To the Graduate Council:

I am submitting herewith a thesis written by Leigh Anna Wooley entitled "An Integrated Adventure Recreation Program: The Effects on Attitudes Toward Persons with Disabilities." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Recreation and Leisure Studies.

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We have read this thesis and recommend its acceptance:

Accepted for the Council:

Associate Vice Chancellor and
Dean of The Graduate School

AN INTEGRATED ADVENTURE RECREATION PROGRAM: THE EFFECTS ON ATTITUDES TOWARD PERSONS WITH DISABILITIES

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"...human beings can alter their lives by altering their attitudes of mind."

-William James

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ABSTRACT

"Prejudice (unless deeply rooted in the character structure of the individual) may be reduced by equal status contact between majority and minority groups in the pursuit of common goals" (Allport, 1954, p. 281). Based on the preceding hypothesis, the problem of this study was to investigate the effects of integration on the attitudes of persons without disabilities toward individuals with disabilities. Utilizing an adventure recreation activity as the vehicle through which equal status contact and common goals were provided, the attitudes of persons without disabilities toward the presence of disabilities were assessed via a pretest/post-test format.

Approximately one hundred twenty attitude measurements, the Attitude Toward Disabled Persons Scale (ATDP), were distributed to individuals without disabilities prior to their participation in an integrated white water rafting trip. Included with these assessments were short questionnaires which delineated such demographic variables as age, education, experience with persons with disabilities, gender, and race. Due to a variety of circumstances, only twenty-one of the voluntarily completed assessment packets were usable. Once each trip was concluded, the participants were again administered the ATDP scale. By analyzing the pretest and post-test scores of each participant and comparing those scores to the score required for the definition of a positive attitude, the determination was made on whether or not the application of integration in adventure recreation resulted in a positive transformation of attitudes.

The results of the study concluded that a positive transformation in attitudes did occur as a result of integration. While most of the participants scored on the positive side of the attitude scale during pretest administration, a significant increase in scoring was noted subsequent to the post-test

administration. Of the the twenty-one participants, fifteen achieved a positive attitude prior to the integrated adventure. Yet, following integration on the rafting trip, sixteen of the twenty-one individual post-tests expressed a more positive attitude toward persons with disabilities through an increase in score.

In conclusion, the recommendations, derived from the design, implementation, and evaluation of this thesis, include: (a) maintaining close physical proximity with the cooperating agency and the participants of the study, (b) utilizing the demographic information to establish a relationship between the effect of such variables on attitude transformation, (c) assessing the structure of adventure recreation agencies in order not only to reduce the typical "volunteer without a disability/participant with a disability" roles but also to ensure the provision of equal role risk activities to all participants, (d) developing attitude assessments which are acceptable in language, format, reliability, and validity, (e) designing attitude assessments specifically to target the domains of leisure and recreation, (f) utilizing the major assessment categories in therapeutic recreation as a basis for an assessment design, and (g) measuring both the self-perceptions and attitudes of persons with disabilities toward the presence of disabilities.

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CHAPTER I

INTRODUCTION

The integration of persons with disabilities in adventure recreation programs must be a priority among professionals in the fields of therapeutic recreation as well as adventure-based recreation. Studies have consistently revealed that adventure recreation utilizes risk activities to encourage an individual to reach his or her potential with regard to capability and proficiency (Attarian, 1991; Dattilo & Murphy, 1987; Ewert, 1985; McAvoy, Schatz, Stutz, Schleien, & Lais, 1989; Mobley, Deinema, Rowell, & Bradley, 1985). Research has also supported the similarity of the activities chosen as well as the benefits derived from adventure recreation among those with and without disabilities (Attarian, 1991; Dattilo & Murphy, 1987; Ewert, 1985; Havens, 1992; McAvoy et al., 1989; Mobley et al., 1985; Robb & Ewert, 1987; Schleien, McAvoy, Lais, & Rynders, 1993). In fact, the integration of persons with disabilities in adventure recreation programs has not only enhanced the potential of individuals with disabilities but also maximized the opportunity for self-actualization in individuals without disabilities. Since self-actualization and self-awareness in all members of society seem to be underlying goals sought by those who participate in and provide therapeutic recreation and adventure-based recreation, the utilization of adventure activities is a means through which independence within individuals as well as interdependence between groups can be accomplished.

Unfortunately, as a result of barriers in both attitude and accessibility, persons with disabilities have been excluded from participation in integrated recreation environments (Austin, 1986; Bedini, 1993; Dattilo & Murphy, 1987;

Havens, 1992; Robb & Ewert, 1987; Sable, 1995; Schleien et al., 1993; Sugerman, 1996). For this reason, individuals with disabilities have been both directly and indirectly encouraged to recreate in segregated environments (Austin, 1986; Havens, 1992). While studies have revealed a positive change within individual perceptions and attitudes as a result of education, training, and participation in integrated environments (Attarian, 1991; Austin, 1986; Bedini, 1993; Desforges, Lord, Ramsey, Mason, Van Leeuwen, West, & Lepper, 1991; McAvoy et al., 1989; Mobley et al., 1985; Sable, 1995; Sugerman, 1996), the overwhelming consensus of the majority of findings has established an eminent need for research in the area of integrated adventure recreation (Attarian, 1991; Austin, 1986; Ewert, 1985; Robb & Ewert, 1987; McAvoy et al., 1989). In fact, some professionals have advocated the need for both quantitative and qualitative data in order to support the findings discovered during the implementation of integrated programs (Robb & Ewert, 1987).

In an attempt not only to extinguish the prejudice of minorities but also to substantiate the positive influence of integration on the attitudes of members of society, Allport (1954) proposed the following hypothesis related to the effects of contact between individuals:

> Prejudice (unless deeply rooted in the character structure of the individual) may be reduced by equal status contact between majority and minority groups in the pursuit of common goals. The effect is greatly enhanced if this contact is sanctioned by institutional supports (i.e., by law, custom or local atmosphere), and provided it is of a sort that leads to the perception of common interests and common humanity between members of the two groups (p. 281).

In addition, Desforges, Lord, Ramsey, Mason, Van Leeuwen, West, and Lepper (1991) supported Allport's contact hypothesis and emphasized the need for equality and cooperation among the members of the integrated groups in order to effect a change in attitudes among the participants.

Integrated adventure recreation, as evidenced in the preceding research,

provides an environment of equal status as the participants strive to accomplish mutual personal and situational goals without the influence of direct competition. Yet, while research has supported the influence of integration on the attitudes of all participants, few studies have investigated the immediate effect of integration on participants via assessment before and after the adventure experience. In order to provide programming which would not only address the needs of the participants but also influence the attitudes and perceptions of those without disabilities toward persons with disabilities, an integrative approach should be considered.

Statement of the Problem

The purpose of this study was to investigate the effects of integration on the attitudes of persons without disabilities toward individuals with disabilities. In order to determine whether or not the application of integration in adventure recreation resulted in a positive transformation of attitudes in individuals without disabilities toward persons with disabilities, the following questions were addressed:

1) What were the attitudes of the participants without disabilities toward the participants with disabilities prior to the integrated adventure recreation experience?

2) What were the attitudes of the individuals without disabilities toward the individuals with disabilities following participation in the integrated adventure recreation experience?

3) Did a positive change in attitudes of persons without disabilities toward persons with disabilities occur as a result of the application of integration?

Need for the Study

According to Havens (1992), the survival of adulthood is contingent upon society's "understanding and accepting humankind in all of its varieties" (p. x). However, stereotypical labels continue to lay the foundation for the barricades that separate members of society (Havens, 1992; Robb & Ewert, 1987; Sable, 1995; Sugerman, 1996; Terry, 1995). The integration of persons with disabilities into adventure programs will encourage both the disintegration of labels and the acceptance of diversity. In addition, Attarian (1991) stated that research revealing the integration of persons with disabilities in adventure recreation is needed to provide definitive grounds on which to base strategies of intervention. If professionals have a clear understanding of the implications involved with integrated programming, then programs can be developed to facilitate the growth and development of all participants. Furthermore, the results derived from research on integrated adventure recreation will enable professionals to determine the various motivators for participation. Once these factors have been identified, programs that provide incentive for individuals to participate can be designed. Moreover, training and curriculum can be synthesized in order to supply professionals with the knowledge to adapt equipment and alter attitudes. Finally, qualitative and quantitative research in the area of integrated adventure programming will enable professionals to comprehend the inherent meaning of the risk experience. This elucidation will allow an actual transference of meaning and experience to the participants.

Limitations of the Study

The following were the limitations encountered by this study:

1) The assessment of attitude did not control the attitudes previously formed by individuals without disabilities toward individuals with disabilities.

2) If aware of the desired results of the study, the participants may have adjusted either their responses or their behaviors in order to meet the conditions associated with the hypothesis (Anderson, 1994).

3) The severity of disabilities represented by the population could not be controlled.

Delimitations of the Study

The following reveal the delimitations encountered by this study:

1) The study surveyed participants in one outdoor adventure agency, Special Populations Learning Outdoor Recreation and Education (SPLORE).

2) This study measured only the attitudes of persons without disabilities toward persons with disabilities.

3) The integrated white water rafting adventure activity under investigation was limited to the 1997 summer season.

Assumptions

The assumptions which accompanied the implementation of this study included the following:

1) The attitudes toward persons with disabilities could be defined as well as measured.

2) The instrument utilized in this study to measure the attitudes of persons without disabilities toward persons with disabilities was considered a valid and reliable assessment tool.

3) The subjects responded accurately and honestly to each of the questions on the attitude measurement.

4) The determined outdoor recreation agency cooperated fully in the collection of data.

Hypothesis

The null hypothesis used in the data analysis of the study is defined below.

Null Hypothesis: The attitudes of persons without disabilities toward persons with disabilities will not result in a change in a positive direction as a consequence of participating in an integrated adventure recreation program.

Definition of Terms

The following section specifies terminology which is crucial to the interpretation of this thesis.

Adventure recreation is "...a subjective challenging experience that occurs in the outdoors [which]...involves activities that are usually performed in the natural environment and contain elements of actual or perceived danger" (Dattilo & Murphy, 1987, p. 14) and are "intended to result in personal growth and fulfillment" (McAvoy et al., 1989, p. 51). For the purposes of this study, an adventure recreation activity is represented by any type of activity offered through SPLORE. In addition, in this study, the term adventure recreation is used interchangeably with the term risk recreation.

Attitude is "an idea charged with emotion which predisposes a class of actions to a particular class of social situations" (Triandis, 1971, p. 2). In order to address the purpose of this study, an attitude is defined as an individual's perception as evidenced by his or her response on the applied attitude scale, the Attitude Toward Disabled Persons Scale (ATDP).

Disability is "a physical or mental condition which interferes with an individual's achieving his [or her] full human potential" (Schoel, Prouty, & Radcliffe, 1988, p. 33).

Integration designates "...to bring (parts) together into a whole; to remove barriers imposing segregation..." (*Webster's New World Dictionary of the American Language*, 1987, p. 316); the placement of an individual with a disability in an environment with an individual without a disability (Turnbull &

Turnbull, 1990).

Integrated adventure recreation programs are programs, "based on the concepts of normalization, peer social interactions, peer acceptance and cooperative goal attainment" (McAvoy et al., 1989, p. 51), in which individuals with and without disabilities equally share outdoor activities and experiences.

Positive attitude, for the purposes of this study, is defined as any score on the ATDP which includes and exceeds 120 points.

Data Collection Procedures

The data in this study were collected using measures of pretest/post-test assessments. The individuals without disabilities completed an attitude survey, the ATDP, prior to participating in the integrated adventure activity. Upon conclusion of the activity, the individuals without disabilities again answered the survey questions. In order to ascertain a change in attitude as a result of integration, the means of both tests were compared using a correlated t-test.

Summary

According to McAvoy et al. (1989), the goal of social integration is "to ensure that persons with disabilities are accepted as members of the community, are permitted to participate in the activities enjoyed by others, and are able to participate in community services alongside their nondisabled peers" (p. 52). Integrated adventure recreation programming allows the opportunity for agencies to accomplish this goal of integration by incorporating

persons of all abilities into daily interactions within the natural setting of the outdoor environment. Not only do the benefits derived from these outdoor experiences apply to all of the participants, regardless of ability (Attarian, 1991; Bedini, 1993; Dattilo & Murphy, 1987; Ewert, 1985; Havens, 1992; McAvoy et al.,1989; Mobley et al., 1985; Robb & Ewert, 1987; Schleien et al., 1993), but also a positive alteration of attitude toward the perceptions of disabilities is evidenced in both the participants with and without disabilities (Attarian, 1991; Austin, 1986; Bedini, 1993; McAvoy et al.,1989; Mobley et al., 1985; Sable, 1995; Sugerman, 1996). Based on these findings, the primary purpose of this thesis sought to support a positive change in the attitudes of individuals without disabilities toward individuals with disabilities as a result of participation in integrated adventure recreation.

In order not only to investigate the preceding premises but also to supply the foundation on which the purpose of the study is built, this thesis was organized according to chapters. Chapter One supplied the statement of the problem, the need for the study, the delimitations and limitations of the research, the basic assumptions associated with the experiment, the hypotheses determined as a result of the study's purpose, and a brief overview of the data collection procedures applied to the research design. Chapter Two reviewed the literature associated with disabilities, integration, adventure recreation, and integrated adventure recreation. Chapter Three delineated the methodology utilized in the study and included a description of the subjects, an identification of the adventure activity, the rationale behind the selection of the activity, an overview of the administration procedures, and a depiction of the statistical treatment utilized in evaluating the data. Chapter Four presented the participant rate of response on the ATDP, a thorough analysis and discussion of the participant demographic information, the scoring procedures of the ATDP, and

the attitudes revealed through the pretests and post-tests. Chapter Five provided a summary, a conclusion, and recommendations based on the findings of the study.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this review was not only to examine the prevalence of integrated outdoor adventure programs for persons with disabilities but also to investigate the attitudes of persons without disabilities toward individuals with disabilities. However, in order to fully understand the integration of persons with disabilities into adventure recreation, each entity of the whole needed to be explored. Therefore, research was conducted in the areas of: (a) disabilities, (b) attitudes, (c) integration, (d) adventure recreation, and (e) integrated adventure recreation. Additional areas of research were delineated via subheadings under the aforementioned headings.

Disabilities

Ficke (1992), under a contract with the United States Department of Education and in order to supply data for the National Institute on Disability and Rehabilitation Research, prepared a digest of information concerning persons with disabilities. Included in this overview was the prevalence of disabilities in the United States, the definition and limitations associated with disabilities, the causes of certain disabling conditions, the demographic characteristics related to disabilities, and the disability status of certain groups. By compiling the research of various sources, Ficke purposed to cultivate a basic understanding of the enigmatic subject of disabilities.

According to Ficke (1992), more than thirty-six million Americans were reported as limited in function by some type of disability. The breakdown of

those figures revealed that thirty-two million of those individuals were living in the community and the remainder were institutionalized in residential facilities or long-term care settings. Unfortunately, due to the conflicting views and definitions concerning persons with disabilities as well as the vast array of information available on the subject, the reported statistics indicated a constraint of data.

While many definitions of disability exist in current literature, Ficke (1992) found that the focus of most studies attempted to consider the capacity of the affected individual rather than to correct the effects of the disorder. Therefore, using the definition provided by the World Health Organization as a guide, Ficke established that a "disability is a limitation in life activities...caused by impairments or other chronic conditions" (p. 5). According to Ficke, this definition should be considered apart from both the origin and the ultimate effects of the disability. In addition, for the purposes of his research and the related information, Ficke reasoned that despite the fact that acute conditions often resulted in disabilities, the above definition should only encompass long term disabilities.

