

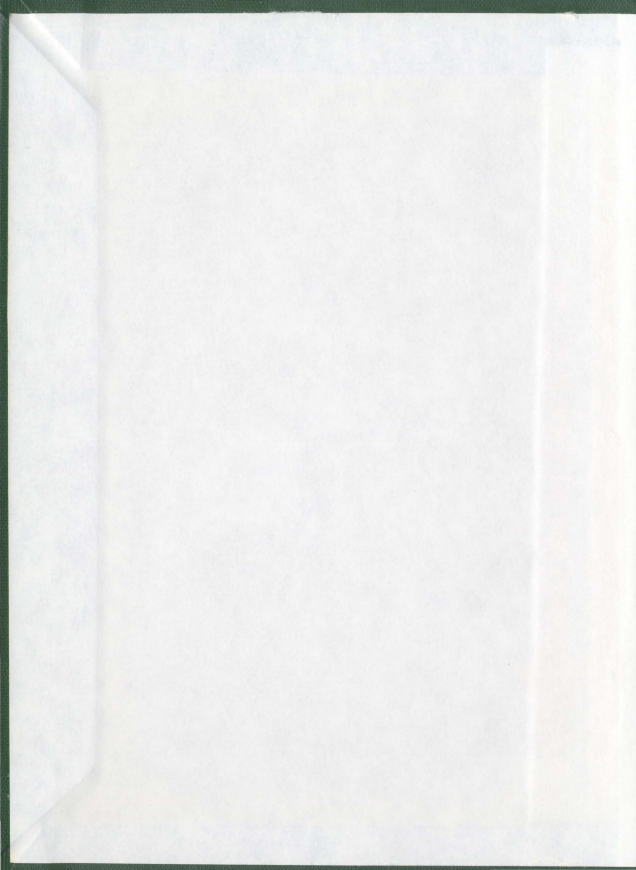
ATTITUDE CHANGE OF STUDENTS IN A PART-TIME
REHABILITATION PROGRAM AS A FUNCTION OF
EDUCATION ABOUT DISABILITY AND CONTACT WITH
DISABLED PERSONS: A PROGRAM EVALUATION

CENTRE FOR NEWFOUNDLAND STUDIES

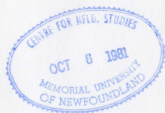
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MURIEL MARY FURLONG



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MEMORIAL UNIVERSITY OF NEWFOUNDLAND

ATTITUDE CHANGE OF STUDENTS IN A PART-TIME REHABILITATION
PROGRAM AS A FUNCTION OF EDUCATION ABOUT DISABILITY AND
CONTACT WITH DISABLED PERSONS: A PROGRAM EVALUATION

by



MURIEL MARY FURLONG

A PROJECT REPORT
SUBMITTED TO THE FACULTY OF EDUCATION
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ABSTRACT

The purpose of this study was to evaluate Level One of the Rehabilitation Certificate Program offered by Memorial University of Newfoundland Extension Service, September, 1978 to December 1979. The study focused on attitude change toward the disabled as a function of the program. The relationship between attitudes toward the disabled and dogmatism, age, sex, level of education and amount of previous contact with the disabled was also explored.

The two measurement instruments used in this study were the Attitudes Toward Disabled Person's (ATDP) Scale and the Rokeach Dogmatism (DS) Scale. Pre and post test questionnaires were administered to the students, in class, before and after each of the three courses of Level One. The data were subjected to t-tests with the null hypothesis rejected at the .05 level of confidence.

Findings indicated that a significant change of attitude occurred as a result of exposure to Course II. Although slightly positive changes occurred as a result of exposure to each of the other two courses, these changes were not deemed statistically significant. A slight, though not statistically significant relationship was

found between attitudes toward the disabled and dogmatism. Subjects who held more favorable attitudes toward the disabled tended to hold less dogmatic views. The variables of age, sex, level of education and amount of contact were not found to be statistically related to attitudes toward the disabled.

A series of recommendations for the future evaluation of this and other programs is suggested.

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CHAPTER I

INTRODUCTION AND STATEMENT OF PROBLEM

It has become common knowledge among those involved with the disabled that the attitudes of the general public towards disabled individuals are for the most part unfavorable (Anthony, 1972). Such negative attitudes have, in many cases, deterred disabled individuals in their attempts to realize their potential and become fully functioning members of society.

The target of unfair and discriminatory attitudes are most often those bearing such labels as physically handicapped, blind, deaf, mentally ill or mentally retarded. Such discriminatory attitudes are most apparent in interpersonal relationships found within family, employment and institutional settings (MacDaniel, 1969; Rusk & Taylor, 1946; Whitley, 1959).

In recent years, mental health professionals have become increasingly interested in the impact of such attitudes on the mental health of the disabled (Bindman & Spiegel, 1969; Iscoe & Spielberger, 1970; Caplan, 1970). Favorable attitudes, it has been theorized, are of crucial importance to encourage positive self-conceptions of the disabled and, thereby, better ensure a fast and effective rehabilitation

process. Such attitudes are necessary to promote the effectiveness of professional personnel and to adequately provide services to all categories of disabled people (Anthony, 1970; Spitzer & Denzin, 1968; Yamamoto, 1971).

Following from those observations, the responsibility lies with individuals involved in program development, with and for the disabled, to further investigate the area of attitude change, in an attempt to develop programs which positively influence discriminatory attitudes.

Purpose of the Study

The purpose of this study was twofold. The data presented focused on monitoring and evaluating a program designed to increase knowledge about and change attitudes toward the disabled. In addition to the program evaluation, the research data collected via the Attitudes Towards Disabled Persons (ATDP) and Rokeach's Dogmatism (DS) Scales were used to test the relationship between attitudes toward the disabled and selected variables.

Initially, this report grew out of a request to evaluate the impact of Level One of the Rehabilitation Certificate Program, first offered by Memorial University Extension in September, 1978. This program was designed to further train individuals currently employed in diverse roles in the field of rehabilitation. It was expected students participating in this program would learn to respond

to disabled people in ways which would facilitate mutual growth and development. Level One of this program consists of three introductory courses designed to be completed in one academic year (Appendix A). Level Two consists of three further courses designed to be completed during a second academic year (Appendix A). It is anticipated more advanced training will be designed in the near future. The data presented in this evaluation will attempt to give some indication as to the effectiveness of each course offered in Level One of the program; to help clarify which methods of exposure to material appear to be most useful in such a program; and, to make suggestions for change or improvement.

Secondly, as an adjunct to the program evaluation, the research data compiled made it possible to make some observations about attitudes towards the disabled as they relate to age, sex, level of education, amount of contact with disabled persons, and open and closed mindedness of participants.

Background Theory and Rationale

A review of the literature revealed many of the problems associated with disability, other than the disability itself, are derived from psychosocial factors. Good self-concept development is difficult in light of the stress brought on by unfavorable societal attitudes. Body image theory and personality theory, for instance, can be

applied to the process of adjustment to disability and are an important means of looking at the mental health of the disabled.

Body image theory, although not specific to the explanation of the effects of disability, can be used as a method of explaining the nature of a disabled person's difficulties (Shontz, 1970). Body image theorists believe attitudes individuals have towards themselves and others are determined in terms of their perceptions about physical appearance. English and Oberle (1971) found support for this theory in a study of occupational groups believed to employ women with high and low emphasis on physical appearance. Using the Attitudes Towards Disabled Persons' (ATDP) scale, they found the high physique group, airline stewardesses, were significantly more rejecting of disabled persons than the low physique group, typists. Principles derived from this theory, then, help explain the development in each individual of a self-concept and a set of attitudes related to self in terms of a bodily entity (Schilder, 1935; Fisher & Cleveland, 1968). As Murphy (1957) pointed out, the various life experiences from childhood through adolescence to adulthood work their effects through the body and influence personality.

Freud's psychoanalytic theory suggests "competition" rules the lives of men. This theory states behaviour is learned in the formative years. If there is very little

security, there is a tendency for the struggle between individuals to become physical (see Chapter II for further discussion).

Adler (1927), in his theory of individual psychology, emphasizes social motivation and individuality. This theory suggests all people are born with a drive to achieve superiority. In a pattern evolved from early childhood, individuals are motivated to compensate for feelings of inferiority. English (1971) stated stigma may be viewed as part of the need to achieve superiority even at the expense of others. The disabled, this theory suggests, may be continually "striving for superiority" or "compensating for inferiority." This continuous struggle by virtue of their disability and the continuous negative social pressure may lead to psychological stress. It appears, "individual psychologists" believe a higher incidence of emotional disturbance occurs among disabled individuals than the non-disabled (MacDaniel, 1969).

The responsibility, then, of those individuals involved in a supportive or counselling capacity with the disabled is ultimately one of preparing them to meet the demands of a society which, for the most part, sees itself as being physically and mentally normal. The reaction of such a society to something unusual or different is such that unless the disabled person is properly prepared, the impact may cause great mental stress and difficulty in

adjusting to his environment.

Wright (1960) discussed varying ways in which a negative attitude about disability expresses itself. It may be expressed by the patronizing person who offers charitable donations to "help the poor little handicapped children." It may be seen in the form of jokes that deprecate and ridicule the disabled. In the most extreme form, it is seen as an aversion to a person with a disability (Wright, 1960). Disability then leads to the likelihood of devaluation and inferior status by co-members of the society.

This inferior status appears to be similar to the status assigned underprivileged ethnic and religious groups (Barker, 1948). Employment opportunities are limited and social and recreational activities are often restricted. The disabled person, although accepted socially in some areas, usually is precluded in terms of marriage (Rusk & Taylor, 1946). Also, many of the favored majority wish to insist the disabled keep their place and act like less fortunate human beings. This theory is often referred to as the "requirement of mourning" theory (Dembo, Leviton, Wright, 1956). Dembo and his associates stated:

When a person has a need to safeguard his values, he will either (1) insist that the person he considers less fortunate is suffering (even when he seems not to be suffering) or (2) devalue the unfortunate person because he ought to suffer and does not.

Although the limitations brought on by disability cause a lot of pain and frustration for the individual, the limitations imposed by the evaluative attitudes toward disabled persons are far more severe and affect the person's feelings about himself (Wright, 1960). To use Maslow's (1954) theory of life stages, two of man's basic needs are for security and safety. In order to fulfill his potential and to count positively in the lives of others, the disabled individual must be accepted as an important member of the group. If disability remains linked with shame and inferiority, the disabled person cannot realistically accept his rightful status and accomplish self-realization.

The objectives of those working with the disabled should, therefore, focus on an understanding of such general societal feelings so they may explore ways of reacting and adjusting to those feelings and help prepare the disabled for their integration into society. Therefore, it is important that people working directly with the disabled possess sufficient knowledge and skill and positive attitudes to achieve those objectives.

Since the literature review which follows revealed only a limited number of experimental studies in the area of modifying or changing attitudes towards disabled individuals, a study aimed at further examination of attitude change and related variables should prove useful to those employed in the development of rehabilitation programs for

the disabled. Once identified and clarified, it is hoped that such variables can be used as a method of intervention in the development of more effective training and education programs aimed at modifying public opinion and positively influencing negative attitudes held by society.

Toward this end the present study has attempted to combine a program evaluation with a look at the attitudes and dogmatism level of participants in the Rehabilitation Certificate Program. Two commonly used scales--the Attitudes Towards Disabled Persons (ATDP) scale and the Rokeach Dogmatism (DS) scale--were chosen to gather the data.

Hypotheses

To attempt to answer the general research questions stated above, the following null-hypotheses were formulated:

1. There is no significant difference between ATDP and DS scores on pre and post tests of participants following each course.
 - 1a. ATDP and DS scores will increase following exposure to the course.
2. There is no significant difference between pre and post test ATDP scores for the non-participant group.
3. There is no significant difference in ATDP and Dogmatism post test scores for participants in each course and for non-participants.
 - 3a. Participants will score higher on the post tests than non-participants.
4. There is no significant difference between scores on the ATDP scales and the DS scales.

5. There is no significant difference in scores on the ATDP scale according to sex.
- 5a. There is no significant difference in scores on the ATDP scale according to age.
- 5b. There is no significant difference in scores on the ATDP scale according to level of education
6. There is no significant difference between scores on the ATDP scale according to amount of contact with the disabled.

Limitations of the Study

The complexity of attitude formation toward the disabled is such that no single study can adequately explain the many processes at work. It should be noted, therefore, the present study had a number of limiting factors. These were as follows:

1. The report should be seen primarily as a policy evaluation study with some general inferences on directed attitude change. Admission policy did not permit control over subjects entering the program or their allocation to treatment and non-treatment groups.

2. The sample was limited to a specific group of people working with disabled persons and showing interest in upgrading their knowledge about disability. It cannot, therefore, be reliably generalized to members of the general public outside such a population.

