reflect a lack of exposure to occupational alternatives. The adolescent subjects of this study demonstrated gender tendencies similar to their sighted peers. The authors suggested that the occupational outlook of adolescents with visual impairments may indeed be broader than the research literature would suggest.

McBroom, Tedder and Kang Ji (1991) examined career transition problems of young people with visual impairments. They identified overprotection by the education and rehabilitation system, overprotection by families, poor development of leisure time skills, limited choice of careers and negative perspectives on disability as problems in effective transition to the world of work. Some parents of participating subjects played an influential role as advocates in career planning while others were less influential or involved. These authors suggested that parents may be able to overcome their feelings of
overprotectiveness with careful examination of their child's abilities as well as limitations.

Impact of Disability on Family Dynamics

The connection between parental attitudes and adjustment to the blindness or visual impairment of their children is strongly related to the subsequent adjustment of the child (Ammerman, 1986; Burlingham, 1972; Cohen, 1964; Cowan, Underberg, Verrillo & Benham, 1961; Lairy, Harrison-Covello, 1973; Lambert & West, 1980; Lavelle & Keogh, 1980; Moore, 1984; Tuttle, 1986; Warren, 1984). Reports of inadequate family, parent or child adjustment were noted in several studies (Burlingham 1972; Lambert & West, 1980; Sommers, 1944) while others found evidence of adequate adjustment (Ammerman, 1986; Cowan, et al., 1961; Lairy, Harrison-Covello 1973). Most of these early studies were of children who attended residential schools and lived apart from their families. This may be an important contributing factor to the finding of parent and family adjustment difficulties. At the present time, most children with visual impairments attend public schools and live at home with their families.

Variability in general adjustment and personality patterns for persons with disabilities and their families is similar to the variability among non-
disabled persons (Gallagher & Vietze, 1986; Schontz, 1975; Wright, 1960). These findings challenge myths or mistaken beliefs or assumptions of general maladjustment among disabled individuals and their families. A second myth is that disability leads to excessive frustration. A third myth is the belief that disability is always experienced as a lifelong family "tragedy". Finally, a fourth myth is the notion that disability is experienced with shame, guilt or blame by individuals or their families (Wright, 1960). Societal biases and misinformation are not confined solely to employers. As with career possibilities, the effect and outcomes of disability on an individual and family are variable and unpredictable. Parents express concerns about their children’s futures (including their vocational futures), and their ability to establish their own families (Kaarela, 1959; Lehmann, Deniston & Grebenc, 1989).

Washington and Gallagher (1986) reported that parents and families cope with these concerns about their child’s future by setting long and short term goals and seeking necessary sources of support outside the family.

Krauss and Giele (1987) advised that parents need information, advice and emotional support during transition periods, such as school entry, or school to work and training. Parents often experience their greatest anxiety during transition stages (Brotherson, et al., 1988; Ferguson, et al., 1988; Goodall & Bruder, 1986). Informed, flexible parental attitudes and expectations are at the
core of successful adolescent parent relationships (Mendelsohn & Mendelsohn, 1986).

4. Families, Parents and Career Planning

The family plays a major role in the career development of adolescents whether or not they have disabilities. The research on family influence on career development merits discussion.

The family is recognized as an influence on career development from many perspectives. Super (1957) pointed to the importance of the family in shaping needs, values and providing positive and negative role models. Schulenberg, Vondracek and Crouter (1984) examined the literature on the family's influence on vocational development and suggested two interdependent dimensions: social and economic factors and parent-child relationships. The opportunities provided by families are influenced by their socioeconomic position, ethnic background, birth order of subjects, family size, single parent families, father's occupation and maternal employment. The second dimension consists of intrafamily or parent-child relationships and parental encouragement.

Bronfenbrenner (1979) provided a developmental framework in which to consider parent-adolescent interactions within the family environment.

Bronfenbrenner (1979) considered that parent involvement and guidance creates
optimal conditions for social and cognitive development. Bronfenbrenner (1986) stressed the importance of parent and family processes for decision-making, independence and maturity of children and adolescents. Erikson (1963) emphasized the importance of positive parent-child relationships for optimal personal and social development. Parental observation, reassurance, and confidence in their child’s abilities and activities are important to the development of a child’s positive sense of self (Erikson, 1963). Parent-child interactions that encourage industry and productivity in home, school and community activities during late childhood provide a solid basis for the later challenges of adolescence and young adulthood. Trust and reciprocity between parent and adolescent encourages adolescent initiative and autonomy as the adolescent considers adult roles and choices.

Grotevant and Cooper (1983) found that the quality of communication within the family affects the development of an adolescent’s sense of identity and role-taking ability. Cooper, Grotevant and Condon (1983) found that individuality and connectedness are adaptive attributes for adolescent development within a family context. Individuality was defined as adequate separation from the family to allow the adolescent to develop his or her own point of view. Connectedness referred to a secure base which enabled the adolescent to explore worlds outside the family.
Higher levels of parent-adolescent communication have been associated with higher levels of adolescent self esteem (Walker & Greene, 1986). High levels of parent-adolescent communication and increases in communication have also been associated with awareness of behavioural problems (Hawley, Shear, Stark & Goodman, 1984). Demo, et al. (1987) suggested that adolescents and parents have similar but distinct perceptions of their relationships, and self-judgements of communication were related to the self esteem of both adolescents and parents. The authors emphasized the central role of reciprocal communication as an indicator of support within the family unit. In a study of family processes and competence of 109 adolescents, Amato (1989) found that in general, adolescent competence was associated with a high level of parental support, a low level of parental control, a high allocation of household responsibility, a high degree of family cohesion and a high quality of sibling relationships. Grotevant and Cooper (1983) stressed the importance of open communication between parent and adolescent in fostering positive adolescent self concept and role taking. Communication is crucial to cohesion and adaptability among family members (Bronfenbrenner, 1979; Olson, 1985). Bronfenbrenner (1979) also discussed the importance of reciprocity of balance of power between parent and adolescent. Bronfenbrenner (1986) observed that
family processes may be more powerful than classroom processes with respect to decision-making, independence and maturity for children and adolescents.

**Parent Involvement in Career Planning**

Parents often report that they are unsure of how to assist their children with career planning (Alper, 1990; Bratcher, 1982; Brighouse, 1985; Laramore, 1979; McNair & Rusch, 1987; O'Brien, 1989). Students often expect that their parents will influence their career choices (Basow-Howe, 1979). Parents have an influential role, yet may be unaware of the importance of their influence on the career planning process (Abernathy & Davis, 1978; Birk & Blimline, 1984; Brotherson, et al., 1988; Crites, 1962; Ferguson, et al., Herr & Lear, 1984; 1988; McBroom et al., 1992; Palmer & Cochran, 1988).

Children and adolescents consult their parents most frequently for advice on career choices (Birk & Blimline, 1984; Jacobsen, 1971; Katz, Miller-Tiedeman, Osipow & Tiedeman, 1977). High school students cited their parents as offering more assistance in career planning than teachers, counsellors or peers (Brighouse, 1985; Davies & Kandel, 1981; Dowdy, Carter & Smith, 1990; Noeth, Engen & Noeth, 1984). Parental aspirations and expectations are reported to profoundly affect career choice behaviour in both disabled and non-disabled young people (Anderson, Mawby, Miller & Olson, 1965; Burkhardt,
Orletski, Hotchkiss, Lowry, Curry & Campbell, 1977; Chubon, 1985; Hyman & Stokes, & Strauss, 1973; McBroom et al., 1991). Jacobsen (1971) found a high level of parental encouragement for occupational interest exploration amongst parents and their sons. Encouragement was often given in the form of discussions about jobs, personal experience as well as specific encouragement to take a course of study or part-time employment. Communication and encouragement were most effective between parent and adolescent when centered on job interests or choices with a focus on career goals.

Young, Friesen and Pearson (1988) examined the ways in which parents assist their children in career development. Frequently cited activities of parent encouragement included providing study space in the home, financial support, giving of advice and showing interest. Both fathers and mothers were reported to give career related information to their sons more frequently than to their daughters (Young, et al., 1988).

Parents and Career Planning Programs

Vasa and Steckelberg (1980) argued for a level of parent involvement which allows parents to assume the position of advocate, teacher and role model in career education activities. Parent oriented career activities are most effective when they include specific goals, a limited time duration and resource
information. The authors emphasized the importance of evaluation of program outcomes, such as changes in parent and student attitude, knowledge and behaviour.

There have been a number of career programs which include parents. Osguthorpe’s (1976) The Career Conversation confirmed parent interest and influence. These conversations also increased parent perceptions of their abilities to assist their child in career planning.

Greenhough (1976) studied parental guidance and planning with senior students, and the outcomes of the six year longitudinal study indicated student satisfaction with later occupational choice. Lea (1976) conducted workshops for parents of high school students which were designed to give them information about the nature of vocational choice, in order that they might be a more helpful resource in career planning. Lea noticed that participating parents became more active in career planning, and their children became more interested in discussing career plans with their parents.

Castricone, Finan and Gumboll (1982) reported that both parents and students expressed satisfaction with a day long workshop designed to explore career planning. Activities included aptitude and interest tests and occupational resource information.
Houser, Moses and Kay (1987) reported on a weekend workshop for high school students with visual impairments and their parents in which student participants were assessed for job readiness. The authors noted that "in many cases, this was the first time the family had assessed their child, or the student had made a self assessment" (p. 111). Parents and students identified personal goals, actions and skills necessary for transition from high school to employment or further education. Students and parent participants found the job readiness assessment and planning sessions helpful. The information provided by the resource panel of employed persons with visual impairments and employers of persons with visual impairments was also judged helpful.


5. **The Partner’s Program**

The **Partner’s Program** (Cochran, 1985) encourages parents to become involved in career exploration with their adolescent son or daughter. The program provides a series of structured activities to facilitate consideration of
career alternatives. The program has been shown to be effective in assisting parents to examine future career options with their children. Palmer (1988) found it an effective means for parents to foster career development of their children. Completion of the program enhanced parent-adolescent communication and understanding. Gains were also demonstrated in the career maturity of participating adolescents. Pierson (1988) found that the program increased the self awareness of adolescent participants and it assisted them in gaining insight into their career choices. As well, the program strengthened family cohesion as parent and adolescent explored the process of career planning through the use of career resources of schools and colleges.

Cochran (1983a; 1983b; 1983c) studied the decision-making framework incorporated into the Partner’s Program. The Career Grid was found to be an effective method for high school students to examine personal values and priorities and their effects on occupational preferences. Cochran found that this framework allowed individuals to move from abstract analysis to concrete understanding of career choices, conflicts and alternatives in a way which was real and relevant for the individual student. This decision-making framework is a variant of Kelly’s (1955) repertory grid methodology which has been studied in career counselling and related to congruence of vocational preference.
(Bodden & Klein, 1972), career exploration, career planning and confidence in career decision-making (Neimeyer, 1989).

The Partner’s Program (Cochran, 1985) has been found to promote career awareness and decision-making with high school students (Palmer, 1986). Pierson (1988) reported that adolescents completing the program confirmed career choices or established career direction. The Partner’s Program stimulated preparation and planning for initial career entry.

Summary

This literature review has indicated the importance of parent involvement in career planning. Students with visual impairments and their parents recognize the need for career planning. Parents influence the development of their children in many ways yet their role in career planning activities is not well defined. The literature related to development of individuals who are blind or visually impaired frequently mentions the importance of parent involvement. Parents welcome professional involvement and advice in career and transition planning—but feel that their participation as partners with professionals is less than adequate. Few studies have reported on the ongoing participation of parents in career exploration programs.
Students with visual impairments face certain hurdles and may require adaptations due to blindness. These hurdles may become formidable obstacles to career planning without careful consideration of choices and options based on individual strengths, interests, and values.

The issue of how parents can be involved, and programming for parent involvement is an important one. This study utilized the Partner's Program as an approach to parent involvement in the career development of students who are blind or visually impaired. Chapter III describes the application of the Partner's Program to students with severe visual impairments.
CHAPTER III
THE PRESENT STUDY

Statement of the Problem

The study is an investigation of a program model in which the parent and adolescent work together to examine career-related issues, such as adolescent self awareness, career decisions and career plans. The study adapted the Partner’s Program for use with adolescents with visual impairments and their parents. Specifically, the study was directed to the following questions:

1. Will adolescents with visual impairments improve in career planning and decision-making with the Partner’s Program?
2. What effect will the Partner’s Program have on communication between adolescents and their parents?
3. Will use of the Partner’s Program affect adolescents’ perceptions of work roles?
4. How do adolescents perceive the benefits of the Partner’s Program model?
5. How do parents perceive the benefits of the Partner’s Program model?
The Partner's Program is based upon Super's (1957) Theory of Career Development Stages and Bronfenbrenner's (1979) Theory of Human Relationship Development. The program focuses on the exploration stage with its developmental tasks of crystallizing, specifying, and implementing an initial career choice. The program is designed to enhance the process of making an initial career choice. It reflects Super's view of career development which includes changes in maturity, roles, outlook and choices. The parent manual is based on Bronfenbrenner's Model of Dyadic Relationships (1979). The parent manual instructions and the workbook activities provide a structure for progress beginning with the observational, moving through shared activity, to a primary dyadic relationship, one which Bronfenbrenner (1979) considers to be optimal for adolescent development. One of the aims of the model is to build open, reciprocal parent adolescent relationships and stronger family networks which support transition from school to adult life. The program is structured to facilitate career exploration and preparation for adolescents in an examination of potential career options.

The Partner's Program (1985) includes a Parent Career Guidance Manual (Cochran, 1985a) and three workbooks: Activity Self-Exploration Workbook (Cochran & Amundson, 1985); Career Grid Workbook (Cochran, 1985b) and Planning Workbook (Cochran, 1985c).
The Parent Career Guidance Manual (1985a) orients the parent to their role as a partner in a career planning activity with their child. The manual encourages parents to establish an active partnership based on warmth, reciprocity, and a mutual balance of power as they complete tasks with their child. The workbook outlines activities, explains program goals, and suggests specific tasks for parent involvement.

The Activity Self-Exploration Workbook (Cochran & Amundson, 1985) identifies preferred activities with an analysis of interests, values and strengths. These are synthesized into central themes which are used to explore and analyze potential occupations.

The Career Grid Workbook (Cochran, 1985b) provides a structure for assessing values against choices—often resulting in conflicts which require rational decision-making to resolve. Participants are expected to evaluate occupational preferences and compare their choices carefully. Completion of the Career Grid Workbook may result in one or several initial career choices.

The Planning Workbook (Cochran, 1985c) emphasizes planning for initial career entry, education and training options. The workbook exercises encourage detailed planning for one or more potential careers. Flexibility, contingency planning, overcoming obstacles and fallback options are presented and discussed.
Adaptations for Students with Visual Impairments

The Partner's Program booklets were provided in print, and braille or audio tape formats. Program materials were also adapted to black type on white paper, rather than black type on yellow or pastel paper on which the program was published originally. An enlarged career grid was also given to participants (Appendix A).

The career grid, designed as a visual reference to organize and rate occupations and values, was provided in a braille format if necessary. The braille grid format was constructed with the use of a Perkins Braille Writer and blank sheet of braille paper. The Braille Writer organizes braille symbols into rows and columns, with spaces between rows and columns of symbols serving the function of grid lines. Using this format with two cell braille abbreviations for values and occupations, the career grid format was completed. Braille students also received separate instruction sheets (Appendix A).

The major adaptation to the Partner's Program was the addition of occupational resource books with information specific to individuals who are blind or visually impaired. The resources were included to inform parents and students of a wide range of choices. The intent was to have parents and students consider many possibilities prior to narrowing their options on the basis of intrinsic or functional limitations of a visual impairment.
The CNIB Survey of Occupations (Campbell, 1985) lists over 275 case examples of individuals who were legally blind and have been employed for two years. Each case example, listed by occupational title, includes a statement about visual acuity (Can/cannot read print), job adaptations, job modifications, and educational qualifications. The examples given in the survey represent most major occupational groups in The Canadian Classification and Dictionary of Occupational Titles. This resource was selected due to the number and variety of occupations listed. The authors note that "... the diversity of these career choices suggests that traditionally held views about the kinds of occupations which can be done by people with vision handicaps are inappropriate today" (Campbell, 1985).

