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YOUNG ADULTS WITH DISABILITIES FINANCIAL SKILLS AND GOALS: A MIXED
METHODS STRENGTHS AND NEEDS ASSESSMENT

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of
Philosophy at Virginia Commonwealth University.

by

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Dedication

I dedicate this research to the young adults with abilities and disabilities and their parents who made it possible.

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By Allison D'Aguiar

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Virginia Commonwealth University, 2019

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Young adults with disabilities face barriers that affect their financial capability and financial inclusion in the marketplace. Barriers include a lack of autonomy, skills, and opportunities. This mixed method strengths and needs assessment aimed to explain and explore the financial skills and goals of young adults with disabilities. A standardized scale captured young adults with disabilities financial skills, photovoice participatory action research documented their valued financial skills and goals, and semi-structured interviews notated parents financial aspirations and goals for their daughters and sons. The mixed methods results suggested young adults with disabilities underlying financial skills fell 25 percent below the average score among U.S. adults; valued financial skills and goals included their hobbies, talents, and continued education to pursue a livelihood; and parents aspired that their daughter or son acquired meaningful employment, independence to include financial independence, and money management skills.

Keywords: young adults, disabilities, financial autonomy financial capability, financial inclusion, financial skill

Chapter One

Introduction

“The acquisition of talents during education, study or apprenticeship is a real expense, which is capital in a person. Those talents are part of his fortune and likewise of society.”

(Adam Smith, 1700s)

Young adults with disabilities need financial capability to gain independence in their homes, workplaces, and communities. The World Bank defines financial capability as:

The internal capacity to act in one’s best financial interest, given socioeconomic and environmental conditions. It encompasses the knowledge, skills, attitudes, and behaviors of consumers with respect to understanding, selecting, and using financial services, and the ability to access financial services that fit their needs (2014, p. 1).

Financial capability informs the choices and decisions young adults with disabilities make about activities of daily life, such as household budgeting, using transportation, and finding a place to live. Young adults with disabilities, however, face significant barriers to financial capability that adversely affects their independence and inclusion in the marketplace. Obstacles include a lack of autonomy, skills, and opportunities.

“Having the autonomy to earn, manage, and spend one’s own money can be an important way to gain greater control over one’s life” (Browder & Grasso, 1999, p. 297). People with

disabilities though may lack “substantial prior experience in making financial decisions that affect their lives” (Consumer Financial Protection Bureau, [CFPB] 2017, p. 10). Family members or legal guardians may have made those financial decisions for them (CFPB, 2017).

Over time, this may affect adults with disabilities “perception about whether they can make financial decisions for themselves” (CFPB, 2017, p. 10). “By not controlling their finances, adults with disabilities [mental retardation] may lack the autonomy to make key decisions about activities of daily living” (Browder & Grasso, 1999, p. 297). For example, low rates of self-determination and choice making existed among adults with intellectual disability (ID) such as “where to live and who to live with” (McCausland, McCallion, Brennan, & McCarron, 2018, p. 875). A lack of autonomy restricts young adults with disabilities opportunities to make financial choices.

Young adults with disabilities may receive limited instruction in financial skills due to outdated beliefs in their capabilities and needs. Education and financial skills, however, were the most common self-reported unmet needs of adults with ID (McCausland et al. 2010). Adults with ID stated a desire “to independently manage one’s own finances” (McCausland et al., 2010, p. 381). Research has demonstrated financial decision-making exists along a continuum, and the capacity of people with disabilities to make financial decisions does not differ qualitatively from their non-disabled peers (Suto, Clare, Holland, & Watson, 2005). Research has also shown that context-specific information may improve the financial decision-making abilities of both adults with and without disabilities. Suto et al. (2005).

Limited opportunities and barriers young adults with disabilities face include ableism, classism, and racism. Adults with disabilities may be more vulnerable to “ableism, classism, and racism resulting in social and economic marginalization that adversely affects their ability to

access financial information and services” (Goodman, O’Day, & Morris, 2017, p. 1). The American with Disabilities Act (1990) states, our nation's goals are to assure “equality of opportunity, full participation, independent living, and economic self-sufficiency” for people with disabilities. Adults with disabilities, however, may be “precluded from participating in all aspects of society due to prejudice, antiquated attitudes about the limitations of people with disabilities and the failure to remove societal and institutional barriers” (Goodman et al., 2017, p. 1). The social and economic marginalization of young adults with disabilities is a barrier to their financial inclusion in the marketplace.

Limited opportunities and obstacles young adults with disabilities face also include the ability to earn an income. Low or unstable employment may negatively affect adults with disabilities financial capability (Goodman et al., 2017). The Family & Individual Needs for Disability Supports (FINDS) Community Report reported eighty-five percent of adult family members with Intellectual and Developmental Disabilities (IDD) were unemployed, and for employed adults IDD who had regular jobs in the community, competitive wages remained elusive (Anderson et al., 2018). For instance, only fifty-seven percent of employed adults with IDD earned at least minimum wage (Anderson et al., 2018).

Moreover, critical, benefit programs that adults with disabilities rely on such as Social Security Disability Insurance and the Supplemental Security Income program contain rules that inadvertently disincentives’ the desire to work and save money as both programs eligibility criteria are predicated on an inability to work (Goodman et al., 2017). Limited employment opportunities and benefit programs hinder young adults with disabilities capacity to build their economic self-sufficiency.

Statement of the Problem

Research has documented a lack of autonomy, skills, and opportunities for young adults with disabilities. There is also comprehensive research documenting the underemployment of adults with disabilities and their resulting poverty rates and effects (Anderson et al., 2018; Conroy, McDonald, Morris, & Jennings, 2014; Nord, Luecking, Mank, & Kieran, 2013). Few studies, however, have focused on investing in the financial capability of young adults with disabilities. Current knowledge lacks data on how young adults with disabilities find, process, and act on financial information (Bureau of Consumer Financial Protection, [BCFP], 2018). There is also a need for research on the valued financial skills and goals of young adults with disabilities. Similarly, a need for research on parental perspectives on the successful financial transitioning of their daughters and sons to adulthood (Henninger & Taylor, 2014).

Statement of the Purpose

This mixed methods strengths and needs assessment aimed to explain and explore the financial skills and goals of young adults with disabilities. A transformative design (Mertens, 2018) framed the study, and human capital theory provided the theoretical lens. A transformative design focused on the goal of social justice and a concern for the human condition for a marginalized and oppressed population-the financial capability of young adults with disabilities (Sweetman, Badiie, & Creswell, 2010). The theoretical lens, human capital theory emphasized investments in education and training as a means to increase financial literacy and reduce poverty experienced by adults with disabilities (Becker 1962; World Bank, 2018).

Research Questions

The research questions ordered to match the design included,

RQ1: What are the financial skills of young adults with disabilities?

RQ2: What financial skills and goals do young adults with disabilities value?

RQ3: What are the financial aspirations and goals that parents have for their daughters/sons?

RQ4: How does the qualitative data explain and elaborate on the quantitative data?

Definition of Key Terms

Disability: Is an umbrella term for body functions, body structures, activities and participation it denotes the aspects of the interaction between an individual and that individual's contextual factors-environmental and personal factors (World Health Organization, 2018).

Financial Capability: Is the internal capacity to act in one's best financial interest, given socioeconomic and environmental conditions. It encompasses the knowledge, skills, attitudes, and behaviors of consumers in understanding, selecting, and using financial services, and the ability to access financial services that fit their needs (World Bank, 2014).

Financial Goals: The priorities and targets for spending and saving money one's money (Bureau of Consumer Financial Protection, 2018).

Financial Skills: An action-oriented concept that includes knowing how to find reliable information to make financial decisions; knowing how to process financial information to make financial decisions; and knowing how to execute financial decisions and adapt as necessary to stay on track to reach one's financial goals (Bureau of Consumer Financial Protection, 2018).

Financial Socialization: Is the development of financial knowledge and skills by providing opportunities to act (i.e., opportunities to interact with financial institutions, e.g., bank account ownership) (Sherraden, 2010).

Human Capital: The activities that influence future real income through embedding resources in people (e.g., school, on-the-job training, medical care, and acquiring information about the economic system) (Becker, 1962).

Mixed Methods Research: Is a research design with philosophical assumptions as well as methods of inquiry. The central premise is that the use of quantitative and qualitative approaches, in combination, provide a better understanding of the research problem than either approach alone (Creswell & Plano Clark, 2011).

Photovoice: Photovoice is a participatory action research methodology that puts cameras in the hands of individuals often excluded from decision-making processes. It captures people's voices and visions about their lives, their community, and their concerns. Photovoice is a powerful way to communicate essential messages because it evokes emotion, grabs attention, and brings data to life (Foster-Fishman, Berkowitz, Lichty, Mortensen, & Nowell, 2013).

Transformative Paradigm: A transformative paradigm is associated with philosophical assumptions that provide a framework for addressing inequality and injustice in society using culturally competent, mixed methods strategies. The recognition that realities are constructed and shaped by social, political, cultural, economic, and racial/ethnic values indicates that power and privilege are essential determinants of which truth will be privileged in a research context. (Mertens, 2018).

Young Adult: A young adult is generally a person ranging in age from their late teens to their early twenties and thirties (childstats.gov, 2014).

Chapter Two

Literature Review

Background

Research has demonstrated that a lack of or low financial literacy is a barrier to many Americans financial capability and well-being (Kasman, Heuberger, & Hammond, 2018). A lack of or low financial literacy has also been found to be particularly true of emerging adults who need financial knowledge and financial skills to function as adults independently (Kasman et al., 2018). Increased financial literacy can occur through mandates, requirements, standards, and state education authorities (Kasman et al., 2018). The literature, however, “is far from conclusive” as to which policies have promoted positive financial behaviors and decisionmaking over the long term (Kasman et al., 2018, p. 19). The evidence thus far has suggested increased exposure to financial education to students in the classroom is associated with positive economic outcomes for adults years later (Kasman et al., 2018).

Research in the field of financial education has found that specific, relevant, and actionable information at the time consumers need to apply it to a specific context increased their financial literacy (BCFP, 2018). Research has also suggested financial education practitioners focus on developing a consumer’s financial skills, knowledge, and confidence (BCFP, 2018). Research-based pedagogy demonstrated to increase adults financial knowledge and decision making skills encompassed competency-based instruction, project-based learning and

stimulation, personalized and direct instruction, financial simulations, real-world case studies, and financial coaching and mentoring (CFPB, 2017).

Financial skills are considered a critical component of financial capability. Skills include how one finds, processes, and uses financial information (BCFP, 2018). Financial skills are strongly associated with financial behaviors-the day to day actions one takes to secure one's financial life (BCFP, 2018). Financial goals have been shown to reflect a person's values. For instance, an individual may value a comfortable life, education, family, or health. Peoples' values have provided insight into how people use their resources and money and set and work towards their financial goals (BCFP, 2018).

Young adults with disabilities need critical skills that matter, to become independent in their homes, at their jobs, and in their communities. Financial skills enable young adults with disabilities to navigate everyday financial actions such as preparing a budget, paying for transportation, and saving money (BCFP, 2018). Young adults with disabilities financial values provide a foundation on which to build their financial goals. Financial skills can support young adults with disabilities in reaching their financial goals.

Philosophical and Theoretical Framework

A Transformative worldview. A transformative framework is a change-oriented research design, and “seeks to advance social justice by identifying power imbalances and empowering the individuals under study” (Creswell & Plano Clark, 2011, p. 96). The philosophical assumptions behind a transformative worldview posited by Sweetman, Badiee, and Creswell (2010) are, “ Knowledge is not neutral and is influenced by human interests, knowledge reflects the power and social relationships in society, and the purpose of knowledge construction is to aid people and improve society” (p. 442).

A transformative framework advanced the needs of underrepresented or marginalized populations (Creswell & Plano Clark, 2011). It involved the researcher taking a position, being sensitive to the needs of the community studied and recommending specific changes due to the research to improve an aspect of social justice for the population under study (Creswell & Plano Clark, 2011). Mertens' (2003) recommended transformative researchers adopt "An explicit goal for research to serve the ends of creating a more just and democratic society that permeates the entire research process, from the problem formulation to the drawing of conclusions and the use of results" (p. 159).

Theoretical lens. The theoretical lens employed in this strengths and needs assessment is human capital theory, developed by Gary Becker in his seminal work *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education* (1962). Becker studied the economic benefits of investments in an individual's education and training. "Broadly defined, human capital is the collection of productive skills embodied in a person that can be used to generate earnings in the labor market and to augment household's consumption options" (Weiss, 2015, p. 27). Human capital is also a dynamic concept as people can *choose* to invest in their human capital. Economists can analyze an individual's investment in their human capital based on forwarding projections (Weiss, 2015, p. 27). Investments in peoples' human capital through quality education, skills, jobs, nutrition, and healthcare has positively transformed their outcomes (World Bank, 2018).

