FACTORS ASSOCIATED WITH POSITIVE YOUTH DEVELOPMENT
OUTCOMES OF YOUTH SUMMER CAMPS

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ABSTRACT OF THE THESIS

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Millions of children and adolescents attend summer camp every year. Previous research has shown attending camp results in positive youth development outcomes, but there is currently little known about camp and camper-related factors that may moderate these outcomes. The current study investigated how campers’ sense of belonging with camp and their perceived relationships with camp counselors affected positive youth development outcomes. More specifically, the hypotheses of the current study investigated the roles of sense of belonging and relationship (with camp counselor), and the interaction between these two constructs, on positive youth development outcomes. Furthermore, hypotheses in the current study investigated the moderating effects of age, gender, and camp type on the associations between sense of belonging and relationships on positive youth development outcomes. Data were gathered from 112 campers before and after attending one of two summer sessions of YMCA of San Diego’s Camp Surf. Results showed statistically significant positive pre-post changes in identity, independence, making friends, insecurity, peer relationships, leadership, positive values and decision making, adventure and exploration. Sense of belonging at camp was significantly associated with pre-post differences for positive identity (p = 0.001), peer relationships (p = 0.001), and adventure and exploration participation (p = 0.029). Relationship with camp counselors was significantly associated with pre-post differences for positive values and decision-making (p < 0.001) and environment (p = 0.006). Furthermore, the interaction between sense of belonging and relationship with camp counselors was significant for independence (p < 0.001) and insecurity (p < 0.001). There was a moderating effect of camp type on the relationship between sense of belonging and making friends (p = 0.038), and sense of belonging and adventure and exploration enjoyment (p = 0.016), but there were no moderating effects of age or gender. Based on these findings, YMCA Camp Surf resulted in positive youth development outcomes in campers. For some aspects of positive youth development, campers experienced differential outcomes based on their sense of belonging with camp, relationship with camp counselors, and camp type. These results contribute to the positive youth development literature by providing preliminary evidence on how psychological constructs apply to the camp setting. In addition, camp staff and administrators can use these results to help provide campers with an optimal camp experience by focusing resources towards emphasizing campers’ sense of belonging with camp and relationships with camp counselors. Future studies can use better measurement tools and comparison groups to provide further evidence on the roles of sense of belonging and relationship with camp counselors, as well as other psychological constructs, on camp outcomes.
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 CHAPTER 1

INTRODUCTION

Organized camps are one of the largest education interventions for children in the United States serving approximately 10 to 12 million youth each year (Bialeschki, Henderson, & James, 2007). Organized camps encompass a wide range of goals such as academics, technology, recreation, hobbies, wilderness, and religion (Bialeschki, 2008). With such a far-reaching scope and broad participation, the importance of youth camps cannot be overlooked. Camps shape the future of our nation by socializing youth, generate multi-million-dollar revenues annually, and provide a unique opportunity to examine social processes among youth in a naturalistic setting. Despite the practical and scientific implications associated with youth attending camp, research in the camp setting and on camp outcomes is fairly limited. This current study attempts to advance research on the camp environment by examining developmental and psychological outcomes associated with camp attendance.

WHAT ARE YOUTH CAMPS?

The domain of all possible camps aimed towards youth encompasses a wide range of activities such as family camping trips, soccer camp academies, and church fellowship outings. While any camping experience targeted towards youth could be considered a youth camp, an organized youth camp has a more specific meaning. Organized camps are characterized by a communal living experience, are typically located in the outdoors, and are supervised by trained staff members to facilitate intentional goals outlined by the camp’s mission statement (Henderson, Bialeschki, & James, 2007; Meier & Mitchell, 1983).

Although there is an abundance of possible activities and ways that an organized camp can be implemented, Meier and Mitchell (1983) classified organized camps into five broad camp types: resident camps, trip/travel camps, day camps, specialized camps, and outdoor education/school camps. Resident camps involve a youth living at the camp property for an extended amount of time (typically a couple weeks to a couple of months).
**Trip or travel camps** are more nomadic in nature, and involve changing the camp site throughout the camping experience. In **day camps** the camper returns home at the end of the day and the returns back to camp in the morning. **Specialized camps** focus on specific activities or serve a specialized clientele instead of providing a more diverse itinerary to a more heterogeneous youth. Lastly, both **outdoor education** and **school camps** place greater focus on attainment of skills or knowledge related to the outdoor environment; they differ only in that outdoor education camps are directly associated with an educational institution and outdoor education camps are not.

All of these types of organized camps are similar to formal education in that both are aimed towards the development of youth through the use of participation in supervised activities. But, while organized camps tend to place greater focus on participation, relationships, and emotional growth and are supervised by counselors, formal education typically focuses on knowledge-based goals and is supervised by teachers, staff, and school administrators (Henderson, Bialeschki, & James, 2007; Meier & Mitchell, 1983). Other differences between organized camping and formal education are that organized camps are voluntary, typically in outdoor settings, and their regulation is limited compared to formal education (La Belle, 1982).

Organized camps traditionally took place in the outdoor environment and their goals were to restore family values, encourage children to find joy in simple living, develop a love for nature, enrich children’s lives, and lay the foundations of loyalty, integrity and respect (Gibson, 1936). Many camps today still take place in the outdoors, and emphasize similar goals, but many more environments and aims for organized camps have been explored (Yerkes, 2010).

Today, the overarching goals of the majority of organized camps are to provide youth with an enjoyable camp experience, while simultaneously giving them an opportunity to develop skills or values outlined by the specific camps aims (Bialeschki et al., 2007). Currently, organized camps primarily focus on academic, technology, sports or recreation, art and hobbies, environmental activities, and religious- or faith-based goals. In addition, while the outdoor environment still dominates organized camps, most camps now offer a variety of both outdoor and indoor activities (Bialeschki, 2008).
In a regional conference on summer camps, Bialeschki (2008), a senior researcher at the American Camps Association (ACA), summarized current patterns of sponsorship, length, and gender and ethnicity composition based on a nationwide survey of ACA-accredited organized camps. The ACA accreditation process ensures that all camps endorsed by the American Camp Association meet minimum standards regarding camp quality, health, and safety (ACA, 2012). According to her findings, the most common camp sponsorships come from federal government agencies (38% of surveyed day camps; 30% of surveyed resident camps), independent nonprofit organizations such as local and nation-wide charities (26% of surveyed day camps; 22% of surveyed resident camps), and local and nation-wide independent for-profit organizations (18% of surveyed day camps; 21% of surveyed resident camps). The vast majority of organized camps involve outdoor experiences, with only 1% of surveyed day camps and 5% of surveyed resident camps being based primarily in an indoor setting. There is a great deal of variety in the length of camp sessions provided, but the vast majority of organized camps last anywhere from one to eight weeks (average length of surveyed day camps was 6.5 weeks; average length of surveyed resident camps was 5 weeks). The majority of organized camps served girls and boys simultaneously, and the youth who attended these organized camps were most likely to be Caucasian youth (70% of surveyed day camps; 77% of surveyed resident camps) from middle- to high-income families (less than 50% of surveyed day and resident camps indicated they serve families from low income or poverty income levels). Furthermore, organized camps were staffed with full-time camp directors who work on the sustainability and functioning of their camp year-round, and are aided by seasonally-hired assistant directors, counselors, and nurses (ACA, 2007). The average weekly camp rates ranged from around $100 to $600 per week, but are highly variable depending on the camp type, length, sponsorship, and location (Malinowski, 2006).

**HISTORY OF YOUTH CAMPS IN THE UNITED STATES**

The physical act of camping in the United States dates back to the nation’s first inhabitants, Native Americans and Pilgrims, who lived in rural, nomadic communities. However, among those in the camping field, Frederick Williams Gunn, Headmaster at the Gunnery School for Boys located in Washington Connecticut, is regarded as the founder of organized camps in the United States (Eells, 1986; Gibson, 1936; Meier & Mitchell, 1983).
According to Gibson (1936), past president of the American Camp Association, the goal of this first organized camping trip was to provide boys attending the Gunnery School with experience living in the outdoors. Among those in the camping field, it is believed that due to the success of the camp at the Gunnery School, other individuals began to take notice of potential uses for camping, such as Rothrock’s camp for sickly boys in 1876, and Black’s specialized outdoor education camp for boys from well-to-do families in 1881 (Gibson, 1936; Meier & Mitchell, 1983). The predominance of the rural lifestyle during that time resulted in these preliminary camps being characterized by outdoor-based communal living with emphasis on supplementing primary education (Eells, 1986; Gibson, 1936). While these preliminary camps continue to influence organized camps today, the specific aims and contexts of organized camps have progressed parallel to our nations evolving needs and priorities.

According to Meier and Mitchell (1983) and Yerkes (2010), at the turn of the 20th century the United States was experiencing growing perceived social inequalities, increased unemployment, and a greater emphasis towards more individualistic needs; therefore shifting the needs of camps towards more equality-based goals and individualized activities. For example, in 1885 the Young Men’s Christian Association (YMCA) camp was created to foster youth character building, and in 1887 the Fresh Air Movement provided outdoor education opportunities for underprivileged children from urban cities (Eells, 1986; Gibson, 1936).

With the First World War looming on the horizon, organized camps in the early 20th century shifted towards developing survival-based skills and knowledge such as scouting, exemplified by such camps as Boy Scouts and Girl Scouts (Gibson, 1936; Meier & Mitchell, 1983; Yerkes, 2010). By 1921, there were over 200 organized camps operating in the United States, and in 1924 the Camp Directors Association of America (transitioning into the American Camping Association in 1935) was created to unify individualized camp into a single nation-wide camping organization (Gibson, 1936).

The Great Depression, governmental programs such as the New Deal, as well as the Second World War, brought striking changes to the concept of organized camps; greater focus was placed on incorporating work-related skills and knowledge aims into camps, which
provided youth with training and labor-experience to help with future careers (Meier & Mitchell, 1983; Ramsing, 2007; Yerkes, 2010).

Up until the mid-20th century, aims and goals of organized camps focused on promoting desirable characteristics, such as developing applicable skills or behaviors, or increasing knowledge. However, increased poverty, and greater focus towards undesirable behaviors among youth, such as crime, drug use, and high school dropout, led to a more preventative focus among organized camps (Hollister, 2003). Instead of focusing on the promotion of positive behaviors, organized camps began to focus on how they could help guide youth away from negative behaviors such as crime and drug use.

Positive youth development and prevention-related sciences underwent a significant change during the 1970s and 1980s when great importance was placed on the achievement of attainable outcomes and identification of significant predictors of outcomes (Catalano, Berglund, Ryan, Lonczak, Hawkins, 1999; Hollister, 2003). Similarly, camps followed suit and began to place greater focus on outcomes-focused research. Of specific interest in the camping field was achievement of longstanding development benefits among campers, such as self-sufficiency and positive inter-personal relationships. Camps began to incorporate developmental theoretical frameworks into their camp to target behaviors shown to be associated with longstanding developmental benefits (Catalano et al., 1999).

Also around the same time was the shift in the family dynamic towards a dual-income partnership. For example, in 1900 less than 20% of the women in the United States were part of the paid labor force; by 1990 this number had increased to 46%, and by 2010 59% of women in the United States were participating in labor force (Amott & Matthaei, 1996; U.S. Department of Labor, 2011). The shift of women into the labor market increased the need for child care, especially during the months when school is not in session, helping solidify organized youth camps as a staple in Unites States culture well into the 21st century (Musselman, 1980; Paris, 2008).

**Research on Camps**

As the number of camps in the United States increased, there was a greater need to understand best practices for implementing camps and the impact camps have on attending youth (Yerkes, 2010). Camp research could provide valuable information for parents, camp
directors, sponsors, and social and developmental scientists (Henderson, Bialeschki, & James, 2007). Camp research is important for parents because it provides them with the ability to understand potential impacts a camp could have on their child’s life. Camp research also helps camp directors and sponsors facilitate communication of benefits across camp settings and to potential donors and sponsors. Developmental and social scientists could also benefit from camp research because it provides researchers with a unique opportunity to examine youth in a natural setting, while still offering some level of potential control.

To-date, research on organized camps has focused on two major areas: camp operations and camp outcomes (Henderson, Bialeschki, & James, 2007). Research on camp operations examines best practices for implementation that helps ensure campers’ physical safety and emotional well-being, whereas research on camp outcomes investigates positive growth among campers. The present study addresses camp outcomes, more specifically positive youth development outcome.

According to the U.S. Department of Health and Human Services (1997), positive youth development is defined as the successful transition of individuals from childhood into adulthood. Children cannot make this transition without assistance from families, social institutions, communities, and friends. Researchers who focus on youth development outcomes propose that in addition to academic growth, youth need other opportunities to grow physically, emotionally, and socially through supportive families, communities, and organizations such as camps (Henderson, Bialeschki, & James, 2007).

According to a report issued by the U.S. Department of Health and Human Services (1997) on understanding youth development, positive youth development results from an interaction between developmental processes and supportive contexts that help foster desired adult outcomes such as self-sufficiency, positive social and family relationships, responsible social and family relationships, and good citizenship. Youth are most likely to experience developmental processes that lead to desired adult outcomes in supportive contexts that encourage individuals’ to believe in their own abilities, allow individuals to believe they have control over their experience, encourage social interactions, and help individuals develop their sense of identity (U.S. Department of Health and Human Services, 1997).

This contextual foundation is similar to the evidence-based recommendations provided by the National Research Council and Institute of Medicine (2002) to help promote
positive youth development among attendees of community-based programs. According to these recommendations, community programs that emphasize physical and psychological safety, appropriate structure, supportive relationships, opportunities to belong, positive social norms, support for efficacy and mattering, opportunities for skill building, and integration of family, school, and community efforts maximize the opportunities for attendees to experience positive development.

The American Camp Association states that because camp is enjoyable it facilitates personal and social skills, such as group living skills, leadership, recreation skills, and self-efficacy, which help youth develop desired adult outcomes (Henderson, Bialeschki, & James, 2007).

**Conceptualization of Positive Youth Development**

Currently, there is not one universally-accepted conceptualization of positive youth development. However, there are two commonly used conceptualizations of positive youth development: the two-component model and the four-component model.

Hansen, Larson, and Dworkin (2003) have suggested that there are two basic categories of youth development: personal development and interpersonal development. Personal development focuses on intrapersonal development such as emotional, cognitive, and physical skills, whereas interpersonal development focuses on networking and connections with others.

Other researchers use a four-domain structure for positive youth development (Thurber, Scanlin, Scheuler, & Henderson, 2007; Henderson, Bialeschki, Scanlin et al., 2007). These researchers believe that positive youth development involves the following four domains: positive identity, social skills, positive values and spiritual growth, and thinking and physical skills. Positive identity represents self-esteem and independence; social skills represent relationships with friends and peers, leadership skills, and comfort in social situations; positive values and spiritual growth represents the ability to think about consequences before making decisions and relationship with God; lastly, thinking and physical skills represents participation and enjoyment in outside activities (Henderson, Thurber, Whitaker, Bialeschki, & Scanlin, 2006). This four-domain structure of positive youth development is related to the two-domain categorization endorsed by Hansen et al.
(2003) but differs in specificity of classifications, with positive identity, positive values, and spiritual growth relating to personal development and social skills relating to intrapersonal development.

