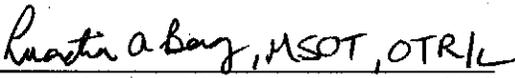
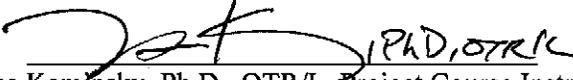


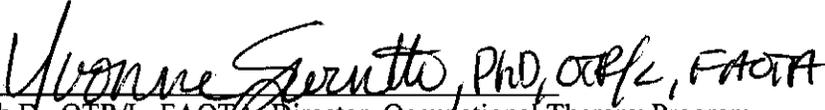
Integrating Universal Design Principles to Camp Indianola

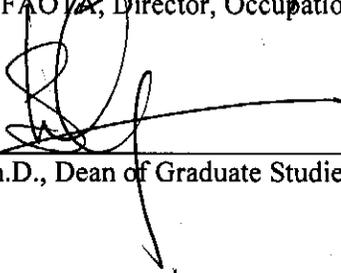
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This project, submitted by Sarah Jones has been approved and accepted  
in partial fulfillment of the requirements for the degree of  
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### Abstract

Participating in outdoor recreation benefits a person's health and wellness, self-esteem, and overall quality of life. Many individuals appreciate the social and physical benefits of participation in a summer camp program. Individuals with disabilities are often unable to access many outdoor activities or camp environments due to issues with accessibility. Integrating the seven principles of universal design into a camp environment may improve inclusion in camp related programs and activities. This project focused on the accommodation needs of Camp Indianola in Indianola, Washington through consideration of the incorporation of the principles of universal design throughout the camp. An educational manual was created for the faculty of Camp Indianola showcasing the inclusion of the principles of universal design to common camp areas as well as essential information regarding specific methods and training for working with individuals with special needs.

### Integrating Universal Design Principles to Camp Indianola

According to the American Camping Association, the number of day and resident camps within the United States is on the rise with over 12,000 identified to date (American Camping Association, 2013). Currently there are over 11 million children and adults who attend camp annually (American Camping Association, 2013). Some of the benefits people experience from participating in the camp environment include, increased health and wellness, decreased stress, social benefits, and increased self-esteem (Heintzman, 2000).

The number of individuals diagnosed with a disability (physical, mental, or emotional) in the United States is also steadily increasing. With over 54 million people with disabilities in the United States, the general awareness, education, and acceptance of individuals with disabilities is also increasing (U.S. Census Bureau, 2010). Roughly 4 million of these individuals attend camp each year, and the overall accessibility of these camps continues to interfere with these individuals participation in recreational and leisure activities. (McAvoy, Holman, Goldenberg, & Klenosky, 2006)

Therefore, integrating universal design principles to the camp environment would allow these individuals to access the benefits camp has to offer their able bodied peers. Creating equal access to activities and participation in meaningful activities within the camp environment may increase peoples experience and their overall well-being.

### **Background Information/Literature Review**

#### **Benefits of Participation and Leisure**

Although evidence supports the benefits of participating in an active lifestyle for health and function, people with disabilities are less likely to participate in an active lifestyle than those

people without disabilities. According to the Healthy People 2010 report, 56% of adults with disabilities do not engage in any leisure-time activities, compared to 36% among adults without disability (as cited in Rimmer, Riley, Wang, Rauworth, & Jurkowski, 2004). Studies have shown that participation in extracurricular activities decreases the incidence of behavioral and emotional difficulties in children (Law, 2002). According to Freysinger, Alession, & Mehdizadeh (1993), there is a positive correlation between participation in recreational and leisure activities for adults and increasing life satisfaction (Law, 2002). Nearly 50% of all Americans participate in outdoor recreation each year. Sixty-six percent of that population is 25+ years of age (Outdoor Foundation, 2011). On average, individuals participate in 57 outdoor activities per year including picnics, hikes, visiting a community park, unstructured play time, etcetera (Outdoor Foundation, 2011). Participation in leisure activities typically decreases with age due to lack of services, access, or appropriate modifications. Blake (1995) found that adults and older adults with disabilities experience restricted participation and social isolation, compared to those people without disabilities (Law, 2002).