The booklet, Career Choices for the Visually Impaired (Eddy, 1984), describes twenty diverse occupations successfully performed by individuals with severe visual impairments. The booklet lists the nature of work, job opportunities, helpful high school courses, and the individual’s personal qualities and comments. This publication is the result of a vocational career conference designed to demonstrate the abilities of visually impaired individuals, as well as their use of adaptive technical aids on the job. These resources were transcribed into audiotape and large print formats and given to study participants.
Population and Subjects

Subjects for this study were high school students enrolled in Grades 10-12 who were blind or visually impaired, and their parents. The sample included twenty students in Grades 10-12, (one recent high school graduate) and their parents. The selection criteria for participating students were: ability to read at the Grade 8 level, at least five years duration of blindness or visual impairment, and enrollment in Grade 10-12 in the B.C. high school system.

The subjects were recruited through specialist/itinerant teachers who were serving the students throughout the school year. Fifty-one specialist/itinerant vision teachers received a letter requesting assistance in identification of potential subjects (see Appendix A). If no reply to the first letter was received, a follow-up letter was mailed.

Letters describing the study were also sent to the Directors of Special Services in the 39 school districts which were reported to be serving high school students with visual impairments (B.C. Ministry Statistics, 1989/90). This letter also requested assistance in identification of potential participants (see Appendix B). The coordinators of Service Programs of the B.C./Yukon Division of the Canadian National Institute for the Blind also helped recruit students. The parent organization, AVIS (Association for Visually Impaired Students) advertised the study in their newsletter (see Appendix C).
Twenty-eight students and their parents expressed interest in the study and were given information and consent forms (see Appendix D). When the study was initiated there were twenty student and parent participants. Reasons for the non-participation of 8 families included: not meeting selection criteria, moving, not having sufficient time, or death in the family.

**Design of the Study**

The study was designed to investigate the use of the Partner's Program (Cochran, 1985) model with adolescents with visual impairments and their parents.

The dependent variables chosen were career certainty, career indecision, adolescent and parent communication and the importance of work role for the students.

The Parent and Adolescent Communication Scale (Barnes & Olson, 1984) was completed by both the subject and his/her parent to evaluate communication between parent and adolescent. The Career Decision Scale (Osipow, Carney, Winer, Vanico, & Koschier, 1976), and the Career Salience Scale (Greenhaus, 1971; 1977) were completed by student participants to investigate career decision-making and career salience.
The dependent variables were also examined through a semi structured interview process. The questions were selected to investigate the effects of the program on students and their parents. Specific questions on discussions of the adolescent and his/her parent were asked to explore the communication between parent and adolescent. Questions to explore career certainty, indecision and career salience were also included. The questions are listed in Appendix N.

**Description of Scales**

**The Career Decision Scale (CDS)**

The Career Decision Scale (Osipow et al., 1976) consists of 19 statements each representing a difficulty in making an educational or vocational choice. This Likert-type four point quasi interval scale was developed for use with high school and college students. There are two subscales: items with statements representative of certainty (e.g., "I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice."); and those which represent indecision (e.g., "I thought I knew what I wanted for a career, but presently I found out that it wouldn’t be possible for me to pursue. Now I’ve got to start looking for other possible careers.") Students were instructed to rate each item from "not at all like me" (1) to "exactly like
me" (4). High scores on the first two test items indicate career certainty. High scores on items 3-18 reflect indecision. Osipow, et al. (1976) demonstrated that these two subscales, certainty and indecision, are inversely related, with a high certainty score associated with a low indecision score and vice-versa.

The final scale item was an open ended statement which asked the subjects to write a description of their unique circumstances relative to career decidedness. The CDS was shown to be a stable measure of career certainty/indecision over two weeks ($r = .90$, Osipow, et al., 1976) and over six weeks ($r = .70$, Slaney, Palko-Nonemaker & Alexander, 1981 cited in Osipow, 1987). Studies completed with high school and college students reported Cronbach Alpha Internal Consistency Coefficients of $r = .83$ (Hartman & Hartman, 1982) and $r = .92$ (Hartman, Utz & Farnum, 1979).

Osipow, Carney and Barak (1976) conducted a factor analysis and identified four factors. The factors were: structure and confidence, barriers to career choice, difficulties in choosing among alternatives, and personal conflict in decision-making. Other investigators who have examined this factor structure, replicate similar but not identical factors and interpretations (Kazin, 1976; Slaney, 1978; Slaney, et al., 1981; Rogers & Westbrook, 1983; Hartman & Hartman, 1982). Osipow (1987) cautioned against relying on factor scores in any application.
In a review of research on the CDS, Slaney (1985) states that research has provided substantial support for the test-retest reliability of the instrument, and for its construct and concurrent validity. "... the Career Decision Scale is a brief, easily administered, valid, reliable measure of career indecision that is also capable of measuring changes that occur over time" (p. 143).

**Parent-Adolescent Communication Scale (PAC)**

The Parent-Adolescent Communication Scale (Barnes & Olson, 1982) consists of 20 statements which describe adolescent and parent perceptions and their experience of communication with each other.

Barnes and Olson (1982) conducted factor analysis which yielded two subscales that describe both content and process issues of communication. The Open subscale assesses the extent of openness or freedom in exchanging ideas, information and concerns. The Problem subscale focuses on hesitancy to share information; it also includes relative styles of communication.

The Open subscale includes items such as "my [mother/father,child] tries to understand my point of view" and "my [mother/father,child] is always a good listener". The Problems subscale consists of items such as "I am sometimes afraid to ask my mother/father/child for what I want" and "I don't think I can tell my [mother/father,child] how I really feel about some things".
The only differences between the parent and adolescent forms of the scale is the referent of each statement (mother, father, child).

Respondents used a 5-point Likert Scale to indicate the extent of their agreement with the item. The scores for items on the Problems subscale are reversed and combined with the scores on the Open Communication Scale. This conversion produces a total scale score which provides a measure of parent-adolescent communication. The PAC was shown to be a stable measure of parent-adolescent communication over a five week period with a test-retest reliability of $r = .78$ for the total score (Olson, 1982). Studies completed with high school and college students indicated a Cronbach Alpha Internal Consistency Coefficient of $r = .88$ for the total score (Olson, 1982) and $r = .86$ and $r = .88$ for adolescent communication with fathers and mothers respectively (Walker & Greene, 1986).

The Parent Adolescent Communication Scale (Barnes and Olson, 1982) appears to be a valid and reliable measure of positive and negative qualities of parent-adolescent communication. Adolescent’s self esteem and ability to make decisions are related directly to the quality of parent-adolescent communication (Anderson 1992; Demo et al. 1987; Grotevant & Cooper 1983).
Career Salience Scale (CSS)

The Career Salience Scale (Greenhaus, 1971; 1977) is a five point Likert scale designed to assess the importance of work role in a person’s life. Items were chosen to represent broad areas of attitudes towards work, vocational planning and relative importance of work (Greenhaus, 1971). The 6-item short form was used in this study. Greenhaus (1973) performed a factor analysis of the original 28 items which yielded three factors. The first factor reflected the relative priority of a career compared to specific sources of life satisfaction (family, friends, leisure). The second factor was associated with whether or not an individual wanted to work. The third factor indicated a concern with career advancement and planning for a career.

The CSS has a reported Cronbach Alpha Internal Reliability Coefficient of $r=.81$ for the long form and $r=.83$ for the short form (Greenhaus, 1971; 1973). The scale has been used in concurrent validity studies of the Vocational Decision Scale (VDS) (Jones & Chenery, 1980). The study findings indicated the career salience scale was positively associated with VDS test items on vocational certainty and the importance of work role.

The Career Salience Scale (Greenhaus, 1973) appears to be a valid and reliable measure of the importance of the work role in an individual’s life, which has been related to career choice behaviour.
Adaptations of Scales for Students with Visual Impairments

All scales were transcribed into an accessible format for students who are blind or visually impaired. Braille, audiotape, and type copies using a large print (Gothic 10 Laser) type style in clear black type on white paper were produced for use in the study (Appendices F, G, H).

Pilot Study

All test instruments and the Partner's Program materials were pilot tested with one male grade 12 student and his father to check procedures and adaptations of materials. Pilot test results were used to refine procedures for the study. Data gathered during the pilot are not included in the analysis reported in this study.

Pretests were administered to the student using the braille and audiotape format. Student responses were recorded by use of a Perkins braille writer and separate answer sheet. Test time was monitored, and time and one half allowance was adequate. The Career Decision Scale Manual recommends a 10-15 minute administration time. The student completed this scale in under 20 minutes. The parent completed the demographic information sheets, Parent-Adolescent Communication Scale and reviewed program materials within the
time allotted for pretesting of the student on the three measures (approximately 45 minutes).

The principal investigator completed the Partner’s Program with the student to gauge time and format requirements of the workbook activities. This pilot study took place at the student’s school for approximately one and one-half hours per week over a nine week period. Workbook activities completed orally did not require major adaptation or modification. The investigator kept handwritten notes on workbook activities and the student made up and revised braille lists of values, interests and occupations. The student also used a word processor with speech output to synthesize values and to rank values and occupations for the grid.

The adaptations for the braille career grid previously described were worked out through presentation of several formats. The audio tape presentations of tests were used and test instruction sheets (Appendix J) were refined.

The major outcome of the pilot study was the decision to include The Canadian National Institute for the Blind Survey of Occupations (Campbell, 1985) and Career Choices for the Visually Impaired (Eddy, 1984) resource books.
Statement of Hypotheses

1. Adolescents with visual impairments will demonstrate improvement in career decision-making and planning through use of the Partner's Program.

2. Adolescents with visual impairments and their parents will demonstrate improvement in communication about career decision-making and planning through use of the Partner's Program.

3. Adolescents with visual impairments will demonstrate improvement in their personal perception of the importance of work role through use of the Partner's Program.

4. Parents of adolescents with visual impairments will report improvements in their son's or daughter's career decision-making and planning through use of the Partner's Program.

Experimental Design

The design employed in this study was a "time lagged crossover control design" for equivalent groups. Campbell and Stanley (1963) illustrate the design as:
Group A  R    O₁  X    O₂    O₃
Group B  R    O₄    O₅    X    O₆

R = random assignment of subjects
X = treatment
O = testing

All subjects were measured on the dependent variables (career certainty, career indecision, parent communication, adolescent communication, career salience). The subjects were randomly assigned to one of two groups, experimental or control group. Group A received treatment (experimental group), while the Group B served as a control. Data derived from the measures were collected from all subjects in the middle of the study (O₂, O₃). At this time the treatment crossover took place and the subjects in Group B received treatment. Therefore, Group A served as a control (or follow up) group. Measures were then taken again. Interviews were conducted with all participants following testing sessions (O₃, O₆).

This design allowed the examination of treatment effects compared with a non-treatment condition for all subjects (Epstein & Tripodi, 1977).

For this study, the time lagged crossover design has many advantages. (1) It allows subjects to be randomly assigned to treatments. Random assignment to treatment group is the best way to ensure that the features of
subjects in one group will be counterbalanced by comparable but not identical features of subjects in the other group (Cook & Campbell, 1979). (2) It reduces the threats to internal validity such as contemporary history, maturation processes, and the effects of testing by assessments of the control group. Imitation, compensatory equalization and rivalry are unlikely to occur because all subjects receive the same treatment (Campbell & Stanley, 1963; Cook & Campbell, 1979). (3) This design has the potential to extend construct and external validity due to built in replication. (4) All subjects receive the treatment. Denial of treatment to subjects in many cases can be ethically and professionally unacceptable.

The time lagged crossover design allows use of a control group with a small sample size. A unique advantage of the crossover control design is that it "... provides the scientific rigor of a control group experiment without requiring any service denial to any agency clients" (Epstein & Tripodi, 1977; p. 165).
Procedures

Test Administration

Upon receipt of informed consent from parents and adolescents, arrangements for testing were made by telephone with itinerant teachers, high school guidance counsellors and CNIB Employment Counsellors. Test sessions took place at the high school which the student attended or in the home of the student, depending on parent and student convenience.

Volunteer test administrators included 15 itinerant vision teachers, 2 high school guidance counsellors, 1 CNIB employment counsellor and the principal investigator in eighteen communities throughout the province. Test administrators were provided with all test materials in the formats recommended for the student. A test session instruction sheet was distributed to standardize procedures (Appendix J). All testers were contacted by phone to ensure materials, tests and instructions were clear. Parents and students were contacted by phone to identify a convenient pretest date. A three day period during the last week of November was selected for the pretest session ($O_1/O_4$). All student and parent response sheets were coded to ensure confidentiality. As a check against data loss, response sheets were transmitted by facsimile machine and also returned in special delivery envelopes. Testers were
telephoned following this pretest session. No irregularities or difficulties were reported.

Assignment to Group

Assumptions of group equivalence were met by use of a blocking procedure to minimize initial differences between groups. Prior to random assignment, the Career Decision Scale (CDS) was chosen as the blocking variable. With a small number of subjects, it was important that not all subjects who rated highly on career certainty, or indecision on pretests, be in one group. A blocking procedure for equivalent groups was chosen (Cook and Campbell, 1979).

Individuals were ranked according to pretest scores on the certainty and indecision scales of the CDS, then counterbalanced for gender and randomly assigned to a group. Many researchers encourage blocking as a viable procedure. Huck, Cormier, and Bounds (1974) suggested that randomization and matching can be combined and "... that the combination of first matching and then random assignment will perhaps yield greater design precision than would randomization alone" (p. 244). This procedure was followed to increase the likelihood that significant experimental effects could be attributed to experimental intervention rather than intrasubject variability.
Treatment

The Partner’s Program which consists of four booklets, Parent Guidance Manual (Cochran, 1985a), Activity Self-Exploration Workbook (Cochran & Amundson, 1985), Career Grid Workbook (Cochran, 1985b), Planning Workbook (Cochran, 1985c) and a cover letter (Appendix K) were sent to the homes of subjects and parents in the first Experimental Group A at the beginning of January. Length of the treatment was set at five weeks. Parents and students in the Control Group B received a letter telling them to expect materials in five weeks following another test session (Appendix L).

The parents and students were telephoned within five days of materials being sent (by courier) to verify when they had received the package, and to ensure they understood the directions. Parents were telephoned two weeks from that date to check progress and remind them that another test session was scheduled in approximately two weeks. Parents were asked to keep a log of the number of hours they spent working with their child on the program. Experimental Group A had program materials for a five week period at which time the posttest session (O₂/O₃) was held for all subjects.

The first posttest session (O₂/O₃) followed the same format as the pretest session except for the omission of the Family Background Information form. Testing of both groups took place over a three day period.
After the principal investigator received phone notification, and results by facsimile, or mail, then program materials were provided by courier to the Experimental Group B. Subjects in Group B were telephoned five days after materials were sent and telephoned once again following a two week period. The Experimental Group B had the program materials for a five week period at which time the final posttest session \((O_f/O_o)\) was held. All study participants were tested on three occasions.

Following receipt of the results from the final posttest session, each parent and adolescent was interviewed. All interviews followed a semi-structured format (Appendix N). All participants permitted the interview to be tape recorded. All participants were given the program materials and references for future use.

Analysis of Data

The data were analyzed using quantitative and qualitative methods. Multivariate statistical analysis of the scores on five dependent variables: career certainty; career indecision; parent-adolescent communication; adolescent-parent communication and career salience, were computed following completion of the program by each group. Interviews conducted with each participant were tape
recorded and analyzed to examine specific effects of the Partner's Program on each of the five dependent variables from an adolescent and parent perspective.

**Multivariate Analysis (MANOVA)**

Multivariate analysis of variance tested for significant differences between the sample means of the five dependent variables in this study. The MANOVA procedure tests for group differences on the five dependent variables simultaneously. MANOVA was preferable to a series of univariate analysis of the program effects on each variable because of the rising probability of Type I error. Type I error, the probability of statistical rejection of the null hypothesis, when in fact the null hypothesis is true, rises exponentially in univariate analyses of experiments which have multiple dependent variables (Haase & Ellis, 1987). For example, with the five dependent variables used in this study and an alpha = .05, the experiment wise error rate would have been .23. Thus the probability of attributing statistical significance to an individual variable, due to chance alone, would be greater than one in five. The probability level of univariate analysis of variance, ANOVA, is based on the assumption that each ANOVA is completed on an independent sample. Repeated ANOVA on the same sample violates this assumption, whereas MANOVA tests the dependent variables simultaneously.
MANOVA is also recommended for studies which have correlated dependent variables (Tabachnik & Fidell, 1989). The dependent variables used in this study - career certainty, career indecision, parent and adolescent communication, and career salience - were chosen as variables that were associated with the study's subject, career planning. Expected correlations amongst the dependent variables would indicate an overlap in variance which could be attributed to these variables, and the behaviors they are intended to measure. Claims of statistical significance for individual variables individually implies that they are separate behaviors. MANOVA is preferred to repeated ANOVAs because the analysis takes correlations of dependent variables into account in all tests for significant effects.