3. The subjects whose scores were examined as part of

this study were from a diverse range of age, educational level and backgrounds. The study was not controlled for age, sex, educational level, intellectual ability or amount of contact with the disabled. It should be noted, therefore, these factors could significantly distort the impact of the treatment process.

Definition of Terms

The following are definitions of the terms and phrases used in this study:

1. Participants: those subjects who participated in the Rehabilitation Certificate Program between September 1978 and December 1980.
2. Non-participants: those subjects who participated in the evaluative study, but did not participate in the Rehabilitation Certificate Program.
3. Contact with the disabled: number of years and/or months having known and had continual interaction with the disabled through work, family or friendship.
4. Attitude: attitude as measured by the Attitudes Towards Disabled Persons (ATDP) scale.
5. Educational Level: (a) less than high school, (b) high school graduation, (c) diploma, certificate or at least one year university education, (d) baccalaureate degree +.
6. Disabled persons: persons having a condition of physical or mental impairment, "having an objective aspect that can be described by a physician" (Hamilton, as cited in Gosse, 1976).

With the statements of purpose, rationale and hypotheses completed, the next chapter will review the literature upon which the project was based.

CHAPTER II

LITERATURE REVIEW

During the past fifteen years, considerable research has been focused on the existence of negative attitudes toward disabled persons by the non-disabled. However, there seems to be very little research directed toward the problem of attitude change in a more positive direction despite the obvious need for such change for the success of any rehabilitation program (Donaldson & Martinson, 1977).

The purpose of this chapter is to review and assess the literature concerning the attitudes of the non-disabled toward the disabled. This review is divided into three parts: (1) perspectives from which to view attitudes toward the disabled; (2) factors influencing such attitudes and (3) efforts affecting attitude change.

Psychosocial Aspects of Disability

This section of the literature review focuses on the problem of attitude development and change as it specifically relates to disability. Relevant literature indicates it is important that people working with the disabled have a positive attitude toward them. If disabled persons are categorized in terms of a lack or inadequacy

or stigma, it is less likely they will become aware of their potential and develop as fully functioning members of society (Comer, 1971; Wright, 1974; Evans, 1976; Stodden, 1977).

The theories that appear to be most popular in explaining the psychology of disability are: (1) psychoanalytic theory; (2) self-concept theory; (3) social role theory; and (4) deviance theory. Although not exhaustive, these theories appear to be the most adequate in explaining the social psychology of disability (English, 1971:35).

Psychoanalytic theory. Freud's theory of psychoanalysis as summarized by English (1971) describes a duality of existence, where people exist at different levels of growth and development. At lower levels, man acts in accordance with basic drives involving sex and security needs where only the fittest individuals survive. "A central tenet of psychoanalytic theory seems to be that 'competition' rules the lives of men" (English, 1971:326). Where there is little security the struggle between men may become physical. Where there is physical security the struggle may become one of "psychological superiority." This theory suggests a person who is prejudiced towards disability is probably somewhat psychologically immature and has a need to feel psychologically superior (English, 1971).

Self-concept theory. The formation of a favorable self-concept is a necessary part of an individual's adjust-

ment to himself and to his environment. Social psychologists agree, in general, that a favorable self-concept is essential for good mental health (Wyllie, 1961; Mead, 1961; Coopersmith, 1967). Self-concept, according to Samuels (1977), includes feelings about the self which are conscious and unconscious. Kinch (1963) defined the self-concept as being "that organization of qualities that the individual attributes to himself" (p. 481). Samuels (1977) stated further "if the individual reflects on these attributes, that person is referring to the conscious self, and it is that part of the conscious self that the individual is willing to reveal" (p. 24).

Important dimensions of the self-concept are body image and self-esteem. Body image plays an important role in psychological growth (Samuels, 1977). Samuels (1977) further elaborated by stating "body image is a condensed representation of individuals' current, past and fantasied experiences of their own bodies" (p. 24). In order to form a good body image an individual, from infancy, needs consistent care by the mother. The mother expresses her attitudes and evaluates her child's body by the way she holds and cares for the child. When the child is older, the approval is conveyed verbally (Birch, 1962; Jacobson, 1964; Mahler, 1975).

Self-esteem has been described as the evaluative sector of the self-concept. An individual who has high

self-esteem feels worthy and is respectful of himself. However, if his self-esteem is low he lacks self-respect, feels insignificant and unworthy (Samuels, 1977). Bebring (1953) defined self-esteem as "(1) the wish to be worthy, to be loved, to be appreciated, not to be inferior or unworthy; (2) the wish to be strong, superior, great, secure, not to be weak and insecure; and (3) the wish to be good, to be loving, not to be aggressive, hateful and destructive (p. 24).

Kvaraceus (1956) in a discussion of acceptance and rejection in relation to exceptionality stated:

some exceptional children because of their marked differences and abnormalities have always run the risk of rejection in a culture which places heavy emphasis on cosmetics and conformity. Secondary handicaps may emanate from feelings of rejection and can prove more harmful and crippling factor of exceptionality itself (p. 328).

Samuels' (1977) summary of self-esteem as interpreted by Jacobson (1964), Reich (1960) and Saussure (1971) supported and further explained this view:

If a child's needs are not met appropriately at each developmental level, the psyche becomes unable to adequately regulate self-esteem by the use of adequate mechanisms . . . he develops an unreal flawless self-image that compensates for the unacceptable real self. The uses of the unreal self interferes with the ability to create and value accurate images . . . for assessing self-worth . . . The overriding necessity to feel great and important alternate with feelings of emptiness and being left out, because the person feels worthless underneath" (p. 35).

Social role theory. A major contributor to social role theory, Talcott Parsons (1951), believed this model served as a basis for evaluating the reciprocal interaction of disabled and non-disabled. The basic underlying idea of this theory, is that people interact according to learned expectations of behaviour. A person's status is determined by a collection of rights and duties which he is expected to put into effect (role expectations). The rights and duties attributed to status are well understood but role expectations are more complicated as there are more roles than statuses and people are exposed to differential socialization experiences for role learning (Linton, 1936; Davis, 1949; Gordon, 1956). Related to successful role enactment is the concept of role reciprocity (Sarbin, 1954). This concept stipulates every role is interwoven with one or more others, for example, winner-loser or father-son relationships. People should understand the concept of role reciprocity in order to act out accurate individual roles. It has been further hypothesized (Parsons, 1958) that disability disrupts established role patterns and leads to reorganization of roles. This, in turn, may be applied to the rehabilitation process, in terms of effecting attempts at helping maximize the person's ability to adopt appropriate roles (Wright, 1960; MacDaniel, 1969).

Deviance theory. The literature indicates a common societal reaction to disability is to treat such disability

as a type of deviance. This view has received considerable attention from theorists.

Erikson (1964), for example, stated:

Deviance is not a property inherent in certain forms of behaviour, it is the property conferred upon these forms by the audiences which directly or indirectly witness them. The critical variable in the study of deviance then is the social audience which eventually determines whether or not any episode of behaviour or any class of episodes is labeled deviant (p. 11).

Erikson (1964) and Lemert (1967) distinguished between primary and secondary deviance. Primary deviance is behaviour that causes a person to be labelled as deviant and secondary deviance is behaviour produced by the person's being placed in a deviant role. Lemert (1967) stated:

Primary deviation has at best only marginal implications for the psychic structure of the individual; it does not lead to symbolic reorganization of self-regarding attitudes and social roles. Secondary deviation is deviant behaviour, or social role based upon it which becomes a means of defense, attack or adaptation to the overt and covert problems created by societal reaction to primary deviation (p. 11).

Davis (1961) and Goffman (1963) examined some characteristics associated with the role of the disabled in our society. They see the disabled as being typically stigmatized, and their stigma appears to be portrayed as a master status which determines the nature of interaction between the disabled and non-disabled. Goffman (1963) referred to stigma as an attribute deeply discrediting and by definition a stigmatized person is "one who is not quite human or normal" (1971, p. 20).

Albrecht (1976) discussed the role of institutional settings upon the attitudes and behaviour of the disabled. Often disabled persons have been channeled into institutional settings for the purpose of becoming self-reliant. An unintended consequence is the development of a sub-culture among the disabled which retards such self-reliance. Rehabilitation personnel, in such settings, frequently perform tasks which are conducive to establishing and institutionalizing behaviour patterns. Such behaviour patterns reinforce both public stereotypes and the disabled's own self-conceptions as "less than normal." In short, they promote secondary deviance.

These theories provide the basic perspectives from which attitudes of the non-disabled toward the disabled are explained. In addition, however, the literature suggests that certain, more general, social and economic factors also play a part in attitude formation. These factors will be discussed in the following section.

Factors Influencing Unfavorable Attitudes Toward the Disabled

The literature suggests attitudes toward the disabled are influenced by a wide variety of factors. This section will review socio-economic factors, age, sex and educational level. These factors have been found to be related in some way to attitudes toward the disabled.

Socio-economic factors. In general, evidence concerning the relationship between attitudes toward disability and social-economic factors such as income, education and level of occupational status is inconclusive (Yuker, 1970, p. 58). Felty (1965) found a partial correlation of +.14 and a multiple R of +.23 between income level, education level and occupation and attitudes toward the disabled as measured by the ATDP-O in a sample of 267 Costa Rican males and females. Gowan (1957) found lower class high school students tended to portray the blind with more stress on limitations and stereotypical concepts than did middle class high school students. A number of investigators have, however, found relationships in the opposite direction. Brown (1965) and French (1956) reviewed a number of studies which found negative relationships between socio-economic status indicators such as income, years of education and occupation and prejudice generally. Since the ATDP scale measures a specific type of prejudice, it is not unlikely these findings would hold for the disabled.

A study by Harrison (1965) reported attitudes toward the disabled tended to be somewhat related to dogmatic attitudes. In his study, Harrison found the ATDP-O and Rokeach's Dogmatism Scale (DS)--Form E were positively correlated. He also found a positive correlation between high scores on ATDP-O and dogmatic attitudes. Other support, for Harrison's findings, was found in a study by Rikard,

Triandis and Patterson (1963), where although the median correlation in this study was not significant, the correlations were all in a positive direction, ie., high dogmatism with high rejection of the disabled. However, Genskow and Maglione (1965) found no significant correlation between dogmatism and attitudes toward the disabled.

Other measures of socio-economic status and attitudes toward the disabled are also inconclusive. Yucker, Block and Campbell (1962), for example, examined the relationship between property ownership and attitudes toward the disabled as measured by the ATDP-O on a sample of 245 individuals. They found persons with high scores (ie. more positive attitudes) were less apt to own houses or cars than persons with low scores. A chi-square value of 2.95 was not significant, however.

A considerable amount of further research needs to be done before the relationship(s) between socio-economic status and attitudes toward the disabled can be thoroughly understood.

Age. The relationship of age to attitudes is thought to be very complex (Yucker, Block and Youngg, 1970). In an overall analysis of studies done in this area, Yucker, Block and Youngg found very little evidence to suggest a significant relationship between age and attitudes toward disability. In earlier studies that did report significant differences (Horowitz, 1965; Lukoff & Whiteman, 1963; Wilson, 1963; Siller, 1964), the samples were quite small or the

nature of the sample indicated the factor of age was confounded with factors of educational level and contact with disabled persons.

Sex. Many studies show attitudinal differences among the sexes. Studies reported by Yuker, Block and Younng (1970) were not consistent and a definite conclusion could not be drawn. However, a clear majority of the studies reported difference of attitudes between the sexes, at the age levels of childhood through college, of non-disabled and adult employed persons. Yuker, Block and Younng (1970) presented separate norms for males and females for interpretation of the ATDP scores.

Educational level. Educational level of subjects was reported to be, to some degree, related to attitudes toward disability. In all cases where a significant relationship was found (Simmons, 1949; Roeher, 1959; Knittel, 1963; Wada, 1964) increasing educational levels were correlated to acceptance of the disabled. Gosse and Sheppard (1979) found that subjects of both grade eleven and university levels scored higher on the ATDP than subjects in grade seven indicating higher educational levels tend to be more accepting of physically disabled than persons in the lower educational level.

Since this project is an attempt to monitor and evaluate an effort of positively directed change in attitudes toward the disabled, an understanding of the dynamics under-

lying such change is necessary for effective policy development and implementation.

With the review of theoretical approaches to attitudes toward the disabled and a discussion of more general socio-economic variables completed, the last section of the chapter will examine how attitudes toward the disabled can be affected in a more positive direction.

Effecting Attitude Change and Combating Stigma

In recent years, a substantial amount of research has been accumulated concerning attitudes of non-disabled persons toward the disabled. The literature indicated practically all disabled persons were stigmatized to some extent, but for some the stigma was the most basic fact of life (Barker, Wright, Myerson & Gonick, 1953; Wright, 1960; Yuker, Block & Youngg, 1966; Macdaniel, 1969; English, 1971).

