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Inclusion and Attitudes of Adolescents in a Camp Setting

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Abstract

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by

Deborah Ann Musher

MA, Teachers College, Columbia University, 2001

BS, Princeton University, 1998

Dissertation Submitted in Partial Fulfillment

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Abstract

Despite increased inclusion of individuals with special needs in educational and leisure settings, people with disabilities continue to experience social isolation. Research indicates that negative attitudes play an important role in contributing to this marginalization. This study examined the impact of an inclusion program at a residential summer camp on the attitudes of its typical participants. Participants in the treatment group (n = 30) experienced contact with peers with disabilities through structured, intentional programming while participants in the control group (n = 77) experienced less formal inclusive encounters. The Chedoke-McMaster Attitudes toward Children with Handicaps (CATCH) scale was administered to the treatment and control groups at the beginning and end of the summer session. Research questions were designed to examine the impact of consistent and formal contact through inclusion on the attitudes of participants in the treatment group and to explore whether or not there was a differential impact of different types of contact on attitudes of typically developing children. Results from 1-time repeated measures ANOVA indicated that attitudes of participants in the treatment group did not change significantly during the session but that attitudes among the treatment group did improve significantly more than did the attitudes among the control group, $F(1, 105) = 11$, $p = .001$. Influenced by these results, program directors in educational and leisure settings might prioritize creating formal opportunities for contact between people with and without special needs, thereby decreasing social marginalization, increasing genuine integration, and promoting positive social change.

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Dedication

I dedicate this dissertation to:

- my parents, who raised me with a passion for education and for making the world a more just, fair place for all of its inhabitants;
- my husband, for his limitless love, patience, and support;
- my children, whom I commit to raising in a world where people are respected and appreciated for all of their uniqueness and inner beauty;
- special educators who have served as role models and colleagues and have inspired me with their commitment;
- founders of the Tikvah program at Camp Ramah in California, who, since 1970 and beyond, have recognized the need for an inclusive environment for Jewish youth with special needs;
- the phenomenal individuals with special needs with whom I have had the privilege of working over the last twenty years. If everyone were as authentic and hard working as all of you, the world would, indeed, be a better place in which to live.

Acknowledgements

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The administrative staff at Camp Ramah in California has been a true partner. Thank you to Rabbi Mitch Cohen, Rabbi Joe Menashe, Randy Michaels, and Ariella Moss Peterseil, for their cooperation and willingness to accommodate my research needs, all while providing enriching summer camp opportunities to over 1,000 campers each summer. I am grateful to Elana Naftalin-Kelman, the Director of the Tikvah program, for her leadership, vision, and friendship that have inspired me and an entire generation of campers, staff, and parents.

Finally, I extend my deepest gratitude to my family, especially to my supportive, encouraging, and eternally optimistic husband, Joe.

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Chapter 1: Introduction to the Study

Introduction

As inclusion programs multiply around the United States and internationally, in arenas of formal and informal education, people with disabilities nonetheless continue to be socially marginalized and stigmatized (Bossaert, Colpin, Pijl, & Petry, 2013; Cummins & Lau, 2003; de Boer, Pijl, Post, & Minnaert, 2013; Devine & Parr, 2008; Kalyva & Agaliotis, 2009; Koster, Pijl, Nakken, & Van Houten, 2010; Novak, Feyes, & Christensen, 2011). This discrimination is likely caused by the prevailing attitudes of typically developing individuals toward their peers with special needs (de Boer, Pijl, & Minnaert, 2012a; Koster et al., 2010; Novak et al., 2011).[1] Although these attitudes have improved since the passage of the Individuals with Disabilities Education Act (IDEA) and may no longer be overtly negative, they are still not sufficiently positive to lead to genuine integration (de Boer et al., 2012a; Koster et al., 2010; Novak et al., 2011).

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[1] Throughout this paper, I use the terms "typical" or "typically developing" to refer to children without cognitive or emotional disabilities. When referring specifically to "typically developing campers" or "typically developing participants" in this study, I am referring to those adolescents who were not enrolled in the program for children with special needs but rather in the general camp program and who do not self-identify as having cognitive or behavioral disabilities.

In this dissertation, I measured the impact of an inclusion program in a residential summer camp on the attitudes of typically developing children toward their peers with disabilities. Through the inclusion program, all of the campers at Camp Ramah in California (CRC) had, at a minimum, informal exposure to and contact with children and young adults with disabilities. Additionally, some of the oldest campers participated in a structured Buddies Program that provided consistent, programmed opportunities for contact between campers with and without special needs. I evaluated the impact of the structured Buddies Program on the attitudes of its participants and compared any attitude changes over the course of the summer between those in the Buddies Program and those in the less-structured camp inclusion program. Results indicated that, while the attitudes of campers in the Buddies Program did not significantly change during the summer session, the differential impact of the Buddies Program was significantly higher than that of the less-regimented inclusion program in improving attitudes of typically developing campers toward their peers with disabilities. As a result of these findings, programs like the Buddies Program might be established nationally and internationally, thereby contributing to improved social integration of people with disabilities into society at large.

In Chapter 1 of this paper, I provide the background for the dissertation project; a problem statement; a statement of purpose; research questions and hypotheses; the

conceptual framework for the study; nature of the study; descriptions of variables; and significance and limitations of the study.

Background

Much research exists examining the impact of inclusion programs on the attitudes of the typically developing participants. This research has revealed mixed conclusions. The vast majority of these studies target academic institutions in elementary through high school settings, while an increasing number examine post-secondary inclusion programs (Campbell, 2010; de Boer, Pijl, Post, & Minnaert, 2012b; de Boer et al., 2013; Kalambouka, Farrell, Dyson, & Kaplan, 2007; Koster et al., 2010; Litvack, Ritchie, & Shore, 2011; Ruijs & Peetsma, 2009; Vignes et al., 2009). Recognizing the potential benefit of inclusion in a noncompetitive environment, some researchers have explored beyond academic settings to focus on informal educational or leisure programs as well (Andre, Louvet, & Deneuve, 2013; Devine, 2004; Devine & Parr, 2008; Jeanes & Magee, 2010; Kalambouka et al., 2007; Nevill & White, 2011; Papaioannou, Evaggelinou, & Block, 2014). While the results of such studies are mixed, with some indicating improved attitudes while others indicating no significant change in attitudes, social alienation nonetheless interferes with the establishment of a truly inclusive environment.

As demonstrated by research, children, while at residential summer camps, experience significant personal growth and maturation and develop improved friendships and leadership skills (American Camping Association, 2005; Arnold, Bourdeau, & Nagele, 2005; Fullerton, Brannan, & Arick, 2002; Garst, Browne, & Bialeschki, 2011;

Henderson, 2001; Musher, 2015). As a result of these findings, I conducted my research at a 4-week residential camp setting with a pre-established inclusion program. My project filled a gap in the literature, for while most of the studies evaluating attitude changes in inclusion camp programs have focused on day camp settings, and a few target 1-week residential camps, none examines the impact of participation in a 4-week residential inclusion program, where children ostensibly have an even longer period of time to grow, mature, and develop meaningful friendships.

This study was also unique in its comparison of the impact of two different types of inclusion experiences—informal and formal—on attitudes of typically developing participants; while the former affords participants intermittent, casual contact with campers with special needs, the latter allows for structured, consistent participation. Because the study indicated a more positive impact of inclusion among the participants in the regulated Buddies Program than among those of the less regimented inclusion program, directors of summer camps and other program administrators worldwide might be motivated to develop such structured inclusion programs. With effective inclusion programs in more summer camps and educational programs, attitudes toward individuals with disabilities can improve appreciably, rendering more likely the full inclusion of campers with special needs both in the camp environment and beyond.

Problem Statement

Despite the growing number of inclusion programs within the United States and abroad in formal and informal educational settings and leisure programs, people with

disabilities nonetheless are still not fully integrated socially into the educational, religious, or leisure-based institutions within our communities (Bossaert et al., 2013; Devine & Parr, 2008; Koster et al., 2010; Novak et al., 2011). Bossaert et al. (2013) warned, "Physical integration is not enough to guarantee successful social integration" (p. 1956). Even in the wake of legislation and trends, people with special needs are often tolerated but not embraced, and this subtle difference prevents genuine inclusion from becoming a reality. Several researchers have distinguished between physical and social inclusion; the former enables people with and without disabilities to coexist in the same physical spaces and institutions as their peers, while the latter suggests equal status and mutual friendships and relationships (Bossaert et al., 2013; Cummins & Lau, 2003; Kalyva & Agaliotis, 2009). Social integration is critical for successful inclusion, but it is rarely achieved, whether in school, vocational, or recreational settings (Cummins & Lau, 2003; de Boer et al., 2013; Kalyva & Agaliotis, 2009; Koster et al., 2010; Musher, 2015).

In considering what prevents social integration among people with disabilities, researchers have identified a significant obstacle as the overriding attitudes of typically developing individuals toward their counterparts with special needs (de Boer et al., 2012a; Koster et al., 2010; Novak et al., 2011). Although these attitudes have improved since the passage of IDEA and may no longer seem to be primarily negative, they are still not sufficiently positive to lead to genuine integration. Thus, for true inclusion to be implemented in our communities, attitudes toward people with disabilities must shift to

be even more favorable so that people with special needs are socially included in all facets of life.

Current research has examined the impact of inclusion on attitudes of typically developing individuals toward their peers with disabilities. Through this project, I have contributed to this body of literature in two important ways: by expanding on the contexts in which such studies are performed through exploration at a 4-week residential summer camp and by comparing the impact of structured inclusive activities with the impact of contact through more informal, intermittent exposure.

Purpose and Nature of the Study

The purpose of this quantitative study was to examine the impact of a structured inclusion program on the attitudes of typically developing adolescents toward their peers with disabilities and to compare this impact with that of a less structured inclusion program. The study evaluated attitude changes over the course of a 4-week session among two groups of incoming 10^{th} grade campers: those who had informal contact with peers with disabilities through the camp's inclusion program, and those who had structured, consistent contact with peers with disabilities through an elective Buddies Program. The study compared the attitude changes among members of these two groups of campers to determine whether active participation in prescribed inclusive activities resulted in more significant attitude changes than passive attendance in an inclusive camp program. The independent variable was participation in the Buddies Program, which is explained in more detail in Chapter 3. The dependent variable was attitude as measured

through pre- and posttesting using the Chedoke-McMaster Attitudes toward Children with Handicaps Scale (CATCH), created by Rosenbaum, Armstrong, and King (1986). More detailed information on the methodology for this study is provided in Chapter 3.

Research Questions and Hypotheses

The primary research question was:

- What was the effect of consistent, formal contact through an inclusion program on the attitudes of typically developing children in a residential camp setting as measured by the CATCH scale?

The secondary research question was:

- Was there a differential impact of structured contact through inclusion and informal contact through inclusion on attitudes of typically developing children toward peers with special needs as measured by the CATCH scale?

It should be noted here that, throughout this paper, "structured contact" refers to interactions through the formal Buddies Program, while "informal contact" refers to incidental interactions that occurred during the regular camp day, in activities such as art classes, swim sessions, sports games, and free time.

The null hypothesis (H_{01}) for the primary research question states that there is no significant impact of participation in a structured inclusion program on the attitudes of typical children as measured by the CATCH score toward their peers with disabilities in a residential summer camp setting.

The alternate hypothesis 1 (H_{a1}) for the primary question states that there is significant impact of participation in a structured inclusion program on the attitudes of typical children as measured by the CATCH total score toward their peers with disabilities in a residential summer camp setting.

The null hypothesis 2 (H_{02}) for the secondary research question states that there is no significant difference between the impact of informal and formal contact through inclusion on the attitude of typically developing campers toward disabilities, as measured by the CATCH scale.

The alternate hypothesis 2 (H_{a2}) for the secondary research question states that there is a significant difference between informal and formal contact through inclusion on the attitudes of typical campers toward disabilities than does informal contact, as measured by the CATCH scale.

Theoretical Framework: Intergroup Contact Theory

The theoretical framework for this study was Allport's (1979) intergroup contact theory. A more detailed analysis of this theory is provided in Chapter 2, but following is an overview. Underscoring Allport's position is an in-depth description of how individuals form a sense of self and an awareness of and attitude toward members both of their in-group and surrounding out-groups. Allport (1979) identified prejudice as an important, inevitable by-product of group interaction with a cognitive, rather than emotional, etiology. Recognizing the destructive capacity of intergroup prejudice, Allport described a potential strategy for reducing it: intergroup contact. However, Allport

(1979) explained that the "nature of the contact" (p. 262) is crucial, determining the efficacy of contact in establishing equal status between groups.

Optimal Conditions of Intergroup Contact

A defining aspect of Allport's intergroup contact hypothesis is its clear delineation of what Allport (1979) considered to be the optimal conditions of intergroup contact: equal status among participants, creation of mutual goals, intergroup cooperation, and approval from an authoritative source. Allport (1979) considered these conditions to be essential for reducing the inevitable intergroup prejudice that develops when groups comingle with one another

Relationship Between Theoretical Framework and Study

The primary purpose of this dissertation was to examine the impact of intergroup contact on attitudes of typical individuals toward their peers with disabilities. Since Allport (1979) posited that prejudice—which results from negative attitudes toward the other—decreases with intergroup contact, it then follows that the purpose of this study is rooted in the theoretical framework as espoused by Allport (1979).

Further, an important aspect of this dissertation study was quantifying the impact of participation in the Buddies Program on attitudes of typical campers toward disabilities and comparing any significant attitude changes with those demonstrated in the comparison group. Because the Buddies Program met the optimal criteria for effective contact as elucidated by Allport (1979), I essentially assessed the veracity of Allport's claim that intergroup contact is maximized when optimal conditions are met.

Definitions

The independent variable defined in this study was participation in the Buddies Program. This component of the general camp program is described in more detail in Chapter 3; but, for the purpose of this section of the paper, the Buddies Program is described as an elective program among the typically developing incoming 10th grade campers through which participants interacted with their counterparts with special needs, their buddies, consistently (approximately four times weekly, for 90 minutes each time) over the course of the 4-week session.