Study Identification Procedures

This literature review examined the current knowledge and substantive findings of young adults with disabilities financial capability. For this review the following databases were searched from 2007 through September 30 of 2018, Applied Social Sciences Index and Abstracts (ASSIA), Social Services Abstracts, Nursing and Allied Health Literature (CINAHL), SAGE Research Methods, ERIC, and Google Scholar. The thesaurus searched terms included: *disability, young adults, financial autonomy or financial independence or financial skills or financial capability; human capital theory; transformative frameworks combined with the terms disability, disabilities or disabled and young adults; and photovoice combined with the term disability, disabilities or disabled and young adults.*

Additionally, government websites were searched for relevant reports and policies. The review also included a search within citing articles for related materials. The format of the literature reviewed was arranged by topic as follows: financial capability and skills; human capital theory; transformative frameworks; and photovoice.

Financial Capability and Skills

Current knowledge of young adults with disabilities financial capability was limited. Instead, the generic terms *disability* linked with the term *financial* resulted in more information. The research literature on disability and financial included disability statistics, national surveys, literature reviews, and peer-reviewed studies.

Disability statistics. The *2017 Annual disability statistics compendium and supplement* summarized population statistics on people with and without disabilities in the United States (Lauer & Houtenville, 2018). The principal sources of data used were from the U.S. Census Bureau and the American Community Survey. The Compendium reported on 2016 data for the

population and prevalence of working-aged people with disabilities 18-64 living in the community. In 2016, the population and prevalence of people with disabilities were 40,852,226 (Lauer & Houtenville, 2018). The poverty rate for people with disabilities was 26.7 %, and the median annual earnings of working-aged adults with disabilities were \$22,047 (Lauer & Houtenville, 2018).

National surveys. Individuals 18 years of age and older that received services from state developmental disability agencies completed the National Core Indicators (NCI) Adult Consumer Survey (2015-2016). The NCI indicated adults with disabilities had some choice, decision-making, and control over money. For instance, 88 % of respondents reported they “had some input in choosing what to buy with spending money” (HSRI & NASDDDS 2017, p. 3).

In another survey, The Family and Individual Needs for Disability Supports Survey 2017 (FINDS), Anderson et al. (2018) estimated 7.3 million people with intellectual or other developmental disabilities lived in the United States. The majority of whom lived in their family home and received support from family members. In a closely related area, Anderson et al. (2018) found 54 % of families and caregivers reported they did not have a financial plan for their adult daughter or son. Anderson et al. (2018) also reported parents and caregivers expressed concern about what would happen to their loved one when they were no longer able to provide financial support. Last, Anderson et al. (2018) found 68 % of families and caregivers worried their loved one would be “financially exploited” (p. 21).

In a study by the National Disability Institute, the *Financial capability of adults with disabilities* Goodman et al. (2017) analyzed survey data from the Financial Industry Regulatory Authority (FINRA) Investor Education Foundations’ 2015 National Financial Capability Study (NFCS). The NFCS study measured and compared multiple aspects of American adults’

financial behavior, including how they managed their resources and how they made financial decisions. The survey questions focused on the key components of financial capability: making ends meet, planning, managing financial products and services, and financial knowledge and decision-making (Goodman et al., 2017). Survey respondents included working-age adults with and without disabilities ages 18-64. An individual's disability could occur from vision, hearing, movement, communication, cognition, and psychological factors. Goodman et al. (2017) summarized the findings of the NFCS based on the four critical components of financial capability: making ends meet, planning, managing financial products and services, and financial knowledge and decision-making.

Goodman et al. (2017) found adults with disabilities had more difficulty making ends meet than adults without disabilities. For example, adults with disabilities were more than twice as likely to have difficulty covering expenses and paying bills (Goodman et al., 2017). Adults with disabilities were also twice as likely to have past due to medical bills and forgo medical care due to costs. Last, adults with disabilities experienced higher levels of financial stress and were more likely to be dissatisfied with their financial situation than adults without disabilities were (Goodman et al., 2017).

Goodman et al. (2017) also reported adults with disabilities had more difficulty with financial planning than adults without disabilities. For instance, adults with disabilities were less likely to have three months of emergency funds and less likely to have set long-term financial goals (Goodman et al., 2017). Additionally, adults with disabilities were less likely to plan for and have retirement accounts. Goodman et al. (2017) also found adults with disabilities had more difficulty managing financial products and services. For example, adults with disabilities were less likely to have checking and savings accounts, were more likely to be unbanked (i.e., not

served by a bank or other financial institution), use prepaid debit cards, and use non-bank borrowing services Goodman et al. (2017).

Last, Goodman et al. (2017) reported adults with disabilities scored lower on basic financial concepts and had lower perceived financial knowledge than adults without disabilities. Goodman et al. (2017) found the NFCS survey respondents with disabilities were disproportionately older, poorer, and had lower levels of financial literacy than working adults without disabilities.

Lipscomb et al. (2018) summarized key findings from the National Longitudinal Transition Study 2012, *Preparing for life after high school: The characteristics and experiences of youth in special education*. Lipscomb et al. (2018) found “youth with disabilities were more socioeconomically disadvantaged and less likely to have experiences and expectations that were associated with success after high school” than their peers without disabilities (p.1). For example, youth with disabilities were “more likely to live in low-income households with parents receiving federal food benefits (Lipscomb et al., 2018, p.1). Additionally, “youth with disabilities were more likely to struggle academically and less likely to take steps to obtain post-secondary education or jobs” (Lipscomb et al., 2018, p. 1).

In data from the National Longitudinal Transition Study-2 (NLTS2)-Wave 5, Newman et al. (2011) analyzed the dimensions of financial independence for young adults with ID. Newman et al. (2011) found young adults with ID were less likely to have a savings account, checking account, or credit card. Newman et al. (2011) also found young adults with ID were more likely to report household incomes of \$25,000 or less and were more likely to receive Food Stamps than other young adults in other disability categories were. Last, Newman et al. (2011) found the rate of having a checking account or credit card differed by race, “White young adults with

disabilities were more likely to have a checking account” or credit card than their African American peers, 66 % vs. 39% for a checking account, and 44 % vs. 26% for a credit card (p. 128).

Literature reviews. Clark (2016) conducted a narrative review of financial literacy and transition planning for the National Technical Assistance Center on Transition. Clark, (2016) found transition studies focused on discrete components of financial literacy. For example, using an ATM or purchasing skills. Clark (2016) also found that the two most common strategies used to teach basic finance skills to youth with disabilities were community-based and simulated instruction. Clark (2016) found research-based practices that improved the financial literacy of youth with disabilities included community-based instruction, least to most prompting, and response prompting.

Foley, Girdler, Bourke, and Leonard (2012), framed their narrative review within the International Classification of Functioning Disability and Health Framework (ICF). Foley et al. (2012) reviewed 128 articles that highlighted the transition research-school to post-school on young adults with developmental disabilities from 1920-2011. Findings revealed the best predictor of future capacity for work among adults with disabilities was their ability to manage activities of daily living (Foley et al., 2012). The research suggested adults with intellectual or developmental disabilities “have the capacity to control their lives in a more meaningful way if supported to do so” (Foley et al., 2012, p. 1757). The research also demonstrated adults with intellectual or developmental disabilities who were “more self-determined had better outcomes across multiple life categories including financial independence and independent living” (Foley et al., 2012, p. 1757).

In a closely related area, Foley et al. (2012) found the majority of adults with intellectual

and developmental disabilities lived with their families well into their adult years, and the ongoing demand of caring for their loved ones placed additional financial stress on families.

Mittapalli, Belson, and Ahmadi (2009) examined the empirical and qualitative research on financial literacy for youth with disabilities from 1990-2009. Mittapalli et al. (2009) found that although financial literacy programs have grown in number and emphasis in recent years, few programs had been evaluated for effectiveness or adapted to the needs of youth with disabilities. Mittapalli et al. (2009) recommended future research include rigorous methodologies to measure financial program outcomes for both youths with and without disabilities.

In a seminal review, *The effects of purchasing skill instruction for individuals with developmental disabilities: A meta-analysis*, Xin, Grasso, Hoy, and Jitendra (2005) examined 28 intervention studies on the impact of purchasing skills by individuals with developmental disabilities. The studies were single-subject research designs using nonparametric procedures. Xin et al. (2005) results suggested a moderately positive effect on purchasing skill instruction. Xin et al. (2005) recommended “functional math skills (e.g., purchasing) instruction in the elementary grades was necessary for increased functional competence in later years” (p. 397).

In another seminal review, *Teaching money skills to individuals with [mental retardation]* intellectual disability, Browder and Grasso (1999) reviewed the literature and identified 43 studies that taught money skills to individuals with ID. The majority of the studies included classroom-based computational skills and making purchases. Browder and Grasso (1999) suggested money skill instruction focus on “purchasing, building on pre-existing skills, use of promoting and fading strategies, training for generalization, and expanding instruction to include all money management skills” (p. 36). Browder and Grasso (1999) recommended future research should be focused on determining effective individualized instructional strategies for

individuals with ID.

Peer-reviewed studies on financial skills. Brushwein, McLaughlin, Derby, and Shank (2014) intervened to increase the fluency and accuracy on coin identification, counting and giving change with four 20-year-old-students with developmental disabilities using systematic instruction and the model, lead, test (MLT) strategy. The MLT strategy involved the teacher modeling the correct use of strategy, using guided practice with the students, and assessing the students' independent use of the strategy. Brushwein et al. (2014) results showed an increase in the students' correct responses and a decrease in their errors. Further that the "mastery of new skills gave the students the confidence to move onto more complex skills" (Brushwein et al., 2014, p. 18).

In another peer-reviewed study, Hsu, Tang, and Hwang (2014) employed a multiple-probe design across secondary students with intellectual disability and settings using a mobile purchasing assistance system (MPAS). MPAS assessed the effectiveness of the one-more-than technique on independent purchases for items with prices beyond the participants' money counting skills. Results indicated that the MPAS technique improved the money counting and independent purchasing skills of three students with ID. Hsu et al. 2014 suggested mobile technology could become a permanent prompt for those with ID to make purchases in their daily lives. The students' maintained treatment effects for eight weeks and generalized the MPAS technique across three community settings. Hsu et al. (2014) recommended future research explore students with ID perception of using MPAS.

In further peer-reviewed studies, Scott, Collins, Knight, and Kleinert (2013) examined college students with intellectual disability use of a self-operated Podcast containing video modeling and audible prompts on an iPod to withdraw money from an ATM. The results

indicated a multiple probe design across the three college-aged students with ID demonstrated a functional relation between the Podcast via the iPod and students' percentage of the correct steps completed on the task analysis. Scott et al. (2013) found students were able to generalize the skills to novel contexts.

McCausland et al. (2010) analyzed data from the *Camberwell Assessment of Needs for Adults with Intellectual Disabilities*, on the self-reported needs of adults with intellectual and other developmental disabilities. McCausland et al. (2010) found adults with IDD self-reported a need and desire to increase their education and money management skills resulting in the ability to manage their finances independently. Last, Cihak and Grim (2008) examined the use of counting-on math skills in conjunction with the next-dollar strategy to enhance independent purchasing skills for young adults with autism and intellectual disability. Cihak and Grim (2008) found the young adults with autism or ID acquired, maintained, and generalized counting-on and next-dollar skills for up to 6 weeks in community settings. Cihak and Grim (2008) recommended intensifying instruction on young adults with autism or ID basic academic skills to increase their access to the general education curriculum.

Consideration of a closely related area. The goals families have for their young adult daughters and sons with a disability are important as parents have advocated for, coordinated, and managed the services and supports that their daughters and sons need after high school. On a study on family perspectives, however, Henninger and Taylor (2014) found the perspectives of families were not usually considered.

Henninger and Taylor (2014) research suggested parents valued skills for their adult daughters and sons that contributed to their successful daily functioning included “money managing and paying bills on time” (p. 6). Parents also valued continued academic instruction

and intellectual pursuits for their adult daughters and sons (Henninger & Taylor, 2014). Last, parents valued “independence or independence with support to include financial independence, making one’s own decisions and being responsible for oneself” (Henninger & Taylor, 2014, p. 7).

Human Capital Theory

Although no direct search, linkages were found between the terms *human capital theory* and *young adults with disabilities* the theory has been used across a board interdisciplinary range of studies (e.g., economics, education, sociology). “Human Capital is defined as the knowledge, skills, and health that people accumulate over their lives, enabling them to realize their potential as productive members of society” (World Bank, 2018, p. 14). Gary Becker (1962) theorized human capital occurs through activities such as education, training, and healthcare that influence future real income by embedding resources in people. Examples of investments in human capital included investing in one’s education, on-the-job training, or acquiring information about our economic system (Becker, 2008). An essential concept of human capital theory, is “people cannot be separated from their intangible assets such as knowledge, skills, health, or values in the way they can be separated from their tangible assets” (Becker, 2008, p. 1). Becker (2008) found “education, training, and health to be the foremost investments in human capital” (p.1).

Lusardi and Mitchell (2014) also postulated financial knowledge is a form of investment in human capital. Further, Lusardi and Mitchell (2014) found, “endogenizing financial knowledge has important implications for welfare as well as policies intended to enhance financial knowledge in the larger population” (p. 5). In other words, as financial markets around the world, increasingly become accessible to individuals, and new financial service and products become available it is essential to increase one’s level of personal financial literacy to avoid the

dire consequences of financial illiteracy (Lusardi & Mitchell, 2014).