The most common reasons for participating in outdoor activities are the social benefits, to maintain a healthy and fit lifestyle, to try something new, and to help relax and manage stress (Outdoor Foundation, 2011). According to Rimmer, et al. (2004), the degree of participation in physical activity among people with disabilities is affected by a multi-factorial set of barriers and facilitators for this specific population. Ragheb (1993) found that the frequency of leisure participation and the levels of leisure satisfaction were positively associated with perceived wellness, including spiritual well-being for all people (Heintzman, 2000). Overall, participation in leisure activities has similar benefits for persons with disabilities as it does for persons without disabilities (Specht, King, Brown, & Foris, 2002).

### **Disabilities in the United States**

The 2010 U.S. Census Bureau identified that one out of every five individuals (19% of the population) in the United States has some degree of disability, while one out of ten has a severe disability (U.S. Census Bureau, 2010). The level of severity of the disability depends on one's ability to walk, see, hear, and talk (U.S. Census Bureau, 2010). Roughly 41% of individuals 65 years of age and older have one or more types of disability, and 5.2 million children ages 5-20 have a physical or mental disability (National Center on Accessibility, 2010).

Studies have shown that individuals with disabilities who participate in activities or the outdoors experience positive changes including an increase in self-confidence, increased leisure skills, social adjustment, enhanced relationships, and spiritual benefits (McAvoy, Holman, Goldenberg & Klenosky 2006). The benefits of participating and attending camp not only affect the individuals with disabilities who attend camp, but their families and caregivers as well (McAvoy et al., 2006).

With currently over 54 million individuals with a disability in the United States, (U.S. Census Bureau, 2010) it is important to consider the accessibility of existing camp programs and review pertinent changes to promote improved participation. As the number of non-profit organizations and religious entities continues to grow in the U.S., inaccessibility of the facilities and programs may exist, limiting the number of programs available to individuals with disabilities (Redick, McClain, & Brown, 2000). One way to overcome this challenge is through the incorporation of universal design into the camp environment. Universal design benefits the participants overall camp experience fostering inclusion in the group leisure activities (Joines, 2011).

## Universal Design Benefits and Principles

Universal design is defined as “design all products and the built environment in an inconspicuous manner to be both aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability, or status in life” (Center for Universal Design, 2006). The focus behind universal design has evolved from previous terms, such as accessibility and barrier-free design, which focused on designing so that individuals have access to desired environments, services, and/or products. Although universal design differs from accessibility in its approach, both support the needs of individuals needing specific adaptations. The concept of universal design was created in 1977 by Ron Mace, the founder and former program director at The Center of Universal Design at North Carolina State University (Mace, 1997), in collaboration with various architects, engineers, product designers, and environmental designers. The seven principles of universal design include (Mace, 1997):

**PRINCIPLE ONE:** *Equitable Use*, refers to products or environment should be useable by everyone. The products, services, and/or environment should not isolate an individual or population. (Young, 2013).

**PRINCIPLE TWO:** *Flexibility in Use*, refers to the design of a product, service, or environment by incorporating age, handedness, and ability. The design accommodates a wide range of individual preferences and abilities. (Young, 2013).

**PRINCIPLE THREE:** *Simple and Intuitive Use*, allows the specific product, design feature or services to be used with ease, spontaneity, and intuitively. (Young, 2013).

PRINCIPLE FOUR: *Perceptible Information*, incorporates information in a variety of representations (auditory, tactile, written, pictorial) to enhance the effectiveness of communication. (Young, 2013).

PRINCIPLE FIVE: *Tolerance for Error*, should eliminate or prevent any hazardous or harming situations of accidental or unintended actions to an individual. (Young, 2013).

PRINCIPLE SIX: *Low Physical Effort*, requires the design of a product, service or environment to be used with minimal or no physical effort

PRINCIPLE SEVEN: *Size and Space for Approach and Use*, provides adequate space for any individual to utilize the design. (Young, 2013).

Incorporating these seven principles allows more individuals to access and benefit from the services being offered, which enhances the experience for all individuals involved. This is one of the most recognized principles within universal design. (Young, 2013).

By implementing universal design principles to the camp environment more individuals will have access to the majority of the facilities and outdoor areas, which may increase participation in the variety of activities offered and lead to a more positive well-being (Henderson, Whitaker, Bialeschki, Scanlin, & Thurber, 2007). Historically, accessibility to public spaces has limited the opportunity for people with disabilities to engage in social and recreational activities (Rimmer, et al., 2004). The separation that individuals with disabilities feel when unable to participate in camp activities may be lessened by allowing them to share the experience with their able-bodied friends. The concept of universal design is about social inclusion, with the principles that there is only one population, comprised of individuals representing diverse characteristics and abilities (Iwarsson &Ståhl , 2003).