In order to measure the corollary of a disability on an individual, Ficke (1992) presented the need to differentiate between the types of limitations which have often been associated with disabilities. By dividing the restrictions into the categories of activity limitation, functional limitation, and the need for assistance in activities of daily living, Ficke stated that the National Center for Health Statistics (NCHS) could pinpoint the severity of the disability on the individual. According to NCHS, approximately fourteen percent of the United States population had some type of limitation in activity as measured by participation in age-appropriate activities. Nearly twenty-one percent of the population was limited in performing one or more of nine tested functions,

including the ability to understand speech, walk three city blocks, or lift and carry a full bag of groceries. Finally, in attempting to measure the effects of disabilities on individuals, NCHS reported that four percent of the population over the age of fifteen, or over 8 million persons, required some form of assistance in performing daily living skills such as dressing, eating, or personal hygiene.

During his compilation of research, Ficke (1992) noted that the individuals indicated by NCHS as suffering from activity limitation must identify a particular chronic condition causing the restriction. According to NCHS, a condition was chronic if: (a) the individual first noticed the problem at least three months prior to the date of the study or (b) the individual had been diagnosed at any time with an impairment, such as blindness. In addition, by utilizing the preceding measures of activity limitation and functional limitation as a basis for comparison, Ficke attempted to pinpoint the demographics related to the presence of a disability or chronic condition. For this reason, Ficke revealed the relation between disability and the demographics of age, income, education, ethnicity, gender, and living arrangements.

In conclusion, Ficke (1992) reported the disability status of "special population groups" in the United States (p. 24). Included in these divisions were statistics on the prevalence of disabilities among children, the elderly, those with mental health conditions, and persons with mental retardation and developmental disabilities. According to the findings of NCHS, approximately eleven million children between the ages of three and seventeen had one or more of the following conditions: (a) a delay in growth or development, (b) a learning disability, or (c) a behavioral or emotional problem lasting more that three months and requiring psychological treatment. Approximately seven million elderly over the age of sixty-five and not institutionalized had difficulty

with mobility or activities of daily living. When identifying the prevalence of all persons over the age of eighteen years who had ever been diagnosed with any type of mental or emotional disorder, NCHS estimated over thirty-two percent of the non-institutionalized population. In narrowing that data to severe or persistent mental illness, the National Institute of Mental Health (NIMH) recorded over three million individuals in the categories exceeding eighteen years and not confined to an institution. Finally, in determining the prevalence of mental retardation and other developmental disabilities, such as autism, cerebral palsy, epilepsy, and other neurological conditions, Ficke revealed that approximately one percent of the nation's population had been diagnosed.

Havens (1992), an educator of persons with disabilities in adventure curricula and a consultant to organizations in the field of adventure-based recreation, also studied the prevalence and implications of disabilities on individuals. By providing a definition of disability and revealing the statistics associated with each disability group, Havens focused on the importance of both identifying and providing services to individuals with disabilities. In addition, Havens revealed the influence of the disability on the individual's ability to function.

According to Havens (1992), the definition of disability accepted and published by the United States Federal Government stated that people with disabilities have "'an impairment that significantly limits them in one or more daily life activities, or are considered, by themselves or others, to have or to have had such a condition'" (p. 15). In 1986, a study conducted by Lou Harris and Associates disclosed that fourteen percent of all Americans over the age of sixteen were disabled. By adding those individuals under the age of sixteen as well as those who were institutionalized, an approximate number of forty million individuals had been reported with a disability. Of those forty million

individuals, forty-four percent had a physical disability; thirteen percent had a sensory impairment in areas such as speech, hearing, or vision; six percent had a mental disability; and thirty-two percent were classified under the category of other health impairments.

In applying the statistics to the individuals, Havens (1992) found that both the impact of a disability and the individual's ability to settle into the limitations related to the disability seemed to be directly linked to "the age of onset of the disability" (p. 32). An individual with a congenital disability was given tenure to adjust progressively to the affects; however, a person who incurred an injury subsequent to birth was forced to front the harsh distinction between pre-accident and post-accident functioning. While each individual was distinct and the factors surrounding his or her disability could not be applied to every situation or example, Havens (1992) reported a number of other elements which impelled the effects of the disability. These determinants included the extent of the disability, the ability of the public both to observe and to react to the disability, the attitudes resulting from the perceptions of society, the amount of support received from friends and family, and the social standing of the individual with his or her peers.

Attitudes

This section on attitudes reveals: (a) information related to the attitudes held by persons without disabilities toward people with disabilities and (b) a description of measurement tools which have been utilized to assess the level of attitudes associated with the presence of disabilities. In addition, a rationale of the attitude scale employed in this study is included.

Attitudes Toward Persons with Disabilities

Siller (1984), a professor of educational psychology, revealed that several variables affected the interaction between persons with and without disabilities. After introducing the influence of situational context on the acceptance of persons with disabilities, Siller specified several elements, determined by research, which either enhanced or encumbered the relationship between individuals with and without disabilities. Siller then concluded with a challenge to alter the complex negative attitudes often directed toward persons with disabilities.

Including the factors of age, sex, race, education level, and cultural bias, Siller (1984) provided a list of variables which affected the interaction between individuals with and without disabilities. In addition to those elements, Siller noted that the personality type of the individual without a disability was also influential to either the acceptance or the rejection of a person with a disability. In fact, individuals with a strong sense of self-worth, an ability to apply boundaries to situations, and an inherent nurturing quality displayed an attitude of acceptance, while individuals who were anxious, hostile, or domineering usually exhibited negative attitudes toward persons with disabilities. Furthermore, despite the fact that the setting was not often defined in the research literature, Siller contended that the environment in which interactions between people with and without disabilities occurred affected the ability of the individuals without disabilities to accept the differences apparent upon contact.

Siller (1984) completed the chapter with examples to support the acceptance of individuals with disabilities by their peers without disabilities. Consequently, a more significant degree of acceptance was granted to individuals who displayed the ability to cope with their disability rather than to those who succumbed to their disabling conditions. In addition, the level of

educational achievement acquired by individuals with disabilities influenced their ability to experience the approval of individuals without disabilities. Although the studies on attitude change were limited by number and effect, Siller contended that the acceptance of individuals with disabilities was dependent on the identification of the sources of negative attitudes. For this reason, he urged professionals not only to pinpoint the constituents associated with attitudes but also to implement tools for the measurement of attitude.

In an attempt to identify the origin of negative attitudes toward individuals with disabilities, Linveh (1988), an associate professor and director of a rehabilitation counseling program, conducted a review of literature which related to the possible determinants of attitude. Based on his findings, Linveh classified the roots of attitude formation into the categories of sociocultural-psychological, affective-cognitive, conscious-unconscious, past experience-present situation, internally originated-externally originated, and theoretical-empirical.

When referring to the sociocultural-psychological sources of negative attitude, Linveh (1988) distinguished between society's collective biases toward those with disabilities and one's personal prejudice toward the presence of disabilities in his or her peers. In the affective-cognitive domain, Linveh contrasted feelings of anxiety toward body deformity with intellectual fears concerning personal interactions with persons with disabilities. Furthermore, conscious sources of negative attitude were equated with the cognitive domain, as individuals without disabilities feared they would acquire the disability by mere association, while unconscious sources of attitude correlated with a childhood view of disability as punishment for sin. Although the past experience dimension relied on parental influence for effecting negative bias in individuals as children, the present situation domain emphasized the influence

of current situations in the formation of attitudes. The internally/externally originated sources revealed the effects of both the external demographic variables and the internal personality variables united in each person. Finally, the theoretical sources of negative attitude were impacted by personal speculation while the empirical origins of negative attitude were influenced by applied research.

Linveh (1988) stated that although the categories appeared distinctive by title, the characteristics inherent in each of the six domains were interrelated. Yet, in order to facilitate the comprehension of each dimension, Linveh purposed to delineate the attributes of each source. According to Linveh, the defined sources of attitude origin attempted to provide an explanation for the presence of negative bias of individuals without disabilities toward individuals with disabilities.

Measurement of Attitudes

While attitude measurement of persons without disabilities toward those with disabilities was extensive in the related literature, Yuker, Block, and Younng (1970) focused on the scales used to measure the attitudes of persons without disabilities toward persons with disabilities. Tracing the development of attitude scales to the 1920's, Yuker et al. followed the historical development of attitude measurement to the early 1960's. While the reliability and validity associated with each of the test designs was presented, Yuker et al. noted the prevalence of the tests to measure attitudes toward only specific disabilities rather than toward disabilities in general. Therefore, the Attitude Toward Disabled Persons Scale (ATDP) was designed.

Developed by Yuker et al. in 1964, the ATDP provides "an adequate

positive-negative scaled measure of attitudes toward the [population of persons with disabilities] with evidence of reliability and validity..." (1970, p. 17). Originally, one scale, Form O, existed in a twenty-question Likert design to assess the attitudes of individuals toward disabilities. However, in order to establish a stronger foundation for reliability and validity, two additional scales of greater length, Form A and Form B, were created. Each of the three scales was written in the form of statements with which the respondents either supported or negated via a response scale. The reactions ranged from a positive three, which indicated "I agree very much", to a negative three, which implied "I disagree very much". In order to force the respondents to react either positively or negatively, a choice of neutrality was not included in either the design or the implementation of the instrument.

According to Yuker et al. (1970), the validity of the ATDP, as with any other measurement device, was based upon the intent of construction. For this reason, the authors established the development of the ATDP on the foundation of two conjectures: (a) when measuring the attitudes of all persons toward disabilities, individuals with disabilities would respond differently than those without disabilities and (b) when administered to persons without disabilities, the ATDP would result in a measure of attitudes toward the general population of persons with disabilities rather than toward an individual with a disability. The assumption of the former entailed a measure of self-acceptance, while the assumption of the latter evoked associated bias or prejudice. Therefore, as Yuker et al. intended, the ATDP measured attitudes toward disabilities as evidenced in individuals both with and individuals without disabilities.

In order to ascertain whether or not an individual's attitude was positive or negative, Yuker et al. (1970) stated that the positive or negative signs associated with the positively worded statements on the test were reversed in

scoring. Once the signs were adjusted to reflect the true bias of the individual, the sum of the scores was calculated. According to Yuker et al., the range of scores on Form O was between positive and negative sixty while the range of scores on both Form A and Form B was between positive and negative ninety. Therefore, on Form O, a respondent who scored on the high end of one hundred twenty points held a positive attitude toward the presence of disabilities. Likewise, an individual who achieved a high score in the range of zero to one hundred eighty on Forms A and B also received a positive attitude rating.

In conclusion, Yuker et al. (1970) suggested that the implications of the test scores were dependent on the "condition of the respondent" (p. 31). If an individual with a disability received a low score on the assessment, then he or she was likely projecting feelings of inferiority or disgust toward his or her specific disability rather than toward the presence of disabilities in general. Therefore, a person with a disability who received a high score on the attitude scale revealed that he or she experienced some degree of self-acceptance with his or her difference. However, if a person without a disability received a low score on the attitude scale, then Yuker et al. assumed that he or she held prejudice views toward individuals with disabilities.

Nearly fifteen years later, Siller (1984), through a review of literature, determined that the measurement of attitudes toward persons with disabilities was hindered by both the lack of repeated assessments applied to a given population and the ability to generalize the results represented by each study. Nonetheless, in order to rectify the preceding considerations, Siller revealed the employment of several attitude measurement techniques. After distinguishing between the factors associated with single and multidimensional test design, Siller briefly overviewed the characteristics of a variety of measurement tools.

While implying the overuse of most scales, Siller (1984) described the scales common to the measurement of attitude. Included in his depiction were a measurement of attitudes toward visual and hearing impairments and a picture association test for children. When referring to the tests which have revealed the most information concerning the relationship between attitudes toward disabilities and the sources of individuals without disabilities. Siller focused on the ATDP. In contrast to the findings of Yuker ef al., Siller stated that the difficulty in applying tests to measure the attitude toward disabilities was evidenced in the tendency of most tools to generalize positive or negative affect to any type of disability rather than focusing on a particular disability. In order to address this problem, Siller and his associates developed the Disability Factor Scales (DFS), to assess attitudes toward specific disabilities. While the ATDP and the DFS have been used together in research on attitudes, Siller stressed that conclusions could not be drawn on the ability of the tests to interrelate for the sample sizes were not large enough to make the assumption of test correlation.

In conclusion, Siller (1984) introduced the "omission of situational factors in the assessment of personality and attitudinal effects" (p. 187). By implying that factors such as age, sex, and race in persons without disabilities influenced the acceptance of individuals with disabilities, Siller endorsed the inclusion of situational factors into attitude assessment design and measurement.

Integration

This overview of integration provides: (a) a rationale for integration, (b) the types of integration, (c) the major legislations which mandated the integration of persons with disabilities into the community, and (d) the effects of

integration on the transformation of attitudes. Of the first three subsections, the latter two build upon the foundation of the former to develop a clear understanding of the constituents which affect the integration of persons with disabilities into society. The final subsection provides insight into the purpose of this study.

Rationale for Integration

Webster's New World Dictionary of the American Language (1987) defined integration as making something whole or complete, uniting parts, and eradicating blocks which inflicted segregation on members of society. According to Laski (1991), an attorney in public law, this denotation of integration was applied to persons with disabilities in the community through the definition of the Developmental Disabilities and Bill of Rights Act (DD Act) which stated "'[Integration includes] participation by persons with developmental [or physical] disabilities in the same community activities in which nondisabled citizens participate, together with regular contact with nondisabled citizens... in their community'" (p. 410). Therefore, both the integration and unification of the community were dependent upon the consolidation of the various parts or members of society.

Unfortunately, history has revealed not only the consistent inhumane treatment but also the inferior roles placed by society on members with disabilities (Havens, 1992). According to Havens, Wolfensberger, in his book *Normalization: The Principle of Normalization in Human Services*, denoted that labels, such as subhuman organism, menace, object of pity, holy innocent, diseased organism, object of ridicule, and eternal child, ultimately influenced the attitudes and perceptions held by members of society without disabilities. In

addition, most persons with a notable disability were considered deviant as a result of their negative stigma. Since these labels were prevalent in the past, Havens linked their influence to the lack of integration of persons with disabilities into society.

As Havens (1992) reported, twenty-seven million persons over the age of sixteen had a disability. When individuals under the age of sixteen and those who were institutionalized were added to that figure, Havens' calculation of the number of persons with disabilities in America reached approximately forty million. Havens indicated that the vast majority of those forty million individuals were unable to experience the same opportunities for employment or community access as individuals without disabilities. Barriers in architecture, obstacles in transportation, and hurdles in adaptive equipment impeded the freedom of individuals with disabilities to enjoy the benefits of life available to the rest of the population. However, these blockades started to crumble under the legislation of the government and the education of society. Yet, in order to remove the barricades completely, Havens (1992) revealed that the majority of persons with disabilities who resided in the community needed to receive integrated access to the related services of recreation and leisure.

Types of Integration

Dunn (1991), an occupational therapist, stated that literature and research often neglected to clarify the various types of integration as peer integration, functional integration, practice integration, and comprehensive integration. Peer integration was evidenced when individuals without disabilities were placed in environments with their peers who had disabilities. Functional integration transpired when professionals applied therapeutic

strategies to the environments in which the individual with the disability functioned on a daily basis. Practice integration offered the opportunity for professionals from various disciplines to collaborate their expertise in their respective fields in order to meet the needs of the individual. Comprehensive integration, which was defined as a combination of the aforementioned approaches, maximized the individual's independence and participation within the peer environment. Related to the concept of peer integration was the definition of community integration. According to Laski (1991), community integration encompassed the "ongoing reciprocal interactions among peers, with and without disabilities, equal and effective access to all public services and accommodations, and full participation in the life of the community" (p. 409).