The four-domain structure of positive youth development is emphasized in the current study because this conceptualization of positive youth development is endorsed by the American Camping Association for use of examining positive youth development outcomes in the camp context (ACA, 2005).

**Previous Camp Research on Positive Youth Development**

Camp research on positive youth development dates back to 1929 when Dimock and Hendry (1929) reported positive behavioral and character changes among young male camp participants. These pioneer researchers examined 173 boy campers who attended Camp Ahmek, a private woodcraft-based camp located in Algonquin Park, Ontario, Canada, in 1928. The study examined differences in campers’ behaviors and attitudes through the use of weekly report cards completed by camp counselors, camper self-reported surveys collected at the beginning and end of camp, and behavior observation reports completed by camp staff throughout camp. Dimock and Hendry (1929) found that at the end of camp, campers self-reported knowledge of health-related issues and attitudes towards the importance of being honest had increased. In addition, counselors’ perceived positive gains in campers’ etiquette towards others, interest in camp activities, and decreased selfishness throughout campers’ stay at camp. While this study was limited in the generalizability of its findings due to the unique context in which this evaluation occurred, these findings formed the foundation for all subsequent research on camp outcomes.

Camp research on positive youth development outcomes has been sporadically conducted since this pioneering study in 1929, but has become much more prevalent over the past 15 years (Henderson, Bialeschki, & James, 2007). For example, Henderson, Powell, and Scanlin (2005) examined youth development outcomes via camper surveys provided four weeks prior to camp and again at the end of camp, and via qualitative observations and interviews with staff and administration at six different camp facilities. The surveys provided to campers used the Camper Growth Index-Children questionnaire to ascertain campers’ positive identity, social skills, positive values and spiritual growth, and thinking and physical
skills (Henderson et al., 2005). The qualitative observations and interviews were aimed at assessing camp implementation practices and perceived benefits of campers attending camp. Henderson et al. (2005) found that in three out of the six surveyed camp facilities, there were significant pre-posttest differences on the campers’ survey responses. The most consistent difference among campers’ pre- and post-test survey responses was on the exploration-based questions. Interestingly, the three camps did not experience significant differences between the pre- and post-test camper surveys were the camps that were associated with less positive qualitative observations; helping explain why these camps may not have experiences positive changes.

In another study, Thurber et al., (2007) provided pre- and post-test surveys to campers at 80 different camps nation-wide to determine if there were any significant changes in positive identity, social skills, physical and thinking skills, and positive identity. Pre- and post-tests responses indicated significant increases in all youth development domains except in one dimension of social skills (social comfort), and one dimension of physical and thinking skills (environmental awareness). In addition, the authors of this study constructed a nonrandomized comparison group from the sample to test if the increases in youth development were above and beyond that which could be expected due to maturation. Their findings suggest that camp attendance influenced youth development outcomes above and beyond what could be expected from maturation during the period alone.

In a more recent study, approximately 2,000 campers attending the Virginia 4-H Junior Camp were surveyed to determine if participation in camp enhanced youth development outcomes (Baughman, 2010). In order to determine if campers experienced enhanced youth development outcomes, campers were provided a survey containing the 36-item Youth Outcomes Battery, developed by the American Camp Association, which assesses campers’ perceived improvements in friendship, independence, responsibility, and affinity for nature (Baughman, 2010). This study found that campers who attended the Junior 4-H Camp reported experiencing a significant enhancement across all four of the measured youth development domains.

In the most comprehensive study of camp outcomes to-date, the American Camp Association (2005) surveyed campers, parents, and camp staff in a nation-wide evaluation to investigate changes in developmental domains associated with attending camp. This study
investigated potential changes in ten constructs across four youth development domains: (1) positive identity: self-esteem, independence, and leadership; (2) social skills: friendship skills, social comfort, and peer relationships; (3) physical and thinking skills: adventure and exploration, and environmental awareness; and (4) positive values and spirituality: values and decisions, and spirituality. Campers and parents were asked to complete pre-test surveys four weeks prior to the start of camp, post-test surveys directly after camp participation, and a follow-up survey six months after camp participation. In addition, staff members were asked to fill out a pre-test observational checklist at the beginning of camp and a post-test observational checklist at the end of camp to assess the staff members’ impressions of campers’ developmental strengths in each of the four developmental domains.

Short- or long-term changes were experienced by campers in at least one construct within each of the four developmental domains (ACA, 2005). More specifically, campers and parents reported statistically significant gains in self-esteem, identity, and leadership at the end of camp; campers and parents also indicated that these gains were maintained six months after camp completion. Significant gains in friendship skills and adventure and exploration were observed among campers and parents directly after camp, but these gains faded six months after camp. For social comfort, peer relationships, and spirituality campers did not indicate significant gains directly after camp completion, but did indicate gains six months after camp completion. Parents perceived significant differences in social comfort, peer relations, and spirituality directly after camp and six months after camp completion. No significant short-term or follow-up effects were found for environmental awareness, values, and decisions among parents or campers. Camp staff reported that campers experienced gains in positive identity, social skills, physical and thinking skills, and values and spirituality at the end of camp.

**DIFFERENTIAL CAMP OUTCOMES**

The previously mentioned studies highlight the main effect that camp participation leads to positive youth development outcomes. However, previous research has also shown that the extent of outcomes associated with attending camp are not equal across all camp types, or across all campers (Henderson et al., 2006). For example, dating back to 1929, Dimock and Hendry (1929) found that younger boys benefitted more from camp than older
boys. However, to date, there is only slightly more scientific research on interindividual or moderator effects that impact the magnitude of the effect of camp participation on youth development. The limited studies that have examined more complex relationships between camp or camper features on positive youth outcomes are discussed below.

In one study, the American Camp Association (2006) found that campers’ experiences of supportive relationships, safety, youth involvement, and skill building at camp were influenced by camp sponsorship (religious vs. non-profit vs. for-profit), camp type (day camp vs. overnight camp), session length (1 week up to 4+ weeks), and gender composition (co-ed vs. all-girl camp vs. all-boy camp). This study found that independent for-profit camps versus other camp sponsorship types had higher self-reported levels of supportive relationships and skill building; overnight camps had higher self-reported levels of supportive relationships, skill building, and safety compared to day camps; camps with longer session lengths exhibited higher self-reported levels of supportive relationships, safety, youth involvement and skill building; and, all-boy camps had higher levels of supportive relationships and skill building whereas all-girl camps had higher levels of safety.

Thurber et al., (2007) examined how length of camp stay, emphasis on specific aspects of youth development, pre-test scores, and enjoyment of camp affected positive youth development based on camp participation. Contrary to the findings from the research study by the American Camp Association (2006), the findings from this study revealed a slightly negative impact of longer session camp stays; specifically, camps with longer session lengths (one-week sessions vs. two- to four-week sessions vs. six- to eight-week sessions) were associated with less positive peer relations and fewer explorations of new activities. This study also found that camps that emphasized a spiritual development resulted in greater increases in that youth development component. In addition, this study found that campers who indicated the lowest scores on pre-camp surveys experienced the greatest gains in youth development.

Allen, Cox, and Cooper (2006) examined differences between broad traditional camps and specific outcomes-based camps across a variety of resiliency skills among disadvantaged youth. Researchers in this study used the Resiliency Attitudes and Skills Profile (RASP) to investigate developmental outcomes experienced among campers. In addition, differences in development prior to camp attendance were taken into consideration
by using pre-test scores as a covariate. Even after controlling for pre-test differences, Allen et al., (2006) found that outcomes-based camps resulted in significantly greater changes in humor, independence, insight, relationships, and values orientation compared to more traditional, broad-based camps.

While these preliminary studies have raised valuable questions regarding the uniformity of camp impacts, further investigations on moderating models are critical for researchers to fully understand the impacts camps have on positive youth development of campers.

**Gaps in Camp Research**

Despite the increase in empirical research conducted over the past 20 years, there are still significant gaps in the current understanding of camp outcomes and the causal processes that may mediate and moderate these outcomes. In a call for more scientific-based research in the camp setting, Hansen et al. (2003), and Henderson, Bialeschki, & James, 2007, point out that while current research studies have attempted to generalize findings on camp outcomes, the majority of previous camp research is still quite limited. Existing studies have used a variety of survey instruments, conceptualized camp outcomes differently, and are influenced by the specific context and structure unique to the research study, limiting the standardization and comparability of individualized research findings across the entire realm of organized camps. In addition, previous research on camp outcomes has failed to use randomized control groups or quasi-experimental designs that could help eliminate confounding variables, such as maturation or other activities campers may be simultaneously involved in. Other gaps in the current literature on camp outcomes include scarcity of longitudinal outcomes, and the lack of studies examining possible moderating effects of camper or camp features on positive youth development outcomes. Furthermore, there is a complete lack of research examining the role of psychological factors that may contribute to the extent of camp participation influences on positive youth development.

These gaps in camp research reflect conflicting interests between a scientific field and an applied field, where camps are organized and research takes place. According to Henderson, Bialeschki, & James, 2007, camp directors and staff are often too busy running a camp to conduct any research beyond conventional satisfaction surveys, and camps with the resources to conduct research are often unwilling to risk altering the camp experience for
exploratory research purposes. In addition, the majority of camp services serve youth under the age of 18, which introduces additional research issues, such as obtaining parental consent and youth assent. However, these hurdles are not unique to the camp context, and must be overcome for any research with minors in an applied setting. Furthermore, given the sheer number of children and adolescents attending camp, the significant expenses to their families, and the possible long-lasting developmental effects on campers, determining intra- and interpersonal, and other moderating effects, that may emphasize positive camp-related outcomes can have a wind-ranging impact. Understanding the factors that improve camp outcomes will result in higher-quality camps and increase positive effects for campers.

**FACTORS ASSOCIATED WITH CAMP OUTCOMES**

Although there is a lack of research examining specific factors associated with youth outcomes in the camp setting, general factors associated with youth outcomes in an education setting have been extensively examined (Davis, 2003; Skinner & Belmont, 1993). While there are differences between organized camps and formal education, both settings aim for rewarding impacts on the lives of participating youth, and involve similar causal mechanisms by which they aim to affect students. Therefore, psychological constructs that have been consistently shown to be associated with school-related outcomes may be transferrable to the organized camps setting.

**Sense of Belonging with Camp**

One psychological construct shown to be connected to school-related outcomes is sense of belonging. According to Ma (2003), sense of belonging reflects a student’s feelings of acceptance, importance, respect, and inclusion in the school environment. Sense of belonging is similar to other concepts, such as attachment, positive orientation, connectedness, and engagement, in that, at the most global-level, all of these constructs aim to measure students’ relationships with school (Libbey, 2004). Although these different concepts are related, they differ based on their emphasis of specific aspects of a student’s relationship with school. For example, positive orientation focuses on attitudes and motivations towards learning, whereas school connection places greater focus on commitment, power, and belief towards the school rules (Libbey, 2004). Sense of belonging with school emphasizes students’ perceived value and involvement with the school as well as
students’ perceived fit or shared characteristics with members of the school (Hagerty, Williams, Coyne, & Early, 1996).

The role of sense of belonging originates from a variety of theories, such as Maslow’s hierarchy of needs, Finn’s identification-participation model, as well as other motivational theories (Furrer & Skinner, 2003; Ma, 2003). According to the theoretical framework outlined by Hagerty et al. (1996), sense of belonging is influenced by antecedents such as energy, desire, and potential for involvement, and sense of belonging influences behavior as well as psychological and social functioning.

Previous research dating back 20 years has revealed that sense of belonging is related to a variety of school-related outcomes. Goodenow and Grady (1993) found that middle school students with greater sense of belonging exhibited greater motivation and academic achievement. In another study of middle school students, Roeser, Midgley, and Urdan (1996) found that sense of belonging was significantly associated with academic efficacy, positive school affect, and overall academic achievement. In a study of delinquency and problem behaviors among high school students, Goff and Goddard (1999) found that students with higher levels of sense of belonging to school were statistically less likely to be delinquent, use illegal substances, and engage in sexual activities. Furthermore, in a study of college students, Hagerty et al. (1996) found that sense of belonging was positively associated with perceived social support at school.

While the vast majority of research on sense of belonging has been conducted in the school setting, other researchers have emphasized the role of sense of belonging in other contexts. For example, Rose-Krasnor (2009) found that higher levels of belonging to group activities, similar to those found in a camp setting, may show a predictable improvement in youth development as individuals evolve from an initial meeting into a well-functioning group. Pearce and Larson (2006) also found that the benefits associated with participation in youth programs are maximized when participants experience high levels of belonging with the program. Furthermore, multiple researchers have emphasized the role of sense of belonging when examining development short- and long-term effects of after-school and community-based programs (Connell, Gambone, & Smith, 1998; Nicholson, Collins, & Holmer, 2004; Rose-Krasor, 2009).
Although the impact of sense of belonging on developmental outcomes has not been assessed in the camp context, the research in school and after-school settings suggests that belonging influences developmental outcomes. Also, as stated by the National Research Council and Institute of Medicine (2002), programs that emphasize opportunities for youth to belong maximize the opportunities for positive development. This line of evidence justifies the hypothesis that campers with a higher sense of belonging at camp will experience greater positive developmental outcomes.

**Relationship with Camp Staff**

Previous research in a camp setting has shown relationships with camp staff to be an important part of the camp experience (Henderson, Bialeschki, & James, 2007). In a national study of over 7,000 campers nationwide, the ACA found that out of four examined outcome-dimensions (supportive relationships, safety, youth involvement, and skill building), campers were most likely to indicate that camp provided them with opportunities for supportive relationships (ACA, 2006). Furthermore, campers indicated that relationships with camp staff were integral to the supportive relationships experienced at camp (ACA, 2006). This national study also found that campers were most likely to indicate greater supportive relationships in overnight, single-sex camps, and in camp sessions that lasted longer (ACA, 2006).

Although previous research has shown relationships with camp counselors to be an important aspect of camp, their moderating effects on camp-related outcomes have not yet been examined. However, previous research with youth in other settings has shown relationships with adults to be associated with a variety of different outcomes (DuBois & Silverthorn, 2005; Rhodes, Spence, Keller, Liang, & Noam, 2006).

For example, youth relationships with teachers have been shown to be associated with a variety of academic-related outcomes. In an article summarizing effects of student-teacher relationships in a school setting, Davis (2003) developed four themes that have emerged across the last 20 years of research: student-teacher relationships influence behavioral and emotional outcomes; the student-teacher relationship is influenced by student perceptions of the teacher; the student-teacher relationship is influenced by the teachers’ motivations, skills, and practices; and the student-teacher relationship is influenced by the classroom culture and availability.
This student-teacher relationship has been shown to have an effect as early as kindergarten. Specifically, students with stronger relationships with their teachers are associated with more competent behaviors and greater adjustment moving into the next grade (Pianta & Nimetz, 2002). It was also found that students in middle and high school who perceived their teachers to be highly supportive had greater academic motivation compared to students who perceived their teachers to be unsupportive (Midgely, Feldaufer, & Eccles, 1989).