Removing stairs and adding accessible ramps, increasing the width of sidewalks, changing the surfaces of the sidewalks to a harder and more durable surface like asphalt or gravel, and changing the faucets in the bathroom to the horizontal lever style are a few examples to incorporate universal design. Camps choosing to integrate these principles into their environments are becoming more common across the United States (American Camping Association, 2013). Organizations such as the Easter Seals, American Camping Association, along with many other private non-profit programs have chosen to implement specific modifications incorporating the principles of universal design modifications into their camps. The intent of universal design is to decrease the number of environmental barriers and designing the environment to be flexible and useable by all people (Gossett, Mirza, Barnds, & Feidt, 2009).

### **Economic Challenges for Implementation**

One of the biggest challenges that limits the implementation of specific universal design modifications is the fiscal responsibility to support such projects. For non-profit organizations, such as camps and faith-based organizations, funding sources often come from grants or gifts from specific individuals to support the camp's maintenance, staff, and sustainability (Gronbjerg, 2006). Organizations such as the Easter Seals, the American Camping Association, The Home Depot, and various community resources have provided funding through scholarships and grants for the implementation of these modifications nationwide. Establishing contacts with these organizations for funding projects at any camp will depend on the level of difficulty and expense of the desired modifications. Although funding is the biggest challenge for the implementation process, there are established local and national organizations to assist with this issue and plan for future projects. One such program in western Washington benefitting from the incorporation of the principles of universal design into current and future modifications is Camp Indianola.

## **Camp Indianola**

Camp Indianola is affiliated with the United Methodist Church Pacific Northwest (UMCPNW) Conference. It is open year round as a retreat center and summer camp facility that serves an average of 5,500 people per year. Considering the number of individuals that Camp Indianola serves in a year's time, the populations served also vary a great deal. Although the camp in its entirety is not considered to be accessible there is still a great need to prioritize and implement universal design modifications to this camp. Mr. Simpson and his staff pride themselves on their ministry of hospitality and by continuing to implement universal design modifications to the camp and its facilities further supports the camp's mission statement:

“Our mission is to be sanctuaries of Christian hospitality, renewal, and learning within God's natural world--sanctuaries that celebrate diversity, inspire love and service, and fulfill our special partnership with the local churches in the development of disciples and spiritual leaders.”

(<http://www.campindianola.org>).

Integrating universal design would allow more individuals to access and participate in the camp's activities, which in turn, would further the camp's overall mission statement and goals. This would allow campers to access and participate in the camp experience and thus decrease the experience of segregation for individuals with disabilities. Mr. Simpson, the director of Camp Indianola, and his staff at Camp Indianola & Retreat Center in Indianola, Washington have successfully implemented a few of the principles into their camp after a full accessibility assessment was completed in 2007. The ADA assessment provided a list of implementation ideas for Camp Indianola to plan out desired projects for the future. This assessment highlighted the entrances, bathrooms, bedrooms, and general access of each of the six facilities at Camp

Indianola. This assessment provided recommendations for each of the facilities to increase overall access for individuals with disabilities. Mr. Simpson expressed the importance these changes may have among participants who attend the camp. Although an accessibility assessment was conducted in 2011, Mr. Simpson continued to express a lack of clarity for project implementation in the camp and lack of education his staff had in regards to working with individuals with special needs. A reprioritized list was created from the original ADA assessment to enhance the implementation of the specified modifications. This list was reorganized according to the complexity of the modifications, funding, and time. After a conversation with Mr. Simpson, it was clear that the staff at Camp Indianola were often unprepared for individuals who require special assistance prior to attending the camp. With increased education provided and improved communication among the staff at Camp Indianola, individuals presenting with special needs will be better assisted during their visit.

However, the current issue of funding the pragmatic changes continues to be a challenge. Camp Indianola receives 98% of the operational budget from campers and retreat groups fees which allows the camp to be self-sustaining (P. Simpson, personal communications May 13, 2012). The Pacific Northwest Conference Endowment Program covers the fire and liability insurances for the camp. Camp Indianola also receives \$5,000- 6,000 annually from grants or endowments for specific projects around the camp, such as universal design modifications. Therefore the purpose of this project was to provide an educational manual addressing general knowledge on disabilities and specific needs, specific preparatory tasks, safety training, and a prioritized list of implementation projects for the camp director and staff at Camp Indianola to present at orientations throughout the year.