Lusardi and Mitchell (2014) demonstrated their model predicted that it was socially optimal to increase financial knowledge early in life. Consequently, Lusardi and Mitchell (2014) recommended mandating students take financial education in high school to increase their financial literacy. To illustrate, Lusardi and Mitchell (2014) found providing “pre-labor market financial education improved young peoples’ financial well-being to an equivalent to 82% percent of their initial wealth” (p. 9). Lusardi and Mitchell (2014) recommended economic researchers’ measure financial education outcomes as well as data on teachers, training programs, and materials covered.

The World Bank Group (2018) applied human capital theory to its recently launched Human Capital Project (HCP). The World Bank Group (2018) framed investments in human capital as a central driver of sustainable economic growth and poverty reduction. The HCP (2018) has utilized human capital theory to identify the significant gaps in human capital investments globally to ensure “all children arrive at school ready to learn and the time spent in school translates into better learning” so they can grow up to live as healthy, skilled, and productive adults” (p. 1). The HCP stressed the importance of investing in human capital for people, economies, and societies. Last, in *A review of large-scale youth financial literacy education policies and programs*, Kasman et al. (2018) found, “financial education at an early age can be viewed as an investment in human capital” (p. 2).

Transformative Framework

Background on a transformative framework. A Transformative paradigm is a philosophical framework focused on ethics regarding cultural responsiveness, recognizing power differences, building trusting relationships, and developing research conducive to social change

(Mertens 2012). The use of a transformative framework is a way for the researcher to be aware of and make visible the implications of the various assumptions made by themselves that underline the nature of the research problem addressed, approach and methodology (Mertens, 2016). Mertens (2013) stated, “The principles associated with the transformative paradigm have emerged from concerns raised by members of marginalized communities, such as feminists, racial/ethnic minorities, indigenous peoples, people with disabilities, and the deaf community” (p. 27).

A direct search linkage was found between *transformative frameworks and adults with disabilities* in Boland, Daly, and Staines (2008) study, *Methodological issues in inclusive intellectual disability research: A health promotion needs assessment of people attending Irish disability services*. Boland et al. (2008) interviewed 247 adults with ID and 180 adults with physical or sensory disabilities; conducted focus groups with service providers and caregivers; and surveyed center managers to evaluate the health and health promotion needs of adults with disabilities using health service centers. Boland et al. (2008) reported that adults with disabilities identified a need for “creative therapy, physical activity, relaxation therapy, and social activities” whereas service providers and caregivers identified a need for “speech and language therapy, counseling, occupational therapy and physiotherapy” (p. 1468). Boland et al. (2008) found, “inclusive research produced useful outcome measures on the health promotion needs of those with a disability” (p. 1468). Boland et al. (2008) suggested triangulation that involved data from adults with disabilities, service providers and caregivers provided useful information on the health promotion needs of adults with IDD.

The literature search also revealed transformative research with people with disabilities conducted by the following researchers: Cushing, Carter, Clark, Wallis, and Kennedy (2009)

transformative research with people with disabilities; Horvath, Kampfer-Bohach, and Farmer Kearns (2005) study of involvement of people who are deaf and blind in research; Kroll, Barbour, and Harris (2007) use of focus groups with people with disabilities; Rapport, Manthorpe, Moriarity, Hussein, and Collin (2005) work with advocacy research with people with disabilities; Ryan (2007) qualitative research with people with disabilities; and MacArthur, Gaffney, Kelly, and Sharp (2007) agency and voice work with children with disabilities.

Photovoice

Background on photovoice participatory action research (PAR). Caroline Wang and Mary Ann Burris (1997) created the photovoice concept, method, and use for participatory action research for a women's health needs assessment in China. Wang (2006) stated, photovoice has three goals: “to enable people to record and represent their everyday realities; promote critical dialogue and knowledge about personal and community strengths and concerns: and reach policymakers” (p. 148). The theoretical underpinnings of photovoice participatory research are based on “health promotion principles and the theoretical literature on education for critical consciousness, feminist theory, and a community-based approach to documentary photography” (Wang, 2006, p. 148). Wang’s (2006) methodology entailed providing people with cameras to document their everyday realities. Photovoice is based on the concepts that “images teach, pictures can influence policy, and community people should participate in creating and defining the images that shape public policy” (Wang, 2006, p. 148).

Historically, people with disabilities have been excluded from research that affects their lives. However, as the “power differential that has existed between researchers and participants has been increasingly acknowledged especially within the context of examining marginalized populations such as people with disabilities participatory action research has emerged as a

methodology (St. John, Mihaila, Dorrance, Smith DaWalt, & Ausderau, 2018, p. 251). Inclusive research is considered “research with, by and for vulnerable people and not on them” (Tajuria, Read, & Priest, 2017, p. 198). Inclusive research is defined by the following attributes: “It answers the research questions, reaches participants, provides knowledge, includes in-depth information about people by people, and is acceptable to people and influences their lives” (Tajuria, 2017, p. 198).

St. John et al. (2018) suggested participatory action research with people with disabilities be “meaningful to the people being studied; accurately representative of their views and experiences, and exemplify that the research community treats people with disabilities with respect” (p. 251). Lloyd et al. (2018) found participatory action research engaged participants, accurately documented their life experiences and perspectives, supported the development of their plans for the future, and provided an empowering experience.

Recent examples of research. A number of direct search linkages were found between *photovoice research and adults with intellectual and or developmental disabilities* in the literature. Researchers that have contributed to the photovoice literature included: Overmars-Marx, Thomese, and Moonen (2016); Povee, Bishop, and Roberts (2014); Tajuria, Read, and Priest (2017); and Walton, Schleien, Brake, Trovato, and Oakes (2012).

Povee et al. (2014) used the photovoice methodology with eighteen adults with intellectual disability from an advocacy agency to explore their identities and social roles. Povee et al. (2014) found photovoice “created a space where people with ID meaningfully participated and exerted control in the research process resulting in an empowering experience” (p. 893). Povee et al. (2014) also found photovoice accessible as the ability to read or write was not required to participate. Last, Povee et al. (2014) recommended public photographic exhibits take

place giving adults with ID opportunities to connect with community stakeholders to share their messages (Povee et al., 2014).

Tajaira et al. (2017) used the photovoice method with five adults with intellectual disability to explore their experiences of loss and grief. The researchers reported that the participation of the bereaved adults with ID facilitated “a greater understanding of their needs and abilities” (Tajaira et al., 2017, p. 203). The researchers also noted planning, preparation, and flexibility in the photovoice approach with adults with ID were critical to improving research outcomes. Walton et al. (2012) implemented a photovoice project with twenty-two adults with IDD to share their stories of barriers and supports about inclusion in the community. Walton et al. (2012) stated it was “not merely sufficient to make programs available to adults with IDD, but “to listen to their needs, preferences, and dreams” (p. 177).

Challenges and limitations noted by researchers using the photovoice method included small sample sizes, and eliciting rich stories from the co-researchers with disabilities (Overmars-Marx et al., 2016). Also, the photovoice method required extensive planning and preparation, and the researcher tolerating uncertainty and shared control in the research process (Tajuria et al., 2017; Povee et al., 2014).

Summary of Literature Review, The research on the financial skills and goals of young adults with disabilities is limited. Consequently, assessing the strengths and needs of young adults with disabilities financial skills and goals is critical before developing financial strategies interventions, or programs that support their financial capability. Positive economic outcomes for young adults with disabilities should include an equal opportunity to be invested in the services, activities, information, and supports that prepare them to “become financially literate and capable, and make informed choices about their lives” (The Federal Partners in Transition

Workgroup, [FTP], 2015 p. 8). Similarly, families need support in developing the financial capability of their young adult daughters and sons.

Specific financial challenges facing young adults with disabilities included little autonomy, limited discrete skill instruction (e.g., purchasing skills), and a lack of opportunities (e.g., exposure to prerequisite conceptual skills such as numeracy) at an early age to facilitate the learning of financial skills needed as adults. Current knowledge lacked studies that demonstrated how young adults with disabilities find, process, and use financial information. The current research also lacked insight into the valued financial skills and goals of young adults with disabilities and parental perspectives.

Chapter Three

Methodology

Chapter three describes the methodology for this mixed transformative strengths and needs assessment. A transformative framework places central importance on the lives and experiences of young adults with disabilities-a marginalized community. The method focuses on collecting, analyzing, and mixing both the quantitative and qualitative data in the study that provides the best evidence for a transformative stance by privileging the reality of young adults with disabilities.

Summary of Study Design.

This mixed method strengths and needs assessment used a transformative design (i.e., social justice design) through the lens of human capital theory to explain and explore young adults with disabilities financial skills and goals (See Appendix A Figure 1: Social Justice Design using an explanatory sequential design). Mixed method strengths and needs assessments are used when researchers are engaged in an evaluation “to determine what is needed for whom before the development and implementation of an intervention” (Mertens. 2018, p. 155).

A transformative framework reflected the researcher’s worldview and implicit value assumptions for both social justice and equity (Sweetman, Badiee, & Creswell, 2010). Last, the researcher included the criteria elucidated by Mertens (2009) and Sweetman et al. (2010) for transformative designs,

- A research problem that has relevance to the marginalized community of concern

- A theoretical lens that guides the research and research questions relevant to an oppressed community
- A literature review that includes a vital issue of the community
- Appropriate labeling of the participants
- Participant engagement in the research process
- Data outcomes that benefit the community
- Data analysis and results that facilitate change, such as developing instruments, interventions, and providing information to stakeholders

This study assessed young adults with disabilities strengths and needs before contemplating the development of strategies or interventions designed to increase young adults with disabilities financial skills. This strengths and needs assessment had three sequential phases detailed below.

Study 1. The first study examined young adults with disabilities financial skills as measured by the Bureau of Consumer Financial Protection (BCFP) (2018) Financial Skill Scale.

Study 2. The second study explored young adults with disabilities valued financial skills and goals using photovoice-participatory action research.

Study 3. The third study investigated the financial aspirations and goals parents had for their daughters and sons through semi-structured interviews.

Restatement of research questions. The research questions developed to match the design included:

RQ1: What were the financial skills of young adults with disabilities?

RQ2: What financial skills and goals did young adults with disabilities value?

RQ3: What were the financial aspirations and goals that parents had for their daughters and sons?

RQ4: How did the qualitative data explain and elaborate on the quantitative data?

Sample

Study 1. Participant characteristics. The eligibility and exclusion criteria for the financial skill scale respondents included young adults ages 17-32 with disabilities. A disability encompassed physical, hearing, learning, emotional, and visual, communication, and/or health (i.e., Intellectual disability, Autism, 22q11 deletion syndrome-a genetic disorder, Sensory integration disorder, Attention Deficit Hyperactivity Disorder, Developmental Delays, and/or a combination thereof) Parents identified their children's age, employment status, and diagnosed disability. Additional eligibility criteria included the ability of the young adult with a disability to understand the study description and disclosures presented during the consent process and to consent or assent to the study (Horner-Johnson & Bailey, 2013) (See Appendix B, Consent). Last, the ability of the young adult with a disability to answer the financial skill scale questions by pointing, verbally, or in writing was a requirement for study participation.

Sampling procedures. The researcher recruited scale respondents through ten community-based disability organizations. The researcher met or emailed disability organizational personnel, explained the study, and distributed recruitment flyers to the site. The personnel at the disability organizations also emailed the recruitment flyer to their members to inform them of the study. Members then contacted the researcher in person at the disability center, through email or by phone (See Appendix C, Recruitment Flyer).

The researcher sampled a voluntary and purposive group of six scale respondents from two disability agencies that responded to the recruitment invitation. Purposive sampling

techniques involved selecting specific units or cases “based on a specific purpose rather than randomly” (Tashakkori & Teddlie, 2003, p. 713). The purpose of the sampled respondents was to achieve representativeness or comparability on an issue (i.e., financial skills) (Teddlie & Yu, 2007). The researcher administered and recorded the financial skill scale data at a community-based disability organization, a young person’s home, or a private conference room in a public library. Respondents were compensated fifteen dollars for participation in the study.

Sample size, power, and precision. Six participants were sampled a nonparametric sample.

Study 2. Participant characteristics. The eligibility and exclusion criteria for photovoice participants included young adults ages 17-32 with disabilities. The sample encompassed physical, hearing, learning, emotional, and visual, communication, and health disabilities. Parents identified their child’s age, employment status, and diagnosed disability. Additional inclusion criteria included the ability to understand the study description and disclosures presented during the consent process and the ability to consent or assent to the study (Horner-Johnson & Bailey, 2013).

Sampling procedures. The researcher similarly recruited photovoice participants by meeting or emailing disability organizational personnel, explaining the study, and distributing recruitment flyers to the site. The personnel at the disability organizations also emailed the recruitment flyer to their members to inform them of the study. The members then contacted the researcher in person at the disability center, through email or by phone.

Four photovoice participants were selected for the study. The participants were a voluntary and purposeful subset of the scale respondents that expressed an interest in exploring their valued financial skills and goals. The researcher implemented the photovoice procedures

then collected the photovoice visual and textual data at community-based disability organization, young peoples' homes, and a private conference room in a public library. Participants were compensated thirty-dollars for participation in the study.