Legislation Influencing Integration

According to Havens (1992), integration was mandated by several legislative acts. The decision of the 1954 *Brown v. Topeka, Kansas, Board of Education* court case established that the segregation of students by race denied the tenants of the constitution. In addition, the court ruled that an equal education must be available for all students. In 1972, this equal education was addressed for students with disabilities. The case of *Mill v. Board of Education of the District of Columbia* pronounced that the denial of equal education to students with disabilities was a infraction of both the equal protection clause and the due process clause of the Fourteenth Amendment. Section 504 of the *Vocational Rehabilitation Act of 1973* (P.L. 93-112) refused both the discrimination and the exclusion of individuals with disabilities from the participation in any activity which received financial assistance from the government. The ordinance decreed by the *Education for All Handicapped Children Act* (P.L. 94-142) declared the opportunity for a "free and appropriate

public education for all children with disabilities" (Havens, 1992, p. 19). Yet the most recent legislation with a direct impact on integration passed as *The American With Disabilities Act* (P.L. 101-336) of 1990 and gave "civil rights protection to individuals with disabilities in private sector employment, all public services, public accommodations, transportation, and telecommunication" (Havens, 1992, p. 19).

Effects of Integration on Attitude Transformation

In order to provide an effective means for establishing unity among members of society, Allport (1954), a professor of psychology, explored the constructs associated with the prejudice of persons of various racial, ethnic, and social backgrounds. By differentiating between attitude and belief and defining each element's role in the exhibition of prejudice, Allport provided a foundation on which segregation could be addressed and discrimination could be eliminated. In addition, Allport introduced a theory which revealed the influencing constituents associated with the reduction of prejudice.

While Allport (1954) conceded that prejudice was a universal concept manifested according to country and culture, he argued that the causes of such social intolerance were as diverse as the regions in which each bias was displayed. According to Allport, prejudice contained "an attitude of favor or disfavor" (1954, p. 13) which coincided with "an overgeneralized belief" (1954, p. 13). The distinction between attitude and belief was evidenced in the simplicity of alteration. Beliefs could be altered with applied rationale, yet attitudes were more difficult to transform. Nevertheless, Allport's theory of contact supported integration as an essential factor in the transformation of attitudes and the acceptance of humanity.

Allport (1954) concluded that humanity's propensity toward prejudice was confirmed through the discrimination and segregation of certain members of society. Therefore, in order to effectively distinguish the prevalence of prejudice, Allport encouraged an attack on both systems. By providing opportunities not only to experience equal status but also to achieve similar goals through contact in integrated environments, the connection between society's standard of norms and an individual's execution of bias could be enervated.

Nearly forty years later, Desforges, Lord, Ramsey, Mason, Van Leeuwen, West, and Lepper (1991) investigated the positive and negative aspects of Allport's contact hypothesis through the assessment of intergroup attitudes among majority and minority members. In an attempt to substantiate Allport's theory that contact among members of a group elicited positive attitudes, Desforges et al. designed a study in which the attitudes of undergraduate students toward a confederate, acting as a former mental patient, were evaluated via participation in cooperative tasks. Furthermore, Desforges et al. applied two measures of attitude in order to pinpoint the processes involved in attitude transformation.

According to Desforges et al. (1991), approximately two hundred fourteen students participated in the attitude inquiry and ninety-five of those agreed to partake in the structured cooperative learning techniques. The initial attitude assessment measured the students' attitudes, perceptions, and levels of acceptance toward former mental patients and the representative behaviors associated with their population. In groups of two to six persons, the students entered computer booths and responded to the questions delineated on each monitor by pressing either a range of numbers describing positive or negative opinions, a Y for yes, an N for no, or an H to display a new question. Based on

their responses to the given questions, the students with positive attitudes were differentiated from those with negative attitudes. After the completion of the survey, the students were asked to pen an essay on their experiences during the previous year as well as their expected areas of involvement ten years from the date.

One month after the survey and the self-essay, ninety-five of the original students interacted in two techniques known as jigsaw cooperative learning and scripted cooperative learning. According to Desforges et al. (1991), jigsaw learning divided the participants into groups, presented each group member with a portion of material, and designated responsibility to each member for both learning the material and teaching the included information to the other members. Scripted learning was contrasted by placing the participants into dyads and providing each with equal access to learning the entire material through the use of a specific script or outline. Prior to implementing the cooperative techniques, the authors reminded the students of their essays and suggested that, in order to better interact with others in the exercises, they should read the essay of the person with whom they would come in contact. Each student was given the same sample essay depicting a young college student who had spent the previous year as a mental patient and then asked to complete a questionnaire on the characteristics they predicted the former mental patient to hold. At this point in the study, the students were assigned randomly to the contact perimeters of the cooperative techniques. Thirty-one participated in the scripted learning, thirty-one participated in the jigsaw learning, and thirty-one participated as a control group which did not interact with the confederate mental patient. After the fifty-minute time period ceased, the students were administered the same questionnaire concerning the actual characteristics that the former mental patient possessed.

The results of the studies conducted by Desforges et al. (1991) established that forty-six of the ninety-five students initially expressed negative attitudes toward the former mental patient, while the remaining forty-nine students initially revealed positive attitudes toward the confederate mental patient. In addition, multiple analyses of variance of the students' expectations of the confederate's possible behaviors and characteristics prior to actual contact revealed a bias related to the typical behaviors of mental patients. Upon interaction in the cooperation techniques, however, the students who had exhibited negative attitudes toward the former mental patient reacted more positively. Those students with negative attitudes, who participated solely as the control group without access to interaction, did not experience a transformation in attitude.

Desforges et al. (1991) concluded that equal-status cooperation yielded a transformation in the negative attitudes of individual participants. According to Desforges et al., "the positive impact of the interaction counteracts the negative expectations" (1991, p. 541) of the majority group. Since the members of the group both interacted in cooperative techniques and pursued common goals, the contact theory was supported. Nevertheless, in order to facilitate initial interaction and to encourage the generalization of the positive impact of interaction experienced between the groups, Desforges et al. (1991) determined that the application of a guiding structure, such as the script utilized in the scripted learning technique, should be added to the constituents of the contact hypothesis.

Adventure Recreation

This section on adventure recreation addresses: (a) the benefits of risk related to the adventure experience as well as (b) the implementation of adventure recreation with the population of persons with disabilities. Evidenced in these sections is the inherent value of the adventure recreation to effect changes within individuals as a result of participation.

Benefits of Risk in Adventure Recreation

Ewert (1985), an assistant professor and coordinator of outdoor adventure, rendered an extensive overview of the growth in risk recreation by providing a definition of risk recreation trends and outlining the benefits associated with participation in outdoor adventure. In addition, Ewert profiled the common traits necessary for participation in recreational activities. Furthermore, Ewert presented the directional flow of trends in risk recreation, which included the move toward involving individuals with disabilities, and delineated the positive and negative influences for growth or lack of growth in the field.

According to Ewert's definition, the object of risk associated with adventure recreation was the most desirable component of the experience (1985). While this factor might have been threatening, the thrill of the danger could be manipulated to levels which were acceptable to the participants while still allowing each person the opportunity to accomplish his or her objectives. In correlation with this element were the varying degrees of skills necessary for the successful completion of an activity. Consequently, most risk recreation involvement was dependent on a number of "variables surrounding the activity" (Ewert, 1985, p. 6), such as environmental, socio-economical, cognitive,

physical, psycho-social, and psychological. Ewert also predicted that risk recreation activities would be "chosen for their specific benefits and in accordance with the special needs or abilities of the individual" (1985, p. 7).

The implications with which Ewert concluded his study revealed a strong paradox with regard to the future provision of risk recreation services. As the desire for risk recreation services increased with the change in population, the provision of such would be impeded by the lack of economy and resources associated with service delivery. To address the needs and problems of the participants, Ewert purposed solutions in the form of steps for society to consider when providing its members with worthwhile outlets in risk recreation.

Attarian (1991), an assistant professor in physical education and an associate faculty member in parks, recreation and tourism, conducted a similar review of the predominant areas of research with regard to the topic of adventure recreation. After providing an outline of risk recreation, delineating examples of related activities, and embracing predictions of growth from professionals in the field, Attarian continued his review by focusing on the primary values experienced in risk recreation as determined by Ewert. Included in these gains were social benefits, individual benefits, wilderness-centered and activity-oriented focuses, therapeutic benefits, and professional issues.

According to Attarian (1991), the social and individual benefits associated the outdoor adventure recreation experience produced substantial changes within the behaviors, self-concepts, and situational anxieties of the participants. In addition, the psychological benefits inherent in the wilderness-centered activity were dependent on the participant's level of motivation and experience related to the activity. In the area of therapeutic recreation, a inquiry established that adventure recreation participation resulted in "positive attitude and lifestyle changes for individuals with and without disabilities" (Attarian,

1991, p. 22). Research on professional issues in adventure recreation included values as ranked by professionals in the areas of "leadership certification, leadership style and program outcomes, and the retention and turnover of program staff..." (Attarian, 1991, p. 22).

Attarian concluded with a summary of the various ways in which the existing research results could be applied to the programming of adventure recreation experiences (1991). Through understanding the benefits of adventure programs, Attarian predicted that practitioners would be able to improve existing programs and design future programs which would address the needs of the participants as well as highlight the requirements of the staff.

Adventure Recreation for Persons with Disabilities

Mobley, Deinema, Rowell, and Bradley, (1985), Executive Director, Program Director, River Coordinator, and Winter Ski Coordinator of the Breckenridge Outdoor Education Center (BOEC), provided specific examples of courage and strength as individuals utilized physical obstacles within themselves to overcome physical risks within the environment. Included in these examples were persuasive appeals for the implementation of risk recreation with persons of all abilities. By focusing on a study completed through the BOEC, Mobley et al. delineated factors supporting the therapeutic gains derived through adventure recreation.

The BOEC implemented an outdoor adventure program with adolescent cancer patients in an effort to research the effects of risk recreation on the problems and behaviors associated with the defined group and groups with other special needs. According to Mobley et al. (1985), the planning, implementation and evaluation of the adventure program was strictly monitored

through the documentation of assessments, evaluations, journals, and pretest/post-test inventories. Through assessment and evaluation, each activity offered over the five day adventure was not only examined for its possible effect on the participants but also graded by the participants for its actual ability to influence change. The results indicated that activities which had the most impact on the participants were those that involved stress and cultivated personal deliberation. A second type of evaluation, the sociogram, required each participant to rate the others members of the group using divisions of preferential group roles. The data revealed "that risk activities not only improved personal self-image but also relationships within peer groups" (Mobley et al., 1985, p. 37). In addition, the Tennessee Self-Concept Test (TSCS), administered before and after the course to determine the change produced in a variety of psychological categories as a result of participating in adventure recreation, reported a significant growth in each of the categories. The combination of evaluations completed by the participants and the observations conducted by both the employees of the BOEC and the participating hospital signified "that risk recreation can produce significant changes in individual participants with special needs" (Mobley et al., 1985, p. 38).

Mobley et al. (1985) concluded with information about the services and programs offered through the BOEC. Risk recreation, as a type of therapy provided by organizations such as BOEC, was described as a powerful opportunity to meet the needs of individuals with a variety of disabilities in ways in which other therapies have failed. By providing hope and inspiration to the participants and even those who appreciate the limitless nature of "the human spirit" (Mobley et al., 1985, p. 38), risk recreation allowed the individual to push beyond his or her potential and find satisfaction in the attainment of a skill.

Robb, Director of Bradford Woods Outdoor Education Center and an associate professor of recreation and park administration, and Ewert (1987) outlined the reasons adventure recreation has not been prevalent in the population of persons with disabilities and then countered those explanations with the potential benefits of risk recreation on persons with disabilities. In addition, the authors both reviewed the research literature supporting the concept of risk recreation and provided specific recommendations for future study on the value of risk as a recreational component for individuals with disabilities.

According to Robb and Ewert, over twenty distinct recreational activities were classified under the headings of risk recreation, outdoor adventure recreation, challenge recreation, or outdoor pursuits (1987). The growth in these types of leisure interests was supported by various disciplines, service providers, organizations, and consumers. In addition, an increase in legislation concerning recreational resources confirmed the growth of participation by individuals. Unfortunately, for a number of reasons, this participation was often impeded for individuals with disabilities. First, persons with disabilities were denied the right to participate based on ability as well as opportunity. Second, the service providers who offered programs were often overprotective, interfering with the individual's opportunity to experience the inherent quality of risk found in the activity. Third, most individuals with disabilities were not aware of the resources available to participate in adventure recreation. Fourth, most adventure recreation programs which provided risk to persons with disabilities were segregated. Fifth, architectural, physical, and attitudinal barriers blocked the participation of individuals without disabilities. Finally, the programs which were inclusive or integrated to address the needs of persons with disabilities did not provide the staff training necessary to implement the activities.

Robb and Ewert suggested that "the lack of quantitative and qualitative data" (1987, p. 62) to support the psychological, sociological, physical, and educational benefits of risk recreation for persons with disabilities was a result of the infancy of programming adventure recreation for persons with disabilities. The authors theorized that the data would experience an increase in number as existing programs attempted "to qualitatively substantiate the value of outdoor adventure challenge programs" (Robb & Ewert, 1987, p. 62) for individuals with disabilities. In order to provide a foundation for the development, implementation and evaluation of adventure programs as well as to formulate a basis for the documentation of future results, Robb and Ewert introduced two models of programming, the Challenge Sequence Model and the Outdoor Adventure Continuum Model.

Robb and Ewert (1987) concluded the article by providing a list of several related areas which were in need of research. In addition, the authors presented a list of recommendations to the President's Commission on Americans Outdoors comparative to the implementation of adventure recreation with persons with disabilities. Finally, Robb and Ewert appealed to the readers to accept the participation of persons with disabilities in risk recreation programs and provided a list of organizations which were providing foresight in addressing the issues of all participants.

Integrated Adventure Recreation

The areas of interest under the topic of integrated adventure recreation include: (a) the rationale for integrated adventure recreation, (b) the techniques useful for the integration of adventure recreation for persons with disabilities, and (c) the resulting positive effects of integrated programs on the participants.

In addition, in order to support the implementation of integrated adventure recreation, the similarity in factors which motivate individuals of all abilities to pursue the challenge of adventure experiences is introduced.

Rationale for Integrated Adventure Recreation

While Austin (1986), a professor in recreation and park administration, conducted a study for The President's Commission on Americans Outdoors on the opportunities for recreation for persons with physical disabilities, his findings can be applied to any group with a disability. In his research, Austin reviewed the rights of individuals with disabilities to experience the same leisure pursuits as those without disabilities, the impact of societal attitudes on integration, the recreational services available to persons with disabilities, and the types of program design available for people with disabilities. In addition, Austin presented a list of recommendations which would aid in the future implementation of recreational programming for persons with disabilities.

According to Austin (1986) the recreational rights of individuals with disabilities were impeded by barriers in both attitude and architecture. Ironically, the architectural barriers did not pose as much of a threat to the process of integration as did the barriers in attitude from persons without disabilities. However, research indicated that these obstructing attitudes were not the result of adverse opinions but rather the derivative of discomfort produced by a lack of knowledge about various disabilities. Austin asserted that the attitudes expressed by members of society without disabilities could be positively altered through the mediums of training and experience.

Austin's (1986) review of literature concerning the recreation and leisure services available to the population of individuals with disabilities revealed a

deficiency in services. While the concepts of integration and mainstreaming were evidenced in the programs offered by some agencies and organizations, Austin stated that many agencies lacked specific programs which would include individuals with disabilities. Furthermore, while individuals with disabilities were expressing a growing interest in the area of adventure recreation, Austin documented that program enlargement in risk recreation has often occurred without the support of research.