BMDP3D (Dixon, 1988) for matched pairs was used to compute the MANOVA. Prior to the analysis, the data were screened using various BMDP statistical programs (Dixon, 1988) to test for the assumptions of multivariate analysis of variance. There were no univariate or multivariate outliers at the alpha = .001 level. Results of assumptions of normality, homogeneity of variance-covariance matrices, linearity and multlinearity were satisfactory.

There was one case of missing data due to one parent student pair who dropped out of the first experimental group. The missing data values were estimated using the BMDPPAM regression program which used all complete
cases to generate the missing data value for the MANOVA. Tabachnik and Fidel (1989) recommend estimation of missing values by regression as the most objective method of a missing value replacement. Estimates generated were within the range of scores on complete cases and included in subsequent analyses.

The career indecision subscale of the Career Decision Scale (CDS) was the only scale in which a decline in scores represents improvement. Therefore, reverse scale scores for the career indecision subscale were used in computing the MANOVA. Thus all scores used in computing the MANOVA represent improvement on each of five dependent variables of career certainty, career indecision, parent-adolescent communication, adolescent-parent communication and career salience.

Hotelling's $T^2$ statistic for matched pairs in a one sample, two group design was chosen to test for the effects of the Partner's Program on the five dependent variables between groups and within groups. The .10 level of significance was chosen due to the preliminary nature of the study with this population and to balance the risks of Type I and Type II error. Type II error, the acceptance of a null hypothesis when it should have been rejected, is intimately connected to the power of the analysis. The power of the analysis is related to the sample size and the treatment effect size (Cohen, 1988; Oakes
The anticipated and actual sample size for this study was small. There was no prior research with this population to anticipate the potential treatment effect size. A MANOVA with five dependent variables has a low power to detect a significant effect with a small sample size (Tabachnik & Fidell, 1989). Hence the .10 level of significance was chosen.

Effect sizes were calculated for each dependent variable before and after introduction of the Program. Effect sizes are measures expressed in standard deviation units which yield an indication of the magnitude of treatment gains and can serve as benchmarks for interpreting change (Cohen, 1988). Wolf (1986) discusses effect size and standards in the research literature to evaluate effect size. Cohen provided rough guidelines for the medical, social and behavioral sciences of ES = .20 (small effect), ES = .50 (medium effect), and ES = .80 (large effect) with a caveat that professional literature in a particular field yields a better standard for comparison (Cohen, 1988). A .50 standard deviation improvement in achievement scores is considered a conventional measure of practical significance (Rossi & Wright, 1977, cited in Wolf, 1986). Similarly a .33 standard deviation improvement is considered to be educationally significant (Tallmadge, 1977, cited in Wolf, 1986). Spokane and Oliver (1983) report that the average effect size for group differences after vocational intervention was .85 of a standard deviation. Effect sizes for this
study were calculated using the methods discussed by Cohen (1988), Spokane and Oliver (1983) and Wolf (1986). The specific calculation involved taking the difference in the means immediately before and after treatment and dividing it by the pooled pre-treatment standard deviation.

All interview data was gathered by telephone or in person and tape recorded. Tape recordings were transcribed for analysis. Interview transcripts were analyzed for themes using typewritten text and audio tape recordings in conjunction with the numbering and coding system of The Ethnograph (1988). This computer based text analysis program allows each line of interview data to be segmented, coded and collated according to coding categories. Related coding categories disclosed themes which were relevant to the dependent variables of career certainty, indecision, parent and adolescent communication and career salience. Additional categories related to treatment effects of the Partner's Program also emerged in the analysis of interview data and are reported under the relevant hypothesis.

**Summary**

This study investigated a program model in which parent and adolescent examine personal values, career decisions and plans. The effects of the program on: adolescent career decisions and plans, communications between
parents and adolescents and adolescent perspective on work roles were central questions of the study. The program itself is based upon Super's (1957, 1960, 1980) theories of career development stages and Bronfenbrenner's (1979) theory of human relationship development.

The four Partner's Program booklets included a parent guidance manual, activity self exploration exercises, career decisions framework and a planning workbook all of which were adapted to braille, tape or large print to suit individual participants who were blind or visually impaired. Two references which listed a wide variety of occupations and adaptations or technical devices to accommodate visual impairment were also included with the program as a result of a pilot study.

The target population was high school students in grades 10-12 who were blind or visually impaired and their parents. A survey soliciting volunteers was conducted through school districts, itinerant vision teachers, rehabilitation agencies and a parent organization in the Province of British Columbia.

Specific dependent variables chosen for investigation were: career certainty, and career indecision as measured by the Career Decision Scale (Osipow et al., 1976); parent and adolescent communication as measured by the Parent Adolescent Communication Scale (Barnes & Olson, 1982) and career salience as measured by the Career Salience Scale (Greenhaus, 1971, 1977).
Four hypotheses which proposed improvements in (i) career decision making and planning, (ii) parent adolescent communication, (iii) importance of work role for adolescents and (iv) parent perceptions of adolescents career decisions and plans, were investigated through use of a time lagged crossover control group experimental design.

A sample of twenty students and their parents received a pretest, and matched student pairs, counterbalanced for gender, were randomly assigned to one of two experimental groups. The first group were provided with the program materials for a five week period after which all participants received a posttest. The second experimental group were then provided with the program materials for a five week period followed by a second posttest for all participants. All adolescents and parents were interviewed after completion of the second posttest.

A multivariate analysis of variance (MANOVA) was computed on the dependent variables using Hotelling’s $T^2$ statistic for matched pairs. Effect sizes and graphs of each variable were examined. The audiotape recordings and transcribed texts of the interviews were analyzed using The Ethnograph (1988), a computer based text analysis program. Parent and student comments about the process and outcomes of the program were coded, collated and related to the relevant hypothesis.
CHAPTER IV

Results

Description of Sample

There were 10 male and 10 female participants. Ten of the participants had visual impairments which were diagnosed at birth. Four subjects had another disability in addition to visual impairment. Of the 20 families who participated, three were single parent families. Three subjects were the only child in the family. Of the 20 student subjects, 19 received the services of an itinerant teacher of the visually impaired; six had the services of educational aides; eighteen subjects were full time students in a regular high school program and one subject attended a resource classroom. One subject had just graduated from high school. The student subjects came from 18 different school districts in the Province of British Columbia.

Fourteen mothers and six fathers participated with their son or daughter. All but one of the parents were high school graduates; in 8 of the families one parent had a university degree. One third of the parents had not been born in Canada. A family background information form was developed for this study to gather student and family information (Appendix G). Information about student participants including age, grade, reading medium and visual condition are presented in Table 1.
### Table 1
Description of Sample

#### GROUP A

<table>
<thead>
<tr>
<th>Age</th>
<th>Grade</th>
<th>Age of Identification of Visual Impairment</th>
<th>Reading Medium</th>
<th>Visual Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
<td>12</td>
<td>Print</td>
<td>Optic Atrophy</td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>10</td>
<td>Print</td>
<td>Stargardt's Maculopathy</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>11</td>
<td>Print/Tape</td>
<td>Optic Atrophy/Nystagmus</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>9/10</td>
<td>Print</td>
<td>Optic Hypoplasia</td>
</tr>
<tr>
<td>5</td>
<td>17</td>
<td>9/10</td>
<td>Print</td>
<td>Aphasia</td>
</tr>
<tr>
<td>6</td>
<td>18</td>
<td>12</td>
<td>Birth</td>
<td>Albinism</td>
</tr>
<tr>
<td>7</td>
<td>16</td>
<td>11</td>
<td>Birth</td>
<td>Optic Nerve Glioma</td>
</tr>
<tr>
<td>8</td>
<td>16</td>
<td>11</td>
<td>Print/Tape</td>
<td>Toxo Plasmosis</td>
</tr>
<tr>
<td>9</td>
<td>16</td>
<td>10</td>
<td>Birth</td>
<td>Optic Nerve Dysplasia</td>
</tr>
<tr>
<td>10</td>
<td>15</td>
<td>10</td>
<td>Birth</td>
<td>Myopia/Nystagmus</td>
</tr>
</tbody>
</table>

#### GROUP B

<table>
<thead>
<tr>
<th>Age</th>
<th>Grade</th>
<th>Age of Identification of Visual Impairment</th>
<th>Reading Medium</th>
<th>Visual Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17</td>
<td>12</td>
<td>Print</td>
<td>Retinopathy of Prematurity</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>10</td>
<td>Print</td>
<td>Retinitis Pigmentosa</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>12</td>
<td>Print</td>
<td>Optic Atrophy</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>11</td>
<td>Print</td>
<td>Myopia/Nystagmus</td>
</tr>
<tr>
<td>5</td>
<td>18</td>
<td>11</td>
<td>Print</td>
<td>Kerataconus</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
<td>10</td>
<td>Birth</td>
<td>Leber's Congenital Amblyosis</td>
</tr>
<tr>
<td>7</td>
<td>16</td>
<td>10</td>
<td>Birth</td>
<td>Congenital Stationary Night Blindness</td>
</tr>
<tr>
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<td>16</td>
<td>11</td>
<td>Braille/Tape</td>
<td>Retrolental Fibroplasia</td>
</tr>
<tr>
<td>9</td>
<td>17</td>
<td>11</td>
<td>Print</td>
<td>Stargardt's Maculopathy</td>
</tr>
<tr>
<td>10</td>
<td>16</td>
<td>10</td>
<td>Birth</td>
<td>Aniridia</td>
</tr>
</tbody>
</table>

*Each group contained 5 males and 5 females.*
Interviews with all participants determined whether or not each parent/student had completed the workbooks. All parents reported they had read and completed the Parent Guidance Manual, the Activity Self-Exploration Workbook and the Career Grid Workbook with their child. Four parents indicated that they had not fully completed the Planning Workbook. Twelve parents recorded from 8 to 21 hours in their logs. Other parents did not keep a sufficiently accurate log to report the time spent on the program. All parents found the instructions and program straightforward. No parents or students telephoned the principal investigator for assistance. No reports of questions for assistance were received from the individual who assisted with testing.

One parent-student pair dropped out midway in the study. During the second follow up phone call to check on progress, one mother indicated that she had just discovered that her daughter had bulimia, an eating disorder. The mother indicated that treatment and counselling for this condition would take precedence over continuation with the Partner’s Program.

Data Analysis

The main aim of the study was to examine the effects of the Partner’s Program on career choice behavior of adolescents with visual impairments. Overall effects of the program were examined initially by analyzing the
variation in scores on five dependent variables. The five dependent variables included: career certainty, career indecision, parent communication, adolescent communication and career salience. Multivariate analysis of variance (MANOVA) was computed on these variables at three points in time; pretest before completion of the Partner’s Program by Group A and Group B; posttest 1 after completion of the program by Group A but not Group B; and posttest 2 after completion of the program by Group B and Group A.

Examination and analysis of descriptive statistics, effect sizes and graphs for each variable, before and after completion of the program under each hypothesis were completed.

Eighteen adolescent / parent pairs were interviewed after completion of the program and posttest 2. One adolescent / parent pair had dropped out of the study due to illness, while another adolescent parent dyad had moved and could not be contacted. Thirty-four interviews were completed by telephone. Two interviews were conducted in person at the home of the student. Interview transcripts and audiotapes for each parent and adolescent were analyzed for statements about: careers, experiences of communication with one another, and the program itself. The categories of statements which emerged were grouped into themes which could be related to the questions and hypotheses of the study: career decision making and planning; parent and adolescent communication;
importance of work role; and the adapted Partner’s Program model. Each experimental group was examined separately to monitor any differences or similarities in categories, or emphasis of themes within each group.

What was the overall effect of the Partner’s Program on the five dependent variables chosen as indicators or career choice behavior?

MANOVA Between Groups

With the use of Hotellings’ $T^2$ statistic the combined dependent variables were significantly affected between Group A and Group B upon completion of the program by Group A $F(5,5) = 3.38$ $P < .10$. A summary of the MANOVAs between groups is presented in Table 2.

<table>
<thead>
<tr>
<th>Source (Measures)</th>
<th>DF</th>
<th>F</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>5,5</td>
<td>2.67</td>
<td>.15</td>
</tr>
<tr>
<td>Posttest 1</td>
<td>5,5</td>
<td>3.38</td>
<td>.10*</td>
</tr>
<tr>
<td>Posttest 2</td>
<td>5,5</td>
<td>.55</td>
<td>.73</td>
</tr>
</tbody>
</table>

Group A: $O_1$ $O_2$ $O_3$

Group B: $O_4$ $O_5$ $O_6$

83
**MANOVA Within Groups**

With the use of Hotelling's $T^2$ statistic the combined dependent variables were significantly affected again within Group B upon completion of the program $F(5,5) = 8.77 \ P < .02$. A summary of the MANOVAs Within Groups is presented in Table 3.

**Table 3**

Multivariate Comparison Between Pretests and Posttests
For Group A and Group B

<table>
<thead>
<tr>
<th>Source (Measurement)</th>
<th>DF</th>
<th>F</th>
<th>Probability</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest 1</td>
<td>5,5</td>
<td>.79</td>
<td>.59</td>
<td>(O₁ vs. O₂)</td>
</tr>
<tr>
<td>Posttest 2</td>
<td>5,5</td>
<td>.72</td>
<td>.63</td>
<td>(O₂ vs. O₃)</td>
</tr>
<tr>
<td>Posttest 1</td>
<td>5,5</td>
<td>.49</td>
<td>.76</td>
<td>(O₄ vs. O₅)</td>
</tr>
<tr>
<td>Posttest 2</td>
<td>5,5</td>
<td>8.77</td>
<td>.02*</td>
<td>(O₅ vs. O₆)</td>
</tr>
</tbody>
</table>

Group A R O₁ X O₂ O₃
Group B R O₄ O₅ X O₆
A post hoc-analysis of these effects on the combined dependent variables through calculation of simultaneous confidence intervals did not attribute a statistically significant gain to any one of the five dependent variables alone. Univariate analysis were ruled out due to intercorrelations amongst the dependent variables (Table 4, Appendix A) and the high error rate associated with repeated univariate analysis of the sample. Treatment effect sizes were calculated based on test scores for each dependent variable before and after introduction of the program. Effect sizes yield an indication of the magnitude of treatment gains measured in standard deviation units. The specific calculation involved taking the difference in the means immediately before and after treatment and dividing it by the pooled pre-treatment standard deviation. A summary of means and standard deviations is presented in Table 5, Appendix A.

Hypothesis One

Adolescents with visual impairments will demonstrate improvement in career decision-making and planning through use of the Partner’s Program.

Improvements in career decision-making were examined initially through analysis of changes in career certainty scores on the Career Decision Scale
(Osipow, 1987). Career certainty on this scale is defined as definite decisions on which career or major to pursue and a knowledge of how to implement the choice. Group A demonstrated gains in career certainty upon completion of the program at posttest 1 (effect size + .77) as compared to pretest scores. Group B demonstrated similar gains upon completion of the program at posttest 2 (effect size - +.68). These results are illustrated in Figure 1.