English (1971) stated, "the existence of social stigma which changes disabled persons into handicapped persons is symptomatic of a diseased society" (1971, p. 20). This would suggest the need to improve the quality of life for the disabled and the culturally different. English (1971) further stated, "to date, efforts to deal with stigma have been virtually non-existent and those efforts attempted so far have been failures" (p. 21).

Interaction has been shown to contribute to a lessening of stigma and when contact is egalitarian in nature,

the disabled and non-disabled engage in mutually rewarding activity (Yuker, Block and Young, 1966). Also, disabled persons should be provided with facts about stigma so as to improve their behavioural skills in dealing with the non-disabled (English, 1971). Disabled persons should be informed, through sensitivity experiences, of behaviour they engage in that might particularly annoy and invite prejudice of their non-disabled counterparts (Wright, 1960). Mass media should be influenced to present more realistic views of disability and disabled persons through television programs, and persuaded to not exploit disability for profit. Also, people psychologically close to the disabled person such as family and close associates may be experiencing difficulty accepting his disability and should be included in any rehabilitation program.

Training programs. Training programs providing information about the disabled have been regarded with skepticism by some researchers (Semmel & Dickson, 1966; Sabrin & Mancuso, 1970; Anthony, 1972). In some instances, it appears providing individuals with information about the disabled has the effect of increasing a person's knowledge about the disabled, but does not cause the non-disabled person to evaluate the disabled person more positively. However, recent studies countering this view were presented by Crunk and Allen (1977) and Lazar, Orpet and Demos (1976). They revealed training programs did facilitate a shift in

attitudes toward greater understanding and acceptance of the disabled. It has been suggested by Anthony (1972), however, that there remains the possibility the information presented in some training programs was in some way faulty and that other information might be effective in effecting attitude change.

Contact. Type and extent of contact has been considered to be an important determinant of attitude, and a procedure thought to be effective in the inducement of attitude change is contact between the general public and members of a disabled group. There are two methods of carrying out a contact study. One is to divide subjects into two groups on the basis of self-reported information regarding previous contact with the disabled. The second is to arrange specific contact experiences and assess the observable effects on the subjects' attitudes. Although some slightly negative effects of contact have been reported (Cowan, Underberg & Verrillo, 1958; Cobun, 1972), much evidence of facilitative effects have been found. Semmel and Dickson (1966), Yunker, Block and Youngg (1966), Jaffe (1966) and Donaldson and Martinson (1977), reported that as the amount of contact increased, attitudes toward handicapped persons tended to increase, slightly, in a positive direction.

The major deficiencies in past studies have been that the type of contact experience varied from subject to

subject and, usually, it was the subject who defined what was meant by contact. Also, it was often the case that contact experiences of subjects were combined with informational components as well, and it was difficult to isolate these two variables.

Contact, in conjunction with some type of information about disability has yielded remarkably consistent positive results. Independent of the type of disability studied and regardless of the type of information and contact experience, all studies reported information-plus-contact experience produced a favorable shift in the attitudes of non-disabled persons (Anthony, 1972).

In summary, the strategies used in attempts to modify attitudes toward the disabled have included: (1) education programs designed to communicate more positive attitudes; (2) increased amount of contact by allowing the non-disabled to spend long periods of time among the disabled; and (3) workshops or conferences designed to provide participants with a wealth of information for use in contact situations both on a professional and non-professional basis. Unfortunately, many of these educational programs, conferences and workshops go unevaluated and, generally, it is not known to what degree they have been effective. Until programs can be introduced which have been evaluated and proven effective in dealing with the problem of attitude change, we shall go blindly on, merely repeating the same

mistakes. As Kutner (1971) pointed out, there is need for "action and experimental research to determine under what conditions stereotypes toward the disabled tend to break down" (quoted in Martinson, 1977, p. 7).

The next chapter will develop the process of directed attitude change attempted in the present program in a more systematic way.

CHAPTER III

RESEARCH EVALUATION PROCEDURES

This chapter is a statement of procedures and instruments used to monitor and evaluate the effectiveness of the Rehabilitation Certificate Course, Level One offered by Memorial University of Newfoundland Extension Services during the period September, 1978, to December, 1979 (see Appendix A). This evaluative study focused specifically on attitude change toward the disabled and its relationship to dogmatism and other selected variables.

General Evaluative Procedures

This evaluation employed a modified pretest-posttest procedure. The two major variables were the Rehabilitation Certificate Course and amount of contact, if any, the subjects had previous to and during participation in the Course. The dependent variables chosen to determine attitude change toward disabled persons were the Attitude Towards Disabled Persons Scale (ATDP, see Appendix C) and the Rokeach Dogmatism Scale (DS, see Appendix D). The DS scale was chosen because the literature suggests there is a possible relationship between high dogmatism scores and unfavorable attitudes toward the disabled. Rokeach, as

cited in Yuker, Block and Young (1970) suggested attitudes toward the disabled are a dimension of a broader scope of attitudes as measured by the Dogmatism Scale. Also, since attitude formation is generally influenced by a number of other variables such as sex, age and level of education, an attempt was made to monitor interaction effects between these independent variables.

The method used in this study may be referred to as a 'program evaluation.' Program evaluation has been described as "the process of delineating, obtaining, and providing information (data) for ascertaining efficacy of plans, programs, activities, intervention, and so forth. The primary question being asked is "Did the efforts have the effect intended?" (Dunst, 1979, p. 24).

Four levels of program evaluation (i.e., content, input, process, products) as described by Stufflebeam (1971) provide decision makers with information necessary to assess the efficiency and adequacy of each different aspect of program development and implementation. The present study was concerned only with whether or not the stated objectives and goals were achieved. For this purpose, the study used what Dunst (1979) described as "the final type of evaluation." This is "the product evaluation which consists of (1) assessing the extent to which stated outcome (and some administrative) objectives and goals were achieved and (2) determining the cause of the obtained results" (Dunst, 1979, p. 25).

History of Involvement with Project

Because of the investigator's background in Rehabilitation Counselling, an interest naturally developed to study in the area of rehabilitation following entry to graduate school. The Rehabilitation Certificate Program was launched in September, 1978 and immediately the investigator became involved as partial credit towards a Special Topics Course in Rehabilitation. This course included among the activities for credit, a research review of attitudes toward the disabled and participation as a student in Course I, Level I of the Rehabilitation Certificate Program. The investigator also assisted in an evaluation of Course I (see Appendix E) which was conducted in an effort to monitor effectiveness and to make constructive suggestions for change.

The program evaluation began with Course I, Level I, the first course offered in the program. This course was divided into three sections. Two of the three sections were used for the purpose of testing and become the core test group for the program. The remaining section was used as a control group. The Attitude Towards Disabled Persons (ATDP) scale, form B, was administered to two sections (the test group) on the first day of classes previous to exposure to lectures. The ATDP, form A, an equivalent form, was administered to all three sections on the final day, following all lectures of Course I, Level I.

Later, it was decided to continue the same evaluation into Course II and III of Level I to determine if change occurred later. In this phase of the evaluation, in an effort to understand the complexity of attitude change, it was decided to include a second instrument--the Rokeach Dogmatism Scale.

Sample

The students participating in the Rehabilitation Program were from a wide variety of backgrounds. The only requirement for acceptance in the course was to have had some experience in dealing with disabled people or at least an interest in working with the disabled.

The age level of the population varied from twenty to fifty-eight (20-58). Amount of contact with the disabled varied from less than one year to more than twenty years of working experience. Although not used in the analysis, it is noted here that the course was taught in an urban setting and the geographical background of the students varied. This may be due to their age and the tendency of the school leaving population of the province to migrate to the larger centers. With the exception of two students, the course consisted of residents of Newfoundland. The numbers enrolled in the course were biased with respect to the number of males and females. Of the 32 subjects in the core group, 28 were females and 4 were males. Because of this, the overall

results might therefore have been influenced positively. Although there is no conclusive evidence, the literature has shown females respond more favorably than males to disabled persons (Fischbein, 1964; Siller, 1964; Maglione, 1965).

The subjects used in this program evaluation were divided into five sub-groups. Relevant dimensions of these sub-groups are summarized in the following description:

Test Group I: consists of the seventy-five students enrolled in two sections of Level I, Course I, who were exposed to the pre test, course content and post test. This group will be referred to when reporting overall group change but cannot be used when documenting specific change for individuals because they could not all be identified. As a result, they could not all be paired.

Test Group II: consists of those students in Test Group I who volunteered their identities and could be paired by pre test and post test results.

Control Group: consists of those students in one of three sections of Course I who were exposed to treatment and post test but no pre test.

Volunteer Control Group I: consists of those students who were on the waiting list for the course plus some who dropped out of the course after one lecture.

Volunteer Control Group II: consists of a random sample of volunteer workers from three major institutions servicing disabled persons (Children's Rehabilitation Centre, Exon House and the Waterford Hospital).

Potential

Potential relationships between attitudes toward the disabled and a number of contextual variables have been hypothesized. These variables are age, amount of contact, sex and level of education. Tables 1, 2, 3 and 4 summarize the distribution along each variable for the different population groups.

Table 1 summarizes the distribution of age of the evaluation population of the five sub-groups. As can be seen from Table 1, with the exception of Volunteer Control Group II, approximately 50 per cent of the population in all groups was 29 or under, while between 5 and 9 per cent was over 50. Volunteer Control Group II, however, showed a much higher percentage in the 20-29 age range and a much lower percentage in the 30-39 range. All other groups show very little variation in age range and the mean for all groups was within a difference of two and one half years (29.6-32.1).

Table 2 summarizes the distribution of amount of contact, as measured by the number of years working with disabled persons. As can be seen from the table, all five groups had a slight majority who had spent five years or less working with the disabled. Relatively few people

TABLE 1

Age of Evaluation Population by Sub-Group

Population by Group	20-29		30-39		40-49		50+		Total		Mean
	N	%	N	%	N	%	N	%	N	%	
Test Group I	43	57.3	17	22.7	11	14.7	4	5.33	75	100	30.8
Test Group II	17	53.7	7	21.3	5	16.0	3	9.00	32	100	32.1
Control Group	22	55.0	10	25.0	6	15.0	2	5.00	40	100	31.5
Volunteer Control Group I	8	53.3	4	26.7	2	13.3	1	6.67	15	100	30.3
Volunteer Control Group I	14	73.7	2	10.5	2	10.5	1	5.26	19	100	29.6

TABLE 2

Amount of Contact with the Disabled of Evaluation Population by Sub-Group

Population by Group	Age									
	0-5		6-10		11-15		16+		Total	
	N	%	N	%	N	%	N	%	N	%
Test Group I	46	61.3	17	22.7	6	8.0	6	8.0	75	100
Test Group II	21	65.6	7	21.8	2	6.25	2	6.25	32	100
Control Group	22	55.0	14	35.0	2	5.0	2	5.00	40	100
Volunteer Control Group I	8	53.3	5	33.3	1	6.7	1	6.67	15	100
Volunteer Control Group II	15	78.95	2	10.5	1	5.3	1	5.3	19	100

(16 per cent in Group II to 10 per cent in the control group) had more than ten years experience. Again, it was noted Volunteer Control Group II had a much higher majority of subjects with contact experience in the 0-5 years range. This higher percentage may be attributed to the younger age range as noted in Table 1.

Table 3 summarizes the distribution of subjects according to sex. As mentioned earlier in this chapter, the core group is heavily over-represented by females. The table shows the percentage of females varies between 79 and 93 per cent depending upon sub-group.

Table 4 summarizes the distribution of the educational level of the five sub-groups. The table shows some variation between the sub-groups with respect to levels of education. Thus, for example, while high school graduates only compose 28 per cent of Test Group I, they comprise 42½ per cent of the control group. Much of this difference, however, can be accounted for by the relatively small number of individuals in the groups.

Thus, with the partial exception of level of education, both the test groups and the control group appear to be very similar with respect to the distribution of these variables.

TABLE 3
Sex of Evaluation Population by Sub-Group

Population by Group	Male		Sex		Female		Total	
	N	%			N	%	N	%
Test Group I	11	14.7			64	85.3	75	100
Test Group II	4	12.5			28	87.5	32	100
Control Group	8	20.0			32	80.0	40	100
Volunteer Control Group I	1	6.7			14	93.3	15	100
Volunteer Control Group II	4	21.05			15	78.95	19	100

TABLE 4

Level of Education of Evaluation Population by Sub-Group

Population by Group	Less than High School		High School only		Some Univ. or Diploma		Degree+		Total	
	N	%	N	%	N	%	N	%	N	%
Test Group I	18	24.0	21	28.0	27	36.0	9	12.0	75	100
Test Group II	7	21.9	10	31.25	12	37.5	3	9.4	32	100
Control Group	7	19.5	19	47.5	13	32.5	1	2.5	40	100
Volunteer Control Group I	3	20.0	7	46.7	4	26.7	1	6.7	15	100
Volunteer Control Group II	2	10.5	5	26.3	9	47.4	3	15.8	19	100

Testing Procedure

As stated earlier, a modified pre test-post test testing procedure was employed in this evaluation. Students in two sections of Course I, Level I were tested both before and after exposure to the course. A sub-sample (Test Group II) consisting of those subjects above for whom identification and matching could be accomplished were analysed at an individual level as well as at a group level in order to monitor individual change.