Youth relationships with adults have also been examined in after-school settings. For example, in an examination the influence of mentoring on youth development in after-school settings, Rhodes et al. (2006) reported that positive connections with a mentor have been associated with higher peer relationships, greater perceived social support, improvements in parental relationships, increased school engagement, greater school-related motivation, and greater academic achievement. Based on the conceptual model proposed by Rhodes (2004), relationships with staff in an after-school setting are associated with social-emotional, cognitive, and identity development, which result in improved emotional, academic, health and behavioral outcomes. The higher the quality of the mentoring relationship, the better after-school outcomes for youth (Rhodes et al., 2006). Similarly, the National Research Council and Institute of Medicine (2002) found that youth programs that emphasize supportive relationships increase the probability that attendees will experience positive development.

Lastly, in a national study of how mentoring relationships impact youth, DuBois and Silverthorn (2005) found that youth who reported having a positive mentor in any setting reported higher academic achievement and greater levels of self-esteem and life satisfaction. Furthermore, these findings revealed that non-parent mentors in any setting provide youth with an opportunity to promote learning, socialization, and allow youth to reach their potential (DuBois & Silverthorn, 2005).

Given the variety of settings in which youth-adult relationships have been shown to have significant positive effects, campers that experience higher quality relationships with camp staff will most likely experience greater positive youth development outcomes.
Associations between Sense of Belonging and Relationships with Camp Counselors

Although the impacts of sense of belonging and positive youth-adult relationships have been uniquely examined, these constructs are not independent of each other (Connell & Wellborn, 1991). For example, in a summary of the research conducted on school-related affect, such as belonging, on academic-related outcomes, Roeser et al. (1996) stated that middle school students perceptions of teacher-relationships was associated with a students relatedness, and consequently, their school sense of belonging. Similar findings were reported by Goodenow and Grady (1993), who highlighted the role of teacher-student relationships in fostering a sense of belonging in a classroom context.

Other researchers have also examined the role on the teacher-student relationship on student emotional connection with school and found that these factors influence each other reciprocally (Klem & Connell, 2004; Skinner & Belmont, 1993). These researchers found that students’ behavior affect teachers’ behavior, which affects student’s emotional connection towards school, which in turn affects the teachers’ perceptions of the students’ behaviors.

Given these findings, campers’ sense of belonging with camp and their perceptions of relationships with camp staff will likely be correlated, and the individual effects of these two variables on positive youth development outcomes will vary based on the level of the other.

Current Study

The goal of the current study was to examine the positive youth development impacts among youth attending YMCA of San Diego’s Camp Surf. In addition, this current study examined how two different psychological constructs were associated with positive youth development outcomes associated with camp attendance. Previous research in the school and after-school settings suggest that higher levels of sense of belonging with camp and higher quality relationships with camp staff will result in greater increases in youth development. Furthermore, based on the associations between sense of belonging and perceptions of teacher in a school setting, it is believed that there will be an interaction effect between campers’ sense of belonging and the quality of the relationship with camp staff: campers with high sense of belonging and high quality relationships with camp staff should experience
increases in youth development above and beyond the additive effects of each psychological construct alone.

Lastly, previous research has shown that camp- and camper-related factors such as age, gender, and camp type (day vs. resident camp) have been significantly associated with camp outcomes (Dimock & Hendry, 1929; ACA, 2006). Therefore, possible moderation effects of age, gender, and camp type on the effects of sense of belonging and relationship with camp staff on positive youth development outcomes were also be taken into account. The full proposed model of the current study is depicted in Figure 1.

Figure 1. Proposed positive youth development model.

**RESEARCH QUESTIONS**

The six major research questions addressed by this study were:

1. Did campers experience increases in self-rated youth development measures?
2. Did the change in youth development vary as a function of campers’ sense of belonging at camp?
3. Did the change in youth development vary as a function of the quality of the relationship with camp staff?
4. Did sense of belonging at camp and the quality of the relationship with the camp staff interact to influence change in youth development?
5. Did the effect of sense of belonging at camp on the change in youth development vary as a function of a camper’s gender, age, or the type of camp?
6. Did the effect of the quality of the relationship with camp staff on the change in youth development vary as a function of a camper’s gender, age, or the type of camp?
HYPOTHESES

Hypothesis 1: There will be a significant increase in positive youth development on the post-test surveys compared to the pretest surveys.

Hypothesis 2: After controlling for differences in positive youth development at the start of camp, there will be a linear association between positive youth development at the end of camp and sense of belonging at camp.

Hypothesis 3: After controlling for differences in positive youth development at the start of camp, there will be a linear association between positive youth development at the end of camp and the quality of the relationship with camp staff.

Hypothesis 4: After controlling for differences in positive youth development at the start of camp, the linear relationship between positive youth development at the end of camp and sense of belonging will be significantly stronger among campers with higher quality relationships with the camp staff compared to the linear relationship between positive youth development at the end of camp and sense of belonging among campers with lower quality relationships with camp staff.

Hypothesis 5: After controlling for differences in positive youth development at the start of camp, the linear relationship between positive youth development at the end of camp and sense of belonging will be significantly different between:
   a. Boy and girl campers
   b. Campers of different ages
   c. Campers attending day camp and campers attending resident camps

Hypothesis 6: After controlling for differences in positive youth development at the start of camp, the linear relationship between positive youth development at the end of camp and the quality of the relationship with camp staff will be significantly different between:
   a. Boy and girl camper
   b. Campers of different ages
   c. Campers attending day camp and campers attending resident camps
CHAPTER 2

METHODOLOGY

DESCRIPTION OF CAMP

The camp investigated in this current study was Camp Surf, an aquatics-based camp located on the Pacific Coast in Imperial Beach, California. Typical activities at this camp include surfing, body boarding, archery, a climbing tower, crafts, campfire and skits. The camp is run by the San Diego chapter of the YMCA organization. Camp Surf offers a variety of camp sessions, which vary in length, age of campers, and specificity of activities offered at the particular session. Summer camp sessions are provided between June and August, and youth that are entering grades 3 to 12 are allowed to participate in at least one camp session. The cost of Camp Surf varies depending on the type of session selected, ranging between $200 and $1,300.

The Camp Surf sessions included in the current study were the Day Camp and the Mariners Overnight Camp. Both of these camp sessions lasted for 5 consecutive days, starting Monday and ending Friday. Both camp sessions serviced younger campers. Day Camp was provided for 1st to 6th graders, and Mariners Overnight Camp was provided for 3rd to 6th graders. The two camp sessions offered similar activities, but the campers that attended the Mariners Overnight Camp spent the entire 5 days on the camp site, whereas campers that attended the Day Camp went home every day at 5:00pm, and returned the next day at 9:00am. These two camp sessions were selected because they provided the opportunity to examine campers similar in age that participated in similar camp activities but attended either a day camp or an overnight camp.

SELECTION OF PARTICIPANTS

Campers from two out of the nine summer sessions of Camp Surf were invited to participate in the study. All campers in the Day Camp or the Mariners Overnight Camp that attended the selected sessions were potential participants.

Because the current project involved collecting data from minors, special attention was given to obtaining parental permission. When parents dropped off their children on the
first day of camp, they were required to drop off or fill out a variety of paperwork. For these two sessions, a parental consent allowing their child to participate in the current research study was sent to all parents a week before the start of camp. Parental consent forms were also available when parents dropped their child(ren) off at camp. Only campers whose parents signed a consent form were included in this study.

**Measures**

Every camper who received parental permission was provided the opportunity to complete a pre-test survey on the first day of camp and a post-test survey on the last day of camp. The survey provided at the beginning of camp included identifiers, demographics (including an additional 4-item SES proxy), and a measure of youth development. The survey provided at the end of camp included identifiers, demographics, a measure on youth development, a measure of sense of belonging, and a measure of campers’ perceptions of their relationship with camp staff. A copy of the survey instrument can be seen in Appendix A.

**Identifiers**

In order to match individual campers’ pre-test surveys with their post-test surveys, questions aimed at identifying surveys completed by the same camper were included on both the pre- and post-test surveys. These identifying questions were developed in order to identify matching surveys, while protecting campers’ anonymity. The identifying variables were date of birth, and name of school they would be attending during the upcoming school year. After these identifiers were used to match pre- and post-test surveys this information was removed from the survey responses and immediately shredded.

**Camper Demographics**

The demographic information that was included on the pre- and post-test surveys were sex, age, and ethnic background. Campers were asked to indicate which camp session they attended (Day Camp vs. Mariners Overnight Camp).

In addition, a socio-economic status proxy was also included on the pre-test survey. Questions aimed at assessing the socioeconomic status of a family are often not applicable for youth since they may not be aware of how to respond to questions about their parents’
occupation or salary (Currie, Elton, Todd, & Platt, 1997). The 4-item Family Affluence Scale (FAS) was developed to measure family socio-economic status with youth respondents by using proxy-questions associated with general family affluence; such as number of cars the family owns (Currie et al., 1997). The specific items included in the original FAS were: number of telephones owned by family, number of cars in family, whether or not the youth has their own room or shares their room, and the amount of weekly spending money they youth is provided (Currie et al., 1997). However, given the technological advanced our society has gone through since the FAS was created (Currie et al., 1997), I decided that the number a computers a family owns would be an better indicator of SES than the number of telephones. Therefore, I switched the number of telephone question with the number of computer the family owns.

Positive Youth Development

This study used the 52-item Camper Growth Index for Youth (CGI). The 52 items in the CGI represent ten constructs across four domains of positive youth development (Henderson et al., 2006). The four domains in the CGI are (1) positive identity, (2) social skills, (3) positive values and spiritual growth, and (4) thinking and physical skills. The ten constructs are positive identity, independence, making friends, insecurity, peer relationships, leadership, positive values, spiritual growth, adventure exploration, and environmental awareness (Henderson et al., 2006). All items of the CGI except for the spiritual growth questions were included in this study (final number of survey items = 48). Because the camp sessions in the current study did not include any spiritual components, it was believed that questions regarding the campers’ relationship with God were inappropriate. The specific spiritual growth questions that were eliminated from this survey were “Other people help me feel closer to God,” “I have a close relationship with God,” “Nature helps me feel closer to God,” and “I like going to my church, synagogue, temple, or mosque.” After removing the spiritual growth component, the positive youth development domain of positive values and spiritual growth was referred to as positive values through out the remainder of the study.

Campers taking the CGI were asked to rate their level of agreement for each item using a 4-point Likert scale, ranging from 1 “disagree a lot” to 4 “agree a lot.” Example scale
items include, “I am an important person,” and “If kids were choosing a leader, they might vote for me” (Henderson et al., 2006).

Previous research on the CGI found that for all but three of the ten constructs, the internal consistency was greater than 0.70, and for the three less than 0.70 their internal consistency was greater than 0.60 (Henderson et al., 2006). Although these reliabilities are at less than desirable levels, these values reflect the internal consistency of the constructs – not the four domains or the overall CGI instrument. In general, reliabilities increase as the number of items included increases. Therefore, internal consistencies of the four domains and the overall CGI scale should be higher than these slightly lower reliabilities for the individual constructs. All internal consistencies for the domains and constructs were re-examined in the current study and will be discussed in the Results section.

**Sense of Belonging**

Although scales for assessing sense of belonging have not been developed specifically for the camp context, a scale has been developed to examine individuals’ sense of belonging in youth after school programs (Anderson-Butcher & Conroy, 2002).

Campers taking the 5-item Sense of Belonging scale (Anderson-Butcher & Conroy, 2002) were asked to rate their level of agreement each item using a 4-point Likert scale, ranging from 1 “NO!” to 4 “YES!” Example scale items include, “I feel comfortable at the program,” and “I am a part of the program” (Anderson-Butcher & Conroy, 2002). In order to make this scale applicable to the camp context, the word “program” in the items was switched to “camp.” In addition, the scale anchors were switched from “NO!,” “no,” “yes,” and “YES!” to the scale anchors used on the CGI scale, “disagree a lot,” “disagree,” “agree,” and “agree a lot,” to help with survey consistency. Previous research on this 5-item scale has found a very high internal consistency value of 0.93 (Anderson-Butcher & Conroy, 2002).

**Relationship with Camp Counselor**

The teacher-student relationship subscale of the Student Engagement Instrument (SEI) (Appleton, Christenson, Kim, & Reschly, 2006) was used to assess campers’ perceptions of their relationship with camp staff. The entire SEI instrument contains 35 items and was created to measure cognitive and psychological engagement of students with school (Appleton et al., 2006). The SEI asks respondents to indicate their level of agreement with
each item using a 4-point Likert scale, ranging from 1 “disagree a lot” to 4 “agree a lot” (Appleton et al., 2006).

The teacher-student relationship sub-scale includes nine items, such as “Overall, adults at my school treat students fairly,” and “I enjoy talking to the teachers here” (Appleton et al., 2006). In order to make this sub-scale applicable to the camp context, “teachers” was replaced with “camp staff” and “students” was replaced with “campers.” Previous research on this sub-scale has found a high internal consistency value of 0.88 for this 9-item scale (Appleton et al., 2006).

**Statistical Analyses**

Prior to running any statistical analyses, item responses were checked for outliers and inappropriate values. Missing values were also examined to determine if there was a high prevalence of missing cases and if items were missing at random. After all of the missing items had been imputed, negatively worded items were reverse-coded so that higher values consistently represented positive attributes and lower values consistently represented negative attributes. The measures used in the current study were then re-examined using principal component factor analyses to determine if the scales and sub-scales accounted for a significant proportion of the variance of the comprising items. Correlations between the domains the pre- and post-test CGI scale were examined to determine the needed specificity of the CGI scale. All preliminary investigations of the data and subsequent analyses were conducted in Stata12 with a 5% Type 1 error rate ($\alpha = 0.05$).

Pre-test scores and post-test scores for each CGI component were compared using paired sample t-tests to evaluate Hypothesis 1. The specific null and alternative hypotheses associated with Hypothesis 1 were: $H_0$: Mean Pre-test CGI = Post-test CGI; $H_a$: Mean Pre-test CGI < Mean Post-test CGI.

Multiple regression analyses were conducted on each post-test CGI construct to examine Hypothesis 2 through 6. The models were developed through a two-step process: 1) examination of concomitant variables, 2) examination of the proposed model.