Sample size, power, and precision. A subset of four young adults with disabilities participated in the photovoice qualitative research. Wang (1999) suggested seven to ten photovoice participants as ideal; however; Latz (2017) recommended the researcher consider issues of access and rapport in sampling size. Recent photovoice studies in the literature with adults with disabilities ranged in number from three to twenty-two co-researchers (Walton et al., 2012). Other photovoice sample considerations included a budget that supported purchasing cameras and developing and enlarging photos, and the sensitivity of the subject of focus (Foster-Fishman, Berkowitz, Lichty, Mortensen, & Nowell, 2013).

Study 3. Participant characteristics. Eligibility and exclusion criteria included parents who self-identified as having a young adult daughter or son aged 17-32 with a diagnosed disability as well as consenting to the study.

Sampling procedures. The researcher recruited interviewees similarly to both the financial skill respondents and photovoice participants. The researcher met or emailed organizational personnel, explained the study, and distributed recruitment flyers to the site. The personnel at the disability organizations emailed and distributed the recruitment flyer to their members to inform them of the study. Members then contacted the researcher at a disability resource center through email or by phone.

The researcher selected a voluntary and purposeful subset of six parents from the financial scale respondent pool to explain, complement, or elaborate on the quantitative data. (Creswell & Plano Clark, 2011). The researcher recorded then collected the semi-structured

interview data at a community-based disability service organization, parents' homes, and a private conference room in a public library. Parents were compensated fifteen-dollars for participating in the study.

Sample size, power, and precision. Guest et al. (2006) demonstrated that six interviews were “sufficient to enable the development of meaningful themes and interpretations” (p. 78). Research has shown semi-structured interviews are a reliable and comparable source of qualitative data. (Cohen & Crabtree, 2006).

Instrumentation

Study 1. The researcher measured young adults with disabilities financial skills by using the Bureau of Consumer Financial Protection's (2018) publically available Financial Skill Scale abbreviated five-item scale. The Bureau of Consumer Financial Protection's (2018) Financial Skill Scale measured three critical components of financial skills: “knowing when and how to find reliable information to make financial decisions; knowing how to process financial information to make financial decisions, and knowing how to execute financial decisions” (p. 4). The abbreviated scale comprised five questions and five Likert responses (See Appendix D for the BCFP Financial Skill Scale 2018 abbreviated version).

Quantitative reliability and validity. The marginal reliability of the financial skill scale in item response theory (IRT) was the ratio of true score variance to observed score variance (BCFP, 2018). Marginal reliability statistics for the scale ranged from zero to one similar to Cronbach's alpha in classical test theory. “The marginal reliability for the Financial Skill Scale was at or above. 80” (BCFP, 2018, p. 13). Validation statistics for the scale showed the relationship between the Financial Skill score and selected validity items. The “validity for the Financial Scale was $p < .0001$ using Spearman's correlations” (BCFP, 2018, p. 15).

Study 2. The photovoice study documented young adults with disabilities valued financial skills and goals through a “Photo Reflection” handout (Foster-Fishman et al., 2013, p. 27). The photo reflection handout notated in their own words the participants’ photo selections, reflections, and captions. (See Appendix E Photo Reflection Handout).

Study 3. The instrumentation for the semi-structured interview questions was a Guided Questions handout. The guiding questions contained two open-ended questions, and then four closed-ended questions aligned with the BCFP (2018) abbreviated Financial Skill Scale (See Appendix F, Guiding Questions Handout). Parents notated their responses on the handout, or the researcher notated their answers for them.

Procedures

Study 1. The researcher administered the scale individually twice to each subject. The second administration occurred one week after the first. The researcher scored each respondent’s scale (Test1 and Test 2) and then correlated the scores to measure the test-retest reliability of the scale. The researcher recorded the response values on paper copies of the scale. The researcher also offered presentation accommodations during the administration of the scale based on a respondent’s individual needs (e.g., Read Aloud, Scribe, Visual Aids, and Repeating the Question). A parent accompanied each respondent to the scale administration. Scale administration (self-administration or researcher administered) took approximately ten minutes for each respondent.

Study 2. The researcher implemented a modified photovoice study using the procedures recommended by Foster-Fishman et al. (2013) in a publically available facilitator’s manual. The photovoice procedures encompassed three sessions. The first session encompassed an explanation and discussion of the framing questions, ground rules, selecting and portraying

subject matter, and basic photography instruction. The second session comprised data collection via fieldwork. The third session included the photo selection and reflection processes, data analysis, and creation of a dissemination poster.

The first session of the photovoice study occurred at a community disability center with young adults with disabilities. The researcher led meeting included an explanation of the framing research questions, “what financial skills and goals do you value?” Next, the researcher discussed ground rules with the participants to set expectations for the group to work together for example, “Respect everyone’s opinion and Ask questions to understand other’s photos” (Foster-Fishman et al., 2013, p. 17).

Next, in session one, the researcher followed the procedures for selecting and portraying subject matter recommended by Foster-Fishman et al. (2013) by posing a question to the group and then by asking young adults with disabilities how they would answer it through a picture. For instance, “What are skills?” and “How would you answer it through a picture?”. The last step of the first session covered basic photography instruction. Photovoice is primarily a visual way of collecting data. The researcher showed the participants how to use their instant cameras and then provided them with time for in house photo practice opportunities.

The second session of the photovoice study occurred at a participant’s home or a private room in a public library with the young adult and their parent(s). First, the researcher presented a handout to the participant on photographer safety and ethics and then discussed safe and ethical behavior for taking photos with the young adult with a disability (See Appendix G, Safe and Ethical Behavior). Photovoice is designed to affect people. “It may impact the individuals participating in the project, and the broader community of people who experience the stories and photos through the public exhibit. As photovoice has the “potential for impact, it is essential for

the researcher to pay attention to the possibility of harm, which can happen when safety concerns and the ethics of being a photographer are ignored” (Foster-Fishman et al., 2013, p. 22).

The researcher then reviewed with the participant how to use the instant camera, showed the participant how to replace the film, and provided the participant with extra batteries for the camera. The young adult was then loaned a camera to document photos of their valued financial skills and goals over a week.

The third and last session of the photovoice study occurred at a community-disability organization. This session included data analysis (i.e., the photo reflection process) and dissemination. First, the researcher asked the participants to complete their photo reflection handout. The participants then selected, reflected on, and captioned 3-5 of their photos using the Photo Reflection handout (Foster-Fishman et al. 2013). Second, the participants shared their photos and described their photos to the other participants using their Photo Reflection sheet as a guide (i.e., “Description of the photo,” “I want to share this photo because,” “What is important for people to understand about this photo?” And What does this photo tell about my community or me?”) (Foster-Fishman et al. 2013, p. 27).

Next, the researcher implemented the informal data analysis method recommended by Foster-Fishman et al. (2013) with the participants. First, the researcher asked the participants as a group to identify the most important photos (i.e., 16 photos total) and stories about the photos they wanted to share. Second, the researcher asked the participants to group the identified photos into categories (i.e., codes) by asking, “How can we sort the photos into groups in a way that makes sense?” After the participants grouped the photos, the researcher asked the participants to label the groups. The researcher then wrote the labels as directed by the participants. Third, the researcher asked the participants what the main idea/message of the labeled categories meant to

develop overarching themes. The researcher wrote the themes as directed by the participants. Fourth, the researcher asked the participants to place the photos and the themes (e.g., physically mapped with tape) onto a poster board under the headers *valued financial skills or valued financial goals* to answer the framing/research question, “What financial skills and goals do you value?” Last, the researcher asked the participants what their messages to the community about their valued financial skills and goals were. The researcher then wrote the valued messages as directed by the participants.

The researcher conducted member checking with the photovoice participants during the thematic analysis to verify the accuracy of the participants’ responses and increase the credibility and the internal validity of the study (Mertens, 2015). Member checking by the researcher included restating and summarizing the photovoice participants themes and community messages for accuracy.

The final step of session three involved dissemination. After the data, analysis parents were invited to the dissemination at the disability center. The participant created dissemination poster of their valued financial skills and goals was displayed to the parents of the photovoice participants and disability service staff at the community site. The participants explained to their parents and staff why the photos were important to them and what the main idea/themes, and messages to the community were. The poster was exhibited at the community disability organization.

Study 3. The researcher conducted the semi-structured interviews with parents at a disability service organization, parent’s home, or private room in a public library. The researcher explained and read the guided questions. The parents then notated their responses on the handout, or the researcher notated their responses for them. Member checking with the

interviewee during the semi-structured interview occurred after the interview to verify the accuracy of the parental responses and increase the credibility and the internal validity of the study (Mertens, 2015). Member checking by the researcher included restating and summarizing the parents' notations for accuracy, and adding additional parent response details. The semi-structured interview took approximately thirty minutes for each parent.

Data Analysis

Research question 1. Statistical and data analysis. The researcher used a table-based scoring procedure (i.e., a look-up table) to find the IRT based score for the respondent's sum score. A two-step process for determining the Financial Skill Scale score included:

First, the researcher determined the total response value (i.e., raw total): After assigning the corresponding value from 0 to 4 to the respondent's responses to each one of the questions, added them up to find the sum. The sum was the total response value.

Second, the researcher converted the total response value to the Financial Skill Scale (FSS) score: Using the total response value from step one, the researcher found the corresponding Financial Skills score based on the respondent's age group and mode of administration. Mode referred to whether or not the respondents read the questions to themselves (self-administrated), or had the questions read to them by the researcher (administrated by someone else). The respondents' Test 1 FSS scores were used as the final FSS score to avoid introducing bias into the sample (e.g., incidental learning of financial skills and goals between T1 and T2 administration).

A higher score indicated a higher level of measured financial skill. BCFP (2018) reported that the "average financial skill score among U.S. adults is "50 with 25 percent of scores below 42 and 25 percent above 57" (p. 12). The researcher then examined test-retest reliability for

Test1 and Test 2 using Pearson's correlation coefficient. Descriptive statistics summarized the scale scores and demographic characteristics of young adults with disabilities (i.e., parent identified age, employment status, and disability of their adult daughter or son).

Research question 2. Informal data analysis. The researcher implemented the informal data analysis method recommended by Foster-Fishman et al. (2013) by including participants in the process. First, the researcher asked the participants as a group to select the most important photos (i.e., 16 photos total) and stories about the photos they wanted to share. Second, the researcher asked the participants to group the selected photos into categories (i.e., codes) by asking, "How can we sort the photos into groups in a way that makes sense?" After the participants grouped the photos, the researcher asked the participants to label the groups. The researcher then wrote the labels as directed by the participants. Third, the researcher asked the participants what the main idea/message of the labeled categories meant to develop overarching themes. The researcher wrote the themes as directed by the participants. Fourth, the researcher asked the participants to place their photos and the themes (e.g., physically mapped with tape) onto a poster board under the headers *valued financial skills or valued financial goals* to answer the framing/research question, "What financial skills and goals do you value?" Last, the researcher asked the participants what their messages to the community about their valued financial skills and goals were. The researcher then wrote the community messages as directed by the participants.

Research question 3. Thematic data analysis. The researcher used manual thematic analysis to identify patterns of meaning across the data set-parent semi-structured interviews. At the recommendation of an expert reviewer both of the open-ended questions, number one and number two of the semi-structured interview (i.e., "what are your financial aspirations and goals

for your daughter or son? and “what are the financial skills of your daughter or son to achieve these aspirations and goals”) were coded and then thematically contextualized across the age and disability of the parent’s daughter or son. Additionally, based on the expert reviewer’s recommendations, the research qualitatively summarized the close-ended questions three-six (i.e., yes or no questions).

The process for the thematic analysis of questions one and two included familiarization with the data, creating codes, searching for themes, reviewing themes, defining and naming themes, and write up (The University of Auckland, n.d.).

Familiarization with the data involved reading the data to become familiar with the content. The coding involved generation of succinct labels (codes) that identified key features of the data set that were relevant to answering the research question. Codes were then collapsed. Identifying themes involved examining the collapsed codes to identify significant broader patterns of meaning. Reviewing the themes involved reviewing the candidate themes against the dataset, determining if the theme told a convincing story, and refining and discarding themes. Defining and naming themes included analyzing each theme, and deciding on an informative name for each theme (The University of Auckland, n.d.). Last, the write up included parental quotes contextualized across a parent’s daughter or sons’ age and disability.

Conformability measures for questions one and two of the semi-structured interview included three expert reviewers who examined and confirmed that the researcher’s inferences were logical and grounded in the findings (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005). One reviewer was an associate professor with research expertise in health disparities, cancer prevention, community-based participatory research, and participatory research methods. The second reviewer was a certified health education specialist with research

expertise in women and children's health. The third reviewer was a research assistant with expertise in teacher-student relationships and trauma-informed programming in schools. The reviewers examined and commented on the available data in person with the researcher individually.