### **Project Procedures**

## **Overview of Project**

The educational manual was created to identify areas of Camp Indianola that would benefit from the principles of universal design (e.g. bathroom faucets, automatic flush toilets, cleared pathways) and, provided essential information regarding specific methods and training when working with individuals with special needs. When recommending and educating others on universal design modifications for a set environment, there are considerations that must be weighed. Understanding the principles of universal design in order to create modifications to the environment is critical. Although universal design focuses on designing for universal access, it is important to consider the specific population that will be utilizing the area in order to modify accordingly. The student collaborated with Mr. Simpson and the staff members at Camp Indianola throughout the creation of the educational manual and received feedback regarding manual content. Mr. Simpson prioritized the list of modifications to be implemented from the accessibility assessment completed by another source in 2011 with regards to the camp's budget and time needed for the completion of the specified modifications to the facilities throughout the camp.

## **List of Skills and Knowledge**

This list includes the specific skills and knowledge that is needed in order to complete this project.

- Gather knowledge and understand universal design principles
- Research universally designed environments and facilities
- Research other funding sources: UMC PNW conference, Home & Garden Supply stores, Outdoor stores (REI, North Face), Local companies for donations, find other sources of funding

- Site visits: gather measurements and take pictures of existing entrances, fixtures, and pathways.
- Create timeline to complete each section.
- Research specific cost effective materials for implementation of modifications.
- Communication skills to meet with project chair to discuss alterations, complications, and implementations throughout entire process.
- Maintain open communication with Director of Camp Indianola throughout the process of creating the manual and project.
- Research safety training/ good body mechanics checklist and ability to take pictures for manual.
- An overall assessment of Camp Indianola to determine specific modification needs.
- Learn Microsoft Publisher to create handouts and compile the manual.

### **Materials/Supplies/Equipment Needed and Estimated Cost**

This section refers to the expenses that this project and manual cost for production.

- 3 Binders
- Copies of each handout printed in color on white
- 3 packages of 5 plastic folder/organizers to designate each section in the manual
- Good To Go toll on highway 16 for each site visit to the camp
- All other materials: camera, tape measure, software program, and photographs

This manual was printed at the University of Puget Sound Copy Center. Copies of each handout are contained within a designated folder/divider within a binder. The total expenses for this project was \$85.59

### **Final Project Description**

The manual consisted of five sections divided as follows:

Section one: Quick Facts about individuals with disabilities

Section two: Body Mechanics & Safety tips for transfers, carrying, and lifting

Section three: Preparatory tasks

Section Four: Prioritized list of modifications

Section Five: Resources

These sections informed the staff and volunteers at Camp Indianola about the population of participants with special needs. Section one entailed general information about individuals with disabilities, specific needs, and terminology to increase volunteer and staff knowledge about working with the special needs population.

Section two provided a safety checklist with pictures of proper body mechanics for lifting, transferring, and carrying individuals and objects.

Section three of the manual contained information about specific preparatory tasks (clear pathways, reorganize the tables in the dining hall, change faucets/door handles, other various needed accommodations) implemented, categorized by disability. There was also a list of the seven principles of universal design for the staff to learn and implement throughout the camp.

Section four consisted of a reorganized and prioritized list of modifications addressing finances, time, and implementation for the camp and its facilities that was provided to Camp Indianola in 2011, after an accessibility assessment was performed. The list was reprioritized according to the camp's overall need, funding, time, scheduling, and materials available, and was used by Mr. Simpson and his staff as a reference for future projects to be implemented as funding allows.

Section five consisted of a list of resources for Camp Indianola to utilize for the specific changes needed. It included specific resources listed by purpose: Obtaining tools and items,

financial supporters, and organizations to implement these modifications. Companies such as Lowes, Home Depot, and other local hardware stores were listed with appropriate contact information and location for obtaining the appropriate materials needed. Additionally, various organizations such as the United Methodist Church, Easter Seals, and Home Depot were suggested as organizations that may provide essential resources for financial support for these changes to be made. Local resources to implement these modifications were also listed: Community projects and service through Indianola Middle and High Schools, local Boy Scouts of America Eagle Scout projects, Boys & Girls Club, and the Rotary Club of Poulsville.

Overall, the manual provided information regarding and considerations for preparing Camp Indianola's director and staff, for the potential population of participants with special needs. This manual augmented Camp Indianola's ministry of hospitality for campers.