The concomitant variables examined in the first step of the model development were variables that, while not explicitly outlined in the proposed hypotheses, may still be associated with campers’ post-test scores. These variables were campers’ ethnicity, whether
they had attended camp before, with whom the camper came to camp, and the FAS. Ethnicity was recoded into three categories “White/Caucasian,” “Hispanic/Latino/a,” and “Other Ethnicity” and then dummy coded. Who the camper came to camp with (possible responses: “themselves,” “family member,” or “friend”) was also dummy coded. The models tested with the concomitant variables are summarized below:

\[
\text{Post-Test CGI} = \beta_0 + \beta_1(\text{ETH}_1) + \beta_2(\text{ETH}_2) + \beta_3(\text{BEFORE}) + \beta_4(\text{CAME}_1) + \\
\beta_5(\text{CAME}_2) + \beta_6(\text{SES}) + \epsilon_{ijk}
\]

The proposed model was developed to test Hypotheses 2 through 6. The proposed model, included any concomitant variables found to significantly account for variance in campers’ post-test scores, centered pre-test score on the same CGI component, scores on sense of belonging at camp scale, scores on relationship with camp counselor scale, age, gender and camp type (day vs. overnight camp). Interactions between sense of belonging and age, gender and camp type, between relationship with camp counselor and age, gender, and camp type, and between sense of belonging and relationship with camp counselor were also included in the proposed model. Any interactions or lower-level variables not found to significantly account for variance in post-test scores were removed to create the most parsimonious model possible. When significant interactions were found, follow-up simple interaction effects were examined. The critical p-values for the simple interaction effects was reduced using the Bonferroni correction (0.05/# of simple interaction effects) to adjust for inflated Type 1 errors associated with running additional post-hoc analyses.

The full proposed model that was tested is summarized below:

\[
Y_i^* = \beta_0 + \beta_1(Y_i \text{ Pre-Test}) + \beta_2(\text{Sense of Belonging}) + \beta_3(\text{Relationship with Camp Counselor}) + \beta_4(\text{Age}) + \beta_5(\text{Gender}) + \beta_6(\text{Camp Type}) + \beta_7(\text{Age*Sense of Belonging}) + \\
\beta_8(\text{Age*Relationship}) + \beta_9(\text{Gender*Sense of Belonging}) + \\
\beta_{10}(\text{Gender*Relationship}) + \beta_{11}(\text{Camp Type*Sense of Belonging}) + \beta_{12}(\text{Camp Type*Relationship}) + \beta_{13}(\text{Sense of Belonging*Relationship}) \ldots + \beta_k(\text{Concomitant Variables}) + \epsilon_{ijk}
\]

The specifics tests used to examine the hypotheses are provided below:

- Hypothesis 2- H₀: \( \beta_1 = 0 \); Hₐ: \( \beta_1 \neq 0 \)
- Hypothesis 3- H₀: \( \beta_2 = 0 \); Hₐ: \( \beta_2 \neq 0 \)
- Hypothesis 4- H₀: \( \beta_{13} = 0 \); Hₐ: \( \beta_{13} \neq 0 \)

* \( Y_i^* \) = Post-test CGI scales
Hypothesis 5- \( H_0: \beta_7 = 0 \) or \( H_0: \beta_9 = 0 \) or \( H_0: \beta_{11} = 0 \); \( H_a: \beta_7 \neq 0 \) or \( H_a: \beta_9 \neq 0 \) or \( H_a: \beta_{11} \neq 0 \)

Hypothesis 6- \( H_0: \beta_8 = 0 \) or \( H_0: \beta_{10} = 0 \) or \( H_0: \beta_{12} = 0 \); \( H_a: \beta_8 \neq 0 \) or \( H_a: \beta_{10} \neq 0 \) or \( H_a: \beta_{12} \neq 0 \)

Assumptions associated with OLS regression models were examined for the models examining the concomitant variables, and for proposed model. When there were deviations from the assumptions about the residuals of the model, transformations and/or a quartile regression model was used, using STATA12’s robust regression function. In addition, leverage and distance statistics were examined to determine if any specific cases disproportionately impacted the model results. When there were multiple cases in which the leverage and/or distance was higher than desired, an alternative regression using differential weights based on case influence (robust regression) was used.

The implications from the findings of the paired-sample t-tests and the linear regression analyses in relation to the six hypotheses outlined in the current study are provided in the Results section. Additional summary information on each of the multiple regression models ran can be found in Appendix B.
CHAPTER 3

RESULTS

Out of the 207 campers who attended one of the two sessions selected to participate in the study, 138 (66.67%) filled out a pre- and/or post-test survey. Of these, pre- and post-test surveys could be successful matched for 121 campers. Because none of the hypotheses proposed in this study could be tested on the 17 campers whose pre- and post-test surveys could not be matched, these individuals were removed from the data file. Table 1 provides a summary of the campers who participated in the study with matched pre- and post-test surveys.

MISSING RESPONSES

Upon reviewing the data, only 36% of the respondents (44 campers) provided survey responses to all survey items, and only 89% of the respondents (108 campers) responded to at least 90% of pre- and post-test survey items. Missing cases for individual survey items varied from 0 to 11. The average number of cases missing per survey item was 5, the median was 6, and the mode was 6.

When the surveys were re-examined, it was found that multiple response options were frequently selected for individual items, i.e. “Agree a little” and “Agree a lot” may both be circled for a specific item. Items in which campers’ circled two responses were originally coded as missing. For items in which multiple items were circled, the average of the two items selected was used as the response to that item. After adding in averaged item responses, 93% of the respondents (111 campers) responded to at least 90% of the pre-and post-test survey items. Missing cases for individual survey items varied from 0 to 10. The average number of cases missing per survey item was 4, the median was 4, and the mode was 5.

Nine cases where more than 10% of the item responses (12 items or more) were missing were eliminated from the data file. Table 2 provides a summary of the remaining 112 campers.
Table 1. Demographics of Campers with Matched Surveys

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Mean = 9.67</th>
<th>Standard Deviation = 1.17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Campers</td>
<td>Percent of Campers</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>61</td>
<td>50.4</td>
</tr>
<tr>
<td>Female</td>
<td>60</td>
<td>49.6</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black or African-American</td>
<td>7</td>
<td>5.8</td>
</tr>
<tr>
<td>Hispanic or Latino/a</td>
<td>19</td>
<td>15.7</td>
</tr>
<tr>
<td>Biracial or Multiracial</td>
<td>12</td>
<td>9.9</td>
</tr>
<tr>
<td>White or Caucasian</td>
<td>69</td>
<td>57.0</td>
</tr>
<tr>
<td>Asian</td>
<td>8</td>
<td>6.6</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>3.3</td>
</tr>
<tr>
<td>No response provided</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Program Attended</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overnight camp</td>
<td>65</td>
<td>53.7</td>
</tr>
<tr>
<td>Day camp</td>
<td>56</td>
<td>46.3</td>
</tr>
<tr>
<td>Attended Camp Before</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>66</td>
<td>54.5</td>
</tr>
<tr>
<td>No</td>
<td>49</td>
<td>40.5</td>
</tr>
<tr>
<td>No response provided</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Came to Camp With</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With a friend</td>
<td>28</td>
<td>23.1</td>
</tr>
<tr>
<td>By themselves</td>
<td>36</td>
<td>29.8</td>
</tr>
<tr>
<td>With a family member</td>
<td>53</td>
<td>43.8</td>
</tr>
<tr>
<td>No response provided</td>
<td>4</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Among the 112 campers who responded to at least 90% of the survey items, missing cases for individual items varied from 0 to 7. The average number of cases missing per survey item was 2, the median was 2 and the mode was 1.

For the remaining missing responses, patterns in the number of missing responses per item were examined to determine if there was an association between the location of the survey item and the amount of survey responses. Visual examination did not reveal any discernable pattern in the number of missing responses by location of item on the survey. Items were then recoded into a dichotomous with the following options “response provided” and “responses missing.” Correlations between this dichotomous variable and the demographic variables were then examined to determine if specific items were significantly more likely to be responded to by a specific sub-set of campers. There were some significant
Table 2. Demographics of Campers with Matched Surveys, Cases > 10% Missing Items Removed

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean = 9.75</th>
<th>Standard Deviation = 0.106</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Campers</td>
<td>Percent of Campers</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>57</td>
<td>50.9</td>
</tr>
<tr>
<td>Female</td>
<td>55</td>
<td>49.1</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black or African American</td>
<td>6</td>
<td>5.4</td>
</tr>
<tr>
<td>Hispanic or Latino/a</td>
<td>16</td>
<td>14.3</td>
</tr>
<tr>
<td>Biracial or Multiracial</td>
<td>10</td>
<td>8.9</td>
</tr>
<tr>
<td>White or Caucasian</td>
<td>65</td>
<td>58.0</td>
</tr>
<tr>
<td>Asian</td>
<td>8</td>
<td>7.1</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td>No response provided</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>Program Attended</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overnight camp</td>
<td>62</td>
<td>55.4</td>
</tr>
<tr>
<td>Day camp</td>
<td>50</td>
<td>44.6</td>
</tr>
<tr>
<td>Attended Camp Before</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>61</td>
<td>54.5</td>
</tr>
<tr>
<td>No</td>
<td>47</td>
<td>42.0</td>
</tr>
<tr>
<td>No response provided</td>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td>Came to Camp With</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With a friend</td>
<td>28</td>
<td>25.0</td>
</tr>
<tr>
<td>By themselves</td>
<td>32</td>
<td>28.6</td>
</tr>
<tr>
<td>With a family member</td>
<td>50</td>
<td>44.6</td>
</tr>
<tr>
<td>No response provided</td>
<td>2</td>
<td>1.8</td>
</tr>
</tbody>
</table>

correlations that were found between demographics variables and missing responses, but the demographic variables correlated with the missing data was not consistent across the survey items, and the number of significant correlations was below the proportion we would expect due to chance alone; less than 5% of all correlations were statistically significant at the \( \alpha = 0.05 \) level. Given these findings, missing data in the current data set can be considered missing at random, and therefore, should not bias statistical analyses.

Prior to starting the data recoding and analyses, missing items were provided a categorical response option or a numeric value to ensure respondents who did not respond to an item would be included in future analyses. A response option labeled “no response” was added to categorical demographic variables (i.e. gender, ethnicity, whether they had attended
camp before, etc.). For quantitative demographic and scale items, missing values were provided a numeric value through imputed using STATA12’s `impute` procedure. Missing values for continuous demographic items were imputed through a linear regression model that included the other demographic questions. Missing values on the CGI scale items were imputed through a linear regression model that included the other items in the same construct. There are 10 constructs in the CGI scale, 9 of which were used in the current study. Imputed values for the sense of belonging scale relationship with camp counselor scale were imputed through a linear regression model that included the other items in each scale. Imputed values on the CGI scale, the sense of belonging scale, and the relationship with camp counselor scale were not rounded except in cases where the imputed value was beyond the range of possible values (less than 1.0 or greater than 4.0); in these cases imputed values were rounded to the closest possible value.

**RECODING ITEMS**

There were nine items were reverse coded: I’m pretty bad a leading activities, I’m not worth much, I worry about making friends, it’s hard to make new friends, it’s hard to keep new friends, I worry my feelings will be hurt if I like other people too much, I get into fights with others, I need my parents to help me do things, and I need help with most things I do.

A comprehensive summary of the survey items (including the reversed coded items) included in the pre-test CGI, post-test CGI, sense of belonging, and relationship with camp counselor scales can be found in Appendix C.

**SCALE FORMATION**

According to the researchers who developed the FAS used in this study, the total scale score is determined by coding variables as 0, 1, or 2, and then adding each respondent’s scores for the variables in the scale (Currie et al., 1997). For the current study, variables were similarly coded and summed to obtain an overall FAS scale score. However, a different coding mechanism than the one recommended by the authors was used. A different coding scheme was used to reflect the changes to the original scale that were implemented for the current study. In addition, the coding mechanism for the items from the original scale did not adequately categorize respondents across the items. For example, for the number of cars in the home, the authors of the scale suggest coding the number of cars as 0 if they indicated
having 0 cars in house, as 1 if they indicated 1 car in the house, and 2 if they indicated having 2 or more cars in the family (Currie et al., 1997). However, in the data for the current study, none of the respondents indicated they had 0 cars in their house, only 9% of the respondents indicated they had 1 car in their house, and the remaining 91% of respondents indicated they have 2 or more cars in their home. Using the coding mechanism endorsed by the authors, this coded variable would not be able to differentiate 9% of the sample from the remaining majority of respondents. In order to better reflect data of the current study, all items in the SES scale were coded using the following rules: for number of computers in home, number of cars in home, and weekly spending money responses in the lowest 25% of values were coded as 0, responses in the middle 50% of values were coded as 1, and responses higher than 75% of all values was coded as 2. For whether or not the participant shares their room or not, having their own room was coded as 2, and sharing a room was coded at 0. Two participants did not indicate whether or not they had their own room or shared a room. These two participants received a 1 for this item.

Overall scale scores for the CGI scales, the sense of belonging scale, and the relationship with camp counselor scale were formulated by calculating an average of the items comprising each scale, similar to previous research studies using these measures (Appleton et al., 2006; Fredricks, Blumenfeld, & Paris, 2004; Henderson et al., 2006). For the pre- and post-test CGI scales, scale scores were created for each of the 9 lower-level constructs and the 4 higher-level domains. Table 3 provides the summary statistics for the overall scale scores.

Further review of the sense of belonging scale and the relationship with camp counselor scale revealed that over half of campers provided the highest possible average on these scales. Since these scales failed to differentiate campers on a continuous scale, these scales were re-coded into dichotomous variables with “provided optimal level” and “provided less than optimal level” as the two possible response options.