Another quality indicator used for the thematic analysis was a "reflection of the researcher's position and perspectives" (Brantlinger, 2005, p. 202). A special educator career shaped the researcher's positionality. As a special educator, the researcher served a diverse range of multi-ethnic and multi-racial students with disabilities PK-12th grade and their families in urban and suburban settings using inclusive practices, supports, and services that supported students with disabilities access to the general education curriculum.

Additionally, the researcher's lens encompassed a belief in human rights and the inherent dignity of all people. The researcher believed that poverty and systemic discrimination towards people with disabilities created barriers to people with disabilities' fundamental freedoms and human potential.

Research question 4. The researcher connected the quantitative and qualitative data in a case-oriented (i.e., Financial Skill Scale respondents, Parent interviewees', and Photovoice participants) merged analysis display. In a case-oriented display, the dimensions of cases were positioned with the quantitative results and qualitative thematic findings (Creswell & Plano Clark, 2011).

After the researcher merged the quantitative and qualitative data, the researcher interpreted the mixed methods data. The interpretation involved analyzing the quantitative results and qualitative findings to assess how the information addressed the mixed research question "How do the qualitative findings explain and elaborate on the quantitative results?" (Creswell &

Plano Clark, 2011). This process was called drawing inferences and meta-inferences (Teddlie & Tashakkori, 2009, p. 300). Inferences in mixed methods research are conclusions based on the separate quantitative and qualitative strands. Meta-inferences are those drawn across the study (Teddlie & Tashakkori, 2009).

In an “explanatory design, the meta-inferences related to whether the follow up qualitative data provided a better understanding of the research problem than simply the quantitative results” (Creswell & Plano Clark, 2011, p. 237). Additionally, in a transformative design, the meta-inferences showed how the results “uncovered inequities and called for change” (Creswell & Plano Clark, 2011, p. 220). The meta-inferences were “drawn at the end of the study and reported on in the *discussion* section of a study” (Creswell & Plano Clark, 2011, p. 230).

Overall validity approaches in quantitative, qualitative, and mixed methods research. Validity in mixed methods research involved employing strategies to address potential concerns in data collection, analysis, and interpretation (Creswell & Plano Clark, 2011). The researcher used Creswell and Plano Clark (2011) approaches to increase the internal validity of the data collection, analysis, and interpretation procedures and processes.

To avoid potential validity threats in data collection, the researcher drew samples from the same population to make comparisons. The researcher also used separate data collection procedures (e.g., scale, photovoice, and interviews). Last, the researcher asked parallel research questions in both the quantitative and qualitative phases.

To avoid potential validity threats in data analysis and merging the data, the researcher used a merged display that showed both the quantitative results and qualitative themes. The researcher also used nonparametric statistics to analyze quantitative results.

To avoid potential validity threats in the interpretation, the researcher presented the

results from both the quantitative and qualitative phases of the study equally. Last, the researcher interpreted the results in light of an advocacy stance.

Summary

The limitations of this mixed methods strengths and needs assessment study were the small sample sizes for both the quantitative and qualitative phases. The small sample sizes limited the generalizability of the study. Therefore, the study focused on maximizing internal validity.

Role of the researcher. The researcher attempted to mitigate challenges to the research process to increase the trustworthiness of results. For example, the researcher endeavored to establish trusting relationships with community members (i.e., young adults with disabilities and their parents). The researcher framed the strengths and needs assessments using participatory action research strategies (Mertens 2018). Additionally, the researcher combined multiple methods such as photovoice, and interviews in the study. The researcher was also sensitive to the cultural norms of their community (e.g., person first language, presuming competence). Last, the researcher shared the findings of the research in a dissemination summary with participants. Mertens (2018) stated, by working cooperatively with the community, the qualitative data should give a “richness to understanding and strengthen the credibility and ownership of the findings” (Mertens, 2018, p. 158).

Ethical considerations. Research that involved vulnerable populations posed ethical concerns. Gaining consent was an important way to mediate this concern. In addition to the standard IRB consent forms, a short set of questions assessed the extent to which young adults with disabilities were able to answer key aspects of the study (Horner-Johnson & Bailey, 2013).

Last, the study did not involve photographs of the participants or other people to protect their confidentiality and anonymity.

Institutional review board. The Institutional Review Board of Virginia Commonwealth University approved the study on 2/14/19 and amendments to expand the recruitment pool, modify the photovoice study, and offer cash compensation on 3/12/19 and 3/25/19.

Summary of Methodology

This mixed methods strengths and needs assessment included both quantitative and qualitative data gathered sequentially at community disability organizations for young adults with disabilities. The quantitative data explained the financial skills of young adults with disabilities as captured on a standardized scale. The qualitative data explored the valued financial skills and goals of young adults with disabilities documented through their own photos and words using photovoice participatory action research methodology. The qualitative data also explored the financial aspirations and goals that parents had for their daughters and sons through semi-structured interviews. The mixed results showed how the qualitative data explained the quantitative results.

Chapter Four

Results

Introduction

This chapter describes the results for this mixed transformative strengths and needs assessment on young adults with disabilities financial skills and goals. A transformative framework places central importance on the lives and experiences of young adults with disabilities-a marginalized community through the lens of human capital theory.

The chapter provides detailed results for each of the four research questions. Research question one explains young adults with disabilities' financial skills as measured by the Bureau of Consumer Financial Protection's Financial Skill Scale (BCFP, 2018). Research question two explores young adults with disabilities valued financial skills and goals using photovoice-participatory action research. Research question three explores the financial aspirations and goals parents have for their daughters and sons through semi-structured interviews. Last, research question four displays how the qualitative data explains and elaborates on the quantitative data across the first three research questions.

Results Research Question 1.

What were the financial skills of young adults with disabilities? The first research question explained young adults with disabilities financial skills as measured by the Bureau of

Consumer Financial Protection’s Abbreviated 5-item Financial Skill Scale (BCFP, 2018). The scale measured three essential components of financial skills: “knowing when and how to find reliable information to make financial decisions; knowing how to process financial information to make financial decisions, and knowing how to execute financial decisions and adapt as necessary to stay on track” (BCFP, 2018, p. 4).

A Financial Skill Scale score is a “standardized number between 0 and 100 that represented the respondent’s underlying level of financial skill” (BCFP, 2018, p. 10). A higher score indicated a higher level of measured financial skill. However, the financial skill score does not have a cut off value indicative of a “good” or “bad” score (BCFP, 2018). The “average financial skill score among U.S. adults is 50, with 25 percent of scores falling below 42 and 25 percent of scores falling above 57” (BCFP, 2018, p. 12).

Research has shown that respondents tend to answer survey questions differently depending on how a questionnaire is administered, either self-administered or administered by someone else (BCFP, 2018). The Financial Skill Scale questions accounted for this mode related difference, and a raw total was converted to a normalized financial skill scale score that directly compared administration across modes (BCFP, 2018). Each of the respondents answered the five questions either by self-administered or researcher administered modes (i.e., read aloud and scribe) on Test 1. The parent identified demographic characteristics; age, employment status, and disability of their adult daughter or son, and the respondents’ level of underlying financial skills are shown in Table 2. Financial Skill Score from higher to lower scores.

Table 2. Financial Skill Score

Respondent No. & Employment Status Yes or No	Self-Admin. Ages 18-61	Researcher-Admin. Ages 18-61	Age	Disability	Financial Skill Score:	
					Test 1	Test 2
1 No		X	18	SPD, ADHD, & DD	51	51
2	X		18	Autism	43	46

No						
3		X	23	IDD	32	32
No						
4		X	17	Genetic Disorder & DD	32	29
No						
5		X	29	IDD	29	35
Yes						
6		X	18	Autism	26	32
No						

Note. Explanation of disability abbreviations: Sensory processing disorder SPD; Attention-deficit/hyperactivity disorder, ADHD; Developmental delays, DD; Intellectual and developmental disabilities, IDD.

Test-retest reliability. Pearson's correlation coefficient was used to measure the strength of a linear association between the FSS Test1 and Test 2, where the $r = 1$ means a perfect positive correlation and the $r = -1$ means a perfect negative correlation (See Appendix H for Pearson's Correlation Coefficient Calculation). The value of R was 0.938, indicating a strong positive correlation. The P-Value was calculated from a Pearson's R calculator (Social Science Statistics, 2019). The P-Value was .005647. The result was significant at $p < .05$. The P-Value demonstrated that the Financial Skill Scale (BCFP, 2018) was a reliable measure of underlying financial skills measured over time for six young adults with disabilities aged 17-29. A limitation of Pearson's Correlation Coefficient for measuring the reliability of the two tests was the potential overestimation of the true relationship for small samples (e.g., under 15).

Descriptive statistics. The six respondents' ranged in age from 17-29 years. On average respondents were 21 years old. One of the respondents worked part-time. The respondents mean financial skills score was 36, the median 32, mode 32, the range was 51-26. One respondent scored on average (FSS score 51) among U.S. adults and one respondent scored within the low range of average (FSS score 43), the other four respondents scored below average (FSS score 32-26).

The respondents' trend across specific FSS items are described by the following questions and answers. For question one on the FSS, "I know how to make complex decisions,"

the majority of respondents answered, “Describes me somewhat.” For question two, “I know how to get myself to follow through on my financial intentions” the majority of respondents answered, “Does not describe me at all.” For question three, “I know how to make myself save” the majority of respondents answered, “Describes me very well.” For question four, “I know when I do not have enough information to make a good decision involving money,” the majority of respondents answered “Often” and “Always.” For question five, “I struggle to understand financial information” the majority of respondents answered “Often” and “Always.”

Results Research Question 2.

What financial skills and goals did young adults with disabilities value? The second research question explored young adults with disabilities valued financial skills and goals using photovoice-participatory action research. The criteria for establishing themes were derived from the participants articulated the main idea/message of the labeled photovoice categories. The three themes that emerged from the eight labeled photos and stories for valued financial skills expressed by participants’ encompassed their *talents or hobbies, buying a car or a truck for transportation, and continued education*. The three themes that emerged from the eight labeled photos and stories for valued financial goals articulated by participants included developing their *hobby or talent to earn a living, owning a car or truck, and having enough money and food not to struggle*. Young adults with disabilities messages about themselves and their community reflected pursuing their interests to earn a livelihood. Young adults with disabilities also messaged they valued saving money so they could choose to buy the things they need and want (e.g., food, hobby cars, and art supplies).

Specifically, two of the photovoice participants valued financial skills and goals included developing their talents (i.e., musical performing and drawing illustrating) to earn a livelihood.

One photovoice participant valued financial skills and goals included using their hobby car collection and computer skills to earn a livelihood. Two photovoice participants valued financial skills and goals included buying and owning a car or truck for transportation. Last, two photovoice participants' valued financial skills and goals included having enough food and money-not to struggle.

Results Research Question 3.

What were the financial aspirations and goals that parents had for their daughters and sons? Two themes emerged from the thematic analysis of the six parents interviews for question one, "What are your financial aspirations and goals for your adult daughter or son?" *Meaningful employment* and *Independence-to include Financial Independence*. A description of each parent response contextualized by the age and disability of their daughter or son follows:

Parent one, "To be financially independent and earn a salary based on his skills, not piece work."

(Son, 18 yrs., SPD, ADHD, & DD)

Parent two, "To live on her own and have a job or career that provides financial viability."

(Daughter, 18 yrs., Autism)

Parent three, "To become financially secure and live on her own-with assistance."

(Daughter, 23 yrs., IDD)

Parent four "Able to earn enough to afford the necessities and take care of herself."

(Daughter, 17 yrs., q22 genetic disorder & DD)

Parent five, "None" "Maybe twenty years ago."

(Son, 29 yrs., IDD)

Parent six, "Manage and spend money wisely."

(Son, 18 yrs., Autism)

Two themes emerged from the analysis of the six parent interviews for question two, “What are the financial skills your adult daughter or son need to achieve these aspirations and goals?” *Gainful Employment, and Money Management/Financial Literacy*. The money management and financial literacy theme were embedded with specific types of financial skills. A description of each parent response contextualized by the age and disability of their daughter or son follows:

Parent one, “Retain a job and spend within his needs,” (*Son, 18 yrs., SPD, ADHD, & DD*).

Parent two, “Join the workforce,” (*Daughter, 18 yrs., Autism*).

Parent three, “Able accounts, waivers, SSI” (*Daughter, 23 yrs. IDD*).

Parent four, “How money works” (*Daughter, 17 yrs. q22 genetic disorder & DD*).

Parent 5, “N/A” (*Son, 29 yrs. IDD*)

Parent 6, “Financial literacy and real-world experience” (*Son, 18 yrs. Autism*).

The notated responses of each parent interviews were quantitatively summarized for the Financial Skill Scale (BCFP, 2018) questions three-six, as shown in Table 3. Interview Questions 3-6.