### **Project Goals and Objectives**

**Goal 1:** Mr. Simpson, director of Camp Indianola, and the staff of Camp Indianola will have a prioritized and re-organized list of universal design ideas to be implemented to increase the overall accessibility of Camp Indianola & Retreat Center.

**Objective 1:** Upon review of the manual, Mr. Simpson and the staff at Camp Indianola will identify the seven principles of universal design.

**Objective 2:** Upon review of the manual, Mr. Simpson and the staff at Camp Indianola will identify three areas within the camp environment that would benefit from the incorporation of the principles.

**Goal 2:** The manual will provide administrators and staff of Camp Indianola a reference tool regarding specific diagnoses of potential camp participants (mobility impaired, visually

impaired, hearing impaired) and potential preparations of the camp to be completed prior to the attendance of the camp participant(s).

**Objective 1:** Upon review of the manual, Mr. Simpson and the staff at Camp Indianola will understand and identify three specific areas of impairment of potential camp participants including, mobility impairment, hearing impairment, and/or visual impairment.

**Objective 2:** Mr. Simpson and the staff will apply their knowledge of these impairments and identify three areas within the camp most suitable for individuals with hearing, mobility, and/or visual impairments.

**Goal 3:** The manual will provide Pete Simpson and the staff at Camp Indianola an educational tool regarding specific safety techniques to implement when working with campers with special needs and/or assistance.

**Objective 1:** Mr. Simpson and the staff at Camp Indianola will identify three good body mechanic tips when lifting, carrying, and/or transferring an individual.

**Objective 2:** Mr. Simpson and the staff at Camp Indianola will identify three safety techniques to incorporate when lifting, carrying, and/or transferring an individual.

### **Outcomes**

Camp Indianola augmented the ministry of hospitality by prioritizing and implementing accommodations for individuals with disabilities to enhance the overall camp experience. This manual provided information and training for the staff and volunteers at Camp Indianola to increase their awareness and address the needs of individuals with disabilities. The specific components to the manual (general information, safety training/body mechanics, and preparatory

tasks/accommodations) may be presented individually during orientation for new volunteers and staff at the camp.

### **Implications for occupational therapy**

Occupational therapy focuses on enabling individuals and groups to participate in everyday occupations that are meaningful to the individual (Law, 2002). Traditionally occupational therapists have incorporated accessibility and universal design within their scope of practice (Cooper, Cohen, & Hasselkus, 1991). The domain and process portion of the Occupational Therapy Practice Framework (OTPF) guides the therapeutic intervention for this project (American Occupational Therapy Association [AOTA], 2008). This framework provides the values, knowledge and reasoning about participation in everyday occupations that occupational therapy encompasses. With the core beliefs in client-centered and evidence-based practice this project fulfills both of these critical aspects of occupational therapy. According to Law, Steinwender, & Leclair (1998) evidence indicates that client-centered approach to occupational therapy practice leads to greater satisfaction with services provided (Law, 2002).

As occupational therapists, our practice and therapeutic use of self are based upon the OTPF. The OTPF was “developed to articulate occupational therapy’s contribution to promoting the health and participation of people, organizations, and populations through engagement in occupation” (AOTA, 2008, p. 625). When implementing universal design to Camp Indianola, the collaboration of the occupational therapist, camp directors, and camp patrons (with disabilities), will be essential for the use-ability of this manual.

This framework guides the occupational therapist to assess the person with regards to the specific environment in which he/she engages in the activity. By analyzing each of these components individually and collectively the occupational therapist can identify the activity

demands and performance level that is required to successfully participate in the activity. Occupational therapists obtain the knowledge to observe, assess, and implement intervention strategies to modify the environment and/or the activity in order to increase an individual's performance within the task. These changes may lead to an individual's participation and function within the activity and potentially, contribute to their overall quality of life (Rimmer et al., 2004). The OTPF guides and organizes the therapeutic approach to assess the physical environment and the specific modifications that might need to be implemented (Cooper et al., 1991). The OTPF (AOTA, 2008) encompasses an individual's areas of occupation: Activities of Daily Living (ADL), Instrumental Activities of Daily Living (IADL), Rest and Sleep, Education, work, play, leisure and social participation with respect to specific client factors that might be present (AOTA, 2008). This particular project focuses on the leisure, play, and social participation areas of occupation. By understanding that an individual's independence in everyday activities is critical, occupational therapists are able to identify and modify specific situations, activities, and/or spaces to fit an individual's needs to ensure success.