The dependent variable in this study was the attitude of typically developing campers toward their peers with disabilities as determined by the CATCH (Rosenbaum et al., 1986) survey . In addition to providing a score for overall attitude, the CATCH measures the three dimensions of attitude (affective, behavioral, and cognitive components) to provide a complex portrait of perception toward the other.

A critical term that needs to be defined in this study is "inclusive," for this ambiguous word refers to a variety of settings that, on a range of levels, incorporate individuals with special needs with their typically developing counterparts. It is important to clarify that, while in this paper I call CRC's setting an inclusive one, campers with disabilities at CRC actually experience different levels of integration depending on their abilities and needs. While a few of the highest functioning campers with special needs live in bunks with typical peers, the majority reside in a separate bunk with a higher staff-to-camper ratio. They require more assistance during daily living activities, such as

showering and getting dressed, and they go to sleep earlier than the typical campers. The bunk, however, is in the middle of the camp-wide living area, and participants with special needs share communal, gender-specific bathrooms with typically developing campers. During the day, campers with special needs eat in the dining room with the entire camp, and most of their activities, such as arts and crafts, singing, archery, and swimming, are integrated with other campers. Also, the campers with special needs are included for all special events around camp, such as color war, concerts, and celebration of holidays.

Assumptions

The primary assumption of this study that must be subscribed to in order to perceive the study's results as being critical for social change is the following: that negative attitudes toward the other are reflective of prejudice, or bias, and translate to a higher likelihood of social alienation and marginalization among different groups of people. While some studies did measure the correlation between attitudes and social integration and deem it positive (de Boer et al., 2012a; Koster et al., 2010; Novak et al., 2011), none actually determined a direct relationship between attitudes, bias, and social acceptance.

Scope and Delimitations of the Study

In establishing the scope of this study, I was limited to the one group of campers at CRC: those in the Buddies Program. They, like all of the campers at CRC, engage in informal contact with peers with disabilities, but they also interact with the campers with

special needs through consistent, structured interactions. Thus, because I wanted specifically to examine the significance of Allport's conditions in improving attitudes, I selected this group of campers for my experimental group. The most obvious comparison group, then, was comprised of the remaining 10th grade campers, who selected electives other than the Buddies Program in which to participate over the course of the session. Members of this cohort were the same ages and at the same developmental levels as those in the Buddies Program, so they provided the most logical, sound comparison group.

The immersed nature of the residential camp experience minimized the potential for confounding variables that might have detracted from the internal validity of this study. The campers remained within the camp setting for the entire session and were not allowed access to the Internet or social media. Additionally, the fact that participants completed pre- and posttest surveys precluded other obstacles to validity such as having family members or close friends with special needs.

The homogeneity of the participant pool presented a threat to external validity and must be acknowledged upon considering the potential generalizability of any findings from the study. Almost all participants hailed from upper middle class, highly-educated families in the West Coast region. As 97% of the participants had attended this camp program in the past, the vast majority had had at least some level of exposure to people with disabilities through CRC's informal inclusion program.

Limitations of the Project

This section of the paper provides a broad discussion of limitations, while a more in-depth elaboration is included in Chapter 3. Major limitations that compromised the impact of the findings of this study were social desirability, self-selection, and homogeneity of the targeted population. The first two were minimized by collecting data with a pre- and posttest survey, for any impact due to social desirability or self-selectivity presumably canceled itself out with this format of evaluation.

Regarding the homogeneity of the population, this study served to fill the gap in current research but needs to be expanded to include more heterogeneous camper populations nationally and/or internationally. Thus, this study serves as a first step in research examining the impact of inclusion in 4-week residential camp settings and should be followed up with research that includes more diverse participant pools.

Another important limitation is that the study measured attitudes, not behavior. This limitation is referred to in many of the articles reviewed in Chapter 2, as authors remind readers that attitudes do not necessarily translate to action. Addressing this limitation, I suggest that this study be a precursor to others that investigate interactions between people with and without disabilities. Especially if this type of behavioral study is carried out among the same population at the same camp, one will then be able to determine a correlation between attitudes and behavior and can eliminate this specific limitation.

I have been involved in the CRC community for over 2 decades, and I have always considered my experience as a camper at camp and a counselor in the inclusive program as the foundation for my passion for special education. Therefore, I admittedly have a preconceived notion regarding the benefits of both the Buddies Program and the overall inclusion program on the attitudes of typically developing campers and staff at CRC. Certainly, this bias could negatively impact my ability to research this topic objectively. This is one of the reasons that I chose to conduct a quantitative study, so that I could minimize the impact of potential bias that might be harder to eliminate in qualitative data analysis.

Significance of the Project

Much research has been published on the impact of contact between individuals with and without disabilities on attitudes of the latter toward the former. Some of these studies are overtly rooted in Allport's intergroup contact theory while others are not. Regardless, the results are mixed concerning the potential positive effect of contact on attitudes between groups and prejudice against and general discomfort with the "other." People with special needs still are not integrated socially within their communities, and thus true inclusion has not been realized.

This research project differed from current research in its focus specifically on a 1-month inclusion program at an overnight camp setting. Studies have indicated that residential summer camp environments allow for significant growth and maturation among campers in many arenas including self-confidence and social skills (American

Camping Association, 2005; Arnold et al., 2005; Fullerton et al., 2002; Garst et al., 2011; Henderson, 2001; Musher, 2015).. Therefore, the camp setting has tremendous potential to influence important, measureable attitude changes among typically developing children toward their peers with disabilities.

Through this research, I concluded that a structured inclusion program is more effective than an informal one in improving attitudes toward people with disabilities. Subsequent research studies can explore such programs further, expanding understanding on how to maximize inclusive experiences in order to equalize populations that have historically been marginalized. A discussion of recommendations for future studies is provided in Chapter 5. With more research, effective inclusion programs can be replicated nationally and internationally. Attitudes between groups will improve widespread, boundaries between groups will dissolve, and the world will become a more just, peaceful place to live.

Summary

This study explored the impact of a structured, formal inclusion program on the attitudes of typically developing children at a residential summer camp and compared the impact of structured inclusion with the impact of less regimented, more incidental contact on attitudes. I measured attitudes at the beginning and end of the campers' one-month summer experiences using the CATCH, an existent, validated attitude scale. Potential impact of this study includes increasing rationale for creation of structured inclusion programs at residential summer camps. With improved inclusion experiences, attitudes

toward individuals with disabilities will likely improve throughout society, and social marginalization of people with special needs in our communities will decrease.

In Chapter 1, the reader was provided a general description of the project, including background information, research questions, hypotheses, underlying theoretical framework, and limitations. Perhaps most importantly, the reader emerges with an understanding of the relevance and uniqueness of this research project and of how this study contributes to the literature concerning the impact of inclusion on typically developing populations. While the discussion of some of these elements in Chapter 1 was brief, more elaboration is provided throughout the rest of this paper.

Chapter 2, includes a literature review and a more complete description of the underlying theoretical framework. Chapter 3 provides a more detailed description of the project setting, methodology, and ethical considerations that accompanied the implementation of the study. Chapter 4 presents the results of the statistical analyses performed for this study. Chapter 5 provides an interpretation of the results, indicating that, for Research Question 1, the null hypothesis was accepted and, for Research Question 2, the alternate hypothesis was accepted. Chapter 5 also presents limitations that arose during the execution of the study and the analysis of the data. Recommendations for future research are proposed, and implications for practice, based on the results of this study, are provided. With these suggestions for future studies and tangible implications for implementation, research and practice in the realm of inclusion

will hopefully improve, marginalization will decrease, and people with disabilities will experience more genuine integration into social communities worldwide.

Chapter 2: Literature Review

Introduction

Since the passage of IDEA in 1975, the number of inclusion programs in formal and informal educational settings and camp environments has increased significantly. While these programs have obvious benefits for children with disabilities, researchers also have explored their impact on the attitudes and perceptions of those without documented special needs. The results of this research are mixed, yet the majority of studies have intimated at improved attitudes among typically developing children toward their peers with special needs following inclusive experiences.

Despite improved attitudes, research exploring the impact of inclusion programs has demonstrated that people with special needs continue to suffer from social isolation and disparity among their typically developing peers (Bossaert & Petry, 2013; Causton-Theoharis, Ashby, & DeClouette, 2009; de Boer et al., 2013; Devine & O'Brien, 2007; Devine & Parr, 2008; Koster et al., 2010; Pijl, Skaalvik, & Skaalvik, 2010). Researchers have indicated that prevailing attitudes toward individuals with special needs, whether paternalistic, ambivalent, or negative, are likely a critical factor in perpetuating this social isolation (de Boer et al., 2013; Koster et al., 2010; Novak et al., 2011). Allport (1979) offered contact as a potential solution to the inevitable bias that forms between groups, presenting criteria for the contact that renders it most effective. The purpose of this study was to determine whether an inclusive summer camp program that incorporated the

characteristics of Allport's intergroup contact theory improved attitudes of typically developing campers toward their peers with disabilities.

Chapter 2 has two distinct sections. The first relates to the theoretical framework of this dissertation: intergroup contact theory as presented by Allport (1979). In this section, I provide a brief history and in-depth explanation of Allport's conception of prejudice and its origin among groups of people; an explanation of the conditions of contact that Allport characterizes as optimal in order to reduce prejudice between groups; and a justification for selecting Allport's intergroup contact theory as the framework for this paper.

The second section of Chapter 2 focuses on recent literature that explores the effects of inclusion programs on the attitudes of participants without identified special needs toward their counterparts with disabilities. While more of this research has historically addressed school environments, an increasing amount examines camp settings as well. The impact of inclusion in both of these settings on attitudes and social acceptance is discussed. A description of some of the methodologies used to evaluate attitudes is presented as well.

Literature Search Strategy

In researching the impact of inclusion on the attitudes of typically developing children toward their peers with disabilities, I used the following databases: EBSCO , ERIC, Google Scholar, and Education Research Complete. I performed numerous

searches using a variety of search terms including *disabilities, attitudes, inclusion,* and *summer camp*.

I first explored studies performed in any setting, including academic, and then narrowed my focus to summer camp inclusion programs. A search using the terms *summer camp, inclusion, and disabilities* revealed only 17 studies, several of which reported on the impact of inclusion on the campers with special needs. Then, I added the search term *attitudes* and found no correlating articles. On Google Scholar, I entered the terms *summer camp, inclusion, disabilities, and attitudes* and limited my findings to articles published between 2000 and 2015. This search revealed 17,000 results, but most of them were irrelevant because of their population of focus (children with chronic illnesses, for example), their research questions, or other factors. I scanned through the results, read several articles that did relate to my study, and referred to their reference sections to find more relevant articles. In all, I reviewed over 100 peer-reviewed articles, the majority of which were written between 2000 and 2015. I considered the older studies only when they applied directly to my study in a unique way.

Theoretical Foundation: Intergroup Contact Theory

In his seminal work, *The Nature of Prejudice*, Allport (1979) presented a theory on the origin of intergroup prejudice and the impact of intergroup contact on this prejudice. Since then, intergroup contact theory, developed further by Allport's disciple Thomas Pettigrew (Pettigrew, 1998; Pettigrew & Tropp, 2005; Pettigrew & Tropp, 2011),

has been used to investigate the relationships between people of different races, religions, ethnicities, abilities, and more.

Writing in the wake of World War II and in a time when religious tensions between Protestants, Catholics, and Jews, and racial tensions between whites and African Americans, were prominent, Allport (1979) presented *The Nature of Prejudice* as a reaction to contemporary society. He strove to describe the cognitive evolution of prejudice because, he explained, when people came to understand how prejudice originates, they would be more equipped to eradicate it: "[The issue of prejudice] is basic, so without knowledge of the roots of hostility we cannot hope to employ our intelligence effectively in controlling its destructiveness" (Allport, 1979, p. xvii).

Underlying Allport's (1979) theory is an understanding of how individuals form a sense of self and an awareness of and attitude toward members both of their in-group and surrounding out-groups. Allport (1979) underscored prejudice as a significant, inevitable by-product of group interaction that created boundaries between people based on their "physical, national, cultural, linguistic, religious, or ideological" characteristics (Allport, 1979, p. xviii). In its purest form, Allport (1979) explained, the term "prejudice" simply refers to a conception of the other; this conception can be positive or negative but is, by definition, formed prematurely and without sound reason (p. 6). Despite its original meaning, however, the word prejudice has evolved to connote a negative construct, defined by Allport (1979) as "antipathy based on faulty and inflexible generalizations" (p. 9).

Process of Forming Generalizations

Allport (1979) explained that prejudice results from a utilitarian process of categorization that enables the human brain to make sense of the abundance of incoming input it receives at any given moment. Synchronizing both internal perception and outside information, a categorization process occurs as a complex cognitive sequence with three steps: selection, accentuation, and interpretation. In selection, a person's brain enables a person to observe, or notice, certain input while ignoring other input. Then, once incoming information is selected as relevant, a person tends to accentuate, or exaggerate, those characteristics that are chosen while ignoring, or essentially forgetting, any conflicting input or evidence. Finally, a person makes sense of, or interprets, the selected, exaggerated evidence and assigns the input to a mental category based on this interpretation.

Negative By-Products of Categorization

While this process of categorization enables a person to function in a world with a tremendous influx of input, it carries with it inevitable, negative by-products: stereotypes and, ultimately, prejudice. Often, categories form because of self-oriented, or "autistic" (Allport, 1979, p. 168), thinking rather than rational, or directed thinking, resulting in flawed ascription of characteristics to a broad category. Out of convenience, these categories are perceived of as permanent, not dynamic. In-group loyalties naturally form, and the out-group is perceived as "other." Often, the out-groups do not maintain equal status in the eyes of those in the in-group, and animosity develops. Allport (1979)

explained: “In most cases, a reputation is not earned but is gratuitously thrust upon a group” (p. 217). As such, an unequal society—replete with multilayered social circles and classes—is created.

Minimization of Prejudice through Intergroup Contact

Despite its inevitable formation, prejudice might be relieved when groups interact with one another. However, straightforward exposure between different groups in and of itself is insufficient to result in successful assimilation (pp. 261-262). Rather, Allport (1979) explained, the “nature of the contact” (p. 262) determines its efficacy in establishing equal status between different groups.