Internal consistency reliabilities were calculated for all domains and lower-level constructs of the pre- and post-test CGI scale. All but seven of the reliabilities were higher than 0.70, and the ones that were below this level were higher than 0.60. Further review showed that all of the domains of the pre- and post-test CGI scale that exhibited lower internal consistency levels were comprised of only 4 items; domains containing greater items
Table 3. Scale Summaries

<table>
<thead>
<tr>
<th>Scale Summaries</th>
<th>Mean</th>
<th>Standard Dev.</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES Proxy Scale</td>
<td>4.57</td>
<td>1.64</td>
<td>1.00</td>
<td>8.00</td>
</tr>
<tr>
<td>Pre-Test CGI Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Identity</td>
<td>3.33</td>
<td>0.47</td>
<td>1.58</td>
<td>4.00</td>
</tr>
<tr>
<td>Positive identity</td>
<td>3.43</td>
<td>0.51</td>
<td>1.25</td>
<td>4.00</td>
</tr>
<tr>
<td>Independence</td>
<td>3.13</td>
<td>0.67</td>
<td>1.25</td>
<td>4.00</td>
</tr>
<tr>
<td>Social Skills</td>
<td>3.19</td>
<td>0.46</td>
<td>1.90</td>
<td>4.00</td>
</tr>
<tr>
<td>Making friends</td>
<td>3.23</td>
<td>0.57</td>
<td>1.50</td>
<td>4.00</td>
</tr>
<tr>
<td>Insecurity</td>
<td>3.05</td>
<td>0.78</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Peer relationships</td>
<td>3.46</td>
<td>0.48</td>
<td>1.83</td>
<td>4.00</td>
</tr>
<tr>
<td>Leadership</td>
<td>3.00</td>
<td>0.65</td>
<td>1.50</td>
<td>4.00</td>
</tr>
<tr>
<td>Positive Values and Decision</td>
<td>3.41</td>
<td>0.53</td>
<td>1.75</td>
<td>4.00</td>
</tr>
<tr>
<td>Physical and Thinking Skills</td>
<td>3.58</td>
<td>0.42</td>
<td>2.50</td>
<td>4.00</td>
</tr>
<tr>
<td>Adventure/Exploration</td>
<td>3.40</td>
<td>0.64</td>
<td>1.25</td>
<td>4.00</td>
</tr>
<tr>
<td>Environment</td>
<td>3.75</td>
<td>0.40</td>
<td>2.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Post-Test CGI Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Identity</td>
<td>3.41</td>
<td>0.48</td>
<td>1.80</td>
<td>4.00</td>
</tr>
<tr>
<td>Positive identity</td>
<td>3.49</td>
<td>0.50</td>
<td>1.17</td>
<td>4.00</td>
</tr>
<tr>
<td>Independence</td>
<td>3.24</td>
<td>0.69</td>
<td>1.50</td>
<td>4.00</td>
</tr>
<tr>
<td>Social Skills</td>
<td>3.26</td>
<td>0.49</td>
<td>1.90</td>
<td>4.00</td>
</tr>
<tr>
<td>Making friends</td>
<td>3.43</td>
<td>0.59</td>
<td>1.75</td>
<td>4.00</td>
</tr>
<tr>
<td>Insecurity</td>
<td>3.13</td>
<td>0.86</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Peer relationships</td>
<td>3.49</td>
<td>0.52</td>
<td>2.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Leadership</td>
<td>3.02</td>
<td>0.66</td>
<td>1.33</td>
<td>4.00</td>
</tr>
<tr>
<td>Positive Values and Decision</td>
<td>3.50</td>
<td>0.51</td>
<td>1.99</td>
<td>4.00</td>
</tr>
<tr>
<td>Physical and Thinking Skills</td>
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<td>0.34</td>
<td>2.38</td>
<td>4.00</td>
</tr>
<tr>
<td>Adventure/Exploration</td>
<td>3.68</td>
<td>0.47</td>
<td>1.75</td>
<td>4.00</td>
</tr>
<tr>
<td>Environment</td>
<td>3.81</td>
<td>0.38</td>
<td>1.75</td>
<td>4.00</td>
</tr>
<tr>
<td>Sense of Belonging Scale</td>
<td>3.69</td>
<td>0.58</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Relationship with Camp Counselor</td>
<td>3.74</td>
<td>0.45</td>
<td>1.44</td>
<td>4.00</td>
</tr>
</tbody>
</table>

all had internal consistency reliabilities of 0.70 or higher. Since internal consistency levels are positively correlated with the number of items in the scale, domains with fewer items would be expected to have lower level reliabilities. Implications of the lower-than desired internal consistency values will be discussed in the limitations section.

Eigenvalues and scree plots from the principal component factor analysis were used to assess whether the domains and scales were adequately accounted for by a single factor. For all but two of the domains in the pre- and post-CGI scales, the factor analysis confirmed
that the items were best accounted for by a single factor (proportion of variance accounted from ranged from 45.47% to 60.54%). However for two domains – both the pre- and post-test adventure and exploration domain – the factor analyses revealed that the item variances were better represented by two factors. In addition, each of the two domains both experienced less than desired internal consistency reliabilities. After reviewing the items in these domains, it appeared as though there were two distinct constructs being measured: if the camper participated in a new activity (in the past week, I did a new activity, and in the past week, I tried doing something new), and if the camper enjoyed participating in new activities (I like to try new activities, and I like to go on new adventures). The rotated factor loadings confirmed that these two sets of questions were best represented by these two factors. Pre- and post-test adventure and exploration domains were split into two sub-domains: participating in new activities, and enjoying new activities. Internal consistency reliabilities and factor analyses were re-run on these four new sub-domains. Internal consistency levels greatly improved for the participation in new activities sub-domains, with both pre- and post-test reliabilities greater than 0.80. The two other sub-domains, pre- and post-test enjoyment with new activities, experienced lower reliabilities (pre-test reliability of 0.473, post-test reliability of 0.524). Although these reliabilities are still at a less than desirable level, it is not surprising with only 2 items. Factor analysis confirmed that a single factor accurately represents each of the different 4 new sub-domains. The final internal consistencies for each of the scales are provided below in Table 4.

Correlations between the domains were examined to determine if responses across the 4 domains was consistent enough to warrant combining scores across the 4 domains into a single pre- and post-test CGI scores. The correlations between the 4 domains on the pre-test ranged from 0.199 to 0.628. The correlations between the 4 domains on the post-test ranged from 0.332 to 0.708. Appendix D provides a full summary of the correlations between all CGI domains on the pre- and post-tests. While the majority of these correlations were statistically significant, the magnitude and consistency of correlations was not strong enough to warrant analyzing the pre-and post-tests at the most aggregate level.

Correlations across the 10 constructs (8 original constructs, and 2 sub-constructs to represent adventure and exploration) were then examined to determine if responses on the pre- and post-test constructs were consistent enough to warrant examining responses at the
Table 4. Scale Reliabilities

<table>
<thead>
<tr>
<th>Pre-Test CGI Scale</th>
<th>Internal Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Identity</td>
<td>0.808</td>
</tr>
<tr>
<td>Positive identity</td>
<td>0.816</td>
</tr>
<tr>
<td>Independence</td>
<td>0.660</td>
</tr>
<tr>
<td>Social Skills</td>
<td>0.860</td>
</tr>
<tr>
<td>Making friends</td>
<td>0.653</td>
</tr>
<tr>
<td>Insecurity</td>
<td>0.679</td>
</tr>
<tr>
<td>Peer relationships</td>
<td>0.749</td>
</tr>
<tr>
<td>Leadership</td>
<td>0.789</td>
</tr>
<tr>
<td>Positive Values and Decision Making</td>
<td>0.851</td>
</tr>
<tr>
<td>Physical and Thinking Skills</td>
<td>0.676</td>
</tr>
<tr>
<td>Adventure/Exploration: Participation</td>
<td>0.809</td>
</tr>
<tr>
<td>Adventure/Exploration: Enjoyment</td>
<td>0.473</td>
</tr>
<tr>
<td>Environment</td>
<td>0.642</td>
</tr>
<tr>
<td>Post-Test CGI Scale</td>
<td>0.817</td>
</tr>
<tr>
<td>Positive Identity</td>
<td>0.817</td>
</tr>
<tr>
<td>Positive identity</td>
<td>0.801</td>
</tr>
<tr>
<td>Independence</td>
<td>0.744</td>
</tr>
<tr>
<td>Social Skills</td>
<td>0.868</td>
</tr>
<tr>
<td>Making friends</td>
<td>0.773</td>
</tr>
<tr>
<td>Insecurity</td>
<td>0.777</td>
</tr>
<tr>
<td>Peer relationships</td>
<td>0.761</td>
</tr>
<tr>
<td>Leadership</td>
<td>0.753</td>
</tr>
<tr>
<td>Positive Values and Decision Making</td>
<td>0.849</td>
</tr>
<tr>
<td>Physical and Thinking Skills</td>
<td>0.704</td>
</tr>
<tr>
<td>Adventure/Exploration: Participation</td>
<td>0.802</td>
</tr>
<tr>
<td>Adventure/Exploration: Enjoyment</td>
<td>0.522</td>
</tr>
<tr>
<td>Environment</td>
<td>0.739</td>
</tr>
</tbody>
</table>

domain level, or if examinations should be conducted at the construct level. Correlations among the constructs on the pre-test ranged from -0.004 to 0.668. Correlations among constructs on the post-test ranged from 0.040 to 0.640. Correlations among domains with multiple constructs (positive identity, social skills, and physical and thinking skills) indicated that, while, the majority of intra-domain correlations were statistically significant, the magnitude and consistently did not warrant examining the pre- and post-tests at the domain level. All statistical analyses were conducted for each individual construct separately. Appendix D provides a full summary of the correlations between all CGI constructs on the pre- and post-tests.
**HYPOTHESIS 1**

Hypothesis 1 stated there would be a significant increase in positive youth development on the post-test surveys compared to the pretest surveys. Table 5 below provides a summary of the paired samples t-tests across the CGI constructs. For all but three CGI constructs, the post-

<table>
<thead>
<tr>
<th>Table 5. Paired Sample T-Test Results (df = 111)</th>
<th>Δ(Post-Pre)</th>
<th>t-Statistic</th>
<th>P-Value</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive identity</td>
<td>0.060</td>
<td>-1.95</td>
<td>0.027</td>
<td>0.118</td>
</tr>
<tr>
<td>Independence</td>
<td>0.660</td>
<td>-2.50</td>
<td>0.007</td>
<td>0.171</td>
</tr>
<tr>
<td>Making friends</td>
<td>0.653</td>
<td>-4.51</td>
<td>&lt;0.001</td>
<td>0.350</td>
</tr>
<tr>
<td>Insecurity</td>
<td>0.679</td>
<td>-1.50</td>
<td>0.070</td>
<td>0.104</td>
</tr>
<tr>
<td>Peer relationships</td>
<td>0.749</td>
<td>-0.70</td>
<td>0.244</td>
<td>0.049</td>
</tr>
<tr>
<td>Leadership</td>
<td>0.789</td>
<td>-0.43</td>
<td>0.336</td>
<td>0.026</td>
</tr>
<tr>
<td>Positive Values and Decision Making</td>
<td>0.851</td>
<td>-2.92</td>
<td>0.002</td>
<td>0.181</td>
</tr>
<tr>
<td>Adventure/Exploration Participation</td>
<td>0.809</td>
<td>-4.56</td>
<td>0.001</td>
<td>0.484</td>
</tr>
<tr>
<td>Adventure/Exploration Enjoyment</td>
<td>0.473</td>
<td>-2.98</td>
<td>0.002</td>
<td>0.288</td>
</tr>
<tr>
<td>Environment</td>
<td>0.642</td>
<td>-1.70</td>
<td>0.046</td>
<td>0.144</td>
</tr>
</tbody>
</table>

test scores were, on average, statistically higher than the pre-test scores. The largest increases from pre-test to post-test scores occurred for adventure and exploration participation, making friends, and adventure and exploration enjoyment. Cohen’s D estimates reveal that statistically significant increases in scores on the CGI constructs were relatively small in size. For the three CGI constructs that did not experience statistically significant differences (insecurity, peer relationships, and leadership), post-test scores were still, on average, higher than pre-test scores, but the difference was not statistically significant.

**HYPOTHESIS 2**

Hypothesis 2 stated that after controlling for differences in positive youth development at the start of camp, there would be a linear association between positive youth development at the end of camp and sense of belonging at camp. For 3 out of the 10 CGI constructs (positive identity, peer relationships, and adventure and exploration participation), there was a significant relationship between campers’ sense of belonging and post-test scores. Table 6 provides a summary of the significant relationships between sense of belonging and post-test scores.
Table 6. Sense of Belonging and Post-Test Regression Results

<table>
<thead>
<tr>
<th></th>
<th>$\hat{\beta}$</th>
<th>t-Statistic</th>
<th>P-Value</th>
<th>Semi-Partial$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive identity</td>
<td>0.225</td>
<td>3.50</td>
<td>0.001</td>
<td>0.037</td>
</tr>
<tr>
<td>Peer relationships</td>
<td>0.269</td>
<td>3.54</td>
<td>0.001</td>
<td>0.048</td>
</tr>
<tr>
<td>Adventure/Exploration:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation</td>
<td>0.285</td>
<td>2.21</td>
<td>0.029</td>
<td>0.034</td>
</tr>
</tbody>
</table>

Among the 3 CGI constructs where there was a significant relationship between sense of belonging and post-test scores, campers who provided optimal sense of belonging scores reported post-test scores that were, on average, 0.225 to 0.285 points higher than campers that provided less-than-optimal sense of belonging scores. Semi-partial correlations revealed that sense of belonging uniquely accounted for between 3.7% and 4.8% of the total variance in post-test scores among the 3 CGI constructs with a significant relationship between sense of belonging and post-test scores. Examination of the p-values of the semi-partial correlations revealed that sense of belonging accounted for a statistically significant proportion of unique variance in positive identity ($p = 0.007$), peer relationships ($p = 0.006$), and adventure and exploration participation ($p = 0.029$) post-test scores.

In addition to the 3 CGI constructs above, there was also a significant relationship between sense of belonging and post-test independence scores, $\hat{\beta} = 0.293$, $t(111) = 2.12$, $p = 0.036$. However, the main effect of sense of belonging on post-test scores independence should not be interpreted uniquely as there was a significant interaction between sense of belonging and relationship with camp counselors on post-test scores. This interaction will be discussed further for Hypothesis 4.

**HYPOTHESIS 3**

Hypothesis 3 stated that after controlling for differences in positive youth development at the start of camp, there would be a linear association between positive youth development at the end of camp and the quality of the relationship with camp staff. For 2 out of the 10 CGI constructs (positive values and decision making and environment), there was a significant relationship between campers’ relationship with camp counselor and post-test scores. Table 7 provides a summary of the significant relationships between relationship with camp counselor and post-test scores.
Table 7. Relationship with Camp Counselor and Post-Test Regression Results

<table>
<thead>
<tr>
<th>Constructs</th>
<th>$\hat{\beta}$</th>
<th>t-Statistic</th>
<th>P-Value</th>
<th>Semi-Partial $^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Values and Decision Making</td>
<td>0.238</td>
<td>3.89</td>
<td>&lt;0.001</td>
<td>0.053</td>
</tr>
<tr>
<td>Environment</td>
<td>0.151</td>
<td>2.78</td>
<td>0.006</td>
<td>0.045</td>
</tr>
</tbody>
</table>

Among the 2 CGI constructs where there was a significant relationship between relationship with camp counselor and post-test scores, campers that provided optimal relationship with camp counselor scores reported post-test scores that were, on average, 0.151 to 0.238 points higher than campers that provided less-than-optimal relationship with camp counselor scores. Semi-partial correlations revealed that relationship with camp counselor uniquely accounted for between less than 4.5% and 5.2% of the total variance in post-test scores among the 2 CGI constructs with a significant relationship between relationship with camp counselor and post-test scores. Examination of the p-values of the semi-partial correlations revealed that relationship with camp counselor accounted for a statistically significant proportion of unique variance in positive values and decision making ($p = 0.001$), and environment ($p = 0.005$) post-test scores.

In addition to the 2 CGI constructs above, there was also a significant relationship between relationship with camp counselor and post-test independence ($\hat{\beta} = 0.579$, $t(111) = 6.20$, $p < 0.001$) and insecurity scores ($\hat{\beta} = 0.726$, $t(111) = 2.62$, $p = 0.010$). However, the main effect of relationship with camp counselors on post-test scores independence and insecurity should not be interpreted uniquely as there were a significant interactions between sense of belonging and relationship with camp counselors on post-test scores. These interactions will be discussed further for Hypothesis 4.

