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Perspectives on a Positive Youth Development Environment for Youth with Developmental Disabilities in 4-H

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Running head: CQR Evaluation of PYD and 4-H

Perspectives on a Positive Youth Development Environment for Youth with Developmental Disabilities in 4-H

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Abstract

Megan Zurawski
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This study is a consensual qualitative research (CQR; Hill et al., 2005; Hill, 2012) investigation of the positive youth development (PYD) model utilized by the 4-H Youth Development Program (4-H). 4-H relies on a four-quadrant model of PYD (belonging, mastery, independence, and generosity), composed of eight elements. My aim was to investigate 4-H’s environment for youth with developmental disabilities, determining whether 4-H utilizes their stated PYD approach with this population. Ultimately, the qualitative study may be utilized by 4-H to inform future programming, not only for youth with developmental disabilities, but for all 4-Hers. There were 15 total participants, 12 of them female. Participants included six parent/leaders, three leaders, two parents, one grandparent, and three alumni. Eleven participants identified as White, one as Hispanic/Latino, one as bi-racial, and two declined identification. Years of 4-H participation ranged from 3-53 years. Qualitative data was collected through semi-structured interviews with parents of 4-H youth with developmental disabilities, and 4-H leaders working with youth with developmental disabilities, and 4-H alumni with developmental disabilities. Through data analyses, 4-H’s four PYD domains emerged. 4-H gives equal credit to each of these domains. However, the data suggests belonging serves a more foundational role, allowing youth to actively engage in the program, and offering more access to the mastery, independence, and generosity domains. Within these four domains, 15 categories and 32 subcategories were identified. Findings imply that 4-H programming generally provides an environment that supports PYD. Each of the eight essential elements was noted, among others. The domains included themes around relationships with positive adults and peers, supportive environmental standards, accommodations, exposure to areas of interest, varied learning opportunities and ways to demonstrate engagement, building independence, self-determination, and service opportunities. Participant data revealed potential programmatic improvements, including clique management, adult interference, funding, undeveloped opportunities for accommodation, anti-accommodation, and education opportunities. This study provides a restructured four-quadrant figure, with belonging as the foundation. Additionally, several programmatic applications are highlighted. Future research utilizing a quantitative approach may help identify causal relations among PYD environments and PYD outcomes for youth with developmental disabilities. 4-H programming may then better serve these youth.
CHAPTER I

Introduction and Literature Review

Purpose

Positive youth development (PYD) has become an increasing focus in the literature as researchers have begun to move away from a focus on pathology during development and have focused more attention and resources on understanding what helps youth grow in positive directions (Busseri, Rose-Krasnor, Willoughby, & Chalmers, 2006; Lerner & Castellino, 2002; Lerner & Israeloff, 2007; Lewin-Bizan, Bowers, & Lerner, 2010). PYD emerged out of the ecological systems theory (Bronfenbrenner, 2005) and the developmental systems theory in which the individual, the systems, and the larger context maintain reciprocal relationships of interacting that lead to an individual’s life outcomes (Lerner, Almerigi, Theokas, & Lerner, 2005; Lerner & Castellino, 2002). The purpose of my dissertation was to investigate the environment provided by the 4-H Youth Development Program (4-H) for youth with developmental disabilities and to examine whether 4-H utilizes a PYD approach with this population. I collected qualitative data through semi-structured interviews with parents of 4-H youth with developmental disabilities, 4-H leaders who have worked with youth with developmental disabilities, and 4-H alumni with developmental disabilities.

Too often, the teen years are conceptualized as turbulent and fraught with poor decision making (see Astroth, 1993). During child and adolescent development, PYD supports strengths-based development as opposed to dependent, rebellious, and maladaptive growth. Positive development is encouraged through supportive environments often provided by youth programs leading toward positive youth outcomes.
Researchers have noted specific features of environments that are thought to promote PYD and the more features utilized by youth programs is indicative of greater expected growth in PYD (Eccles & Gootman, 2002). Some of these features include: physical and psychological safety, emotional and moral support, opportunities to experience supportive adult relationships, and opportunities for skill building and mastery. 4-H, the largest youth organization in the United States, utilizes eight features in their youth development programs (Carlson, Astroth, Marek, McClain, Rumsey, & Gerhard, 1998). These eight essential elements have been consolidated into four concepts: belonging, mastery, independence, and generosity (Kress, 2004). The four concepts are based on the Circle of Courage which considers the concepts to be universal needs of all children (Brendtro, Brokenleg, & Van Bockern, 2005). The belonging concept includes positive relationships with a caring adult, an inclusive environment, and a safe environment. Mastery includes the opportunity for mastery and engagement in learning. Independence includes the opportunity to see oneself as an active participant in the future and opportunities for self-determination. Generosity includes the opportunity to value and practice service to others. Elements such as these foster an environment that promotes PYD (Astroth & Haynes, 2002; Eccles & Gootman, 2009; Lerner et al., 2011) PYD is often described through the strengths-based outcome model of the five Cs: caring, competence, connection, character, and confidence (Lerner et al., 2005). The five Cs of PYD are empirically supported and suggest adolescent thriving, which may ultimately lead to greater youth contribution (Lerner et al., 2011).
The focus of my dissertation is to examine the presence of 4-H’s eight essential elements found in 4-H youth programming for children and adolescents with developmental disabilities. Unfortunately, much of the research with these youth focuses on the risks and the pathology associated with having a disability, with little mention of what might be going well. Researchers often take an interest in risk behaviors of teens or potential problematic outcomes in order to bring awareness to the pathology and challenges that may occur. For instance, researchers have shown that adolescents with chronic conditions, including those with disabilities, were more likely to engage in health risk behaviors such as smoking daily, using cannabis, and performing violent or antisocial acts than their typically developing peers (Suris, Michaud, Akre, & Sawyer, 2008). Adolescents with intellectual disabilities also tend to have more difficulty with social skills and peer relationships and are often more likely to experience bullying than adolescents with typical development (Christensen, Fryant, Neece, & Baker, 2012). Additionally, youth with developmental disabilities tend to have more difficulty with finding employment and living independently after they graduate from high school than their peers (Blackorby & Wagner, 1996). While it is necessary to understand risk factors for adolescents with developmental disabilities, researching and learning their strengths is important as well (Maslow et al., 2013). Because individuals with developmental disabilities begin in a position of developmental disadvantage, it is incumbent upon researchers to examine factors that cultivate strengths and positive development which might help these adolescents eventually thrive as self-determined adults.

PYD is a strengths-based model of development for youth. Youth development organizations have demonstrated a promotion in adolescent PYD (see Astroth & Haynes,
2002; Lerner et al., 2005; Lerner & Israeloff, 2007; Roth, Brooks-Gunn, Murray, & Foster, 1998). There are numerous youth programs available that offer a variety of opportunities. Early research has indicated that successful youth programming that intended to increase PYD have goals such as promoting bonding, social competence, and moral competence (Catalano, Berglund, Ryan, Loczak, & Hawkins, 2004). Successful outcomes in youth programs may also come from community building, active participation, and interactions with caring adults (Roth et al., 1998).

Lerner et al. (2005) conducted a longitudinal study that examined youth programs and measured the five Cs of PYD: competence, confidence, character, connection, and caring. Lerner and his colleagues (2005; 2011) compared youth development organizations, with a focus on 4-H, to examine which programs help youth develop in positive ways. Their longitudinal research found higher levels of healthy living, educational outcomes, and adolescent thriving in a variety of areas for adolescents who participated in 4-H (Lerner & Israeloff, 2007). This longitudinal study did not make mention of special youth programming or PYD outcomes for adolescents with developmental disabilities (Lerner et al., 2005; 2011). However, Tormohlen and Field (1994) suggest that 4-H is an exemplary youth development organization for youth with all types of abilities.

My study is intended to investigate the experiences of youth with developmental disabilities who have participated in 4-H. Specifically, I hope to learn whether 4-H provides an environment consistent with the 4-H PYD structure (four concepts and the eight essential elements) for youth with developmental disabilities. The hope is that this environment may foster the growth of the Cs of PYD for these children and adolescents.
similar to their typically developing peers. My study used a qualitative design that involved semi-structured interviews of parents of 4-Hers with developmental disabilities, 4-H leaders who have worked with 4-Hers with developmental disabilities, and 4-H alumni with developmental disabilities. The qualitative data generated provided information regarding the 4-Hers’ experiences, the extent to which 4-H provides an environment that encompasses the four concepts and eight essential elements, and some indication of PYD outcomes. In the literature review below I included research pertinent to: (a) developmental disability status and services, (b) adolescents with developmental disabilities and their systems, (c) positive youth development promotion, (d) youth development organizations, (e) the 4-H youth development organization, and (f) positive youth development outcomes.

Developmental Disability Status and Services

The American Association of Intellectual and Developmental Disabilities (AAIDD; 2012) and the Developmental Disabilities Assistance and Bill of Rights Act (2000) define developmental disabilities as a broad term that encompasses intellectual disabilities, physical disabilities, or a combination of the two, that occur before the age of 22 and tend to be lifelong. Individuals with developmental disabilities typically have functioning limitations in areas such as: self-care, receptive and expressive language, capacity for independent living, learning, mobility, self-direction, and economic self-sufficiency (Developmental Disabilities Assistance and Bill of Rights Act, 2000). The AAIDD (2012) indicates that developmental disabilities may include autism spectrum disorders (ASD), attention deficit/hyperactivity disorder (ADHD), Down syndrome, deficits in intellectual functioning, and disorders such as epilepsy.
Many developmental disabilities are diagnosed using the American Psychiatric Association’s Diagnostic and Statistical Manual, Fourth Edition, Text Revision (2000) criteria. These can include: pervasive developmental disorders, which include autism spectrum disorders, attention deficit/hyperactivity disorder (ADHD), mental retardation, now termed intellectual disabilities, learning disorders, motor skills disorders, and communication disorders. Often these disabilities are diagnosed by psychologists and medical doctors. Other developmental disabilities such as moderate to profound hearing loss, blindness, cerebral palsy, Down syndrome, and Prader-Willi syndrome are often diagnosed by a medical doctor such as a developmental pediatrician.

Developmental disabilities impact many children, adolescents, and families in the United States. During 2006-2008, a survey of parents in the United States indicated that approximately 10 million children ages 3-17 years old (or about one in six children) were reported to have a developmental disability (Boyle et al., 2011). Furthermore, over a span of 12 years, Boyle et al. (2011) noted a 17% increase in number of children diagnosed with a developmental disability. Primarily, the rise was linked to a 33% increase in ADHD, a 289.5% increase in autism, and a 24.7% increase in other developmental delays. Developmental disabilities typically put children and adolescents at a disadvantage in areas such as educational development, social skills, and a typical trajectory toward independence in adulthood. With the current prevalence of developmental disabilities in the United States, there is an increased need for services, education, and legislation to protect and promote positive outcomes for these vulnerable individuals.
Children and adolescents with developmental disabilities qualify for services to aid with a number of developmental needs. These services may include birth to three interventions, specialized education in school, and vocational programming. The Americans with Disabilities Act (ADA) explicitly “prohibits discrimination on the basis of disability in employment, state and local government, public accommodations, commercial facilities, transportation, and telecommunications … In order to be protected by the ADA, one must have a disability” (U.S. Department of Justice, 2009, p. 1). Individuals who have a relationship or association with an individual with a disability are protected from discrimination as a result of their relation or association (U.S. Department of Justice, 2009). Title I of the ADA is specific to individuals with disabilities seeking employment. Title II protects individuals with disabilities who wish to seek equal opportunity from programs sponsored by the government, including public education, health care, social services, and so forth. Title II also incorporates protection against discrimination when utilizing public transportation. Title III offers protection for individuals with disabilities when utilizing services that are private or non-profit. Title IV involves access to telephone and television for individuals with specific hearing and speech disabilities (U.S. Department of Justice, 2009). The ADA is in place to help individuals with disabilities seek reasonable accommodations, services, and employment free from discrimination.

The Individuals with Disabilities Education Act (IDEA) is another legislative protection for those with disabilities in the United States. According to the U.S. Department of Justice (2009), “IDEA requires public schools to make available to all eligible children with disabilities a free appropriate public education in the least
restrictive environment appropriate to their individual needs. IDEA requires public school systems to develop appropriate Individualized Education Programs (IEP’s) for each child. The specific special education and related services outlined in each IEP reflect the individualized needs of each student” (p. 15). The document continues by describing the development and assessment process of an IEP for children who qualify. The Developmental Disabilities Act is a third piece of legislation that seeks to protect and empower individuals with disabilities. This act also has components that are relevant to adolescents, such as the Family Support Programs, Protection and Advocacy for People with Developmental Disabilities (PADD), and Home of Your Own (HOYO; National Council on Disability, 2011). Adolescents with disabilities often need services that will allow them to function at a level similar to typically developing youth. These services can open doors to access school, recreation, and employment similarly to their peers. Because youth operate within systems that impact their development, parents and youth must work together to strengthen or improve these systems. By interacting with other systems such as schools or other youth serving organizations and institutions, these youth can receive services that will help modify and appropriately accommodate them.

**Adolescents with Developmental Disabilities and their Systems**

Understanding the best way to navigate adolescence for parents of youth with typical development can be challenging. Having a child with a developmental disability makes the situation more complex. This is evident when parents and adolescents have to learn to advocate for services required to assist with their developmental needs. Viewing youth through a relational developmental systems model underlines the intricate and influential relations among the individual youth, including their personal characteristics,
their parents, the school systems, their communities, and the cultural and legal systems (Bronfenbrenner, 1979; 2005; Lerner et al., 2005; Lerner & Castellino, 2002; Lerner & Overton, 2008).

Bronfenbrenner (1979; 2005) lays some of the groundwork for this model through his ecological systems theory and his four interacting systems: microsystem, mesosystem, exosystem, and macrosystem. The microsystem is the individual youth and his or her daily activities and roles, as well as the people with whom he or she interacts (e.g., parents, teachers). The mesosystem is the interaction of components of the microsystem; an example of this might include an adolescent’s parents interacting with his or her teachers at school. The exosystem involves interactions among components that do not directly involve the individual but may ultimately impact the individual. For example, a youth’s father might be struggling at work and then loses his job, impacting the youth’s ability to engage in costly afterschool activities. The macrosystem involves the overarching beliefs and values of culture and the general social context in which an individual lives.

The developmental systems theory places emphasis on the reciprocal nature of individual youth characteristics and interactions with encountered contexts and how it may impact youth developmental outcomes (see Lerner & Castellino, 2002; Lerner & Overton, 2008). The core developmental system relations include the interactions among the youth and other contexts or systems (e.g., parents, school, peer networks, work environment, and the marriage network) similar to the ecological model. Similarly, it also includes interactions between the core systems with larger contexts and systems (e.g., community system, the society system, the culture system, and the natural
These contexts and systems impact and interact with youth and their individual characteristics (e.g., biology, cognition, developmental level, health) shaping their developmental trajectory. This developmental model incorporates the individual’s current functioning, contexts, and takes into consideration the potential changes that may occur over time.

Developmental systems theories are useful for making sense of youths’ experiences and life trajectories, particularly for youth with developmental disabilities. Youth and their systems interact and they can either be promoted or hindered. Determining ways to promote youth based on their strengths and the contexts in which they are enhanced is a focus of the developmental systems theory (Lerner & Overton, 2008). For example, without IDEA youth with developmental disabilities might not get the necessary services in school and depending on their individual characteristics there will be variability in whether they get their needs met and many would struggle during their academic careers. This could lead them to eventually drop out of school and struggle to find employment or achieve independence.

The question becomes what is necessary to help enhance the lives of youth with disabilities and what will help them build on their strengths and increase their own positive outcomes. Hauser-Cram and Krauss (2004) identified three important tasks of development for adolescents with developmental disabilities. These tasks include: building supportive peer networks, increasing independence, and adjusting parent adolescent relationships. Each of the three tasks will be described next, and the relevance to positive development for adolescents with developmental disabilities discussed.
**Building supportive peer networks.** Positive and supportive peer relationships are important for development. For example, when adolescents have positive peer relationships they are less likely to engage in negative and harmful behaviors such as substance use or early sexual behaviors (Dunn, Kitts, Lewis, Goodrow, & Scherzer, 2011). A lack of peer relationships and adolescent social isolation have been associated with poorer psychological health such as an increased risk for low self-esteem, depressive symptoms, and suicide attempts, (Hall-Lande, Eisenberg, Christenson, & Neumark-Sztainer, 2007). Maintaining positive friendships may promote mental health (Ueno, 2005) and help adolescents navigate school by increasing their sense of belonging (Faircloth & Hamm, 2005). Building positive peer relationships is often more challenging for youth with developmental disabilities.