Table 3. Interview questions 3-6 FFS (BCFP, 2018)

Parent Response	Question 3: Does your daughter/son know how to follow through on their financial intentions?	Question 4: Does your daughter/son know how to save money?	Question 5: Does your daughter/son know when they do not have enough information to make a financial decision?	Question 6: Does your daughter/son struggle to understand financial information?
Parent 1	Yes	Yes	Yes	Yes
Parent 2	No	Yes	No	Yes
Parent 3	No	Yes	No	Yes
Parent 4	No	Yes	No	Yes
Parent 5	No	No	No	Yes
Parent 6	No	Yes	No	Yes
Totals	1 Yes, 5 No	5 Yes, 1 No	1 Yes, 5 No	6 Yes

The parents' notated responses from interview questions three-six results follow: Question three, "Does your daughter/son know how to follow through on their financial intentions?" (One yes, five no); Question four; "Does your daughter/son know how to save money?" (Five yes, One no); Question five, "Does your daughter/son know when they do not have enough information to make a financial decision?" (One yes, five no); and Question six: "Does your daughter/son struggle to understand financial information?" (Six yes).

Results Research Question 4. How did the qualitative data explain and elaborate on the quantitative data? The researcher conducted a mixed methods data analysis to answer the mixed research question number four. A case-oriented (i.e., Financial Skill Scale respondents, photovoice participants, and parent interviewees') merged analysis display-positioned the cases on the quantitative scale along with qualitative text data about the individual cases (Creswell & Plano Clark, 2011). A joint display using the case approach follows, as shown in Table 4.

Table 4. Joint Display Using the Case-Oriented Approach

Student	Categorical	FSS Score	Parent	Parent Interview Themes	Student	Photovoice Themes Valued skills and Goals
1	SPD, ADHD, DD, 18 yrs.	51	1	"Financially Independent" "Salary based on skills." "Spend within needs."	1	Skills- Hobbies-car collection Computer skills Goals-own car
2	Autism, 18, yrs.	43	2	"Live on her own," "Career that provides Financial viability." "Join the workforce."	2	Skills-Talent Performing Arts. Goals- Broadway & enough food
3.	IDD, 23 yrs.	32	3	"Financially secure," "Live on her won-with assistance," "Able, SSI."	3	N/A

4.	GD, DD, 17 yrs.	32	4	“Able to earn a living and take care of herself” “How money works.”	4	Skills-shop for truck Goals-own a truck & enough money
5.	IDD, 29 yrs.	29	5	None, “Maybe twenty years ago.”	5	N/A
6.	Autism, 18 yrs.	26	6	“Manage money.” “Financial literacy and real-world experience.”	6	Skills-Talent Drawing Goals-Artist

Note. Explanation of disability abbreviations: Sensory processing disorder SPD; Attention-deficit/hyperactivity disorder, ADHD; Developmental delays, DD; Intellectual and developmental disabilities, IDD.

Summary of Results-Research Questions 1-3. The combined results across the first three research questions described several consistent trends. First, the results indicated that the six Financial Skill Scale respondents scored on average, 36, falling 25 percent below the average score among U.S. adults (BCFP, 2018). The test re-test correlation indicated the value of Pearson’s Correlation Coefficient R was 0.938., demonstrating a strong positive correlation between T1 and T2. The p -value was .005647 and significant at $p < .05$. The test re-test correlation demonstrated that the FSS (BCFP, 2018) consistently measured financial skills over time for the six young adults with disabilities.

Second, themes that emerged from the photovoice participants suggested their valued financial skills included their hobbies or talents, purchasing transportation, and continuing education. Themes that emerged suggested participants’ valued financial goals encompassed developing their hobbies or talents to earn a livelihood, owning transportation, and having enough food and money-not to struggle.

Third, themes that appeared from the parent interviews suggested meaningful employment, and independence to include financial independence were key goals and aspirations

parents had for their adult daughter or son with a disability. The financial skills that supported parents' aspirations for their daughter and sons included the themes of gainful employment and money management/financial literacy. Last, all six parents stated their daughter or son struggled to understand financial information.

Chapter Five

Discussion

This chapter discusses this mixed methods strengths and needs assessment of young adults with disabilities, financial skills and goals, limitations, research questions, and implications. First, the chapter discusses the limitations of the study, and then the chapter discusses the results for research questions one through four. Last, the chapter discusses the implications for clinical practice, future research and policy.

Limitations of the Study

There were a number of limitations in this mixed methods strengths and needs assessment. First, the small sizes sampled across participants for all three phases of the study. Second, the respondents, participants, and interviewees' that responded to the study invitation were from two disability organizations-although ten organizations had been solicited. Third information about the young adults with disabilities describing the extent of their financial education while in school and the type of diploma received was not collected.

Further limitations included the concomitant disabilities of young adults. The parent identified disability of their daughter or son might be seen as a limitation because parents did not use the same terminology as formal disability categorizations under the Individuals with Disabilities Education Act (IDEA) of 2004.

The limitations also included the limited work experience among young adults with disabilities potentially indicative of a lack of financial experience. Research shows that working youth are likely to be more financially literate than non-working youth (Shim, Barber, Card,

Xiao, & Serido, 2010). Last, the bias in the samples may have occurred across the studies within family members (e.g., respondents, participants, and interviewees') who voluntarily consented to the study, and their specific socio-economic and cultural context. The results may, therefore, not be reliable if generalized to other young adults with disabilities aged 17-29.

Discussion of Research Question 1 Results: The Need

Financial skill reflects an individual's ability to find, process, and act on financial information. Financial skill is important because it is widely understood to be a key component of financial literacy and financial capability. Young adults with disabilities' skill score averaged 36 on the Financial Skill Scale. The score indicated that their underlying financial skills fell 25 percent below the average score of 50 among U.S. adults (BCFP, 2018). The FSS of the young adults with disabilities reflected Goodman et al. (2017) results from the National Financial Capability Study (2015) that adults with disabilities scored lower on basic financial concepts and had lower perceived financial knowledge than adults without disabilities had.

Financial independence is considered a major developmental milestone during emerging adulthood (Arnett, 2000). Young adults with disabilities that lack the financial knowledge and skills to make financial decisions may affect their future economic wellbeing. A lack of financial knowledge and skills has also been found to be a contributor to stress and poor academic outcomes among emerging adults (Lim, Heckman, Montalto, & Letkiewicz, 2014).

In contrast, young adults with disabilities who acquire healthy financial habits, norms, and rules of thumb during emerging adulthood are more likely to sustain healthy financial habits into adulthood (BCFP, 2018). Healthy financial behaviors may also help young adults avoid costly financial mistakes that may affect their future financial wellbeing such as incurring credit card debt and using alternative financial services (e.g., payday lending) (Goodman et al., 2017).

The relatively low underlying financial skills of the study respondents reflected a broader pattern in the literature among young adults in the United States. Current research has shown that nearly a third of young adults' ages 18-24 in the U.S. were found to be financially precarious or at risk, because they had low financial literacy, lacked money management skills and had poor income stability. (Sinha, Tan, & Zhan, 2018). The research also showed young adults found to be financially precarious also had the lowest perceived financial literacy (Sinha et al., 2018).

Discussion of Research Question 2 Results: The Strength

Financial goals have been shown to reflect a person's values (BCFP, 2018). People's values have provided insight into how people use their resources, money, and set and work towards their financial goals. Young adults with disabilities valued financial skills and goals included their hobbies and talents, as well as continued education to enable them to pursue a livelihood based on their interests. Young adults with disabilities also valued financial skills and goals that included practical concerns such as transportation, sufficient food, and enough money not to struggle.

The values of emerging adults with disabilities in this study reflected the broader pattern in the literature of emerging adults. Young adults with disabilities valued pursuing higher education beyond high school (National Academies Press, 2003). Further, an important goal of young adults with disabilities was to earn a livelihood based on their interests and passions that gave meaning and purpose to their lives (National Academies Press, 2003). Last, young adults with disabilities thought it was important to have lots of money to get by and avoid struggling (National Academies Press, 2003).

Understanding what young adults with disabilities valued provides the foundation on which to build their financial goals. Financial skills can support young adults' with disabilities in

reaching their financial goals by building toward the future they want, taking steps towards achieving their goals, identifying resources that can help, and by tracking their progress towards their goals (BCFP, 2018).

Discussion of Research Question 3 Results

Research has suggested that parents of adults with disabilities valued “independence or independence with support to include financial independence, making one’s own decisions and being responsible for oneself” for their daughters and sons (Henninger & Taylor, 2014, p. 7). The parent financial aspirations and goals for their adult daughter or son with a disability in this study included meaningful employment, and independence to include financial independence.

The literature has also suggested that parents valued financial skills that contributed to the successful daily functioning of their daughters and sons, such as money management and paying bills on time (Henninger & Taylor, 2014). Parents in this study valued gainful employment and money management/financial literacy encompassing specific skills (e.g., money management, real-world experience, SSI, and ABLE Accounts).

The findings of this study were similar to the literature, with the exception of an outlier in the data. The outlier in the data was the parent of the oldest FSS respondent (i.e., aged 29). The parent notated on the guided discussion handout they did not have any financial aspirations or goals for their son and elaborated by stating, “Maybe twenty years ago.” Additionally, when asked during the semi-structured interview if his son struggled to understand financial information, the parent replied yes, but suggested, maybe it had been the methodology in teaching his son financial concepts in school. However, the majority of parents valued continued academic instruction in the context of career skills and financial skills for their adult daughter or son with a disability

Discussion of Research Question 4 Results Meta Inferences

To answer the research question, “how does the qualitative data explain and elaborate on the quantitative data?” a case-oriented merged analysis positioned the young adults with disabilities quantitative financial skill scores along with the qualitative text data about their valued financial skills and goals and their parents’ aspirations and goals. The qualitative data explained and elaborated on the quantitative data by suggesting that despite needing underlying financial skills, young adults with disabilities strengths lay in clearly articulated values-hobbies and talents and continued education to pursue a livelihood, as well as practical considerations such as owning transportation and having enough food and money.

The qualitative data explained and elaborated on the quantitative data also by suggesting that although framed differently, parents aspired for their adult daughter or son to be meaningfully employed and independent, to include financial independence, and to possess the skills needed to manage the financial activities of adult daily life. The results of this mixed method strengths and needs assessment were disseminated to the parents in a summary (See Appendix I Dissemination Summary of Results).

Implications

The next section of this chapter discusses the implications for clinical practice (i.e., educational practice), future research, and policy. The implications for clinical practice include use of the Bureau of Consumer Financial Protection’s Financial Skills Scale to assess young adults with disabilities financial skills as well as photovoice as a goal-setting tool for young adults with disabilities, and providing evidence-based financial education to young adults with disabilities. The implications for future research include the Financial Skill Scale (BCFP, 2018)

photovoice as a research tool and family financial socialization. Last policy implications include access and opportunities for financial socialization.

Implications for Clinical Practice

The Bureau of Consumer Financial Protection's Financial Skill Scale (FSS) (2018) abbreviated version questions, and response values showed it was a reliable measure of underlying financial skills measured over time for six young adults with disabilities aged 17-29. The test-retest reliability indicated the value of R was 0.938, indicating a strong positive correlation, and the P-Value was .005647. The result was significant at $p < .05$. The scale may be useful for clinical practice to assess the underlying financial skills of young adults with disabilities for several reasons.

First, the scale allowed for different modes of administration, both self-administration, and administration by someone else to compare scores across modes. The young adults with disabilities in this study responded to the scale through both self-administered and researcher administered modes. Next, the FSS (2018) may be useful for clinical practice due to the short administration duration of approximately ten minutes. Last, the FSS (2018) may be useful for clinical practice because it is not a math calculation test but rather a person's perceptions of their financial skills. Thus eliminating the fear of a "test" that may intimidate some young adults with disabilities. A limitation of the FSS was the reverse Likert responses for questions four and five (i.e., never, rarely, sometimes, often, and always) versus the use of the same Likert responses for all five questions which confused some of the young adults with disabilities.

Established evidence in the field of financial education in schools has suggested, "Well-implemented state financial education mandates led to a clear improvement in financial behaviors" (CFPB, 2019, p. 1). For example, from high-cost borrowing options such as credit

cards and student loans to lost cost borrowing options such as Stafford Loans (CFPB, 2019). Financial education mandates have also increased the likelihood of establishing a credit file and decreased the probability of having a debt burden (CFPB, 2019). In sum, evidence-based financial education programs can make a difference in young adults' financial outcomes.

Photovoice may also be useful for clinical practice with young adults with disabilities as a goal-setting tool. The photovoice process captured young adults with disabilities-often excluded from decision-making processes, voices, and messages about their valued financial skills and goals. The photovoice process is a form of empowerment education and allowed young adults with disabilities a space to reflect on and share the financial skills and goals central to their lives. The photovoice process portrayed how young adults with disabilities established their financial goals within the context of their community.

Photovoice is an inclusive knowledge construction experience. The young adults with disabilities were actively engaged in the research process from the photo taking, group sharing, and thematic analysis through dissemination. Young adults with disabilities demonstrated care with their cameras and responsible behavior in collecting and analyzing the data as well as disseminating the findings to their parents. A limitation of the photovoice process also discussed in the literature was the researcher's ability to tolerate uncertainty, the substantial time investment, and the ability to retain a site for the research (Povee et al., 2014).