Figure 1
Mean Scores for Career Certainty (CDS)
Effect Sizes for Career Certainty

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean (Pre) (SD)</th>
<th>Mean (Post 1) (SD)</th>
<th>Mean (Post 2) (SD)</th>
<th>Pooled S.D. (Pre)</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A:</td>
<td>4.10 (2.07)</td>
<td>5.70 (1.63)</td>
<td>5.70 (1.76)</td>
<td>2.06</td>
<td>.77</td>
</tr>
<tr>
<td>B:</td>
<td>4.40 (2.06)</td>
<td>4.50 (2.32)</td>
<td>5.90 (1.37)</td>
<td>2.06</td>
<td>.68</td>
</tr>
</tbody>
</table>

There was also a decline in career indecision scores in the Career Decision Scale (Osipow, 1987). Career indecision on this scale is defined as lack of confidence about vocational decisions; this includes external barriers to a preferred choice and difficulty choosing among several attractive alternatives (Osipow, Carney & Barak, 1976). Group A demonstrated a decline in career indecision upon completion of the program at posttest 1 (effect size = -.22) as compared to pretest scores. Group B demonstrated a similar decline upon completion of the program at posttest 2 (effect size = -.37). However both groups in decision scores declined in the non treatment period as well, which indicates the decline was a function of time as opposed to treatment alone. The results are illustrated in Figure 2.
A multivariate analysis of variance showed a significant treatment effect between groups, $F(5,5) = 3.38, P<.10$ and within Group B, $F(5,5) = 8.77, P<.02$. No significant difference was found within Group A $F(5,5) = .79, P<.59$. 

A: 33.10 (8.50) 31.30 (8.30) 28.10 (6.40) -0.21
B: 30.10 (8.81) 28.50 (8.05) 26.10 (5.42) -0.28
Career Decision Scale results on career decisions and plans indicated a medium treatment effect gain on the Career Certainty Subscale \( ES = +.77 \) for Group A and Group B, \( ES = +.68 \). The Career Indecision Subscale indicated a small decline over time \( ES = -.21 \) for Group A, \( ES = -.28 \) for Group B. Interview statements by adolescents indicated most had confirmed a career choice, and established a career direction after considering a number of possible career options.

The null hypothesis of no significant difference between Group A and B and within Group B on career decisions and plans following completion of the Partner’s Program was rejected.

Hypothesis 2

Adolescents with visual impairments and their parents will demonstrate improvement in communication about career decision-making and planning through use of the Partner’s Program.

Parent Communication

Improvements in communication of parents and adolescents were examined initially through analysis of changes in the parent-adolescent and adolescent-parent scores on the Parent Adolescent Communication Scale (PAC)
(Barnes & Olson 1982). Two subscales designed to assess the openness or freedom of idea and information exchange, plus the negative styles of communication make up the total scale score. Group A and Group B showed negligible change in parent-adolescent communication scores at posttest I upon completion of the program (effect size = -.01) as compared to pretest scores. Group B also showed little or no difference in parent-adolescent communication scores upon completion of the program at posttest II (effect size = +.14) as compared to posttest I. These results are demonstrated graphically in Figure 3.

Figure 3

Mean Scores For Parent Communication (PAC)
**Effect Sizes for Parent Communication**

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean (Pre) (SD)</th>
<th>Mean (Post 1) (SD)</th>
<th>Mean (Post 2) (SD)</th>
<th>Pooled S.D. (Pre)</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A:</td>
<td>84.20 (6.71)</td>
<td>84.10 (5.93)</td>
<td>83.80 (8.72)</td>
<td>8.09</td>
<td>-.01</td>
</tr>
<tr>
<td>B:</td>
<td>78.60 (9.47)</td>
<td>78.30 (7.55)</td>
<td>79.40 (7.7)</td>
<td>8.09</td>
<td>-.14</td>
</tr>
</tbody>
</table>

**Adolescent Communication**

Adolescent-parent communication scores showed more variability than parent-adolescent scores upon completion of the program particularly for Group B. Group A showed negligible change upon completion of the program at posttest I (effect size = -.09) as compared to pretest adolescent-parent scores. Group B showed an increase in adolescent-parent communication scores at posttest II (effect size = +.41) upon completion of the program. These results are demonstrated graphically in Figure 4.
**Figure 4**

Mean Scores For Adolescent Communication (PAC)

![Graph showing mean scores for adolescent communication over different testing occasions.](image)

**Effect Sizes for Adolescent Communication**

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean (Pre)</th>
<th>Mean (Post 1)</th>
<th>Mean (Post 2)</th>
<th>Pooled S.D. (Pre)</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A:</td>
<td>79.60 (11.84)</td>
<td>78.40 (12.36)</td>
<td>79.30 (15.49)</td>
<td>12.7</td>
<td>-.09</td>
</tr>
<tr>
<td>B:</td>
<td>71.10 (13.56)</td>
<td>66.10 (14.31)</td>
<td>72.10 (13.16)</td>
<td>12.7</td>
<td>-.47</td>
</tr>
</tbody>
</table>

Examination of the results for the parent form of the Parent Adolescent Communication Scale showed little or no change; Group A, ES = -.01 and
Group B, $ES = +.14$. Results for the adolescent form of the PAC were similar; Group A, $ES = -.09$, and Group B, $ES = .47$. The medium effect size gain in Group B can be attributed to an equivalent decline in Adolescent PAC scores during the waitlist period for Group B. A ceiling effect with the PAC scales is evident as mean PAC scores were in the 80 - 87 percentile range when compared with PAC test norms.

High communication scores on the PAC indicate an openness and willingness to share ideas and express points of view which concurs with parent and adolescent statements about their communication patterns. Parents and adolescents indicated that the program encouraged them to discuss and listen to one another's point of view about career plans and options in an open reciprocal manner. Adolescents indicated they would consult their parents on future career plans. All parents indicated the program enhanced a pre-existing family communication pattern.

The null hypothesis of no significant differences between and within Groups A and B on parent and adolescent communication was accepted.
Hypothesis 3

Adolescents with visual impairments will demonstrate improvement in their personal perception of the importance of work role through use of the Partner’s Program.

Improvement in the personal perception of the importance of work role for adolescents in this study was first examined through analysis of changes in career salience scale (Greenhaus, 1971, 1977). Career salience is defined as the degree to which a person is career motivated and the relative priority of a work role as a sense of satisfaction among other sources of satisfaction. Adolescents in Group A demonstrated little change in career salience scores upon completion of the program at posttest I (effect size +.17) as compared to pretest scores. Group B demonstrated modest gains in career salience scores upon completion of the program at posttest II (effect size +.56). These results are demonstrated in Figure 5.
Results on the Career Salience Scale (CSS) indicate minimal gains in work role salience for Group A, CSS; ES = .17 and a medium effect size for
Group B, CSS; ES = .56. Interview statements by adolescents and their parents indicated that many participants had a high commitment to work role at the outset of the study which was affirmed by completing the program.

There were measured differences on CSS in both groups, the differences, and interview statements support the importance of career planning. The overall conclusion is to reject the null hypothesis of no significant differences between and within groups in their personal perception of work role through use of the Partner's Program.

Summary

An examination of the first three hypotheses using the measures of career decision making and planning (CDS), communication between parent and adolescent (PAC), and career salience (CSS) indicates that the difference between Group A (experimental) and Group B (control) F(5,5) 3.38 P < .10 can be attributed to Group A gains in measures of career planning and career salience (CDS (certainty), ES = +.77, (CSS, ES = +.17), and a decline in career indecision (CDS (indecision), ES = -.21).

The finding of a significant difference within Group B F(5,5) = 8.77 P < .02 can be attributed to a combination of increases in measures of career planning and decision making, (CDS (certainty), ES = +.68) adolescent
communication, (PAC, ES = +.47) and career salience (CSS, ES = +.56) and a decline in career indecision scores (CDS (indecision), ES = -.28).

Hypothesis 4

Parents of adolescents with visual impairments will report improvements in their son’s or daughter’s career decision making and planning through use of the Partner’s Program.

This hypothesis was tested through an analysis of parent responses and statements to interview questions which asked about advantages or disadvantages of the model, and its influence on the current career thinking of their son or daughter. Parental reflections on the program were examined as well as very specific remarks about the effects of the program on their adolescent and the parents themselves. Parents indicated that the recommended methods and structure of the Partner’s Program tended to encourage confirmation of adolescent choices or career directions as well as parent understanding of choices. Improvements in adolescent confidence, self understanding motivation, preparation and planning were also mentioned by parents. A parent comment which illustrates this:
"... It made him more certain, it gave him a positive attitude that shows - Yes, I am going to do this ... and it's OK to talk about it."

Parents viewed the program as a good way to address the subject or career alternatives and to plan two or three years ahead for possible career options.

Parents and students alike described themselves as normally too busy, with little time to discuss and speak frankly about career plans and aspirations. Parents stated that they had spent more time with their son or daughter in a constructive way directed toward career discussion in a manner which was not as rushed or haphazard as time spent together in other daily activities. Parents expressed confidence that the topic of career options and plans would be discussed more readily now, in a manner similar to advice on personal matters which is routinely sought by their son or daughter. Parents found that the process of narrowing interests, identifying what one enjoys and why, was a positive method for adolescents to pinpoint and solidify career options. An adolescent comment which illustrated this was

"We really took each level and talked about different occupations. We were able to talk about all the different values and aspects of everything ...."

A parent comment related to this is:

"... He narrowed his choices and eliminated some. He had a broad view, like he's a people person - he enjoys
people and, um, it sort of narrowed it down within that rather broad spectrum."

Parents and adolescents considered occupations they would not normally discuss. Parents emphasized that the structure of the program allowed students to view career choices as an evolution from an initial choice which could change with the discovery of other pursuits and opportunities. Parents observed that more options were examined or discovered than would have been the case without using the program materials and resource books. Parents commented that having to pick ten to twelve occupations, values or other interests encouraged students to broaden their perspectives; recognize similarities across occupations, recognize that several choices may be available; recognize their right to make choices within the range of their capabilities; as well as realize that education would play a major role. A parent statement about this is:

"I think that he saw some benefits, that there were some similarities in some other jobs that he was looking at, that were in those three jobs ... so he didn’t have to feel as if he hadn’t achieved what he wanted."

The program was described as good for examination of pros and cons of different vocations, and good for looking at careers in a different way altogether. Rather than concentration on one particular field the program encouraged students to consider the potential of other fields as well. Individual parents found that the process highlighted the career development of an
adolescent in a sensitive way which eliminated some choices based upon individual preferences. Parents indicated that activities narrowed or solidified a student’s perspective which in turn, encouraged future independence and discovery no matter which career a student may choose. Several parents stated that their son or daughter demonstrated definite strengths, made definite choices and appeared to be careful in choosing occupations they felt they would enjoy.

The career catalog and CNIB survey of occupations were described as useful in broadening the range of options and in considering how a visual impairment might affect a particular choice. One student stated that he thought some of the individuals with visual impairments listed in the Careers for the Visually Impaired booklet had undersold themselves. This particular student indicated to his father that he did not set goals as a visually impaired person. This student perceived that he could pursue almost any job that would not require good visual acuity and he would not settle for just any choice. His father suggested that his son’s abilities and aspirations were not those of a visually impaired person, but the survey and careers catalog made it clear to his son that the people listed in the various occupations understood the impact of visual impairment upon them in their occupation. Several parents said that taped materials and program resources were helpful and useful. Parents also commented that the resources coupled with career analysis through the Partner’s
Program exercises uncovered interests and possibilities that had not been considered previously. The number and range of possibilities to pursue within one occupational area was a motivating factor for some. One parent indicated

"Well, personally … I feel like it’s a really good idea because it does show him that there are jobs out there that he would be capable of … not to, uh - just go for - whatever is immediate."

The program promoted increased self understanding amongst students. Parents in both groups described the program as beneficial; it enabled students to recognize that their views about themselves had merit; and determine what was important to them in particular occupations or careers.

Several parents commented that completion of the Partner’s Program gave their son or daughter more confidence in making career decisions. More positive viewpoints about making career choices, and self-recognition of ability and determination to plan for career were noted as improvements.

Parents in each group observed improvements in career preparation. Parents noticed renewed attempts to complete high school courses and credits. Students realized the necessity of finishing high school, before pursuing further education for a career. The program helped students to examine or reorder career options as suggested by computerized high school guidance career exploration programs such as Choices. Parents said the Partner’s Program emphasized the importance of preparation and planning. The program clarified
the fact that high school would soon be over and a plan was needed as to where to turn next. The Partner's Program helped students to begin to plan and to consider visual disability in making career plans. The program also made the steps in choosing a career explicit and helped adolescents to understand how much school and university count in career plans.

Parents indicated that they were continuing the process of career discussions and that they expected their son or daughter to consult them more readily in the future. Parents reported that the program encouraged discussions with peers about choices and training opportunities. One parent commented that a more positive relationship was formed with the itinerant vision teacher as a result of the program.

When asked about the overall benefits of the Partner's Program parents in both groups had many positive and a few negative comments. One parent found his daughter had difficulty understanding the difference between an interest and a value. Another parent commented that the four program booklets and two resource books looked like too much to tackle at first, but once they got started the program went well. Other parents felt that completing the program in five weeks was stressful. Two parents indicated that their daughters had made choices prior to working on the program together and they stuck to those choices regardless of program activities. One parent indicated that
outside pressure from a school principal was not helpful. This parent felt that completing the program was a good experience, but more benefits would have accrued for her son without this outside pressure. She felt that she and her son worked better at home on this program and that school demands were a hinderance. Another parent commented that being invited to participate in the study without any outside pressure was a real help to him and his son.

All parents indicated that they would definitely recommend the program to other parents and high school students, especially if the adolescent was undecided or without ideas about a career direction. Those who benefitted most appeared to be adolescents in grade ten or eleven who had some ideas about career options but had not examined those ideas or options thoroughly. Parents of students who gained the least indicated that their son or daughter was quite certain of which career or direction to pursue, so there was little change in choice or direction for them. Parents of these students reported some improvement in confirmation of why a particular choice was made, or other career options which might be considered.

The analysis of parent responses and statements about the effects of the Partner's Program on career decision making and planning provides evidence for the rejection of the null hypothesis that parents of students with visual
impairments will report no significant improvements in career decision making and planning for adolescents who complete the Partner's Program.

**Interview Themes**

**Career Decision Making / Student Observations**

Four themes emerged from student statements about career decision making: (i) confirmation of career choice and direction, (ii) self awareness and career values, (iii) encouragement to explore and prepare for a career and (iv) exploration of options and consideration of visual disabilities.

**i) Confirmation of Career Choice/Direction**

Confirmation of career choice and decisions about definite directions to pursue were the most frequently mentioned results. Seven of the eight adolescents in the first group indicated that they had confirmed a career choice upon completion of the program. All students in the second group indicated confirmation or more certainty of choice and direction. Student statements which indicate this:

"It was really helpful because it gave me a better idea of what options were open and it helped me to see what jobs would be useful and be more certain about what I was to do."
"I think it made me more certain about my choice ... I got a chance to look at the things that I could do and realized - yes - this is what I want to do specifically - and I kind of fit really good into this category."

Individual students for both groups described how the program helped them discover how interests are linked with abilities and choices. The program helped individual students to understand that some talents were applicable to other careers in addition to those they considered their first choice. By completing the activities students in both groups gained an understanding of why they found some career choices more interesting than others. Students also recognized that career choices did not need to be made quickly and that career directions might well change.

Students reported that the program showed them the advisability of considering more than a single choice. Additional career choices encouraged future flexibility. One individual expressed doubts about his choice even though he had identified a preference. The program helped him understand that career choices were not as straightforward or simple as he previously thought!

ii) Self Awareness and Career Values

Self awareness increased during the course of the program. Students stated that the program helped them to consider how their own interests led them to particular career choices. The process was valuable as a way of evaluating
interests. Students from both groups said that the program helped them to link their personal interests with career options. They gained confidence and a more thorough personal knowledge and confidence in the pursuit of a career.

Career exploration exercises helped them reflect about what they had to offer employers. The exercises illustrated the difficulties in differentiating student values and preferences. Students stated that the program promoted their understanding about why they preferred some occupations over others. Some students expressed the opinion that examination of career options and alternatives helped them decide in which occupations they would be most likely to succeed. Such comments were made by students in both groups.

One student comment that illustrates this is,

"I have a lot of interests and, um, I guess I realized with the booklet that all of them are sort of tied in together with one main interest and ... I guess I’ve always had a couple of ideas as far as careers go. It sort of showed me why I am interested in most of the things I am interested in, and I’m lucky that my interests go along with my talents."

iii) **Encouragement to Explore and Prepare for a Career**

The program encouraged exploration and preparation.