Of the three sections offered in Course I, Level I, one was randomly selected to use as a control group. This section was exposed to the content of the course and provided with a post test only, so the subjects could serve as a control group for assessing the impact of the pre test.

Two supplementary control groups were used to control for the impact of the course on attitude change as well as certain extraneous variables which the literature on attitude change toward the disabled suggests are important. Supplementary Control Group I consisting of those students on the waiting list but unable to gain entrance to the program because of space limitations, plus six students who dropped out of the course after one lecture,* were used initially. Because of the small

*It was felt that these six students could be added to the control group because the testing with the ATDP Scale showed no significant change of attitude for Test Groups I and II, even after exposure to the entire set of lectures in Level I, Course I.

numbers of this group ($N = 15$), an additional volunteer control Group II was introduced which consisted of a random sample from the volunteer lists of three major institutions serving the disabled population. The volunteer control groups were matched with the treatment groups for the analysis of attitude change. Each group was surveyed with three instruments to provide information for analysis. These three instruments were the ATDP Scale to measure attitude change toward disabled persons, the Rokeach Scale which measures flexibility of attitudes generally, and a brief questionnaire to collect information on other relevant background factors. These three instruments are discussed below.

Instrumentation

The Instruments used in this evaluation were the Attitudes Towards Disabled Persons Scale (ATDP), the Rokeach Dogmatism Scale (DS) and a questionnaire designed by the investigator to gather additional information needed to measure the independent variables age, sex, level of education and amount of contact. This questionnaire is contained in Appendix F.

Attitude Toward Disabled Persons (ATDP) Scale

The ATDP Scale was chosen to measure attitude change, if it occurred, among subjects who were exposed to one or more courses of Level I of the Rehabilitation Program. The content of this scale refers to disabled persons in general and is an objective Likert-type scale. It consists of three forms, form 0, the original form with twenty items and forms A and B, both of which are interchangeable and consists of 30 items each. Since the scale has no zero point, subjects are forced to make a positive or negative response. High scores indicate a positive attitude toward the disabled and low scores indicate a negative attitude. Both forms A and B were used in this evaluation.

History of the ATDP Scale

The ATDP, form 0, was developed by Yuker, Block and Campbell (1960) in response to a need for an objective, reliable instrument to measure attitudes toward disabled persons as a group. Later, the number of items was increased in an effort to improve the reliability and validity. Consequently, forms A and B resulted and these forms are considered to be adequate for research purposes (Shaw & Wright, 1967).

The scale was designed to measure attitudes toward disabled persons in general rather than attitudes toward specific disability groups. The research staff believed

there were many similarities among persons with different disabilities and emphasis was placed on differences between disabled and non-disabled. It was believed disabled persons would be perceived as "different" from the physically normal and reacted to in much the same way as members of a minority group.

Reliability of the ATDP Scale

Many studies of the reliability of the ATDP suggest the test has a degree of reliability comparable to other attitude scales of similar length. The reliability of the ATDP has been investigated using the three major approaches to reliability: stability, equivalence and stability-equivalence.

The stability approach involves retesting an individual with the same form of test following a period of time. It assumes the characteristic being measured is stable and the individual has not undergone any experience which might be seriously expected to affect the behaviour being measured.

Eight estimates of the stability of form O are available, but only one such estimate of form A and two of form B. These data are presented in Appendix G. As can be seen from inspection of the tables, the eight stability coefficients for form O range from +.66 to +.89 with a median of approximately +.73. The single estimate

for form A is +.78 while the two values for form B are +.71 and +.83. Time intervals range from two weeks to 18 months. Considering the fact that the ATDP is a short instrument and that reliability is partially a function of the length of the instrument, it is believed these reliability coefficients are comparable to those found with other attitude scales (Yuker, Block & Young, 1970).

The equivalence approach indicates the influence of the particular samples of items chosen. Theoretically, the items on an instrument represent a sample selected from a universe of items. If a particular sample of items is representative of the universe, it should correlate highly with another sample presumably drawn from the same universe. Two different approaches were used to measure equivalence reliability: The split-half method in which odd and even items are scored separately and correlated using the Spearman-Brown Prophecy formula, and immediate parallel forms reliability in which two different but presumably equivalent forms are constructed and administered at the same time, then correlated to find the extent to which they represent random samples of the same population.

Data concerning the split-half equivalence and "immediate parallel forms" coefficients are somewhat low and the authors feel these reliability coefficients are comparable to those usually found in other scorable measures of attitude. The "immediate parallel forms" coefficients

are somewhat low and it is felt further investigation of the equivalence of the three different forms of the scale appears to be required (Yuker, Block & Young, 1970).

The stability-equivalence reliability data is shown in Appendix H. The reliability coefficients presented shows one extremely low coefficient for which the authors are unable to account. Further work should be conducted to adequately investigate the stability-equivalence reliability of the ATDP.

Validity of the ATDP Scale

Reports on the validity of the ATDP have been based largely on construct validity; however, some studies have been based on predictive validity. It was concluded from those studies that it is very difficult to establish the validity of the ATDP, as many of the "criterion measures" appear to be different in format and scoring procedures, and that the dependent variables of many studies sometimes reflect the interaction of a number of variables. Thus, establishing a high correlation coefficient between ATDP scores and other measures does not necessarily establish the validity of the measure.

However, Shaw and Wright (1967) assert that the ATDP has better supporting data than most scales. Although there is still some question concerning its validity, it is adequate for research purposes.

Rokeach Scale

The Rokeach Dogmatism Scale (DS), 1960, was used in this evaluation to study the relationship between attitudes and attitude change in relation to disabled persons and closed-minded and rigid attitudes. Harrison, as cited in Yuker, Block and Campbell (1970), studied the relationship between the ATDP-O to Rokeach's Dogmatism Scale (DS)--form E and found the two scales were correlated $+ .41$ ($p < .01$) in a sample of 65 college students. In addition, the mean score of the most positively scoring third on the DS correlated highly with those who scores most positively on the ATDP, thereby confirming the positive correlation. The Dogmatism Scale which measures closed-minded, rigid attitudes is considered by Rokeach to measure the dimensions of attitude in a broader scope and it is expected that dogmatism and prejudice would be intercorrelated.

Validity and Reliability of the Rokeach Scale

The Rokeach (1960) Scale consists of forty items which Rokeach felt would assess closed-mindedness regardless of ideological content or whether the dogmatism was to the left or right.

An extensive amount of investigations were carried out in support of the validity and reliability of the Dogmatism Scale. Rokeach (1960, Chap. 5), in one study, found that the scale differentiated between two groups of students

nominated by college professors and graduate psychology students as open or closed-minded. Different religious groups were also tested which confirmed predictions that Catholic students in Michigan would obtain higher dogmatism scores than Protestant students; but this was not true, however, for New York. Communists were also found to score higher than did liberals on this scale (Rokeach, 1960, Chap. 6).

Test-retest reliability coefficients ranging from .68 to .93 have been reported by Rokeach (1960, p. 89). It was concluded by Vacchiano, Strauss and Hochman (1969), based on a number of studies using the Dogmatism Scale, that for high school and adult populations, the reliability is "generally high" (p. 262). Kerlinger (1973), as cited in Sheppard (1978), concluded "Rokeach's work is another serious and ambitious attempt to measure important and complex variables--with, it is believed, considerable success" (p. 44).

Scoring the ATDP and DS Scales

The ATDP scale contains thirty items to which the subject responds by indicating the extent of his agreement or disagreement to each along a scale of +3 to -3. In scoring the ATDP, the first step is to change the signs of the items with positive wording (a positively worded item is one which indicates disabled persons are not "different"

from non-disabled persons). The algebraic sum of all the item scores is then obtained. The total scores obtained in this fashion can range from -90 to +90. To eliminate negative values, a constant is then added to make the scores positive. The resulting score range is from 0 to 180 with a high score reflecting positive attitudes.

The DS scale is scored in the same fashion with a constant of 120 added instead of 90, as this scale consists of forty items. However, the Dogmatism scale is scaled in the opposite direction from the ATDP. An increase in the DS score reflects a more dogmatic orientation while a higher score on the ATDP reflects a more tolerant attitude toward the disabled.

Data Collection Procedures

All research instruments were distributed in class. The ATDP, form B, was used in Course I, Level I, before exposure to all lectures. In Course II, Level I, the same procedure was followed but in this course, the Rokeach Dogmatism Scale was introduced for the first time. The Rokeach was employed previous to and following exposure to lectures in Courses II and III of Level I and the second offering of Course I, Level I.

This chapter has discussed the research procedures used to evaluate the Rehabilitation Certificate Program. In Chapter IV, the findings of the research effort will be analyzed.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

In this chapter, the hypotheses presented in Chapter I are evaluated. The procedure employed was to compute mean values for all the factors and present them in table form. Where inspection was not sufficient for analysis, a t-test of significance was employed using the .05 level of significance as the criterion of rejection.

Analysis of Data

Hypothesis One: There will be no significant difference between ATDP and DS scores on pre and post tests of participants following each course.

1a. ATDP and DS scores will increase following exposure to the course

To evaluate the first hypothesis, five tables were constructed corresponding to each of the four courses given plus a summary table. These are presented as Tables 5 through 9.

Records indicated seventy-five students registered in the two sections of Course I used to study attitude change. However, as shown in Table 5, only 62 completed the pre test questionnaire and fifty-nine the post test questionnaire (Test Group I). It was possible to pair

TABLE 5

ATDP Pre and Post Test for Participants in Course 1

	ATDP			
	Pre		Post	
	Range	Mean	Range	Mean
Test Group I ¹	93-168	125.7 N = 62	89-168	128.7 N = 54
Test Group II	93-168	127.3 N = 32	78-168	129.4 N = 32
Control Group	--	--	77-160	124.2 N = 24

¹Test Group II subjects are included in Test Group I (see Chapter Three, p. 31). The mean pre and post test scores of subjects in Test Group I who are not part of Test Group II, i.e., not paired, are 122.5 and 123.7, respectively.

thirty-two of these responses (Test Group II). Results of both Test Group I and Test Group II indicated a slight change in the positive direction as a result of course participation. The post test mean score for the control group was approximately four points less than the two test group mean scores. T-tests were calculated for Test Group II and the Control Group and no statistically significant results were found ($t(23 \text{ df}) = 1.19, p > .05$). It was determined by inspection, on the basis of these two t-tests, that the difference in scores of Test Group I was not statistically significant.

TABLE 6

ATDP and DS Scores Pre and Post Tests for Participants in Course II

	ATDP				DOGMATISM			
	Pre		Post		Pre		Post	
	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Test Group I	61-169	126.8 N = 56	84-167	130.8 N = 47	96-216	160.2 N = 57	88-238	155.3 N = 47
Test Group II	96-168	128.4 N = 46	104-171	132.5 N = 46	96-216	156.9 N = 43	88-216	155.6 N = 43
Control Group	--	--	102-165	135.2 N = 20	--	--	--	--

As shown in Table 6, in Course II, a total of fifty-six students responded to the pre test ATDP questionnaire and forty-seven responded to the post test questionnaire. Test Group II consisted of forty-six individuals whose responses could be paired for pre tests and post tests. A significant attitude change ($p < .05$) was found following exposure to the course for this group ($t_{(45 \text{ df})} = 2.16, p < .05$). Although no significant change occurred for Test Group I, mean scores indicated a slight change in the positive direction.

Examination of the Dogmatism scores for both groups indicated a slight change in the positive direction. However, no test for significance was calculated since by inspection it could be determined there was no significant difference.

As reflected in Table 7, forty-two subjects responded to the ATDP pre test questionnaire, but only 21 responded to the post test in Test Group I of Course III. Although there was a 6.6 point difference it was determined by inspection that the results were not significant based on earlier t-tests calculated with similar differences and similar numbers of subjects. Twenty subjects in Course III were paired for the ATDP pre test and post tests. A t-test was calculated for this group and although a slight change of attitude in the positive direction was observed, it was not found to be statistically significant ($t_{(19 \text{ df})} = .82, p > .05$).

TABLE 7

ATDP and DS Scores Pre and Post Tests for Participants in Course III

	ATDP				DOGMATISM			
	Pre Range	Mean	Post Range	Mean	Pre Range	Mean	Post Range	Mean
Test Group I	90-167	128.6 N = 42	97-174	135.2 N = 21	73-216	148.2 N = 44	79-215	151.5 N = 25
Test Group II	88-163	129.2 N = 20	97-174	134.9 N = 20	73-216	147.3 N = 25	79-215	151.5 N = 25

Examination of the Dogmatism scores for both Test Group I and Test Group II showed a slight change counter to the predicted direction. It was determined by inspection that this difference was not significant based on t-tests calculated earlier with similar differences and similar numbers of subjects.