Austin (1986) concluded with a plea for research in the areas of attitude transformation, needs assessments, service provision, and barrier removal. By encouraging professionals to address each of the aforementioned factors, Austin contended that the disparity of research could be unified. Moreover, Austin rationalized that the search for answers to these questions of research would provide a basis for which the removal of barriers could end and the implementation of inclusive services could begin.

The following year Dattilo, an associate professor in recreation and parks as well as special education and communication disorders, and Murphy, an assistant professor in recreation and leisure studies, purposed to provide information to therapeutic recreation specialists on the successful integration of persons with disabilities in adventure recreation programs (1987). After supplying a succinct definition of adventure recreation and outlining the benefits inherent in participation, the authors delineated the challenge of the experience as the most fundamental element of adventure recreation. Since the degree of challenge could be influenced by the perceptions of the participants as well as manipulated by adaptations in the equipment or the environment, Dattilo and Murphy reasoned that adventure recreation could be experienced by all persons regardless of ability.

Dattilo and Murphy (1987) believed that the competition found in

adventure recreation was a result of self-involvement by the participant rather than his or her direct competition with others. Therefore, the success associated with the adventure experience promoted the growth and development of all participants. By providing leisure education programs which emphasized: (a) the importance of safety, (b) the ability to identify and utilize leisure resources, (c) the acquisition of the necessary activity skills, (d) the ability to make competent decisions, and (e) the importance of experience through repeated participation in adventure activities, the therapeutic recreation specialist could empower the participants toward the challenge of successful adventure recreation experiences.

In conclusion, Dattilo and Murphy (1987) stated that therapeutic recreation specialists needed to find the balance between encouraging the participants to explore the challenge inherent in adventure recreation and ensuring the outcome of their decisions to participate in an activity did not harm their physical, psychological or emotional well-being. By providing a knowledge of skills necessary for each activity and allowing for independence in decision making, the therapeutic recreation specialist could guide the participant to the full benefits of an adventure recreation challenge.

Havens (1992) declared that the benefits of integration in adventure recreation were evidenced in both individuals with disabilities and individuals without disabilities by stating that "if a diverse group is functioning well, it has more creativity and learning available to it than does a group of less diversity" (pp. vi-vii). The paradox which occurred through the integration of the diverse members of society carried the ability to foster the acceptance of others. Havens revealed that integration both contributed to the diminution of stereotypes and attitudes and increased the education and experience of the participants. In addition, persons with disabilities received the opportunity to

refine individual social skills and physical capabilities via the role-modeling provided by their peers without disabilities. Furthermore, Havens found that integration not only affected the participants but also impacted the leaders. Through integration, each facilitator was provided with the opportunity to discover the challenge of integration, which lay both in learning about the variety of disabilities and in providing a range of activities to meet the distinct interests and needs of each member of the group. Finally, the integration of persons with disabilities in adventure programs allowed professionals in the field of Adventure Education to support the guiding principle of "'challenge by choice'" (Havens, 1992, p. 17). According to Havens, the choice of individuals to participate at a self-determined level of difficulty within a supportive environment provided a strong basis for the integration of adventure activities.

In 1993, Bedini, an assistant professor of leisure studies, outlined the concepts of transition and integration in relation to the leisure lifestyles of persons with disabilities. After drawing on past references to define the terms, Bedini provided learned benefits from the implementation of integration and transition in the environments of leisure and leisure education. In addition, Bedini conferred rationale for the integration of persons with disabilities in recreational programs through the introduction of several evaluative studies.

According to Bedini (1993), the benefits of successful integrated community programs were influenced by the constituents of leisure skills, decision-making abilities, social skills and relationships, and family support teams. Each component assembled to complete the goal of functional independence for each participant with a disability. Studies on participation in Special Olympics by persons of varying disabilities disclosed that "extended involvement [in these integrated environments] contributed to an increase in functional skill development..." (Bedini, 1993, p. 22). Furthermore, positive

transformations in attitude, peer acceptance, and skill perception were revealed with increased participation in integrated recreational programs, such as camping environments and wilderness excursions. In fact, researchers established that the contributions of integrated outdoor adventure programs elevated the relationships among the participants as well as the self-esteem and confidence levels of each person. In separate studies on the effects of leisure education and leisure counseling on persons with physical and mental disabilities, research disclosed conflicting information. While one study concluded that the prior education often had a positive effect on the social interaction and initiation involved in leisure participation, other studies discovered that most leisure education or leisure counseling programs were not long enough to meet the goals determined for the program and the participants.

Bedini (1993) concluded with implications toward the necessity of integrated community programs for persons with disabilities. By providing workshops to include families in the benefits of integration, longer leisure education programs to educate people on leisure choices, education for persons without disabilities to become familiar with various disabilities, and opportunities for social development through integration, Bedini believed communities could encourage the acceptance of all persons.

Schleien, McAvoy, Lais, and Rynders (1993), a professor of therapeutic recreation, a professor of outdoor education, the founder and Executive Director of Wilderness Inquiry, and a professor of educational psychology and special education, furnished detailed depictions of the reactions associated with integrated adventure recreation by persons both with and without disabilities. By relaying accounts of personal experiences, Schleien et al. introduced three areas of future research and growth in the fields of education and leisure: (a) education utilizing the outdoor environment, (b) adventure recreation programs,

and (c) social integration of people with and without disabilities. Furthermore, in an attempt to provide rationale for the implementation of integrated outdoor adventure recreation, Schleien et al. discussed the laws mandating integration, outlined the assumptions associated with integrated programming, defined and described disabilities and outdoor education, delineated the goals of integrated programming, revealed the benefits of integrated adventure recreation, and listed curriculum domains useful in integrated programming.

According to Schleien et al. (1993), the mandate of federal legislation concerning the integration of person with disabilities not only implicated the acquisition of functional recreation skills in persons with disabilities but also promoted both independent as well as interdependent functioning among all members of the community. In addition, Schleien et al. defined the constituents of integration, applied to any domain, as both a goal to influence the acceptance of all members of society and a process to empower the formation of relationships among those members. In the area of outdoor education, Schleien et al. directed the goals of integration toward the fulfillment of people and the appreciation of the environment. The rationale which accompanied the goals of integration in outdoor settings included opportunities for individuals with disabilities to acquire the skills utilized in society, to establish and shape their self-esteem, and to experience the fulfillment in life which stems from the ability to make personal choices and realize the associated consequences.

While Schleien et al. (1993) both provided a strong foundation for the integration of persons with disabilities into adventure recreation and described some benefits associated with integrated adventure recreation, the primary emphasis of the authors' message was to unify the diversity among those with and without disabilities. For this reason, Schleien et al. rationalized that persons with disabilities sought adventure recreation for similar purposes as

persons without disabilities. Instead of pursuing integrated adventure for the aim of deriving therapeutic benefits, people with disabilities intended to push their limits and broaden their pool of knowledge through the utilization of "natural and cultural resources" (Schleien et al., 1993, p. 15) available in the community and the outdoors.

Terry (1995), a program coordinator of adventure recreation for persons with physical disabilities and community educator for disability awareness, answered basic questions often associated with adventure recreation programming in an attempt to influence the acceptance of all individuals in adventure recreation programs. In order to facilitate her purpose, Terry differentiated between the equality of universal programming and the architectural compliance of accessibility. By identifying the mission of universal programming, the reasons why adventure recreation was implemented with persons with disabilities, the types of therapy which could be ensued through adventure programming, and the benefits of providing adventure recreation programs for people of all abilities, Terry provided a foundation for integration. Finally, Terry reviewed a number of educational and therapeutic agencies which offered integrated outdoor adventure programs in the community.

Terry (1995) believed that all people regardless of ability should be viewed as "belonging somewhere on a continuum" (p. 17). By addressing abilities on a scale and ignoring the labels which have often accompanied disabilities, individuals without disabilities could recognize their peers with disabilities as possessing unique strengths and programming could become more versatile with regard to established goals and objectives. In addition, the application of adventure programming for persons with disabilities introduced the opportunity for individuals to physically extend beyond their perceptions of personal competence. Furthermore, Terry contended that adventure

programming served as an outlet for personal and therapeutic gains in the physical, emotional, psychological and social domains.

Terry (1995) summarized that adventure furnished a mean through which therapy, education, and learning could occur for all participants regardless of ability. The importance of comprehensive adventure programming for all persons implied the removal of labels as well as the acceptance of the ability continuum. Terry believed that the cessation of classifying people by disability would eventually result in the acceptance of the personal worth of each individual.

A final article by Sugerman (1996), an associate professor of outdoor recreation, attempted to encourage the inclusion of persons with disabilities in outdoor adventure programs by introducing the positive effects of agencies which provide integrated programming for persons of all ages and abilities. Since people with disabilities were often separated in recreational programming as a result of barriers in architecture, attitude, transportation, and finance, segregated programs were the primary options for participation in outdoor adventure programs. However, many organizations around the country have been prompted by the Americans with Disabilities Act (ADA) to offer integrated outdoor adventure recreation programs.

Wilderness Inquiry (WI), a not-for-profit, national organization based in Minnesota, utilized nature as the common ground for integrating people with and without disabilities (Sugerman, 1996). By offering both national and international adventure excursions, WI provided opportunities for people of all abilities to undergo transformations in attitudes and beliefs. According to Sugerman, most participants were strengthened in their individuals skills as well as affected by the cooperation associated with the members pooling their strengths and working toward the goals of the trip. For this reason, Sugerman

stated that "rather than finding weakness in what individual members cannot do, the group finds strength in their cooperation, trust and ability to maximize each member's abilities" (1996, p. 46).

Sugerman concluded that inclusive organizations such as WI are headed for eminent success (1996). Through the promotion of diversity, organizations which offered integrated programs focused on the individuals and not on the stereotypic labels often attached to their disability. In addition, the outdoor settings of adventure recreation programs provided opportunities for skill and ability demonstration as well as the environment for the formation of friendships. Sugerman believed these factors would contribute to the appreciation and value of differences, and in turn, "serve the participants more effectively" (1996, p. 47).

Techniques to Enhance the Inclusion of Persons with Disabilities in Adventure Recreation

Havens (1992) resolved that a professional could not be cognizant of each characteristic or trait related to each disability; however, he urged specialists to adhere to techniques which could influence the successful integration of persons with disabilities in adventure activities. While these procedures were written primarily to encourage the inclusion of persons with physical disabilities, each recommendation can be applied when working with individuals of all disabilities. First, the author encouraged each professional to ask the individual with the disability for information concerning the modifications, equipment, or procedures most useful for program implementation and activity participation. Second, Havens warned professionals of the dangers of assuming the unintelligible speech of an

individual correlated with his or her comprehension. Third, Havens persuaded each professional to confer with qualified safety experts for the most effective safeguards to execute with the participants. Fourth, he supported professionals in the open exchange of questions and answers regarding the disabilities represented by members of the group. Fifth, Havens reinforced the need for the specialist to allow the participant with the disability the same opportunities for participation as given to his or her peers without disabilities. Sixth, he challenged the professional in the necessity of immediate communication on the specifics of offering assistance to the participant. Finally, Havens charged the specialist to render the same attitude toward each participant, regardless of his or her ability or experience.

Resulting Effect of Positive Attitudes in Integrated Adventure Recreation

McAvoy, Schatz, Stutz, Schleien, and Lais (1989) researched the effects of an integrated outdoor adventure program on the "personal and lifestyle traits of persons with and without disabilities" (p. 50). By providing a definition of wilderness adventure programs and therapeutic aspects of programming for all populations, McAvoy et al. laid the foundation for the provision of integrated outdoor adventure programs. Since little documentation was available for the effects of outdoor adventure programs on participants, the issues of self-concept and anxiety were the central factors of research relative to the goals of social integration.

Through the utilization of both qualitative and quantitative inventories, McAvoy et al. (1989) studied the adventure activity involvement of approximately one hundred twenty one participants with and without disabilities. The age range of the sample population was between twenty and

seventy years. WI, the previously mentioned outdoor adventure outfitter, administered both a self-evaluative questionnaire exploring the varying anxiety levels of the participants based on personality and situation and a fifty-question interview instrument which measured the participants' feelings, perceptions and attitudes toward the integrated adventure as well as the members of the trip who had disabilities.

The ten-minute anxiety questionnaire, State-Trait Anxiety Inventory (STAI), was distributed before, after and four weeks following various integrated trips to a random sample control group as well as three experimental groups of participants with and without disabilities (McAvoy et al., 1989). While the data neither differed significantly between those with and without disabilities nor exceeded the established norms, the results of the State-Trait Anxiety Inventory revealed that the participants with disabilities achieved a higher score than those without disabilities in terms of "trait anxiety" (McAvoy et al., 1989, p. 55). However, multiple analysis of variance compared the wilderness treatment with the ability of the participants and discovered that the anxiety levels of all the participants were dependent upon the length of the adventure trip.

The forty-minute interview was administered with forty random participants who had previously completed the State-Trait Anxiety Inventory at each of the aforementioned times approximately six months after the wilderness adventures. The data from the telephone interviews supported the notion that integrated outdoor adventure programs "can have substantial positive effects on person and lifestyle traits" (McAvoy et al., p. 59) of the participants. One hundred percent of the participants interviewed revealed that they would participate in other integrated adventure programs and recommend the concept to others. Seventy eight percent of the participants indicated a long-term change in functional skills and essential lifestyle traits, such as an improvement

in confidence, a strengthening in physical abilities, an increase in understanding of disabilities, and a learned balance in energy exertion. McAvoy et al. found that approximately fifty-eight percent of persons with disabilities and sixty-nine percent of persons without disabilities reported a "positive change in attitudes toward persons with disabilities" (1989, p. 61). Those with disabilities developed a greater understanding of other disabilities, limitations, and capabilities as well as learned the perils of labeling their peers from another perspective. The participants without disabilities found the full value in their peers with disabilities and learned to appreciate the capabilities and contributions of their teammates. Furthermore, the perceptions of the persons without disabilities changed as they saw life issues, such as accessibility, through the perspectives of the individuals with disabilities.

McAvoy et al. (1989) concluded that outdoor adventure programs were sought by persons with disabilities for the same reasons that individuals without disabilities desired to participate. Moreover, the integration of these wilderness programs resulted in positive transformations in a variety of personal growth areas for all of the participants. However, according to the authors, future research should be performed with a larger sample size. In addition, the effects of integrated wilderness programs on the educational and employment choices of the participants should be explored. Finally, McAvoy et al. believed that the instruments utilized to test the anxiety level of the participants should have been more sensitive.

In an attempt not only to encourage the implementation of integrated and inclusionary camping environments for children with disabilities but also to provide support for the belief that "inclusion breaks down barriers and creates a fertile environment for emerging relationships" (1992, p. 42), Sable, an assistant professor of in the areas of tourism and leisure management, presented a

detailed model of integrated camping in a residential environment. By outlining the population served, the design of the program, the criteria for selecting staff, and the social situations created by integrating the physical environment, Sable furnished a concrete example for utilization in the design, implementation, and evaluation of programs which effect attitude change in individuals without disabilities toward individuals with disabilities.

In her article, Sable (1992) revealed that the basic premise of the camping program was geared to meet the individual needs and interests of the participants. Offered for seven weeks, approximately two hundred girls and boys ages fourteen to sixteen attended the integrated camping program on a weekly basis. At least ten percent of those children were diagnosed with some type of disability. Prior to the camping experience, the staff was selected and hired based on educational skills in related fields, knowledge of disabilities and interest in working with people with disabilities. In addition, each staff member attended a week long training session specific to activity, adaptation, behavior, disability, and documentation and each was supervised on a biweekly to weekly basis during the camping program. During the week of camp, the children with disabilities were physically integrated into every aspect of camping life except sleeping.