**HYPOTHESIS 4**

Hypothesis 4 stated that after controlling for differences in positive youth development at the start of camp, the linear relationship between positive youth development at the end of camp and sense of belonging would be significantly stronger among campers with higher quality relationships with the camp staff compared to the linear relationship
between positive youth development at the end of camp and sense of belonging among campers with lower quality relationships with camp staff.

The relationship between campers’ sense of belonging scores varied significantly by campers’ relationship with camp counselors for post-test independence ($\hat{\beta} = -0.567, t = -3.61, p < 0.001$) and insecurity ($\hat{\beta} = -0.813, t = -2.61, p < 0.001$) scores.

Holding pre-test scores constant at the mean score, the relationship between sense of belonging and post-test independence scores was significant among campers who indicated optimal relationship with camp counselor scores ($z = -3.88, p < 0.001$). However, after using the Bonferonni correction, there was no significant relationship between sense of belonging and post-test independence scores at the mean pre-test scores among campers who indicated less-than-optimal relationship with camp counselor scores ($z = 2.12, p = 0.034$), see Figure 2.

![Figure 2. Post-test independence scores by sense of belonging and relationship with camp counselors after controlling for pre-test scores.](image)

Holding pre-test scores constant at the mean score, the relationship between sense of belonging and post-test insecurity was significant among campers who indicated optimal relationship with camp counselor scores ($z = -2.44, p = 0.015$). However, there was not significant relationship between sense of belonging and post-test insecurity scores at the
mean pre-test score among campers who indicated less-than-optimal relationship with camp counselor scores ($z = 0.96, p = 0.335$), see Figure 3.

![Bar chart showing post-test insecurity scores by sense of belonging and relationship with camp counselors after controlling for pre-test scores.](image)

**Figure 3. Post-test insecurity scores by sense of belonging and relationship with camp counselors after controlling for pre-test scores.**

Although evidence was found to support this hypothesis for independence and insecurity, it was not in the desired directions. For both CGI constructs, campers with less-than-optimal sense of belonging scores provided higher post-tests scores compared to those who provided optimal sense of belonging scores among those campers who also indicated optimal relationship with camp counselors, after controlling for pre-test differences.

The interaction between sense of belonging and relationship with camp counselor on post-test scores was not significant for positive identity, making friends, peer relationships, leadership, positive values and decision making, adventure and exploration participation, adventure and exploration enjoyment, and environment.

**HYPOTHESIS 5**

Hypothesis 5 stated that after controlling for differences in positive youth development at the start of camp, the linear relationship between positive youth development at the end of camp and sense of belonging would be significantly different between camper gender, age, and the camp type attended.
The relationship between sense of belonging and post-test scores varied significantly by the type of camp attended for making friends ($\hat{\beta} = 0.370$, $t(111) = 2.10$, $p = 0.038$) and adventure and exploration enjoyment ($\hat{\beta} = 0.357$, $t(111) = 2.46$, $p = 0.016$).

Holding pre-test scores constant at the mean score, the relationship between sense of belonging and post-test making friends was significant among campers attended overnight camp ($z = 2.77$, $p = 0.006$). After controlling for pre-test scores, among campers who attended overnight camp, campers with optimal sense of belonging scores provided significantly higher post-test making friends scores compared to those with less-than-optimal sense of belonging scores. However, there was not significant relationship between sense of belonging and post-test making friends scores at the mean pre-test score among campers who attended day camp ($z = -0.09$, $p = 0.932$), see Figure 4.

![Figure 4. Post-test making friends scores by sense of belonging and camp type after controlling for pre-test scores.](image)

Holding pre-test scores constant at the mean score, the relationship between sense of belonging and post-test adventure and exploration enjoyment was significant among campers attended overnight camp ($z = 4.05$, $p < 0.001$). After controlling for pre-test scores, among campers who attended overnight camp, campers with optimal sense of belonging scores provided significantly higher post-test adventure and exploration enjoyment scores compared
to those with less-than-optimal sense of belonging scores. However, there was not significant
relationship between sense of belonging and post-test adventure and exploration enjoyment
scores at the mean pre-test score among campers who attended day camp ($z = 0.54, p =
0.592$), see Figure 5 below.

![Figure 5. Post-test adventure and exploration enjoyment scores by sense of belonging and camp type after controlling for pre-test scores.](image)

HYPOTHESIS 6

Hypothesis 6 stated that after controlling for differences in positive youth
development at the start of camp, the linear relationship between positive youth development
at the end of camp and the quality of the relationship with camp staff would be significantly
different between camper gender, age, and type of camp attended.
After controlling for pre-test scores, the relationship between relationship with camp counselor and post-test scores did not vary across campers’ gender, age, or type of camp attended for any of the CGI constructs.

**Limitations of the Current Study**

While the findings of this study support the beneficial outcomes of camp attendance, the following limitations should be noted.

The current study failed to use a randomized trial design. YMCA Camp Surf allows all campers who can and want to attend camp to participate in one of their camp sessions; therefore they are not willing to randomly assign campers to not participate in camp. However, a quasi-experimental design, where campers attending future sessions would be used as a comparison group, may be possible in this camp setting. Unfortunately, the time constrains of the current study eliminated the option of using a delayed-intervention comparison group as there were no other camp sessions after the sessions surveyed. Future studies examining camp outcomes should attempt to use a randomized trial, when possible, or develop quasi-experimental comparison group to provide evidence that the developmental outcomes associated with camp attendance is not due to other competing factors, such as maturation.

The current study did not survey campers before they arrived at camp, or after they left camp. Although pre-test surveys were provided to campers within the first day of camp, campers had already been exposed to a small portion of the camp experience before completing the survey. This may have resulted in changes among campers prior to completing the pre-test survey. Surveying campers before they arrive at camp would provide an additional baseline to assess developmental changes. In addition, the current study did not survey campers after they left camp, and therefore, long-term outcomes could not be examined. Implementing an additional pre-test survey and a follow-up survey was outside of the scope of the current study, but future studies examining developmental outcomes in the camp setting would benefit from incorporating them into their design to provide greater evidence on short- and long-term outcomes of camp attendance.

Another limitation of the current study is the self-selection bias of the sample. Campers, and/or the parents of campers, voluntarily chose to attend camp. Therefore, these
individuals may be more likely to experience developmental changes, which may have biased the results. In addition, the current sample is small, and located at a single camp setting, limiting the power and generalizability of the current findings. Furthermore, the majority (69%) of campers attended camp with a sibling, other family member, or a friend. Campers who attended camp with another person may provide responses similar to the individual they came to camp with, resulting in potentially correlated error. The current study attempted to take into consideration the possibility of errors being associated by collecting information on if the camper attended camp with someone at the aggregate level. However, because campers who participated in the study were anonymous, campers who attended camp with someone specific could not be paired together. Future studies should take into account clusters of campers that attended camp together, so correlated errors can be appropriately accounted for.

Another limitation of the current study is the failure to adequately measure the constructs examined. While the majority of CGI constructs had internal consistencies greater than 0.70, there were 4 constructs with less-than-desirable internal consistency levels (pre-test independence, pre-test insecurity, and pre-and post-test adventure and exploration). In an attempt to increase internal consistency levels, scale configurations based on factor analyses were conducted for pre- and post-test adventure and exploration. While creating two sub-scales from the adventure and exploration constructs (enjoyment and participation) helped increase internal consistency levels for pre- and post-test adventure and exploration participation scores, lower-than-desirable internal consistency values were still experienced for pre- and post-test adventure and exploration enjoyment constructs.

In addition to the less-than-desirable reliability, the scales also experienced ceiling effects. Participants’ responses on the pre-test and post-test CGI scale were negatively skewed; mean scores for items of the pre-test CGI scale varied from 2.75 to 3.82, and means on individual items on the scale ranging from 2.78 to 3.82 (possible range of values was 1 to 4). Responses were even more negatively skewed for the sense of belonging scale and the relationship with camp counselor scales; item means for the sense of belonging scale varied from 3.64 to 3.74, and item means for the relationship with camp counselor scale ranged from 3.61 to 3.82. From a practical standpoint, having items with higher means may be desirable because higher means are associated with more desirable traits; however, from an
analytical standpoint, the negatively skewed item responses resulted in a ceiling effect where there was not much possibility for difference between the pre- and post-test, and a lack of variability in item scores. The overall result of this is decreased power for the current study to detect significant differences.

A further limitation of the CGI is the focus on God for the spiritual growth items. Since there was no religious component in the sessions selected in this study, these questions were not included in the current study. However, it may be possible that campers experienced spiritual changes not specifically associated with their relationship with God. Unfortunately, since these questions were removed from the survey instrument, developmental changes associated with spiritual growth could not be assessed. Future studies with no direct or indirect connection with God would benefit from developing questions to assess developmental changes in spiritual growth in a more abstract sense.

Principal component factor analyses were conducted for all of the scales used in the current study to assure that they were measuring a single factor. However, convergent and discriminant validity was not examined. The positive youth development scale was specifically developed for the camp context, but the sense of belonging and relationship with camp counselors scales were adapted from an academic setting. Although the sense of belonging and relationship with camp counselors scales had been successfully used with youth of a similar age, without further evidence on the construct validity of these scales, it cannot be fully determined if these scales measured their desired constructs. Future studies would benefit from validating scales specifically for the camp setting prior to fully implementing them.

Furthermore, all constructs examined in the current study were assessed through self-reported surveys. It may be that campers of such a young age (7-12 years old) are not mentally equipped to respond to items assessing constructs such as positive youth development, sense of belonging, and the quality of relationships. The current study used scales that have been previously successfully used with youth of a similar age. However using other indicators, such as behavioral observations and parent and counselor perceptions may provide a more accurate and comprehensive view of campers’ developmental changes, and relationship with camp and camp counselors.
CHAPTER 4

DISCUSSION

This study examined positive youth development outcomes associated with attending summer camp. In addition, the potentially moderating roles of sense of belonging with camp, relationships with camp counselors, camp type, and campers’ age and gender were examined. The following discussion reviews the major findings with respect to the study’s hypotheses, the study’s proposed model of positive youth development outcomes, how the findings apply to the camp setting and existing research on positive youth development, and future directions for positive youth development research in the camp setting.

EXAMINATIONS OF HYPOTHESES

For all of the developmental constructs examined in the current study except insecurity, peer relationships, and leadership, campers indicated statistically significant increases from the beginning of camp to the end of camp (Hypothesis 1). These results further the evidence that, generally speaking, campers experience positive youth developments from attending camp.

Sense of belonging was significantly associated with 3 out of the 10 CGI constructs examined (positive identity, peer relationships, and adventure and exploration participation) (Hypothesis 2); after controlling for pre-test differences, greater sense of belonging with camp was associated with higher post-test positive identity, peer relationships, and adventure and exploration participation scores. Relationship with camp counselors was only associated with 2 out of the 10 CGI constructs examined (positive values and decision making and environment) (Hypothesis 3); after controlling for pre-test differences, higher quality relationships with camp counselors was associated with higher post-test positive values and decision making and environment scores. Furthermore, for independence and insecurity scores, there was a significant interaction between sense of belonging and relationships with camp counselors (Hypothesis 4). More specifically, for independence and insecurity scores, among campers with optimal relationships with camp counselors, sub-optimal sense of
belonging was associated with significantly higher post-test scores; there was no significant relationship between sense of belonging and post-test independence or insecurity scores for campers with less-than optimal relationships with camp counselors. The current study hypothesized that sense of belonging and relationship with camp counselor would interact. However, it was not anticipated that campers with sub-optimal sense of belonging at camp would indicate greater camp outcomes compared to campers with less-than-optimal sense of belonging at camp across any types of relationships with camp counselors. The nature of the significant interactions between sense of belonging and relationship with camp counselors suggests that relationships with camp counselors may be much more influential among campers with less-than-optimal sense of belonging with camp. While these findings suggest that sense of belonging and relationship with camp counselor contribute to camp outcomes, the inconsistency of these result across all developmental constructs examined and the unexpected interaction effects imply that the relationship of these two psychological factors is not as ubiquitous as their effects on outcomes other similar settings, such as in an educational setting.

Lastly, the relationship between sense of belonging and making friends and adventure and exploration enjoyment varied significant depending on the type of camp the camper attended (Hypothesis 5). For both making friends and adventure exploration enjoyment, after controlling for pre-test scores, campers that attended overnight camp and indicated optimal sense of belonging with camp provided significantly higher post-test scores compared to campers with less-than-optimal sense of belonging scores. The interaction between sense of belonging and camp type indicates that having less-than-optimal sense of belonging is much more detrimental among campers attending overnight camp compared to campers attending day camp. There was no association between sense of belonging and making friends and adventure and exploration enjoyment outcomes among campers attending day camp. The negative affects associated with having less-than-optimal sense of belonging with camp are much more pronounced among campers attending overnight camp compared to campers attending day camp. Campers gender or age did not moderate the association between sense of belonging or relationship with camp counselors on developmental outcomes (Hypothesis 5 and Hypothesis 6). The fact that the current study failed to provide consistent evidence that camp- or camp-related feature moderated the outcomes campers experienced across all
developmental constructs examined provides evidence on the robustness of camp outcomes, and suggest that YMCA Camp Surf was good at integrating campers of different ages and genders into the overall camp experience.

**EXAMINATIONS OF PROPOSED MODEL**

The results of this study partially substantiate the proposed model explaining positive youth development associated with camp attendance. There was a consistent positive association between pre-test and post-test positive youth development scores, and sense of belonging and relationship with camp counselors was associated with greater camp outcomes for some of the developmental aspects examined. Furthermore, camp type did moderate the effects of sense of belonging for making friends and adventure and exploration enjoyment scores. However, the interaction found between sense of belonging and relationship with camp counselor was not as anticipated, there were no moderating effects of age and gender, and none of associations found were consistent across all developmental constructs examined. However, the results of the current study still provide preliminary evidence on the roles on how sense of belonging and relationships with camp counselors can impact outcomes campers’ experience.

**APPLICATION OF STUDY FINDINGS**

These results can help camp administrators and staff by informing them on how relationships with camp counselors and sense of belonging with camp can influence camp outcomes. Although relationships with camp counselors and sense of belonging with camp did not uniformly impact all developmental outcomes examined in the current study, when they were associated with outcomes, they were positively associated with camp outcomes. Therefore, by emphasizing greater sense of belonging with camp and attempting to create higher quality relationships between camp counselors and campers, camp staff and administrators can possibly increase the outcomes associated with attending camps.

In addition, camp staff, administrators, and counselors can use the significant interaction between camp type and sense of belonging on making friends and adventure and exploration enjoyment outcomes to help maximize outcomes campers’ experience. This interaction revealed that among campers attending overnight camp, having less-than-optimal with camp was more detrimental to the outcomes campers’ experienced compared to campers
that attended day camp. Therefore, camp staff, administrators, and counselors can place
greater emphasis on involving campers attending an overnight camp that appear to be more
isolated and less connected to the camp experience to attempt to negate the detrimental
impacts of less-than-optimal sense of belonging.