Table 8 shows the results of those subjects who participated in the second offering of Course I, Level I. Although a slight change of attitude in the positive direction occurred for Test Group I, this change was not statistically significant. Test Group II, however, showed a significant change in the predicted direction ($t_{(10 \text{ df})} = .86, p < .05$). The post test sample of this group was substantially smaller than the pre test sample and the range was substantially higher. This pattern suggested some of the lower scorers on the pre test did not take the post test.

Examination of the Dogmatism scores for participants in Course Ib (Table 8) showed a slight change of attitude in the positive direction for both Test Group I and Test Group II. However, a t-test was calculated for Test Group I, which showed no significant difference in the pre and post test scores. It was determined by inspection, on the basis of previous t-tests of similar ranges and numbers of subjects that Test Group II showed no significant change from pre test to post test scores.

To summarize the findings with respect to Hypothesis One, Table 9 is presented below. As reflected in the Table,

TABLE 8

ATDP and DS Scores Pre and Post Tests for Participants in Course Ib

	ATDP				DOGMATISM			
	Pre		Post		Pre		Post	
	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Test Group I	93-155	126.7 N = 19	122-170	142 N = 11	84-200	149.3 N = 17	83-186	126.4 N = 11
Test Group II	101-150	130.5 N = 11	122-170	142 N = 11	84-201	129.7 N = 9	83-186	124.7 N = 9

TABLE 9
Summary Table
Paired Subjects Through Each Course
Test Group II

	ATDP				DOGMATISM			
	Pre		Post		Pre		Post	
	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Course I	93-168	127.3 N = 30	78-168	129.4 N = 30	--	--	--	--
Course II	61-169	128.4 N = 46	84-165	132.5 N = 46	96-216	156.9 N = 43	88-216	155.6 N = 43
Course III	88-157	129.2 N = 20	97-174	134.9 N = 20	73-216	147.3 N = 25	79-215	151.5 N = 25
Course Ib	101-150	130.5 N = 11	112-170	142 N = 11	84-201	129.7 N = 9	83-186	124.7 N = 9

there appeared to be a slight increase in the positive direction for both ATDP and DS scales, following exposure to each course in Level One. However, the only significant change occurred following exposure to Course II. Participants in Course Ib (Level I, 1979), however, tended to score slightly higher on the pre and post test for both ATDP and DS than the other participants in all three courses of the initial Level One. However, the numbers were small for this group; therefore, the mean scores may have been influenced by one or more extreme scores.

Of those who completed all three courses of Level I, a total of seven, as shown in Table 10 were paired for the pre test of Course I and the post test of Course III. Although a slight positive change occurred, the number of subjects was small and the change was not statistically significant.

TABLE 10

Pre Test, Course I and Post Test, Course III, of Individuals
Exposed to all Three Courses in Level I (Test Group II)
(N = 7)

Pre Test, Course I		Post Test, Course III	
Range	Mean	Range	Mean
98-155	126	98-174	136.4

A further table (Table 11) was constructed to follow subjects through at least two courses of Level I. Since Course I was not a prerequisite to Course II, a sample of individuals who had taken either Course I or Course II and Course III was selected to assess the impact of Level I of the program. A sample of twenty individuals was generated. A sizable difference (11.4 points) was noted and tested for significance using the t-test and found to be significant ($t_{(19 \text{ df})} = 2.57, p < .05$).

TABLE 11

Subjects Exposed to Course I or II (but not both) and
Course III, Test Group II

N=20

Course I or II Pre		Course III Post	
Range	Mean	Range	Mean
98-155	123.5	98-174	134.9

Based on the previous discussion of Course III, where a significant difference was found between pre and post test results for Group II, the most reasonable interpretation for this significant finding is that most of this change occurred in Course II. This is so because sixteen of the twenty subjects tested in this table participated in Course II, but

not Course I. Thus, to some extent, at least, this finding of statistical significance is an artifact of Group II, Course II results.

Hypothesis Two: There will be no significant difference between pre and post test ATDP scores for the non-participant group.

To fully assess the impact of the program upon attitudes toward the disabled, it was necessary to compare participants with similar individuals who did not participate in the program. As described earlier, two groups of volunteers were selected for comparison. Tables 12 and 13 show the pre and post ATDP scores for these two groups. As would be expected, there was practically no change whatsoever between pre and post tests for Volunteer Group I (the difference is only .2). Volunteer Group II showed a much greater difference of 11.4 points. However, a t-test was calculated on this difference, as indicated in Table 13, and the difference was found to be not significant ($t_{(13 \text{ df})} = .15, p > .05$).

Hypothesis Three: There will be no significant difference in ATDP or Dogmatism scores for participants in each course and for non-participants.

3a. Participants will score higher on the post tests than non-participants.

The pre and post test results for the two non-participant groups (Volunteer Control Group I and Volunteer

TABLE 12

Pre and Post Paired ATDP Scores for Non-Participants
 Volunteer Control Group I
 (N = 14)

Pre		ATDP	Post	
Range	Mean		Range	Mean
91-156	124.7		84-163	124.5

TABLE 13

Pre and Post Paired ATDP and Dogmatism Scores for Non-
 Participants
 Volunteer Control Group I
 (N = 14)

ATDP				DOGMATISM			
Pre		Post		Pre		Post	
Range	Mean	Range	Mean	Range	Mean	Range	Mean
99-155	128.5	126-151	139.9	93-170	140.8	--	--

Control Group II) fall well within the mean ranges for the participant groups analyzed in this report. These results are reflected in Tables 12 and 13.

Hypothesis Four: There will be no significant difference in scores on the ATDP scale and the Dogmatism scale (DS).

Scores on the Dogmatism (DS) scale have been presented in the tables used to evaluate the first three hypotheses. The results found for the scores on the ATDP scales hold for the DS scales as well. It should be noted that the ATDP and DS scales are scaled in opposite directions. An increase on the Dogmatism scale reflects a more dogmatic orientation while a higher score on the ATDP scale reflects a more tolerant attitude toward the disabled. Thus, as predicted, the ATDP scores generally increased slightly following exposure to each course, while dogmatism scores decreased slightly. None of the dogmatism score differences were statistically significant, however.

Hypothesis Five: There will be no significant difference in scores on the ATDP scale according to sex.

Because complete information was only available on subjects in Course I, this course was analyzed to assess possible relationships between sex and ATDP scores. As indicated in Chapters One and Two, the review of the literature suggested women possess more favorable attitudes toward the disabled than do men. Tables were constructed to assess the possible influence of sex upon attitudes. Tables 14 and 15 are the result for Course I; Tables 16 for Course III.

TABLE 14

ATDP Scores by Sex for Pre Test Course I, Level I

	ATDP (Pre)			
	Male		Female	
	Range	Mean	Range	Mean
Test Group I	77-168	119.9 N = 7	93-168	127.4 N = 41
Test Group II	98-168	129.0 N = 4	93-155	127.1 N = 28

TABLE 15

ATDP Scores by Sex for Post Test Course I, Level I

	ATDP (Post)			
	Male		Female	
	Range	Mean	Range	Mean
Test Group I	97-168	129.2 N = 12	89-168	128.3 N = 61
Test Group II	120-168	137.3 N = 4	89-165	132.4 N = 28
Control Group	97-153	125.2 N = 8	92-168	125.1 N = 35

TABLE 16

ATDP Scores by Sex for Pre Test Course III, Level I

	ATDP (Pre)			
	Male		Female	
	Range	Mean	Range	Mean
Test Group I	90-160	128.5 N = 6	88-167	128.7 N = 30
Test Group II	90-160	130.0 N = 4	88-163	129 N = 15

TABLE 17

ATDP Scores by Sex for Post Test Course III, Level I

	ATDP (Post)			
	Male		Female	
	Range	Mean	Range	Mean
Test Group I	103-152	130.8 N = 4	98-174	134.4 N = 15
Test Group II	103-152	130.8 N = 4	98-174	134.4 N = 15

As can be seen from the above tables, and as was mentioned in Chapter One, the limited number of males participating in the Rehabilitation Certificate Program limited

greatly the study of the relationship between sex and ATDP scores. Nevertheless, for the small number of subjects available, there was no clear relationship between sex of subject and ATDP score. The same finding was duplicated for Course III as shown in Tables 16 and 17.

Hypothesis 5a: There will be no significant difference in scores on ATDP according to age of subject.

As indicated in Chapters One and Two, the literature suggested young people may be more tolerant toward the disabled. Tables 18 and 19 show the relationship between age and ATDP scores for Course I subjects.

In order to increase the number of subjects within each table cell, subjects were collapsed by age according to whether they were over or under thirty years of age. Table 19 reflects this collapsing. T-tests were calculated as shown in Table 19 and were not found to be significant ($t_{(16 \text{ df})} = 1.12, p > .05$).

Hypothesis 5b: There will be no significant difference in scores on ATDP according to level of education of subject.

As indicated in the introduction to this project and in the review of the literature, some investigators have found a positive relationship between level of education and attitudes toward the disabled. To provide a sufficient number of subjects in each category for statistical analysis, participants in the program were placed into one

TABLE 18

Pre and Post ATDP Scores by Age for Course I

	ATDP (Pre)							
	20-29		30-39		40-49		50+	
	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Test Group I	93-168	129.2 N = 28	77-157	123.8 N = 10	94-139	115.5 N = 6	111-155	128.5 N = 4
Test Group II	98-168	129.7 N = 17	93-150	127.2 N = 6	94-139	118.6 N = 5	111-155	128.5 N = 4

	ATDP (Post)							
	20-29		30-39		40-49		50+	
	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Test Group I	92-168	129.1 N = 41	89-157	126.2 N = 17	115-159	132.6 N = 10	115-151	125.3 N = 7
Test Group II	106-168	135.8 N = 17	89-157	126 N = 6	122-159	137 N = 5	115-151	128.3 N = 4

TABLE 19

Pre and Post ATDP Scores by Age (collapsed) for Course I

	Pre		Post		ATDP		Pre		Post	
	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Test Group I	93-168	129.2 N = 28	92-168	129.1 N = 41	77-157	122.3 N = 20	89-115	127.8 N = 34		
Test Group II	98-168	129.7 N = 17	106-168	135.8 N = 17	93-155	124.7 N = 15	89-159	130.8 N = 15		

of two categories in terms of education--those who possessed a High School Certificate or its equivalent or less and those who possessed more than a high School Certificate. As can be observed in Tables 20 and 21, the number of subjects was very small. Table 21 presents the results of the collapsed categories for further analysis of the effect of education upon attitudes toward the disabled. No statistically significant differences were found ($t_{(13 \text{ df})} = 1.06, p > .05$). However, individuals with less than a High School Certificate scored slightly higher, especially on the post test. Thus, the limited data available suggested education did not appear to affect attitudes toward the disabled for the certificate program students.

Hypothesis Six: There will be no significant difference between scores on the ATDP scale and amount of contact with the disabled.

The literature is inconsistent with respect to the effect contact with the disabled has on attitudes towards them by the non-disabled. Once again because of the small numbers involved, when a number of contact categories were used, amount of contact was divided into two categories--those with less than ten years experience working with the disabled and those with more than ten years. Table 22 shows the results of this collapsing. Although no t-tests were calculated, experience from similar score ranges with comparable sample sizes and means indicated none of the observed dif-

TABLE 20

Pre and Post ATDP Scores by Level of Education

	ATDP (Pre)							
	Less than High School		High School Completion		Post High School Diploma or Equiv.		Degree+	
	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Test Group I	77-148	118.7 N = 7	100-157	128.7 N = 15	95-155	120.8 N = 17	126-150	137.2 N = 6
Test Group II	93-148	125.2 N = 5	107-144	127.7 N = 9	98-155	121.4 N = 13	126-150	138.5 N = 4

	ATDP (Post)							
	Less than High School		High School Completion		Post High School Diploma or Equiv.		Degree+	
	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Test Group I	105-157	129.3 N = 23	95-165	129.3 N = 23	89-159	124 N = 30	109-168	135.6 N = 7
Test Group II	106-157	139 N = 5	113-165	131.8 N = 9	89-159	128.7 N = 13	109-147	133.3 N = 4

TABLE 21

Pre and Post ATDP Scores (collapsed) by Level of Education

	ATDP							
	High School and Under				High School +			
	Pre		Post		Pre		Post	
	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Test Group I	77-157	125.5 N = 22	95-165	129.6 N = 35	95-155	125 N = 23	89-168	126.2 N = 37
Test Group II	93-148	126.8 N = 14	106-165	134.4 N = 14	98-155	125.4 N = 17	95-155	129.9 N = 17

TABLE 22

Pre and Post Tests ATDP Scores by Amount of Contact, Course I

	ATDP							
	Pre				Post			
	Less 10 years Range	Mean	10 years + Range	Mean	Less 10 years Range	Mean	10 years + Range	Mean
Test Group I	77-168	126.8 N = 39	94-150	123.1 N = 9	92-168	128.6 N = 58	89-158	127.5 N = 17
Test Group II	93-168	129.8 N = 24	89-158	120.2 N = 8	106-168	133.1 N = 24	89-158	133.0 N = 8

ferences were likely to be statistically significant. It was interesting to note that those individuals with more than ten years contact were, initially, marginally less favorably disposed toward the disabled as measured by the ATDP. At the time of the post test, however, there was little difference between them and the subjects with less than ten years contact experience. Both Test Group I and Test Group II showed improvement in ATDP scores but such improvements were not statistically significant.