In order to determine whether or not the outlined goals for each of the weeks at the camping program were achieved, Sable (1992) conducted formative and summative evaluation procedures in the areas of leisure interest participation, social interaction, and inclusion. The Leisure Interest/Participation Inventory assessed the camper's like or dislike of the activities offered at camp and served as a report card for parents at the culmination of the camping experience. The Social Interaction Evaluation, conducted by the child's counselor on a daily basis, revealed areas in which support could be added to

maximize the individual experiences at camp. The Integration Assessment, also monitored by the child's counselor on a daily basis, disclosed the level of integration which occurred in each activity and provided guidelines for how to plan for the following day. In addition to the above evaluation procedures, an assessment of the attitudes of the campers without disabilities toward the campers with disabilities was conducted. The ATDP was administered both before and after the camping experience and the results of the tests were displayed solely for descriptive purposes rather than for statistical support. According to Sable, a comparison of each of the items revealed a positive transformation in the attitudes of the individuals without disabilities toward the individuals with disabilities.

In conclusion, Sable (1992) stressed that parents and children with disabilities needed to be presented with inclusionary environments in all areas of life so children of all abilities could experience the benefits of integration. In addition, Sable introduced to parents and specialists resources of camping models which would aid in the transition from nine months integrated schooling to a summer of integrated rather than segregated camping.

In a similar study, Sable (1995) purposed to study the effect of three distinct programs offered in one setting on the attitudes of adolescents without disabilities toward their peers with disabilities. Through the implementation of an integrated camping adventure, a program designed to increase the understanding of various disabilities, and an inclusive outdoor adventure program, Sable realized that integration alone did not have great influence upon the perceptions of individuals without disabilities. Rather, the participants needed to attend an awareness program or experience the inclusion of persons with disabilities in order for a transformation of perceptions to occur.

According to Sable (1995), while the mandate of such laws as the

American with Disabilities Act influenced persons without disabilities to accept the rights of those with disabilities, these legislations had absolutely no power over the assent of individuals without disabilities toward their peers with disabilities. The social integration of these two classes was strongly affected by the perceptions and attitudinal barriers of individuals without disabilities. For this reason, Sable delineated the constituents associated with the definition of attitude and emphasized the importance of effecting favorable changes in the unfavorable attitudes of persons without disabilities toward their peers. Basing her study on the premise that attitudes are learned, Sable proposed that practitioners had the opportunity to apply educational, integrated, and inclusionary programs in an attempt to alter social attitudes and influence the process of inclusion in the community.

After formulating three hypotheses, Sable (1995) distributed an Acceptance Scale questionnaire in pretest/post-test form on the first and last days of camp to sixty-six male campers without disabilities who had expressed an interest in participating in the study. Each of the three programs was conducted over a time period of five days and consisted of approximately 15 hours during the week. The program which emphasized an awareness of disabilities included a one hour meeting everyday. In addition, the campers without disabilities had one to one interactions with their peers with disabilities for an average of two hours each day. The inclusive adventure program, which was designed to test both the individual and group strengths of the members, incorporated ropes course activities and games of group initiatives and required three hours of meeting time each morning. The regular camp program integrated all of the campers during the daily activities of meals, free swim, flag ceremonies and bonfires.

Although the Acceptance Scale was modified in order to generalize the

results from the educational to the recreational setting, Sable (1995) revealed the fact that extensive validity and reliability studies were conducted. In addition, prior to the week of camp, twenty campers participated in a pilot test to determine comprehension of the twenty-three questions. The results of the Acceptance Scale indicated a higher score in all three groups from the pretest to the post-test. Also, the campers who participated in the disability awareness program as well as the adventure program scored considerably higher than those campers who did not partake in the programs and a positive change in their acceptance of the campers with disabilities was noted.

Since the small sample size consisted of all males and was not picked at random, Sable (1995) encouraged readers to use caution when attempting to generalize the results of the study to the greater population. However, the "use of covariate techniques to adjust" (Sable, 1995, p. 214) the tests for group differences enhanced the accuracy of the design. For this reason, Sable believed the results of the study could be applied to encourage the utilization of adventure recreation programs as environments for inclusion rather than mere social integration. Furthermore, Sable desired to utilize these findings in the educational training of professional service providers in the fields of therapeutic recreation and leisure education so they would be able eventually to implement strategies which would positively transform the attitudes of individuals without disabilities toward persons with disabilities.

Summary

The review of the literature revealed a strong rationale for the utilization of adventure recreation for persons with disabilities (Austin, 1986; Dattilo & Murphy, 1987; Ewert, 1985; Havens, 1992; Mobley et al., 1985; Robb & Ewert,

1987; Terry, 1995). Although persons with disabilities have been segregated from participation in recreational activities in the past (Austin, 1986; Bedini, 1993; Dattilo & Murphy, 1987; Havens, 1992; Robb & Ewert, 1987; Sable, 1995; Schleien et al., 1993; Sugerman, 1996), research in the area of adventure recreation revealed that the thrill of risk could be manipulated to meet the needs of all participants (Dattilo & Murphy, 1987; Ewert, 1985). By providing an overview of the benefits not only inherent in adventure recreation experiences but also available to all participants (Attarian, 1991; Dattilo & Murphy, 1987; Ewert, 1985; Havens, 1992; Mobley et al., 1985; Robb & Ewert, 1987), most authors encouraged the integration of persons with and without disabilities through the medium of adventure recreation (Austin, 1986; Dattilo & Murphy, 1987; Havens, 1992; McAvoy et al., 1989; Sable, 1995; Schleien et al.,1993; Sugerman, 1996; Terry, 1995). Furthermore, in support of their rationale, researchers found that the element of integration in adventure recreation positively influenced the attitudes and behaviors of the participants (Attarian, 1991; Austin, 1986; Bedini, 1993; Desforges et al., 1991; McAvoy et al., 1989; Mobley et al., 1985; Sable, 1992; Sable, 1995; Sugerman, 1996). Yet, despite the fact that research has been available to identify both the benefits and the characteristics of adventure recreation, a number individuals have called for either continued or additional research in order to substantiate integrated adventure programs and to increase community services for individuals both with and without disabilities (Attarian, 1991; Austin, 1986; McAvoy et al., 1989; Robb & Ewert, 1987).

CHAPTER III

METHODOLOGY

The purpose of this study was to investigate the effects of integration through adventure recreation on the attitudes of persons without disabilities toward persons with disabilities. Therefore, the primary questions of research were: (a) what were the attitudes of the participants without disabilities toward the participants with disabilities prior to the integrated adventure recreation experience?, (b) what were the attitudes of the individuals without disabilities toward the individuals with disabilities following participation in the integrated adventure recreation experience?, and (c) did a positive change in attitudes of persons without disabilities toward persons with disabilities occur as a result of the application of integration?. The basic premise for this study was provided by Allport's contact hypothesis, which states that the prejudice of a majority group toward a minority group can be reduced if the two groups are integrated into an environment that encourages equal status among the members as well as facilitates each member's pursuit of a common goal.

Based on the preceding information, the contents of this chapter include: (a) a description of the subjects, (b) the identification of the adventure activity, (c) the rationale behind the selection of the research instrument, (d) an overview of the procedures associated with the assessments of attitude, and (e) a discussion of the statistical treatment that was applied to the data for analysis.

Description of the Subjects

The subjects utilized for the completion of this study were consumers of an outdoor adventure organization based in Utah, Special Populations Learning Outdoor Recreation and Education (SPLORE). Since this study was primarily concerned with the change in attitudes of individuals without disabilities toward persons with disabilities as a result of integration, the selection of subjects included only those individuals who did not have a disability. Prior to completing a training session regarding various disabilities as well as providing adaptations particular to situations on SPLORE adventure trips, individuals without disabilities were not only presented with the purpose of this study but also given the opportunity to assist. As a result, approximately twenty-one of those individuals responded to an attitude scale both before and after their summer excursions.

Identification of the Activity

During the 1997 summer season, SPLORE offered integrated white water rafting trips for individuals both with and without disabilities. Beginning in May and running through the end of August, SPLORE averaged over fifty rafting trips (Appendix A) which served an estimated nine hundred individuals each summer. Each trip consisted of approximately fifteen to twenty individuals who emanated from a variety of abilities and backgrounds. From age eight to age eighty, individuals were able to experience the surreal beauty of the Utah canyons on such rivers as the Colorado and the Green.

While SPLORE originally scheduled fifty-four river rafting trips for the 1997 summer season, the assessment process did not evaluate all of the attitudes formed during those excursions. In fact, due to the changing schedule

of the trips as well as the time necessary for research, only the two volunteer training trips and the thirty-three integrated rafting trips (Appendix B) offered from the middle of May to the middle of August were utilized for attitude evaluation.

Selection of the Research Instrument

The research instruments utilized in this study included both a demographic survey and an attitude measurement. The Demographic Questionnaire (Appendix C) was developed by the researcher in order to determine specific attributes of the individuals who participated in the study. The selection of the attitude assessment, Attitudes Toward Disabled Persons Scale (ATDP), by Yuker, Block, and Younng (1970) was based on a review of literature in the areas of attitude assessments of persons without disabilities toward persons with disabilities. Although the ATDP is available in three forms, the original Form O and the additional Forms A and B, Form A (Appendix D) was not only more applicable but also easier to generalize in question and in concept to both the adventure recreation setting and the participants. Furthermore, the comparisons in reliability and validity procedures favored Form A over the other two forms. The reliability of Form A revealed stability measures of +.78. In addition, the split-half equivalence reliability of Form A delineated a range from +.73 to +.89. Finally, scores testing the validity of Form A when applied to the attitudes of persons without disabilities revealed positive correlations between the factors associated with demographic, personality, attitudinal, experiential, and behavioral variables.

Due to the age and development of the test, Form A of the ATDP contains language which is no longer recommended in the specification of persons with

disabilities. Moreover, the format of the original Form A answer sheet not only restricted the participant's ease in answering the questions but also hindered the researcher's evaluation of the responses. Therefore, a modified version of the ATDP (Appendix E) was distributed with the Demographic Questionnaire to the participants of SPLORE. In order to avoid stereotypical terms as well as to respect the individuality of each person, the wording on the ATDP-Modified was changed to emphasize the person before the disability. Furthermore, the format for the answer sheet was adapted to correspond with each question. Rather than alternating between question form and answer sheet, the participant was able to respond immediately after reading each question. This layout assured that the participant's response was linked to the appropriate question. In addition, instead of placing an "X" on the number comparable to their reaction, the participants circled their responses. This ensured efficiency in the respondents' process of completion and the researcher's method of evaluation.

Administration of the Instrument

The procedures utilized in the administration of the ATDP scale included factors related to the management of the instrument. First, in order not only to introduce the purpose of the study but also to request compliance with the research, contact was made with the Program Director of SPLORE via an informal phone call. Second, per request of the Program Director, a copy of the attitude scale was immediately distributed to the agency via facsimile. Third, a formal request in the format of a letter (Appendix F) was submitted in order to seek the permission necessary to assess the attitudes of the participants toward individuals with disabilities. An explanation of the study as well as a copy of both the original and the modified instrument were included with the letter.

Fourth, a formal response granting permission to implement the study was presented to the principal investigator (Appendix G). Fifth, the principal investigator attended an orientation meeting and not only presented the purpose of the thesis study but also distributed approximately seventy-five copies of both the demographic survey and the modified ATDP scale to the SPLORE participants. Attached to each packet was a letter (Appendix H) restating the purpose of the study as well as providing a statement which implied informed consent upon completion of the forms. In addition, a statement of informed consent was included on the top of the demographic questionnaire. In order to ensure that the responses on the pretest and post-test corresponded to the correct participant, each survey packet was numbered in the upper right hand corner of the demographic questionnaire. When presenting the packets to the individuals at the orientation meeting, the principal investigator requested that each participant record the number of his or her assessment on his or her individual SPLORE registration form. This system of notation was employed for each additional participant who volunteered throughout the study. While the Program Director of SPLORE had access to the names and numbers of the participants in order to distribute the same number pretest as post-test to the appropriate individual, he did not have admission to the actual tests. Likewise, the principal investigator was able to access the numbers of both the pretests and post-tests but was unable to connect the number with the participant. Therefore, by following this process, the confidentiality of the participants was respected. Sixth, following the orientation meeting, a few personnel of SPLORE were petitioned by the Program Director to oversee the administration of the attitude scale prior to the two volunteer training trips and directly following the integrated rafting trips. Seventh, once all of the pretests from the volunteer training trips were collected, the SPLORE personnel mailed the attitude scales

back to the researcher in a provided envelope. The researcher then numbered blank post-test assessment packets with the numerals corresponding to the completed and usable pretests and mailed those copies to the SPLORE personnel. Once the forms for each of the trips were completed, the SPLORE personnel mailed the attitude scales back to the researcher in a provided envelope. Finally, the data from both the pretests and the post-tests were statistically analyzed via the SPSS 6.1 student version designed for the Power Macintosh computer. The results were then reported and a copy of the findings, summary, and recommendations was sent to SPLORE not only for aid in future program design and implementation but also for substantiation of service delivery.

Statistical Treatment

The evaluation of the information derived from the ATDP was organized to address the research questions associated with this study. In order to determine whether or not a change in attitudes occurred, the attitudes of the participants were measured, analyzed and reported both before and after the treatment application of integration. Once the data from all of the rafting trips were collected and scored, the results of each subject's pretest and post-test were compared using a correlated or paired samples t-test.

As inferred above, the paired samples t-test was developed to reveal the relationship between variables of the same subject. For the purposes of this study, the correlated t-test examined the mean scores of the pretests and the post-tests attitude scales and evaluated those findings in an attempt to either accept or reject the null hypothesis. By inferring that the pretest means and the post-test means would be equivalent, the null hypothesis stated that a positive

attitude change would not result as an outcome of participating in an integrated adventure recreation program.

Although the SPSS 6.1 statistical program calculated the value for t, the process required some basic steps. First, the obtained scores of the pretest and the post-test attitudes for each participant were entered into a data file. Second, the program was commanded to run a paired samples t-test for the resulting information. Third, the program computed the mean of the differences in scores and divided that number by the standard deviation of the differences in scores. Finally, in order to determine whether or not the integrated adventure recreation environment influenced a change in attitudes of persons without disabilities toward individuals with disabilities, the resulting value of t was compared to the established value for t using a two-tailed test at a .025 alpha level with twenty degrees of freedom.

Summary

The contents in Chapter Three were arranged in order to ensure the comprehension and possible replication of this study. A description of the subjects as well as the reason for their selection was included. In addition, in order to establish rationale for the selection of the integrated adventures, the activities offered through SPLORE were described Furthermore, the reliability and validity of the instrument were discussed to support the use of the attitude survey and the procedures of administration were delineated in detail. Finally, the method of statistical analysis was described and applied to the method of assessment.

CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this study attempted to investigate the effects of an integrated adventure recreation activity on the attitudes of persons without disabilities toward persons with disabilities by addressing the following questions: (a) what were the attitudes of the participants without disabilities toward the participants with disabilities before involvement in the integrated adventure recreation activity?, (b) what were the attitudes of the individuals without disabilities toward the individuals with disabilities subsequent to involvement in the integrated adventure recreation activity?, (c) did a positive change in attitudes occur as a result of participation in the integrated program?. Through the utilization of the Attitudes Toward Disabled Persons Scale (ATDP) distributed both before and after the adventure activity to the participants of Special Populations Learning Outdoor Recreation and Education (SPLORE), the attitudes of the participants without disabilities toward their peers with disabilities were measured.