Students liked the program as a career exploration activity because it did not have yes/no answers. Instead, the program was based on their interests, and students found it helpful to consider how they might benefit from personal
activities and interests. *The Career Grid Workbook* (Cochran, 1985) was
described as a useful framework to rank occupational options and then to
examine each in turn "for your own reasons". The comparison of values and
careers was described as "very helpful" in gaining knowledge or career options.

Participating students identified specific courses or majors which they
needed in order to pursue career goals. The program enabled them to identify
the skills and abilities that were required for particular jobs. The program
provided them with ideas about their employment options.

Students also reported that having a deadline to complete a survey of
interests, abilities and career options was helpful for completing the program.
One participant noted that parental encouragement combined with program
activities motivated him to look up types of jobs and job duties. This individual
thought every high school student would benefit from this exercise. Another
participant expressed the view that completion of the program increased his
confidence in seeking a particular career option. A third participant decided to
return to school after completing the program.

iv) **Exploration of Options and Consideration of Visual Disability**

The program seemed to clarify for students the kinds of limitations imposed
by their visual disabilities. Participants in both groups said they would
recommend the program to other students as a valuable career exploration exercise. Two participants, who did in fact pass on the program booklet to friends, stated that they thought it was particularly useful for a grade 10 or 11 student who was undecided or who was having a difficult time deciding about a career direction prior to their course selection in grade 11.

Individual students indicated they had gained a better idea of the variety of career choices that were open to them. Students discovered jobs they never knew existed, and they never would have considered. The reference information and career exploration activities opened new possibilities. Students pointed out that the program showed them how to find more information about specific jobs. Two student comments about this include,

"... It got me to think - you know - like [chuckle] I wouldn’t have thought about some of those careers if I wouldn’t have listened to them or heard or read about them."

"I discovered jobs that were listed - and that I never knew existed."

Several participants found that their vision was not adequate for particular careers and ruled out those options. Three individuals in Group B mentioned the impact of visual disability on their career decisions. One student noted that his career choice of computer graphics might seem odd to some people, but given the technological possibilities, his preferred choice was realistic. Another student questioned the feasibility of entering a profession which required a lot
of reading, which she found to be a difficult and slow task. She subsequently considered this factor when considering other careers. A third individual recounted exploring several community service occupations and found that his visual ability would limit his opportunities in that field. A student comment about this aspect of the program:

"It [the program] brought things into perspective - like I can't do this - you know - it showed me - kind of my limitations."

Students described the resource books as useful references to examine a range of occupations and educational requirements. Participants differed in their opinions. Some found the CNIB survey to be more helpful reference than the smaller booklet titled "Career Choices for the Visually Impaired" booklet. Others found the Canadian Classification and Dictionary of Occupations (CCDO) numbering system used by the Canadian National Institute for the Blind (CNIB) survey to be complicated.

The comments of the students concerning the effects of the program on career exploration were similar for both groups. Students in Group B made more comments about both the program and the limitations imposed by their visual disabilities.

The two students in each group who showed the most improvement in career decision making and planning had several options in mind, but were undecided
about their choices and unsure of how to evaluate their options before beginning the program. The judgement of improvement was based upon an increase in certainty and decline in indecision (CDS) and their comments.

The two students in each group who showed the least improvement were students who had already chosen a career option prior to beginning the program. These students already had several ideas of how to pursue their choices prior to undertaking Partner's Program activities.

Student statements about confirmation of choice and direction, self awareness and exploration of career options, taken together with the results on the career decision scale for both groups support the rejection of the null hypothesis of no significant improvement in career decision making and planning through use of the Partner's Program.

Importance of Career Planning and Work Role

Career planning was considered important by all participants. Student comments about career importance were made in conjunction with talk about their plans for the future. Having a future career was considered important prior to completing the Partner's Program. The parents of students in each group confirmed that work role was important to these adolescents. Students in Group A described their progress with the Partner's Program by saying that
career planning "took on a little more importance", "probably became more important", or "the program did improve on putting work first". Parents agreed with their children and that the program had "hardened his view that work roles will be important" or "helped boost the importance of work for her". Comments by five students in Group A indicated there was a change or increase in the meaning of "their work role".

Students in Group B made the strongest statements about the importance they attached to future work roles. Their statements were confirmed by their parents. Their comments included such superlatives as "very important", "vitaly important", "extremely important" or "a major part of my life". Nine of ten students interviewed stated that they felt work role was important prior to the beginning of the Partner's Program. After the completion of the program, four students indicated that their views had not changed. Five students indicated that completing the program had confirmed the importance of work role, particular occupations, or a set of values related to work as important. Three parents in Group B stated that no real changes in work role salience had occurred as a result of completing the program.

Both groups considered planning for future educational programs and career entry to be important. Students stated that knowing educational requirements, course selections, undergraduate studies, and planning career related activities
were important. Examples of students’ comments about planning and future career entry include:

"... Well, I have to get my biology and chemistry for what I want to go into. I have to, um, get my direction set for which of these jobs that I want and get what I need for them ...."

"I do think that out of the whole program I learned that planning is very important."

Student statements about career and work role salience and the results of the Career Salience Scale for both groups lead to the rejection of the null hypothesis of no significant improvement in their personal perception of the importance of work role through use of the Partner’s Program.

Parent Adolescent Communication

This study considered the impact of the Partner’s Program on communication between participants and their parents. The themes which emerged concerned: 1) changes in parent understanding, 2) changes in student attitudes, and 3) development of parent/child partnership.

v) Parent Understanding

Parents indicated that working with their sons and daughters helped them to understand their career decisions.
As parents gained more knowledge of their child’s interests, values, and goals they discovered that they were sometimes mistaken about their children’s interests. Some parents were surprised - when they realized how their children had ranked their choices; at their strong values that led to particular choices; at the high goals that had been set; and how thoughtful their adolescents were about their futures. Several parents expressed surprise at the particular career choices their children had made. Parent comments which indicate this understanding or revelation are:

"I didn’t realize that _____ has aimed his sights as high as he had - you know - I didn’t expect him to try and obtain the goals he was talking about a few years back."

"But she knows where she wants to go, and I wasn’t aware of that .... But the fact that she is looking at _____ as a future education - ah, it surprised me. I didn’t think she had planned that far ahead."

Parents commented that it was helpful to watch and listen to their son or daughter as they went through resource books and expressed their thoughts and opinions. One parent commented she did not realize how thoroughly her son had considered his career options and plans. Another parent observed that during the course of the program he realized how important it was to be sensitive to his son’s needs, feelings and values.

Prior to completion of the program, parents did not realize how strongly they advocated their own values only to discover that their sons and daughters
had quite different values. Parents commented that the adolescents seemed to have a limited set of values which were applied across many activities throughout the Partner's Program. Student comments confirmed that their parents gained more knowledge about them. Several adolescents expressed the notion that their parents were previously less aware of their interests and values. A student comment about this is:

"I think it did help her to see where I am coming from and to understand how I was thinking and feeling."

Parents whose adolescents had made firm career choices found it difficult to get them to consider new or additional options. They were surprised at the determination of their sons and daughters. These parents thought it was important for their son or daughter to consider alternatives. One parent indicated that her adolescent might benefit from counselling to broaden and clarify realistic career goals.

One parent found that she lacked information about a career which her son seemed well informed on, yet further investigations revealed he needed to be more specific about his plans and options. Parents felt that completing the program made them realize the importance of investigating possibilities from individual interests and strengths. Parents commented that they had become more aware of postsecondary education programs, finances required, scholarships available and time required for entry and completion of studies.
Several parents felt that grade ten and eleven seemed like the best time to make career plans, others felt that the program would benefit younger adolescents. Many parents expressed the view that this program would benefit all students, not only those with visual impairments. Several parents mentioned they would like to have completed this program with their other children or planned to use it with a younger sibling. One parent commented:

"That system is quite a good system really to find strengths and weaknesses, your own strengths and weaknesses ... I think the resource books have everything good in it. I wish I had that kind of information available to me for my older two kids so I think I would just ... I would just wholeheartedly recommend any parent and any aspiring...or any graduating students from high school to work with their parents on that ... I wish the material was available to me earlier."

Parents felt this type of individualized planning was not sufficiently emphasized at high schools. Parents said that students used guidance offices and school libraries to seek career information, but had no other access to the analysis of choices that the Partner’s Program provided. Several parents related their own experiences with ad hoc career plans - acknowledging the importance they attached to career planning for all secondary school students.

Parents realized visual impairments forced adolescents to consider factors such as mobility, driver’s licenses, and volume of reading and writing required by many potential career choices. The inability to obtain a driver’s licence was
limiting for two students - a fact which they both found difficult to accept. One parent related how his son recognized this as a limitation and indicated he would change his first choice and settle for the next best option that did not require this qualification. His father encouraged him to maintain alternate plans, and set limits within the range of his capabilities. This parent commented he was amazed to discover his son’s persistence in figuring things out and getting the job done. He required only extra time to complete the tasks. Career choices that seemed improbable due to visual limitations were encouraged to become leisure goals rather than career options. Another parent indicated that she felt options were more limited for her daughter due to visual disability and this made choice and direction all the more important. One parent observed that her son listed occupations which his eyesight would probably not allow him to pursue. Through an analysis of values this adolescent found career choices within the range of his capabilities. Parents observed that the resource books on were useful in providing a range of choices to consider. Parents also found this information encouraging, as the books listed many occupations which might normally be considered impossible due to visual limitations. A parent comment about this:

"... It certainly showed there were a lot of things that he could do that, you know - most people would think that someone in his position couldn’t … and people are doing it successfully, so it’s encouraging."
vi) Changes in Student Attitudes

Parents stated that their daughters and sons developed more positive attitudes with confirmation of career plans and definite actions. Adolescents became more definite by pinpointing specific careers. The interests and values of the students let to preferences which provided definite career directions. Some students who had decided on career options before participating in the program discovered additional alternatives within their chosen field through the detailed exploration of choices. Parents observed that the program helped their adolescents to feel comfortable discussing their career choices. The parents also noted sometimes, choice making was not easy. Students had to take a hard look at choices and the commitments necessary to pursue that choice. Two parents reported that their adolescents changed their attitudes as a result of the program: one applied for an apprenticeship program; and the other applied to an educational preparation program.

Parents noted the possible effects of visual disabilities and parents emphasized the benefits of their adolescents awareness that there were many job possibilities available to them. These parents observed that working with a variety of choices helped students to realize there were other employment options if their first choice did not work out. Parents encouraged their adolescents to broaden their perspectives. The program helped several
adolescents to feel more comfortable about changing their minds. Parent comments about this include:

"We worked through the material and found that good for eliminating choices and looking at careers in a different light altogether...He has acquired the ability to be comfortable within the event that in the future...to follow other pursuits would not be detrimental to him personally."

"He saw some similarities in some other jobs he was looking at, so he didn’t necessarily have to feel as if he hadn’t achieved what he wanted...Um, I guess what he’s most certain about is there are more choices than he thought."

One parent reported that the program prompted her son to reexamine the courses he had taken in school, and to consider other choices and options. Another parent indicated her son recognized the need to keep his options open. He specialized in one area of interest but chose other academic courses to accommodate a possible future change in career direction.

vii) Progression of Career Discussions

Most parents described the communications they had with their son or daughter as more positive than negative. The program encouraged parents and adolescents to spend more time together, work closely with one another and get to know one another better through examining different career issues. Parents found that their discussions intensified as the need or urgency of planning for
career options was emphasized. The time spent together on career discussions were considered to be a great benefit. The Parent Guidance Manual suggested that parents strive for reciprocity with their sons and daughters in an atmosphere of mutual warmth and respect. Parents noted these suggestions improved their communication with their teenagers. The students agreed and noted that they paid more attention to one another. One student comment:

"Like we really listened to each other and said what we thought about it."

Real communication emerged as parent and child concentrated on listening to one another, and expressed their honest feelings about career options. Parents provided assistance and support through encouragement, comments and information about specific jobs or educational backgrounds. The parents in both groups took a lead role by beginning the program and reading program information aloud. Some parents felt they needed to motivate their son or daughter. Some parents stated that their son or daughter tried to control or direct discussions from the outset, or showed impatience if they already had a firm view of their career choices. Parents observed that during the five week period of discussion adolescents appeared to relax and stop trying to control and direct discussions. Parents attributed this change to their adolescent perception that their parent understood their point of view. Some felt they had convinced their parents to acknowledge and accept their choices. In other instances
parents commented that both parties influenced and directed discussions in a reciprocal manner with free expressions of opinions and information. Career discussions included disagreement and agreement as well as acceptance of the right of the adolescent to make a final choice.

Students stated that parents listened more intently and discussed different values and aspects of careers. Parents described their involvement as assisting their adolescents to think and talk about possible hurdles, alternative courses of action and educational choices. Many of the students said that their parents had helped them with career decision making and planning by sharing opinions, and allowing them the freedom to direct discussions and make decisions.

One student observation which illustrates this is:

"Well, he sort of, uh - like helped me along and showed me what should be, like, taken...what courses...he helped me, and my dad helped me a lot...we sometimes disagreed, but it was mostly agreeable."

Parent statements about changes in the relationship with their children suggested that they encouraged them to express themselves. One parent recounted how their daughter began to recognize that there were no right or wrong views but only opinions which she had a right to hold regardless of her mother’s opinion.
Adolescent participants stated that the Partner's Program clarified their thinking about career choices and developed their appreciation of their parents' role. "Now my mother and I talk more about this topic" (jobs & careers); and:

"My father and I agree on goals and the fact that I am headed for postsecondary education and I am allowed and encouraged to pursue these goals"

were some of the comments made. The program had an impact which remained after its completion.

Student and parent statements indicated that their perceptions and understanding about career choices changed as they completed the program together.

Parent and student statements about communication and the inconclusive results on the Parent Adolescent Communication Scale for parents and adolescents in both groups leads to the acceptance of the null hypothesis of no significant improvement in communication through use of the Partner's Program.
CHAPTER V

DISCUSSION

Career Plans and Adolescents with Visual Impairments

Research confirms the need for improved career planning for adolescents with visual impairments. Studies repeatedly refer to the risks of unemployment, underemployment and lack of opportunity for career advancement for adolescents who are blind or visually impaired (Delgarza & Erin 1993; Sacks & Pruett, 1992). Investigations of reasons for this poor employment status suggest that adolescents with visual impairments benefit from help in making realistic career plans as well as information and assistance in planning for specific jobs (Graves et al., 1985). Studies of career planning efforts with this population indicate that poor career planning is linked to a diminished self concept. Those adolescents with visual impairments who seem to gain a sense of direction from career exploration and planning activities are those who report increases in self awareness, and a sense of self worth. Vocational aspirations of adolescents with visual impairments have been linked to statements of self confidence and independence of students (Davidson 1974, Neely & Kosier 1977; Sacks & Pruett 1992).

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Participants statements indicated that at the beginning of the study they were unsure about the process of choosing careers and which careers to choose. However by the end of the study these participants indicated they understood how and why a specific career choice was made. Students credited the Partner’s Program exercises with increasing their self awareness (values);

"I think it was really helpful because it gave me a better idea of what options were open and it helped me to see what jobs I would really enjoy with my values and what jobs I could do"

considering more choices, elaborating on those choices;
"What it does is motivates you to look up types of jobs and what you do in a job"

and specifying a choice;

"It helped me narrow it down to certain categories that I would be most interested in"

instigating a plan of action to implement a choice;

"It got me thinking about the educational part - like what I need to actually do to become what I want to become. I think that it really helped because I probably wouldn’t have thought about some of those things in such sort of detail if I wouldn’t have taken the program"

"I enrolled in college and things to take a transfer program, so, I think it helped me"

instilling confidence to pursue a particular career goal or choice;

"It made me more confident that the career I chose ... that I wanted to follow through with that"
and considering alternate choices and the possibility of change in career choice or direction;

"I don’t think I realized that before, but it made me realize that I do have talents and those talents can be used in other career choices also and not only in the career choice I am thinking of."

In some cases specific career choices were eliminated due to visual demands of an occupation: -

"I thought that there would be a lot of reading and that sort of thing - which is not my strong point - I get really tired ..."

"I wanted to become a ____ and I looked into that but my vision is not good enough for that - so that’s out."

In other situations occupations with demanding visual requirements were encouraged as a leisure activity by parents

"Like you know - we discussed photography ... and we talked it over - maybe choosing that as a strong hobby rather than a field to go into ...."