Difficulty with peer relationships and experiences with bullying are not uncommon for adolescents with developmental disabilities (Christensen et al., 2012; Reiter, Bryen, & Shachar, 2007). Building these relationships is often difficult for these youth, because they frequently have poor skills for developing positive peer relationships (Skar, 2003; Vallance, Cummings, & Humphries, 1998). They may also have difficulty building friendships while in special education classrooms; and also may feel lonelier than adolescents with disabilities in mainstreamed classrooms (Heiman, 2000).

Additionally, development of positive peer relationships may be deterred by behavioral problems and aggression that adolescents with developmental disabilities sometimes exhibit (Kanne & Mazurek, 2011). Furthermore, adolescents with chronic conditions, including those with disabilities, are more likely to engage in health risk behaviors such as using substances and performing violent or antisocial acts than typically developing
peers (Kepper, Monshouwer, van Dorsselaer, & Vollebergh, 2011; Suris et al., 2008). These risk behaviors may contribute to difficulties with building and maintaining positive peer relationships.

**Increasing independence.** Adolescents with developmental disabilities, similar to youth with typical development, face many challenges during development and often require support from others such as parents and teachers. Support in the schools tends to be in the form of special education classrooms and individualized programming. However, when they are no longer in the school system youth with disabilities do not have the same type of access or support in place to assist them with daily functioning. Increasing ones independence across childhood and adolescence is an important developmental milestone (Hauser-Cram & Krauss, 2004). This growing level of independence or self-determination allows adolescents to contribute to society and become productive citizens (Lerner, Dowling, & Anderson, 2003). Further, achieving a sense of self-determination (Field, Martin, Miller, Ward, & Wehmeyer, 1998) is associated with better outcomes in adulthood. Field and colleagues (1998) define self-determination based on their extensive review of the literature as:

> A combination of skills, knowledge, and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior. An understanding of one’s strengths and limitations together with a belief in oneself as capable and effective are essential to self-determination. When acting on the basis of these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults in our society (p. 2).
Self-determination has been investigated with samples of individuals with developmental disabilities (Field & Hoffman, 1999). For many youth, self-determination is an important goal toward which they and their families are striving, and it is a system-based model that strongly incorporates the family, the school, and other organizations in the community (Carter, Owens, Trainor, Sun, & Swedeen, 2009). Self-determination is enhanced through skill development in multiple areas. These include domestic tasks, life management activities, accessing community resources, recreation and leisure, and social and vocation involvement (see Wehmeyer in Sheppard & Unsworth, 2011).

**Adjusting parent/adolescent relationships.** With the goal of self-determination and the increased need for independence, researchers Thorin, Yovanoff, and Irvin (1996) conducted a study asking parents what their most common dilemmas were when raising adolescents with developmental disabilities. What emerged from their data were six commonly reported parent dilemmas: (1) wanting to create opportunities for independence for the young adult and wanting to assure that health and safety needs are met; (2) wanting a life separate from the young adult and wanting to do whatever is necessary to assure a good life for him or her; (3) wanting to provide stability and predictability in the family life that follows the usual developmental periods; (4) wanting to create a separate social life for the young adult and wanting to have less involvement in his; (5) wanting to avoid burn-out and wanting to do everything possible for the young adult; (6) wanting to maximize the young adult’s growth and potential and wanting to accept the young adult as he or she is. These dilemmas demonstrate that, for those with developmental disabilities adolescence is a challenging time and that families are an integral component of success.
The tasks of increasing independence and adjusting relationships both underscore the importance of the shifts in the adolescent’s interpersonal relationships. Research hints at the necessity for developing self-determination in order to build skills that will benefit the individual later in life (Wehmeyer & Palmer, 2003). Strong adaptive functioning and daily living skills paves a pathway toward independence. Building these skills in adolescence through environments provided by autonomy-supportive parenting is a way self-determination can be facilitated (Soenens & Vansteenkiste, 2005). A shift in adolescent and parent relationships are often fostered through promotion of adolescent independence, adolescent self-efficacy, and social experiences with peers (see Hauser-Cram & Krauss, 2004). This shift is more likely to occur when adolescents are aware that they are capable and that their parents are there for support and not there to take care of all their needs (see Hauser-Cram & Krauss, 2004). When adolescents are supported toward building autonomy and general life skills for their future independence, they have a greater ability to contribute on their own.

**Promoting the Growth of Positive Youth Development**

The study of adolescent pathology and risk factors is necessary and provides a great deal of information regarding areas in need of intervention. However, researchers have also examined what goes right during adolescent development and evaluated ways to promote this positive development in all youth. Lerner and colleagues (2005) conducted a longitudinal research study to investigate PYD. Their model includes the theoretical framework derived from the developmental systems perspective and illustrates the path toward a successful transition from adolescence to independence in adulthood.
Youth do not exist in isolation rather it is the youths’ systems interacting together that can help propel them onto a strengths-based positive trajectory.

Children and adolescents’ environments can alter this development. Following a review of youth development programs, the National Research Council and Institute of Medicine (2002) identified features that provide positive outcomes for youth. Some of these features include: physical and psychological safety, emotional and moral support, opportunities for adolescents to experience supportive adult relationships, opportunities to learn how to form close, durable human relationships with peers that support and reinforce healthy behaviors, opportunities for skill building and mastery. It is suggested that more positive features in an adolescent’s environment fosters more positive youth developmental outcomes, as the features may have a “synergistic effect.”

4-H curriculum was developed to utilize eight of the ten positive features described by the National Research Council and Institute of Medicine in their programming for youth. Developmental assets or positive features such as support and activity participation have demonstrated effectiveness for youth and are incorporated in 4-H programming (Scales, Benson, Leffert, and Blyth, 2000). In particular, three of the positive features, have demonstrated consistent growth of positive youth outcomes (Lerner & Israeloff, 2007). The first approach involves sustained positive youth and adult relationships and is considered to be the most important of the three. The second is participation in recreation activities that build life skills. Finally, the third includes youth leadership in the community. Each of these developmental assets and positive environmental features can be promoted through participation in youth development organizations and are highlighted throughout 4-H programming.
Youth Development Organizations Promote Positive Youth Development

PYD is an important area of research for youth with developmental disabilities, because these youth need more support as they work their way through adolescence and head toward the transition into adulthood. Specifically, youth with developmental disabilities may benefit from experiences in PYD goal-based activities which can support them in their progression toward adulthood. Areas that have demonstrated positive growth for youth include the five C’s highlighted by Lerner et al. (2005). Additionally, building positive peer relationships, shifting adult support and relationships, and strengthening independence and self-determination are also significant (Field et al., 1998; Hauser-Cram & Krauss, 2004).

Adolescents spend time outside of school participating in many different activities. Balsano, Phelps, Theokas, Lerner, and Lerner (2009) examined different types of out-of-school-time activities to begin determining which types of programs are most beneficial for youth and what components are more helpful for encouraging PYD and goal attainment. Through their work with youth with chronic health care needs, Maslow and colleagues (2012) examined the utility of applying the PYD framework in their investigation of a mentorship program. In general, youth development organizations encourage relationships with positive adults, provide opportunities to learn skills, and enhance engagement (Lerner at al., 2005). Roth and Brooks-Gunn (2003) stated that youth development organizations are defined first by the organization’s goals, which might include prevention of problem behaviors or promotion of positive outcomes such as skill building. Secondly, they are defined by the organization’s atmosphere, which might be environments that are supportive, empowering, or expecting. The third aspect is
the activities the organization offers, such as physical activity, life skills, or community service. Organizations that incorporate these three components are built to promote positive development in youth. Youth development organizations that had more youth participants who were considered disadvantaged tended to incorporate more of a developmental focus and highlighted activities and opportunities for skill-building (Roth & Brooks-Gunn, 2003). PYD organizations are structured and supportive, providing opportunities for adolescents to practice goal setting and develop skills. 4-H is one such research based positive youth supporting organization.

The 4-H Youth Development Program

4-H has been around for over 100 years, with the first club beginning in the early 1900’s (4-H, 2012). It is now considered the largest youth organization in the United States with over 6 million participants and it is publicly funded by the United States Department of Agriculture (USDA; 4-H, 2012). Recently 4-H was recognized by the Social Impact Exchange and rated as a top 100 high impact and high performing non-profit in the United States (4-H, 2013). Every state has participating USDA extension offices, land-grant universities, county offices, and individual clubs (4-H, 2012). Originally, 4-H clubs were developed in an effort to have research reach rural area youth and to help them begin to utilize evidenced-based agricultural practices within their communities (4-H, 2012). Today, 4-H still maintains roots in agriculture and home economics but there are a number of other programs far from the farming image that people often think of in relation to 4-H. Some of these programs include robotics, leadership, and international travel. Participants of 4-H have extended beyond rural regions to include youth from urban and suburban communities.
4-H is a systems-based program with a vision that encourages “youth and adults [to] learn, grow, and work together as catalysts for positive change” (4-H National Headquarters, n.d.). 4-H’s systems-based curriculum “intentionally creates opportunities and provides environments rich with [the] essential elements of PYD” (Martz et al., 2009). As previously described, 4-H strives to provide an environment that encompasses eight positive features called the eight essential elements. These elements are incorporated within the four major concepts: belonging, mastery, independence, and generosity.

**Belonging.** The belonging concept includes three of the eight elements that support positive development. The first element is positive relationships with a caring adult. The adult relationship could be any caring adult who works with the youth during the 4-H experience and is most often the 4-H leader or 4-H parents. A positive caring adult, “acts as an advisor, guide, and mentor for young people” (see Carlson et al., 1998). Caring youth and adult relationships have demonstrated stronger community connections, including positive adult and peer connections and stronger psychological agency (Krauss, Collura, Zeldin, Oretega, Abdullah, & Sulaiman, 2014). Psychological agency is a youth’s feeling of being able to solve problems and reach goals independently (Krauss et al. 2014).

The second element is a safe environment, physically and emotionally. A safe environment allows youth to participate in activities without the threat of harm. Specifically, “youth should not fear physical or emotional harm while participating in the 4-H experience whether from the learning environment itself, adults, or other participants or spectators” (see Carlson et al., 1998). Research suggests that a sense of safety in
combination with having positive adult relationships is related to positive youth perceptions of learning social skills for ethnic minority youth (Lee, Borden, Serido, & Perkins, 2009). Additionally, research suggests a safe environment is correlated with factors such as empowerment, community connections, and school engagement and it has some positive association with youth psychological agency, prior to factoring in positive youth and adult relationships (Krauss et al., 2014).

The third element is an inclusive environment. This element is often debated in reference to youth with developmental disabilities and domains such as schools often discuss how to best include youth with different abilities in a way that is most helpful and beneficial for this population. The description of the 4-H element indicates that, “an inclusive environment is one that allows a sense of belonging to develop, encourages and supports its members and offers encouragement with positive and specific feedback. Healthy groups celebrate the success of all members, taking pride in the collective efforts of all” (see Carlson et al., 1998).

**Mastery.** Mastery includes two elements that support PYD. The fourth essential element is engagement in learning and “an engaged youth is one who is mindful of the subject area, building relationships and connections in order to develop understanding” (see Carlson et al., 1998). The fifth element is an environment that provides an opportunity for mastery. Specifically, “mastery is the building of knowledge, skills, and attitudes and then demonstrating the competent use of this knowledge and skills in the manner of the proficient practitioner. The level of mastery is dependent on the developmental ability of the individual child or youth. The development of mastery is a process over time and is increased with repetition” (see Carlson et al., 1998). Other
research suggests that incorporating opportunities for engagement such as having youth make decisions regarding programming boosted youth program motivation (Akiva, Cortina, & Smith, 2014).

**Independence.** Independence includes two elements. The sixth element is the opportunity to see oneself as an active participant in the future. Specifically, “the ability to see one-self in the future is to harness the hope and optimism to shape life choices to facilitate the transition into participating in the perceived future” (see Carlson et al., 1998). The seventh element is the opportunity for self-determination. This element may be present if youth “believ[e] that [they] have an impact over life’s events rather than passively submitting to the will and whims of others…Young people must foster a personal sense of influence over their own lives, exercising their potential to become self-directing, autonomous adults” (see Carlson et al., 1998). Self-determination has been correlated with self-reported quality of life and self-efficacy for adolescents with typical development (Nota, Soresi, Ferrari, & Wehmeyer, 2011).

**Generosity.** Generosity encompasses the eighth element and it includes the opportunity to value and practice service to others (Carlson et al., 1998). This element may be present if the 4-Hers enjoy serving others in their communities, support others within 4-H and the greater community (see Martz et al., 2009). In general, participating in positive activities and acting in a prosocial manner is often associated with better mental health outcomes and can be strengthened and encouraged in youth (see Layous, Chancellor, & Lyubomirsky, 2014).

Each of these eight essential elements among others contributes to PYD as evidenced by Bowers and colleagues (2010) and they are considered foundational in
youth development work (see Carlson et al., 1998). The four major concepts and eight
essential elements that 4-H works to implement, strengthens and grows the Cs
(confidence, character, confidence, competence, caring) of PYD (Lerner et al, 2011;
Lerner & Israeloff, 2007). These areas of PYD are research-based and associated with
better outcomes for typically developing adolescents. The 4-H National Headquarters
mission is centered on, “Advancing research-based youth development and 4-H through
the science of engagement, learning, and change to create a better future for the nation
and the world” (n.d.). 4-H was founded on the principles of extending research-based
information and new research-based methods into the greater community through their
youth. 4-H continues to work toward maintaining a curriculum that is rooted with strong
research-based evidence in order to provide youth with the greatest opportunity to
navigate adolescence and exceed in their goals.

Lerner and colleagues (2011) have been conducting longitudinal research with
adolescents who participate in youth organizations such as 4-H. Results of their
longitudinal data indicate that youth who participate in 4-H are likely to demonstrate high
scores of PYD as well as high scores of contribution (Lerner et al., 2011). These results
include a number of positive findings that point to the value of participation in 4-H. For
instance, youth in the eleventh grade who participate in 4-H are significantly more likely
to have a higher engagement in school, delay sexual intercourse, and report healthier
habits. Additionally, they are less likely to engage in delinquent behaviors than their
peers who participated in other out-of-school-time activities (Lerner et al., 2011).
Additionally, girls in the eleventh grade who participated in 4-H were less likely to use
drugs, and boys were more likely to exercise and be physically active and they were less
likely to be depressed than their same gender peers who participated in other out-of-
school-time organizations (Lerner et al., 2011). Early research indicates that 4-H
participants were more likely to have “A” grades in school, to participate in leadership
roles, and to be involved in other out-of-school activities (Astroth & Haynes, 2002).
These results are not surprising when considering the emphasis 4-H places on the
essential elements and the overarching goal of encouraging the growth of PYD in the
programming.

4-H is not distinctly advertised as an organization for adolescents with
developmental disabilities. However, 4-H literature indicates that their programming
follows federal and state laws and regulations regarding nondiscrimination of individuals
with physical, mental, or sensory disabilities (Washington State University Extension,
n.d.). In addition, they uphold their responsibility to provide reasonable accommodations
for individuals with disabilities upon request (Washington State University Extension,
n.d.). Furthermore, there are a number of publications produced by 4-H affiliates that
make mention of youth with disabilities participating in the organization and the benefits
and the ease involved with including youth with disabilities (Barney, 2004; Saathoff,
1994; Tormoehlen & Field, 1994). Consistent with IDEA and the ADA, Tormoehlen and
Field (1994) state:

All youth, regardless of their physical and mental conditions, need and deserve
the opportunity to be involved in activities unique to their own special talents and
interest. They also need to be integrated, to the greatest extent possible, with
other children with and without disabilities in preparation for adulthood in a world
with great diversity. (p. 2).
4-H has a strong evidence base for youth with typical development. With such large numbers of youth participating in 4-H it is likely there are participants with developmental disabilities and it would be beneficial to measure outcomes for these youth as well.

**Positive Youth Development Outcomes**

The literature suggests that PYD is often nurtured by the environments in which youth exist. Researchers indicate there are five important qualities of PYD that can be developed in youth that result in several positive outcomes. These qualities are called the five Cs. The Cs include: competence, confidence, connection, character, and caring, all of which lead to greater contribution, which is dubbed the sixth C (Lerner & Israeloff, 2007). There is a degree of overlap among the Cs; however, each of the Cs represents a different component of PYD. While not every teen has high levels of all five, each of the Cs has been investigated independently in relation to associations with positive outcomes for youth through a number of studies. Adolescent development of the Cs can be strengthened through targeting positive features and other developmental assets within adolescents’ systems.