Qualities of Intergroup Contact. Allport (1979) described several important qualities of contact including: quantitative characteristics (how often contact occurs and for how long), characteristics related to status of those involved, characteristics related to the role of those involved (competitive versus cooperative nature of joint activities), the social atmosphere of the contact (voluntary or mandatory, contextual factors such as segregation), personalities of those involved in the contact, and context of contact (casual, residential, occupational, etc.).

Allport (1979) argued that, despite the influence of many different characteristics of contact, the most significant variable is its meaningfulness (p. 276). When people of different groups interact with one another casually, occasionally and incidentally seeing each other in the community at large, they select, accentuate, and interpret their input according to preconceived notions. Stereotypes are reaffirmed, and the inferior-superior

hierarchy between groups is reinforced. However, with systematic, meaningful contact, prejudice is likely to decrease.

Allport (1979) added that another especially important variable in the nature of intergroup contact is its duration. The longer the period of meaningful acquaintance lasts, the more potential impact the contact has on minimizing prejudice. When groups relate in organic, sustained interactions, their members are able to absorb new, valid information about the "other" and, in doing so, reverse false preconceived notions (Allport, 1979, p. 268).

The Four Conditions of Intergroup Contact. Allport's (1979) intergroup contact hypothesis is best known for its declaration of four primary conditions that must exist in order for contact between groups to effectively decrease prejudice (Pettigrew & Tropp, 2011, p. 61). The first is that of equal status. Even if the groups are perceived as unequal in society at large, they, in the context of their intergroup interactions, must be of equal status. They must all have equal access to participation in activities and equal voices in making decisions, There cannot be a superior, "in-charge" group or a perceived stronger, more fortunate group that is there to "serve" the others in a condescending or patronizing way.

Along with equal status, another essential condition presented in Allport's (1979) intergroup contact theory is that of common goals. Mutual benefit from group interactions does not suffice. Rather, the unit of measure of benefit, or gain, must be the same between the groups. Allport (1979) explained: "Only the type of contact that leads

people to *do* things together is likely to result in changed attitudes" (p. 276). A paradigmatic example of this type of relationship is when groups play together on a sports team, where the goal, common to all team members, is to win the game. Thus, while equal status is important, it alone does not enable effective intergroup contact; instead, when each group holds equal status *and* its members work together toward a common goal, prejudice is likely to decrease.

Along with equal status and common goals, Allport (1979) added another condition for effective intergroup contact: intergroup cooperation. Not only must groups maintain common goals, they must also work together to realize them. In other words, the groups cannot simply be divided into two teams, each with the goal of winning a game. Rather, the group must consist of one team, united in cooperation rather than competition, working toward a mutual goal.

The final required condition Allport (1979) presented for effective intergroup contact is that of approval from an authoritative source. This source can be found formally, in "sound leadership" (Allport, 1979, p. 279), through laws or rules, or more colloquially, in accepted customs or a generally approving atmosphere. With approval of and encouragement by authoritative figures, the contact is more likely to be effective in reducing prejudice between the groups.

Application of Intergroup Contact Theory to Inclusion

In considering the impact of inclusion on the attitudes of typically developing individuals, I searched for a theory that would explain the process of changing

perceptions through intergroup contact. As I read studies exploring the impact of inclusion on attitudes of the typical children involved, I discovered Allport (1979) because his theory comprised the framework for many of the studies I encountered. Additionally, as I considered the difference between the impact of the general inclusion program at CRC and the impact of the structured Buddies Program, I recognized the potential significance of the conditions of optimal contact as presented by Allport (1979).

Regarding other researchers that relied on Allport for a theoretical framework, some examined the impact of contact in general while others investigated the impact of one or more of the optimal conditions. Devine and O'Brien (2007), Maras and Brown (2000), May (2012), and Novak et al. (2011) all investigated the impact of equal status on the efficacy of inclusion programs as measured by attitudes of those without disabilities toward their counterparts with special needs. Other authors (Andre, Louvet, & Deneuve, 2013; de Boer, Pijl, Post, & Minnaert, 2013; Devine & O'Brien, 2007; Novak, Feyes, & Christensen, 2011; Siperstein, 2009) examined how establishment of mutual goals, cooperative learning, and meaningful contact impacted the goals of inclusion. de Boer et al. (2012b), Devine and O'Brien (2007), May (2012), and Novak et al. (2011) all explored how authoritative approval impacted the attitudes of typically developing people toward their peers with disabilities. As I read these and other papers that relied on intergroup contact theory as the underlying theoretical framework, I realized that Allport was the best, most relevant choice for my dissertation.

Literature Review

The majority of literature written about the impact of inclusion has related directly to the experiences of people with disabilities. Among the smaller number of studies examining the effects of inclusion on those without special needs, most of the studies (Aragon, 2007; Bebetsos, Derri, Zafeiriadis, & Kyrgiridis, 2013; Bennett & Gallagher, 2013; Cairns & McClatchey, 2013; de Boer et al., 2012a; de Boer, Pijl, Minnaert, & Post, 2014; de Boer et al., 2013; Godeau et al., 2010b; Hong, Kwon, & Jeon, 2014; Ison et al., 2010; Kalambouka et al., 2007; Kalyva & Agaliotis, 2009; Koster et al., 2010; Litvack et al., 2011; Lund & Seekins, 2014; Papaioannou et al., 2014; Ruijs & Peetsma, 2009; Tavares, 2011; Vignes et al., 2009) have investigated academic settings, including elementary, middle, high and post-secondary schools. An even more limited body of research has focused specifically on inclusion experiences among typically developing children in inclusive camp settings (Andre et al., 2013; Devine, 2004; Devine & Parr, 2008; Kalambouka et al., 2007; Nevill & White, 2011; Papaioannou et al., 2014). Regardless of the targeted environment, however, the literature about the impact of inclusion on the attitudes of individuals without special needs reports mixed results.

Impact of Contact in Inclusive School Settings

Kalambouka et al. (2007), Ruijs and Peetsma (2009), and MacMillan, Tarrant, Abraham, and Morris (2014) performed systematic literature reviews of studies evaluating the social and academic impacts of inclusion on children in the educational system. Kalambouka et al. (2007) focused on typically developing fourth through sixth

graders without special needs, examining 26 studies, the majority of which were written between 1990 and 1999. Only seven examined the social impact of inclusion and demonstrated a variety of conclusions. Four reported positive results, while three indicated neutral results. Ruijs and Peetsma (2009), who focused on children with mild to moderate special needs, determined a similar outcome and summarized their results: "Studies investigating this topic mostly find positive or neutral and mixed effects[, with v]ery few studies find[ing] negative effects" (p. 77).

MacMillan et al. (2014) authored a literature review of only quantitative studies performed between 1966-2011 that examined the impact of "naturally-occurring contact" (p. 544) in inclusive school settings on the attitudes of typically developing children ages 6-18. The authors reported that 22 of the studies revealed positive associations between contact and attitude measures, 11 revealed no association, and two revealed a negative correlation between intergroup contact and attitudes. Further, 16 of the articles disclosed a positive association between the amount of contact that children with and without special needs had and the attitudes of the latter group toward disability. Despite these generally positive results, several ambiguities remained, and MacMillan et al. (2014) called for more rigorous, scientifically sound studies examining the impact between contact and attitudes.

As opposed to literature reviews, an examination of specific studies measuring attitudes of typically developing children in inclusive settings toward their peers with disabilities rendered mixed results. However, consistent with the literature reviews by

Kalambouka et al. (2007), Ruijs and Peetsma (2009), and MacMillan et al. (2014), the majority of studies have indicated a positive correlation between inclusion and attitudes. Cairns and McClatchey (2013), Hong et al. (2014), Kalyva and Agaliotis (2009), Lund and Seekins (2014), and Tavares (2011) all demonstrated that the attitudes of children who were exposed to people with disabilities in their classrooms were more positive than those of their peers who were not educated in inclusive settings. While participants in the studies by Cairns and McClatchey (2013) and Tavares (2011) were enrolled in integrated settings that included students with a variety of disabilities, Kalyva and Agaliotis (2009) instead surveyed children who participated in an inclusion program specifically for children with physical disabilities.

It is important to recognize the wide age range of participants in these studies that have explored the attitudes of typically developing children toward peers with disabilities in a school setting. Focusing on the youngest possible school-aged participants, Hong et al. (2014) targeted children in preschool to determine whether knowledge of disabilities correlated with attitudes toward and intentions to play with peers with visual and physical impairments. These authors concluded that there is a significant relationship between amount of contact with other preschoolers with disabilities and positive feelings about people with disabilities.

On the other end of the age spectrum, several researchers have explored the impact of inclusion in post-secondary settings (Ahern, 2005; Griffin, Summer, McMillan, Day, & Hodapp, 2012; Izzo & Shuman, 2013; Lund & Seekins, 2014; May, 2012). The

increase in number of college-based inclusion programs in the United States has contributed significantly to this body of literature (Griffin et al., 2012). Lund and Seekins (2014) targeted college students to measure the impact of inclusive settings on attitudes of typically developing individuals toward inclusion and social interaction with peers with disabilities. Evaluating the long-term effect of contact through inclusion on students without special needs, they measured attitudes of college-aged students who had been in inclusive classrooms during elementary and secondary school. Lund and Seekins (2014) came to a similar conclusion as Hong et al. (2014): that high-quality exposure to classmates with disabilities during elementary and secondary school correlated with positive "cognitions" (p. 1) or thoughts, about social interactions with individuals with disabilities.

Despite these results indicating a positive impact of inclusion on children without disabilities toward peers with special needs, studies nonetheless revealed that the social experiences of people with disabilities have continued to render them a marginalized population within the school community (Bossaert et al., 2013; de Boer et al., 2013; Koster et al., 2010; Pijl et al., 2010). Using a variety of methodologies, Koster et al. (2010), de Boer et al. (2013), Bossaert et al. (2013), and Pijl et al. (2010) all examined social acceptance and friendship formation in inclusive settings and reached a troubling conclusion: that children with disabilities are less socially accepted within formal and informal educational settings than their typically developing peers.

Koster et al. (2010) concluded that students with disabilities had fewer friends and were more socially isolated than their peers. Bossaert et al. (2013) and de Boer et al. (2013) engaged typically developing students in a nomination procedure through which they listed their closest friends and determined not only that students with special needs were less accepted than their peers but also that there was a significant relationship between attitudes and peer acceptance. In a literature review, Pijl et al. (2010) determined that even students with mild learning disabilities are generally "less accepted by peers, have fewer friends, and experience feelings of loneliness more often" (p. 61). These conclusions reached by Koster et al. (2010), Bossaert et al. (2013) de Boer et al. (2013), and Pijl et al. (2010) suggested that, despite studies indicating improved attitudes as a result of contact between children with and without disabilities, legitimate social acceptance of, and therefore genuine integration of, individuals with disabilities has not been generally achieved in inclusive settings.

Impact of Contact in Inclusive Camp Settings

As academic institutions have implemented inclusion programs in increasing numbers, so, too, have national and international camp programs (Bialeschki, personal communication, December 30, 2014). Integration of typically developing individuals and children with special needs in a camp setting has provided a unique opportunity for meaningful contact that merits its own line of examination and body of research for two reasons. First of all, data have revealed that the camp environment nurtures socio-emotional growth uniquely and powerfully. Numerous studies have delineated the

benefits of camp for a child's self-esteem, friendships, leadership skills, independence, and overall growth (American Camping Association, 2005; Arnold et al., 2005; Fullerton et al., 2002; Garst et al., 2011; Henderson, 2001; Musher, 2015).

The second aspect of the camp environment that has rendered studies examining the impact of inclusion in camp settings especially important lies in the non-competitive nature of daily activities. Unlike a school atmosphere, where students are constantly assessed and evaluated on the basis of their educational output and receive grades and ranks in status, camp programs more readily recognize and highlight children's similarities and common interests and, simultaneously, minimize the importance of academic success and competition.

Despite the increase in inclusive camp programs and the uniqueness of the camp environment to foster effective integration, there has been little research examining the impact of contact between typical and special needs populations in the camp setting. A search on Walden University's library website using the EBSCO, ERIC, and Education Research Complete databases revealed 17 studies when the search terms *summer camp, inclusion*, and *disabilities* were entered. Most of these examined the impact of these programs on the campers with disabilities. When search terms *camp, inclusion*, *disabilities*, and *attitudes* were entered, zero studies were found.

The impact of contact at camp on attitudes. Similar to the results reported in studies examining the impact of contact in educational settings, existent research exploring the impact of inclusion in the camp experience has also revealed mixed

conclusions. Acknowledging that "residential summer camp does provide an intense contact experience" (p. 220), Devine and O'Brien (2007) reported that participants with and without disabilities expressed the inclusive environment as all of the following: "difficult, uncomfortable, stressful and rewarding, challenging, and satisfying" (p. 211). In an opinion piece titled "Striving for more than 'Surviving,'" Sasson and Sasson (2011) argued against camp inclusion programs explaining that, in order for children with special needs to benefit maximally from a camp experience, they need to be in an environment that is designed exclusively for them (p. 55).

Despite these studies with negative conclusions, others have revealed a positive impact of camp inclusion programs on the attitudes of typical children toward their peers with special needs. Finch (1998) compared the attitudes toward disabilities of children in an inclusive camp with those of children in a camp without an inclusion program and discerned a significantly more positive outlook among the former group than the latter. Hutchison, Mecke, and Sharpe (2008) reported that implementation of an inclusion program in a residential camp setting in Canada had "a great deal of success including campers with disabilities. These campers were able to fully participate in all aspects of camp programming and, further, they were welcomed and befriended by the other children at the camp" (p. 190).

Though focusing on a day camp rather than residential camp setting, Papaioannou et al. (2014) targeted an inclusive sports program and revealed positive conclusions about the impact of contact on attitudes toward children with disabilities. Remarking on the

uniqueness of the camp environment to foster close relationships, build friendships, and encourage healthy risk-taking (p. 2), Papaioannou et al. (2014) reported improved attitudes, following 20 days of inclusive day camp programs, toward inclusion in general and toward the idea of modifying rules and regulations of sports games in order to accommodate peers with disabilities.