Summary

The analysis of the effects of Level I of the Rehabilitation Certificate Program was rather complex. This was necessary given the difficulties in developing a comprehensive evaluation design strategy. The major finding was that little, if any, change in attitude toward the disabled occurred for participants in Level I of the program. The one major exception was Course II, where a statistically significant amount of attitude change in the predicted direction was established. Additionally, no statistically significant differences were found for participants in the program when an attempt was made to monitor the affect of additional factors such as age, level of education, amount of contact and sex.

The next chapter presents some conclusions drawn from this analysis and makes some recommendations for the

Rehabilitation Certificate Program and future evaluations of such a program.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

Chapter V is divided into three parts. Part one summarizes the major points on which this evaluation was based. Part two presents the conclusions drawn from the evaluation analysis and interpretation. Based on this evaluation effort and the literature review, part three outlines some recommendations for future Certificate Programs and their evaluation.

Summary

The purpose of this study was to evaluate Level One of the Rehabilitation Certificate Program started by Memorial University Extension Services in September, 1978. This program was designed to increase knowledge about the disabled. In addition, the data collected were used to assess the relationship between attitudes toward the disabled and the variables, age, amount of contact, level of education, sex and dogmatic attitudes. The research data were collected via the Attitudes Towards Disabled Persons (ATDP) Scale and the Rokeach Dogmatism (DS) Scale.

To analyze the data in this report, the investigator was required to work with five different groups in

each of four courses. In order to refresh the reader's memory and further clarify the process, the following diagram was constructed, depicting responses to the ATDP questionnaire. Chapters I and III present a more extensive discussion of the groups and their use in the evaluation.

	Test Group I	Pre (n=62)	Post (n=54)
Course I (Sept. 1978)	Test Group II	Pre (n=32)	Post (n=32)
	Control Group		Post (n=24)
	Test Group I	Pre (n=56)	Post (n=47)
Course II	Test Group II	Pre (n=46)	Post (n=46)
	Control Group		Post (n=20)
Course III	Test Group I	Pre (n=42)	Post (n=21)
	Test Group II	Pre (n=20)	Post (n=20)
Course Ib (Sept. 1979)	Test Group I	Pre (n=19)	Post (n=11)
	Test Group II	Pre (n=11)	Post (n=11)

In addition, two external control groups were employed. These groups were used to control for the influence of the course experience and to assess the generalizability of the findings to a larger population of individuals working with the disabled.

Specifically, pre and post test scores were compared, as measured by the ATDP and DS Scales, for non-disabled subjects and groups participating in each course. Where possible, a combination of pre and post scores for two or all three courses of Level One were compared and studied. Other comparisons were made according to the mean ATDP scores of non-disabled subjects of four different age levels (20-29, 30-39, 40-49, 50+); between the mean ATDP scores of non-disabled female and male subjects; according to the mean ATDP scores of non-disabled persons by years of contact with the disabled (0-5, 6-10, 11-15, 16+); and, according to the mean ATDP scores for four educational levels (less than high school, high school completion, high school completion plus diploma, baccalaureate degree+).

Data from this investigation were analyzed by means of t-tests and where possible, by inspection based on earlier t-tests calculated with similar differences and similar numbers of subjects.

The main findings relating to the summary points listed above are discussed in the following section.

Conclusions

Several conclusions emerge from this evaluation effort. They are as follows:

1. Within the limitations of the research design,

each individual course, with the possible exception of Course II, did not make any statistically significant change in attitudes toward the disabled as measured by the ATDP Scale.

Although results of both the ATDP and DS Scales showed that slight but consistent change occurred in the positive direction as a result of participation in each course, only in Course II were changes significant at the .05 level of confidence. This change occurred using Test Group II (the paired group) as the unit of analysis. Although a slight change occurred using Test Group I (the entire group) as the unit of analysis, this change was not statistically significant. For the purpose of drawing a scientifically meaningful conclusion it is felt Test Group II provided the more reliable result. It may be concluded, then, Course II had a statistically significant impact in the positive direction on attitudes of the non-disabled toward the disabled. Lazar, Orpet and Demos (1976) found supporting evidence for this conclusion in their study of university students exposed to information about the disabled. Their findings supported the notion that instructors can change the attitudes of their students with a carefully planned and sequenced instructional program.

A slightly lower mean ATDP score was obtained by the Control Group (students taking the post test but not the pre test) in Course I, as compared to the post mean score of Test Group I and II. This was interesting in view of

the much higher mean score obtained by the control group following exposure to Course II (see pages 47 and 48). Although these changes were not statistically significant, this may indicate the slight but consistent changes in scores occurred as a result of several previous exposures to the research questionnaires as well as repeated exposure to information about the disabled.

2. As formulated in null hypothesis two, no significant difference was found between pre and post ATDP scores for the non-participant groups. This suggested that, at least, a single exposure to the research questionnaires did not have a significant impact on attitudes.

3. Although the scores obtained on the Rokeach Dogmatism scale were consistently related to the scores obtained on the ATDP, none of them were statistically significant. Similar to the pattern observed in the analysis of the ATDP scores, subjects tended to score consistently in a slightly positive direction on the DS scale. From this result and from Yuker, Block and Younng (1970) it may be tentatively stated that attitudes as measured by the ATDP are part of a more general attitudinal orientation which Rokeach has termed dogmatism.

4. Within the limitations of the design, the selected test factors of age, level of education, sex and amount of contact do not appear to significantly affect attitudes toward the disabled as measured by the ATDP scale.

As can be seen from the data analysis in Chapter IV, the limited number of subjects in the four different age categories made it impossible to analyze these categories adequately. To increase the number of subjects for the purpose of analysis, subjects were collapsed into two age categories, those under thirty and those over thirty. On the basis of the collapsed age categories, it may be concluded that age appeared not to influence attitudes toward the disabled for the subjects enrolled in the program. This was consistent with findings in the literature, which reported very little supporting evidence to suggest a relationship between age and attitudes toward the disabled (Yuker, Block and Young, 1970; Siller, 1964).

In order to more adequately study the relationship between level of education and attitudes toward the disabled, the four educational levels were collapsed into two categories - those who possessed a High School Certificate or less and those who possessed more than a High School Certificate. Some investigators, as indicated in Chapter I and in the literature review, have found a positive relationship between level of education and attitudes toward the disabled, i.e. the higher the educational level the more positive the attitudes toward the disabled. In this study, no significant difference was found between these two categories. In fact, contrary to the expected outcome, individuals with a High School Certificate or less

scored slightly higher than those with more than high school education, especially on the post test. This result is contrary to findings reported in the literature which indicate educational level of subjects to be, to some degree, related to attitudes toward disability.

(Knittel, 1963; Wada, 1964; and Gosse & Sheppard, 1979). Thus, the limited data available in this study suggested level of education did not affect attitudes toward the disabled held by the certificate program students.

An insufficient number of males participated in the program to adequately assess the relationship between sex and scores on the ATDP scale. Although the limited number of males made any conclusion highly tentative, the analysis suggested that sex may not be significantly related to scores on the ATDP scale. However, this finding was not consistent with the literature, in which a clear majority of studies reported differences of attitudes between the sexes. (Yuker, Block and Younng, 1970).

As discussed in Chapter II, the studies reported in the literature were inconsistent with respect to the effect contact with the disabled has on attitudes toward the disabled by the non-disabled. Most studies suggested contact plus information about the disabled result in a statistically significant change in attitude in the positive direction. However, contact alone did not appear to affect attitude change positively and some studies found a slightly negative though not significant, change of attitude toward

the disabled as a result of high contact experience (Cowan, Underberg and Verrillo, 1958; Cobun, 1972).

In this study no statistically significant difference was found between the two collapsed categories of contact experience used to analyze results (those with ten years experience or less and those with more than ten years). Initially, individuals with more than ten years contact, showed slightly less favorable attitudes toward the disabled, as measured by the ATDP. However, at the time of the post test there was little difference between the two groups. These results suggested subjects with more contact experience held more negative attitudes toward the disabled than those with less contact experience. However, as predicted, exposure to information about the disabled appeared to interact with high levels of contact in a positive, though not statistically significant, way. This finding was consistent with the positive effects resulting from contact plus information about the disabled discussed earlier in Chapter II.

Overall, the amount of contact did not, significantly, effect, in either direction, attitudes toward the disabled for participants in the Rehabilitation Certificate Program.

Research Problems and Recommendations for Future Program Evaluation

Reliability of the data gathered for analysis, in this study, suffered from excessive use of measurement instruments. In the course of this evaluation, some students were administered the same battery of instruments up to six times. A summary of frequent complaints from participants indicated the instruments were: (1) boring and tedious; (2) extremely time-consuming; and, (3) were sometimes administered following late evening lectures and/or exams, when students were tired and not functioning to their best potential.

The evaluation of a program like the Rehabilitation Certificate Program requires a highly structured research design with appropriate controls. Such a design would necessitate very close and continuous co-ordination and co-operation between those offering the program, the instructors teaching the program and the researcher evaluating the program. This amount of interdependence was not present in this particular evaluation and is reflected in the limitations in analysis and interpretation discussed in Chapter I and IV.

Any future certificate program, of the nature discussed in this study, should have built in, as an integral part, a monitoring and evaluation component as follows:

1. Make available to students either by a preliminary briefing session or as part of the total program in each course (a) information about the purpose of setting up the program in the first place; (b) the importance of using evaluation procedures to determine the usefulness of such a program; and, (c) the importance of allowing for follow up and provisions for constructive change.

2. Set up a procedure to collect all necessary personal data on each student as he/she passes through the program, make provision, of course, for strict coding procedures to assure complete confidentiality. This procedure should be worked out in the planning stages of the program and the evaluator should be present.

Some possible suggestions would be to merge a personal information questionnaire with each application for entrance, which upon receipt is immediately coded. A card could then be set up on each student for the purpose of recording essential information as it becomes available through each phase of the program. Important information for evaluation purposes include: sex; age; level of education; number of years working with the disabled; list of conferences or workshops attended; other contact with the disabled such as family, close friends or co-workers who may be disabled; number of lectures attended in each course; and, grade obtained in each course.

This information could then be made available to the evaluator upon request, whose responsibility it would

then be to maintain confidentiality and work by code number to record and analyze the data.

3. An appropriate time period should be selected and set aside for administration of the research questionnaires. In selecting this time period, a special attempt should be made to avoid scheduling the questionnaires following lectures and/or exams.

4. There should be continuous consultation and communication between course instructor, co-ordinators and evaluators.

5. A limitation should be placed on the number of questionnaires to be used, in an effort to avoid, as far as possible, interfering with the reliability of the data. (For example, the DS scale could be deleted as it had the negative effect of consuming time, added to the frustration level of some subjects and possibly eroded the reliability of all measures).

Since in Level One of the program, only Course II appears to have significantly affected attitudes toward the disabled, the content and method of presenting this course should be more thoroughly analyzed to determine reasons for this.

The investigator, having participated in only Course I as part of the evaluation process, interviewed the instructors of Course II and III. The following is a brief summary of the opinion of those instructors as to what might

have differed in these courses. Course II involved two instructors sharing about a $\frac{1}{2}/\frac{1}{2}$ split in the lectures, as opposed to three instructors sharing equally in Course I. The use of guest speakers either live or by video-tape was increased from Course I. Attempts at developing a stronger group relationship between the students were undertaken. Based on feedback from Course I, a more practical focus was given to the materials.

Any effort at evaluation must recognize that intended effects of a program may require long periods of time to become manifest. Thus evaluation procedures should be developed with this recognition in mind. In the present instance, evaluation is concluding following Level I. To fully monitor and evaluate the program, evaluation should continue through Level II of the program.

In summary, this study evaluated the Rehabilitation Certificate Program as identified at the beginning of this chapter. The research data was collected via the ATDP and DS scales and analyzed using the .05 level of statistical significance. With the exception of Course II, consistent, though not statistically significant, change occurred in the predicted direction throughout Level I of the program. None of the four additional variables introduced as possible influences on attitudes toward the disabled was found to have a statistically significant effect. It was recommended

that evaluation be continued into Level II to more fully assess the impact of the Rehabilitation Certificate Program on attitudes toward the disabled.