**Competence.** Competence is the first C and it encompasses an individual’s ability to succeed and do well in his or her environment (Lerner & Israeloff, 2007). Academic competence is one type of competence discussed and it is associated with greater academic achievement and positive emotional functioning (Roeser, Eccles, & Sameroff, 1998). Academic competence is also reciprocally related to another form of competence, social competence, as demonstrated in early elementary students (Welsh, Parke, Widaman, & O’Neil, 2001). However, competence is not merely the ability to
succeed in academics or social domains but instead includes five domains: academic, social, cognitive (e.g., decision making skills), emotional (e.g., awareness, regulation, and expression of emotion), and vocational (e.g., work habits and career choice exploration; Lerner et al., 2005). Although each of these domains requires a different type of competence the meaning of competence remains the same: it is the adolescent’s ability to adequately and effectively function and do what is required within a specific domain (Lerner & Israeloff, 2007). For instance, the social domain is not necessarily about being popular and liked by many people but about learning to successfully navigate social systems and alter behavior based on the social situation. Competence in each of these areas suggests the youth has a grasp of a specific domain and can demonstrate knowledge. Having perceived competence is also beneficial. Perceived competence and self-concept is related to self-efficacy, which comprises an adolescent’s beliefs as to whether he or she can do a specific task (Hughes, Galbraith, & White, 2011).

Confidence. Confidence is the second C and is generally considered individuals’ belief in their overall abilities and self-worth. Individuals’ sense of competence may impact their sense of confidence; such that if they are academically competent they are more likely to feel confident (Lerner & Israeloff, 2007). Self-worth and perceived competence are associated with adolescent preference for being academically challenged (Wong, Wiest, & Cusick, 2002). Overall confidence predicts adolescent loneliness, such that adolescents with high levels of general confidence have lower levels of self-reported loneliness (Cheng & Furnham, 2002). Additionally, adolescents with a low confidence were shown to have a higher association with delinquent involvement (Carroll, Houghton, Wood, Perkins, & Bower, 2007). In general a higher level of overall confidence is
oftentimes measured as a predictor of positive outcomes, but there are other more specific types of confidence as well. These include academic, athletic, social, and vocational confidence (Harter as cited in Lerner at al., 2005). For example, perceived academic competence is associated with adolescent academic achievement, preference for being academically challenged, and preference for independent mastery (Wong et al., 2002).

**Connection.** The third C, Connection, involves adolescents’ productive and positive relationships with other people in their systems. Adolescents may experience connection by actions they take or that others take; regardless of how the connection is made, the benefits come from the maintenance of the connection and its positive nature (Lerner & Israeloff, 2007). Peer relationships and social connectedness typically tend to become more important in adolescence and connection is an integral component of adolescent development (Brown, 2004). For example, maintaining positive peer relationships is associated with less substance use and less early sexual behaviors (Dunn, et al., 2011). High levels of adolescent social connectedness and school connectedness are associated with less depressive symptoms and substance use, and higher school completion (Bond et al., 2007). Family connectedness is also important and is a significant predictor of non-suicidal self-harm, suicidal ideation, suicide plans, and non-fatal suicidal behavior (Kaminski et al., 2010). Adolescents with greater family connectedness and participation in family mealtimes were less likely to have binge drank in the last year (White & Halliwell, 2010). In addition, family connectedness, teacher connectedness, and peer support were associated with higher levels of school connectedness (Waters, Cross, & Shaw, 2010).
Character. The fourth C, character, is demonstrated in people with integrity and values. It allows individuals to help decipher between right and wrong and provides them with a sense of justice (Lerner & Israeloff, 2007). When a sample of adolescents were questioned about their reactions to hypothetical situations that involved moral transgressions, adolescents who reported less negative feelings about the transgressions had higher levels of delinquent activity (Johnston & Krettenauer, 2011). Additionally, moral values have been associated with adolescent self-reported delinquency (Tarry & Emmer, 2007) and adolescent moral self-reports were associated with self-reported prosocial action (Johnston & Krettenauer, 2011). Further, adolescent reported integrity has been shown to predict commitment to educational projects (Harre & Bullen, 2010).

Caring. Caring is the fifth C and is described to be an individual’s level of both empathy and sympathy for others (Lerner & Israeloff, 2007). Empathy and sympathy are considered part of moral and prosocial development in adolescence (see Eisenberg & Morris, 2004). Empathy is associated with prosocial behavior, moral reasoning, cooperation, and social competence (see Eisenberg & Miller, 1987; Eisenberg, Miller, Shell, McNailey, & Shea, 1991). Adolescent empathy and sympathy is associated with perspective taking abilities, which may lead to better peer relational skills, perspective taking abilities, and altruism (see Eisenberg & Morris, 2004).

Contribution. Each of the Cs independently leads to more positive outcomes for youth, but in combination they may lead to a sixth C, contribution (Lerner et al., 2005). Lerner and Israeloff (2007) define contribution as “the desire and the capacity to give back to those people and institutions that give to us” (p. 183). Engagement in service
activities often leads to positive outcomes such as high GPA, fewer behavior problems, and increased civic knowledge (Schmidt, Shumow, & Kackar, 2012). At this time, the Cs have not been researched in a population of adolescents with developmental disabilities; however, it possible these youth would experience similar PYD outcomes as their typically developing peers.

Having a developmental disability places youth at a developmental disadvantage, which results in a number of risk factors (i.e., Christensen et al., 2012; Suris et al., 2008). Each of the Cs has demonstrated a protective function for adolescents with typical development. No research to date has investigated whether the Cs may also serve to protect adolescents with disabilities and promote positive outcomes. The systems-based Cs of PYD may help to successfully guide youth with developmental disabilities through the process of building positive peer relationships, strengthening independence and self-determination, and adjusting relationships with adults (Hauser-Cram & Krauss, 2004). Youth who participate in youth development organizations that promote PYD goals are more likely to foster the development of the goals of strengths-based PYD than if they do not participate in similar programs (Balsano et al., 2009).

**Dissertation Purpose**

Based on my review of the literature, 4-H is committed to utilizing research informed practices and programs when they are available and they are committed to evaluating their programs, practices, and principles. While researchers have demonstrated PYD outcomes for youth with typical development as a result of participation in 4-H, they have not explicitly examined the effect of 4-H participation on youth with developmental disabilities. A qualitative investigation of the environment
provided by 4-H for these children and adolescents as well as their experiences as 4-H members is an important starting point to in order to begin building an understanding of how 4-H may contribute to the growth of PYD for youth with developmental disabilities. Therefore, the purpose of my dissertation is to investigate whether 4-H provides an environment consistent with the 4-H PYD structure (four concepts and the eight essential elements) for youth with developmental disabilities. Specifically, the research question is: Does 4-H programming provide the stated 4-H PYD structure for youth with developmental disabilities?

CHAPTER II
Method
Locating the Paradigm and Method of Inquiry

My study utilized the consensual qualitative research method (CQR; Hill, 2012) to investigate the experiences of youth with developmental disabilities who participated in 4-H. It is grounded in the PYD theory which has roots in developmental systems theories (Bronfenbrenner, 1979; 2005; Lerner et al., 2005) and data collection is mapped onto the 4-H PYD approach. However, qualitative methods tend to allow for the data to begin forming and shaping conclusions that may differ from previous literature. Consequently, although this study is grounded in theory, it is possible some of the results may diverge from the theoretical structures previously described. Building on previous models is part of the CQR approach and interview questions are suggested to be built on existing literature (e.g., Hill et al., 1997; Hill, 2012). CQR offers a manualized approach to collecting and analyzing data, by way of interviews, coding, cross-analysis, and auditing. CQR also allows the researcher to utilize frequencies and offers a structured
format for providing results to the consumers of research (Hill, 2012). The CQR approach incorporates interviewing a small sample of participants in order to elicit rich descriptions of their experiences as opposed to limiting their responses with Likert-type scales (Hill, 2012). This is particularly useful for the highly specific sample sought for this study. According to Bronfenbrenner (1979):

> The emphasis on rigor has led to experiments that are elegantly designed but are often limited in scope. This limitation derives from the fact that many of these experiments involve situations that are unfamiliar, artificial, short-lived, and call for unusual behaviors that are difficult to generalize to other settings. (p. 18).

While not explicitly about the use of CQR, this statement provides support as to the use of qualitative methods when trying to obtain rich data regarding individuals and the impact of the systems in which they exist.

The CQR approach is an appropriate method for data collection with this particular sample. Qualitative methods, including CQR, are often used when a particular topic has not been researched before (Hill, 2012). In this case, typically developing adolescent outcomes have been investigated but not the experiences of youth with developmental disabilities (Lerner et al., 2005). In the current study, this approach allowed for more comprehensive information from parents, 4-H leaders, and 4-H alumni regarding youth experiences as a result of participation in 4-H. With a qualitative approach of interviewing using a semi-structure interview approach, participants were able to respond to open-ended questions regarding what they noticed and experienced within 4-H. The hope was that the data from these interviews would accurately capture
their true experiences. The interview was framed around examining parent, 4-H leaders, and 4-H alumni perceptions of the environment and programming provided by 4-H.

**Participants**

Typically, CQR research involves small sample sizes, Hill and Nutt-Williams (2012) recommend samples of 12 to 15 participants. However, they also suggest that if there is a possibility for sub-groups to emerge, interviewing a slightly larger sample of 15 to 19 is a better practice (Hill & Nutt-Williams, 2012). My sample included 15 participants (12 female, 3 male). Of those, six were parent/leaders, three were leaders, two were parents, one was a grandparent, and three were alumni. Eleven participants identified as White, one as Hispanic/Latino, one as bi-racial, and two declined to report. Years of 4-H participation ranged from 3-53 years. Participants included parents whose children were between the ages of 5-22, had been involved in 4-H for at least three years, and had a developmental disability as outlined by the AIDD (2013; e.g., autism, ADHD, intellectual deficits, and Down syndrome). 4-H leaders who participated worked with individuals with developmental disabilities as part of their 4-H experience. Alumni who participated in the study had been in 4-H for at least three years, were over the age of 18, and had a developmental disability. Participants were recruited from 4-H clubs in the state of Washington and throughout the United States through email, announcements to extension offices, and electronic flyers.

**Data Source**

**Interviews.** Researchers have recommended reviewing existing literature in order to inform question creation of the interview protocol and to continue building theory (Hill, Thompson, & Williams, 1997). My interview protocol is derived from the
PYD literature and is supported by the 4-H PYD structure as well as Hauser-Cram and Krauss’s (2004) three important domains for youth with developmental disabilities. When doing qualitative research it is necessary to be aware of potential bias that may arise based on knowledge of the current literature and interviewers’ prior experiences (Burkard, Knox, & Hill, 2012). In order to avoid unnecessary bias the interviewers utilized an interview protocol with a script to follow as they ask participants questions.

In order to build rapport and gather honest and unbiased information, the protocol was made up of three sections (Burkard et al., 2012). Section one of the interview involved building rapport with the interviewee, through asking non-invasive and less emotionally driven questions. For my study this included scripted informational questions about topics such as general 4-H participation. Section two of the interview included scripted questions that explore the research questions and unscripted questions that the interviewer may utilized in order to gather a more complete picture of what the interviewee described. Scripted questions centered on the beliefs, feelings, reactions, observations, and experiences regarding youths’ experiences and outcomes as a result of participation in 4-H. Hill et al. (2005) suggests using approximately 8-10 scripted, open-ended questions per hour for an adequate amount of information and richness in data. Section three of the interview protocol allowed the interviewees to process any emotions they experienced as a result of the questions and allowed for any questions and any other information the participant wanted to provide at the end of the interview.

**Researchers-as-Instruments**

As the principal investigator of this dissertation I developed the questions based on grounded theory and recruited the participants for the study. I have been an enrolled
4-H volunteer for three years. My faculty advisor and dissertation chair has been with 4-H for 11 years in a role as a 4-Her and 12 years as a volunteer. Co-investigators included seven doctoral students in the industrial/organizational psychology program enrolled in a class on qualitative research methods and two clinical psychology doctoral students. These co-investigators assisted with interviewing and with developing a preliminary coding structure. Interviewers were trained on how to conduct sensitive and thorough interviews. They learned ways to gather more information from interviewees without being cold or intrusive. While I did not anticipate conflicts of interest between the research team and research participants, I was cognizant of this possibility. For example, if a dual relationship between potential interviewer and interviewee had been identified, the interviewer would have been reassigned. Additionally, all data was de-identified prior to the categorization and coding process.

**Procedure**

**Recruitment.** In order to recruit participants, I networked and utilized snowballing methods. I had the 4-H extension office and staff members disperse my recruitment flyer and research study information, as well as provide contact information for individual clubs so I could send recruitment flyers via hardcopy and email. The recruitment flyer detailed information about my study with essential information from the informed consent.

Participants signed up for the study through Qualtrics. Recruitment materials included a link to this secure on-line data collection system. There, participants reviewed informed consent materials, provided consent to participate in the study, and completed on-line measures that collected background/demographic data.
Data collection. Due to recruitment across the nation, in-person, interviews were not always feasible. However, participant interviewees who were local were welcome to select in-person interviews. Participants who were not local had the option of a face-to-face interview over the internet via Adobe connect or Skype. Some participants also chose to complete their interviews over the telephone. The limit to privacy through internet communication is described in the informed consent. The informed consent also reviewed participants’ rights to confidentiality and their right to withdraw at any time. No identifying participant information is stored with their responses. Each participant was provided with information regarding the nature of the study as well as their rights and they were asked to sign the informed consent before beginning the interview.

For each interview there were at least two interviewers present to collect data. One interviewer asked the questions and primarily interacted with the participant and the other interviewer documented the conversation during the interview creating a case record. The case records were then e-mailed to the participants for review and amendment. That is, the participants were invited to edit, change, or extend their responses in a manner that seemed best to them.

Data analysis. For data analysis I utilized the Consensual Qualitative Research method (CQR; Hill, 2012). The CQR method involves a variety of steps to analyze the case record interview data: code the data into domains, develop core ideas (Thompson, Vivino, & Hill, 2012), utilize a cross-analysis to create categories and sub-categories within the domains from the data (Ladany, Thompson, & Hill, 2012), and audit (Schlosser, Dewey, & Hill, 2012). Each of these steps necessitates being familiar with
the data and keeping in line with the context and content of the information provided by
the participants (Hill, 2012).

Coding the data into domains is an essential component of the CQR method. In
order to create domains we utilized an inductive approach and reviewed the case records
and identified themes that began to appear in the data (Thompson et al., 2012). The
domain creation process began with each researcher independently reviewing the same
case record, noticing themes, and developing their own independent set of domains.
Together we discussed which domains were the most consistent and relevant and worked
to develop a consensus. From this point we will went through the rest of the transcribed
interviews independently and continued to assign chunks of data into their respective
domains. Domains could be added as interviews were transcribed. When this occurred,
previously transcribed interviews were recoded with the new domains considered. If data
had not fit into any of the domains there would have been an “other” domain created
(Thompson et al., 2012).

After the domains are created, we went back and created core ideas for each
statement within the domains. Core ideas provided a clear snapshot of each piece of data
within the domains and allowed them to be more easily classified into categories
(Thompson et al., 2012). In order to develop the core ideas, data was simplified down to
the main point the interviewee made (Hill et al., 2005). For instance, if the participant
said, “My child has really struggled with, well I wouldn’t say struggled, more like had
some difficulty with making friends in a lot of different situations, like in school.” This
might be simplified into a core idea such as: Child has difficulty making friends. The
core ideas were developed in a manner similarly to the domains. However, during this
process we continued to meet together to work through interviews as a group and
developed a consensus (Thompson et al., 2012). The categories were developed next
through the cross-analysis process.

Cross-analysis involved going through domains one at a time and grouping the
core ideas into categories (Ladany et al., 2012). The number of categories within
domains varied and there was no limit as to how many categories were required. We
worked together for the first domain and developed a consensus and then we worked
independently on different domains and reached consensus on those as well. From this
step I was able to evaluate the frequency with which specific categories emerged. There
were four levels of frequency: general, typical, variant, and rare (Ladany et al., 2012). If
all but one participant endorsed a particular category then the category was considered
general. A category was considered typical if more than half of the participants endorsed
it. Variant occurred when at least three participants and up to half of the participants
endorsed the category and rare was when one to two participants endorsed a category
(Ladany et al., 2012).