The impact of contact at camp on social relationships. Rather than focusing on attitudes about inclusion, other researchers have examined social relationships and friendship formation between typically developing children and peers with special needs in inclusive camp settings (Devine & Parr, 2008; Siperstein, Glick, & Parker, 2009). Like similar studies examining social relationships in school settings (de Boer et al., 2013; Koster et al., 2010), these studies revealed mixed results regarding social inclusion of children with disabilities in inclusive camp environments. Devine and Parr (2008) examined the social relationships of children with and without disabilities through the lens of social capital. They determined that children without disabilities believed that they could provide their social capital resources to peers with disabilities but not expect anything in return, while those with disabilities believed they were both giving and receiving equally. This finding revealed unequal status between the two populations identified primarily through different expectations of reciprocity and equality.

Devine and Parr (2008) also indicated that close contact between the populations of children with and without special needs correlated with an increased awareness of significant differences between the two groups. Thus, Devine and Parr (2008) concluded,

with the "quality of this inclusive leisure experience as suspect" (p. 405), creators of inclusive programs must focus heavily on emphasizing how the different participating populations can help each other so that the balance is more equal between the givers and the takers.

Contradicting the negative results of Devine and Parr (2008), Siperstein et al. (2009) engaged participants in cooperative learning revolving around the common interest of sports. All participants received equal treatment regardless of their abilities and were held to the same expectations. Siperstein (2009) concluded that the children with and without disabilities were "equally preferred as friends" (p. 101), thereby indicating the potential of inclusion within a leisure setting to succeed with regard to social acceptance.

As indicated then, while camp can provide a unique, intense opportunity for contact between children with and without disabilities, research has reflected mixed results about the impact of such inclusion on attitudes and social relationships between the two groups. Further, the few existent studies examining day camp programs have demonstrated more positive attitudes toward inclusion than studies exploring residential camp programs. Perhaps this distinction suggests a limited level of tolerance among children without disabilities toward those with disabilities, which decreases when children live together in close quarters and share in daily living activities together for an extended period of time. Thus, more research is needed to better determine the effectiveness of different camp environments for improving attitudes toward children

with disabilities and providing genuine friendship opportunities for children with and without special needs (Musher, 2015).

Methodological Approaches Used in Existent Literature

Researchers have employed a variety of methodological approaches in exploring the question of the social-emotional impact of inclusion in schools and camps on the attitudes of typically developing children toward their peers with disabilities. Some (Holtz & Tessman, 2007; Kalyva & Agaliotis, 2009) have targeted specific disabilities while most did not differentiate among types of impairment. Many authors utilized qualitative designs that incorporated interviews with the typically developing children in school or camp settings. Focusing on a young preschool population, Hong et al. (2014) evaluated attitudes through responses to open-ended questions and comments made during play sessions. Bossaert et al. (2013) and de Boer et al. (2013) engaged their participants in nomination procedures, in which participants identified, by name, children with whom they interacted or wished to interact on a regular basis. Litvack et al. (2011) performed a mixed methods study, in which the researchers surveyed and interviewed teachers and typically developing students of different achievement levels to assess their attitudes toward students with disabilities.

Other authors conducted quantitative studies using a variety of attitude surveys. (More information on these scales is provided in Chapter 3 of this dissertation.) Cairns and McClatchey (2013), deBoer (2014), de Boer, Timmerman, Pijl, and Minnaert (2012c), Findler, Vilchinsky, and Werner (2007), and Lund and Seekins (2014) required

children to watch or read vignettes about people with disabilities prior to completing the attitude surveys. Other researchers, wanting their participants to respond to statements using their own frames of reference regarding people with disabilities, instead chose survey tools that did not include introductory vignettes (Bossaert, Colpin, Pijl, & Petry, 2011; Bossaert & Petry, 2013; Godeau et al., 2010a; Godeau et al., 2010b; MacMillan et al., 2014; May, 2012; Papaioannou et al., 2014; Tavares, 2011; Vignes et al., 2009).

Among the quantitative investigations, de Boer et al. (2014), May (2012), Papaioannou et al. (2014), and Tavares (2011) administered pre- and posttests before and after a participation in an inclusion program to determine whether there were significant attitude changes following the intervention phase. Each of these studies compared the treatment group with a comparison group that was not exposed to children with disabilities through an inclusive program, and each determined significantly improved attitudes among those in the experimental groups.

Holtz and Tessman (2007), de Boer et al. (2014), Godeau et al. (2010b), and Ison et al. (2010) also utilized a pre- and posttest design, but their interventions consisted of structured educational programs designed to increase knowledge and awareness of disabilities. Holtz and Tessman (2007) focused specifically on education about Tourette Syndrome, while de Boer et al. (2014), Godeau et al. (2010), and Ison et al. (2010) instructed children about different types of intellectual and physical disabilities. Holtz and Tessman (2007) determined that the students who participated in the educational intervention demonstrated increased knowledge, improved attitudes, and more positive

behavioral intentions toward children with disabilities, as determined by scores on the pre- and post-tests, than did those in the control group. Recognizing the importance of instruction and exposure, Ison et al. (2010) combined the two strategies through implementation of an educational intervention that incorporated a co-facilitator with special needs. Like those in the Holtz and Tessman (2007) study, the participants in the Ison et al. (2010) study demonstrated significantly higher attitudes about disability and inclusion following the intervention.

In their studies, de Boer et al. (2014) and Godeau (2010), however, demonstrated conflicting results. de Boer et al. (2014) concluded that elementary school-aged children exhibited no change in attitudes after short- or long-term assessment following intervention, while kindergarten-aged participants demonstrated improved attitudes in short-term posttesting but not in long-term posttesting. Like de Boer et al. (2014), Godeau et al. also concluded that an educational intervention did not have significant impact on the attitudes of typical students toward their peers with disabilities. Thus, as demonstrated through examination of these studies and as indicated throughout this paper as a recurring theme in inclusion studies, (de Boer et al., 2014; Godeau et al., 2010b; Holtz & Tessman, 2007; Ison et al., 2010), research has indicated mixed conclusions regarding the impact of educational interventions on attitudes of typically developing students toward their peers with special needs.

While the body of literature examining attitudes is robust, there were significant limitations among many of the studies. These are discussed more thoroughly in Chapter 3

of this dissertation. Among these limitations were considerations of social desirability, investigation of attitudes rather than behavior, and reduced reliability of findings because of confounding variables. Additionally, there were only three studies (de Boer et al., 2014; Lund & Seekins, 2014; Tavares, 2011) that examined the potential of generalizability of impact over a long period of time.

Summary

With the increase in the number of inclusion programs in formal and informal educational and leisure settings, researchers have investigated the impact of these programs on the typically developing individuals involved. Some of these studies were founded overtly within the theoretical framework of Allport (1979), who explained that prejudice can be minimized with effective intergroup contact, while others were not. However, they all explored the impact of contact between two groups on social interactions and/or attitudes of one group toward their other. Results have varied, but the majority of studies have seemed to demonstrate that with structured contact between people with and without disabilities, the latter population has become increasingly comfortable with and accepting of the former. Nonetheless, especially regarding social acceptability, bias still exists between the in-group toward the out-group, and people with disabilities continue to struggle to be genuinely included into society at large.

This dissertation presents a study that has contributed to existing literature on intergroup contact theory and attitudes of typically developing individuals who participate in inclusion programs. The study is unique in two distinct ways. First of all,

the study compares the impact of a general inclusion program with a more structured one, thereby evaluating the importance of the four conditions for effective contact as described by Allport (1979). Secondly, the study is unique in that it explores a 4-week residential camp setting, where children are exposed to the same variables and environment for the entire duration of the intervention, Because of this isolated nature of the camp setting, along with use of pre- and posttests to eliminate the potential of prior experience with people with disabilities to affect the veracity of the results, this study, whose methodology is discussed in detail in Chapter 3, has filled a gap in the literature and thus has the potential to contribute to positive social change.

Chapter 3: Research Methods

Introduction

Despite increasing numbers of inclusion programs, people with disabilities continue to experience isolation among their peers in social, academic, and vocational settings (Bossaert et al., 2013; Cummins & Lau, 2003; de Boer et al., 2013; Devine & Parr, 2008; Kalyva & Agaliotis, 2009; Koster et al., 2010; Novak et al., 2011). Allport (1979) espoused that specific conditions of contact render inclusion experiences particularly beneficial in minimizing negative attitudes about the other. Aligned with these characteristics of optimal contact, the Buddies Program at CRC has enabled peers with and without disabilities to interact with equal status, mutual goals, and intergroup cooperation, all in a program that is fully endorsed by the staff and administration at CRC.

As described anecdotally by current and past campers and staff, by the end of the camp session, participants in the Buddies Program have typically expressed increased comfort levels interacting with their buddies, specifically, and, more generally, with others who have special needs. They have often commented that the Buddies Program was among the highlights of their summer experience. However, these observations have been entirely anecdotal and have never been recorded or evaluated in scientific terms. The purpose of this study was twofold: to measure the impact of the Buddies Program on the attitudes of typically developing campers at CRC and to compare attitude changes among participants in the Buddies Program with attitude changes among same-aged

campers who were not in the Buddies Program but had informal contact with campers with special needs throughout the summer session.

In this chapter, I present my research study and discuss the participants and details of the research design, including descriptions of the independent and dependent variables. I also provide the history of the CATCH Scale (Rosenbaum et al., 1986), rationale for its use, justification of changes made in its language, and evidence of its reliability and validity. Finally, I address the significance of the study, ethical considerations, and potential limitations, including threats to external and internal validity.

Research Design and Rationale

To evaluate the research questions, I used extant data that measured attitudes among typical campers toward their peers with disabilities. Pre- and posttest survey completion made it possible to evaluate changes in attitude over the course of a 4-week camp session. I performed two different analyses: a within-groups repeated-measures ANOVA to evaluate changes among individual participants in the Buddies Program before and after exposure to campers with special needs and a between-subjects repeated-measures ANOVA to compare attitude changes among the treatment and control groups from the beginning to the end of their summer experiences. These analyses enabled me to compare findings among the children enrolled in the Buddies Program with findings among the other campers and, in doing so, determine whether attitude changes aligned with Allport's theory of intergroup contact; for while both groups had contact with people with disabilities throughout the summer, those in the Buddies Program had

structured, formal opportunities for interaction that reflected Allport's (1979) conditions for effective contact.

In this study, the Buddies Program was the intervention. This program fit the criteria for Allport's four optimal conditions of contact—equal status, mutual goals, intergroup cooperation, and authorization by the administration. Therefore, in evaluating the impact of the Buddies Program on attitudes, I was measuring the benefits of "ideal" contact as defined by Allport. The Buddies Program was an already-existing program at CRC that was not altered for the purpose of this data collection, so the research project had no potential negative impact on the quality of the campers' experiences during the session. Because data were collected by the host organization, time constraints did not apply to me in executing this study. However, in order to maximize accuracy of the data, pre-test surveys were administered by CRC within the first two days of camp, before typically developing campers came into significant contact with peers with disabilities during the summer session, and posttest surveys were given within the last two days of camp, once the full impact of inclusion might have occurred. This research design, a repeated-measures ANOVA with a pre- and posttest, has been used and reported in peer-reviewed studies that examined the benefits of inclusion programs on the attitudes of typically developing participants, with varying results (de Boer et al., 2014; Holtz & Tessman, 2007; May, 2012; Papaioannou et al., 2014; Tavares, 2011).

Independent Variable: The Intervention

In the present study, the independent variable was the intervention: participation in the Buddies Program at CRC. In the Buddies Program, typically developing incoming 10th graders partnered with campers with special needs and together participated in activities such as arts and crafts, singing, dancing, and drama. The buddies met four times weekly, with 90 minutes for each meeting. Thus, the total treatment time was 24 hours over the 4-week session. A staff member planned each session, and counselors were present to assist in implementation, offer guidance to all campers, and lend support in challenging situations. The 4-week session culminated in a singing performance in front of the entire camp. As always, this summer the Buddies Program was planned by a designated staff member at CRC, and the activities were implemented by that individual and the counselors of the campers with special needs.

Essential to the validity of this study is the fact that the Buddies Program aligned with the four conditions of optimal contact as described by Allport (1979) for effective inclusion: equal status, establishment of mutual goals, intergroup cooperation, and authoritative sanction. These conditions were explained in more detail in Chapter 2, but the fact that the Buddies Program met these criteria is important for the study.

Dependent Variable: Attitudes as Measured through the CATCH Survey

The dependent variable in this study was attitude toward disability as measured using the CATCH scale (Rosenbaum et al., 1986). With this scale, scores were measured in three domains of attitudes (affective, cognitive, and behavioral), and overall score was

determined as well (see Appendix A for a copy of the scale). The CATCH was used in at least eight reputable, peer-reviewed studies to date (Bossaert et al., 2011; Bossaert & Petry, 2013; Godeau et al., 2010b; King, Rosenbaum, Armstrong, & Milner, 1989; MacMillan et al., 2014; McDougall, Dewit, King, Mille, & Killip, 2004; Rosenbaum et al., 1986; Tavares, 2011; Tirosh, Schanin, & Reiter, 1997). More in-depth information about the CATCH scale is provided in the "CATCH: A Published Attitude Scale" section of this chapter.

Other Variables

There were no known intervening or covariate variables to decrease power of the results for two reasons. First, the participants completed pre- and posttests, thereby eliminating relevance of potential confounders such as having a family member with disabilities or participating in volunteer projects with people with special needs during the school year. Second, because of the residential nature of CRC, the campers were all in the same environment for the duration of the study, so there were no outside influences independent of the CRC inclusion experience. For the same reasons, there were no known covariate variables. Additionally, because of the uniformity of the camp environment in which the participants were immersed for 4 weeks, there were no known moderating variables.

Methodology

In this section of the dissertation, I describe in greater detail the population of the study, sampling procedures implemented, and the survey instrument used. Additionally, I

provide the data analysis plan, potential threats to validity, and ethical considerations and procedures.