REFERENCES

- Adler, A. The Practice and Theory of Individual Psychiatry. New York: Harcourt, Brace and Company, 1927.
- Albrecht, Gary L. (Ed.) The Sociology of Physical Disability and Rehabilitation. University of Pittsburgh Press, 1976.
- Anthony, W.A. "Societal Rehabilitation: Changing Society's Attitudes Toward the Physically and Mentally Disabled." In Marinelli, R.P. and Dell Orto, A. E. (Eds.), The Psychological and Social Impact of Physical Disability. New York: Springer Publishing Company, Inc., 1977 (pp. 194-203).
- Barker, R. C. "The Social Psychology of Physical Disability," Journal of Social Issues. 4:29-38, 1948.
- Barker, R. C., Wright, B. A., Myerson, Lee and Gonick, M. R. Adjustment to Physical Handicap and Illness: A Survey of the Social Psychology of Physique and Disability. New York: Social Science Research Council, Bulletin 55, Revised, 1953.
- Bibring, E. "The Mechanism of Depression." In Greenacre, P. (Ed.), Affective Disorders. New York: International Universities Press, 1953.
- Bindman, A. J. and Spiegel, A. D. (Eds.), Perspectives in Community Mental Health. Chicago: Aldine, 1969.
- Brown, R. Social Psychology. New York: Free Press, 1965.
- Caplan, G. The Theory and Practice of Mental Health Consultation. New York: Basic Books, 1970.
- Cobun, John, M. "Attitude Change in Vocational Rehabilitation Counselors Related to the Physically Disabled During Induction Preparation." Dissertation Abstracts. 33 (A):4084, 1972.
- Coopersmith, S. Antecedents to Self-Esteem. San Francisco: W. H. Freeman and Company, 1967.
- Cowan, E. L., Underberg, R. P. and Verrillo, R. T. "The Development and Testing of an Attitudes to Blindness Scale," Journal of Social Psychology. 48:297-304, 1958.
- Davis, Fred. "Deviance Disavowal: The Management of Strained Interaction by the Visibly Handicapped," Social Problems. 9 (21):121-132, 1961.

- Davis, K. Human Society. New York: MacMillan Company, 1949.
- Dembo, T., Leviton, G. L. and Wright, B. "Adjustment to Misfortune - A Problem of Social Psychological Rehabilitation," Artificial Limbs. 3:4-62, 1956.
- Donaldson, J. and Martinson, M. C. "Modifying Attitudes Toward Physically Disabled Persons," Exceptional Children. 40:337-341, 1977.
- Dunst, Carl J. "Program Evaluation and The Education for all Handicapped Children Act," Exceptional Children. 46:1:24-30, 1979.
- English, W. R. "Correlates of Stigma toward Physically Disabled Persons." In Marinelli, R. P. and Dell Orto, A. (Eds.), The Psychological and Social Impact of Physical Disability. New York: Springer Publishing Company, 1977 (pp. 162-182).
- English, W. R. "Combating Stigma Toward Physically Disabled Persons," Rehabilitation Research and Practice Review. 2:19-27, 1971.
- English, R. W. and Orberle, J. "Towards the Development of New Methodology for Examining Attitudes Toward Disabled Persons," Rehabilitation Counselling Bulletin. 15:1, 1971.
- Erikson, K. "Notes on the Sociology of Deviance." In Becker, H. (Ed.), The Other Side. New York: Free Press, 1964 (pp. 9-21).
- Evans, J. H. "Changing Attitudes Toward Disabled Persons: An Experimental Study," Rehabilitation Counselling Bulletin. 19:4:572-579, 1976.
- Felty, J. E. "Attitudes Toward Physical Disability in Costa Rica and Their Determinants: A Pilot Study," unpublished Doctoral Dissertation, Michigan State University, 1965.
- Fisher, S. and Cleveland, S. E., Body Image and Personality (Revised). New York: Dover, 1968.
- French, R. L. "Social Psychology and Group Processes." In Farnsworth, P. R. and McNemar, Q. (Eds.). Annual Review of Psychology, Vol. 7. Stanford, Colorado: Annual Reviews, Inc., 1956, (pp. 63-94).
- Ganskow, J. K. and Maglione, F. D. "Familiarity, Dogmatism and Reported Student Attitudes Toward the Disabled," The Journal of Social Psychology. 67:329-341, 1965.

- Goffman, E. Stigma. Englewood Cliffs, New Jersey: Prentice - Hall, Inc., 1963.
- Gordan, I. Studying the Child in School. New York: Collier Books, 1956.
- Gosse, F. V. "Non-Disabled Person's Attitudes Toward the Physically Disabled as a Function of Educational Level and Contact," unpublished Master's Thesis, Memorial University of Newfoundland, 1976.
- Gosse, F. V. and Sheppard, G. "Attitudes Toward Physically Disabled Persons: Do Education and Personal Contact Make a Difference?" Exceptional Children. 13:3:131-135, 1979.
- Gowman, A. G. "Attitudes Toward Blindness." In Gowman A. G., The War Blind in American Social Structure. New York: American Foundation for the Blind, 1957 (pp. 64-96).
- Hamilton, K. W. Counselling the Handicapped in the Rehabilitation Process. New York: Ronald Press, 1950.
- Horowitz, -L.S., Rees, N. S. and Horowitz, M. W. "Attitudes Toward Deafness as a Function of Increasing Maturity," Journal of Social Psychology. 66:331-336, 1965.
- Iscoe, I. and Pielberger, C. D. (Eds.), Community Psychology: Perspectives in Training and Research. New York: Appleton - Century - Crofts, 1970.
- Jacobson, E. The Self and the Object World. New York: International Universities Press, 1964.
- Jaffe, J. "Attitudes of Adolescents Toward the Mentally Retarded," American Journal of Mental Deficiency. 70:6:907-912, 1966.
- Kinch, J. W. "A Formalized Theory of Self-Concept," American Journal of Sociology. 68:481-486, 1963.
- Knittel, M. G. "A Comparison of Attitudes Toward the Disabled Between Subjects Who Had a Physically Disabled Sibling and Subjects Who Did Not Have a Physically Disabled Sibling," unpublished Doctoral Dissertation, University of South Dakota, 1963.
- Kutner, B. "The Social Psychology of Disability." In Neff, W. S. (Ed.), Rehabilitation Psychology. Proceedings of the National Conference on the Psychological Aspects of Physical Disability. Washington, DC: American Psychological Association, 1971.

- Kvaraceus, W. C. "Acceptance-Rejection and Exceptionality," Exceptional Children, 22:328-331, 1956.
- Lazar, Alfred L., Orpet, R. and Demos, G. "The Impact of Class Instruction on Changing Student Attitudes," Rehabilitation Counselling Bulletin. 20:1:66-68, 1976.
- Linton, R. The Study of Man. New York: Appleton - Century - Crofts, 1936.
- Lemert, E. Human Deviance, Social Problems and Social Control. Englewood Cliffs, New Jersey: Prentice - Hall, 1967.
- Lukoff, I. F. and Whiteman, M. A. "Summary of Attitudes and Blindness: Components, Correlated and Effects," unpublished Manuscript, Human Resources Library, 1963.
- Mahler, M. S., Pine, F. and Bergman, A. The Psychological Birth of the Human Infant: Symbiosis and Individuation. New York: Basic Books. 1975.
- Maslow, A. H. Motivation and Personality. New York: Harper and Row, 1954.
- Mead, G. H. Mind, Self and Society. Chicago: University of Chicago Press, 1934.
- McDaniel, J. W. Physical Disability and Human Behaviour. New York: Pergamon Press, 1969.
- Murphy, W. F. "Some Clinical Aspects of the Body Ego, with Special Reference to Phantom Limb Phenomena," Psychoanalytic Review. 44:462-477, 1957.
- Parsons, T. "Definitions of Health and Illness in the Light of American Values and Social Structure." In E. Gartly Jaco (Ed.), Patients, Physicians and Illness. Glencoe, Illinois: The Free Press, 1958 (pp. 165-187).
- Parsons, T. The Social System. Glencoe, Illinois: The Free Press, 1951.
- Reich, A. "Pathologic Forms of Self-Esteem Regulation," Psychoanalytic Study of the Child. 15:215-232, 1960.
- Rikard, T. E., Triandis, H. C. and Patterson, C. H. "Indices

- of Employer Prejudice Toward Disabled Applicants," Journal of Applied Psychology. 47:52-55, 1963.
- Roeher, G. A. "A Study of Certain Public Attitudes Toward the Orthopaedically Disabled," unpublished Doctoral Dissertation, New York University, 1959.
- Rokeach, M. The Open and Closed Mind. New York: Basic Books, Inc., 1960.
- Rusk, H. A. and Taylor, E. J. New Hope for the Handicapped. New York: Harper, 1946.
- Samuels, Shirley C. Enhancing Self-Concept in Early Childhood - Theory and Practice. New York: Human Sciences Press, 1977.
- Sarbin, T. R. "Role Theory." In Lindzey, G. (Ed.), Handbook of Social Psychology. Cambridge, Massachusetts: Addison - Wesley Publishing Co., 1954 (pp. 223 - 230).
- Sarbin, T. R. and Mancuso, J. C. "Failure of Moral Enterprise: Attitudes of the Public Toward Mental Illness," Journal of Consulting and Clinical Psychology. 35:159-173, 1970.
- Schilder, P. The Image and Appearance of the Human Body. New York: International Universities Press, 1950 (originally published 1935).
- Semmel, M. I. and Dickson, S. "Connative Reactions of College Students to Disability Labels," Exceptional Children. 32:443-450.
- Shaw, M. and Wright, J. Scales for the Measurement of Attitudes. New York: McGraw-Hill, 1967.
- Sheppard, G. W. "The Effects of Counselor Prognostic Expectancy on Counselor-Client Interpersonal Responses and Its Relationship to Selected Counselor Variables," unpublished Doctoral Dissertation, Boston University, 1978.
- Shontz, F. C. "The Problems and Promises of Psychological Research in Rehabilitation." In Trapp, E. P. and Hamilton, P. (Eds.), The Exceptional Child: Research and Theory. New York: Appleton - Century - Crofts, 1970.
- Siller, J. "Personality Determinants of Reaction to the Physically Disabled," American Foundation for the Blind Research Bulletin. 7:37-52, 1964.

- Simmons, H. E. "The Attitudes of the Sighted Toward the Blind," American Association of Workers for the Blind. 54-57, 1949.
- Spitzer, S.P. and Denzin, N.K. The Mental Patient: Studies in the Sociology of Deviance. New York: McGrath - Hill, 1968.
- Stodden, R. A. and Parker, L. G. "Attitudes Toward the Handicapped," Journal for Special Educators of the Mentally Retarded. 34:1:24-28, 1977.
- Vacchiano, R. B., Strauss, P. S. and Hochman, L. "The Open and Closed Mind: A Review of Dogmatism," Psychological Bulletin, 7:261-278, 1968.
- Wright, B. A. A Physical Disability: A Psychological Approach. New York: Harper, 1960.
- Wright, B. A. "An Analysis of Attitudes - Dynamics and Effects," The New Outlook for the Blind. 20: 108-119, 1974.
- Wylie, Ruth C. The Self-Concept. Lincoln: University of Nebraska Press, 1961.
- Yamamoto, K. "To be Different," Rehabilitation Counseling Bulletin. 14:180-189, 1971.
- Yuker, H. E., Block, J. R. and Campbell, W. J. A Scale to Measure Attitudes Toward Disabled Persons: Human Resources Study No. 5. Albertson, New York: Human Resources, 1960.
- Yuker, H. E., Block, J. R. and Campbell, W. J. Disability Types and Behaviour: Human Resources Study No. 6. Albertson, New York: Human Resources, 1962.
- Yuker, H. E., Block, J. R. and Youngg, J. H. The Measurement of Attitudes Toward the Disabled Persons. Albertson, New York: INA Mend Institute at Human Resources Center, 1970. Rehabilitation Series 3.

APPENDIX A

REHABILITATION CERTIFICATE PROGRAM

Intent of the Program

The program is primarily designed to train individuals who are currently working in diverse roles in the field or rehabilitation. However, the program is open to anyone interested in learning about the rehabilitation field. Students not interested in completing the entire program may take whichever individual courses interest them, but a Level One Certificate is required for admission to any Level Two course.

It is anticipated that by participating in this program, students will learn to respond to disabled people in ways which will facilitate mutual growth and development.

There are no previous educational requirements in order to be admitted to this program.

Description of the Program

The three Level One courses are designed to give the student a broad orientation to rehabilitation as a foundation for the continuous development of skills, attitudes, and insights integral to work in this field.

In Level Two of the program, the student completes three additional courses which provide more in-depth knowledge and practical skills in one or more of the three Speciality areas:

- SPECIALITY A: Child Management
- SPECIALITY B: Direct Service with Disabled People
- SPECIALITY C: Rehabilitation Administration

A Level Two Certificate will indicate that a student has an understanding of a specialized area in the field of rehabilitation, as well as a basic orientation to many types of disabilities.