Auditing occurred throughout the organization of the data during each of the steps.
The auditing process was necessary to help ensure trustworthiness of the results and to
ensure data was in the correct domains and categories (Hill et al., 2005). Auditors
included the researchers who conducted the interviews and who sorted the data. Auditing
occurred in teams. The process involved checking to see whether the domains made
sense based on the questions being asked and whether data units were accurately assigned
to domains and categories based on the consensual discussion and theory (Hill et al.,
2005). When there was a discrepancy it was discussed with the team as a whole.
Domains were permitted to change, categories were moved to different domains, and sub categories were shifted into different categories. Auditing was continuous process and changes were made throughout the duration of data analysis.

**Trustworthiness**

Demonstrating trustworthiness of the data is a difficult task and there is no single best way to do it. Hill et al. (2005) recommends qualitative researchers work to develop new ways to measure trustworthiness of their qualitative data. For this study four criteria were used to measure the level of trustworthiness of the data (Morrow, 2005). These criteria included: credibility, transferability, dependability, and confirmability. Each of these four criteria corresponds with criteria necessary for trustworthy quantitative research (Morrow, 2005). Credibility in qualitative research corresponds with internal validity and can be strengthened through the interview data collection process with participants (Morrow, 2005). When interviewers spend time eliciting rich descriptions of the participants’ experiences, thoughts, and feelings, there is an opportunity to develop a more in-depth understanding of the topic. Transferability in qualitative research corresponds with external validity and was developed in this study through providing detailed information regarding the method of the study. This included the research questions, participant demographics, and the interview process (Morrow, 2005). Dependability corresponds with reliability and was enhanced through the auditing process and the creation of an audit trail including the transcripts, their edits, and spreadsheets that document the coding and counting (Morrow, 2005). Confirmability in qualitative research corresponds with objectivity and is a challenge to support. This is true particularly because the data collected and analyzed is not objective. However,
confirmability is supported by the consensus and auditing processes (Morrow, 2005) and by providing the results to participants (Hill et al., 2005).

CHAPTER III

Results

Domains, Categories, and Sub-Categories

Qualitative analysis of the 15 case records readily supported the presence of the four concepts (i.e., belonging, mastery, independence, and generosity) that compose the PYD environmental foundation of 4-H. These domains do not exist in isolation rather they overlap and the belonging domain appears to be foundational as it was described by each participant as being the most influential component of participation with the 4-H programming. These domains will be discussed further as will the categories and sub-categories. Within the four domains 15 categories and 32 sub-categories emerged.

Readers are encouraged to read the results narrative in tandem with the CQR frequency table (see Table 1); it serves as an outline and provides an index to the salience (i.e., frequency) of each theme. Frequency of the number of times each theme is mentioned is included in Table 1 and is coded as general, typical, variant, or rare. If all but one participant (14-15 participants) endorsed a particular category/subcategory then it is considered general. It is typical if more than half of the participants (8-13 participants) endorsed it. Variant occurs when at least three participants up to half of the participants (3-7 participants) endorsed the category and rare is when one or two participants endorsed it (Ladany et al., 2012). Quotations from the stakeholders are presented throughout the results. At times, the grammar in these quotations has been amended to
improve the readability of the article. All changes have been made with care so that the quotes reflect the speakers’ intentions.

**Belonging**

The first domain illustrates the ways in which participation in 4-H facilitates and encourages belonging. This domain is the most robust with the greatest number of categories and sub-categories, as well as including one *general* category. Belonging in particular appears to be an influential and at times foundational aspect of participation in 4-H as reported by 4-H alumni, 4-H leaders, and parents and this was consistent across interviews. Participants highlighted the ways in which 4-H offers opportunities to belong through building peer relationships, fostering strong relationships with positive caring adults, offering a sense of extended family in the club, and building connections in the community. Participants also described the importance of accommodations in 4-H, specifically for youth with developmental disabilities, as well as other environmental qualities provided by 4-H that strengthen 4-Hers’ sense of belonging.

**Peer relationships.** Friendships are an important aspect of child and adolescent development and a key component to feeling a sense of belonging. It is through these peer relationships that several participants described deep connections among 4-Hers and a strong sense of community. The peer relationships category is comprised of camaraderie and cliques. Both subcategories offer a different perspective on the 4-Hers’ experiences with developing and engaging in friendships while participating in the 4-H programming. Specifically, each participant refers to the relationships developed by youth with developmental disabilities as opposed to 4-Hers with typical development.
Camaraderie. The subcategory of camaraderie describes the deep bond
developed among 4-Hers. Participants highlighted feeling included by peers as well as
being bonded with peers through common interests and working together toward similar
goals. Two 4-H alumni described their connection to their 4-H friends as being life-long.
One alumnus stated, “…you just bond and those friends become your friends for life.
Those were the people I bonded with” the other reported that, “…each club is really tight
knit. Everyone does different things, but then they all join together. Everyone has a safe
place to come back to. I am still connected to that circle. You are never disconnected
from that circle.” A leader described the bond among 4-Her’s as a natural part of 4-H, “I
think that they connect with their club-mates and at the fair with other clubs just as part
of the organization. They can’t help it. By nature of their projects they connect with
others who are in their projects.” Additionally, a parent/leader discussed something
similar when she mentioned the development of a friendship between her child and
another 4-Her, “[My 4-Her’s] best friend was president and he was vice president of the
club. He developed a very strong connection with him since 4-H gave them so much
time together.” While, a parent indicated that not only are the 4-H peers connected, but
they are also supportive, “There are so many different kids working toward the same goal.
It is amazing how the kids help each other through these problems.” Similarly, one
leader stated, “The kids like helping each other and we have certain members who help
[one of our 4-Her’s with special needs]…” another reported, “When doing state events,
[one 4-Her] tries to make sure others are included. He tries to make sure others are
comfortable.” Furthermore, a parent/leader described a time when his 4-Her’s peers
helped and supported her, “She got off the horse in tears when she was done and was
going to pack it in. One of her 4-H friends came up to her and basically knew she had it in her to get back on and do the second test. She reminded her of who she is.” Another parent described 4-H peer relationships similarly, “At 4-H, even if [my 4-Her] did something silly and the kids laughed, he wouldn’t feel put down because it’s such a positive place and people were positive and nice. But with others outside 4-H he would have felt that he was being put down.” This parent participant describes the belonging and care peers have for one another while being a part of the 4-H community. When asked what other ways involvement in 4-H has facilitated positive development, a 4-H grandparent stated, “…companionship, camaraderie, and meeting kids his own age with like interests.” Camaraderie is a feeling of connection, whether by friendship, being a part of the club, or sharing a sense of affinity with the group.

**Cliquettes.** This subcategory provides a perspective on 4-H in which a participant did not feel as though a club was capable of providing inclusion for all members. This subcategory is considered rare with only one participant endorsing the experience of cliques within 4-H. Specifically, this alumnus stated, “There was one club in 4-H that actually had cliques and groups of people, but I eventually left that club because of that.” This was not a common description from participants; however, the development of cliques is not uncommon especially during the adolescent years. It is important to consider educating 4-H youth and leaders regarding the importance of including all members.

**Adult roles.** While developing relationships with peers is an important component during childhood and adolescence, building relationships with positive caring adults is important as well. Adults play several roles for youth in 4-H and these
relationships were described by many participants. Each of the roles described in the subcategories includes the relationships among 4-Hers and the adult leaders and parents involved the 4-H program. The category is comprised of the role adults directly play when interacting in a positive way with the 4-Hers, the way in which they facilitate the belonging for 4-Hers, and the ways in which they interfere in the development of belonging.

**Positive adult interaction.** Having a caring positive adult relationship in a group setting may assist youth in feeling as though they are included in the group. Participants described these relationships as being influential in the development and growth of 4-Hers. In general, 4-H adults are considered a core component of 4-H programming, “It starts with the leaders and the parents”, “…they’re like extended family. I think if my son had a question and couldn’t get ahold of me, he’d call one of them.” One parent/leader described his child’s first experience with a 4-H leader as being, “the hook to get in and stay in. She was someone to stand up and advocate for [my 4-Her] as well.” Further, a 4-H leader described her own personal interaction with a 4-Her and how they have connected and built a lasting relationship, “My one boy with FAS always comes to the fair and looks me up and tells me how his life is going.”

Adults have the ability to lead by example and to bring young 4-Hers into the group and help them feel like they belong. Two alumni described the experiences with leaders generally, “First thing is all the leaders in 4-H care for everyone, they all look out for the rest, even though I may not like what I have to do, I know they care” and “leaders have especially been incredibly supportive.” Additionally, a grandparent stated, “every adult is caring.” A third alumnus discussed a more personal experience with a leader,
“…My leader would pull me aside and help me out. I still stay in contact with her and talk to her and her son. Having that relationship helped in dealing with my disability, which is why I think I was so successful in the cat program. It helped because if I was afraid to do something, they would see what I was afraid of and come help me out.” 4-H leaders and parents have the ability to reach out and help youth feel like an important contributing member of the club and most importantly feel like they belong.

**Adult facilitation.** Participants described several instances in which adults facilitated belonging and inclusion among 4-Hers. Several participants described the ways in which belonging is facilitated by adults in 4-H. One parent/leader stated that, “If we [the leaders] see a child that is holding back, then we try to bring them into the group and not let them feel left out. Sometimes we take another kid aside and ask them to include a certain individual in with the group.” Similarly, another parent/leader described a specific instance in which facilitation occurred, “There was a time [the 4-Hers] were making t-shirts and I noticed three people were being left out. I pointed out they were leaving three people out and asked them if they thought that was okay. They unanimously voted to change it to include them.” One parent described leaders as being hands-off with the youth while making sure youth include everyone, “Adults give a good elbow [and say], ‘You should be helping with that.’ Adults would just suggest the idea and let the kids go act on their own.” Another personal example of adult facilitation was described by a 4-H leader. This leader described how facilitation of belonging in the club impacts not only the 4-Her but the parents as well, “There is inclusiveness both parent and kid-wise. When the parents usually first come in, it’s not unusual to see them crying all through class with relief and amazement. Normally, we will take kids around and
introduce them to a few members. I will ask one to buddy up with the new person and be
their friend, they will share dogs and do whatever, the first day can be traumatic in a new
situation for any child, but they are immediately accepted in our group and usually quite
happy. They immediately have a place to fit in. I have had parents who have said, ‘My
child is going to be disruptive, don’t feel bad if you need to tell us to leave.’ [Then,] they
watch this unfold, it is a relief for the parents. It floods out of them.” Bullying was also
briefly mentioned. When asked about bullying, one parent/leader indicated that leaders
often assist with this, “I think 4-H is great because fortunately we have a low child to
leader ratio, much lower compared to schools…We have three leaders regularly who are
at 4-H club meetings and have a lot of oversight, and that really helps.” This subcategory
differentiates from the direct interaction between the adult and the youth in that these
interactions involve the adult assisting the youth with engaging with one another.

**Adult interference.** During interviews participants also described instances in
which adults involved in 4-H interfered with youth belonging. One 4-H alumnus stated,
“Sometimes the drama, between parents especially, gets really old really quick. We try
to throw it to the side, but it can create conflict. It’s unnecessary and it’s just selfish. The
parents argue about what the kids are doing (e.g., someone’s doing this with their horse,
etc.). It gets really catty sometimes.” A second alumnus went on to say, “There was one
lady in the cat program that was really judgmental with all of the kids in the cat barn.”
These descriptions by alumni illustrate that at times adults involved in 4-H have difficulty
working toward making all youth feel as though the club is both inclusive and a place
where constructive problem solving occurs.
**Includes the family.** 4-H is a club where youth gather to learn and strengthen skills from leaders and peers. The club environment brings adults and youth together and unites them with shared interests and common goals. Many participants indicated that throughout their experiences in 4-H, their own families were integrated and involved. This sense of being a part of the 4-H family and including family members continued over time through generations.

**Familial integration.** Participation in 4-H requires assistance from not only individuals in the 4-H community but also the 4-Her’s family. Caregivers and siblings are often integrated into 4-H activities due to the commitment 4-H participation requires. For instance a few participants described how their own families became involved with 4-H. One participant stated, “4-H is a big commitment for a family. If you are involved in an animal project, you are basically there whenever the fair is open. It was well worth the time that [our 4-Her] and our family spent.” Another participant, a 4-H dad added, “I was a partial leader, helper, in the group. That was a cool experience for me personally…I get to be around the bulk of other good-hearted kids. I’m a fan of being around light bulb moments. I’ve seen a lot of that, not just with [my 4-Her]; a lot of peers and adults too. It’s good just to be a part of that.” In addition to the requirement of hours and dedication family members volunteer and incorporate 4-H into their own lives. One parent/leader highlighted the engagement of the family and mentioned incorporating siblings, “My son feels like a member of 4-H and is one of the senior members. Families can bring siblings with them to club.” Furthermore, another participant reported, “It’s just a very positive place for [my child] and most kids. If I didn’t find it worthwhile I wouldn’t volunteer my time on the adult side. Because my kids got involved and I felt it
was a great thing, I did too. I really like it now and love and enjoy volunteering.”

Similarly, a leader described leading with her husband and sister, “There is me (club leader), and my husband, who is the assistant leader, and an activity leader who is the dog trainer, she is also my sister.” Involvement in 4-H brings families and siblings into the program on a deeper level. Parents become involved in the programs and siblings have an opportunity to engage sometimes before they are even eligible to officially participate as 4-H members.

**Generations of 4-H.** Consistent with the descriptions of being a part of the 4-H family and integrating families into 4-H, participants also talked about engaging in 4-H through extended family and over several generations of their families. They described grandparents, parents, aunts, children, and grandchildren participating once introduced to the club. One participant stated, “4-H always brings their kids back. The leaders of clubs are always prior 4-Her’s. You never leave 4-H once you’re in it.” Two other participants specifically mentioned involvement with grandparents and aunts. One parent/leader stated, “Well, in our 4-H club, the leaders are myself, her grandmother, and one other lady that [my 4-Her] has known her whole life” and one grandparent reported, “Our 4-H club is a family club. His aunt is one of his most major influences in his life. He has a lot of interaction with his aunt, who is one of the 4-H leaders.” During the interviews participants provided a sense of family, engagement, and continuity within both the extended 4-H family and their own.

**Societal interaction.** Many participants described experiences of 4-H connecting members to other people in the community not affiliated with 4-H. These experiences were described as creating belonging within the 4-Her both in the 4-H community as well
as with the community as whole. One alumnus described this when talking about an incident at the fair, “My school teachers came up and hugged me and said, ‘congratulations.’ When my 4-H leaders saw that and I told them who those people were, my leaders were really happy that had happened. Later on, some of my classmates had come to see what I was doing. Every year I saw one of my teachers or classmates in the barn.” This 4-Her had the opportunity to connect with the community by showing at the fair and this allowed him to feel a sense of belonging in multiple domains. A leader described similar societal connections through participation in a 4-H dog program, “[4-Hers] go to community outings, or 4-H booths at all sorts of community events, car shows, air shows, fun runs, Special Olympics, you name it…with the dogs. The dogs bridge the gap.” Similarly a parent/leader talked about connections with her 4-Her at the zoo as a result of 4-H, “This is before we had the photography club. There was a program where they would go in every two weeks to help the zoo keepers’ clean cages of the small animals. My son felt his work was critical to the zoo. He had a sense of being a part of 4-H and the zoo. I feel like there’s a big piece of belonging to my son.”

Another parent/leader mentioned connections with the community through the news. She indicated that the 4-Hers with developmental disabilities attracted attention for the club, “[My 4-Her] was in it with a few other kids that were very close in age. There was a newswoman that wanted to do a story on these three kids. She had an interview with each of these kids and their animals.” In general, this subcategory describes the sense of belonging to a club as well as being able to bring that to the greater community where they belong as well.
**Intrapersonal facilitation of belonging.** Participants talked about the ways in which involvement in 4-H clubs shape 4-Hers’ perspectives on relationships and alter their outlook on acceptance and empathy. One parent stated, “You meet a huge array of people in 4-H. Most clubs are fairly similar, there’s not much diversity in the club but that’s not the case for 4-H. For a lot of them in other clubs, the only thing that exists in their life is that club. Because 4-H has so many things and is kind of like lots of clubs, you’re a bit broader in whom you are coming into contact with; you learn to have sympathy for [others]. You learn what it’s like to be showing your dog and have your dog go to the bathroom in the ring because it happened to you too. It helps you know what others are going through.” Two alumni described the shift in their own perspective through their experiences in 4-H, one stated, “It is much easier to open up to others and lead when I feel I am contributing to the group.” Another stated, “…what it teaches is how to gain meaningful relationships. With my ADD and my disability there are times that I will act differently from anyone else. I had a really hard time dealing with that as a kid.” Alternatively, outside perspectives were described by one parent/leader, “You learn how to be respectful and how to present yourself in front of people. It teaches you poise and how to take turns.” Another participant, a 4-H leader, provided another description of how belonging is developed within 4-Hers, “I think that the kids with disabilities as well as the rest of the kids are all encouraged to be good sportsman and that is hard in 4-H because sometimes you win and sometimes you lose. There is a little saying in 4-H: win with your mind and lose with your heart. I think that is something they gain in 4-H because of the competition in 4-H. I think they all gain equally in that respect.”
category captures the changes that occur within the youth who participate in 4-H as a result of their experiences of belonging.