Population and Sampling Procedures

The typically developing incoming10th grade campers in the Buddies Program constituted my treatment group, while the 10th graders who selected other electives formed my comparison group. Data were collected by CRC, the host organization, through criterion sampling, with the criteria being the age of the participants. To that end, all incoming 10th graders were invited to complete the paper and pencil pre- and posttest surveys during their summer at camp. Their parents were informed of the study via email prior to the summer and were given the opportunity to opt out for their children. No parents declined participation for their children. The campers also were allowed to refuse participation prior to the pre- and posttest distribution. I was granted access to CRC's data, as indicated in the Letter for Cooperation of Secondary Analysis (see Appendix C). I then employed census sampling, using the entire database of extant data. The total sample size was 107 participants: 30 in the treatment group, and 77 in the control group. Table 1 demonstrates the demographic constitution of the participant pool.

Table 1

Overall Sample, Buddies, and Control Group: Sex and Years of Attendance at CRC

Demographic	Overall sample[a]	Buddies group[b]	Control group[c]
Sex *N* (%)			
Female	55 (51.4%)	18 (60.0%)	37 (48.1%)
Male	52 (48.6%)	12 (40.0%)	40 (51.9%)
Years at CRC			
1-3	*28 (26.2%)*	*5 (16.7%)*	*23 (29.9%)*
4-6	32 (29.9%)	8 (26.7%)	24 (31.2%)
7-9	41 (38.3%)	12 (40.0%)	29 (37.7%)
10-12	3 (2.8%)	2 (6.7%)	1 (1.3%)
13+	3 (2.8%)	3 (10.0%)	0 (0.0%)

Note. CRC = Camp Ramah in California
[a]*N* = 107 [b]*n* = 30 [c]*n* = 77

Because I used census sampling, utilizing the entire population available for this study, I did not need to run an analysis indicating a sufficient sample size. Rather, I could infer that my results would generalize to another population that had the same demographics and characteristics of this participant pool.

Surveys were initially coded by the CRC using the last four digits of participants' cell phone numbers so that changes in attitude could be measured for individuals as well as the entire group. However, when given to me, they were already de-identified. Such matching of pretests to posttests also enabled CRC to discard appropriate pretests in the event that a camper(s) left camp early or withdrew from the Buddies Program. Following completion of the posttests, there were no follow-up procedures for the study. When completed, the final study will be available to guardians and participants electronically, with a link provided via email communication.

The CATCH: A Published Attitude Scale

Rosenbaum et al. (1986) developed the CATCH survey specifically for children ages 9-13 with the recognition that, for psychometric soundness, children needed a series of statements devised specifically for youth rather than for adults (p. 519). Although the participants in this study were not within this age range, one can assume that because they were older, they were more mature developmentally and experientially, and thus were better suited to answer questions on the CATCH (personal communication, January 9, 2015). The CATCH has 36 statements about individuals with disabilities, and participants are asked to indicate their degree of agreement or disagreement along a Likert scale of 1-5: 1 (*strongly disagree*), 2 (*disagree*), 3 (*can't decide*), 4 (*agree*), and 5 (*strongly agree)*. An example of a statement on the CATCH is: "Children with disabilities can do a lot of things for themselves." Before finalization of the instrument in 1989, the statements were reviewed and revised after seeking input from educators who had experience working with students ages 9-13.

Three Dimensions of Attitude. Triandis (1971) identified three dimensions of attitudes that have come to be commonly referred to among social and psychological scientists as the critical components of people's perceptions of others (Antonak & Livneh, 2000; Olson & Zanna, 1993; Rosenbaum et al., 1986; Vignes, Coley, Grandjean, Godeau, & Arnaud, 2008). They are the affective component, which deals with feelings or emotions; the cognitive component, which deals with thoughts or beliefs; and the behavioral component, which deals with actual or intended behavior. Attitude scales are

considered most thorough when they measure all three of these aspects of attitudes and report a multidimensional construct, as they enable differentiation among the three components within participants' responses (Antonak & Livneh, 2000; Findler et al., 2007; Musher, 2015; Rosenbaum et al., 1986; Vignes et al., 2008).

In addition to the CATCH, two other attitude survey scales designed for children measure and differentiate among the affective, cognitive, and behavioral components of attitudes toward individuals with disabilities: the Multidimensional Attitude Scale toward Persons with Disabilities (Findler et al., 2007) and the Acceptance Scale (Voeltz, 1980). The Multidimensional Attitude Scale toward Persons with Disabilities (MAS) was created with the presupposition that participants have had prior contact to individuals with disabilities (Findler et al., 2007) and was thus unsuitable for my study. The Acceptance Scale measures attitudes toward specific disabilities rather than disabilities at large (Voeltz, 1980). Therefore, the CATCH was the most appropriate scale to use for data collection examining the impact of the inclusion program at camp on the attitudes of typically developing campers.

Validity and reliability of the CATCH. With the original release of the CATCH in 1986, authors Rosenbaum, Armstrong, and King provided detailed evidence of validity and reliability. The Cronbach alpha coefficient for the entire test was 0.90. The alpha coefficient for the affective dimension of attitude was 0.91, for the cognitive dimension was 0.74, and for the behavioral dimension was 0.65 (Rosenbaum et al., 1986, p. 523). Reliability was reinforced through test-retest reliability. Rosenbaum et al. (1986) proved

strong construct validity by testing the survey against three widely-believed and previously-demonstrated hypotheses: that girls demonstrate more positive attitudes than boys, that people who know individuals with disabilities demonstrate more positive attitudes than those who do not, and that children enrolled in a buddies program within an academic setting express more positive attitudes toward disabilities than children who are not.

Since the 1986 publication of the CATCH, numerous authors have reiterated its strong psychometric and construct validity and reliability (MacMillan et al., 2014; Tavares, 2011; Tirosh et al., 1997; Vignes et al., 2008). Tirosh et al. (1997) evaluated the soundness of the CATCH and determined the measure reliable with a total alpha coefficient of 0.90. Tirosh et al. (1997) also determined acceptable test-retest reliability at 0.73. Though not performing their own psychometric calculations, Vignes et al. (2008), in a literature review examining 19 attitude surveys, referred to the CATCH as one of two measures with the most robust reliability and validity measures. Similarly, in a more recent literature of attitude studies regarding people with special needs, MacMillan et al. (2014) determined the CATCH to be the most "reliable, valid, and comprehensive instrument" (p. 543) of all of the attitude scales.

It should be noted that, despite agreement on the overall validity and reliability of the CATCH, the factorial validity of the scale has been less widely accepted (Bossaert & Petry, 2013). Two important studies (Bossaert & Petry, 2013; de Boer et al., 2012c) have identified only one independent dimension of attitude as measured by the CATCH,

thereby opposing the validity of three separate subscales. Two other studies (Rosenbaum et al., 1986; Tirosh et al., 1997), one by the original authors of the CATCH scale, determined there to be two subsets of the scale rather than three: one together consisting of the affective and behavioral components and the other consisting of the cognitive dimension. Because of these discrepancies among reputable studies, I chose to perform a reliability analysis to determine whether the affective, behavioral, and cognitive subscales of the CATCH scale independently measured the respective dimensions of attitude in this study.

Modifications to the CATCH. As mentioned, the CATCH was constructed in 1986 for children ages 9-13 years old. The year of publication and the targeted age of participants presented potential challenges that had to be addressed in order to ensure the reliability of the survey. First, because acceptable terminology regarding people with disabilities has changed significantly since 1986, CRC obtained permission from the original primary author, Rosenbaum, to change the wording for many of the statements to render them politically correct. Also, when data were collected for this study, the participants were 14-15 years old, slightly older than the population for which the survey was designed. As noted by Vignes et al. (2008), the CATCH has been used in multiple studies for children up to 16 years old. Nevertheless, Rosenbaum was contacted and consulted in order to ensure usability of the scale for 14–15-year-olds.

Through email correspondences, Rosenbaum permitted the CRC to modify wording as needed, both because of currently-accepted terminology and because of

content changes due to the ages of participants (See Appendix B for the letter indicating permission). Regarding appropriateness of terminology, the CATCH had already been modified, approved, and used for a 2011 study by Tavares, who, with Rosenbaum's permission, sent CRC the version that she circulated to her participants. Concerning altering survey items based on age, Rosenbaum suggested that, for a slightly older population, a statement such as "I would invite a child with special needs to my birthday party" should be changed to read, "I would invite a child with special needs to hang out with me over the weekend" (personal communication, January 9, 2015). The original wording was also altered to reflect appropriateness for a camp rather than school setting, replacing the word "classmates" with "bunkmates." Rosenbaum approved the modified measure through email correspondences.

The final change made from the modified CATCH (Tavares, 2011) for data collection at CRC was to add two questions in the demographical section of the survey. The participants were asked which elective they chose and, if they indicated that they selected the Buddies Program, they were asked why they chose the Buddies Program rather than other elective options. Choices for responses were: (a) Because I love spending time with people with disabilities; (b) Because I want to become more comfortable spending time with people with disabilities; (c) Because none of the other elective choices looked especially interesting to me; (d) Because my friends signed up and I wanted to be with them; (e) Because friends who have participated in the oldest age group before me recommended it; and (f) Other. Thus, the frequently-used CATCH—a

child-centered, valid, reliable survey tool that measures the comprehensive construct of attitude—with modifications that were approved by its author to suit the particular circumstances of the present study was used as the quantitative instrument in data collection.

Data Analysis

Scores for the total CATCH and individual subscales were transcribed from paper surveys into electronic data by CRC. I then analyzed data using Statistical Package for the Social Sciences (SPSS) Version 13. To restate, there were two research questions for this study. The primary research question was: What was the effect of consistent, formal contact through an inclusion program on the attitudes of typically developing children in a residential camp setting as measured by the CATCH scale? My second research question was: What there a differential impact of structured contact through inclusion and informal contact through inclusion on attitudes of typically developing children toward peers with special needs as measured by the CATCH scale?

The null hypothesis (H_{01}) for the primary research question states that there is no significant impact of participation in a structured inclusion program on the attitudes of typical children as measured by the CATCH score toward their peers with disabilities in a residential summer camp setting.

The alternate hypothesis 1 (H_{a1}) for the primary question states that there is significant impact of participation in a structured inclusion program on the attitudes of typical children as measured by the CATCH total score toward their peers with

disabilities in a residential summer camp setting.

The null hypothesis 2 (H_{02}) for the secondary research question states that there is no significant difference between the impact of informal and formal contact through inclusion on the attitude of typically developing campers toward disabilities, as measured by the CATCH scale.

The alternate hypothesis 2 (H_{a2}) for the secondary research question states that there is a significant difference between informal and formal contact through inclusion on the attitudes of typical campers toward disabilities than does informal contact, as measured by the CATCH scale.

Figure 1 uses a conceptual diagram to demonstrate the research methodology. The overall design of this study was twofold: (a) to perform a within-groups one-way repeated-measures ANOVA to measure change in tests scores of participants in the Buddies Program before and after intervention (Research Question 1); and (b) to perform a between-subjects one-way repeated-measures ANOVA to compare changes in CATCH scores between the Buddies group and control group over the course of the summer session (Research Question 2). Prior to performing one-time repeated-measures analyses of variance to reach conclusions, the data were analyzed to impute missing data, discern reliability, evaluate multicollinearity, and ensure that necessary assumptions had been met.

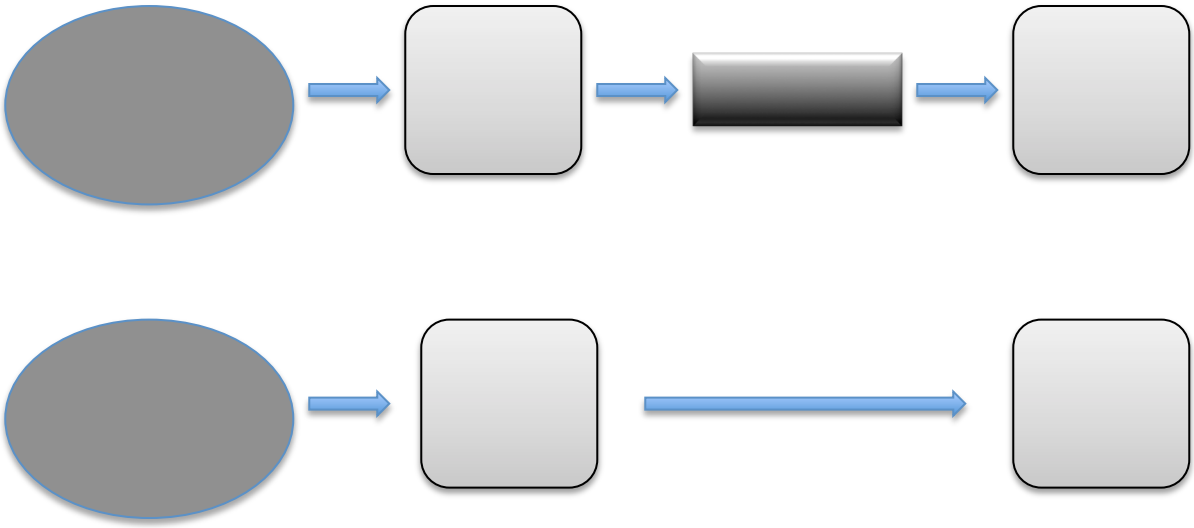

Figure 1. Conceptual model of the research design.

Missing variable analysis and imputation. Because missing data can significantly lower the power of a statistical analysis, an investigation of missing data was performed. Overall, this study had a 0.45% missing data value, which is well below the adequate 5% threshold for missing data (Hair, Black, Babin, & Anderson, 2009). Of that 0.45%, 21 variables (29.17%) were missing at least one value, and 17 cases (15.89%) had missing data. As determined by a Little's Missing Completely at Random (MCAR) analysis, the missing data did occur randomly, $\chi 2$ (976) = 934.86, p = .824, and no single case had so many missing values that it had to be eliminated. Missing data for individual responses were then imputed with mean scores.