In order to organize the findings of this study, the contents of this chapter not only discussed but also reported on each of the following elements: (a) the rate of response offered by the participants without disabilities, (b) the demographic information associated with the individuals without disabilities, (c) a verbalization of the ATDP scoring procedures, (d) a translation of the pretest attitudes, (e) a translation of the post-test attitudes, and (f) a denotation of the overall results effected by the integrated activity.

Response Rate of ATDP Participants

For the purposes of this study, the rate of response referred to the number of attitude scales and demographic surveys completed by the participants without disabilities. Therefore, this section presents the detailed estimate of the distributed survey packets and reveals the number of individuals who responded to the ATDP in both the pretest and the post-test arrangements.

Results

Approximately one hundred and twenty assessment packets were distributed to the individuals without disabilities who were participating in the river rafting excursions through SPLORE. Of this one hundred twenty surveys and attitude scales, seventy-five were apportioned for the volunteers at the orientation meeting. The remaining forty-five were allocated for distribution prior to and succeeding the trips at the river. Due to the number of extenuating circumstances described below, the pretest/post-test response rate for the participants without disabilities equaled a total of twenty-one.

Discussion

Of the seventy-five assessment packets distributed at the initial volunteer orientation meeting, approximately thirty-six pretests were completed and returned. Unfortunately, only twenty of those thirty-six pretests were considered usable. As explained prior to the distribution of the packets, each participant was asked to record the number of his or her assessment packet next to his of her name on the SPLORE volunteer registration form. However, only a few of the participants at the orientation either heard or understood the directions for

recording their test numbers on their registration forms and only twenty-four of the tests could be connected to specific individuals via the registration forms. Three of those twenty-four pretests were not returned to the researcher and one of the tests involved a person with a disability. Therefore, twenty usable pretests were collected prior to the volunteer training trip.

During the volunteer training trips, an additional eighteen pretests were administered, completed and collected. Yet, three of the respondents had a disability and one pretest was unable to be scored due to a large percentage of unanswered questions. Therefore, only fourteen more pretests could be added to the number of usable tests.

Once the river rafting trips commenced, those participants without disabilities who had not yet participated in the study were asked first to complete a pretest before contact was made with persons with disabilities and then to conclude their excursion with an ATDP post-test. In addition, those participants who had completed the pretest at either the volunteer orientation or the volunteer training trip were administered a post-test. For various reasons, some of the individuals who attended either the volunteer orientation or the volunteer training trip did not return to participate in the SPLORE adventure. Therefore, post-test scores could not be obtained. Also, many of the people who did return often participated in more than one trip, so post-test opportunities were limited by a lack of new respondents. Moreover, as evidenced in Appendix A, twelve of the fifty-four trips did not include persons with disabilities, so attitudes toward disabilities could not be assessed. Likewise, four of the forty-two trips that did integrate persons with disabilities into the adventure were canceled by the participating agencies. Thus, the opportunities for data collection were limited.

The situations described directly above contributed to the minimal

amount of post-tests received by the researcher. Of the twenty-five returned post-tests, four could not be matched either to the test number or to the delineated demographic information. Therefore, out of the total number of distributed surveys, only twenty-one pretest and post-test packets were usable.

Demographic Information of ATDP Participants

The demographic information of the participants without disabilities who completed the ATDP in both the pretest and the post-test format was represented through the completion of the questionnaire administered in correlation with the ATDP scale. Each of the recorded responses was assessed to determine variables such as age, gender, education, and race. In addition, respondents reported both on the presence of disabilities in their immediate family and on their amount of experience with and exposure to persons with disabilities.

Results

Table 1 reveals the relationship between both the frequency and the percent of the participants who fall into the various divisions of age, education, and race. In addition, the number of females and males in each category are reported. Table 2 specifies the grouping of male and female participants as well as the frequency and percent of the population that are differentiated by a past disability, a family disability, regular disability contact, and total experience with disabilities.

Table 1. Demographic Information of Participants

	Frequency	Percent	Female	Male
Age				
Under 25 Years	7	33.3	5	2
26-35 Years	6	28.6	2	4
36-45 Years	3	14.3	1	2
46-55 Years	3	14.3	0	3
56-65 Years	2	9.5	1	1
Education				
Some High School	2	9.5	2	0
High School Degree	3	14.3	1	2
Some College	3	14.3	1	2
College Degree	4	19	1	3
Some Graduate School	2	9.5	1	1
Graduate Degree	7	33.3	3	4
Race				
Caucasian	20	95.2	9	11
Spanish American	1	4.8	0	1

Table 2. Disability Information of Participants

	Frequency	Percent	Female	Male
Past Disability				
No	20	95.2	9	11
Yes	1	4.8	0	1
Disability in Family				
No	17	81	8	9
Yes	4	19	1	3
Regular Disability Contact				
No	6	28.6	3	3
Yes	15	71.4	6	9
Disability Experience				
0-5 Years	10	47.6	5	5
6-10 Years	7	33.3	2	5
11-15 Years	1	4.8	1	0
16-20 Years	1	4.8	0	1
Over 25 Years	2	9.5	1	1

Discussion

According to Table 1, approximately twelve males and nine females participated in both the attitude survey and the demographic questionnaire. The largest percentage of participants were under the age of twenty-five years. The second largest grouping fell between twenty-six to thirty five years of age. Therefore, over sixty percent of the total population was either thirty-five years or younger. With regard to education, over thirty percent of the population held a degree from graduate school and nine percent had completed some graduate work. Another thirty percent had either received a college degree or completed some college classes. Both the relatively young age of the participants and the amount of education attained could be attributed to the region and to the activity. Salt Lake City, Utah houses two major universities and several smaller educational institutions. Therefore, many college and graduate students live in the area. In addition, the component of adventure recreation connotes not only a younger, more adventurous group of individuals but also a more educated division of the population. Since adventure recreation encompasses activities which are usually expensive, those with an education and receiving more compensation for employment are more likely to participate. The final division of race revealed that ninety-five percent of the population were Caucasian. The remaining one person defined himself as Spanish American. This sampling of the population provided an excellent representation of the population in general, for the Salt Lake City region contains very few minorities.

According to Table 2, only one of the twenty-one participants reported having a past disability. In addition, while seventeen participants revealed the presence of a disability in the immediate family, only fifteen stated they had regular contact with people with disabilities. Approximately forty-eight percent of the participants had either zero to five years experience with persons with

disabilities. Over thirty percent had six to ten years of experience with disabilities and nearly ten percent of the participants had between eleven and twenty years of experience. The remaining ten percent encompassed individuals who had more than twenty-five years of experience working with people with disabilities. Therefore, the majority of the population had more than six years of exposure to persons with disabilities.

ATDP Scoring Procedures

This section introduces the policy involved in scoring the responses to the ATDP. In order to aid the reader in interpreting the narration of the scoring guidelines, an illustration of the scoring procedures is presented in list format (Table 3).

According to Yuker, Block, and Younng (1970), prior to obtaining a score for each individual, the tests must be reviewed for completion. If more than ten percent of the test items, or approximately four questions on the thirty item scale of Form A, are found unanswered, then the test is considered not scorable. If either ten percent or less than ten percent of the test items are omitted, then the test is scored as directed below and a constant of ninety is added to remove negative values. The unanswered items are then considered to obtain a value of neutrality.

The first step in scoring the ATDP scale is to reverse the signs of the questions which are positively worded. A question with positive wording has been defined as one which implies that a difference between people with and without disabilities does not exist. In Form A of the ATDP, the items with positive wording include questions five, nine, twelve, fourteen, seventeen, nineteen, twenty-one, twenty-two, twenty-three, twenty-four, twenty-five, and twenty-nine.

Once the signs of these items have been changed, the algebraic sum of the total test item scores is then procured. Next, the positive or negative sign of this sum is reversed and the total scores fit into a range of negative ninety to positive ninety. In order to remove the negative value of the score, a constant of ninety is added to the total. The resulting scores then range from zero to one hundred eighty.

Table 3. Steps for Scoring the ATDP

1. Change the signs of the questions with positive wording.
5 9 12
14 17 19
21 22 23
24 25 29
2. Add the algebraic total of all of the responses.
3. Change the sign of the total.
4. Add the constant +90.

As stated by Yuker et al., a score on the high end of the scale indicates a positive attitude while a score on the low end of the scale reflects a negative attitude. For the purposes of this study, a positive attitude was defined by an ATDP score which either equals or exceeds one hundred twenty points. Since neutrality was not represented on the response scale, a participant must have chosen either a positive or negative reaction to each question. However, the majority of the questions were worded to represent people with disabilities as different from people without disabilities. For this reason, a negative response conveyed disagreement toward such judgment. By determining that an individual could answer each question with either a negative numeral one for the majority of the questions or a positive numeral one for the positively worded

questions and still remain on the positive side of the scale, the researcher calculated a base score of thirty. With the addition of the constant ninety, the base score for a positive attitude was one hundred twenty points.

Explanation of Pretest Attitudes

Once the pretests were collected and scored, the attitudes of the individuals without disabilities were assessed based on the definition of a positive attitude. This section not only discusses the overall scores revealed on the pretests but also presents the section of scores in which each pretest was classified.

Results

Figure 1 represents the range of pretest scores revealed by the respondents. The range of scores was determined by predicting the responses of the participants. As previously mentioned, for an individual to achieve a positive attitude score of one hundred twenty points, he or she must have circled a rating of number one for each question. If half of the answers consisted of a number one response and half of the answers consisted of a number two response, then the individual would have scored at least one hundred thirty-five points. If the participant answered a number two for each question, then he or she would have received a score of one-hundred fifty points. If half of the answers complied with a number two response and half of the answers complied with a number three response, the score would have then equaled one hundred sixty-five points. Finally, if an individual recorded a number three response for each question, then he or she would have receive a

score of one hundred eighty points. Therefore, the scores of the pretests were divided into the following five ranges: (a) ≤119, (b) 120-134, (c) 135-149, (d) 150-164, (e) 165-180.

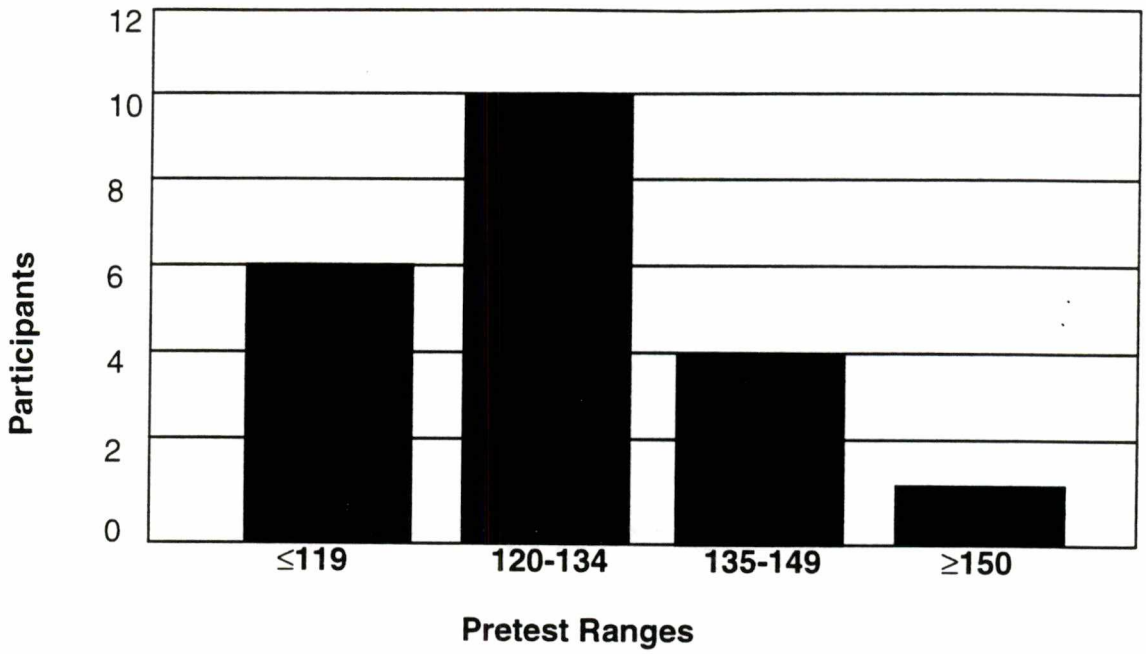

Figure 1. Representation of Pretest Scores

Discussion

As Figure 1 indicates, the largest percentage of attitudes on the pretest were positive. In fact, approximately fifteen participants scored at least one hundred twenty points on the attitude scale before the integrated adventure recreation trip. Thus, those individuals were classified as having a positive attitude toward persons with disabilities. The remaining six participants scored below one hundred and twenty points and were therefore determined not to have a positive attitude toward persons with disabilities.

Explanation of Post-test Attitudes

Once the requirements of the integrated adventure activity were fulfilled and the post-test format of the ATDP was both completed and tallied, the attitudes of the participants without disabilities were reviewed. This section reveals the range of scores of the post-test attitudes as expressed in the second measurement of the ATDP.

Results

Figure 2 displays the ranges of post-test attitudes revealed by the participants without disabilities after the integrated river rafting trips. The same ranges utilized in the delineation of the pretest scores were applied to the analysis of the post-test scores.

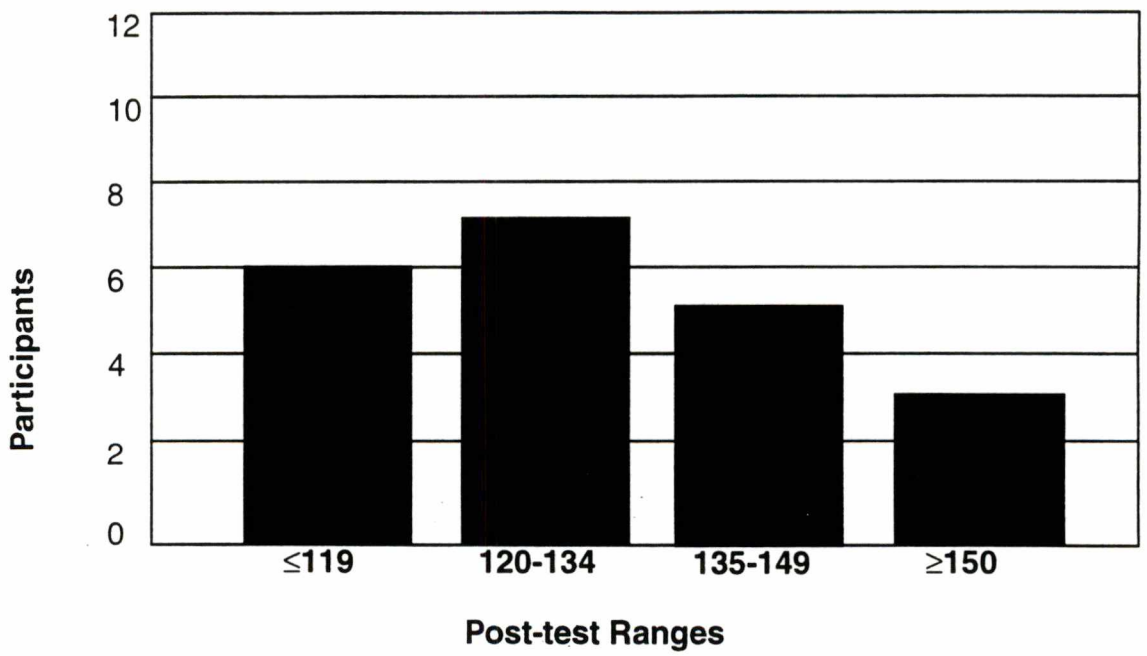

Figure 2. Representation of Post-test Scores

Discussion

Figure 2 suggests that the majority of participants without disabilities maintained their positive attitude toward persons with disabilities. Furthermore, when compared to the results of Figure 1, an increase in the number of participants who were classified in both the 135-149 range and the 150-164 range was noted. Thus, while six participants still scored below the positive attitude rating of one hundred twenty points, the attitudes of the remaining fifteen participants were positive.