**Environmental standards.** All participants described a variety of environmental standards specific to belonging within 4-H. This category is comprised of four different subcategories. These include standards of acceptance and encouragement, as well as providing a safe environment for all members. Additionally, funding is addressed within this category. Each of these standards is important in assisting with the development of belonging for 4-H members.

**Acceptance.** This subcategory suggests that 4-H promotes an environment that is accepting of all members regardless of ability. In describing the environmental standard of acceptance one leader stated, “Inside the club there is never an issue. Everybody is just equal, it is amazing, everybody is accepted, it is a cool environment.” Another leader went on to report, “I think that the adults accept the kids. In 4-H there is an acceptance of any ability or disability, and to include them in anything they can do, [and to] accept them as they are. A lot of the children in [our club] have disabilities and parents have reported that these children have been kicked out of other clubs and organizations, but in 4-H they have been accepted.” Other participants echoed similar perspectives, “4-H provides a level playing field. Everyone is included and has the same opportunities as everyone else. Not everyone can get the office or position in the club that they want, but everyone has an opportunity”, “4-H has been fantastic for him. He is accepted”, “I like 4-H. They are open eclectic, and relaxed”, “For the most part [my 4-Her] was included, there were very rare occasions where people didn’t know how to take him” and “It is a very inclusive place and he has been treated just like all of his peers. 4-H is the only real
place where he doesn’t feel different. 4-H has been a very accepting place for him to be
who he is in every situation.” The inclusion and acceptance standard in the club allows
the youth members to begin building relationships and skills that help them feel
connected and as though they belong. Additionally, one participant indicated that the
club looks to include youth with developmental disabilities, “Asperger’s and Autism are
who the club recruits for,” suggesting they hope to create an environment where all youth
feel like they belong.

**Encouragement.** This subcategory is another environmental standard that helps
build a sense of belonging within 4-H members. Encouragement allows members to
recognize each other’s accomplishments as well as support one another in times when
they are struggling. A parent/leader described an encouraging environment when she
said, “One of my quiet kids has trouble presenting, but it is expected of them and so
others help each other to work up to the fair. Everybody congratulates each other, shows
interest in each other.” An alumnus described this similarly from personal experience,
“My clubs have always been really supportive of me. Riders have always been really
supportive. And that’s not just only for me, but for other riders as well. Seeing other
people encourage each other, especially for riders, that’s the environment.” Furthermore,
leaders were highlighted as helping to facilitate the encouragement, “I think 4-Hers are a
caring bunch, so the leaders that I know of are very caring people and very encouraging
for the kids” and “some kids can do [activities] better than others but we always
encourage them to do it.” More specifically one parent/leader described what he
recognized in his own 4-Her with a developmental disability, “She doesn't have vision
and she’s trying to do something. It’s not always easy to do that, but it allows you to
realize that this is a cool journey to be on. Whether this is my daughter or not, this has been cool to be with people who encourage it.” According to these descriptions an encouraging environment supports belonging in that 4-H members are recognizing each other and stepping-up to connect and encourage other members.

**Safety.** This subcategory is a necessary standard within any club. Assuring that 4-H members feel safe both emotionally and physically allows them to actively engage and connect without fear they may be rejected or physically harmed. One participant described how 4-H encourages safety, “We have workshops on safety, being around animals…We want [our 4-Her] to be in a situation in which he is safe. We feel like 4-H is a safe place.” Several other participants highlighted 4-H’s safety, “safety first, how can we make [4-H] safe for everyone?”, “It’s a very safe environment”, and “I think [4-H] does provide a very safe environment.” Several of the other participants went into more detail about how 4-H works to create safety, “For the most part, 4-H does a great job of providing a safe environment. There are a lot of rules. All kids go to fair. There are rules about what age you have to be to go to the fair. People watch out for each other. I have felt comfortable with [my 4-Her] being there by himself. I have always felt like he is safe. They background check leaders. Leaders can’t be alone with the kids unless they’ve learned the ropes. This cuts down on a lot of risk. I never felt it was unsafe.” Another parent/leader indicated that, “The kids and the leaders have to sign a code of conduct. They have to sign these at the beginning of the year” in order to develop safety. An alumnus reported, “Generally with a 4-H club, you have a group of kids who all follow rules of courtesy, some rules like ‘don’t run into a crowd.’ If there is a new kid, generally the kid will not know the rules, but will conform to the group and become a
better kid. Of course there are some problems and adults will step in if there is any danger.” Similarly, a parent leader talked about 4-Hers helping to create safety, “These kids know right from wrong. I just haven’t had trouble with them. I’ve been lucky with that. At fair, we’re together for eight days, nothing is ever missing…They kind of police themselves.” Furthermore, another alumnus, reported that despite the unsafe nature of her activity, safety was still a major concern, but not just for those with disabilities, “Safety has always been really important but when you get in the ring, it gets a little crazy. Nothing bad ever happened to me, but, I don’t think that’s a reflection of 4-H at all. That was always their focus, safety for horse and rider, just certain situations where it can get a little hectic and chaotic. But that’s for everybody, not just for those of us who can’t see.” In general, safety is recognized within 4-H as being a part of the environment.

**Funding.** An environment standard reported by a couple of participants suggests that funding is sometimes an issue within 4-H. One parent/leader stated, “4-H has not disappointed me. I wish funding wasn’t through the government so it wouldn’t be so inconsistent. It makes it hard for the staff and to be able to plan activities.” Similarly, another participant, reported, “I think my biggest frustration is with the funding because a lot of the money comes from the county and it’s not a stable source. It’s such a good program and it’s like the last thing to get funded and the thing to get cut and that’s kind of sad to me that it’s not more appreciated for what it is.” This was not a common report by participants; however, funding affects the environment provided for youth and can impact whether all youth have the ability to participate in activities with other youth.

**Accommodations.** Youth with developmental disabilities often require accommodations and modifications of their environment in order to perform up to their
highest potential. This category includes a variety of accommodation components. The local and national subcategories offer examples of accommodations that are currently in place for 4-Hers. There are also subcategories that describe the necessity of trainings regarding disabilities and accommodations and examples of ways accommodations could be standardized on a national level. There were also several instances in which accommodations were not provided for youth with developmental disabilities and this is discussed in the subcategory of anti-accommodation.

**Club level accommodations.** This subcategory highlights accommodations that are being implemented on a local club level. Participants mentioned accommodations throughout the interviews. Many discussed accommodations as a part of the process, “They accommodate kids with a physical and developmental disability. We try to make it a positive experience for the kids, no matter what their level is”, “Accommodations requested are no problem in our club”, “4-H is a great program, and especially for kids with disabilities. We want to accommodate them, we want them to learn and be able to grow”, “If you’re the type of kid who learns from reading, they have things for that, if they learn by doing, they have things for that”, and “We make sure that the children with disabilities do what they can.” In addition, several participants described their experiences with accommodations tailored to fit individuals within different clubs, “In cats and dogs I got a lot of help”, “An agent in the club thinks of opportunities for him and made it available for him to get [necessary] software cheaper so that he could learn it”, and “It began with a leader, a friend of mine that was open and welcoming with [my 4-Her] and did everything to accommodate her.”
Additionally, participants described specific examples. One participant described her grandson’s specific experiences with accommodations, “[My 4-Her] cannot speak. We would tell the judges that they could ask him yes/no questions, and he would point to the turkey. The judge will ask you the parts of the bird. [His aunt] would always be there with him. They would both get on their knees. The judges knew that this was the way it had to be with [my 4-Her]. He needed to be down on his knees. His mother was also there and would help him steady his hands so that he could point to the parts of the bird. He has received blue ribbons, and they just don’t give it to him.” A parent/leader discussed another time when specific accommodations were provided for a 4-Her, “[The] club required them to do record books which he really struggled with. I feel that anything they do in the record book they could do in an oral interview so we had them do that instead. We had them keep a monthly calendar so they knew what was going on but didn’t have them do the actual record book.” Here is another specific example provided by a participant, “For my son, scribing is really difficult. He may have to go with help from his peers or another adult to get help with interpreting…Others have been very helpful by scribing answers and allowing him to participate.” While it is helpful to have accommodation standards, 4-H leaders will not always be able to anticipate every 4-Her’s individual differences. Having the flexibility for specific accommodations at the club level allows youth to be able to achieve at their own pace and at a level consistent with their ability.

**Undeveloped opportunities for accommodation.** Several participants talked about areas that could be developed within 4-H in order to offer more accommodations for youth with disabilities. One parent/leader stated, “A lot of things are visual and you
can’t find accommodations in brail or large print, for example. [My daughter] felt like she always relied on someone else and she wanted to be independent.” Another participant reported challenges with accommodations, “An example is the motorcycle project; no accommodations for disability, not as strong as rider as others, but can do the best he can do and do well.” Additionally, it appears that there is not much conversation among clubs regarding best practices with accommodations, one leader stated, “[My club has a percentage of youth with developmental disabilities and] I notice inadequacies and notice more things and I know the abilities of the kids. I am constantly bringing stuff up and hearing “Oh, I have [a child] in my club who would benefit from what you are saying.” This suggests that recognizing needs of 4-H members with disabilities could be expanded on a larger scale as opposed to the leaving it to the club level to make changes.

**Anti-accommodation.** While there were several accounts of accommodations made for youth within 4-H there were also instances when this did not happen. This subcategory captures participants’ responses regarding restricting youth and a general lack of accommodation for youth with developmental disabilities while participating in 4-H activities. One participant stated, “I would say that some leaders’ perspectives were too restrictive. They made [our 4-Her] too special so he [didn’t get to] compete. That was frustrating. It took us two years to convince [a leader] that he wanted to compete. He didn’t just want to participate, he wanted to compete. She didn’t allow him to demonstrate what he [could] do. We have had to advocate for [our 4-Her] since day #1.” Another participant echoed a similar experience with needing to advocate for his 4-Her, “We had to do a lot of advocating so people could understand where we were at, and for some people it was difficult because they couldn’t make it fit in their box of experiences.”
Additionally, two other participants reported challenges with inflexible leaders, “A lot of them are used to how things have been done so they keep doing the same thing and don’t make changes” and “once in a while I have seen leaders who are unbending on the rules for achieving a pin or an award and maybe haven’t taken in account the child’s abilities.” This is an important subcategory because it draws attention to areas that can be improved within the 4-H community.

**Education opportunities.** Participants described the importance of receiving trainings about working with youth with developmental disabilities. Trainings such as these can assist leaders and parents in understanding how to interact appropriately with 4-Hers with disabilities and how to better provide accommodations. A 4-H leader stated, “They need ADA training, and some sort of online sensitivity training… [Leaders] need to know what they can and can’t say; [knowing not to say,] ‘what is wrong with your kid…’ It would be helpful to know for others what they can do and what is appropriate or not. If you have not been around any special needs kids many don’t know what to do or say. You know they are different, they know they’re different, but they just want to be like everybody else. Being accepted and others knowing what to do to accommodate each special needs member with each ones respective abilities has been a problem/issue.” Similarly, a parent/leader described a scenario where a leader was unable to recognize the need to take a different approach and where training might have been useful, “The other leader would tell her she has to be less shy and when she gets on her about this, she gets even shyer and retreats further. That isn’t a good approach with her but the leader doesn’t seem to recognize that.” Additionally, a parent/leader highlighted that she understood 4-Hers had disabilities but did not have further instructions, “We are aware of
the disabilities. We don’t know the exact disabilities they have but we are understanding and aware that they are there.” This report is consistent with a parent who described a frustration with parents for not providing more information about their 4-Hers’ disabilities, “There are forms available for parents to fill out that lets them explain the disability. Many parents did not want to fill it out.” Conversely, a parent/leader voiced his own frustration about feeling the need to educate leaders, “I don't think they had a lot of experience with visually impaired kids with riding a horse. We had to do some educating as well, and we learned.” In these instances, more training may assist families and leaders by providing education and guidance in order to provide supportive environment for 4-Hers with disabilities.

**Mastery**

The opportunity to learn and to master a skill is an important part of development. Allowing youth to learn and to work toward accomplishing goals helps build confidence and independence. Youth in 4-H are constantly learning new skills and they put their knowledge to use through practical application. Participants described several instances in which they observed or experienced mastery within the 4-H program. The mastery domain encompasses the areas 4-Hers attempt to develop and master, ways in which gain knowledge and skills, the time commitment, ways 4-Hers demonstrate their mastery, and interpersonal mastery development. Each of these categories was described by several participants throughout the interviews.

**Area of focus.** Youth are presented with many opportunities to choose the activities in which they will participate. During childhood and adolescence youth begin to develop interests and to try out new things. Through the 4-H program youth are
involved in clubs where they can try new activities and foster new interests or they can learn one area of interest in depth. Additionally, youth who have too many options or only focus on one area may be somewhat limited or feel overwhelmed by the options. The three subcategories within this category include breadth, depth, and other.

**Breadth.** Participants reported that through involvement in 4-H they were able to try new things and to explore different interests. Many talked about the availability of trying new activities and explained that it was often encouraged, “Every county is different. [Our county] had so many things for the kids to choose from: gardening, cats, dogs, etc. You name it, you could find a place in 4-H to do it”, “If it is not illegal you can do it in 4-H. There is a broad scope available to you in 4-H”, “What I think 4-H does is give them a little taste and see if it sparks an interest”, “I was always supported in trying anything new, which was often”, “Oftentimes children come to 4-H with one interest and then we start to ask them if they are interested in something else such as cooking”, “He has had the opportunity for engagement in several setting such as ambassadors, motorcycles, and the pigs”, and “Well, we primarily were a small animal club. Now we do more home-economics projects.” Having the opportunity to discover interests and to explore what is most appealing to youth can be beneficial in terms of determining possible career interests, early skill development, and for building friendships with others who have common interests.

**Depth.** Along with having many options of clubs and activities to participate in, 4-Hers also have the opportunity to learn about their topic areas in depth, “4-H offers the chance to learn your interest in great depth.” A leader highlighted the depth of learning all 4-Hers gain while in 4-H, “Regardless of their disability they are going to become
more competent in their individual skills.” Several participants described being able to gain in-depth knowledge about their respective projects. Each of the alumni talked about the amount of information they had to learn when in 4-H, “We had to answer questions about how to take care of a sick cat, what to do while it’s giving birth, and other veterinarian science classes”, “The horse program especially has a lot of knowledge-based activities – hippology and horse bowl-- so those are two things that people in the horse program do”, and “I always learn something….what I was able to pick up each time varied from year to year. In particular, when I’ve been in project, it’s often something I’ve been learning for 3 or 4 years.” Two parent/leaders also mentioned areas their 4-Hers were able to learn more about, “Horseback riding has been the primary thing, learning horse care” and “[My 4-Her improved] in his photography and Photoshop skills and also in public speaking.” The ability to learn an area in-depth allows 4-Hers to develop an area of expertise. This allows them to work toward mastering a project.

**Other.** There was one participant who highlighted some disadvantages to the format of 4-H in terms of breadth and depth. He indicated there are ceiling effects and that he was limited in the amount of depth he was able to go into through 4-H. He stated, “After a while for the general meetings, you know what is going on. You aren’t learning as much.” However, he also reported there was some lack of depth due to the breadth of topics available to him as well as size of the group. Specifically, he reported, “If there are too many people you kind of all do the same thing. The leaders would ask what we wanted to learn that year; we came up with five or six things. I didn’t learn those things that well. With smaller projects you get [learn it] to a greater degree.” This may be a function of the differences in the individual clubs he was a part of.
Process of knowledge attainment and skill building. Throughout the interviews participants talked about a variety of ways in which 4-Hers learn in the clubs. Building a solid knowledge and skill base is a necessary component in mastering any domain and in 4-H often happens through hands-on or experiential learning. Participants highlighted the importance of learning through competition, learning through encountering challenges, learning within a social learning environment, and learning through consistent time commitment.