With the incorporation of universal design for camps to promote improved access and participation in activities and the various camp environments, the number of camp attendees with disabling conditions may increase. This may improve social participation, self-esteem, and overall independence (Joines, 2009). With the increase in access to the available activities, the social participation within camp attendees will increase leading to a better overall camp experience Camp Indianola has to offer. Ultimately, with these changes to the environment the overall quality of life of camp attendees may increase (Shepanski, et al., 2005).

With the training and skills in functional assessments and environmental adaptations, occupational therapists have the opportunity to share pertinent knowledge regarding suggested

modifications with various stakeholders (Cooper et al., 1991). Occupational therapists are able to educate others on specific disabilities and their effects on daily life and participation. As a profession, occupational therapy thrives on and bases its principles on viewing individuals holistically. Acknowledging who an individual is, what his/her daily life consists of, and his/her current functional abilities guides the occupational therapy treatment process. Educating the Camp Indianola director on modification ideas that decrease environmental and structural barriers exemplifies the foundation that occupational therapy possesses (Cooper et al., 1991).

This project identifies universal design suggestions to the environment and facilities at Camp Indianola through an educational manual. Occupational therapists have specific training and skills that are applied to therapeutic adaptations, specifically regarding the living environment, access to activities, and participation in meaningful occupations. As occupational therapists, we view individuals holistically, therefore adapting the environment to allow all individuals to access their environment, which increases participation in leisure activities and improves their overall self-esteem and well-being. By implementing some of the universal design principles described in the manual, Camp Indianola will be more accessible to people of varying abilities celebrate diversity, inspire love and service.

### **Theoretical Model and Application to Framework**

Occupational therapists recognize the necessary components of an activity, as well as the individual's skills that impact an his/her overall performance, all in reference to the environment (Rebeiro, 2001). Traditionally occupational therapy has focused on the dynamic relationships among people, occupation, and the environment (Strong et al., 1999). Addressing the environmental factors, as well as accessibility in relation to a person and their environment are important in determining an individual's degree of independence (Iwarsson & Ståhl, 2003). The

Person Environment Occupation Performance (PEOP) model observes this dynamic relationship between the person, environment, and occupation over time, and influencing development throughout the lifespan (Christiansen, Baum, & Bass-Haugen, 2005). Within this model the person encompasses the physical, emotional, cognitive, and spiritual characteristics. The concept is that these characteristics are on a continuum and ever changing emphasizes the need to modify and adapt the environment accordingly. This model identifies the environment more broadly, incorporating culture, social, psychological, organizational, and the physical components. The three elements behind this principle work dynamically, with one factor affecting the other, which provides the opportunity to modify or adapt one area to increase the overall performance level (Howe & Briggs, 1982). Occupation is identified as the specific functional activities in which a person engages in over a lifespan. With knowledge of each component of this model separately, one can see the impact they have when combined to influence an individual's performance level (Dunbar & Law, 2007).

With the core knowledge that each of these factors have a direct influence on the other, occupational therapists can apply their skills and knowledge to modify the activity, the environment, and/or an individual's approach to the task to increase overall performance (Rebeiro, 2001). Considering the dynamic interaction between a person, the occupation, and the environment the occupational therapist may consider specific intervention strategies that will address the area of need. This specific model has been chosen to guide and support this project by recognizing an individual's skills, the activity, and the environment in which this activity is performed changes along a continuum throughout the lifespan, therefore creating an environment for all individuals may maximize the occupational performance for those individuals.

The PEO model (Christiansen et. al., 2005) is based on the principles of acknowledging an individual within the environment that an activity occurs with the understanding that this dynamic approach can influence an individual's performance. With implementing universal design into the camp environment an individual's performance level will improve due to the dynamic interaction between the person, environment, and occupation (Rebeiro, 2001). Increased access to activities allows for greater social interactions among camp attendees, in turn, positively affect self-esteem and improve overall quality of life (Harrison, 2002).