Overall Effect of Integration on Attitudes Toward Persons with Disabilities

This section compares the scores calculated on the pretests with the scores measured on the post-tests. By presenting the information in a two table format, the difference between each participant's pretest and post-test scores is readily available for comparison. In addition, the overall effect of integrated adventure recreation on the attitudes of persons without disabilities toward persons with disabilities can be effortlessly identified. The remaining participant information, including the pretest and post-test scores range scores as well as the personalized demographic and disability information, is located in Appendix I.

Results

Table 4 illustrates both the pretest score and post-test score for each participant. In addition, the total change in scores as well as the percent change in scores is revealed.

Table 4. Total Change in Attitude Scores

Participant	Pretest	Post-test	Total Change	Percent Change
5	142	128	-14	-9.9
9	133	119	-14	-10.5
61	133	143	10	7.5
66	122	145	23	18.9
69	87	107	20	22.9
70	138	144	6	4.3
71	132	134	2	1.5
72	116	115	-1	-0.8
73	131	127	-4	-3.1
82	122	131	9	7.4
83	127	136	9	7.1
85	142	153	11	7.7
90	107	116	9	8.4
91	93	119	26	27.9
92	126	129	3	2.4
96	115	135	17	14.8
97	108	115	7	6.5
99	125	123	-2	-1.6
100	141	147	6	4.3
117	132	155	23	17.4
119	155	162	7	4.5

Table 5 depicts the statistical representation of the paired samples t-test used to report the actual change in the mean score of the attitude scale as determined from the pretest and post-test administrations. Included in the table are the mean and the standard deviation (SD) for both the pretest and the post-test scores as well as the t-value for twenty degrees of freedom with a two tail significance.

Table 5. Paired Samples t-test for Pretest and Post-test Scores

Variable	Number of Pairs	Mean	SD
Pretest		125.0952	16.507
	21		
Post-test		132.381	14.958

Paired Differences					
Mean		SD	t-value	df	2-tail Sig
7.2857		10.882	3.07	20	0.006
95% CI	(2.332, 12.239)				

Discussion

According to Table 4, only five of the twenty-one participants decreased in attitude from the pretest score to the post-test score. In addition, of the sixteen participants who indicated a positive change in attitude between the two tests, at least ten post-test scores increased by seven or more percent. As conferred in Table 5, a significant increase in the mean score of the post-tests from that of the pretests occurred as a result of integration. With a resulting t-value of 3.07 at twenty degrees of freedom, the paired samples t-test established a two-tailed significance of 0.006. Translated, this figure stated that the null hypothesis of the study could be rejected with at least ninety-five percent confidence when

tested against the rejection t-value of 2.086. Therefore, by accepting the alternative hypothesis, this study indicated that a positive change in attitudes toward people with disabilities would result as an effect of integration.

Summary

Chapter four presented the findings of this thesis by reporting on the related information and representing the outcomes which corresponded to each research question. Through a delineation of a results and a discussion section, the participant response rate was discussed, the participant demographic information was revealed, and the participant pretest and post-test attitudes were addressed. In addition, the results of the integrated adventure activity were culminated and described. Included also in this section were the proper guidelines for scoring and interpreting the ATDP scale.

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

While the theme of this study concerned the field of therapeutic recreation as a mode for serving individuals with and without disabilities in integrated outdoor adventure recreation programs, the problem of this study was to investigate the effects of integration on the attitudes toward persons with disabilities. Utilizing the element of adventure recreation as the environment for integration, the primary questions of research were: (a) what were the attitudes of the participants without disabilities toward the participants with disabilities prior to the integrated adventure recreation experience?, (b) what were the attitudes of the individuals without disabilities toward the individuals with disabilities following participation in the integrated adventure recreation experience?, and (c) did a positive change in attitudes of persons without disabilities toward persons with disabilities occur as a result of the integration factor?.

In order to address the aforementioned research question, an attitude scale, the Attitude Toward Disabled Persons Scale (ATDP), was distributed in a pretest/post-test format to the participants without disabilities both before and after a river rafting trip with an outdoor adventure agency based in Utah, Special Populations Learning Outdoor Recreation and Education (SPLORE). Of the one hundred twenty surveys parceled out, only twenty-one of the returned packets were complete and usable.

Once the scores for both the pretests and the post-tests were calculated, the values were programmed into a data base. Next, the scores of each

assessment were assigned to one of five possible ranges: (a) ≤119, (b) 120-134, (c) 135-149, (d) 150-164, (e) 165-180. In addition, a statistical procedure was conducted to determine the means of each set of scores. In order to establish a positive attitude, each participant needed to score at least one hundred and twenty points. To demonstrate the transformation of attitudes as a result of integration, the paired t-test needed to reveal statistical significance in the pretest and post-test means.

Conclusion

According to the results of both the paired t-test and the pretest/post-test score comparison, the application of integration had a substantial effect on the attitudes toward persons with disabilities. In fact, the correlated t-test not only displayed an increase in the mean of the post-test score from the mean of the pretest score but also declared with ninety-five percent accuracy that the null hypothesis could be rejected. While the results of the pretests revealed that approximately fifteen individuals held a positive attitude toward persons with disabilities, the post-test results indicated an increase in the scores of sixteen of the twenty-one participants. For this reason, the number of scores classified in each range were reapportioned to reflect a change toward more positive attitudes. Therefore, by reflecting the direct, positive influence of integration on the transformation in attitudes of persons without disabilities toward individuals with disabilities, the findings of this study supported the alternative hypothesis.

Recommendations

The process of research and writing involved with the production of this thesis revealed areas which should be addressed in further studies of similar content. The following presents a list of recommendations associated with the factors of adventure recreation, attitude, disability, and integration.

1. When reviewing the actual process of administering and collecting data for this thesis, some problems were encountered which could have been either prevented or eased by the factor of location. First, the distance between the principal investigator and the cooperating agency often delayed not only the communication about distribution and administration but also the receipt of pretests and post-tests. Second, while the principal investigator and the SPLORE personnel kept in regular contact and cooperation was fully extended by the organization, the principal investigator was unable to personally oversee the administration of the pretests and post-tests. Finally, since the adventure activities were offered in Utah, the principal investigator was not exposed to either the effects of the integrated environment or the change in attitudes experienced by the participants. Therefore, in future studies, greater benefits would ensue from personally conducting the study in the location of the integrated adventure recreation activities.

2. As a premise to both the completion and collection of data for this thesis, the demographic survey was distributed to the individuals involved in this study. Although the resulting information was

utilized to ensure proper connection of the pretests and post-tests, the variables such as age, gender, education, experience with disabilities, and exposure to disabilities were not studied for possible correlation to the change in attitudes. Future studies would benefit from determining whether or not specific demographic factors influence a positive transformation in attitude.

3. As both stated and supported not only in the introduction but also in the review of literature, the benefits of integration affect all participants, regardless of ability. Unfortunately, only a small number of agencies provide integrated adventure recreation programs. The few organizations that do supply inclusive adventure recreation services usually integrate people without disabilities as volunteered assistance for participants with disabilities. Therefore, a strong need exists for agencies to provide opportunities for individuals of all abilities to partake in adventure recreation activities as equal level participants, rather than as participant and volunteer.

4. In the review of literature, many studies suggested the need for additional assessments to measure the attitudes toward persons with disabilities. Few assessments of this nature existed and the tests which had been developed to measure attitudes were not only lacking in standards of reliability and validity but also categorized as inappropriate with regard to the wording used and the questions asked. Therefore, a current assessment which will measure attitudes toward disabilities while maintaining

acceptable language, suitable questions, and appropriate reliability and validity needs to be developed.

5. In addition to the need to develop an appropriate scale for the measurement of attitudes toward disabilities, the review of literature revealed a need for attitude assessments in the areas of leisure and recreation. While some assessments can be applied to the domains of recreation and leisure, none of the developed tools were specifically designed to target situations or settings which are encountered in leisure and recreational activities.

6. In 1995, Carter, Van Andel, and Robb revealed a detailed listing of the major assessment categories utilized in the field of therapeutic recreation. Included in these categories were descriptors used to identify characteristics of the psychosocial, cognitive, physical, and leisure/play domains. Since both a limited number of attitude assessments exist and the need for substantiation of integrated adventure recreation activities is imminent, a test which incorporates questions that address each of these therapeutic recreation domains should be developed. Therefore, experts in the field will be able to ensure not only that each major domain is assessed but also that activities are developed and implemented to meet the therapeutic needs of the participants.

7. Finally, in addition to measuring the effects of integration on the attitudes of people without disabilities toward people with disabilities, the effects of integration on the attitudes of individuals

with disabilities toward others with disabilities as well as toward self abilities and perceptions need to measured. Since assessment tools which measure self-perceptions in integrated leisure activities are deficient, an attitude scale of this nature needs to be devised.

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APPENDICES

APPENDIX A

SPLORE

1997 River Rafting Trip Schedule

SPLORE

1997 River Rafting Trip Schedule

Code	Date	Group	Location	Class
Δ	May 3-4	Volunteer Training	Colorado River	III
Δ	May 10-11	Volunteer Training	Colorado River	III
	May 20	Hillcrest Care Center	Colorado River	III
	May 21-22	Danville Services	Colorado River	III
	May 23	Active Re-Entry	Colorado River	III
Δ	May 24	Sponsor Appreciation	Colorado River	III
	May 26	St. Martin	Colorado River	III
	May 28	Rivendale	Colorado River	III
	May 30	Active Re-Entry	Colorado River	III
	May 31	Richy Girl's Group	Colorado River	III
Δ	June 1	SPLORE Staff	Colorado River	IV
	June 5-6	WDSRA	Colorado River	III
	June 7-8	Project Turn Services	Colorado River	III
	June 9	Vista Adolescent Unit	Colorado River	IV
Δ	June 13	Dave K Fundraiser	Colorado River	III
	June 14-15	Health South	Colorado River	III
Δ	June 16	Dave K Fundraiser	Colorado River	III
Δ	June 17	Dave K (I) Fundraiser	Colorado River	III
Δ	June 17	Dave K (II) Fundraiser	Colorado River	III
Δ	June 18	Dave K	Colorado River	III
Δ	June 20	Dave K	Colorado River	III
Δ	June 21-22	Ped's	Colorado River	III
	June 23	Neighborhood Housing	Colorado River	III
	June 24	UDC/Quail Run	Colorado River	III
	June 25-26	UCCSD	Colorado River	III
	June 28-29	Hemophilia Foundation	Colorado River	III

Δ Persons with Disabilities Not Present **º Canceled Trips**

SPLORE

1997 River Rafting Trip Schedule

Code	Date	Group	Location	Class
	July 1	UDC/Quail Run	Colorado River	III
	July 2	UDC/Oakridge	Colorado River	III
º	July 5	Rivendale	Colorado River	III
	July 6	Finch	Colorado River	III
º	July 8-12	UT Community	Green River	IV
Δ º	July 14	UCS	Colorado River	III
º	July 15-17	UCS	Colorado River	III
	July 18	Project Turn Services	Colorado River	III
	July 19-20	PWA Coalition	Colorado River	III
	July 22	Project Turn Services	Colorado River	III
	July 23	Island View	Colorado River	III
	July 24-25	Danville Services	Colorado River	IV
	July 26-28	Project Turn Services	Colorado River	III
	July 29	Rivendale	Colorado River	III
º	July 30	UDC	Colorado River	III
Δ	August 1-7	UT Community	Colorado River	V
	August 8	Special Olympics	Colorado River	III
	August 9	IRC	Colorado River	III
	August 10	CTA	Colorado River	III
	August 11	Project Turn Services	Colorado River	III
	August 13-14	Westside Care Center	Colorado River	III
	August 15	Olympus Care	Colorado River	III
	August 16-17	N.F.M. Foundation	Colorado River	III
	August 18-19	UCP	Colorado River	III
Δ	August 22	Sponsor Appreciation	Colorado River	III
	August 23	Autism/Deaf Society	Colorado River	III
	August 26	Oakridge	Colorado River	III
	August 27	Island View	Colorado River	III

Δ Persons With Disabilities Not Present

º Canceled Trips

APPENDIX B

SPLORE

1997 River Rafting Trip

Assessment Schedule

SPLORE

1997 River Rafting Trip

Assessment Schedule

Date	Group	Location	Class
May 3-4	Volunteer Training	Colorado River	III
May 10-11	Volunteer Training	Colorado River	III
May 20	Hillcrest Care Center	Colorado River	III
May 21-22	Danville Services	Colorado River	III
May 23	Active Re-Entry	Colorado River	III
May 26	St. Martin	Colorado River	III
May 28	Rivendale	Colorado River	III
May 30	Active Re-Entry	Colorado River	III
May 31	Richy Girl's Group	Colorado River	III
June 5-6	WDSRA	Colorado River	III
June 7-8	Project Turn Services	Colorado River	III
June 9	Vista Adolescent Unit	Colorado River	IV
June 14-15	Health South	Colorado River	III
June 23	Neighborhood Housing	Colorado River	III
June 24	UDC/Quail Run	Colorado River	III
June 25-26	UCCSD	Colorado River	III
June 28-29	Hemophilia Foundation	Colorado River	III

SPLORE

1997 River Rafting Trip

Assessment Schedule

Date	Group	Location	Class
July 1	UDC/Quail Run	Colorado River	III
July 2	UDC/Oakridge	Colorado River	III
July 6	Finch	Colorado River	III
July 18	Project Turn Services	Colorado River	III
July 19-20	PWA Coalition	Colorado River	III
July 22	Project Turn Services	Colorado River	III
July 23	Island View	Colorado River	III
July 24-25	Danville Services	Colorado River	IV
July 26-28	Project Turn Services	Colorado River	III
July 29	Rivendale	Colorado River	III
August 8	Special Olympics	Colorado River	III
August 9	IRC	Colorado River	III
August 10	CTA	Colorado River	III
August 11	Project Turn Services	Colorado River	III
August 13-14	Westside Care Center	Colorado River	III
August 15	Olympus Care	Colorado River	III
August 16-17	N.F.M. Foundation	Colorado River	III
August 18-19	UCP	Colorado River	III

APPENDIX C

Demographic Survey

Demographic Questionnaire

#_____

Directions: Please read the following statements and place a check in the appropriate blank.

Completion of these forms serves as your informed consent!

1. Do you currently have a disability?
   - ___ Yes
   - ___ No

   a. If so, for how long?
   - ___ 0-5 years
   - ___ 6-10 years
   - ___ 11-15 years
   - ___ 16-20 years
   - ___ 21-25 years
   - ___ Over 25 years

2. Have you ever had a disability?
   - ___ Yes
   - ___ No

   a. If so, for how long?
   - ___ 0-5 years
   - ___ 6-10 years
   - ___ 11-15 years
   - ___ 16-20 years
   - ___ 21-25 years
   - ___ Over 25 years

3. Does anyone in your immediate family have a disability?
   - ___ Yes
   - ___ No

4. Have you come in contact with people who have disabilities on a regular basis?
   - ___ Yes
   - ___ No

5. What is your gender?
   - ___ Female
   - ___ Male

6. What is your present age?
   - ___ Under 25 years
   - ___ 26-35 years
   - ___ 36-45 years
   - ___ 46-55 years
   - ___ 56-65 years
   - ___ Over 65 years

7. Which of the following best describes your race?
   - ___ African American
   - ___ Asian
   - ___ Caucasian
   - ___ Mexican American
   - ___ Native American
   - ___ Other_____

8. What is the highest level of education which you have completed?
   - ___ No formal education
   - ___ Some grade school
   - ___ Completed grade school
   - ___ Some high school
   - ___ Completed high school
   - ___ Some college
   - ___ Completed college
   - ___ Some graduate work
   - ___ Graduate degree

9. How much experience have you had with people with disabilities?
   - ___ 0-5 years
   - ___ 6-10 years
   - ___ 11-15 years
   - ___ 16-20 years
   - ___ 21-25 years
   - ___ Over 25 years

APPENDIX D

ATDP Scale

and

Answer Sheet

Form A 12/20/64

ATDP SCALE

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

ATDP SCALE

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 persons.