Learning through competition. Participants reflected on the role competition played in learning. Competition in 4-H happens on different levels and is a hands-on experience where 4-Hers typically present their work in front of others. Many times competitions are against other 4-Hers presenting, but oftentimes, “in 4-H, the competition [is] against yourself.” Usually judges are a part of the process and they offer feedback to 4-Hers. One leader stated, “In terms of judging, in all projects it teaches them to be consumers, logically think, be able to express their thought processes, and I’m pretty sure all projects have judging in one way or another and this helps all the kids.” Furthermore, a parent/leader added, “While up there doing the cat thing, they are also teaching besides just judging. The kids learn something while they are there.” In addition, a parent discussed the experience of competing against oneself in order to improve, “By continuing to try to do it, the next time you do it a little better and a little better the next time, which 4-H helps you do since you get to show your animal and the first time you do it, you do terribly. Your dog probably is not as clean as he should be, he has fleas, doesn’t do what he is supposed to do, sit, stay, etc. The next time, you’ll do a little better which helps you see that you can do it.” Similarly, another participant described an
instance where a 4-Her was able to succeed despite the challenges with competition, “In 4-H you are presenting to adults, who are moms and leaders, but still being able to stand up in front of people and knowing that she couldn’t get the words right was really tough.”

Other participants expressed times when they saw 4-Hers learn directly through competition. One leader described the experience of a girl in her club, “[She] has a service dog and nearly got dropped at fair. We practiced so much in class and she had just started to walk with the aid of her service dog, but at fair in the ring she took verbal instruction from the judge and took a couple of steps on her own, exactly what the judge was wanting her to do. She took verbal instruction from the judge which was a 100% unexpected, by everyone, including her parents.” Another participant highlighted the learning of two 4-Hers with developmental disabilities in her club, “I think with a little practice on just one thing they will be able to participate, they’ve learned enough, and I think the repetitive things will help them too.” Furthermore, a parent/leader described the sheer volume of information that was required of his 4-Her to learn as a result of competition, “At the County Fair, she competed in her primary focus, dressage. It’s a patterned arena and there are about 60 different tests you can do. She memorizes the patterns and figures out where to go in the arena.”

Alumni also reported learning through competition, “there was one year when I studied really well, and I did extremely well in cat bowl. They also asked the same questions in showing and fitting. If I had a cat in front of me, I could still do all of the fitting and showing” and “I qualified to compete in the Puyallup state fair, and I was there competing and I had a bit of a crazy experience.” Additionally, a grandparent highlighted how the opportunities for 4-Hers to compete offers opportunities to make a
choice to learn something new, “4-H provides an opportunity for a lamb and other livestock competitions.” Competition is a major component of 4-H and assists participants with skill building and improvement in their areas of interest.

**Encountering challenges.** Many interviewees mentioned encountering challenges while participating in 4-H. Specifically, they talked about the ability to overcome the challenges and learn and grow from them. This was different from learning through competition in that it focused more on encountering challenges as a result of having a disability and being able to work through until there was some progress achieved in the mastery of a domain. There were several examples provided. One grandparent reported that her 4-Her has difficulty with meetings, “When we have project meetings, he listens and doesn’t disrupt. He is pretty patient, especially having stiff muscles.” Another participant, a parent/leader, described her 4-Her’s challenges with writing, “The rabbit project was a little more challenging, especially with [my 4-Her’s] writing, which is a little more difficult for him. It was not a terrible experience but more difficult than others; he still learned a lot and grew from it even with some obstacles with the leader.” Other participants described similar challenges, “[One 4-Her] has had an increase in verbal skills and confidence. He will call for the dog loud enough for the dog to hear across the room rather than whispering and having a parent have to call for him. Mastery takes time, but they are getting it”, a parent/leader highlighted his daughter’s experiences, “[My 4-Her competed in state last year] and actually did so well. Thinking about the journey that she has been on, vision lost and how down she had been the last year as she lost it. To watch her overcome that, there was no dry eye in our family that night; that was a defining moment, and sort of an affirming moment.”
Alumni reported similar learning experiences, “So, in the one club I had to participate in, I had to learn all of the bones in an animal. I was really struggling with this project…my leaders, helped me out and came over to show me which ones were which. By the end of the club, I was able to have all of the bones memorized and that was a big deal because memorizing was really hard for me to do.” Another alumnus illustrated an intensely challenging experience during a competition, “I came into the arena ready to perform my dressage test [and when] I got into the arena a very loud boost of Mariachi music came through the wall. My horse, who’s normally a steady-Eddy, just bolted down the side of the ring. At that time I was riding with a headset, I ride with my phone in my pocket with my headphone in. So about 2/3 of the way through my test, the phone dropped. I was basically riding my test completely blank. My ears are my eyes in that situation and the person didn’t realize on the other side. So, I finished my test and made it through, thanks to my awesome horse.” Each example describes the experience of encountering a challenge with a task in 4-H and having the ability to face it as well as grow because of it.

**Social learning environment.** Several participants talked about an environment that involves 4-Hers learning from one another, “peer mentoring makes a difference and creates a great environment.” Specifically, a parent/leader highlighted the ways social learning can benefit many people involved in 4-H, “Like the teaching, maybe they can take and teach it to someone else. Everybody teaches and everyone learns. They can do this everywhere and even in the work place. We can always be teaching and learning from others.” Similarly, another parent/leader reported, “[A leader] helped [my 4-Her]
get software through 4-H and he learned it and then she asked him to teach other staff in 4-H and others."

Two alumni reported about this experience as well, “[Leaders] like to encourage 4-Hers teaching 4-Hers, which can be problematic too. So, there are a lot of people with a lot of different things they are good at. I have learned a lot form people around me” and the other alumni stated, “Being an older member of 4-H, I could help out people if they were having trouble.” A leader identified a youth who benefitted from social learning, “Others have helped him along the way in order for him to be successful. They have been role models for him to grow and develop as well.” A parent/leader stated, “Horseback riding has been the primary thing, learning horse care. I think being around a lot of other kids, similarly aged, she’s learned a lot from coming out from her bubble of therapeutic riding. She learned a lot from other people. And she was a sponge picking it up.” This type of anecdote regarding peers learning from each other suggests there is social learning that occurs within 4-H. Social learning is when youth are able to look to more expert peers for guidance. This type of environment would allow 4-Hers to see a skill being implemented and then have the opportunity to practice it as well.

**Time commitment.** Practice and taking time to be involved with learning material is an important part of skills building and acquiring knowledge. Interviewees discussed the significant time required for participation in 4-H. Parents, leaders, and alumni all described the time it takes to develop skills and to experience success within their area of interest. For instance, one participant described the time it took for her 4-Her to develop his skills, “In four years, [my 4-Her] has mastered the terminology of turkeys. He has it mastered.” Additionally, two parent/leaders described the time component when they
stated, “4-H requires a major time commitment. 4-H is a little bit of an octopus. It is easy to go from one meeting per month to many” and “It takes time and many meetings.” This time commitment results in successes and growth within the 4-Hers. A leader reported this when she stated, “Mastery takes time, but they are getting it… the attention and direction to succeed is there, no matter how long it takes. They are always praised for a job well done. We show them over and over again until they get it right and understand. You see a lot of growth in the kids which makes you stoked.”

Other participants talked about practicing and repeated exposure as helpful as well, “Just talking to people. You can practice with mom or dad and it was still effective”, “We show them over and over again until they get it right and understand. You see a lot of growth in the kids which makes you stoked”, and “After a couple of years I would make them do it in front of the judges and do it for real.” Repeated exposure through meetings and practice over time helps the 4-Hers continue to progress and master their domains of interests.

**Demonstration of mastery.** There are many ways individuals demonstrate proficiency of tasks. Demonstrating mastery is more than merely engaging in the task independently. Interview participants described demonstration of mastery by discussing 4-Hers ability to demonstrate foundational knowledge in their project areas as well as generalizing knowledge outside of 4-H. Similar to generalizing knowledge, many interviewees discussed 4-H alumni taking what they learned in 4-H and having the ability to bring it out into their professional careers and to utilize it after their years in 4-H were complete.
**Foundational knowledge.** 4-Hers are required to demonstrate they have an understanding of their project content domains. This is often shown through successful participation in competitions as well as through observations made by leaders and parents at home or during club activities. A parent/leader talked about recognizing progress toward mastery that resulted in a final demonstration of proficient skills, “She’s actually quite good at riding”, and another parent/leader talked about two of her 4-Hers, “Two of the three kids had no sewing experience; they can now make pillowcases.” Another interviewee talked about recognizing progress in a 4-Her that resulted in mastery, “He could tell you any part of the turkey. He knows what they eat, what you need to do to train them. Even though he cannot say many words, he is really sharp in his mind.” Additionally, a leader described success through earning a ribbon, “A couple of years ago no one would expect him to accomplish that. He also happened to have earned the top ribbon.”

Other participants described similar scenarios with 4-Hers they observed, “The photographer gives an assignment for their pictures and a social assignment. Each of the kids picks their favorite three photos and talks about why they like them and the kids and photographer will give them constructive feedback”, a parent described her child’s experience with foundational knowledge, “She still knows a lot about cat”, and another parent stated, “They liked the public presentations. The kids can do it on anything they’re interested in- you could teach the judge how to play poker or jump rope.”

Similarly, an alumnus reported, “I still remember all of the material I had to memorize.” Working toward mastery of a content area is part of the 4-H process and part of the 4-H program is geared toward encouraging youth to demonstrate what they have learned.
Generalization of knowledge. In addition to demonstrating mastery of skills while participating in the 4-H program, 4-Hers also bring their skills into their daily lives. Taking what they have learned demonstrates mastery at higher level. Carrying skills outward illustrates that the skills were not merely learned for a specified time but that they can be generalized into multiple scenarios. One parent/leader stated, “We have had a little girl go home and make pillow cases for everyone in her family for one Christmas. She developed a skill she could take elsewhere and she was only 9 years old.” Another parent reported something similar, “Now when [my 4-Her] goes camping he can talk to people about natural resources because he did that in 4-H. Same with dogs and his experience in that club.” Similarly a parent/leader highlighted her 4-Her’s ability to use his photography and AV skills learned in 4-H for other activities, “Sometimes he’s the AV guy and will help the photographer.” Other participants reported, “[The public speaking format] becomes ingrained and automatic and [my 4-Her] still uses it when presenting”, “I think [my 4-Her] working on the ability to speak in front of others builds confidence. Also when she does a meal, goes into a kitchen and then serves a meal to guests, that really improves her confidence”, another participant stated, “From when they come to the program to when they leave there is a big difference.” These interviewees highlighted skills 4-Hers learned and their ability to take it outside of 4-H.

Professional development. Childhood and adolescence is a time to explore interests and begin building skills and confidence in order to later make decisions regarding career paths. Participation in 4-H projects allows youth to find areas of interest and try activities out to see whether they may be a good fit. For instance, one alumnus described his perspective with this, “I still have some trouble talking to people and
holding a conversation, but now I am better at projects and working in groups. I often become the team leader. I was in leadership in my 4-H club and picked up some good skills. I started Running Start and found things I was interested in. I now want to do theoretical physics and have pretty strong vocational goals now.” Many youth take what they learned and later use it in a professional setting.

During interviews, participants described ways in which what they learned in 4-H could be later utilized in a professional setting. “I think in general the public presentations really assist in this area. Being able to speak in front of people is a skill they will be able to use time and time again in the future. I think that the children with disabilities come back and say that they feel more confident in particular with their public speaking” and “You learn how to be respectful and how to present yourself in front of people. It teaches you poise and how to take turns.” A parent/leader stated, “The clubs that work on computers, robotics and train programs have lots of kids with disabilities. There is one boy that was in the robotics club and because of his interest with the robotics team, now he lives in Spokane and has a job working on public address (PA) systems.”

Another example, was described by a parent/leader, “[My 4-Her] built his own computer that he used for school. He built his computer, fixed it when it broke. [He] maintains the network for home—he is my IT guy. Most of these skills were learned in 4-H.”

Furthermore, a parent/leader described a similar experience with her child, “[My 4-Her developed] vocational competence in photography and Photoshop and that might be a vocation for him one day.” Developing interests and passions is all a part of participation in the 4-H clubs. Being able to carry skills and knowledge into adulthood and making a career out of it is all part of mastering a domain.
Independence

Youth is a time when seeking independence and individuation is both typical and a sign of healthy development. It is important for youth to be able to begin to see themselves as active agents in their own futures and to have opportunities to try new things without constant adult support. This domain encompasses interviewees’ observations and experiences with independence throughout participation in 4-H programming. Interviewees described an environment in which scaffolding toward independence of tasks occurs with support of parents and 4-H leaders. They mentioned an environment where 4-Hers have opportunities to experience independence through many opportunities to work on their own. Recognizing and nurturing self-determination, goal setting, and planning for the future were discussed by most participants as components of 4-H. Additionally, several participants described opportunities within 4-H where building intrapersonal characteristics that lead to independence and growth occurred. The categories within this domain include scaffolding independence, self-determination, and building intrapersonal characteristics.

Scaffolding independence. Scaffolding occurs when someone, typically an adult such as a 4-H club leader or parent helps a youth, by first demonstrating a task and then offering a developmentally appropriate level of support when needed. Participants described many instances of scaffolding within 4-H. One interviewee talked about providing scaffolding for her 4-Her when he works on 4-H baking tasks, “We go through a list when baking. We ask him which recipe he wants to do. He will make the choice…He can use the mixer. I will let him choose what recipe we are going to do. I gave him the list, and he was able to independently choose what he wanted to do.”
Similarly, a parent/leader highlighted scaffolding independence when she stated, “It comes down to sitting down with [my 4-Her] and helping her every step of the way sometimes. Especially, when she has to write out a story and I don’t want to tell her what to have to write. Instead, I give her a time line that she can get into a story.” Another participant also commented on scaffolding independence around writing, “Once [the 4-Her understood] what is being asked, he can do very well if someone else does the writing for him; has had to work very hard. He has also needed a lot of help, but he has grown a lot and identified areas where he is lacking and knows to ask for more help.”

Other participants also reflected on ways independence was supported in 4-H through adult guidance, a parent stated, “Many of the kids are afraid of public presentations. They presented to me and after a couple of years they learned it is okay and that they can do it. It helps them learn they can step out on their own and be independent.” Furthermore, a parent/leader reported, “All year we work toward [independence]. It takes a lot of working with these kids to set attainable goals, so we get them to focus on a couple things they really want to accomplish.”

Scaffolding toward independence was also described through goal setting and through record booking. A parent/leader described an instance with her own 4-Her where she provided support for him to reach goals independently, “There were some areas that I had to get involved with and remind him to follow through (e.g., record books). If you don’t do these things, you cannot go to the award ceremony and get your pins.” An alumnus talked about the process of working with leaders and parents to set goals using record books. This alumnus stated, “Planning and goal setting … I think that’s been a big thing for me. With our record books, at the beginning of the year, you have to write a
major goal for you and your horse. You need to have it signed by your parents and your leader.” Each of these examples demonstrates ways in which adults assist 4-Hers by modeling and providing guided support to reach goals and strive for independence.

**Self-determination.** This category includes an important aspect of development. Self-determination typically encompasses an individual’s level of self- and intrinsic-motivation; it highlights a youth’s autonomy and ability to plan and see one self as capable of completing tasks independently. While self-determination is important for youth with typical development it is often considered highly important for youth with developmental disabilities. This is likely because of the challenges youth with disabilities often face and their need to be able to learn to manage independently and to view themselves as independent beings. All 15 participants described self-determination in one way or another.

Some participants provided specific examples of when self-determination has been encouraged or demonstrated, “We go to the fabric store and I let her pick out what she would like to make and let her also choose fabrics and colors”, “He exercises his independence mostly in state ambassador stuff where he is planning with the team that is given a task and has to work toward a goal with a timeline”, “I would say that as he gets older, he wants to try harder things (e.g., harder recipes, showing lambs). He is confident that if it is something he wants to do we will try and make it work. He is taking on more difficult and challenging tasks”, and “In order to enter his pictures in the fair he had to do planning and goal setting. He had to plan what photo shoots he would do. We would go to the zoo at like 6:00 in the morning to get the lions or tigers just right.” Two other participants, parent/leaders, also described ways their 4-Hers were able to demonstrate
self-determination, “[My 4-Her] was really paying attention to the requirements that he needed to meet” and “So, we have this horse, that my 4-Her is responsible for. The care she gives this horse is unbelievable, really have enjoyed watching that.”