Furthermore, there was a significant interaction between sense of belonging and
relationship with camp counselors on independence and insecurity outcomes. This interaction
revealed that relationships with camp counselors are more influential among campers with
less-than-optimal sense of belonging. Camp counselors can therefore attempt to foster a more
rich connection with campers that appear to me less connected with camp to increase
outcomes experienced by campers.

Parents contemplating sending their child to a camp can use these findings when
deliberating between day and overnight camps. The results of the current study did not find
any consistent differences between overnight and day camps across all of the developmental
outcomes examined. This information can assure parents that may not be able to afford
sending their child to overnight camp that they can still expect their child to experience
similar developmental outcomes from attending day camp. In addition, the significant
interaction between camp type and sense of belonging on making friends and adventure and
evacuation enjoyment outcomes, discussed in the previous paragraph, can also guide parents
when contemplating sending their child to a day or overnight camp. Given that less-than-
optimal sense of belonging has greater detrimental impacts among campers attending
overnight camp, parents who believe their child is not as social, or not as excited about the
camping experience, may use these findings to send their child to day camp instead of
overnight camp so their child doesn’t experience less outcomes if they are not as connected
with camp.

These results also have implications for researchers focused on the camp setting and
the youth development field as a whole. The study provides preliminary findings on potential
psychological constructs that may be associated with camp outcomes. Researchers focusing
on the camp setting can investigate the role sense of belonging and relationships with camp
counselors in other camp settings to determine if the findings of this study can be generalized
to different camps. In addition, researchers focusing on the camp setting can use these
findings as a gateway towards investigating additional psychological factors that may be associated with camp outcomes.

Researchers focusing on the youth development field in general can use these results as a preliminary investigation into how associations with child development apply to the camp settings. Given that relationships with camp counselors and sense of belonging was not consistently associated with outcomes with all developmental domains, researchers focusing on positive youth development can use the difference between findings of the current study, and relationships with similar psychological constructs in other settings, such as the academic setting, to explore factors associated with a specific settings that may influence associations with developmental outcomes. The current study investigated the role of gender, age, and camp type, but more macro-level contextual findings may be influencing why psychological factors that are influenced with developmental outcomes in other settings are not transferable to the camp setting.

**FUTURE DIRECTIONS**

Future studies investigating the role of psychological factors in the camp setting, or even the specific factors associated in the current study, would benefit from creating a comparison group to provide evidence of the casual effect of camps on the outcomes campers experience. Future studies would also benefit from including more diverse sample of campers to provide greater evidence on the generalizability of these findings. In addition, future studies would benefit from developing scales to measure psychological factors specifically in the camp setting since the current study found that measures used to measure similar constructs in an academic setting are not equally applicable to the camp setting. Furthermore, future studies would benefit from using multiple sources of information, such as behavioral observations and parent and camp counselor surveys, to be able to have a more comprehensive view of specific developmental or psychological factors to be examined.
REFERENCES


APPENDIX A

PRE- AND POST-TEST SURVEYS
Pre-Test Camper Survey

When is your birthday?  Month: ___________ Day: ___________ Year: ___________

What school will you attend next year?  ______________________________________

What is today’s date?  Month: ___________ Day: ___________ Year: ___________

Are you a boy or a girl?  □ Boy  □ Girl

How old are you?  ___________ years old

Which of the following best describes your ethnic background?

□ Black or African American  □ White or Caucasian
□ Hispanic or Latino/Latina  □ Asian
□ Biracial or Multiracial  □ Other: ________________________

What program are you in this week?  □ Mariners Overnight Camp  □ Day Camp

Have you attended this camp before?  □ Yes  □ No

Who did you come to camp with?

□ With a friend  □ With a family member
□ By myself  □ With someone else (who?) ________________________

How many computers do you have in your household?  _____________ computers

How many cars does your family have?  _____________ cars

Do you have your own room or do you have to share your room?  □ I have my own room  □ I share my room

How much money do you get every week?

If you don’t get any money every week, just put “0” _____________ dollars
Please read each statement carefully. Then, for each statement, circle “1” if you “Disagree a Lot,” Circle “2” if you “Disagree a Little,” “3” if you “Agree a Little,” and “4” if you “Agree a Lot.” Try to answer every question. If any questions make you feel uncomfortable, you can skip them. Remember – THIS IS NOT A TEST, and there are no right or wrong answers. We just want to know what you think!

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree a lot</th>
<th>Disagree a little</th>
<th>Agree a little</th>
<th>Agree a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other kids think I’m fun to be with.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I introduce myself to new kids.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I’m a good person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I do just fine without my parents around.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I’m an important person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I get along with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I need help with most things I do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I worry about making friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I am a good leader.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Before I make a decision, I talk with other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Recycling is important.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I like to try new activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I’m pretty bad at leading activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I like to talk to kids I don’t know yet.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I need my parents to help me do things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I think about how I can help other kids.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I know how to make good decisions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My friends and I get along.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I help other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Other people like it when I’m around.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Before I make a decision, I think about what might happen.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I worry my feelings will be hurt if I like other people too much.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Disagree a lot</td>
<td>Disagree a little</td>
<td>Agree a little</td>
<td>Agree a lot</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>----------------</td>
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</tr>
<tr>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel secure.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I follow the rules.</td>
<td>1</td>
<td>2</td>
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<td>1</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I’m not worth much.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>I talk to kids who are different from me.</td>
<td>1</td>
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<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I’m a special person.</td>
<td>1</td>
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<td>3</td>
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</tr>
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<td>3</td>
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<td>In the past week, I did a new activity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>I’m good at doing things on my own.</td>
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</tr>
<tr>
<td>I get into fights with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I care about nature.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>It’s hard to keep new friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Good things will happen to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I get other kids together for games.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Wild animals should be protected.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Post-Test Camper Survey

When is your birthday?  Month: ___________ Day: ___________ Year: ___________

What school will you attend next year?

__________________________________________________________________________

What is today’s date?  Month: ___________ Day: ___________ Year: ___________

Are you a boy or a girl?  □ Boy  □ Girl

How old are you?  ___________ years old

Which of the following best describes your ethnic background?

□ Black or African American    □ White or Caucasian
□ Hispanic or Latino/Latina    □ Asian
□ Biracial or Multiracial      □ Other: _________________________

What program are you in this week?  □ Mariners Overnight Camp  □ Day Camp

Please read each statement carefully. Then, for each statement, circle “1” if you “Disagree a Lot.” Circle “2” if you “Disagree a Little,” “3” if you “Agree a Little,” and “4” if you “Agree a Lot.” Try to answer every question. If any questions make you feel uncomfortable, you can skip them. Remember – THIS IS NOT A TEST, and there are no right or wrong answers. We just want to know what you think!

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree a lot</th>
<th>Disagree a little</th>
<th>Agree a little</th>
<th>Agree a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other kids think I’m fun to be with.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I introduce myself to new kids.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I’m a good person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I do just fine without my parents around.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I’m an important person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I get along with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I need help with most things I do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I worry about making friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I am a good leader.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Disagree a lot</td>
<td>Disagree a little</td>
<td>Agree a little</td>
<td>Agree a lot</td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
<td>----------------</td>
<td>-------------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Before I make a decision, I talk with other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Recycling is important.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I like to try new activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I’m pretty bad at leading activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I like to talk to kids I don’t know yet.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I need my parents to help me do things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I think about how I can help other kids.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I know how to make good decisions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My friends and I get along.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I help other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Other people like it when I’m around.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Before I make a decision, I think about what might happen.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I worry my feelings will be hurt if I like other people too much.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I can work out problems with other kids.</td>
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<tr>
<td>Statement</td>
<td>Disagree a lot</td>
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<tr>
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<td>Wild animals should be protected.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel comfortable at my camp.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I am a part of my camp.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I am committed to my camp.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I am supported at my camp.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I am accepted at my camp.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Overall, camp staff treat campers fairly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Staff at my camp listen to campers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>At my camp, staff care about campers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Camp staff are there for me when I need them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The camp rules are fair.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Overall, camp staff are open and honest with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I enjoy talking to the camp staff here.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel safe at camp.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Most of the camp staff are interested in me as a person, not just as a camper.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX B

OLS REGRESSION MODEL SUMMARIES
Table 8. Summary of Positive Identity OLS Regression Model

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>3.334</td>
<td>0.050</td>
<td>66.22</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Pre-Test Positive Identity Centered</td>
<td>0.690</td>
<td>0.060</td>
<td>11.44</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Sense of Belonging</td>
<td>0.225</td>
<td>0.064</td>
<td>3.50</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Table 9. Summary of Independence OLS Robust Regression Model

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>3.035</td>
<td>0.077</td>
<td>39.46</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Pre-Test Independence, Centered</td>
<td>0.703</td>
<td>0.064</td>
<td>10.98</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Sense of Belonging</td>
<td>0.293</td>
<td>0.138</td>
<td>2.12</td>
<td>0.036</td>
</tr>
<tr>
<td>Relationship with Camp Counselor</td>
<td>0.579</td>
<td>0.093</td>
<td>6.20</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Sense of Belonging *Relationship with Camp Counselor</td>
<td>-0.567</td>
<td>0.157</td>
<td>-3.61</td>
<td>&lt;0.001</td>
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</tbody>
</table>

Table 10. Summary of Marking Friends OLS Regression Model

<table>
<thead>
<tr>
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<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>3.541</td>
<td>0.110</td>
<td>32.32</td>
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<td>Ethnicity</td>
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<td></td>
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<tr>
<td>Hispanic/Latino/a vs. White/Caucasian</td>
<td>-0.029</td>
<td>0.125</td>
<td>-0.23</td>
<td>0.815</td>
</tr>
<tr>
<td>Other/Multiple Ethnicities vs. White/Caucasian</td>
<td>-0.203</td>
<td>0.094</td>
<td>-2.15</td>
<td>0.034</td>
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<tr>
<td>Pre-Test Making Friends, Centered</td>
<td>0.576</td>
<td>0.080</td>
<td>7.24</td>
<td>&lt;0.001</td>
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<td>Gender</td>
<td>0.163</td>
<td>0.081</td>
<td>2.01</td>
<td>0.047</td>
</tr>
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<td>Camp Type</td>
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<td>0.144</td>
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<td>0.001</td>
</tr>
<tr>
<td>Sense of Belonging</td>
<td>-0.011</td>
<td>0.124</td>
<td>-0.09</td>
<td>0.932</td>
</tr>
<tr>
<td>Camp Type*Sense of Belonging</td>
<td>0.370</td>
<td>0.176</td>
<td>2.10</td>
<td>0.038</td>
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</table>
Table 11. Summary of Insecurity OLS Robust Regression Model

<table>
<thead>
<tr>
<th>Total Model: $F(4, 107) = 36.05, p &lt; 0.001; R^2 = 0.553$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
</tr>
<tr>
<td>Interception</td>
</tr>
<tr>
<td>Pre-Test Insecurity, Centered</td>
</tr>
<tr>
<td>Sense of Belonging</td>
</tr>
<tr>
<td>Relationship with Camp Counselor</td>
</tr>
<tr>
<td>Sense of Belonging * Relationship with Camp Counselor</td>
</tr>
</tbody>
</table>

Table 12. Summary of Peer Relationships OLS Regression Model

<table>
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<tr>
<th>Total Model: $F(2,109) = 75.10, p &lt; 0.001; R^2 = 0.580$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
</tr>
<tr>
<td>Interception</td>
</tr>
<tr>
<td>Pre-Test Peer Relationships, Centered</td>
</tr>
<tr>
<td>Sense of Belonging</td>
</tr>
</tbody>
</table>

Table 13. Summary of Leadership OLS Regression Model

<table>
<thead>
<tr>
<th>Total Model: $F(2,109) = 100.16, p &lt; 0.001; R^2 = 0.648$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
</tr>
<tr>
<td>Interception</td>
</tr>
<tr>
<td>Pre-Test Leadership, Centered</td>
</tr>
<tr>
<td>Sense of Belonging</td>
</tr>
</tbody>
</table>

Table 14. Summary of Positive Values and Decision Making OLS Robust Regression Model

<table>
<thead>
<tr>
<th>Total Model: $F(2,109) = 112.15, p &lt; 0.001; R^2 = 0.672$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
</tr>
<tr>
<td>Interception</td>
</tr>
<tr>
<td>Pre-Test Positive Values and Decision Making, Centered</td>
</tr>
<tr>
<td>Relationship with Camp Counselor</td>
</tr>
</tbody>
</table>
### Table 15. Summary of Adventure and Exploration Participation OLS Regression Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Total Model: $F(3, 108) = 11.55, p &lt; 0.001; R^2 = 0.243$</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Intercept</td>
<td>3.252</td>
<td>0.120</td>
<td>27.01</td>
</tr>
<tr>
<td></td>
<td>Pre-Test Adventure and Exploration Participation, Centered</td>
<td>0.280</td>
<td>0.062</td>
<td>4.50</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Camp Type</td>
<td>0.317</td>
<td>0.122</td>
<td>2.60</td>
<td>0.011</td>
</tr>
<tr>
<td></td>
<td>Sense of Belonging</td>
<td>0.285</td>
<td>0.129</td>
<td>2.21</td>
<td>0.029</td>
</tr>
</tbody>
</table>

### Table 16. Summary of Adventure and Exploration Enjoyment OLS Regression Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Total Model: $F(4, 107) = 17.44, p &lt; 0.001; R^2 = 0.395$</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Intercept</td>
<td>3.831</td>
<td>0.082</td>
<td>46.45</td>
</tr>
<tr>
<td></td>
<td>Pre-Test Adventure and Exploration Enjoyment, Centered</td>
<td>0.330</td>
<td>0.062</td>
<td>5.35</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Camp Type</td>
<td>-0.465</td>
<td>0.118</td>
<td>-3.95</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Sense of Belonging</td>
<td>0.056</td>
<td>0.105</td>
<td>0.54</td>
<td>0.593</td>
</tr>
<tr>
<td></td>
<td>Camp Type*Sense of Belonging</td>
<td>0.357</td>
<td>0.145</td>
<td>2.46</td>
<td>0.016</td>
</tr>
</tbody>
</table>

### Table 17. Summary of Environment OLS Regression Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Total Model: $F(4, 107) = 21.95, p &lt; 0.001; R^2 = 0.451$</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Intercept</td>
<td>3.602</td>
<td>0.058</td>
<td>62.10</td>
</tr>
<tr>
<td></td>
<td>Pre-Test Environment, Centered</td>
<td>0.563</td>
<td>0.068</td>
<td>8.24</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Previous Camp Attendance</td>
<td>0.110</td>
<td>0.055</td>
<td>1.99</td>
<td>0.049</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>0.137</td>
<td>0.055</td>
<td>2.49</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td>Relationship with Camp Counselor</td>
<td>0.151</td>
<td>0.054</td>
<td>2.78</td>
<td>0.006</td>
</tr>
</tbody>
</table>
APPENDIX C