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.

ATDP - FORM A

CODE # _____ ATDP SCALE ANSWER SHEET FORM A

Use this answer sheet to indicate how much you agree or disagree with each of the statements about disabled people on the attached list. Put an "X" through the appropriate number from +3 to -3 depending on how you feel in each case.

+3:	I AGREE VERY MUCH	-1:	I DISAGREE A LITTLE
+2:	I AGREE PRETTY MUCH	-2:	I DISAGREE PRETTY MUCH
+1:	I AGREE A LITTLE	-3:	I DISAGREE VERY MUCH

PLEASE ANSWER EVERY ITEM

(1)	-3	-2	-1	+1	+2	+3	(16)	-3	-2	-1	+1	+2	+3
(2)	-3	-2	-1	+1	+2	+3	(17)	-3	-2	-1	+1	+2	+3
(3)	-3	-2	-1	+1	+2	+3	(18)	-3	-2	-1	+1	+2	+3
(4)	-3	-2	-1	+1	+2	+3	(19)	-3	-2	-1	+1	+2	+3
(5)	-3	-2	-1	+1	+2	+3	(20)	-3	-2	-1	+1	+2	+3
(6)	-3	-2	-1	+1	+2	+3	(21)	-3	-2	-1	+1	+2	+3
(7)	-3	-2	-1	+1	+2	+3	(22)	-3	-2	-1	+1	+2	+3
(8)	-3	-2	-1	+1	+2	+3	(23)	-3	-2	-1	+1	+2	+3
(9)	-3	-2	-1	+1	+2	+3	(24)	-3	-2	-1	+1	+2	+3
(10)	-3	-2	-1	+1	+2	+3	(25)	-3	-2	-1	+1	+2	+3
(11)	-3	-2	-1	+1	+2	+3	(26)	-3	-2	-1	+1	+2	+3
(12)	-3	-2	-1	+1	+2	+3	(27)	-3	-2	-1	+1	+2	+3
(13)	-3	-2	-1	+1	+2	+3	(28)	-3	-2	-1	+1	+2	+3
(14)	-3	-2	-1	+1	+2	+3	(29)	-3	-2	-1	+1	+2	+3
(15)	-3	-2	-1	+1	+2	+3	(30)	-3	-2	-1	+1	+2	+3

APPENDIX E

ATDP Scale--Modified

Form A 12/20/64

ATDP SCALE--Modified

Read each statement and **circle the letter** in the appropriate column next to the question. Use the letters below to indicate how much you agree or disagree with each of the statements about people with disabilities.

+3:	I AGREE VERY MUCH	-1:	I DISAGREE A LITTLE
+2:	I AGREE PRETTY MUCH	-2:	I DISAGREE PRETTY MUCH
+1:	I AGREE A LITTLE	-3:	I DISAGREE VERY MUCH

PLEASE ANSWER EVERY QUESTION

1.	People with disabilities are often unfriendly.	-3	-2	-1	+1	+2	+3
2.	People with disabilities should not have to compete for jobs with persons who are physically normal.	-3	-2	-1	+1	+2	+3
3.	People with disabilities are more emotional than other people.	-3	-2	-1	+1	+2	+3
4.	Most persons with disabilities are more self-conscious than other people.	-3	-2	-1	+1	+2	+3
5.	We should expect just as much from persons with disabilities as from persons without disabilities.	-3	-2	-1	+1	+2	+3
6.	Workers with disabilities cannot be as successful as other workers.	-3	-2	-1	+1	+2	+3
7.	People with disabilities usually do not make much of a contribution to society.	-3	-2	-1	+1	+2	+3
8.	Most people without disabilities would not want to marry anyone with a physical disability.	-3	-2	-1	+1	+2	+3
9.	People with disabilities show as much enthusiasm as other people.	-3	-2	-1	+1	+2	+3
10.	Persons with disabilities are usually more sensitive than other people.	-3	-2	-1	+1	+2	+3

ATDP SCALE--Modified

Circle the letter in the appropriate column next to the question.

+3:	I AGREE VERY MUCH	-1:	I DISAGREE A LITTLE
+2:	I AGREE PRETTY MUCH	-2:	I DISAGREE PRETTY MUCH
+1:	I AGREE A LITTLE	-3:	I DISAGREE VERY MUCH

PLEASE ANSWER EVERY QUESTION

11.	Persons with severe disabilities are usually untidy.	-3	-2	-1	+1	+2	+3
12.	Most people with disabilities feel that they are as good as other people.	-3	-2	-1	+1	+2	+3
13.	The driving test given to a person with a disability should be more severe than the one given to persons without disabilities.	-3	-2	-1	+1	+2	+3
14.	People with disabilities are usually sociable.	-3	-2	-1	+1	+2	+3
15.	Persons with disabilities usually are not as conscientious as persons without physical disabilities.	-3	-2	-1	+1	+2	+3
16.	Persons with severe disabilities probably worry more about their health than those who have minor disabilities.	-3	-2	-1	+1	+2	+3
17.	Most persons with disabilities are not dissatisfied with themselves.	-3	-2	-1	+1	+2	+3
18.	There are more misfits among persons who have disabilities than among persons who do not have disabilities.	-3	-2	-1	+1	+2	+3
19.	Most persons with disabilities do not get discouraged easily.	-3	-2	-1	+1	+2	+3
20.	Most persons with disabilities resent people who do not have a physical disability.	-3	-2	-1	+1	+2	+3

ATDP SCALE--Modified

Circle the letter in the appropriate column next to the question.

+3:	I AGREE VERY MUCH	-1:	I DISAGREE A LITTLE
+2:	I AGREE PRETTY MUCH	-2:	I DISAGREE PRETTY MUCH
+1:	I AGREE A LITTLE	-3:	I DISAGREE VERY MUCH

PLEASE ANSWER EVERY QUESTION

21.	Children with disabilities should compete with children who do not have a physical disability.	-3	-2	-1	+1	+2	+3
22.	Most persons with disabilities can take care of themselves.	-3	-2	-1	+1	+2	+3
23.	It would be best if persons with disabilities would live and work with persons without disabilities.	-3	-2	-1	+1	+2	+3
24.	Most people with severe disabilities are just as ambitious as persons without physical disabilities.	-3	-2	-1	+1	+2	+3
25.	People with disabilities are just as self-confident as other people.	-3	-2	-1	+1	+2	+3
26.	Most persons with disabilities want more affection and praise than other people.	-3	-2	-1	+1	+2	+3
27.	Persons with physical disabilities are often less intelligent than persons without disabilities.	-3	-2	-1	+1	+2	+3
28.	Most persons with disabilities are different from persons without disabilities.	-3	-2	-1	+1	+2	+3
29.	Persons with disabilities don't want any more sympathy than other people.	-3	-2	-1	+1	+2	+3
30.	The way people with disabilities act is irritating.	-3	-2	-1	+1	+2	+3

APPENDIX F

Letter of Request

Leigh Anna Wooley

3606 Beaver Dam Road ◊ Vilas, North Carolina 28692
wooleyla@utkux.utcc.utk.edu ◊ (704) 297-1113

April 2, 1997

Mr. Alan Pruhs
Program Director
SPLORE
27 West 3300 South
Salt Lake City, Utah 84115

Dear Mr. Pruhs,

Thank you for your encouraging response to my phone inquiry about utilizing the participants of SPLORE in a thesis study. I am writing to formally request your cooperation in researching the effect of integrated adventure recreation programs on the attitudes of persons without disabilities toward those with disabilities. The focus of this investigation is primarily concerned with the change in attitude of the participants without disabilities; therefore, the assessment instruments will be administered only to those participants without disabilities.

Since the hypothesis of this thesis predicts a transformation in positive attitudes toward persons with disabilities as a result of integration, the attitudes of the participants before and after their involvement in the SPLORE adventure excursion will be measured via a pretest/post-test. In order to assess the participants' previous contact and/or personal experience with various disabilities, a short demographic survey will also be included with the attitude survey. Individual participation in this study will be on a voluntary basis and each response will be confidential.

In appreciation for the contributing efforts of the personnel and staff at SPLORE, a copy of both the findings and the conclusions will be provided subsequent to the completion of the thesis. Hopefully, the findings of this study will support the mission of SPLORE by attenuating the stereotypical attitudes often associated with disabilities.

Thank you again for your time and consideration. I am looking forward to this study.

Sincerely,

Leigh Anna Wooley

APPENDIX G

Letter of Permission



SPLORE

Special Populations Learning Outdoor Recreation & Education

April 3, 1997

Ms. Leigh Anna Wooley
3606 Beaver Dam Road
Vilas, N.C. 28692

Dear Ms. Wooley:

Thank you for utilizing SPLORE in researching the effect of integrated adventure recreation programs on the attitudes of persons without disabilities toward those with disabilities. Your study is of particular interest to our organization. Two of our program goals include: (1)To overcome the attitudinal barriers about the abilities of people with disabilities, and to promote community awareness about the leisure needs and rights of people with disabilities. (2)To provide an integrative program through the interaction of participants, their family and/or friends and SPLORE staff and volunteers. Although we believe that we offer a truly integrative program and that a positive change in the attitudes of persons without disabilities towards those with disabilities does occur, we have never participated in a formal study.

As per our telephone conversation, SPLORE will be responsible for administering the post-test after the study groups' participation in an integrated rafting adventure. We are pleased to be responsible for this portion of the study and will return all post-tests to you by July 1, 1997.

SPLORE is delighted to be working in cooperation with your study and looks forward to the results.

Sincerely,

Alan J. Pruhs
Program Director

27 West 3300 South • Salt Lake City, Utah 84115 • (801) 484-4128 • FAX (801) 484-4177

APPENDIX H

Letter to Participants

April 2, 1997

Dear SPLORE Participant,

Your cooperation in a study on attitudes toward disabilities is needed! As a graduate student in therapeutic recreation at the University of Tennessee, I am researching the effects of an integrated adventure recreation program, such as SPLORE, on the perceptions of people without disabilities toward individuals with disabilities.

Approximately 10 minutes of your time will be required both before and after your SPLORE adventure. Prior to your excursion, you will be asked to complete a short demographic questionnaire as well as an attitude survey. Upon completion of your trip, you will be asked once again to complete the attitude survey. The Attitudes Toward Disabled Persons Scale (ATDP), which measures the attitudes of those with and without disabilities toward persons with disabilities, will be the instrument utilized in this experiment. Each form includes not only a set of instructions but also an area adjacent to each question in order for you to record your responses quickly. After the data has been collected and analyzed, SPLORE will receive a copy of the findings, summary, conclusions, and recommendations. Additional information will be available upon request.

Your decision to participate in this study is strictly voluntary; however, your cooperation will be greatly appreciated. Since all responses are confidential, you will not be identified. Only your scores will be disclosed. **PLEASE NOTE THAT THE COMPLETION OF THE PROVIDED FORMS SERVES AS YOUR INFORMED CONSENT.**

Thank you for your time and consideration. I am looking forward to your possible participation.

Sincerely,

Leigh Anna Wooley

APPENDIX I

Participant
Demographic Data File

Participant Demographic Data File

	id	pre	post	precat	postcat	age	gender	race	educate	pastdis	famdis	disexp	contact
1	5	142	128	135-149	120-134	36-45 Year	Male	Caucasian	College Degree	No	No	6-10 Years	Yes
2	9	133	119	120-134	<119	46-55 Year	Male	Caucasian	Graduate Degree	No	No	6-10 Years	Yes
3	61	133	143	120-134	135-149	36-45 Year	Male	Caucasian	College Degree	Yes	No	6-10 Years	Yes
4	66	122	145	120-134	135-149	36-45 Year	Female	Caucasian	Graduate Degree	No	No	0-5 Years	No
5	69	87	107	<119	<119	0-25 Years	Male	Caucasian	High School Degree	No	Yes	6-10 Years	Yes
6	70	138	144	135-149	135-149	26-35 Year	Female	Caucasian	Graduate Degree	No	No	0-5 Years	No
7	71	132	134	120-134	120-134	26-35 Year	Male	Spanish American	Some Graduate	No	No	0-5 Years	No
8	72	116	115	<119	<119	0-25 Years	Female	Caucasian	Some High School	No	No	0-5 Years	Yes
9	73	131	127	120-134	120-134	0-25 Years	Female	Caucasian	Some High School	No	Yes	6-10 Years	Yes
10	82	122	131	120-134	120-134	0-25 Years	Male	Caucasian	High School Degree	No	No	0-5 Years	Yes
11	83	127	136	120-134	135-149	26-35 Year	Male	Caucasian	Some College	No	No	0-5 Years	No
12	85	142	153	135-149	>150	46-55 Year	Male	Caucasian	Graduate Degree	No	Yes	6-10 Years	Yes
13	90	107	116	<119	<119	0-25 Years	Female	Caucasian	High School Degree	No	No	11-15 Years	Yes
14	91	93	119	<119	<119	0-25 Years	Female	Caucasian	Some College	No	No	0-5 Years	No
15	92	126	129	120-134	120-134	56-65 Year	Female	Caucasian	Graduate Degree	No	No	Over 25 Years	Yes
16	96	115	132	<119	120-134	0-25 Years	Female	Caucasian	College Degree	No	No	0-5 Years	Yes
17	97	108	115	<119	<119	26-35 Year	Male	Caucasian	Graduate Degree	No	No	0-5 Years	No
18	99	125	123	120-134	120-134	56-65 Year	Male	Caucasian	Graduate Degree	No	No	Over 25 Years	Yes
19	100	141	147	135-149	135-149	26-35 Year	Male	Caucasian	College Degree	No	No	0-5 Years	Yes
20	117	132	155	120-134	>150	26-35 Year	Female	Caucasian	Some Graduate	No	No	6-10 Years	Yes
21	119	155	162	>150	>150	46-55 Year	Male	Caucasian	Some College	No	Yes	16-20 Years	Yes

VITA

Leigh Anna Wooley was born in Houston, Texas on May 31, 1973. She remained in Houston for elementary, middle, and high schooling. On May 31, 1991, she graduated from Northwest Academy High School. For the fall semester of her freshman year in college, Leigh attended Houston Baptist University. During the spring of her freshman year, Leigh transferred to Belmont University in Nashville, Tennessee, where she played tennis and pursued her goal of attending Vanderbilt University for a degree in education. In August of 1992, Leigh began her study at Vanderbilt University. Graduating summa cum laude and bearing the banner of the school of education, Leigh received a Bachelor of Science in Special Education with a minor in reading and literacy on May 12, 1995. During the spring preceding graduation, Leigh was offered the opportunity to work as a Graduate Research Assistant on a federal grant which applied recreation as therapy to the needs of children and adults with disabilities. In order to combine her interests of play, recreation and outdoors with her knowledge of disabilities and her desire for the integration of persons with disabilities in recreation, she enrolled in the University of Tennessee and began her work toward a Master of Science in Recreation and Leisure Studies with a concentration in Therapeutic Recreation. After completing her course work, Leigh interned in Park City, Utah at the National Ability Center, where she instructed persons of all abilities in alpine and nordic skiing as well as snowshoeing. In December of 1997, Leigh received her master's degree.