Statistical Tests and Procedures. Prior to performing the one-way repeated measures analysis of variance required for evaluation of Research Questions 1 and 2, I established reliability for the individual subtests and overall CATCH scale. Reliability

was determined by calculating the Cronbach's alpha value for each of the three dimensions and for the overall scale, both for the pretest and posttest scores. Two items were deleted from the Affective Dimension in order to improve reliability. Results from this reliability analysis are reported in Chapter 4.

After tests were performed to determine reliability, data were analyzed to establish whether the assumptions necessary for one-way repeated-measures ANOVA were met. Morrow (n.d.) indicated that assumptions for this test generally include: testing for and addressing any outliers; a continuous scale for the dependent variable; normality of the dependent variable; homogeneity of variance (applied to Research Question 2, between-groups); and sphericity (applied to Research Question 1, within-groups). However, because there were only two groups analyzed in this study, sphericity was assumed to be perfect and therefore did not need to be assessed (Field, 2014).

Once data were tested to assure that assumptions had been met, an analysis of the mean CATCH scores (overall and per subscale) for both individuals and each group using repeated measures of analysis of variance were conducted with within and between subject factors so that both the overall change of treatment group participants *and* the differences between the changes within each groups were analyzed**.** Analysis of the first research question used an ANOVA within-groups methodology, and analysis of the second research question required an ANOVA between-within subject factors approach. This methodology is appropriate for a repeated measures study (Hair, Anderson, Tatham, & Black, 1998) and has been used previously to explore the relationship between

attitudes and disabilities before and after some type of inclusion intervention (May, 2012; Papaioannou et al., 2014; Tavares, 2011). Confidence intervals used for this analysis were 95%, as is standard in statistical analyses (Field, 2014).

Threats to Validity

In considering potential limitations to studies, a researcher must aim to minimize obstacles to internal and external validity. If such obstacles prevail, as they usually inevitably do, a researcher must acknowledge their existence in a forthright manner. Construct validity for this study was provided by previous studies referenced in the section of this paper titled, "The CATCH: A Published Attitude Scale," that indicated that the CATCH scale accurately measures the construct of attitude. Regarding internal validity, this study was well protected from threats because of the two reasons discussed in the "Variables" section of this paper: first, that attitudes were assessed with a pre- and posttest, and second, that because of the insular nature of camp, the campers were all exposed to the same variables and factors throughout the duration of the study.

External validity, or the degree with which results can be generalized to other settings and populations, was more compromised in this research project. Campers at CRC consisted of a small swatch of the population: upper-middle class children primarily from the West Coast region, who come from generally progressive homes with highly-educated parents. As indicated from previous research (Ouellette-Kuntz, Burge, Brown, & Arsenault, 2010; Yazbeck, McVilly, & Parmenter, 2004), individuals from this socioeconomic and educational background tend to have generally positive attitudes

about people with disabilities even before exposure to specific inclusion programs. Again, this threat to validity was minimized somewhat because of the pre- and posttest structure of my research project. Nonetheless, the homogeneity of the population must be recognized and considered in contemplating the generalizability of the results of this study to society at large. Regardless, though, of a limited target population, this study measured the potential positive impact of inclusion for typically developing children. The study can be replicated in more diverse programs around the country and can thus serve as a model for evaluating the success of inclusion programs as measured by the attitudes of participants.

Ethical Considerations and Procedures

There were no significant ethical considerations surrounding this study. Permission was granted by the IRB to analyze extant data (IRB Approval #: 10-01-15-0354463). Nothing changed about the implementation of the Buddies Program that might have enhanced or compromised its effectiveness. Additionally, all data used for interpretation was extant data obtained with permission from the Executive Director of CRC (see Appendix C for the Letter of Cooperation for Secondary Analysis). Because the study involved no direct interaction with human participants, ethical treatment of the participants was not compromised at any point. CRC provided me with de-identified electronic data, which remains on my personal, password-protected computer. After 5 years, I will delete the data from my computer as requested by CRC.

Summary

Despite increased numbers of inclusion programs in schools, camps, and leisure settings nationally and internationally, individuals with disabilities are still not integrated socially into the mainstream community. This lack of genuine inclusion is likely a result of attitudes of typically developing people toward their peers with disabilities. In this project, I measured the changes in attitudes of children who participated in a structured inclusion program at a residential, inclusive 4-week camp. Using extant data that included a pre- and posttest administration of the CATCH survey, modified for this study, I used a one-time repeated-measures variance of analysis test to evaluate attitude changes within and between subject factors.

In Chapter 3, I presented the plan for methodology, elaborating on the research design and rationale, characteristics of participants, sampling procedures, data collection, and data analysis. In Chapter 4, I provide information on the actual implementation of the design, including the process of data collection, execution of the Buddies Program, and results from the analyzed data.

Chapter 4: Results

Introduction

The purpose of this study was to measure the effects of an inclusion program, in a residential summer camp, on the attitudes of typically developing incoming 10th grade campers toward their peers with disabilities. The study examined the impact of a consistent Buddies Program, where children with and without disabilities engaged together in structured, joint activities for 90-minute sessions 4 times weekly. The study also compared the impact of the Buddies Program with the impact of a less-structured inclusion program, where campers with and without special needs came into incidental contact during the day.

The primary research question was: What was the effect of participation in a structured inclusion program at a residential summer camp on the attitudes of typically developing children toward their peers with disabilities in a residential camp setting as measured by the CATCH scale? The secondary research question was: Was there a differential impact of structured contact through inclusion and informal contact through inclusion in a residential summer camp on attitudes of typically developing children toward peers with special needs as measured by the CATCH scale?

The null hypothesis (H_{01}) for the primary research question stated that there is no significant impact of participation in a structured inclusion program at a residential summer camp on the attitudes of typical children toward their peers with disabilities as measured by the CATCH scale.

The alternate hypothesis 1 (H_{a1}) for the primary question stated that there is significant impact of participation in a structured inclusion program at a residential summer camp on the attitudes of typical children toward their peers with disabilities as measured by the CATCH scale.

The null hypothesis 2 (H_{02}) for the secondary research question stated that there is no significant difference between the impact of informal contact and formal contact through inclusion programs at a residential summer camp on the attitudes of typically developing campers toward their peers with disabilities as measured by the CATCH scale.

The alternate hypothesis 2 (H_{a2}) for the secondary research question states that there is a significant difference between the impact of informal contact and formal contact through inclusion programs at a residential summer camp on the attitudes of typically developing campers toward their peers with disabilities as measured by the CATCH scale.

In Chapter 4, I present the results of the study, including a report on data collection as it actually occurred and on fidelity of the treatment, the Buddies Program. I then discuss the results of the study, as calculated by SPSS, including evaluation of descriptive statistics, statistical assumptions relevant to the ANOVA, and any unexpected findings. Finally, I summarize the results as they relate to my original research questions and hypotheses.

Data Collection

Because data were collected by the host organization (CRC) and I then interpreted it as extant data, the actual details of the data collection are not an immediate part of this study. Nevertheless, it is important to note that participants completed the pretest survey within the first 2 days of camp and the posttest survey during the final 2 days of camp, thereby maximizing the capacities of the surveys to accurately measure attitudes before and after exposure to campers with special needs. Because this study utilized extant data, there were no discrepancies between plans for data collection and actual data collection that need to be described in this paper.

Regarding demographics of the sample accessed in this study, as discussed in Chapter 3, the lack of diversity among the participant pool limits the generalizability of any findings. The greater purpose of this study was to examine the impact of inclusion programs on the attitudes of typical adolescents toward their peers with special needs among all demographics. The participants in this study hailed almost exclusively from middle to upper-middle class families and from one minority ethnic background. Most of the participants had parents with a high level of education, and most of them had earlier experiences with people with special needs, either at CRC or elsewhere. Prior research suggests that these indicators lend toward more positive attitudes among people without disabilities regarding their peers with special needs. As a result, the results from this study must be interpreted with this awareness. Nonetheless, the utilization of a pretest and posttest design reduce the potential negative impact of this limitation, in that this

methodology allows a researcher to measure change within participants despite their preconceptions at the outset of the study.

Treatment Fidelity

The Buddies Program was implemented by the staff of CRC, as it is every summer. Activities were similar to those conducted in the past and included arts and crafts projects, musical performances, dancing, and swimming. In accordance with Allport's (1979) four criteria for effective intergroup contact, the Buddies Program maintained equal status, common goals, and intergroup cooperation among all of its participants, with and without special needs, and was sanctioned by all levels of authority at CRC. Over the course of the summer during which data were collected, there were no adverse events related to the intervention, and implementation occurred as planned. Thus, treatment fidelity was maintained, and, as discussed in Chapters 2 and 3, the study did examine the impact of effective, structured inclusion, as defined by Allport (1979), on attitudes of typically developing campers in an inclusive residential camp program.

Results

Attitudes were measured on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The CATCH scale consists of 36 items, and the items are subcategorized into three subscales that measure the affective, behavioral, and cognitive dimensions of attitude. Table 2 presents information on the mean, median, and standard deviation for total CATCH scores and scores for each dimension among the treatment and control groups.

Table 2

Pretest and Posttest Scores for the Total CATCH Scale and Subscales

Measure	Minimum	Maximum	Mean	Standard deviation
Total Scale Pretest[a]	89.00	156.00	125.22	12.05
Buddies[b]	112.00	156.00	129.97	9.82
Control[c]	89.00	147.00	123.37	12.38
Total Scale Posttest	94.00	157.00	127.12	13.33
Buddies	110.00	157.00	129.97	9.82
Control	94.00	149.00	124.46	13.10
Affective Subscale Pretest	24.00	50.00	38.73	4.87
Buddies	31.00	50.00	40.43	3.88
Control	24.00	48.00	38.06	5.07
Affective Subscale Posttest	23.00	50.00	39.11	5.01
Buddies	36.00	50.00	41.60	3.58
Control	23.00	48.00	38.14	5.17
Behavioral Subscale Pretest	22.00	54.00	41.84	5.60
Buddies	36.00	54.00	43.90	4.50
Control	22.00	53.00	41.03	5.81
Behavioral Subscale Posttest	22.00	54.00	42.80	6.01
Buddies	37.00	54.00	45.15	4.68
Control	22.00	53.00	41.84	6.24
Cognitive Subscale Pretest	33.00	55.00	44.66	4.25
Buddies	36.00	55.00	45.64	4.43
Control	33.00	54.00	44.27	4.14
Cognitive Subscale Posttest	35.00	60.00	45.24	4.78
Buddies	36.00	60.00	47.20	5.41
Control	35.00	55.00	44.48	4.31

[a] $N = 107$ [b] $n = 30$ [c] $n = 77$

Inter-Item Reliability

Before the repeated measures analysis of variance required for evaluation of Research Questions 1 and 2 was carried out, reliability had to be established for the overall CATCH scale and individual subtests. Cronbach's alpha for the entire CATCH pretest scale was a robust .87, indicating acceptable reliability for the overall scale. For the 12-item Affective Dimension pretest subscale, Cronbach's alpha was .73. After two items were deleted, rendering a 10-item subscale, Cronbach's alpha increased to .82 for the Affective Dimension pretest subscale. Thus, the statistical analysis for this study only included 34 items, rather than 36, in its composite and overall totals, for the two items were deleted from pretest and posttest data. The Cronbach's alpha for the pretest Behavioral Dimension subscale was .770. According to Lance, Butts, and Michels (2006), a Cronbach's alpha score of .70 or higher is sufficient for establishing adequate reliability (p. 205). For the pretest Cognitive Dimension subscale, Cronbach's alpha was .659. This substandard reliability score rendered the cognitive subtest weaker than its counterparts in the pretest phase of the study.

Reliability analysis for the posttest scales indicated higher reliability than those of the pretest scores. Cronbach's alpha was .792, .830, and .764 for the posttest Affective, Behavioral, and Cognitive Dimension subtests, respectively. Cronbach's alpha for the overall CATCH posttest scale was .835.

Several studies performed subsequent to the creation of the CATCH scale in 1986 identified the existence of only one or two independent subscales of attitude (Bossaert &

Petry, 2013; de Boer et al., 2012c; Rosenbaum et al., 1986; Tirosh et al., 1997). In this study, while most of the reliability scores were adequate to indicate three distinct subscales of the CATCH, the weak outcome of the Cronbach's alpha analysis for the Cognitive Dimension in the pretest scores challenges reliability. Thus, in further studies, factor analyses should be performed to better determine the independence of three subscales reported to be measured in the CATCH.

Assumptions

After determining reliability and validity, and before execution of the repeated-measures one-way ANOVA, tests were performed to verify that the assumptions for this statistical analysis were met. The first assumption, that the dependent variable under analysis must be continuous, was met. The second assumption, that the groups being analyzed are distinct and independent from one another, was also met.

The third assumption for a repeated-measures one-way ANOVA states that the distribution of the dependent variable must be normal for each group being analyzed. A Shapiro-Wilk analysis indicated that both levels of the treatment group were normal (pretest scores, $p = .707$, posttest scores, $p = .861$) and that the posttest scores of the control group were normal, $p = .193$. However, the pretest scores for the control group indicated a non-normal distribution, $p = .035$. Standardized skewness was calculated for this non-normal variable and was determined to be $Z_s = -2.21$, which is within three standard deviations of the normal value and is thus an acceptable statistic (Kirk, 2013).

Examination for outliers using boxplots revealed one item number that was an outlier; however, prior to removing it from the dataset, homogeneity of variance was evaluated.

The fourth assumption for a repeated-measures one-way ANOVA, applicable to Research Question 2 that examines a between-groups relationship, is homogeneity of variance between the groups in the study. A Levene's test for equality of variances indicated non-significance, thereby revealing homogeneity between the groups analyzed in this study. Because the homogeneity of variance was validated, and because the repeated-measures one-way ANOVA has been proven to be robust to deviations in normalcy (Kirk, 2013), I did not remove the one outlier in the study and instead proceeded with all 107 cases.

As mentioned in Chapter 3, sphericity is an assumption that is generally required for a one-way repeated-measures ANOVA that measures within subjects relationships (Research Question 1). However, because there are only two groups examined in this study, sphericity was assumed to be perfect (Field, 2014) and thus did not need to be calculated.