Implications for Future Research

The findings highlighted several directions for future research. First, the Bureau of Consumer Financial Protections (2018) Financial Skill Scale could be replicated with a larger or another population of young adults with disabilities to verify if the reliability of the scale and the skill scores demonstrated similar results. Second, young adults with disabilities and their parents

framed valued financial goals in different terms, but with similar intentions. Research that builds on young adults with disabilities valued experiences by using participatory action research methodologies like photovoice can increase our understanding of young adults with disabilities financial perspectives –a starting point for future research. Last family financial socialization strategies, tools, curriculum, or interventions that bridge the gap between young adults with disabilities poor underlying financial skills, their clearly articulated financial goals, and parents financial aspirations for them could be investigated to determine which approaches are accessible, socially useful and useable to both young adults with disabilities and their parents.

Implications for Policy

In a review of 40 years of literature, Gudmunson and Danes (2011) found that initiatives that focused on changing financial behavior have largely ignored the role of family financial socialization (Sinha et al., 2018). Policies that invest in opportunities for family financial socialization could provide the missing link that supports young adults with disabilities financial capability. Also, both informal and formal financial socialization opportunities need to be accessible and available to young adults with disabilities where they are at home, school, clubs, internships, employment, and their communities (e.g., youth banking services and employer financial wellness programs designed for emerging adults). In other words, young adults with disabilities need an equal opportunity to be invested in the services, activities, and supports that prepare them to “become financially literate and capable, and to make informed choices about their lives” (The Federal Partners In Transition Workgroup, 2015, p. 8).

In summary, this strengths and needs assessment of young adults with disabilities financial skills and goals suggested young adults with disabilities strengths lay in their financial values and goals a starting point for building the financial future they desire. Young adults with

disabilities needs lay in the underlying financial skills necessary to support their goals. The link between the research findings and the marginalization of young adults with disabilities suggested action is necessary by families, schools, and societal institutions at large to increase young adults with disabilities lack of financial skills to prevent the economics of poverty that effects people with disabilities. Implications of this research also suggested investing in young adults with disabilities human capital-financial knowledge, skills, and socialization occurs through their families and social institutions.

References

- Americans with Disabilities Act of 1990, Pub. L. No. 101-336, 104 Stat. 328 (1990).
- Anderson, L., Hewitt, A., Pettingell, S., Luinski, A., Taylor, M., & Reagan, J. (2018). *Family and individual needs for disability supports (v.2.) community report (2017)*. Minnesota Research and Training Center on Community Living, Institute of Community Integration, University of Minnesota.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469.
- Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, 70, 9-49.
- Becker, Gary. S. (2008). Human capital. Econlib. Retrieved from <https://www.econlib.org/library/Enc/HumanCapital.html>
- Boland, M., Daly, L., & Staines, A. (2008). Methodological issues in inclusive intellectual disability research: A health promotion needs assessment of people attending Irish Disability Services. *Journal of Applied Research in Intellectual Disabilities*, 21, 199-209.
- Brantlinger, E., Jiminez, R., Klinger, J., Pugach, M., & Richarson, V. (2005). Qualitative studies in special education. *Exceptional Children*, 71, 195-207.
- Browder, D. M., & Grasso, E. (1999). Teaching money skills to individuals with mental retardation: A research review with practical applications. *Remedial and Special Education*, 20, 297-308.
- Brushwein, L., McLaughlin, T. F., Derby, K. M., & Shank, L. (2014). The effects of using direct instruction and model lead and test with four young adults with developmental disabilities. *International Journal of English and Education*, 3, 437-455.

- Bureau of Consumer Financial Protection. (2018). Measuring financial skills: A guide to using the Bureau of Consumer Financial Protection's Financial Skill Scale. Retrieved from: <https://www.consumerfinance.gov/data-research/research-reports/measuring-financial-skill/>
- Bureau of Consumer Financial Protection. (2018). Pathways to financial well-being: The role of financial capability.
- Childstats.gov. (2019). Forum on Child and Family Statistics. Retrieved from: <https://www.childstats.gov>
- Cihak, D., & Grim, J. (2008). Teaching students with autism spectrum disorder and moderate intellectual disabilities to use counting on strategies to enhance independent purchasing skills. *Research in Autism Spectrum Disorders, 2*, 716-727.
- Clark, K. (2016). Financial literacy annotated bibliography. National Technical Assistance Center on Transition.
- Cluley, V. (2016). Using photovoice to include people with profound and multiple learning disabilities in inclusive research. *British Journal of Learning Disabilities, 45*, 39-46.
- Cohen, D., & Crabtree, B. (2006). Qualitative research guidelines project. Retrieved from: <http://www.qualres.org/HomeSemi-3629.html>
- Conroy, N., McDonald, K., Morris, M., & Jennings, E. (2014). Financial capability of adults with disabilities: *Findings from the FINRA Investor Education Foundation 2012 National Financial Capability Study*. Retrieved from: https://www.realeconomicimpact.org/data/files/reports/ndi_financial_capability_report_july_2014.pdf

- Consumer Financial Protection Bureau. (2019). A review of youth financial education: Effects and evidence. Retrieved from: <https://files.consumerfinance.gov/f/documents/cfpb>
- Consumer Financial Protection Bureau. (2017). *Your money, your goals: Focus on people with disabilities*. Retrieved from: <https://www.consumerfinance.gov/practitioner-resources/your-money-your-goals/companion-guides/>
- Consumer Financial Protection Bureau. (2017). *Youth personal finance pedagogy*. Retrieved from: [consumerfinance.gov](https://www.consumerfinance.gov)
- Creswell, J.W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research*. (2nd ed.). Thousand Oaks: Sage
- Creswell, J.W. (2013). *Steps in conducting a scholarly mixed methods study*. Retrieved from: <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1047&context>
- Cushing, L.S., Carter, E.W., Clark, N., Wallis, T., & Kennedy, C.H. (2009). Evaluating inclusive educational practices for students with severe disabilities using the program quality measurement tool. *Journal of Special Education, 42*, 195-208.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage.
- Developmental Disabilities Assistance and Bill of Rights Act of 2000; PL 106-402.
- Eunice Kennedy Shriver* National Institute of Child Health and Human Development. (2016) Retrieved from: <https://www.nichd.nih.gov/health/topics/idds>
- Federal Partners in Transition Workgroup. (2015). *The 2020 federal youth transition plan: A federal interagency strategy*.

- Foley, K.R., Girdler, S., Dyke, P., & Bourke, J. (2012). Young adults with intellectual disability transitioning from school to post school: A literature review framed within the ICF. *Disability and Rehabilitation, 34*, 1747-1764.
- Foster-Fishman, P., Berkowitz, S., Lichty, L., Mortensen, J., & Nowell, J. (2013). Photovoice: Using images to tell communities' stories. Retrieved from:
www.systemexchange.msu.edu
- Guest, G., Bunce, A., & Johnson, L. (2006) How Many Interviews Are Enough? An Experiment with Data Saturation and Variability. *Field Methods, 18*, 59-82.
<http://dx.doi.org/10.1177/1525822X05279903>
- Goodman, N., O'Day, B, & Morris, M. (2017). *Financial capability of adults with disabilities: Findings from the National Financial Capability Study*. Retrieved from:
<http://www.usfinancialcapability.org/downloads/NDI-Financial-Capability-Of-Adults-With-Disabilities.pdf>
- Gudmunson, C. G., & Danes, S. M. (2011). Family financial socialization: Theory and critical review. *Journal of Family and Economic Issues, 32*(4), 644–667.
- Henninger, N., & Taylor, J. (2014). Family perspectives on a successful transition to adulthood for individuals with disabilities. *Intellect Dev Disabil, 52*, 1-20.
- Horner-Johnson, W., & Bailey, D. (2013). Assessing understanding and obtaining consent from adults with intellectual disabilities for a health promotion study. *J Policy Pract Intellect Disabil, 10*, 1-10.
- Horvath, L.S., Kampfer-Bohach, S., & Farmer Kearns, J. (2005). The use of accommodations among students with deaf-blindness in large-scale assessment systems. *Journal of Disability Policy Studies, 16*, 177-187.

- Hsu, G., Tang, J., & Hwang, W. (2014). Effects of extending the one more than technique with the support of a mobile purchasing assistance system. *Research in Developmental Disabilities, 35*, 1809-1827.
- Human Services Research Institute & the National Association of State Directors of Developmental Disabilities. (2017). Retrieved from:
<https://www.nationalcoreindicators.org>
- Kasman, M., Heuberger, B., & Hammond, R. (2018). *A review of large scale youth financial literacy education policies and programs*. The Brookings Institution.
- Kroll, T., Barbour, R., & Harris, J. (2007). Using focus groups in disability research. *Qualitative Health Research, 17*, 690-698.
- Latz, A. O. (2017). *Photovoice research in education and beyond: A practical guide form theory to exhibition*. New York: Routledge.
- Lauer, E.A. & Houtenville, A. J. (2018). *Annual disability statistics compendium: 2017*. Durham, NH: University of New Hampshire: Institute on Disability.
- Lipscomb, S. et al. (2018). Preparing for life after high school: The characteristics and experiences of youth in special education. Retrieved from:
<https://ies.ed.gov/ncee/pubs/20174016/pdf/20174018.pdf>
- Lim, H., Heckman, S. J., Montalto, C. P., & Letkiewicz, J. (2014). Financial stress, self-efficacy, and financial help-seeking behavior of college students. *Journal of Financial Counseling and Planning, 25*(2), 148–160.
- Lloyd, J., Jobling, A., White, E. L., Labosse, M., Moni, K., Cuskelly, M., & McMahon, M. (2018). A dialogic approach to working inclusively in a research reference committee. *Br J Learn Disabil. 1-7*.

- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, *52*, 5-44.
- McCausland, D., Guerin, S., Tyrrell, J., Donohoe, C., O'Donoghue, I., & Dodd, P. (2010). *Research in Developmental Disabilities*, *31*, 381-387.
- McCausland, D., McMillion, P., Brennan, D., & McCarron, M. (2018). The exercise of human rights and citizenship by older adults with intellectual disability in Ireland. *Journal of Intellectual Disability Research*, *62*, 875-887.
- Mertens, D.M. (2003). Mixed methods and the politics of human research: The transformative emancipatory perspective. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research*. 135-164. Thousand Oaks, CA: Sage.
- Mertens, D. M. (2009). *Transformative research and evaluation*. New York: Guilford.
- Mertens, D.M. (2010). Philosophy in mixed methods teaching: The transformative paradigm as illustration. *International Journal of Multiple Research Approaches*, *4*, 9-18.
- Mertens, D. M. (2012). Transformative Mixed Methods: Addressing Inequities. *American Behavioral Scientist*, *56*(6), 802–813. <https://doi.org/10.1177/0002764211433797>
- Mertens, D.M. (2012). Transformative mixed methods: Addressing inequities. *American Behavioral Scientist*, *56*, 802-813.
- Mertens, D. M., & Hesse-Biber, S. (2013). Mixed methods and credibility of evidence in evaluation. In D. M. Mertens & S. Hesse-Biber (Eds.), *Mixed methods and credibility of evidence in evaluation New Directions for Evaluation*, *138*, 5–13.
- Mertens, D. M. (2015). *Research and evaluation in education and psychology*. Thousand Oaks, CA: SAGE

- Mertens, D. M. (2016). Assumptions at the philosophical and programmatic levels in evaluation. *Evaluation and Program Planning, 59*, 102-108.
- Mertens, D.M. (2018). *Mixed methods design in evaluation*. Los Angeles: Sage.
- Mittapalli, K., Belson, S. I., & Ahmadi, H. (2009). *Financial literacy for youth with disabilities*. Washington, D.C.: Office of Disability Employment Policy.
- National Academies Press. (2003). *Attitudes, Aptitudes, and Aspirations of American Youth: Implications for Military Recruitment*. Retrieved from: <https://www.nap.edu/read/10478/chapter/08>
- National Association of State Directors of Developmental Disabilities Services and Human Services Research Institute. (2016). *National core indicators at a glance: Selected findings from the 2015-2016 surveys*. Retrieved from: www.nationalcoreindicators.org
- Newman, L., Wagner, M., Knokey, A.-M., Marder, C., Nagle, K., Shaver, D., Wei, X., Cameto, R., Contreras, E., Ferguson, K., Greene, S., & Swarting, M. (2011). *The Post-High School Outcomes of Young Adults With Disabilities up to 8 Years After High School. A Report From the National Longitudinal Transition Study-2 (NLTS2) (NCSE 2011-3005)*. Menlo Park, CA: SRI International.
- Nord, D., Luecking, R., Mank, D., Kiernan, W.E., & Wray, C. (2013). The state of the science of employment and economic self-sufficiency of people with intellectual and developmental disabilities. *Intellectual and Developmental Disabilities, 51*, 376-384.
- Overmars-Marx, T., Thomese, F., & Moonen, X. (2016). Photovoice in research involving people with intellectual disabilities: A guided photovoice approach as an alternative. *J Appl Res Intellect Disabil, 31*, 92-104.