Other participants spoke about 4-H more generally offering opportunities for self-determination, “You have to set goals to do your presentation, they have to do record books”, “The first thing they do is set their goals for the coming year of things they want to accomplish”, “4-H helped him find things he is interested in”, “One parent stated, “[Record booking] helped her figure out her goals and how to make a list. Also, it showed her how to write goals down and get them down”, and “They also keep financial records which is good because it teaches them that the money to take care of their pet comes from somewhere- the parents. They also write a story about how 4-H has helped them.” A leader mentioned the importance of allowing the 4-Hers to make decisions with one another, “Everyone votes in our club, and I think they like that. For example, everyone voted to have a bowling party. Majority wins. We had a huge attendance at the bowling party, they chose to vote and they chose to attend.” While another alumnus specifically talked about the fact that she got to choose what she worked on within 4-H, independently, “[I definitely got to choose what I participated in], with horses, there are a lot of things you can do, directions you can go.” In general, 4-H allows youth to choose what they want to do and to become confident in their independence, A 4-H alumnus talked about his experience within 4-H as having been a program with an expectation of independence, “You may be assigned a task and not closely monitored, although you might mess up on it, there is no one there monitoring you, so it makes you more independent in later life” and “One of the key things about the club is to raise kids up and
help them become leaders in the community. 4-H raises kids to step up and be leaders, all the way into adulthood.”

**Building intrapersonal characteristics.** This category highlights the intrapersonal characteristics 4-Hers develop as a result of participation in 4-H activities. Participants talked about building confidence, strengthened perseverance, and increased joy of learning, knowledge of self and personal fulfillment. These characteristics were described as being strengthened and improved throughout participation in 4-H and by mastering tasks.

**Confidence.** Youth build confidence when they learn to complete tasks independently and when they experience success. 4-Hers have ample opportunities to increase confidence through independent task completion, repeated trials, and through experiencing a supportive environment. Several participants described recognizing increased confidence as part of the 4-H experience. One parent/leader specifically highlighted her 4-Her’s growth and stated, “Self-confidence would be the foremost thing. [My 4-Her] became very aware that she could do things on her own. She gained a lot of courage and confidence via experiences.” An alumnus described her personal experience with building confidence, “Now, I’m more gutsy and taking more risks, taking classes I wouldn’t usually do. Confidence has been a really big thing for me. You see this in the younger riders when they come out of a class feeling really confident, when they went in not as confident.” Other participants talked about different instances where increased confidence was noted, some examples include: One leader stated, “He can introduce big name speakers with no problem as well. He has picked who will do segments, and has even picked himself although the task may be too big” and a parent stated, “She had to
talk intelligently to adults and work through problems.” One parent/leader described confidence building broadly and said, “I think that 4-H is a real confidence booster because it teaches the kids that they can do it.”

Building confidence was described when several participants described 4-Hers’ experiences with being shy. One leader stated, “I have seen a lot of kids who were very very shy and they have overcome that and they are very supportive of that.” Another participant talked about her own child, “It stopped him from being a shy in the shadows kind of person” and a grandparent described something similar, “He is no longer shy. He is now a ham (jokester). 4-H has opened up possibilities for him.” Building confidence is not limited to work while in 4-H. One leader recognized confidence in youth post 4-H, “The [4-Hers] are participating in life and they are more outgoing. I have heard stories that many of them are doing better in school, adapting better.”

**Perseverance.** When first trying a new activity many youth require several attempts before completing the task both independently and successfully. Individuals with disabilities oftentimes require assistance with task completion and they may have more difficulty with task completion the first time they try. Specifically, one leader stated, “We show them over and over again until they get it right and understand. You see a lot of growth in the kids which makes you stoked.” Several participants mentioned 4-Hers with developmental disabilities demonstrating persistence during 4-H activities. One participant described her grandson’s struggle and ultimately his persistence during meetings, “When we have project meetings, he listens (doesn’t disrupt). He is pretty patient, especially having stiff muscles. There are some things he cannot do, but he surely tries at everything.” A parent/leader talked about his daughter’s struggle and
ultimately her success as a result of perseverance, “Thinking about the journey that she’d been on, vision lost and how down she had been the last year as she lost it. To watch her overcome that, there was no dry eye in our family that night; that was a defining moment, and sort of an affirming moment. That this has all been worth it. Didn't matter how she placed, but just the fact she felt so good about her ride, that she persevered through it...It was a cool thing for us to realize that 4-H contributed to that. They helped [our 4-Her] to be who she was in that moment.” Similarly, an alumni highlighted her own personal experiences with perseverance, “[4-H] taught me to persevere…specifically with my disability. The whole environment has been supportive of me and pushing through the things that should stop me. And, even if I have hard times, sometimes I end up getting back in the saddle again. It’s helped in my own journey with my disability. That’s the biggest thing I’ve taken from 4-H, the ability to persevere.” Additionally, another alumnus stated, “[In] 4-H having to cope with my disability was hard. For example, some kids learn the materials and everything so quickly, while it would take me months. I had to learn to overcome it, really and that’s what I did.” In each of these examples, alumni were able to recognize they had limitations and continue to work toward their goals. In both instances, perseverance was demonstrated as an intrapersonal characteristic that was allowed to come through as a result of their experience in 4-H programming.

**Personal fulfillment.** Participants have suggested that being a part of 4-H brings a sense of fulfillment and purpose. This was described by interviewees as having positive experiences as a result of accomplishing goals, earning ribbons and trophies, and by leaving the program with a sense of success. An alumnus reported, “For me, my
greatest accomplishment was earning the jacket. It took me 5 or 6 years to earn that jacket but when I earned it I was so excited. Every year I wore that thing. I would wear it when there were costume days at school.” Similarly, other participants described times when 4-Hers experienced fulfillment. One parent/leader described her 4-Her’s experience by stating that, “His work in 4-H has given him joy and as a parent, that feels like a huge gift” and a grandparent stated, “When he knew how much he got, he screamed with joy. He knew that his hard work paid off.” This subcategory is broader in terms of how participants reported personal fulfillment; however, the theme of feeling a sense of accomplishment as a result of work within in the program was consistent.

**Generosity**

Learning to give to others, to develop empathy and compassion for others, and to value and practice contributing can be learned. Generosity is often developed in childhood and adolescence and interviewees highlighted several ways in which it is nurtured and strengthened in 4-H. Interviewees mentioned different opportunities presented in 4-H to practice generosity. They talked about the value placed on community service. Participants described 4-Hers using their skills learned within 4-H to contribute and give to others. Additionally, they highlighted positive character attributes that were cultivated and displayed by 4-Hers through participation in the program.

**Community service.** Learning ways in which to give to others and to contribute to the community builds an awareness of other’s needs and builds. Throughout the interviews participants consistently highlighted the value 4-H programming places on contributing to the community and giving to others. Community service as a category is
comprised of external contribution and 4-H proficiency contribution. These both offer a different perspective on ways 4-Hers demonstrate a value of service to others.

**External contribution.** This category captures the community service in which 4-Hers assisted and volunteered outside of 4-H. Engaging in community service projects and activities was commonly reported among interview participants. Many reported that community service was a requirement of participation in 4-H. For instance one alumnus stated, “We would do countless hours of community service in 4-H.” Similarly, a parent reported, “There are community service projects that every club does. Some of the projects are better than others but it gives them chances to do things for other people” and a parent/leader stated, “4-H has always had different outreach projects (e.g., food, clothing drives).” Other participants described the different external community service projects. One alumnus stated, “We had yearly trips where we gave out clean clothes and sandwiches to homeless people in [the city].” Another alumnus reported that, “…each club is required to do a community service event per year…There was one year that we went to a grocery store and we collected pet food.” Several other projects described include: food drives, zoo clean-ups, writing letters creating care packages for K9 soldier teams, and landscaping. In general, “4-H is big on generosity and giving” and there are many opportunities for community service outside of 4-H where youth have a chance to develop generosity.

**4-H proficiency contribution.** Throughout 4-H programming, 4-Hers become proficient in many domains. Frequently, 4-Hers will specialize in one or two areas and work toward mastery in those areas as describe previously. This category is specific to 4-Hers providing community service acts by utilizing what they have learned through 4-H
activities. Interviewees highlighted several ways 4-Hers demonstrate 4-H proficiency contribution. One parent/leader talked about her son’s difficulty with engaging in the club’s community service event, instead he used his 4-H photography skills, “At [a community service event at a zoo] our booth was the craft table so we were responsible for doing crafts with the kids. He doesn’t like that much, but he took pictures of the event.” Similarly, an alumnus reported, “One of my favorite community service projects is an annual one where my mom would take our club and our animals to the nursing homes…and we’d take our animals in and we would talk with the elderly and let them pet them. My friend still does this with her llamas.” Other participants described helping out in the barns and feeding animals, working at the fair and setting-up, club clean-ups, taking animals to the nursing home, or bringing rabbits into others’ homes, and having children practice reading to service dogs. These examples provide a better picture of the ways in which 4-Hers are engaging in their communities and bringing their 4-H skills with them to practice service toward others.

**Generosity based character attributes.** Building a value of service toward others can assist youth with learning about empathy. It may also help them learn to step outside of themselves and develop compassion for others. This is often taught within families and classrooms and can be strengthened as children are socialized with peers. This category includes the cultivation of generosity based characteristics through 4-H programming and examples of the display of these same characteristics during participation in 4-H.

**Cultivating attributes.** This subcategory emerged by combining statements about the ways 4-H teaches and encourages generosity based characteristics in 4-H.
Interviewees described several ways in which these attributes are developed. An alumnus stated, “One of the things they taught in 4-H is that when you’re out in the community, look for any chance you get to help someone out and step in as a leader.” Other participants described 4-H programming generally, “I think the 4-H community in general has a philosophy of family within and for the community” and “The whole club is about do unto others.” Similarly, a leader talked about the act of learning these characteristics during 4-H programming, “…they don’t hit the dogs, they learn what is appropriate and they show kindness to the animals.” Other participants reflected on how 4-H develops generosity, “Being a part of the club/project was really important for him and helped him learn about helping out” and a parent stated, “[My 4-Her] had a real hard time connecting with animals at the beginning. Cats helped her get a lot better with empathy and how to deal with animals.” Further, another parent/leader indicated that through 4-H youth learn, “We help out the fellow community and be the thoughtful person.” These examples highlight similar aspects of how 4-H may actually encourage and teach youth to build generosity based characteristics.

**Displaying attributes.** Interviewees also described instances in which they observed or demonstrated generosity based characteristics within 4-H. One parent/leader talked about her 4-Her’s display of these attributes, “When the zoo was doing layoffs and the CEO was laid off, he said, ‘Mom, we have money in the [4-H] treasury, we could give that to him and maybe that can help.’ He was young enough he didn’t know the amount of money, $40 couldn’t do much.” Another parent/leader described a similar instance, “I remember years ago, my son was probably 8 or 9, and [a 4-Her] had just started and was a primary. We asked him to say something to the group and he started
My son went over and put his arm around him and said, “It will be okay [friend], it will get easier.” Several other participants described situations where 4-Hers displayed generosity based characteristics, including: helping another 4-Her with getting animals out of their cages, demonstrating appreciation to leaders, displaying empathy, always jumping-in to help, and displaying caring. While these examples occurred in the context of 4-H it is difficult to suggest they occurred as a result of 4-H. However, this category was typical and indicates that many 4-Hers with disabilities have opportunities while in their clubs to demonstrate generosity based characteristics.

CHAPTER IV
Discussion

General Discussion

The purpose of my dissertation was to investigate the experiences of youth with developmental disabilities who have participated in 4-H and to learn whether 4-H provides an environment consistent with their assumed PYD essential elements. This study utilized open-ended questions to directly inquire about the presence of these elements for youth. What was highlighted throughout interviews and analyses was that 4-H as a program provides the essential elements deemed necessary by Carlson and colleagues (1998) and while it offers a foundation for youth there is much more that occurs helping youth to expand and grow. In particular, it is through the relationships and the individual clubs and leaders that this occurs. My hope is that the results from this qualitative study may be utilized by 4-H to inform future programming.

The original four quadrant model including belonging, mastery, independence, and generosity is generally consistent with the data and the four domains were revealed
through data analysis. However, it is reasonable to suggest that belonging serves more of a foundational role. Thus, from a place of belonging 4-Hers are capable of mastery and independence, as well as engaging in generosity based service. In some ways a model involving four quadrants that have a hierarchical structure makes more sense (Figure 1).

Within these four domains, 15 categories, and 32 sub-categories were identified. Most importantly, each of the eight essential elements of PYD 4-H programming was noted by participants, among others. The additional elements are highlighted in the sections below.

The belonging domain was described most frequently and was endorsed by each participant. As they talked about their experiences within 4-H, participants identified a variety of different categories. Many of the categories in this domain included an interpersonal component. Descriptions involved the experience of peer and adult relationships, the incorporation and development of family networks, and the facilitation of social interactions. Strong adult and youth relationships help to build positive community connections (see Krauss et al., 2014; Zeldin, Christens, & Powers, 2013) and are considered one of the most important components of adolescent development for youth with developmental disabilities (Hauser-Cram & Krauss, 2004). The club-oriented style of the program likely contributes to these categories; in particular, youth are often found working in groups and meeting on a semi-regular basis. Additionally, these clubs typically have built-in adult relational support facilitated by adult leaders and parent involvement.

There are also several other categories within the belonging domain. One of which is the environmental standards category. This category suggests 4-H has an
environmental expectation that might inspire inclusion and belonging among youth, through acceptance, encouragement, and safety. General environmental standards, such as safety, have been associated with empowerment, community connections and school engagement (Krauss et al., 2014).

Accommodations were also described by many participants likely due to the population emphasized, youth with developmental disabilities. This was included within the belonging domain because accommodation often serves as a way for youth with developmental disabilities to participate with the group similarly to their peers with typical development. For example, a pilot program individualized assistance for recreational activities in order for youth with developmental disabilities to participate. The results of the program indicate that youth enjoyed the activities, interacted with typically developing peers, participated in activities, and improved their skills (Fennick & Royle, 2003).

The three essential elements within the belonging domain described by Carlson et al. (1998) were all highlighted by participants and include: adult relationships, safety, and inclusion. Positive adult relationships were highlighted by participants and were included in the categories: adult roles and includes the family. Safety was highlighted in the environmental standards category and inclusion was highlighted in the accommodations and environmental standards categories. Elements that were not specifically indicated as part of the three essential elements but were notable include: peer relationships, family involvement, and societal interactions. Participants discussed the importance of 4-Hers building positive peer relationships, connecting with others in the community and having family involved as being major components of 4-H participation and building a sense of
belonging in the club and outside of 4-H. Results indicated that 4-H is providing the essential belonging elements for youth with developmental disabilities.

Belonging was also perceived negatively at times within the 4-H environment. In particular, reports of experiences of cliques, challenges with funding, neglecting to recognize undeveloped opportunities for accommodation, and youth and adult experiences with anti-accommodation were described. These are discussed more in the recommendations for application section. In general, belonging was emphasized by participants, both for how 4-H facilitates and at times hinders belonging.

Mastery was also a popular domain and was endorsed by all 15 participants; however, this domain was not quite as robust as the belonging domain. The essential elements found within this domain and within 4-H programming include providing youth opportunities for mastery and providing opportunities for them to engage in their learning (Carlson et al., 1998). These elements were described by participants repeatedly through descriptions of youth opportunities to explore a range of interests or to engage in one specific area of interest. For example, an alum discussed learning through competition, “there was one year when I studied really well, and I did extremely well in cat bowl. They also asked the same questions in showing and fitting. If I had a cat in front of me, I could still do all of the fitting and showing.” In a study examining youth program decision-making, Akiva et al. (2014) found that decision-making was associated with not only with increased program motivation but was associated with problem solving and empathy. The essential elements were also described through participants’ explanations of the process by which knowledge and skills were attained, such as learning through competition, encountering challenges, learning from others, and putting time in toward
areas of focus. Participants also highlighted this domain by discussing ways mastery is demonstrated overtime. Specifically, participants described their process of building foundational knowledge and then having the ability to generalize it as well as being able to bring learned skills into the professional world.

Themes from within the independence domain were also described by all 15 participants, but were mentioned with less frequency than both the belonging and mastery domains. According to Carlson et al. (1998) the independence domain should include opportunities to see one-self as an active participant in the future and opportunities for self-determination. Building independence is considered one of the three most important areas of development for youth with developmental disabilities (Hauser-Cram & Krauss, 2004). Both of the 4-H independence domain elements were mentioned by interview participants. Specifically, participants talked about youth having opportunities to build skills that may enhance their ability to begin to see themselves as independent adults, but they did not necessarily talk about youth learning to see themselves as the active agent in their future. Instead, participants often highlighted youth building intrapersonal characteristics such as confidence and perseverance, and instilling a sense of personal fulfillment which may increase the youths’ capacity to be an active agent in their future. Intrapersonal characteristics, which might include specific disabilities, are important as they affect the way youth and their contexts interact. They may potentially promote development or introduce barriers to development, which is consistent with the developmental systems theory (see Lerner & Castellino, 2002; Lerner & Overton, 2008).