SCALE ITEM SUMMARIES
Table 18. Summary of Pre-Test Camper Growth Index Scale Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am a good leader</td>
<td>3.23</td>
<td>0.83</td>
</tr>
<tr>
<td>If kids were choosing a leader, they might vote for me</td>
<td>2.76</td>
<td>1.00</td>
</tr>
<tr>
<td>Other kids look up to me</td>
<td>3.11</td>
<td>0.81</td>
</tr>
<tr>
<td>I'm pretty bad at leading activities</td>
<td>2.90</td>
<td>0.95</td>
</tr>
<tr>
<td>I help lead a club or team</td>
<td>2.83</td>
<td>1.14</td>
</tr>
<tr>
<td>I get other kids together for games</td>
<td>3.19</td>
<td>0.85</td>
</tr>
<tr>
<td>I follow the rules</td>
<td>3.68</td>
<td>0.61</td>
</tr>
<tr>
<td>Before I make a decision, I think about what might happen</td>
<td>3.15</td>
<td>0.87</td>
</tr>
<tr>
<td>I respect other people</td>
<td>3.60</td>
<td>0.61</td>
</tr>
<tr>
<td>Before I make a decision, I talk with other people</td>
<td>2.79</td>
<td>1.03</td>
</tr>
<tr>
<td>I help other people</td>
<td>3.59</td>
<td>0.60</td>
</tr>
<tr>
<td>I know how to make good decisions</td>
<td>3.50</td>
<td>0.73</td>
</tr>
<tr>
<td>I think about how I can help other people</td>
<td>3.35</td>
<td>0.77</td>
</tr>
<tr>
<td>It's more important to play fair than to win</td>
<td>3.60</td>
<td>0.73</td>
</tr>
<tr>
<td>I'm a special person</td>
<td>3.31</td>
<td>0.82</td>
</tr>
<tr>
<td>Good things will happen to me</td>
<td>3.46</td>
<td>0.69</td>
</tr>
<tr>
<td>I have a good life ahead of me</td>
<td>3.71</td>
<td>0.62</td>
</tr>
<tr>
<td>I'm an important person</td>
<td>3.26</td>
<td>0.88</td>
</tr>
<tr>
<td>I'm not worth much</td>
<td>3.04</td>
<td>1.05</td>
</tr>
<tr>
<td>I feel confident in myself</td>
<td>3.47</td>
<td>0.81</td>
</tr>
<tr>
<td>I feel secure</td>
<td>3.51</td>
<td>0.68</td>
</tr>
<tr>
<td>I'm a good person</td>
<td>3.71</td>
<td>0.52</td>
</tr>
<tr>
<td>I like to talk to kids I don’t know yet</td>
<td>2.75</td>
<td>0.99</td>
</tr>
<tr>
<td>I like to play with new kids</td>
<td>3.59</td>
<td>0.59</td>
</tr>
<tr>
<td>I introduce myself to new kids</td>
<td>3.17</td>
<td>0.86</td>
</tr>
<tr>
<td>I talk to kids who are different from me</td>
<td>3.39</td>
<td>0.74</td>
</tr>
<tr>
<td>I worry about making friends</td>
<td>3.15</td>
<td>1.04</td>
</tr>
<tr>
<td>It's hard to make new friends</td>
<td>2.93</td>
<td>1.15</td>
</tr>
<tr>
<td>It's hard to keep new friends</td>
<td>3.02</td>
<td>1.07</td>
</tr>
<tr>
<td>I worry my friends will be hurt if I like other people too much</td>
<td>3.09</td>
<td>1.09</td>
</tr>
<tr>
<td>My friends and I get along</td>
<td>3.67</td>
<td>0.71</td>
</tr>
<tr>
<td>Other kids think I'm fun to be with</td>
<td>3.45</td>
<td>0.66</td>
</tr>
<tr>
<td>I get along with others</td>
<td>3.55</td>
<td>0.71</td>
</tr>
<tr>
<td>Other people like it when I'm around</td>
<td>3.31</td>
<td>0.68</td>
</tr>
<tr>
<td>I can work out problems with other kids</td>
<td>3.34</td>
<td>0.76</td>
</tr>
<tr>
<td>I get into fights with others</td>
<td>3.45</td>
<td>0.77</td>
</tr>
<tr>
<td>I need my parents to help me do things</td>
<td>2.86</td>
<td>1.00</td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm good at doing things on my own</td>
<td>3.38</td>
<td>0.83</td>
</tr>
<tr>
<td>I do just fine without my parents around</td>
<td>3.27</td>
<td>0.96</td>
</tr>
<tr>
<td>I need help with most things I do</td>
<td>3.01</td>
<td>1.00</td>
</tr>
<tr>
<td>In the past week, I did a new activity</td>
<td>3.14</td>
<td>1.07</td>
</tr>
<tr>
<td>In the past week, I tried doing something new</td>
<td>3.26</td>
<td>1.07</td>
</tr>
<tr>
<td>I like to try new activities</td>
<td>3.52</td>
<td>0.73</td>
</tr>
<tr>
<td>I like to go on new adventures</td>
<td>3.68</td>
<td>0.68</td>
</tr>
<tr>
<td>We should take care of our planet</td>
<td>3.70</td>
<td>0.73</td>
</tr>
<tr>
<td>I care about nature</td>
<td>3.72</td>
<td>0.55</td>
</tr>
<tr>
<td>Recycling is important</td>
<td>3.77</td>
<td>0.53</td>
</tr>
<tr>
<td>Wild animals should be protected</td>
<td>3.83</td>
<td>0.48</td>
</tr>
<tr>
<td>Item</td>
<td>Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td>I am a good leader</td>
<td>3.15</td>
<td>0.96</td>
</tr>
<tr>
<td>If kids were choosing a leader, they might vote for me</td>
<td>2.77</td>
<td>1.05</td>
</tr>
<tr>
<td>Other kids look up to me</td>
<td>3.22</td>
<td>0.84</td>
</tr>
<tr>
<td>I'm pretty bad at leading activities</td>
<td>2.86</td>
<td>1.03</td>
</tr>
<tr>
<td>I help lead a club or team</td>
<td>2.85</td>
<td>1.17</td>
</tr>
<tr>
<td>I get other kids together for games</td>
<td>3.27</td>
<td>0.85</td>
</tr>
<tr>
<td>I follow the rules</td>
<td>3.67</td>
<td>0.63</td>
</tr>
<tr>
<td>Before I make a decision, I think about what might happen</td>
<td>3.34</td>
<td>0.84</td>
</tr>
<tr>
<td>I respect other people</td>
<td>3.66</td>
<td>0.62</td>
</tr>
<tr>
<td>Before I make a decision, I talk with other people</td>
<td>2.98</td>
<td>1.02</td>
</tr>
<tr>
<td>I help other people</td>
<td>3.62</td>
<td>0.59</td>
</tr>
<tr>
<td>I know how to make good decisions</td>
<td>3.57</td>
<td>0.64</td>
</tr>
<tr>
<td>I think about how I can help other people</td>
<td>3.46</td>
<td>0.76</td>
</tr>
<tr>
<td>It's more important to play fair than to win</td>
<td>3.72</td>
<td>0.60</td>
</tr>
<tr>
<td>I'm a special person</td>
<td>3.38</td>
<td>0.87</td>
</tr>
<tr>
<td>Good things will happen to me</td>
<td>3.57</td>
<td>0.67</td>
</tr>
<tr>
<td>I have a good life ahead of me</td>
<td>3.64</td>
<td>0.66</td>
</tr>
<tr>
<td>I'm an important person</td>
<td>3.28</td>
<td>0.89</td>
</tr>
<tr>
<td>I'm not worth much</td>
<td>3.02</td>
<td>1.06</td>
</tr>
<tr>
<td>I feel confident in myself</td>
<td>3.62</td>
<td>0.71</td>
</tr>
<tr>
<td>I feel secure</td>
<td>3.69</td>
<td>0.65</td>
</tr>
<tr>
<td>I'm a good person</td>
<td>3.75</td>
<td>0.55</td>
</tr>
<tr>
<td>I like to talk to kids I don’t know yet</td>
<td>3.18</td>
<td>0.94</td>
</tr>
<tr>
<td>I like to play with new kids</td>
<td>3.58</td>
<td>0.68</td>
</tr>
<tr>
<td>I introduce myself to new kids</td>
<td>3.42</td>
<td>0.74</td>
</tr>
<tr>
<td>I talk to kids who are different from me</td>
<td>3.54</td>
<td>0.70</td>
</tr>
<tr>
<td>I worry about making friends</td>
<td>3.25</td>
<td>1.07</td>
</tr>
<tr>
<td>It's hard to make new friends</td>
<td>3.18</td>
<td>1.10</td>
</tr>
<tr>
<td>It's hard to keep new friends</td>
<td>3.08</td>
<td>1.10</td>
</tr>
<tr>
<td>I worry my friends will be hurt if I like other people too much</td>
<td>3.03</td>
<td>1.19</td>
</tr>
<tr>
<td>My friends and I get along</td>
<td>3.64</td>
<td>0.73</td>
</tr>
<tr>
<td>Other kids think I'm fun to be with</td>
<td>3.56</td>
<td>0.65</td>
</tr>
<tr>
<td>I get along with others</td>
<td>3.49</td>
<td>0.80</td>
</tr>
<tr>
<td>Other people like it when I'm around</td>
<td>3.50</td>
<td>0.68</td>
</tr>
<tr>
<td>I can work out problems with other kids</td>
<td>3.39</td>
<td>0.83</td>
</tr>
</tbody>
</table>
### Table 19. (continued)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I get into fights with others</td>
<td>3.35</td>
<td>0.89</td>
</tr>
<tr>
<td>I need my parents to help me do things</td>
<td>2.96</td>
<td>1.06</td>
</tr>
<tr>
<td>I'm good at doing things on my own</td>
<td>3.46</td>
<td>0.79</td>
</tr>
<tr>
<td>I do just fine without my parents around</td>
<td>3.42</td>
<td>0.78</td>
</tr>
<tr>
<td>I need help with most things I do</td>
<td>3.14</td>
<td>1.03</td>
</tr>
<tr>
<td>In the past week, I did a new activity</td>
<td>3.58</td>
<td>0.83</td>
</tr>
<tr>
<td>In the past week, I tried doing something new</td>
<td>3.65</td>
<td>0.76</td>
</tr>
<tr>
<td>I like to try new activities</td>
<td>3.71</td>
<td>0.58</td>
</tr>
<tr>
<td>I like to go on new adventures</td>
<td>3.79</td>
<td>0.52</td>
</tr>
<tr>
<td>We should take care of our planet</td>
<td>3.81</td>
<td>0.48</td>
</tr>
<tr>
<td>I care about nature</td>
<td>3.80</td>
<td>0.51</td>
</tr>
<tr>
<td>Recycling is important</td>
<td>3.83</td>
<td>0.46</td>
</tr>
<tr>
<td>Wild animals should be protected</td>
<td>3.80</td>
<td>0.57</td>
</tr>
</tbody>
</table>

### Table 20. Summary of Sense of Belonging Scale Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel comfortable at my camp.</td>
<td>3.74</td>
<td>0.64</td>
</tr>
<tr>
<td>I am part of my camp.</td>
<td>3.69</td>
<td>0.70</td>
</tr>
<tr>
<td>I am committed to my camp.</td>
<td>3.64</td>
<td>0.76</td>
</tr>
<tr>
<td>I am supported at my camp.</td>
<td>3.68</td>
<td>0.66</td>
</tr>
<tr>
<td>I am accepted at my camp.</td>
<td>3.72</td>
<td>0.60</td>
</tr>
</tbody>
</table>

### Table 21. Summary of Post-Test Relationship with Camp Counselor Scale Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, camp staff treat campers fairly.</td>
<td>3.75</td>
<td>0.59</td>
</tr>
<tr>
<td>Staff at my camp listen to campers.</td>
<td>3.71</td>
<td>0.62</td>
</tr>
<tr>
<td>At my camp, staff care about campers.</td>
<td>3.81</td>
<td>0.46</td>
</tr>
<tr>
<td>Camp staff are there for me when I need them.</td>
<td>3.74</td>
<td>0.60</td>
</tr>
<tr>
<td>The camp rules are fair.</td>
<td>3.73</td>
<td>0.58</td>
</tr>
<tr>
<td>Overall, camp staff are open and honest with me.</td>
<td>3.75</td>
<td>0.58</td>
</tr>
<tr>
<td>I enjoy talking to the camp staff here.</td>
<td>3.82</td>
<td>0.47</td>
</tr>
<tr>
<td>I feel safe at camp.</td>
<td>3.75</td>
<td>0.62</td>
</tr>
<tr>
<td>Most of the camp staff are interested in me as a person, not just as a camper.</td>
<td>3.61</td>
<td>0.77</td>
</tr>
</tbody>
</table>
APPENDIX D

CAMPER GROWTH INDEX CORRELATIONS
### Table 22. Summary of Pre-Test CGI Domain Correlations

<table>
<thead>
<tr>
<th></th>
<th>PI</th>
<th>SS</th>
<th>PVDM</th>
<th>PTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Identity (PI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Skills (SS)</td>
<td>0.628*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Values and Decision Making (PVDM)</td>
<td>0.408*</td>
<td>0.582*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical and Thinking Skills (PTS)</td>
<td>0.199*</td>
<td>0.417*</td>
<td>0.486*</td>
<td></td>
</tr>
</tbody>
</table>

*Statistically significant at $p = 0.05$

### Table 23. Summary of Post-Test CGI Domain Correlations

<table>
<thead>
<tr>
<th></th>
<th>PI</th>
<th>SS</th>
<th>PVDM</th>
<th>PTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Identity (PI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Skills (SS)</td>
<td>0.708*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Values and Decision Making (PVDM)</td>
<td>0.453*</td>
<td>0.621*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical and Thinking Skills (PTS)</td>
<td>0.332*</td>
<td>0.474*</td>
<td>0.563*</td>
<td></td>
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</table>

*Statistically significant at $p = 0.05$
### Table 24. Summary of Pre-Test CGI Construct Correlations

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<tr>
<th></th>
<th>PI</th>
<th>IND</th>
<th>MF</th>
<th>INS</th>
<th>PR</th>
<th>LEAD</th>
<th>PVDM</th>
<th>AEp</th>
<th>AEe</th>
<th>ENV</th>
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<tr>
<td>Positive Identity (PI)</td>
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<tr>
<td>Independence (IND)</td>
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<td>Making Friends (MF)</td>
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<td>Adventure and Exploration: Participation (AEp)</td>
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<td>Environment (ENV)</td>
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*Statistically significant at $p = 0.05$

- **Positive Identity Domain**
- **Social Skills Domain**
- **Physical and Thinking Skills Domain**
Table 25. Summary of Post-Test CGI Construct Correlations

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*Statistically significant at $p = 0.05$

- Positive Identity Domain
- Social Skills Domain
- Physical and Thinking Skills Domain