Course Work

A. Live Courses

Each course will consist of thirty-six contact (in-class) hours. In addition to classroom time, students should be prepared to spend from three to six hours weekly reading and studying course material and completing required assignments.

B. Correspondence Courses

Each course will run for a period of twelve weeks, during which the student will study the material and complete assignments as outlined. There will also be some group work, whenever possible.

Methods of Instruction

In class: Lecture, discussion, workshops, and a variety of other teaching techniques will be used.

Correspondence: A multi-media approach will be used in Level One correspondence courses. In addition to printed material (a course manual, readings, and written assignments), audio and video-taped material will be an integral part of each course.

Course Descriptions

LEVEL ONE: Course One, Two and Three

COURSE ONE: "The Nature of Disability"

Topics include: - Who are the Disabled?
 - Human Development and Behaviour
 - Normalization and Integration
 - Meaning of Rehabilitation

COURSE TWO: "Working with Disabled People"

Topics include: - Assessment
 - Rehabilitation Counselling
 - Medical Rehabilitation
 - Vocational Rehabilitation
 - Group and Family Process

COURSE THREE: "The Agency and Basic Introduction to Public Program"

Topics include: - Inside and Outside Agency Communication
 - Financial Aspects and Resources
 - Rehabilitation Legislation
 - Rehabilitation Administration and Supervision
 - Program Analysis
 - You and Your Agency

LEVEL TWO: Certificate Courses Four, Five and Six
 (prerequisite: Level One)

SPECIALITY A: CHILD MANAGEMENT: Provides an overview of the various approaches to working in rehabilitation with exceptional children

Course 4A: "Children with Special Needs"

Course 5A: "Diagnosis, Assessment and Instructional Practices"

Course 6A: "Supervised Practicum in Behaviour Modification"

SPECIALITY B: DIRECT SERVICE WITH DISABLED PEOPLE: Examines the broad range of community and human resources available to the disabled, and focuses on using these in direct services in rehabilitation.

- Course 4B: "The Problem Solving Process in Rehabilitation"
- Course 5B: "Using Community Resources in Rehabilitation"
- Course 6B: "Interpersonal Skills in Working with Disabled Persons"
- SPECIALITY C: REHABILITATION ADMINISTRATION: Provides an overview of administrative roles, skills and responsibilities in the rehabilitation setting.
- Course 4C: "Administration in the Rehabilitation Setting"
- Course 5C: "Management Skills and Responsibilities"
- Course 6C: "Personnel Development and Supervision"

APPENDIX B

LETTER TO VOLUNTEER CONTROL GROUP II

Dear

Your name has been randomly selected from among those on the volunteer list of Exon House. We are conducting a research survey of "Attitudes Towards the Disabled" and your co-operation in making this survey a success would be greatly appreciated.

Enclosed is a questionnaire and score sheet. We would like you to answer the questions as directed and to return both the questionnaire and score sheet as quickly as possible, in the self-addressed envelope. You will again be requested to complete the follow-up questionnaire in approximately three months.

Please note that all information received from these questionnaires will be kept in strict confidence, and will be used for research purposes only. We are not concerned with your personal identity and these questions are in no way connected with your employment situation. We would like you to answer each question openly and honestly.

Sincerely,

Muriel Furlong
Graduate Student
Educational Psychology
MUN

Dr. Norman Garlie
Professor
Educational Psychology
MUN

APPENDIX C

ATDP SCALE

READ EACH STATEMENT AND PUT AN "X" IN THE APPROPRIATE COLUMN ON THE ANSWER SHEET. DO NOT MAKE ANY MARKS ON THE QUESTION SHEETS. PLEASE ANSWER EVERY QUESTION

1. Disabled people are often unfriendly.
2. Disabled people should not have to compete for jobs with physically normal persons.
3. Disabled people are more emotional than other people.
4. Most disabled persons are more self-conscious than other people.
5. We should expect just as much from disabled as from non-disabled persons.
6. Disabled workers cannot be as successful as other workers.
7. Disabled people usually do not make much of a contribution to society.
8. Most non-disabled people would not want to marry anyone who is physically disabled.
9. Disabled people show as much enthusiasm as other people.
10. Disabled persons are usually more sensitive than other people.
11. Severely disabled persons are usually untidy.
12. Most disabled people feel that they are as good as other people.
13. The driving test given to a disabled person should be more severe than the one given to the non-disabled.
14. Disabled people are usually sociable.
15. Disabled persons usually are not as conscientious as physically normal persons.
16. Severely disabled persons probably worry more about their health than those who have minor disabilities.
17. Most disabled persons are not dissatisfied with themselves.

18. There are more misfits among disabled persons than among non-disabled persons.
19. Most disabled persons do not get discouraged easily.
20. Most disabled persons resent physically normal people.
21. Disabled children should compete with physically normal children.
22. Most disabled persons can take care of themselves.
23. It would be best if disabled persons would live and work with non-disabled persons.
24. Most severely disabled people are just as ambitious as physically normal persons.
25. Disabled people are just as self-confident as other people.
26. Most disabled persons want more affection and praise than other people.
27. Physically disabled persons are often less intelligent than non-disabled ones.
28. Most disabled persons are different from non-disabled people.
29. Disabled persons don't want any more sympathy than other people.
30. The way disabled people act is irritating.

READ EACH STATEMENT AND PUT AN "X" IN THE APPROPRIATE COLUMN ON THE ANSWER SHEET. DO NOT MAKE ANY MARKS ON THE QUESTION SHEETS. PLEASE ANSWER EVERY QUESTION.

1. Disabled persons are usually friendly.
2. People who are disabled should not have to pay income taxes.
3. Disabled people are no more emotional than other people.
4. Disabled persons can have a normal social life.
5. Most physically disabled persons have a chip on their shoulder.
6. Disabled workers can be as successful as other workers.
7. Very few disabled persons are ashamed of their disabilities.
8. Most people feel uncomfortable when they associate with disabled people.
9. Disabled people show less enthusiasm than non-disabled people.
10. Disabled people do not become upset any more easily than non-disabled people.
11. Disabled people are often less aggressive than normal people.
12. Most disabled persons get married and have children.
13. Most disabled persons do not worry any more than anyone else.
14. Employers should not be allowed to fire disabled employees.
15. Disabled people are not as happy as non-disabled ones.
16. Severely disabled people are harder to get along with than are those with minor disabilities.
17. Most disabled people expect special treatment.
18. Disabled persons should not expect to lead normal lives.

19. Most disabled people tend to get discouraged easily.
20. The worst thing that could happen to a person would be for him to be very severely injured.
21. Disabled children should not have to compete with non-disabled children.
22. Most disabled people do not feel sorry for themselves.
23. Most disabled people prefer to work with other disabled people.
24. Most severely disabled persons are not as ambitious as other people.
25. Disabled persons are not as self-confident as physically normal persons.
26. Most disabled persons don't want more affection and praise than other people.
27. It would be best if a disabled person would marry another disabled person.
28. Most disabled people do not need special attention.
29. Disabled persons want sympathy more than other people.
30. Most physically disabled persons have different personalities than normal persons.

APPENDIX D

ROKEACH (DS) SCALE

NAME: _____

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others; whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3, OR -1, -2, -3, depending on how you feel in each case.

- | | |
|--------------------------|-----------------------------|
| +1: I AGREE A LITTLE | -1: I DISAGREE A LITTLE |
| +2: I AGREE ON THE WHOLE | -2: I DISAGREE ON THE WHOLE |
| +3: I AGREE VERY MUCH | -3: I DISAGREE VERY MUCH |

- ___ (1) The United States and Russia have just about nothing in common.
- ___ (2) The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
- ___ (3) Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
- ___ (4) It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.
- ___ (5) Man on his own is a helpless and miserable creature.
- ___ (6) Fundamentally, the world we live in is a pretty lonesome place.
- ___ (7) Most people just don't give a "damn" for others.
- ___ (8) I'd like it if I could find someone who would tell me how to solve my personal problems.

- ___ (9) It is only natural for a person to be rather fearful of the future.
- ___ (10) There is so much to be done and so little time to do it in.
- ___ (11) Once I get wound up in a heated discussion I just can't stop.
- ___ (12) In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
- ___ (13) In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.
- ___ (14) It is better to be a dead hero than to be a live coward.
- ___ (15) While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven or Shakespeare.
- ___ (16) The main thing in life is for a person to want to do something important.
- ___ (17) If given the chance I would do something of great benefit to the world.
- ___ (18) In the history of mankind there have probably been just a handful of really great thinkers.
- ___ (19) There are a number of people I have come to hate because of the things they stand for.
- ___ (20) A man who does not believe in some great cause has not really lived.
- ___ (21) It is only when a person devotes himself to an ideal or cause that life becomes meaningful.
- ___ (22) Of all the different philosophies which exist in this world there is probably only one which is correct.
- ___ (23) A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.
- ___ (24) To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

- ___ (25) When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.
- ___ (26) In times like these, a person must be pretty selfish if he considers primarily his own happiness.
- ___ (27) The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.
- ___ (28) In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.
- ___ (29) A group which tolerates too much differences of opinion among its own members cannot exist for long.
- ___ (30) There are two kinds of people in the world: those who are for the truth and those who are against the truth.
- ___ (31) My blood boils whenever a person stubbornly refuses to admit he's wrong.
- ___ (32) A person who thinks primarily of his own happiness is beneath contempt.
- ___ (33) Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
- ___ (34) In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.
- ___ (35) It is often desirable to reserve judgement about what's going on until one has had a chance to hear the opinions of those one respects.
- ___ (36) In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.
- ___ (37) The present is all too often full of unhappiness. It is the future that counts.
- ___ (38) If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."

- ___ (39) Unfortunately, a good many people with whom I
have discussed important social and moral problems
don't really understand what's going on.
- ___ (40) Most people just don't know what's good for them.

APPENDIX E

TITLE PAGE FROM AN EVALUATION OF COURSE 1,
LEVEL I OF THE REHABILITATION
CERTIFICATE PROGRAM

MEMORIAL UNIVERSITY EXTENSION SERVICE

CERTIFICATE PROGRAM IN REHABILITATION

1978 - 1979

AN EVALUATION OF COURSE 1, LEVEL ONE

THE NATURE OF DISABILITY

Michael Steer
Muriel Furlong
April 1979

APPENDIX F

PERSONAL INFORMATION SHEET

Note: Participants are advised the information requested in this questionnaire is strictly confidential, and will be used solely for the purpose of this study. All information will then be destroyed.

1. Name: _____
2. Age: _____
3. Sex: _____
4. Marital Status: _____
5. If married, husband's occupation: _____
6. Level of Education:
 - (a) Last grade completed in High School or by attending upgrading: _____
 - (b) List any post secondary training, i.e., nursing, attendance at Memorial University, Trades School, etc.

 - (c) List any post graduate work.

 - (d) List titles and length of any workshops attended relating to handicapped persons.

7. Number of years and/or months working with handicapped people

8. List all working experience including that not involving working with the handicapped.

Year	Place	Occupation	Duties
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Present Job:

Most Recent Job:

Previous Job(s):

9. Is there anyone disabled in your family? If so, describe the nature of disability and relationship to you?

APPENDIX G

ATDP RELIABILITY DATA
(STABILITY-EQUIVALENCE)

TABLE 13

ATDP Reliability Data (Stability-equivalence)

Reference	ATDP Forms	N	Disabled/ Non-disabled	Time Interval	r	p
Human Resources, 1966	O-A	38	ND	2 weeks	.62	.01
Human Resources, 1962	O-B	81	ND	6 weeks	.83	.01
Human Resources, 1962	A-B	58	ND	6 weeks	.41	.01
	A-B	40	ND	5 months	.73	.01
	A-B	31	ND	5 months	.76	.01

APPENDIX H

ATDP RELIABILITY DATA
(STABILITY: TEST-RETEST)

TABLE 10

ATDP Reliability Data (Stability: test-retest)

Study	ATDP Forms	N	Disabled/ Non-disabled	Time Interval	r	p
Human Resources, 1959	O	30	ND	5 weeks	.66	.01
	O	37	ND	5 weeks	.76	.01
	O	45	ND	5 weeks	.70	.01
Yuker, Block, & Campbell, 1960	O	132	D	18 weeks	.67	.01
Human Resources, 1960	O	24	ND	5 weeks	.84	.01
Knittel, 1963	O	58	ND	2 weeks	.89	.01
Yuker, Block, & Campbell, 1960	O	76	D	4 months	.70	.01
Phipps, 1963	O	75	ND	2 weeks	.80	.01
Human Resources, 1966	A	84	ND	2 weeks	.78	.01
Human Resources, 1962	B	28	ND	4 months	.71	.01
	B	81	ND	5 weeks	.83	.01