Self-determination was another essential element included in the independence domain and was mentioned by all 15 participants. In general it was highlighted directly
by participants as an important component within 4-H programming. Self-determination can be strengthened through building skills associated with autonomous functioning, which include: self/family care (e.g., meal preparation, shopping, domestic tasks), life management skills (e.g., fulfilling personal responsibilities, accessing community resources), recreation and leisure activities, and involvement in social and vocational activities (Sheppard & Unsworth, 2011). Many of these skills are developed throughout 4-H programming through club activities that often directly teach skills, such as cooking and financial planning.

While not endorsed by every participant, generosity is another important domain mentioned by interview participants. Generosity according to Carlson et al. (1998) supposedly includes the essential element of providing opportunities to value and practice service to others. As previously reported, research has demonstrated that engaging in community service based activities is associated with positive outcomes for youth (Schmidt et al., 2012). Generosity within this study was discussed by most all individuals. Participants focused on contributions to others through requirements of 4-H programming. Interestingly, participants also spent time describing the ways 4-Hers utilize their 4-H skills and knowledge to engage in community service. This domain was notably split in the way it was coded, one direction included the act of providing service to others in the form of community service and the other was through the description of ways generosity characteristics were cultivated and ways they were displayed within the youth with developmental disabilities. Overall, participants were able to discuss opportunities in which youth practice service to others and ways generosity attributes are cultivated and displayed.
**Applications to Program Development**

This study offers feedback regarding the environment 4-H programming provides for youth with developmental disabilities. Much of what was reported is consistent with the essential elements, but there were several experiences discussed in which 4-H can learn where to improve programming. In particular, there were six areas from the belonging domain that might be considered as areas to make programmatic recommendations. Categories highlighted include peer relationships, adult roles, environmental standards, and accommodations. Understanding the environment and the experiences of youth with developmental disabilities in 4-H is an important and necessary component for improving and promoting a PYD program. Many youth with developmental disabilities participate in 4-H and ensuring they are offered programming consistent with the essential elements as well as acknowledging potential barriers, opens the possibility for equal access and ideally a similar PYD outcome as youth participants with typical development.

**Cliques.** Within the peer relationships category, one participant reported experiencing challenges with cliques. And while this subcategory is considered rare, the alumnus had such difficulty with participation in the club due to cliques, he ended up leaving one club to go to another. It is valuable insight into an area that is commonly experienced in youth. It may be important to highlight and provide education for club leaders and for 4-H members around cliques and bullying. Additionally, the alumnus did not indicate whether disability status impacted the formation or experience of the cliques, but it is important to note that despite ability level cliques can impact participation and in general a feeling of belonging to a group.
Adult interference. Participants discussed instances when adults interfered with youth belonging. Adult interference is a subcategory within the adult roles category. Some examples of interferences involve parents disagreeing and youth feeling that some adults are judgmental. Similarly to the experience of cliques, those reporting their experiences with adult interference did not indicate whether disability status had an impact. However, youth with disabilities may have challenges with advocating for themselves or might struggle more with belonging at the outset, making adult interference more impactful. Based on the reports it is recommended that 4-H leaders receive some education regarding communication styles and interacting with youths’ parents. The more training leaders have on how to appropriately communicate with parents, 4-H club members, and other leaders, the more effective they will be at communicating needs.

Funding. The topic of funding was considered a rare subcategory within the environmental standards category. Funding is often a challenge for youth programs; specifically determining funding, fundraising, and allocating funds appropriately is not limited to 4-H. Due to the impact funding has on the environment provided to youth and whether all youth can participate in activities it is recommended that clubs engage in fundraising activities to assist with off-setting cost incurred by individuals and their families. Additionally, having club leaders be upfront and clear about costs and expectations about what will be available due to funding restrictions will assist families with making informed decisions about participation.

Accommodation based applications. Within the accommodations category there were three subcategories that highlight places in which 4-H programming can grow.
Understanding ways to assist youth with developmental disabilities experience a context where they have equal access to grow toward PYD and ultimately belong is part of the essential element focused on inclusive environments. One way to offer youth the ability to participate and grow through 4-H programming is by offering accommodations. Throughout the interviews participants mentioned numerous ways in which clubs accommodate youth with developmental disabilities to ensure equal access to participation; however, there were several reports of missed opportunities to accommodate and times when accommodations were denied.

**Undeveloped opportunities for accommodation.** Participants reported that there are ways in which 4-H as a larger national program provides guidelines for disability accommodations. However, they also indicated there are opportunities where 4-H could do more to develop national guidelines regarding accommodations for these 4-Hers. One example was around having documents in brail or large print for a 4-Her with vision impairments. Based on these types of reports it is recommended that 4-H conduct investigations regarding the major needs of 4-Hers with disabilities in order to provided standards and guidelines. It is noted that often accommodations must be done at a club level due to the importance of taking a 4-Hers unique individual needs into consideration. Although, just having 4-H on a national level acknowledge the necessity for accommodations and providing guidelines around accommodating youth within clubs would likely benefit many members.

**Anti-accommodation.** The subcategory anti-accommodation highlights times when 4-Hers were not accommodated based on individual needs and it resulted in poor experiences within 4-H. Similar to undeveloped opportunities for accommodation, this
subcategory draws attention to the importance of having guidelines on a national level regarding best practices for accommodating 4-Hers with developmental disabilities. Additionally, providing education about disabilities and about ways to communicate with parents and 4-Hers about special needs would likely be beneficial. Because without proper guidelines, club leaders may not know what they are allowed to do for 4-Hers and may be less inclined to provide accommodations. Additionally, in terms of accommodations they may not know how to talk to parents about barriers the youth is experiencing and will miss opportunities to begin a dialogue about how to best meet the 4-Her’s needs.

**Education opportunities.** Participants also mentioned not having enough training focused on working with youth with developmental disabilities. Reportedly, they believed this affects how they approach parents and how they interact with 4-Hers. In particular, they may want to accommodate but might be unsure what to say or how to provide services. Consistent with previous suggestions, it is recommended that more trainings and educational opportunities be provided to club leaders in order to better prepare them for working with the developmental disability population within 4-H. The more they know about the population the better they will be served by the clubs and hopefully the greater sense of belonging and inclusion youth will experience.

**Limitations**

With conducting any research there will always be limitations and places to improve. This qualitative research study is no exception. Several limitations have been identified. Most notably is the sample itself; participants self-selected to participate in in interviews and chose to provide information about their experiences within 4-H. Each of
the participants have been involved with 4-H for many years or have been a part of 4-H in a number of different capacities, maybe first as a young 4-Her, then as a club leader, and some as a 4-H parent. Given the fact that participants have strong roots in the club it is reasonable to assume they have a number of positive experiences with the club and might place emphasis on these, affirming and reinforcing their continued support and participation with the club. This would suggest much of the reported information may be positively skewed. Participants may also be motivated to provide honest feedback regardless of whether it is positive or negative because they are invested in the growth of the club as well as supporting 4-Hers with varying abilities. Additionally, including parents of 4-Hers with developmental disabilities and 4-H alumni with developmental disabilities, in particular, offer a valuable perspective on ways 4-H programming can be improved. Based on results, many participants provided feedback highlighting ways programming can better suit youth with developmental disabilities, specifically discussing the importance of accommodations. Similarly, the snowball sampling method was utilized and is often considered a limitation due to the sampling bias associated. However, considering the nature of CQR and the importance of gathering data from this specific, local group this is not as much of a concern.

Results are also somewhat limited due the high number of female participants and the smaller number of 4-H alumni represented in the sample. With having more females represented in the sample, it is possible results may be skewed toward a perspective that might differ from what would be described with a more balanced male to female ratio. That being said, 4-H has a predominant female presence within club leadership and club participation, suggesting that participants may accurately portray the ratio of who is
actually involved in the club. Additionally, addressing the small number of alumni, the perspective of alumni is invaluable considering their ability to speak directly to the experiences of 4-H programming. Recruitment of 4-H alumni with developmental disabilities was challenging due to the specificity of sample. However, three alumni were included in the sample and they contributed meaningful information specific to their perspective which was highlighted throughout the results.

The focus of the interview protocol is also somewhat restrictive. The interview directly addresses the essential elements, priming participants to consider 4-H programming from a PYD lens. While this was helpful toward answering the question of whether 4-H provides the essential elements for 4-Hers, in particular 4-Hers with developmental disabilities, it may have limited participant’s responses about the 4-H experience. This was addressed by asking participants how the essential elements were present but also whether they may have been absent. In an effort to gather more objective data, participants were asked directly to discuss frustrations and complaints with 4-H. The open-ended nature of interview questions also offered opportunities for participants to elaborate providing rich responses that both provided positive and negative feedback.

While qualitative research offers opportunities to gather rich and thick descriptions of phenomena, it restricts the types of conclusions that can be made. Results from qualitative studies are cross sectional and do not allow for understanding directionality, instead frequencies are determined by examining data. Additionally, due to the qualitative nature, results cannot be generalized; however, they can be used to begin the discussion of what further research might be useful. Qualitative results can also help
shape the 4-H PYD model. For example, in this study results were utilized to determine the existing characteristics in the 4-H environment as well as characteristics that may be beneficial. From this position, there are opportunities to apply recommendations offered. Furthermore, future quantitative research can be conducted to examine potential PYD outcomes. In particular it would be useful to look at whether the environmental characteristics contribute to PYD for youth with developmental disabilities.

**Directions for Future Research**

Future research should focus on several different areas. An important place to begin is to identify the types of accommodations that would be most useful to establish broadly across clubs. Additionally, it is important to begin working to clarify guidelines for how to provide accommodations for 4-Hers on a more individualized level. Future research should also target the limitations of this study. For instance, it might be beneficial to interview more 4-H alumni regarding their experiences in the program. Learning more about their unique perspective would allow 4-H leaders to better understand how they view the programming and how they might improve upon it for the future. Providing an exit interview upon leaving the program might assist with gaining feedback about 4-Hers’ experiences in a less direct manner that may increase honest feedback. Utilizing a qualitative research approach can be somewhat limiting. By utilizing a quantitative approach future researchers would be able to gather data that might indicate causal relations among PYD environments and PYD outcomes for youth with developmental disabilities. Determining the specific elements that promote specific outcomes would allow researchers to begin to pinpoint where programming might be better targeted.
Concluding Remarks

In conclusion, utilization of the consensual qualitative research (CQR) method allowed me to examine the context provided for youth with developmental disabilities in 4-H. The objective of this evaluation was to determine whether 4-H provides the positive youth development elements they indicate as essential for 4-H programming for all youth, specifically for youth with developmental disabilities. Additionally, I hoped to learn more about ways in which the context both exceeds 4-H expectations and ways it could be improved upon for these youth. Most notably was the importance of implementing programmatic changes that allow for improved education for 4-H leaders and for development of guidelines and approaches to making accommodations for youth with developmental disabilities.

The domains found in this study were consistent with 4-H’s PYD essential elements and they emphasize the potentially valuable relations between the youth and the 4-H context. The four domains: belonging, mastery, independence, and generosity were emphasized throughout interviews. In particular, belonging emerged more as a foundational component of the 4-H environment and presented as a place from which 4-Hers could begin to build mastery and independence. Within the belonging domain peer relationships, adult roles, societal interactions, interpersonal facilitation of belonging, environmental standards, and accommodations were highlighted. Area of focus, process of knowledge attainment and skill building, and demonstration of mastery were reported by participants as part of the mastery domain. Scaffolding independence, self-determination, and building intrapersonal characteristics were discussed in the independence domain. And, the generosity domain was comprised of community service
and generosity based character attributes. Each category within the four domains
highlights an essential element as well as growing the list of elements. While the nature
of this research paper limits the type of conclusions that can be made regarding PYD
outcomes, there is clear data suggesting the essential elements are present and there is
evidence indicating areas of improvement. Future research should examine whether the
essential elements lead to PYD outcomes for 4-Hers with developmental disabilities.
Additionally, 4-H programming might shift toward including guidelines or best practices
for accommodating and incorporating these 4-Hers’ special needs into the 4-H
experience.
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Table 1

**Summary of Domains, Categories, Subcategories, and Frequencies for 4-H Leaders, Parents, and Alumni**

<table>
<thead>
<tr>
<th>Domain, Category, and Subcategory</th>
<th>Frequency</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Belonging</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer relationships</td>
<td>10</td>
<td>Typical</td>
</tr>
<tr>
<td>Camaraderie</td>
<td>10</td>
<td>Typical</td>
</tr>
<tr>
<td>Cliques</td>
<td>1</td>
<td>Rare</td>
</tr>
<tr>
<td>Adult Roles</td>
<td>13</td>
<td>Typical</td>
</tr>
<tr>
<td>Positive adult interaction</td>
<td>8</td>
<td>Typical</td>
</tr>
<tr>
<td>Adult facilitation</td>
<td>5</td>
<td>Variant</td>
</tr>
<tr>
<td>Adult interference</td>
<td>2</td>
<td>Rare</td>
</tr>
<tr>
<td>Includes the family</td>
<td>8</td>
<td>Typical</td>
</tr>
<tr>
<td>Familial integration</td>
<td>5</td>
<td>Variant</td>
</tr>
<tr>
<td>Generations of 4-H</td>
<td>3</td>
<td>Variant</td>
</tr>
<tr>
<td>Societal interaction</td>
<td>4</td>
<td>Variant</td>
</tr>
<tr>
<td>Intrapersonal facilitation of belonging</td>
<td>6</td>
<td>Variant</td>
</tr>
<tr>
<td>Environmental standards</td>
<td>14</td>
<td>General</td>
</tr>
<tr>
<td>Acceptance</td>
<td>8</td>
<td>Typical</td>
</tr>
<tr>
<td>Encouragement</td>
<td>5</td>
<td>Variant</td>
</tr>
<tr>
<td>Safety</td>
<td>9</td>
<td>Typical</td>
</tr>
<tr>
<td>Funding</td>
<td>2</td>
<td>Rare</td>
</tr>
<tr>
<td>Accommodations</td>
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<td>Typical</td>
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<tr>
<td>Club level accommodations</td>
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<td>Typical</td>
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<tr>
<td>Undeveloped opportunities for accommodation</td>
<td>3</td>
<td>Variant</td>
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<tr>
<td>Anti-accommodation</td>
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<td>Variant</td>
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<tr>
<td>Education opportunities</td>
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<tr>
<td><strong>Mastery</strong></td>
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<td></td>
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<tr>
<td>Area of focus</td>
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<td>Typical</td>
</tr>
<tr>
<td>Breadth</td>
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<td>Variant</td>
</tr>
<tr>
<td>Depth</td>
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<td>Variant</td>
</tr>
<tr>
<td>Other</td>
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<td>Process of knowledge attainment and skill building</td>
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<tr>
<td>Learning through competition</td>
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<td>Encountering challenges</td>
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<td>Social learning environment</td>
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<td>Time commitment</td>
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<td>Demonstration of mastery</td>
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<tr>
<td>Foundational knowledge</td>
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<td>Generalization of knowledge</td>
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<td>Variant</td>
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<tr>
<td>Professional development</td>
<td>6</td>
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<tr>
<td><strong>Independence</strong></td>
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<td></td>
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<td>Scaffolding independence</td>
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<td>Variant</td>
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<td>Self-determination</td>
<td>15</td>
<td>General</td>
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<tr>
<td>Building intrapersonal characteristics</td>
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<td>Typical</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---</td>
<td>---------</td>
</tr>
<tr>
<td>Confidence</td>
<td>9</td>
<td>Typical</td>
</tr>
<tr>
<td>Perseverance</td>
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<td>Variant</td>
</tr>
<tr>
<td>Personal fulfillment</td>
<td>3</td>
<td>Variant</td>
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<tr>
<td>Generosity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community service</td>
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<td>Typical</td>
</tr>
<tr>
<td>External contribution</td>
<td>11</td>
<td>Typical</td>
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<tr>
<td>4-H proficiency contribution</td>
<td>9</td>
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</tr>
<tr>
<td>Generosity based character attributes</td>
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<td></td>
</tr>
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<td>Cultivating attributes</td>
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<td>Variant</td>
</tr>
<tr>
<td>Displaying attributes</td>
<td>9</td>
<td>Typical</td>
</tr>
</tbody>
</table>

Note. N = 15. In accordance with the recommendations presented in Hill et al., 2005, I applied the following frequency labels. *General* applies to all (or all but one; 14-15) of the cases; *typical* applies to at least half (8-13) of the cases; *variant* refers to at least three cases (3-7); *rare* refers to one or two cases.
Figure 1. 4-H positive youth development model with belonging as the foundation.