Incorporating instrumental activities of daily living (religious observance) and activities of daily living (functional mobility) into the foundation for this project demonstrates the ideas and values of occupational therapy, according to the OTPF (AOTA, 2008). The domain portion of the OTPF recognizes areas of occupation, client factors, activity demands, performance skills, performance patterns, and context and environment. Areas of occupation refers to "activities of daily living, instrumental activities of daily living, rest and sleep, education, work, play, leisure, and social participation" (AOTA, 2008, p.630). Client factors are defined as "specific abilities, characteristics, or beliefs that reside within the client and may affect performance in areas of occupation" (AOTA, 2008, p.630). Activity demands refer to the specific features of an activity that influence the type and amount of effort required to perform the activity (AOTA, 2008, p.634). Performance skills are defined as "the abilities clients demonstrate in the actions they perform (motor and praxis skills, sensory-perceptual skills, emotional regulation skills, cognitive skills, communication and social skills)" (AOTA, 2008, p. 639). Performance patterns "refer to habits, routines, roles and rituals used in the process of engaging in occupations or activities" (AOTA, 2008, p. 641). Lastly context and environment are often terms used interchangeably, although environment is defined as "the external physical and social environments that surround

the client and in which the client's daily life occupations occur." Context refers to a variety of interrelated conditions that are within and surrounding the client (cultural, personal, temporal, and virtual) (AOTA, 2008, p. 642).

Although all of these areas could be applied to this project, the focus will be on areas of occupation, activity demands, context, and environment (AOTA, 2008). More specifically, the areas of occupation that will be considered are: activities of daily living, instrumental activities of daily living, play, leisure, and social participation. By creating a universally accessible camp, more individuals will have access to the activities offered therefore the social participation among camp attendees will show improvement. Modifying activities and the environment by eliminating physical barriers will enable camp members to participate in all the activities the camp has to offer.

By creating a manual incorporating universal design principles and modification examples, safety training, and resources, Mr. Simpson, will be able to implement these strategies during orientations with camp volunteers throughout the year, thus enabling more individuals to participate in the activities offered at camp.

### **Special Circumstances, limitations or considerations for this project**

The main limitation for executing the implementation of these design modifications is funding. For the more complex modifications suggested in the manual not only is the financial component addressed, but the length of time it takes to make these modifications may cause a limitation in execution. With more of the simple modifications suggested (fixtures and thresholds) time may not be a limitation. As stated earlier, Camp Indianola is a non-profit organization with minimal funding resources, therefore finding fiscal resources to support this project is essential in order to implement these modifications to the camp environment and facilities.

### **Feasibility of this project**

There were a total of three site visits to Camp Indianola to photograph the current environment as a guide for the specific modification examples provided in the manual, and to meet with Mr. Simpson and his staff to provide feedback. By The suggestions from Mr. Simpson and the staff at Camp Indianola were incorporated throughout the creation of this manual. This project was feasible to complete due to the wonderful cooperation of Mr. Simpson and his staff by the designated due date of 04/30/13.

### **Future Steps/Sustainability**

In order to enhance the sustainability of this project it is recommended that continued research in funding sources for implementing the modifications is accomplished. Assistance with grant writing and applications for Camp Indianola is recommended and would benefit the camp greatly. Continued educational training of the manuals sections for volunteers during orientations would also increase the sustainability of this project.

### References

- American Occupational Therapy Association. (2008). Occupational therapy practice framework: Domain and process (2<sup>nd</sup> ed.). *American Journal of Occupational Therapy*, 62, 625-683.
- American Camping Association, (2013). Retrieved from <http://www.americancampingassociation.org>.
- Blake, K. (1995). The social isolation of young men with quadriplegia. *Rehabilitation Nursing*, 20, 17-22.
- Camp Indianola & Retreat Center (2013). Retrieved from <http://www.campindianola.org>.
- Center for Universal Design, (2006, August). Retrieved from [http://www.design.ncsu.edu/cud/about\\_ud/about\\_ud.htm](http://www.design.ncsu.edu/cud/about_ud/about_ud.htm).
- Christiansen, C. H., Baum, C. M., & Bass- Haugen, J. (2005). *Occupational therapy: Performance, participation, and well-being* (3rd ed.). Thorofare, NJ: Slack.
- Cooper, B. A., Cohen, U., & Hasselkus, B. R. (1991). Barrier-free design: A review and critique of the occupational therapy perspective. *American Journal of Occupational Therapy*, 45, 344-350.
- Freysinger, V.J., Alession, H., & Mehdizadeh, S. (1993). Re-examining the morale-physical