The program provided a positive decision making process which began with a detailed investigation of interests, strengths and values as well as any personal limitations such as the effects of a visual impairment.

In comparing this study with Palmer’s (1986) study of the Partner’s Program with a high school sample of students without disabilities the main effect of the program was similar - high school students gained in career maturity. Palmer
(1986) used *The Career Development Inventory* (Super et al., 1971) as an indicator of career planning exploration, information and decision making. The Career Decision Scale (Osipow, 1976) used in this study indicated that high school students with visual impairments also gained in career decision making, exploration and planning through use of the *Partner’s Program*.

This study confirmed Pierson’s (1989) findings that high school students identified a main theme of increased self awareness. Students with visual impairments in this study stated that they gained new insight into how a career choice was made and why a particular choice or direction was personally relevant to them. These insights encourage motivation for students with visual impairments and emphasize the importance of planning for one or more options.

The *Partner’s Program* in combination with career information specific to individuals who are visually impaired also encouraged students to explore a wider variety of occupations which they were unaware of prior to the study. This exploration was accompanied by a consideration of personal values and not solely limited to visual requirements of occupations. The limiting factor of the visual demands of certain occupations was considered in the context of personal strengths and values. This positive context for career decision making is important for adolescents with visual impairments so they maintain a positive
self concept and outlook. Literature on career employment problems for individuals who are visually impaired suggest that a negative self concept, lack of career information, stereotyped career choices and negative perspectives on disability are important factors that limit career development for individuals who are visually impaired. The Partner's Program created a positive atmosphere through the sequence and structure of career and self exploration activities.

Career Salience

Occupational aspirations and motivation to choose an ideal occupation have been associated with the relative importance of work role in relation to other sources of satisfaction (Greenhaus, 1973, 1976). The career motivation of students with disabilities is often considered to be at risk due to their knowledge about unemployment for disabled individuals. Financial disincentives to work, such as disability benefits contingent upon employment income, are also cited in the literature as one reason for unemployment or underemployment of individuals with visual disabilities.

Quantitative and qualitative results of this study indicate that students had a high level of career salience at the outset of the study. One explanation for this is self selection - only those students who were motivated to choose and
examine career options agreed to participate in the study. The present study indicated that career salience increased for participants in the second experimental group. These individuals reported the program motivated them to pursue specific choices and encouraged them to prepare and plan for future careers. Participants in this study indicated that the program helped them to realize the importance of a work role in their future. When asked about the importance of work in their futures and the effects of the program participants said

"Work will be a big part of my future life and work became more important for me over the program"

"Actually I think it did improve on putting work first ..."

This study supports previous studies which link increases in self awareness to distinct career preferences (Greenhaus & Simon, 1976, 1977; Jones & Chenery, 1980). In a recent study of high school graduates Delgarza & Erin (1993) suggest that adolescents with visual impairments may not view employment or career as critical to their life satisfaction and that they may need assistance to develop stronger work expectations and motivation. In contrast to the present study whose participants attended community public schools, Delgarza and Erin based their study on group of graduates from a state residential school - which may account for the difference in the attitude toward the relative importance of work role. Some researchers have suggested that over protection by schools,
rehabilitation agencies and families can be an impediment to the career development of individuals with visual impairments (McBroom et al., 1991; Warnke 1993).

Parent Roles

Parents play a prominent role in the encouragement and development of their children. Their role in fostering career development decision making and maturity for their children is central to this study. The Partner’s Program approach was based upon Bronfenbrenner (1979) hypotheses of adolescent and human relationship development. This study supports Bronfenbrenner’s contention that increased time in discussions of values provided parents with a better understanding of why their children were making certain career choices. The program provided parents with an opportunity to support and encourage their child’s choices. An increase in the quality of communication was found to be a result of the Partner’s Program.

Parent interview statements indicated increased parent understanding of their children, their career concerns, motivation and level of independence, such as

"I didn’t realize that ____ has aimed his sights as high as he had."

"I think it (the program) assisted in creating that feeling that ... it is okay to ... follow through what you feel is what you want to do right now."
The Partner’s Program allowed parents to be advocates as well as teachers and role models in career education activities as recommended by Vasa and Steckelberg (1980) for effective parent programs.

Parents who participated in this study noted improvements in adolescent self understanding, motivation, preparation and planning in relation to adolescent career decisions. These findings tend to confirm the importance of a parental role. Previous studies suggest that open communication between parent and adolescent tends to foster a more positive adolescent self concept, adolescent independence in decision making and consideration of new roles and career alternatives (Grotevant and Cooper 1983, Tuttle 1984, Bronfenbrenner 1986, Amato 1989, Anderson 1992). Parents involved in this study observed that they had gained insight into their child’s interests, values, and career aspirations. McBroom et al. (1991) in a study of career transition needs of youth with visual disabilities suggest that parents are more able to overcome feelings of protectiveness with careful examination of their son’s or daughter’s abilities as well as limitations. The Partner’s Program model provided parents with a way to examine their feelings and ability to allow their child to assume more independent role in the formulation of career plans.

The findings of this study were consistent with those of Grotevant and Cooper (1983) who stressed the importance of open communication between
parent and child in fostering positive self concepts and role taking behaviour.

Parents commented that adolescents discussed their views more freely and took more of a lead role in the decision making and planning activities as the program proceeded. One parent's comment that illustrates this is

"I found out that he's got some valid points - and that - I as a parent - quite often I push mine ... and in a lot of areas in this (program) I couldn't do that and you know - it worked out to be - that's OK. He's getting old enough now - I didn't have to be the controlling parent (chuckle) - He's getting quite independent."

Parent and adolescent subjects alike indicated they would continue to consult one another about future career discussions. Older adolescents with visual impairments were appreciative of their parents viewpoints. This is consistent with research which suggests parents of students with disabilities provide the main constant support for transition from school and training to adult life (Brotherson, Berdine & Sartini, 1993).

One unexpected finding associated with increased communication between parent and adolescent was the discovery by one parent that her adolescent daughter was bulimic. This discovery during the first two weeks of working on the program together prompted them to drop out of the study and seek professional help for this condition. Such a finding lends support to studies which suggest that higher levels of parent adolescent communication can be associated with awareness of behavioral problems (Hawley et al., 1984).
Parent Participation

Parental expectations of their children and their participation in transition plans have been identified by some researchers as primary determinant of successful transitions from school roles to independent adult roles (McNair & Rusch, 1987; Wehman 1990).

Recommendations for provision of specific information about adaptations and methods of performing jobs with little or no vision are often noted in the literature on career development needs of individuals who are blind or visually impaired (Delgarza & Erin, 1993; Graves, Lyon, Marmison, Bayet, 1986; Rusalem 1972). Parents need similar information and a well defined method in order to assume an active role in the career development process. Resource information on jobs held and adaptations used by persons with visual impairments was cited by parents and adolescents as valuable information to increase awareness of the diversity and range of occupations available. The Partner's Program provides a structure for parent/student interaction.

Parent comments about the usefulness and benefits of the Partner's Program in this study suggests that the model provided parents with a well defined role and method to participate in the career development process with their child. This information is useful to parents as they support their adolescent son or daughter in the transition from school to work. It is important that adolescents
with visual impairments and their parents have a strong sense of self-awareness of themselves, potential career options and plans so that they may be full and equal partners with educators and rehabilitation professionals.

Limitations

In this study the Partner’s Program model showed promise as one way of enhancing the career maturity of visually impaired adolescents in a manner that includes parents as full participants. This conclusion needs to be qualified by consideration of the sample population included in this study.

1. The sample was comprised of volunteer participants: adolescents who were blind or visually impaired, enrolled in grades 10-12 in the Province of British Columbia and their parents. The program requires a willingness to participate, and to work together, of both the adolescent and parent. The parent guidance manual suggests that establishment of a good working relationship is necessary to complete the exercises. Therefore the results cannot be generalized beyond voluntary participants.

2. Individual motivation to complete program exercises was high. The program requires a commitment of time and effort on the part of both adolescent and parent to meet, discuss and complete the exercises.
Commitment of parents to intervention programs with children with disabilities has been identified as a primary variable in program outcomes (Rosenberg 1977). Student participants in this sample tended to regard work and career as important to their future plans. External pressure, in the form of a school principal who urged a less motivated adolescent to complete the program, was not viewed as a positive factor in program outcomes for the adolescent. The findings of this study may not be relevant to those parents and adolescents not motivated to explore future career alternatives.

3. Many students who are severely visually impaired have additional disabilities. This population is not included in the present study. The sample size was small despite efforts to invite participation from all high school students with a visual impairment who could read at a grade eight level in the Province of British Columbia. The size of the sample limited both the scope of the statistical analysis and any generalization of results to a wider population. Study results should be interpreted in the light of the sample size and composition.
4. Replication of this study with the same model and a larger sample of adolescents with visual impairments and their parents would begin to examine the generalizability of the results of this study.

The Partner’s Program

The Partner’s Program model is based upon Super’s (1957, 1963, 1980) career development theory and Bronfenbrenner’s (1979) hypotheses about dyadic formation in human relationships. This study tested the Partner’s Program model with adolescents who are blind or visually impaired and their parents. The results of the study provide indirect evidence in support of these hypotheses.

Super postulates that in the exploration stage (ages 15-24) of career development, self awareness, an investigation of potential careers, and tentative decisions about career choices or alternatives, all lead to an increase in career maturity. In this study adolescents confirmed career choices and direction. Students considered a variety of alternatives, and based on their choices and decisions, began planning for specialized training for career entry. Findings of this study tend to support the view of Super and other vocational development theorists who define vocational maturity as an individual’s ability to plan and make choices based upon information and decisions about specific occupations.
Adolescents with visual impairments and their parents considered the impact of visual disability upon choices. In particular, the study supported Super's idea that the intrinsic aspects of blindness and visual impairment require close consideration from an individual point of view.

The findings of improvements in self awareness, career decision making and planning with adolescents who are blind or visually impaired supports the applicability of career development theory to individuals with disabilities. Vocational development theorists such as Super (1957), Harrington (1982), Philips, Strohmer, Berthaume and O'Leary (1983), and Thomas and Berven (1984) maintain that constructs of vocational development theory such as vocational maturity apply to special populations and that these constructs deserve investigation. The findings of this study concur with Davidson's (1974) study of adolescents with visual impairments and other studies of adolescents with disabilities (King, 1987) which indicate that many students with disabilities are more like than unlike non disabled students in aspects of their career development. This study supports the assumption that vocational development theory does apply to individuals with disabilities.

Bronfenbrenner's (1979) emphasis on reciprocity and balance of power between adolescent and parent are central to The Parent Career Guidance Manual instructions. During the self awareness and career exploration
exercises parents stated that they considered career options and aspirations of their sons and daughters more thoroughly. A parent comment which illustrates this consideration is

"We were really surprised that her last choice - her least preferred choice or occupation happened to be a ___ - and after we had finished the grid it ended up being the one that should have really been her third choice ... it was just really interesting."

Parents also reported their discussions were more reciprocal which resulted in more adolescent responsibility for decision making. Adolescents commented that their parents had played a larger role in initiation of discussions; that their parents encouragement was invaluable, and that the adolescents had taken on more responsibility for decision making. An example of parent and adolescent comments is

Father: "... I think there was more understanding on my part of where she was coming from - I was trying to rationalize what she was - where she was going ... basically she convinced me what she wanted was what she wanted."

Daughter: "I think I took on more of a leading role towards the end."

Adolescent reflections about increases in parental understanding and more parental communication about their career futures also provide support for Bronfenbrenner's hypotheses about dyadic progression in the parent adolescent
relationship relative to career development. An adolescent reflection of his experience is

"... we talked about them (careers) - we seemed to talk about it a lot more since this program than before. I'm not sure if that's because of you know - the stage in life or what ..."

These comments provide indications of support for Bronfenbrenner's hypotheses within the context of the Partner's Program model. More direct tests of these hypotheses would require a closer monitoring of the actual discussions in progress through such methods as participant observation.

Implications for Career Education

The outcomes of this study suggest a number of practical implications for adolescents with visual impairments and their parents, as well as educators and rehabilitation professionals in the field of blindness and visual impairment.

The Partner's Program model combined with information on a diverse array of careers held by blind and visually impaired people provides a valuable framework for adolescents and their parents to explore and plan for career options. The model requires careful examination and evaluation of more than one choice from a personal perspective. This requirement challenges singular, stereotyped, unrealistic choices (ie. radio announcer, musician) commonly made by adolescents with visual impairments who have not carefully examined
several options in light of their own strengths and values. Adolescents in this study confirmed career choices and plans, and identified alternative career options based upon their own values. Some adolescents also initiated plans for further education or training.

Studies of the career development needs of adolescents with visual impairments identified a need for: study of occupational preparation requirements, goal selection and decision making (Davidson 1974), more thorough career planning (Salomone & Paige, 1984), more information about specific occupations (Graves & Lyon, 1985), broader choice of careers and improved perspectives on disability (McBroom et al., 1991). Recent research suggests that adolescents who have career plans have a greater sense of self worth and more positive expectations than those without plans (Delgarza & Erin, 1993; Dimigen, Scott, Thackerary, Pim & Roy, 1993; Ferris 1991; Sacks & Pruett, 1992). The Partner's Program model addresses many of these issues.

Parent participation and influence, and a method or well defined role which includes parents in the career development process is another practical implication which follows from this study. The Parent Career Guidance Manual (Cochran, 1985a) provided parents with an approach and method which allowed them to initiate and carry through with self awareness and career exploration exercises. This activity took place in their own homes at times
which were possible and convenient for parents. The Partner’s Program activities provided specific information on adolescent values, specific occupational aspirations and plans to high school guidance counsellors and career counsellors working for rehabilitation agencies such as the Canadian National Institute for the Blind (CNIB). The type of information provided to students and parents in The CNIB Survey of Occupations explained some tools and techniques used to overcome the effects of blindness (Rusalem, 1972).

Mann and Harley (1986) suggest that parents, family and peers are important initiators of career goals, directions and plans. They also argue for involvement of rehabilitation personnel to ensure accurate career information and objectivity about career paths and implementation of career choices which reflect the realities of the workplace.

The outcomes of this study suggest that the Partner’s Program provides students and parents with a method to explore career plans and alternatives together. The information obtained provides an ideal basis for exploration and discussion with career counsellors and rehabilitation professionals. This process includes parents as well as students. The Self Activity Explorative Workbook (Cochran & Amundson, 1985) and Career Grid Workbook (Cochran, 1985) and The Planning Workbook (Cochran, 1985c) are of particular interest to educators, guidance counsellors, career rehabilitation
counsellors. Although parent involvement does not replace specialized placement and counselling services provided by career and rehabilitation counsellors, it is important both for parents and students - and it is a foundation for a more fully collaborative relationship between students, parents and professionals. Failure to include parents and family may partially explain for failure of transition plans for adolescents with disabilities, as ongoing involvement of friends and parents is significant in facilitation of employment for young adults with disabilities (Brotherson, 1993).

Suggestions For Future Research

There is a need for more research to be conducted in the area of parent participation in the career development of blind and visually impaired adolescents. There is also a significant number of visually impaired adolescents with multiple disabilities who would potentially benefit from this model of career planning.

Further research could also investigate use of this model to enhance the student/parent/professional relationship in transition plans for adolescents with visual impairments. Parents commented on a closer relationship with an itinerant vision teacher as a result of the study. Two parents also suggested that additional career counselling might benefit their sons and daughters.
A more process oriented investigation of the Partner's Program model which involved participant observation of the student parent discussions, and involvement with professions, could provide valuable information about communication amongst these participants and investigate more fully Bronfenbrenner's hypotheses of dyadic formation and development. Another area of investigation designed to investigate a parental role over a longer duration might provide information about the optimum time for parental input in career decision making and planning for their son or daughter. This study targeted a relatively short period of time in grades 10-12. A study which was more longitudinal in nature which began earlier in the school, and perhaps beyond the high school years would provide valuable information about career development issues as they evolve for adolescents with visual impairments.

A future study of parental involvement in summer and part time employment may provide valuable information on the parental role in exploratory employment experiences for adolescents with visual impairments.