ANOVA Results: Research Question 1

A repeated-measures one-way ANOVA analyzing the effect of consistent, formal contact through the Buddies Program on attitudes of typically developing campers toward their peers with disabilities indicated that the difference in the total scores on the CATCH scale between the pretest ($M = 129.97$, $SD = 9.82$) and posttest ($M = 133.95$, $SD = 11.53$) was not statistically significant, $F\ (1,29) = 3.98$, $p = .055$, partial $\eta^2 = .121$. Observed

power for this analysis was 49%. Thus, the null hypothesis for Research Question 1 was accepted, and the alternate hypothesis, rejected.

The repeated-measures one-way analysis of variance was performed for the specific subscales of the CATCH as well. When the Buddies group scores from the pretest and posttest items in the Affective Dimension were compared, results indicated that the difference in the pretest (M = 40.43 , SD = 3.88) and posttest (M = 41.60, SD = 3.58) scores was not significant, F (1,29) = 3.75, p = .062, partial η^2 =.115. Observed power for this analysis was 46.6%. Similarly, when the Buddies Group scores from the pretest and posttest items in the Behavioral Dimension were compared, results indicated that the difference between the pretest scores (M = 43.90 , SD = 4.49) and the posttest scores (M = 45.15, SD = 4.68) was not significant, F (1.29) = 1.73, p = .198, partial η^2 = .056. Observed power for this analysis was 24.7%. When the scores from the pretest and posttest items in the Cognitive Dimension were compared, results indicated that the difference between the pretest scores (M = 45.64, SD = 4.43) and the posttests (M = 47.20, SD = 5.41) was not significant, F (1,29) = 3.07, p = .090, partial η^2 = .096. Observed power for this analysis was 39.5%.

With all of the findings in these analyses being non-significant, I decided to perform an additional analysis to better understand the impact of the Buddies Program on the attitudes of its participants toward peers with disabilities. I compared the overall change within the Buddies group in the total CATCH scores between pretest and posttest to the overall change within the control group. A repeated-measures one-way ANOVA

analyzing the impact of the less structured, more passive inclusion program on the attitudes of typical campers toward their peers with disabilities indicated that their attitudes did not change significantly between the pretest (M = 123.37, SD = 12.38) and posttest (M = 124.46, SD = 13.10), F (1,76) = 1.18, p = .281, partial η^2 = .015. Observed power for this analysis was 18.9%. I did not measure changes in the scores of individual dimensions of the CATCH survey for the control group, but I can assume that because the overall change was not significant, the change within each subscale also was not significant. Implications of these findings will be discussed in Chapter 5.

ANOVA Results: Research Question 2

Addressing Research Question 2, a repeated-measures one-way between-groups ANOVA was used to determine the differential impact of the Buddies Program versus the general inclusion program on the attitudes of typically developing children toward their peers with disabilities. These results are displayed in Table 3.

Table 3

Results of One-Way Repeated Measures Between-groups ANOVA

Source	*df*	*F*	Sig.	Partial ηSquared	Observed Power[a]
Intercept	1	11132.741	.0004	.991	1.000
Group	1	11.001	.001	.095	.908
Error	105				

As indicated in Table 3, participants in the Buddies Group (pretest: M = 129.97, SD = 9.82; posttest: M = 133.95, SD = 11.53) experienced significantly more positive attitude changes toward their peers with disabilities than did their counterparts in the control group (pretest: M = 123.27, SD = 123.28; posttest: M = 124.46, SD = 13.10), F (1, 105) = 11.00, p = .001, partial η^2 = .095. The observed power for this analysis was 90.8%. Thus, the alternate hypothesis was accepted, and the null hypothesis, rejected.

Regarding the Affective Dimension of the CATCH scale, results indicated that the differential of scores of participants in the Buddies Program (pretest: M = 40.43, SD = 3.88; posttest: M = 41.60, SD = 3.58) differed significantly from those of participants in the control group (pretest: M = 38.06, SD = 5.07; posttest: M = 38.14, SD = 5.17), F (1, 105) = 9.47, p = .003, η^2 = .08. Observed power for this analysis was 86%. For the Behavioral Dimension of the CATCH, results indicated that there was no significance between the differential of the scores of participants in the Buddies group (pretest: M = 43.90, SD = 4.49; posttest: M = 45.15, SD = 4.68) and participants in the control group (pretest: M = 41.03, SD = 5.81; posttest: M = 41.84, SD = 6.23), F (1, 105) = 7.60, p = .007, η^2 =.07. Observed power for this analysis was 78%. Similarly, for the Cognitive Dimension of the CATCH, results indicated that there was no significance between the differential of the scores of participants in the Buddies group (pretest: M = 45.64, SD = 4.43; posttest: M = 47.20, SD = 5.41) and participants in the control group (pretest: M = 44.27, SD = 4.14; posttest: M = 44.48 , SD =4.31), F (1, 105) = 5.72, p = .019, η^2 = .052. The observed power analysis for this analysis was 66%.

Summary

In Chapter 4, I presented the results of the statistical analyses performed for this study, including reliability analysis, evaluation for multicollinearity, assumption testing, and one-way repeated-measures ANOVA that were executed in order to answer the two posed research questions. The one-way repeated-measures within-groups ANOVA indicated that there was not a significant impact of the Buddies Program on the attitudes of its participants toward people with disabilities as measured by the differential between pretest and posttest scores on the CATCH. However, it is important to note that for this analysis, p was valued at .055 and was thus only .05 away from significance. The one-way repeated-measures between-groups ANOVA indicated that there was a significant difference in the change of attitudes of participants in the Buddies program and participants in the control groups as determined by the differential between pretest and posttest scores of the CATCH scale.

In Chapter 5, I will present an interpretation of the results of this study. Additionally, I will provide an in-depth discussion of limitations. Recommendations for future studies will be offered, along with implications of the findings as they relate to positive social change for society at large.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to examine the impact of two different types of inclusion programs on the attitudes of typically developing incoming 10th grade campers in a residential 4-week camp session toward their peers with disabilities. The treatment group of participants engaged with peers with disabilities in a structured, consistent Buddies Program that aligned with the four conditions described by Allport (1979) in his social contact theory as being the most important for decreasing intergroup discrimination and increasing intergroup social equality. The control group of participants came into more incidental contact with peers with disabilities through the camp's general inclusion program in which children with special needs were integrated into different daily activities such as swimming and arts and crafts and lived in the same general bunk area as the typical campers.

This study was performed because current research from around the world has indicated that, despite the increased presence of inclusion programs in formal and informal educational and leisure settings nationally and internationally, people with disabilities are nonetheless victims of social isolation among the general population (Bossaert & Petry, 2013; Causton-Theoharis et al., 2009; de Boer et al., 2013; Devine & O'Brien, 2007; Devine & Parr, 2008; Koster et al., 2010; Pijl et al., 2010). The primary reason for this isolation, social scientists have concluded, is a prevailing negative attitude about people with disabilities (de Boer et al., 2013; Koster et al., 2010; Novak et al.,

2011). Briefly, results indicated two conclusions as correlated with Research Questions 1 and 2. First, there was an insignificant effect of the Buddies Program on attitudes of typically developing campers toward their peers with special needs. Second, the differential impact between participants in the Buddies Program and participants in the control group was significant as evaluated by the overall scores of the CATCH scale.

The uniqueness of this study lies primarily in its setting: a residential summer camp with 4-week sessions which, research suggests, provides especially powerful opportunities for personal growth, maturation, and development of friendships (American Camping Association, 2005; Arnold, Bourdeau, & Nagele, 2005; Fullerton, Brannan, & Arick, 2002; Garst, Browne, & Bialeschki, 2011; Henderson, 2001). Because of this noncompetitive, intense setting, it was hypothesized that the Buddies Program would have significant impact on the attitudes of typical children toward their peers with disabilities. This study is also unique in its comparison of a formal inclusion program (the Buddies Program) with a less consistent—but nonetheless existent and intentional—inclusion program (CRC at large). Thus, the study also compared the impact of the two types of inclusion, structured and informal, in order to establish whether the Allport model of intergroup interaction more significantly impacted attitudes than a less structured one.

Interpretation of the Findings

Research Question 1 investigated the impact of the Buddies Program on attitudes of typically developing adolescents toward their peers with disabilities. The null hypothesis was accepted, indicating that there was no significant impact of the Buddies Program on the attitudes of typically developing campers toward their peers with special needs. It is essential to note, however, that the *p* value was .055, thereby missing the pre-set definition of significance by only .005. Here, the small sample size of 30 is important, as one might readily imagine that similar results in a larger group of participants might yield highly significant results. Like the overall CATCH score, the individual subscales of the survey (measuring the Affective, Behavioral, and Cognitive Dimensions of attitude) also indicated insignificant impact of the Buddies Program on attitudes, but the *p* value for the Affective Dimension was .06, so a similar argument could be advanced regarding the small size of the treatment group.

Thus, one should recognize that, while the effect was insignificant, it was so by only a small margin. Like the overall CATCH score, the individual subscales of the survey (measuring the Affective, Behavioral, and Cognitive Dimensions of attitude) also indicated insignificant impact of the Buddies Program on attitudes. Of all of the dimensions measured, the Affective was the least insignificant, at $p = .06$.

Because of the small sample size of the Buddies group ($N = 30$), the observed power size was a small 49% for the ANOVA for Research Question 1. Effect size (partial

η^2 = .121) was also small. Thus, the study should be repeated with a larger sample size in order to obtain more robust results.

Research Question 2 investigated the differential impact of the Buddies Program with the general inclusion program at CRC. For this research question, the null hypothesis was rejected and the alternate hypothesis accepted, indicating that there was a differential impact of the Buddies Program and the general CRC program as determined by total scores of the treatment and control groups on the CATCH survey. With a larger sample size (N = 107), the observed power was a high 100%. Partial η^2 was .991. As was the case for Research Question 1, the most significant impact of attitudes was measured in the Affective subscale of the CATCH.

Upon recognizing the seemingly contradictory conclusions (that the treatment program did have a more significant impact on attitudes than the control group, yet that the impact was not significant as calculated by a within-subjects ANOVA for Research Question 1), I performed a within-subjects ANOVA for the control group, comparing their pretest (M = 123.37) and posttest scores (M = 124.46) on the CATCH scale. This analysis indicated a nonsignificant impact of a less structured camp experience on the attitudes of the typically developing campers, F (1,76) = 1.18, p = .281. In performing this value-added analysis, I determined that, while the impact of the Buddies Program was statistically insignificant (slightly), when compared to the highly insignificant impact of the general camp inclusion program, the Buddies Program in fact provided much value

added to the summer camp program in terms of improving attitudes of typically developing children toward their peers with disabilities.

The theoretical framework of this study was intergroup contact theory as espoused by Allport (1979), suggesting that the maximum benefit of intergroup contact, namely improvement of attitudes between in-groups and out-groups, transpires when contact occurs within the context of equal status, mutual goals, intergroup cooperation, and sanction by governing bodies. Results from this study have affirmed Allport's theory, for while the null hypothesis for Research Question 1 was accepted, statistical analyses indicate that the impact of the Buddies Program was more significant than the general, informal inclusion program at CRC. As described in Chapter 2 of this dissertation, the Buddies Program aligned with conditions conveyed in Allport's theory, and thus the theory was validated in this study.

Limitations of the Study

Chapter 2 of this dissertation includes an initial discussion of limitations that were considered prior to implementation of the study. They include: social desirability, self-selection of participants in the Buddies Group, a lack of longitudinal analysis, measurement of attitude rather than actual behavior, and lack of diversity of the participant pool. The first two of these limitations were minimized through use of a pretest and posttest design, while the last three simply had to be taken into account upon interpreting the results. In this section, I will enhance on the discussion by addressing

limitations that arose following implementation of the study and interpretation of its results.

An important limitation in this study was the wording of the CATCH survey, especially as the questionnaire was administered in the context of a summer camp environment. For example, Item 1 on the test read: "I wouldn't worry if a bunkmate with a disability chose a bed next to mine in the bunk," and Item 2 read: "I would not introduce a bunkmate with a disability to my non-camp friends." When faced with choices *Strongly disagree, Disagree, Can't decide, Agree,* and *Strongly agree*, some campers might have become confused with the negatives in the statement and the answer choices. Accurate completion of this survey requires more than just willingness to complete it, which all of the campers demonstrated, but also concentration and preparedness to take enough time to carefully read and consider each statement. Because participants were unaccustomed to filling out Likert scale surveys in the camp setting, they, hot, tired and ready to move on to their next activities, might have rushed through completion in order to finish and have free time.

A combination of these two factors—the wording of the CATCH survey along with the summer camp environment—might have resulted in responses that did not accurately reflect attitudes. A close investigation of the paper surveys suggested this limitation, due to the presence of many seemingly conflicting responses within specific surveys. For example, in the pretest, Participant 1102, who was in the Buddies Program and reported selecting it because "I love spending time with people with disabilities,"

agreed with Item 1 (“I wouldn’t worry if a bunkmate with a disability chose a bed next to mine in the bunk”) and strongly disagreed with a seemingly similar Item 10 (“I would be afraid of a bunkmate with a disability”). She also agreed with the statement “I would be happy to have a bunkmate with a disability as a friend” and strongly disagreed with the statement, “I would be embarrassed if a bunkmate with a disability invited me to their house to hang out.” Thus, her response of *strongly disagree* to Item 2 (“I would not introduce a bunkmate with a disability to my non-camp friends”) seems incongruous with the rest of her answers. This odd inconsistency occurred with numerous participants, and thus led me to wonder about the appropriateness of this survey in the nonacademic camp setting, where kids are simply unaccustomed, and perhaps unmotivated, to fill out surveys that require concentration and reflection.

Another limitation was the fact that the vast majority of participants (97.2%) had been to CRC for previous summers, with 73.8% having attended for at least three years preceding the study. These campers had already been exposed to peers with special needs through the informal inclusion program and might have been influenced positively toward disabilities prior to this summer.