- health-activity relationship: A longitudinal study of time changes and gender differences. *Activities, Adaptation, and Aging*, 17, 25-41.
- Gossett, A., Mirza, M., Barnds, A., & Feidt, D. (2009). Beyond access: A case study on the intersection between accessibility, sustainability, and universal design. *Disability and Rehabilitation: Assistive Technology*, 4, 439-450.
- Gronbjerg, K. (2006). How nonprofit human service organizations manage their funding sources: Key findings and policy implications. *Nonprofit Management & Leadership*, 2, 159-175.
- Harrison, T. (2002). Has the Americans with disabilities act made a difference? A policy analysis of quality of life in the post-Americans with Disabilities Act era. *Policy, Politics, & Nursing Practice*, 3, 333-347.
- Heintzman, P. (2000). Leisure and spiritual well-being relationships: A qualitative study. *Society and Leisure-Montreal*, 23, 41-70.
- Henderson, K., Whitaker, L., Bialeschki, M., Scanlin, M., & Thurber, C. (2007). Summer camp experiences. *Journal of Family Issues*, 28, 8, 987-1007.
- Howe, M. C., & Briggs, A. K. (1982). Ecological systems model for occupational therapy. *The American Journal of Occupational Therapy*, 36, 322-327.
- Iwarsson, S., & Ståhl, A. (2003). Accessibility, usability and universal design-positioning and definition of concepts describing person-environment relationships. *Disability & Rehabilitation*, 25, 57-66.
- Joines, S. (2009). Enhancing quality of life through Universal Design. *NeuroRehabilitation*, 25, 313-326.

- Law, M. (2002). Participation in the occupations of everyday life, 2002 Distinguished Scholar Lecture. *American Journal of Occupational Therapy, 56*, 640-649.
- Law, M., & Dunbar, S. B. (2007). Person-environment-occupation model. In S. B. Dunbar (Ed.), *Occupational therapy models for intervention with children and families*. Thorofare, NJ SLACK Incorporated.
- Law, M., Steinwender, S., & Leclair, L. (1998). Occupation, health and well-being. *Canadian Journal of Occupational Therapy, 65*, 81-91.
- Mace, R. (1997). What is universal design. *The Center for Universal Design at North Carolina State University*.
- McAvoy, L., Holman, T., Goldenberg, M., & Klenosky, D. (2006). Wilderness and persons with disabilities. *International Journal of Wilderness, 12*, 23.
- National Center on Accessibility (2010). Accessibility coordinator training: Accessibility management for parks and recreation. Portland, OR.
- Outdoor Foundation, (2011). Outdoor recreation participation report 2011. Retrieved from <http://www.outdoorfoundation.org/pdf/ResearchParticipation2011.pdf>
- Ragheb, M. G. (1993). Leisure and perceived wellness: A field investigation. *Leisure Sciences, 15*, 13-24.
- Rebeiro, K. L. (2001). Enabling occupation: The importance of an affirming environment. *Canadian Journal of Occupational Therapy, 68*, 80-89.
- Redick, A. R., McClain, L., & Brown, C. (2000). Consumer empowerment through occupational therapy: The Americans with Disabilities Act Title III. *American Journal of Occupational Therapy, 54*, 207-213.

- Rimmer, J. H., Riley, B., Wang, E., Rauworth, A., & Jurkowski, J. (2004). Physical activity participation among persons with disabilities: Barriers and facilitators. *American Journal of Preventive Medicine, 26*, 419-425.
- Shepanski, M. A., Hurd, L. B., Culton, K., Markowitz, J. E., Mamula, P. & Baldassano, R. N. (2005). Health-related quality of life improves in children and adolescents with inflammatory bowel disease after attending a camp sponsored by the Crohn's and colitis foundation of America. *Inflammatory Bowel Diseases, 11*(2), 164–170. doi: 10.1097/00054725-200502000-00010
- Specht, J., King, G., Brown, E., & Foris, C. (2002). The importance of leisure in the lives of persons with congenital physical disabilities. *American Journal of Occupational Therapy, 56*, 436-445.
- Strong, S., Rigby, P., Stewart, D., Law, M., Letts, L., & Cooper, B. (1999). Application of the Person-Environment-Occupation Model: A practical tool. *Canadian Journal of Occupational Therapy, 66*, 122-133.
- U.S. Census Bureau. (2010, July). Population Distribution. U.S. Census Bureau.  
Retrieved from  
[http://www.census.gov/newsroom/releases/archives/facts\\_for\\_features\\_special\\_editions/cb10-ff13.html](http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb10-ff13.html).
- Young, D. (2013). Universal design and livable communities. *Home & Community Health Special Interest Section Quarterly, 20*, 1–4.

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