Finally a study of other alternative models of parental input in comparison to the Partner's Program might highlight other variables or reveal other benefits of parental involvement in career planning with visually impaired adolescents.
Conclusion

An examination of the literature in the field of visual impairment and blindness indicates that there is widespread concern amongst adolescents who are blind or visually impaired, their parents, teachers and rehabilitation professionals about career awareness, decision making and planning for adolescents who are blind or visually impaired.

This study attempted to address this concern through investigation of a model of parent participation in career decision making and planning. A program which was structured to include parents and provide occupational resource information was provided to two groups of ten students and their parents. The results indicate that the Partner’s Program model and occupational resource information facilitated career decisions made in relation to certainty and direction of career plans. The model emphasized the importance of career planning for adolescent participants. The program encouraged communication between parent and adolescent about career options, plans and alternatives. The full participation of parents, and the outcomes for the adolescent would appear to be beneficial in the initiation of a more equal partnership amongst parent, student and education and rehabilitation service providers, but more research is required to determine this effect. Adolescents who are blind or visually impaired require the support of their parents and families as well as educators.
and rehabilitation professionals to overcome barriers to education, training and employment as they consider their career futures.
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APPENDICES
August 16, 1990

Re: Research study.
Career planning with visually impaired students and their parents.

Dear

We are seeking your consent for a research study which involves parents and their visually impaired daughter or son. The goal of the study is to validate a structured career planning program which includes visually impaired adolescents and their parents as partners.

The study: Career exploration and planning are important topics to address for high school students. Visually impaired and blind students are at a disadvantage in this process of exploration and planning, and have more difficulty in pursuing career options.

We believe that this model career planning program has many potential benefits for students, their parents, teachers, and rehabilitation professionals. The study provides career information resource books with case studies of a wide variety of successfully employed blind and visually impaired people. Workbook activities explore individual interests, values, career choices, and planning options. The program is designed to be completed by a volunteer student and parent over a period of ten weeks.

The model is based upon the Partners Program (Cochran, 1985) which was developed at U.B.C. It has proven successful in facilitating career development in two separate studies (Palmer, 1986 and Pierson, 1988) with sighted high school students and their parents in the Vancouver area.

School district involvement: The study will take place outside of school hours in the students home with a parent. Only grade 10-12 volunteer adolescents and parents who
have signed consent forms will be participants. All subjects will have the right to refuse to participate and may withdraw at any time.

The school may be involved in three ways. (i) as a central and convenient location for testing. (ii) through volunteer involvement of the itinerant vision teacher in administering tests (iii) as a resource for specific information about careers or educational and training opportunities in community colleges and universities.

(i) Testing: There will be three testing situations required for volunteer students and parents. One at the beginning of the study, another at the five week mid point, and a final one at the end of the study. These tests will be supplied by the researcher in the format required. The sessions will be brief 1-1½ hours and take place outside school hours. The researcher will orient the vision teacher or designate to test materials, response formats, etc. The local school would seem to be the most central and convenient location for the teacher, parent, and student.

(ii) Itinerant vision teacher: Itinerant vision teachers are being asked to volunteer to support the study. They will be involved in initial contact with potential volunteer grade 10-12 students, brief orientation to the program and test materials, and ensuring test materials and resource books are returned to the researchers. In the event that there is no designated vision teacher available suitable volunteer designates will be sought i.e. school counsellor, C.N.I.B. counsellor.

(iii) School resources-Career information: The program will undoubtedly generate questions about potential careers, actual job duties, educational requirements, training opportunities, outlook for advancement, etc. Students in the study will undoubtedly turn to their counsellors and guidance departments as a source of this information. This is the most direct area of school support.

We wish to emphasize that participation will be voluntary with consent of adolescents and parents. The major role of the school in this project is as a meeting place and information resource.

John McConnell - a Doctoral candidate in Special Education, is conducting the study. Prior to studies at U.B.C., John McConnell was involved in educational support services for adolescents who are blind, visually impaired, or multi-handicapped in Atlantic Canada. He will be happy to discuss any questions you have regarding the research
Research study: Career planning

We are requesting a letter of consent from the school board which acknowledges the research project and allows the participation of schools as detailed above.

Thank you.

Sincerely

Sally Rogow, ED.D.
Supervisor
University of British Columbia

John McConnell
Doctoral Research Candidate
Table 4
Squared Multiple Correlations of Each Variable with All Other Variables (Computed From Pooled Within Groups Covariance Matrix)

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<th>C2</th>
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NOTE:
C1 = Career Certainty 1  A1 = Adolescent Communication 1
I1 = Career Indecision 1  P2 = Parent Communication 2
C2 = Career Certainty 2  A2 = Adolescent Communication 2
I2 = Career Indecision 2  P3 = Parent Communication 3
C3 = Career Certainty 3  A3 = Adolescent Communication 3
I3 = Career Indecision 3  S1 = Career Salience 1
P1 = Parent Communication 1  S2 = Career Salience 2
S3 = Career Salience 3
### Table 5

Summary of Means and Standard Deviations of Dependent Variables

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</table>

* Introduction of Partner's Program Materials

**NOTE:** Abbreviations:  
- CER = Career Certainty - CDS  
- IND = Career Indecision - CDS  
- P-COM = Parent Communication - PAC  
- A-COM = Adolescent Communication - PAC  
- SAL = Career Salience - CSS
Re: Career planning with visually impaired students and their parents.

Dear

I am writing to provide information on a study proposal which may be of interest to you and of benefit to the students you serve. The study proposal, which is part of my doctoral program, involves validation of a career planning model that includes volunteer high school students who are blind or visually impaired, and their parents.

My name is John McConnell and I am currently enrolled as a doctoral candidate in Special Education at U.B.C. I have been a teaching assistant to Dr. Sally Rogow and the Diploma Program for Teachers of the Visually Impaired during the 1989-1990 school year. Prior to my studies at U.B.C., I was employed as a program coordinator, consultant, and teacher, and worked closely with the staff of The Atlantic Provinces Resource Centre for the Visually Impaired to provide educational support to visually impaired and blind students in the Atlantic region. Most of my experience has been with adolescents who are blind, visually impaired or multi-handicapped. A focus of interest in both my work and study is career development and career opportunities for visually impaired and multi-handicapped visually impaired individuals.

I am writing directly to itinerant vision teachers to gauge the number of potential volunteer students who are enrolled in grades 10-12 for 1990-1991, students who may be interested in voluntarily participating in a career planning activity which includes active parental involvement.

I would also like to get an indication of the interest and support of individual itinerant vision teachers in this study.
The study: Validation of a Model of Parent Participation in Career Planning for the Visually Impaired.

The study is based upon the theory that career exploration and planning are important topics to address during the high school years. Another major theoretical premise is that parents have a major and ongoing influence on career choice, and that their involvement in career planning is a valuable resource for education and rehabilitation professionals.

The model includes both career information and workbook activities for parents and students to complete together. Resource books stimulate exploration activities; they detail present and future career possibilities for students who have a visual impairment. Workbook activities explore personal and career interests, values, and planning requirements from an individual perspective. The workbooks are designed to be completed independently by a volunteer student and parent over a period of ten weeks. There will be three testing situations required for students and parents: one at the beginning, another at the five week mid point, and a final one at the end of the study. Selected parents and students will also be interviewed following the study.

Vision teacher involvement:

I am asking for your input for the number of potential volunteer students with visual impairments who are enrolled in grades 10-12 for the 1990-1991 school year. When the study proceeds I will ask for itinerant vision teacher involvement in (1) a brief orientation to the proposed model program (2) a brief orientation and test administration to the student and parent at their local school at the beginning of the study (3) two brief testing sessions, one at the mid point, the other at the end of the study.

I will supply all necessary materials in the format required, obtain permissions, monitor and respond to queries, and make any other necessary arrangements.

I have not yet contacted individual students, parents, or parent groups, CNIB, or school/ministry agencies. These contacts will follow later in the summer. The intent of this letter is to provide information about the proposed study and to request your information and input.

Students with a visual impairment face the risk of unemployment, underemployment, or barriers to employment.
Parents of these students have concerns about their child's career possibilities and aspirations. I believe that this model offers potential benefits for students with visual impairments and their parents, and provides useful information for education and rehabilitation planners.

I request your support and involvement by asking you to please complete the enclosed form today or tomorrow. Please return the form in the enclosed, stamped, self-addressed envelope. If you have any questions or comments I would be happy to hear them and can be contacted at 224-4405 (home) or 228-4566 (work).

Thank you.

Sincerely

John McConnell
Validation of a Model of Parent Participation in Career Planning for the Visually Impaired

Itinerant Vision Teacher
Address
Phone
School Board
Correction (Sept/90) of above itinerant contact or address

Number of Potential Volunteer Student Participants:

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<thead>
<tr>
<th>Grade</th>
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<th>Female</th>
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</tr>
<tr>
<td>Total</td>
<td></td>
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</tbody>
</table>

Total: Print ____
Braille ____

Comments:

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

John McConnell
224-4405 (home)
228-4566 (work)
Parents And Career Planning

Is your son or daughter enrolled in grade 10-12 this year? Is he or she considering career possibilities and further education, wondering about employment opportunities and training? Do you wonder about the available choices too? If so, you may like to participate in a unique study of career planning that includes volunteer blind or visually impaired high school students and their parents.

The study is based upon the theory that career exploration and planning are important topics to address during the high school years. It also assumes that parents have a major, ongoing influence on career choice, and that their involvement in career planning is a valuable resource for education and rehabilitation professionals.

The study includes career information and workbook activities. Resource books give detailed examples of present and future career possibilities for students who have a visual impairment. Workbook activities explore personal values, career interests, and planning requirements from an individual perspective. The workbooks are designed to be completed independently by a volunteer student and parent over a period of ten weeks.

The study is being conducted by John McConnell, a doctoral candidate in Special Education at U.B.C. under the supervision of Dr. Sally Rogow. Prior to studies at U.B.C., John McConnell was involved in education support services for adolescents who are blind, visually impaired, or multi-handicapped in Atlantic Canada. He can be contacted for further information at (604) 224-4405 (home) or 228-4566 (U.B.C.). The study is tentatively set to proceed this fall.

A Trip to Denver
(submitted by Clara & Vic Swiatkiewicz)

Our son Andrew, 14 years of age and blind, attended a one week winter camp session near Denver, Colorado, last March 11 - 18, 1990. This camp is for visually impaired people from 14-25 years of age. The camp is sponsored by the Record Braille Institute of North America. This group also sponsors the summer camp at Camp Chawathen near Hope, BC.

The winter camp is an annual affair and operates out of the YMCA Camp of the Rockies at Snow Mountain, about two hours drive from Denver. The camp is free (a donation is appreciated, if possible). The camp
Dear Parent:

I am writing this letter to invite you to participate in a research study on career planning. The study will involve you and your adolescent son or daughter in a step by step career planning program guide. This career planning program was developed here at U.B.C. by Dr. Larry Cochran. It is designed to help parents explore career possibilities with their sons or daughters. I think this program has many advantages for blind and visually impaired students. The purpose of this research study is to explore those advantages and investigate the outcomes.

I appreciate your interest in this study of career planning for high school students who are visually impaired. I am presently a doctoral candidate in Special Education at U.B.C. Dr. Sally Rogow is my research advisor. Previous to my studies, I was a teacher of visually impaired adolescents for ten years and Program Coordinator for the Atlantic Provinces Resource Centre for the Visually Impaired in Halifax, Nova Scotia.

I enclose a copy of the parent consent form and an introductory statement which describes the role of parents in the study.

The study is tentatively set to proceed with two groups, one during a five week period prior to the school Christmas break and the second group immediately following the break.

Please read the enclosed material and send your reply to me in the envelope enclosed. I would also appreciate your telephone number and the times that are most convenient to telephone you. I will respond in writing with further details about the study dates and procedures.

Thank you for your consideration. If you have any questions or concerns please call me at 224-4405 (home) or 228-4566 (work).

Sincerely

John McConnell  
Doctoral Research Candidate  
University of British Columbia
Dear Parent:

We invite you to participate in a research study which involves parents and their adolescent daughter or son who happens to be visually impaired. The goal of the study is to investigate the potential benefits of a structured career planning program which involves adolescents and their parents as partners.

The study consists of a step by step career planning program that is completed together. Also included are career information resource books, with case study examples of current jobs held by blind and visually impaired individuals.

The program will take approximately 20 hours, which you complete at your convenience, during a specified five week period. The study will be completed in two, five week periods.

You and your daughter or son will be asked to participate in three sessions, each approximately one hour in length. We also request a one hour interview at the end of the study.

All data will be kept strictly confidential. Your name or that of your daughter or son will not be used. No individual results will be released to anyone.

You and your son or daughter have the right to refuse to participate or withdraw at any time. Participation or non-participation will have no effect on your child's access to programs or services. However we would greatly appreciate your participation in the program.

John McConnell, who is conducting the study, will be happy to discuss any questions you have regarding the research project. You can contact him at 224-4405 (home) or at 228-4566 (U.B.C.).

Please sign and return one copy of this form to John McConnell in the enclosed stamped self-addressed envelope. Receipt of the consent form will be acknowledged in writing.

Thank you for your assistance.

Sally Rogow, ED.D.
Supervisor
University of British Columbia

John McConnell
Doctoral Research Candidate
University of British Columbia
Dear Student:

We are seeking your participation in a research study which involves high school students who happen to have a visual impairment, and their parent. The goal of the study is to investigate the potential benefits of a structured career planning program which includes high school students and their parents as partners.

The study consists of a step by step career planning program that is completed together. Also included are career resource books, with case study examples of current jobs held by blind and visually impaired individuals.

The program takes approximately 20 hours, and we ask that you complete it at your convenience, during a specified five week period within the ten week time frame of the research study.

You and your parent will be asked to complete three test sessions, each approximately one hour in length, at the beginning, midpoint, and at the end of the study. You may also be asked to participate in a one hour interview at the end of the study.

All data will be strictly confidential, your name or your parent's name will not appear on the data sheet. No individual results will be released to anyone.

We wish to emphasize that participation is voluntary for you and your parent and that either of you may withdraw at any time. However we would greatly appreciate your agreement to participate in and complete the program. John McConnell, who is conducting the study will be happy to discuss any questions you have regarding the research project. You can contact him at 224-4405 (home) or at 228-4566 (U.B.C.).

Please sign and return one copy of this form to John McConnell in the enclosed stamped self-addressed envelope.

Thank you for your assistance.

Sally Rogow, ED.D.  
Supervisor  
University of British Columbia

John McConnell  
Doctoral Research  
Candidate

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CAREER PLANNING AND VISUALLY IMPAIRED STUDENTS AND THEIR PARENTS

FAMILY BACKGROUND INFORMATION

A. SON/DAUGHTER

Name: __________________________

Sex: M ____ F ____ Date of Birth: ____ ____ ____

Visual Condition: __________________________

Visual acuity with best correction: __________________________

Age of onset of visual impairment: __________________________

Prognosis of visual impairment: improve remain deteriorate stable

Does your son/daughter have additional disabilities? Yes ____ No ____

Education

Grade as of Sept. 1990 __________________________

School Name __________________________

Does your son/daughter receive educational support services from an itinerant vision teacher? Yes ____ No ____

an instructional aide? Yes ____ No ____

What is the educational placement for your son/daughter?

integrated in regular classes full-time ____

integrated in regular classes part-time ____

special resource class ____
Family Background Information

Has your son/daughter attended:

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<td>CNIB computer camp</td>
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</tr>
<tr>
<td>other camp</td>
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Does your daughter/son have particular interests and hobbies in the home?

Yes ____ No ____

List: __________________________________________

_____________________________________________

_____________________________________________

Are these hobbies and interests shared with other family members?

Yes ____ No ____

father ____ mother ____ brother ____ sister ____

B. FAMILY

Number of parents in the home: 1 ____ 2 ____

How many children are in the family? _________

What position is this child in the family?

1st ____ 2nd ____ 3rd ____ 4th ____ 5th ____
Family Background Information (continued)

Education level of parent(s) at home:

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Occupation of parents in the home:

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</tr>
<tr>
<td>father</td>
<td></td>
</tr>
</tbody>
</table>

What educational level do you expect your daughter/son to attain?

- partial high school diploma _____
- high school diploma _____
- community college diploma _____
- university degree _____
- postgraduate degree _____

What occupational level do you expect your daughter/son to attain?