An additional, important limitation was that of sample size of my treatment group. With only 30 participants, it was difficult to establish significance and an adequate observed power. One can imagine that, with the outcome of the ANOVA performed for Research Question #1 indicating a p value only .005 less than required for significance, a study with a larger number of participants in the Buddies Program might have resulted in

significance. This possibility is only rendered more likely when considering the highly insignificant impact of the general inclusion program on the attitudes of participants in the control group (p=.281).

The quantitative nature of this study provided another limitation in that the participants were not able to convey reasons for lack of improvement in attitudes toward disabilities. During the summer then this study was carried out, there were several events at camp that might have inhibited improvement of attitudes. For example, one of the campers with special needs often responded to polite greetings by yelling rude responses; these responses might have frightened or offended some of CRC's typically developing campers and thus adjusted their conceptions of people with special needs. Additionally, during second session, a female camper with high functioning special needs began the session integrated into a typical girls' tent but, by the second week of camp, because of significant social and executive functioning challenges, was participating almost exclusively with the group campers with special needs. The impact of this situation might have negatively affected initial attitudes toward peers with disabilities. With focus groups, or other methods of obtaining qualitative analysis, I might have had gained further insight into why the Buddies program or the general inclusion program did not have a more significant impact on attitudes. However, with a quantitative survey, such information was impossible to collect.

Another limitation of this study was the high correlation, r = .751, between the Affective and Behavioral dimensions of the CATCH scale, indicating that the reader

should use caution in interpreting the CATCH as measuring three distinct constructs of attitude. The fact that a multicollinearity analysis revealed no multicollinearity between the subscales diminishes the importance of this limitation; nonetheless, it should be mentioned and considered.

A final limitation of this study was the bias that resulted from self-selection. Those campers who chose the Buddies Program over the other electives demonstrated higher pretest scores ($M = 129.97$) than those in the control group ($M = 123.37$), $F(1, 104) = .883$, $p = .01$. This discrepancy in scores suggests that the campers in the Buddies Program might have been naturally more open and positive toward and comfortable with their peers with disabilities than were those in the control group *prior* to the intervention.

This complication was anticipated, and thus was preemptively addressed in two important ways. First of all, the participants in the Buddies Program were asked to select from a series of choices those that best described why they chose the Buddies Program as their elective. This question enabled me to determine their motivation(s) for choosing to participate in the Buddies Program and helped me assess whether any of the campers volunteered for reasons that precluded a predisposition to the special needs population. Sixteen of the 30 participants in the Buddies Program chose only one response for this multiple choice item, 14 chose more than one response, and one participant skipped this question. Of those sixteen Buddies who provided one answer to the question, 11 chose the reason, “Because I love spending time with people with disabilities;” two selected the reason, “Because I want to become more comfortable spending time with people with

disabilities;" and five selected the reason, "Because friends who have done Buddies before recommended it." By examining these responses it became evident that, while some of the participants in the Buddies Program began the summer with positive attitudes toward their peers with disabilities, some chose the elective because of encouragement from peers or staff to do so.

The second approach to addressing the concern of self-selectivity of participants in the Buddies Program was a strategic one. Implementation of a pre- and posttest design enabled me to measure attitude changes that might have occurred over the course of the summer. Thus, regardless of how positive attitudes were at the beginning of the camp session, improvement could still occur and be measured during the duration of the session.

Recommendations

Reflecting on implementation and results from this study, there are several recommendations for future research in this area of the impact of inclusion on the attitudes of people without disabilities toward peers with special needs. First and foremost, it is recommended that the quantitative component of this type of research be accompanied by a qualitative component, especially in the summer camp arena. By creating focus groups where teenagers can speak about their experiences, a researcher can grasp which aspects of the inclusion program work to improve or impair attitudes toward people with disabilities. Such focus groups, when campers sit together with a moderator and talk about their thoughts, are more aligned with typical camp learning activities than

filling out a Likert scale survey and thus might reflect more depth and accuracy in attitude changes. Also, through conversations, a researcher can discern whether specific events, such as those described in the "Limitations" section of this chapter, might be responsible for negative attitude changes. Additionally, buoyed by research studies indicating that education about disabilities improves attitudes, it is suggested that discussion opportunities be available where campers are able to process some of the challenges that they experience when interacting with people different from themselves.

Another suggestion for further research involves expanding a study such as this one to include longitudinal studies. It is possible that, once the participants were home for some time and able to process their overall camp experiences both individually and with their families and peers, they might then reflect differently upon their experiences in inclusion than they had during the last few, intense days of camp.

Further recommendations for this study involve the nature of the participant pool. By increasing the sample size, a researcher considerably improves the possibility of finding significance of the Buddies Program in impacting the attitudes of the typically developing campers toward their peers with special needs. Additionally, diversifying the participant pool in terms of demographics is recommended for future studies in order to improve generalizability, or external validity. Finally, surveying campers who are at CRC for their first summer would enable a more valid measurement of the impact of the informal inclusion program on attitudes, for there would be no possibility that their attitudes had already been shaped during previous experiences at CRC. There is no

Buddies Program in the younger age divisions at CRC, so one would not be able to compare the differential impact of the Buddies Program with the general, informal inclusion program; however, it would nonetheless be an interesting study to measure the impact of initial exposure to CRC's inclusion program on the attitudes of typically developing, first-time CRC campers.

It is also recommended that this study be replicated in a similar residential camp program with a longer duration. While CRC has month-long sessions, numerous residential summer camps require campers to stay for 8 weeks. Perhaps a longer period of exposure to people with special needs through either formal or informal inclusion would lead to more significant findings. Finally, because the majority of the participants (73.8%) in this study had been at CRC for over three years, where they had been exposed to the informal inclusion program every year of attendance, it is suggested that the study be replicated in a camp setting where the inclusion program is new. In this way, a researcher can determine the impact of both types of inclusion programs prior to significant previous contact with people with disabilities.

Implications

The most significant implication of this study is the provision of guidelines to administrators, educators, and anyone striving to maximize intergroup equality regarding the most important characteristics of an inclusion program. More specifically, in accordance with Allport's intergroup contact theory, and with the Buddies Program at CRC, inclusion activities should include establishment of equal status, mutual goals,

intergroup cooperation, and approval by authorities. When they do, such inclusion activities can help to improve the attitudes of typically developing individuals toward their peers with special needs and thus can contribute to social integration of people with disabilities in the general community. While not directly indicated in this study, this conclusion can logically be applied not only to groups with and without disabilities but also to groups that differ by race, religion, ethnicity, or socioeconomic status. When attitudes between individuals improve and intergroup relationships strengthen, fewer people will be marginalized because of demographic characteristics, and the entire world will be a more just, equal society.

Conclusion

Over the last 3 decades, since the passage of IDEA in 1975, meaningful strides have been taken toward including people with disabilities in educational, religious, social, and leisure-based institutions nationally and internationally. Nonetheless, and likely because of prevailing attitudes, people with special needs continue to experience social marginalization (Bossaert et al., 2013; Cummins & Lau, 2003; de Boer et al., 2012a; de Boer et al., 2013; Devine & Parr, 2008; Kalyva & Agaliotis, 2009; Koster et al., 2010; Novak et al., 2011). This quantitative study used the CATCH scale to measure the impact of two different types of inclusion programs on the attitudes of typically developing adolescents toward their peers with special needs. The setting for this study was a residential 4-week summer camp, thus establishing this project as unique among others that examine the impact of inclusion on a typical population.

While results indicated that there was an insignificant effect ($p = .055$) of a structured inclusion program on improving the attitudes of typically developing campers toward their peers with special needs, trends nonetheless revealed more accepting perspectives among participants in the Buddies Program toward people with disabilities by the end of the summer session. Results also indicated that attitudes among participants in the formal inclusion program improved significantly more than attitudes among participants in the less structured inclusion program, thereby indicating that more consistent, programmatic contact between people with and without disabilities was more effective in improving attitudes than less intentional contact.

These findings affirm intergroup contact theory, as espoused by Allport (1979), which states that, while incidental contact does not in and of itself improve the perceptions of individuals with preconceived attitudes but in fact only reaffirms them, the "meaningfulness" (p. 276) of systematic contact more readily enables the break-down of natural categorization that results in negative stereotypes. Thus, Allport (1979) concluded, structured interactions in which participants are all on an equal playing field are more effective in reducing prejudice than less meaningful, more incidental ones. The results of this study reinforce this theory.

Bolstered by Allport's intergroup contact theory, findings from this study can influence program development in summer camps with inclusion programs by encouraging staff to create more structured, intentional opportunities for contact between the different groups of populations. Attitudes among typically developing individuals

toward their peers with disabilities will likely improve, as boundaries between cognitively based categories are minimized and stereotypes are reversed. With more structured inclusion programs like the Buddies Program at CRC, people with disabilities will likely eventually experience genuine social inclusion and acceptance in all realms of community, thereby creating a more just, fair society.

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Appendix A: Modified CATCH Survey

Questionnaire About Children with Disabilities

Today's Date _____/___/_____ Last 4 digits of your cell phone: _____

Boy ____ Girl ____ (check one)

1. Do you have a disability? Yes _____ No_____

   a) If yes, describe your disability. _____

2. Do you have a friend who has a disability? Yes____ No____

   a) If yes, does he/she go to your school? Yes____ No____

3. In the last week have you interacted with someone who has a disability? Yes____ No ____

4. Does anyone in your family have a disability? Yes____ No____

   a) If yes, is it your: Mother____ Father____ Sibling____ Other_____

5. How many years have you been at camp? _____

6. Why did you sign up for Buddies? Circle the ONE best answer.
   a) Because I love spending time with people with disabilities
   b) Because I want to become more comfortable spending time with people with disabilities
   c) Because none of the other elective choices looked especially interesting to me
   d) Because my friends signed up and I wanted to be with them
   e) Because friends who have done machon before me recommended it
   f) Other (Explain: _____)

Examples of How to Fill Out the Form:

I enjoy talking to old people	Strongly Disagree	~~Disagree~~	Can't Decide	Agree	Strongly Agree
Old people have difficulty remembering things	Strongly Disagree	Disagree	Can't Decide	~~Agree~~	Strongly Agree

There are no right or wrong answers. We just want to know your ideas.
Please do not read ahead. Think about each sentence carefully

1.	I wouldn't worry if a bunkmate with a disability chose a bed next to mine in the bunk.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
2.	I would not introduce a bunkmate with a disability to my non-camp friends.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
3.	Children with disabilities can do lots of things for themselves.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
4.	I wouldn't know what to say to a child with a disability.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
5.	Children with disabilities like to play.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
6.	I feel sorry for children with disabilities.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
7.	I would stick up for a child with a disability who was being teased.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
8.	Children with disabilities want lots of attention from adults.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
9.	I would invite a bunkmate with a disability to hang out over the weekend.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
10.	I would be afraid of a bunkmate with a disability.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
11.	I would talk to a child with a disability that I didn't know.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
12.	Children with disabilities don't like to make friends.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
13.	I would like having a child with a disability living next door to me.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
14.	Children with disabilities feel sorry for	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree

	themselves.					
15.	I would be happy to have a bunkmate with a disability as a friend.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
16.	I would try to stay away from a bunkmate with a disability.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
17.	Children with disabilities are as happy as I am.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
18.	I would not like a friend with a disability as much as my other friends.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
19.	Children with disabilities know how to behave properly.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
20.	At lunch, I wouldn't sit next to someone with a disability.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
21.	I would be happy if a bunkmate with a disability invited me to their house.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
22.	I try not to stare at people who have disabilities.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
23.	I would feel good doing a bunk activity with a bunkmate who has a disability.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
24.	Children with disabilities don't have as much fun as children without disabilities.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
25.	I would invite a bunkmate with a disability to sleep over at my house.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
26.	Being near someone who has a disability scares me.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
27.	Children with disabilities	Strongly	Disagree	Can't	Agree	Strongly

	are interested in lots of things.	Disagree		Decide		Agree
28.	I would be embarrassed if a bunkmate with a disability invited me to their house to hang out.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
29.	I would tell my secrets to a bunkmate with a disability.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
30.	Children with disabilities are often sad.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
31.	I would enjoy spending time with someone my age who has a disability.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
32.	I would not go to a bunkmate with a disability's house to hang out.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
33.	Children with disabilities can make new friends.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
34.	I feel upset when I see a child with a disability.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
35.	I would miss free time to keep a bunkmate with a disability company.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
36.	Children with disabilities need lots of help to do things.	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree

Appendix B: Letter of Permission to Modify and Use the CATCH Survey

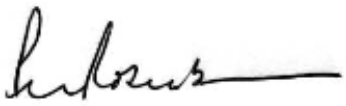
March 17, 2015

To Whom It May Concern:

This letter confirms that I have granted permission to Camp Ramah in California to use and modify the Chedoke-McMaster Attitudes Toward Children with Handicaps (CATCH) scale. A representative from Camp Ramah in California and I have been in contact on several occasions, and I have approved the modifications that the organization has incorporated into the survey.

I can be reached at rosenbau@mcmaster.ca with any further questions. Thank you,

Dr. Peter Rosenbaum, Professor of Paediatrics, McMaster University



Canada Research Chair in Childhood Disability Research, Dissemination and Mentoring,

Appendix C: Letter of Cooperation for Secondary Analysis

Camp Ramah
385 Fairview Road
Ojai, CA 93023

June 10, 2015

Dear Deborah Musher,

We are pleased to work with you in your capacity as a Special Needs Educator who will be providing educational opportunities and programs for our campers with special needs as part of our operations during the summer of 2015. We agree to supervise and assume responsibility for these activities within the scope of our regular operations.

We understand that you will also be undertaking a Walden University student researcher role that is separate from your educator role.

To support this research inquiry, our organization is also willing to release de-identified data to you, as outlined in the attached Data Use Agreement. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB.

Sincerely,
Rabbi Joe Menashe,
Executive Director

Walden University policy on electronic signatures: An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically. Electronic signatures are regulated by the Uniform Electronic Transactions Act. Electronic signatures are only valid when the signer is either (a) the sender of the email, or (b) copied on the email containing the signed document. Legally an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. Walden University staff verify any electronic signatures that do not originate from a password-protected source (i.e., an email address officially on file with Walden).