- semi-skilled _____
- skilled/technical _____
- professional _____
C. COLLECTIVE FAMILY (OPTIONAL)

Have both parents grown up in Canada?  Yes ___  No ___

County of origin: mother ___________ father ___________

Do you belong to an ethnic community?  Yes ___  No ___

Name _______________________________________________________

Does the family share religious experiences such as:

- Church/Temple attendance  ___  ___
- Church/Temple camp  ___  ___
- Church/Temple club  ___  ___

Other: ________________________________

Does the family belong to other cultural or community groups?

- Community Centre  ___  ___
- Athletic Club  ___  ___

Other: ______________________________________________________

___________________________________________________________

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Does the family share a particular hobby or interest? (i.e. swimming) yes ___ no ___
List: ____________________________________________

THANK YOU
CAREER DECISION SCALE

Third Revision (1976)

by Samuel H. Osipow, Clark G. Carney,
Jane Winer, Barbara Yanico, and Maryanne Koschier

NAME ________________________________

DATE OF BIRTH ______________________ AGE ______

CLASS/GRADE _________________________ SEX ______

This questionnaire contains some statements that people commonly make about their educational and occupational plans. Some of the statements may apply to you; others may not. Please read through them and indicate how closely each item describes you in your thinking about a career or an educational choice by circling the appropriate number on the answer sheet. An example is given below:

Exactly Very much Only slightly Not at all
like me like me like me like me

I am excited about graduating and going to work

If you are excited about going to work and feel no hesitation about it you would circle "4" to indicate that the description is exactly the way you feel. If the item is very close, but not exactly the way you feel -- for example, you're generally excited about going to work after you graduate, but are experiencing some minor concerns about it -- you would circle the number "3". You would circle "2" if the item describes you in some ways, but in general it is more unlike than like your feelings; for example, if you are generally more concerned than excited about work after graduation. Finally, you would circle "1" if the item does not describe your feelings at all; that is, you are experiencing a great deal of concern and no excitement about graduation and work.

Please be sure to give only one response to each item and answer every item.
REMEMBER – 4 is exactly like me, 3 is very much like me, 2 is only slightly like me, and 1 is not at all like me.

<table>
<thead>
<tr>
<th>CIRCLE ANSWER</th>
<th>Like Me</th>
<th>Not Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>2. I have decided on a major and feel comfortable with it. I also know how to go about implementing my choice.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>3. If I had the skills or the opportunity, I know I would be a _______ but this choice is really not possible for me. I haven't given much consideration to any other alternatives, however.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>4. Several careers have equal appeal to me. I'm having a difficult time deciding among them.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>5. I know I will have to go to work eventually, but none of the careers I know about appeal to me.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>6. I'd like to be a _______, but I'd be going against the wishes of someone who is important to me if I did so. Because of this, it's difficult for me to make a career decision right now. I hope I can find a way to please them and myself.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
</tbody>
</table>
REMEMBER - 4 is exactly like me, 3 is very much like me, 2 is only slightly like me, and 1 is not at all like me.

<table>
<thead>
<tr>
<th>CIRCLE ANSWER</th>
<th>Like Me</th>
<th>Not Like Me</th>
</tr>
</thead>
</table>

7. Until now, I haven't given much thought to choosing a career. I feel lost when I think about it because I haven't had many experiences in making decisions on my own and I don't have enough information to make a career decision right now. 4 3 2 1

8. I feel discouraged because everything about choosing a career seems so "iffy" and uncertain; I feel discouraged, so much so that I'd like to put off making a decision for the time being. 4 3 2 1

9. I thought I knew what I wanted for a career; but recently I found out that it wouldn't be possible for me to pursue it. Now I've got to start looking for other possible careers. 4 3 2 1

10. I want to be absolutely certain that my career choice is the "right" one, but none of the careers I know about seem ideal for me. 4 3 2 1

11. Having to make a career decision bothers me. I'd like to make a decision quickly and get it over with. I wish I could take a test that would tell me what kind of career I should pursue. 4 3 2 1

12. I know what I'd like to major in but I don't know what careers it can lead to that would satisfy me. 4 3 2 1
REMEMBER - 4 is exactly like me, 3 is very much like me, 2 is only slightly like me, and 1 is not at all like me.

<table>
<thead>
<tr>
<th></th>
<th>Like Me</th>
<th>Not Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.</td>
<td>I can't make a career choice right now because I don't know what my abilities are.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>14.</td>
<td>I don't know what my interests are. A few things &quot;turn me on&quot; but I'm not certain that they are related in any way to my career possibilities.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>15.</td>
<td>So many things interest me and I know I have the ability to do well regardless of what career I choose. It's hard for me to find just one thing that I would want as a career.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>16.</td>
<td>I have decided on a career, but I'm not certain how to go about implementing my choice. What do I need to become a _______ anyway?</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>17.</td>
<td>I need more information about what different occupations are like before I can make a career decision.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>18.</td>
<td>I think I know what to major in but I feel I need some additional support for it as a choice for myself.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>19.</td>
<td>None of the above items describe me. The following would describe me better: (write your response below).</td>
<td></td>
</tr>
</tbody>
</table>

____________________

____________________

____________________

____________________

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<table>
<thead>
<tr>
<th>Total 1-2</th>
<th>Total 3-18</th>
<th>Normative Group</th>
<th>%ile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ind</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G

PARENT-ADOLESCENT COMMUNICATION

Adolescent and Mother Form

HOWARD L. BARNES & DAVID H. OLSON

<table>
<thead>
<tr>
<th>RESPONSE CHOICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I can discuss my beliefs with my mother without feeling restrained or embarrassed.</td>
</tr>
<tr>
<td>2. Sometimes I have trouble believing everything my mother tells me.</td>
</tr>
<tr>
<td>3. My mother is always a good listener.</td>
</tr>
<tr>
<td>4. I am sometimes afraid to ask my mother for what I want.</td>
</tr>
<tr>
<td>5. My mother has a tendency to say things to me which would be better left unsaid.</td>
</tr>
<tr>
<td>6. My mother can tell how I'm feeling without asking.</td>
</tr>
<tr>
<td>7. I am very satisfied with how my mother and I talk together.</td>
</tr>
<tr>
<td>8. If I were in trouble, I could tell my mother.</td>
</tr>
<tr>
<td>9. I openly show affection to my mother.</td>
</tr>
<tr>
<td>10. When we are having a problem, I often give my mother the silent treatment.</td>
</tr>
<tr>
<td>11. I am careful about what I say to my mother.</td>
</tr>
<tr>
<td>12. When talking to my mother, I have a tendency to say things that would be better left unsaid.</td>
</tr>
</tbody>
</table>
Adolescent and Mother Form

REMEMBER -- 1 strongly disagree, 2 moderately disagree, 3 neither agree nor disagree, 4 moderately agree, 5 strongly agree

____ 13. When I ask questions, I get honest answers from my mother.

____ 14. My mother tries to understand my point of view.

____ 15. There are topics I avoid discussing with my mother.

____ 16. I find it easy to discuss problems with my mother.

____ 17. It is very easy for me to express all my true feelings to my mother.

____ 18. My mother nags/bothers me.

____ 19. My mother insults me when she is angry with me.

____ 20. I don't think I can tell my mother how I really feel about some things.
### RESPONSE CHOICES

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I can discuss my beliefs with my father without feeling restrained or embarrassed.

2. Sometimes I have trouble believing everything my father tells me.

3. My father is always a good listener.

4. I am sometimes afraid to ask my father for what I want.

5. My father has a tendency to say things to me which would be better left unsaid.

6. My father can tell how I'm feeling without asking.

7. I am very satisfied with how my father and I talk together.

8. If I were in trouble, I could tell my father.

9. I openly show affection to my father.

10. When we are having a problem, I often give my father the silent treatment.

11. I am careful about what I say to my father.

12. When talking to my father, I have a tendency to say things that would be better left unsaid.
Adolescent and Father Form

REMEMBER -- 1 strongly disagree, 2 moderately disagree, 3 neither agree nor disagree, 4 moderately agree, 5 strongly agree

____ 13. When I ask questions, I get honest answers from my father.

____ 14. My father tries to understand my point of view.

____ 15. There are topics I avoid discussing with my father.

____ 16. I find it easy to discuss problems with my father.

____ 17. It is very easy for me to express all my true feelings to my father.

____ 18. My father nags/bothers me.

____ 19. My father insults me when he is angry with me.

____ 20. I don't think I can tell my father how I really feel about some things.
### RESPONSE CHOICES

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Moderately Disagree</td>
<td>Neither Agree Nor Disagree</td>
<td>Moderately Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. I can discuss my beliefs with my child without feeling restrained or embarrassed.
2. Sometimes I have trouble believing everything my child tells me.
3. My child is always a good listener.
4. I am sometimes afraid to ask my child for what I want.
5. My child has a tendency to say things to me which would be better left unsaid.
6. My child can tell how I'm feeling without asking.
7. I am very satisfied with how my child and I talk together.
8. If I were in trouble, I could tell my child.
9. I openly show affection to my child.
10. When we are having a problem, I often give my child the silent treatment.
11. I am careful about what I say to my child.
12. When talking to my child, I have a tendency to say things that would be better left unsaid.
Parent Form

REMEMBER -- 1 strongly disagree, 2 moderately disagree, 3 neither agree nor disagree, 4 moderately agree, 5 strongly agree

13. When I ask questions, I get honest answers from my child.

14. My child tries to understand my point of view.

15. There are topics I avoid discussing with my child.

16. I find it easy to discuss problems with my child.

17. It is very easy for me to express all my true feelings to my child.

18. My child nags/bothers me.

19. My child insults me when s/he is angry with me.

20. I don't think I can tell my child how I really feel about some things.
CAREER SALIENCE SCALE

J.H. GREENHAUS (1981)

NAME ____________________________

RESPONSE CHOICES
1. Strongly Disagree
2. Disagree
3. Uncertain
4. Agree
5. Strongly Agree

CIRCLE ANSWER

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1</td>
<td></td>
</tr>
</tbody>
</table>

1. It is more important to have some leisure time after work than to have a job in your chosen field, be devoted to it, and be a success at it.

2. I enjoy thinking about and making plans about my future career.

3. It is difficult to find satisfaction in life unless you enjoy your job.

4. I would consider myself extremely "career minded."

5. I intend to pursue the job of my choice, even if it allows only very little opportunity to enjoy my friends.

6. The whole idea of working and holding a job is kind of distasteful to me.

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Career Grid in Braille

To complete the career grid in braille use a Perkins brailler and a standard 11 X 11½ braille page.

Each occupation and each career value will need to be represented by an abbreviation.

The career value abbreviations are listed down the left hand side of the page.

The occupational abbreviations are listed across the top of the page allowing one cell for each abbreviation with two spaces separating each occupational abbreviation.

The braille writer will keep straight lines and columns to form the career grid framework. This allows the braille reader to locate, insert, and compare ratings of occupations and values.

An example of a career grid in braille using a numerical key for occupations is given on page 22 of the braille version of the career grid workbook.
CAREER PLANNING W/ VISUALLY IMPAIRED ADOLESCENTS AND THEIR PARENTS

TEST SESSION INSTRUCTIONS CHECKLIST

PRELIMINARIES

___ Arrange a mutually convenient time and a quiet location to meet.

___ Make parent and student as comfortable as possible and assure them that these scales have no right or wrong answers, just choices reflecting their individual point of view.

___ Clarify questions if asked and encourage them to give their best response based on their judgement of the statement.

___ Ask them to complete the appropriate forms (i.e., Adol. - Mother, Parent, Career Salience, Career Decision), individually and independently.

___ Ask them to be sure to give only one response to each question and to answer every question.

EQUIPMENT/MATERIALS

___ Regular cassette tape player available with earphones.

___ CCTV or visual aids available.

___ Braille writer available.

Please note the students requiring a braille response format will be asked in the brailled test instructions to "write the appropriate number" ("as opposed to circle the appropriate number") for each question.
TESTING

A. Parent

____ Family background information form.

____ Parent form of the Parent-Adolescent Communication Scale (20 items).

B. Student

____ Career Decision Scale (19 items).

____ Career Salience Scale (6 items)

____ Parent - Adolescent communication scale (20 items).

Either Adolescent-Mother form or Adolescent-Father form depending on which parent is present and working with the student on the program.

____ Note: Please administer the Career Decision Scale first. On each subsequent test occasion administer a different scale first.

C. Time

____ Should the student require more than one hour please break into two sessions.

D. Information

____ Please thank the parent and student for their time and interest. Inform them that I will be in contact with them directly and let them know to which five week period they have been randomly assigned. Ask them to direct any questions to me without hesitation at 224-4405 (H) 228-4566 (UBC).
RELAYING INFORMATION

Ensure all answer sheets have the parent-child code number written on the top of each sheet.

Transfer Braille responses to print copy for fax transmission.

Fax four completed scales (1 parent, 3 student, [9 pages total]) and the cover page titled "Career Planning Study - John McConnell" to the UBC/EPSE Fax No. 228-3302.

Finally place the four scales, response sheets and the completed family background sheets in the envelope provided and mail to:

John McConnell
UBC/EPSE
2125 Main Mall
Vancouver, B.C.
V6T 1Z5

Thank you ever so much for your assistance. I am indebted to you for your support. I am unsure of how I may return the favour, but you are resourceful and just may think of a way ... please do ask! I will be in touch.

Sincerely,

John McConnell
Dear

Thank you for attending the initial session in the study on career planning.

I enclose copies of the materials with this packet. Please look over the materials and begin the program at your convenience.

You may expect another meeting at the beginning of February.

Please do not hesitate to contact me directly if you have further questions.

Sincerely

John McConnell
CAREER PLANNING WITH VISUALLY IMPAIRED ADOLESCENTS AND THEIR PARENTS

WORKBOOK ACTIVITIES/ADAPTATIONS

1. Please read the parent career guidance manual completely before beginning the workbook activities.

2. The two resource books included contain case examples and useful information. Please use them as an initial reference, to stimulate discussion and explore possibilities.

   The CNIB survey is most efficiently accessed by the alphabetical index at the back of the book. Those case histories included in the survey are marked with three asterisks. ***

3. Please keep in mind that these examples represent a small number of the many career choice possibilities.

4. When completing the workbook activities in print or braille the student should be adding, deleting, ranking and rating choices.

5. The program will run for five weeks before another test session. Please keep a log of the number of hours you and your daughter/son spend on the program.

6. An enlarged career grid is included for those who might find it helpful. Braille instructions are included on a separate page.

7. I will be in contact by phone to verify that materials and procedures are clear.

Please contact me by phone if you have any questions.

John McConnell 224-4405 (H)
228-4566 (W)
January 11, 1991

UBC EPSE
2125 Main Mall
Vancouver, B.C.
V6T 1Z5
224-4405 (H)
228-4566 (W)

Dear

Thank you for attending the initial testing session for the study on career planning prior to the Christmas break.

You may expect a request to attend another similar session early in February. You will receive the career program materials shortly after this session in mid-February.

I continue to appreciate your interest and involvement. If you have any questions please do not hesitate to call.

Sincerely,

John McConnell
PARENT PARTICIPATION IN CAREER PLANNING WITH VISUALLY IMPAIRED ADOLESCENTS

INTERVIEW GUIDE/QUESTIONS

- Initial telephone greeting/personal greeting.

- Check to ensure that parent/adolescent is available individually for approximately 30 minutes each.

- Ask them to get the booklets so that they may be ready for reference.

- Obtain verbal consent to allow tape recording of interviews with a reassurance of anonymity.

- Did you complete all the workbook activities? Which ones?

Opening

I would like to get your reaction to the workbook activities and materials so that any future use of these materials will have the benefit of your experience. Although I did not write the materials, I selected them and it would be useful to learn what proved to be "right" or "wrong" with them from your point of view. I recognize that no one can remember every detail of completing the program, and what is remembered will be different for each individual, but details and incidents you are able to remember will be useful.
INTERVIEW SHEET

Date: ____________________________ Name: ____________________________

Time: ____________________________ Location: ____________________________

Program Completed: Y ___ N ___

ACTIVITY GRID PLANNING

1. How did it go?

2. Benefits?

3. Positive Impact  Negative Impact

4. Changes
5. Influence Persist

6. Future Consultation

7. Certainty

8. Importance of Work

9. Influence Career

10. Comments