- Povvee, K., Bishop, B. J., & Roberts, L. D. (2014). The use of photovoice with people with intellectual disabilities: reflections, challenges and opportunities. *Disability & Society*, 29, 893-907.
- Powers, M., Freedman, D., & Pitner, R. (2011). *From snapshot to civil action: A Photovoice facilitator's manual*. University of South Carolina, College of Social Work.
- Rapport, J., Manthorpe, J., Moriarty, J., Hussein, S., & Collins, J. (2005). Advocacy and people with learning disabilities in the UK: How can local funders find value for money? *Journal of Intellectual Disabilities*, 9, 299-319.
- Ryan, J. (2007). Learning disabilities in Australian universities: Hidden, ignored, and unwelcome. *Journal of Learning Disabilities*, 40, 436-442.
- Schalock, R.J. et al. (2012). *User's guide: Intellectual disability definition, classification, and systems of supports 11th edition*. USA: American Association on Intellectual and Developmental Disabilities.
- Sclera symbols. (2018). Retrieved from: <http://www.sclera.be/en/picto/copyright>
- Scott, R., Collins, B., Knight, V., & Kleinert, H. (2013). Teaching adults with moderate intellectual disability ATM use via the iPod. *Education and Training in Autism and Developmental Disabilities*, 48, 190-199.
- Sherraden, M. S. (2010). Financial capability: What is it, and how can it be created? Center for Social Development Working Papers. 10. Center for Social Development Working Papers (pp. 1–30).
- Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of Youth and Adolescence*, 39(12), 1457–1470.

Sinha, G., Tan, K., & Zhan, M. (2018). Patterns of financial attributes and behaviors of emerging adults in the United States. *Children and Youth Services Review, 93*, 173-185.

Social Science Statistics. (2019). Pearson's R Calculator. Retrieved from:

<https://www.socscistatistics.com>

St. John, B., Mihaila, I., Dorrance, K., Smith DaWalt, L., & Ausderau, K. (2018). Reflections from co-researchers with intellectual disability: Benefits to inclusion in a research study team. *Intellectual and Developmental Disabilities, 56*, 251-262.

Suto, W. M., Clare, I. C., Holland, A. J., & Watson, P. C. (2005). Capacity to make financial decisions among people with mild intellectual disabilities. *Journal of Intellectual Disability Research, 49*, 199-209. doi: 10.1111/j.1365-2788.2005.00635.x

Sweetman, D., Badiie, M., & Creswell, J. W. (2010). Use of the transformative framework in mixed methods studies. *Qualitative Inquiry, 16*, 441-454.

Tajuria, G., Read, S., & Priest, H. M. (2017). Using photovoice as a method to engage bereaved adults with intellectual disabilities in research; listening, learning and developing good practice principles. *Advances in Mental Health and Intellectual Disabilities, 11*, 196-206.

Tashakkori, A., & Teddlie, C. (2003). The past and future of mixed methods research: From data triangulation to mixed model designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, CA: Sage.

Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research, 1*, 77-100.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Thousand Oaks, CA: Sage.

University of Auckland. (n.d.) Thematic analysis. Retrieved from:

<https://www.psych.auckland.ac.nz/en/about/our>

Walton, G., Schleien, S. J., Brake, L. R., Trovato, C., & Oakes, T. (2012). Photovoice: A collaborative methodology giving voice to underserved populations seeking community inclusion. *Therapeutic Recreation Journal*, 168-178.

Wang, C. C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education and Behavior*, 24, 369-387.

Wang, C. C. (1999). Photovoice: A participatory action research strategy applied to women's health. *Journal of Women's Health*, 8, 185-192.

Wang, C. (2006). Youth participation in photovoice as a strategy for community change. *Journal of Community Practice*, 14, 147-161.

Wang, C. C., & Redwood-Jones, Y. A. (2012). Photovoice ethics: Perspectives from Flint photovoice. *Health Education & Behavior*, 560-572.

Weiss, Y. (2015). Gary Becker on human capital. *Journal of Demographic Economics*, 81, 27-31.

World Bank. 2014. *Financial education programs and strategies: approaches and available resources (English)*. Washington, D.C.: World Bank Group. Retrieved from:
<http://documents.worldbank.org/curated/en/901211472719528753/Financial-education-programs-and-strategies-approaches-and-available-resources>

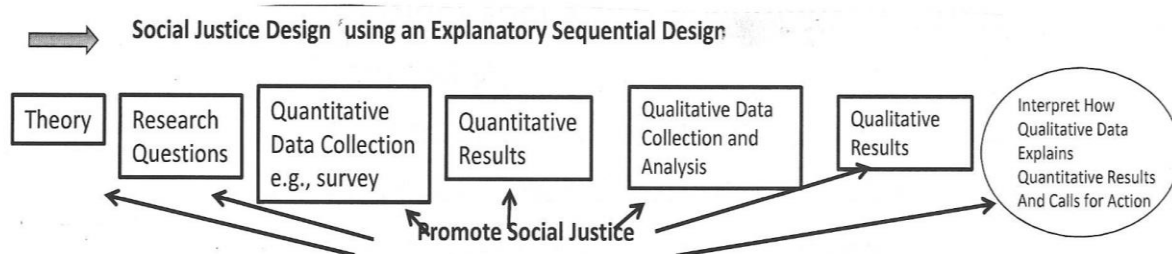
World Bank. (2018). *The human capital project*. Washington D.C: The World Bank Group.

Xin, Y., Grasso, E., Dipipi-Hoy, C., & Jitendra, A. (2005). The effects of purchasing skill instruction for individuals with developmental disabilities: A meta-analysis. *Exceptional Children*, 71, 379-4000.

Zottel, S., Perotti, V., Bolaji-Adio, A. (2013). *Financial capability surveys around the World: why financial capability is important and how surveys can help (English)*. Washington DC; World Bank. Retrieved from:
<http://documents.worldbank.org/curated/en/693871468340173654/Financial-capability-surveys-around-the-World-why-financial-capability-is-important-and-how-surveys-can-help>

Appendix A

Social Justice Design



Source: Creswell (2013)

Appendix B

Consent

Please tell me in your own words,

1. What is the study about?
2. What are you going to do in the study?
3. What are the good and bad things about the study?
4. What does volunteer mean?
5. What does your info stays private mean?
6. What do you do if you want to stop the study?

Appendix C
Recruitment Flyer

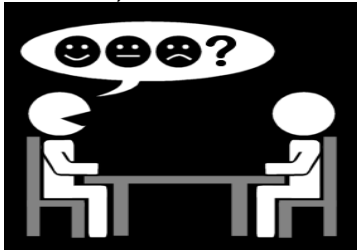
Research Recruitment Flyer

Hello! My name is **Allison D'Aguilar**, and I am a doctoral candidate at Virginia Commonwealth University. Please contact me at, Cell: **540-428-9219** and Email: daquilara@mymail.vcu.edu

The purpose of my study is to explain and explore young adults with disabilities ages (17-32) financial skills and goals.

Compensation is Available for Participating in the Study

What are the financial skills of adults with IDD? Financial Skill Scale-5 questions (ten minutes) at a convenient place and time-administered twice-a week apart.



What financial skills and goals do adults with IDD value? Photovoice (three sessions) at a convenient time and place.



What are the financial aspirations and goals parents/legal guardians have for their adult daughters/sons/adults with disabilities in their care? Semi-structured interview (30 minutes) at a convenient place and time or by phone.



Appendix D

Financial Skill Scale

Abbreviated version questions and response values

Question	Statement	Does not describe me at all	Describes me very little	Describes me somewhat	Describes me very well	Describes me completely
How well does this statement describe you or your situation?	I know how to make complex decisions.	0	1	2	3	4
	I know how to get myself to follow through on my financial intentions.	0	1	2	3	4
	I know how to make myself save.	0	1	2	3	4
Question	Statement	Never	Rarely	Sometimes	Often	Always
How often does this statement apply to you?	I know when I do not have enough information to make a good decision involving my money	0	1	2	3	4
	I struggle to understand financial information.	4	3	2	1	0

Appendix E

PHOTO REFLECTION WORKSHEET

First Name:

Framing Research Question: What Financial Skills and Goals do you Value?

Brief description of photo:

I want to share this photo because

What is important for people to understand about this photo?

What does this photo tell others about my community or me?

PHOTO CAPTION:

(Adapted from Foster-Fishman et al., 2013).

Appendix F

Semi-Structured Interview Guided-Questions

1. What are your financial aspirations and goals for your adult daughter and/or son?
2. What are the financial skills your adult daughter and/or son need to achieve these aspirations and goal(s)?
3. Does your daughter and/or son know how to follow through on their financial intentions?
4. Does your daughter and/or son know how to save money?
5. Does your daughter and/or son know when they do not have enough information to make a financial decision?
6. Does your daughter and/or son struggle to understand financial information?

Appendix G

Guidelines Safe and Ethical Behavior Photovoice

Photographer safety



What puts you or your photo subjects at risk?

Putting yourself in a dangerous situation to get a great picture

As a photographer, you might be considered part of the events or situations in your photos (e.g., illegal activities, embarrassing situations)

Rule: No pictures of other people (We do not have their permission for this project)

Tips for staying safe:

Identify yourself (nametag) as a participant working on a Photovoice project.

Think about what you are taking pictures

Personal space

Buddy System

Report problems to the researcher

Practice Photo Smarts:

Never put yourself in an unsafe place. Do not trespass.

Never take a photo of criminal activity. Your safety is the

Highest priority, so no photo is ever worth personal danger!

Be creative. There are always abstract ways to present an idea or tell a story!

(Adapted from Foster-Fishman et al., 2013).

Appendix H

Pearson's Correlation Coefficient

Results and detail calculation*X Values*

$$\sum = 216$$

$$\text{Mean} = 36$$

$$\sum(X - M_x)^2 = SS_x = 404$$

Y Values

$$\sum = 225$$

$$\sum = 225$$

$$\text{Mean} = 37.5$$

$$\sum(Y - M_y)^2 = SS_y = 393.5$$

X and Y Combined

$$N = 6$$

$$\sum(X - M_x)(Y - M_y) = 374$$

R Calculation

$$r = \frac{\sum((X - M_x)(Y - M_y))}{\sqrt{(SS_x)(SS_y)}}$$

$$r = 374 / \sqrt{(404)(393.5)} = 0.938$$

Meta Numerics (cross-check)

$$r = 0.938$$

The value of R was 0.938. This was a strong positive correlation, which means that high X variable scores go with high Y variable scores.

Key

X: X Values

Y: Y Values

M_x : Mean of X Values

M_y : Mean of Y Values

$X - M_x$ & $Y - M_y$: Deviation scores

$(X - M_x)^2$ & $(Y - M_y)^2$: Deviation Squared

$(X - M_x)(Y - M_y)$: Product of Deviation Score

Appendix I

Dissemination Summary

Young adults with disabilities face barriers that affect their financial capability and financial inclusion in the marketplace. Barriers include a lack of autonomy, skills, and opportunities. This mixed method strengths and needs assessment aimed to explain and explore the financial skills and goals of young adults. A standardized scale captured young adults' financial skills, photovoice-participatory action research documented their valued financial skills and goals, and semi-structured interviews notated their parent's financial aspirations and goals.

The results suggested 1. Young adults underlying financial skills fell 25 percent below the average score of 50 among U.S. adults. 2. Young adults valued financial skills and goals included their hobbies, talents, and continued education to pursue a livelihood. 3. Parents' aspired that their daughter or son acquired independence to include financial independence, meaningful employment, and money management skills and financial literacy.

Results of Financial Skill Scores

Table. Financial Skill Score

Respondent No. & Employment Status Yes or No	Self-Admin. Ages 18-61	Researcher-Admin. Ages 18-61	Age	Financial Skill Score:	
				Test 1	Test 2
1 No		X	18	51	51
2 No	X		18	43	46
3 No		X	23	32	32
4 No		X	17	32	29
5 Yes		X	29	29	35
6 No		X	18	26	32

Test-retest reliability. Pearson's correlation coefficient was used to measure the strength between the FSS Test1 and Test 2, where the $r = 1$ means a perfect positive correlation and the $r = -1$ means a perfect negative correlation. The value of R was 0.938. This was a strong positive correlation. The result was significant at $p < .05$. The P-Value demonstrated that the Financial Skill Scale (BCFP, 2018) was a reliable measure of underlying financial skills measured over time for six young adults ages 17-29.

Findings Photovoice Valued Financial Skills and Goals

The three themes that emerged from the photovoice participants for their valued financial skills encompassed their *talents or hobbies*, *buying a car or a truck for transportation*, and *continued education*. The three themes that emerged from the photovoice participants for their valued financial goals included developing their *hobby or talent to earn a livelihood*, *owning a car or truck*, and *having enough money and food not to struggle*. Young adults' messages about themselves and their community reflected pursuing their interests to earn a livelihood. Young adults' also valued saving money so they could choose to buy the things they need and want (e.g., food, hobby cars, and art supplies).

Findings Parent Financial Aspirations and Goals

For question one, "What are your financial aspirations and goals for your adult daughter or son?" Two themes emerged, *Meaningful employment* and *Independence-to include Financial Independence*.

For question two, "What are the financial skills your adult daughter or son need to achieve these aspirations and goals?" Two themes emerged, *Gainful Employment*, and *embedded Financial Literacy Skills*.

The responses of each parent were quantitatively summarized for questions three-six from the Financial Skill Scale (BCFP, 2018) as shown in Table 3.

Table 3. Interview questions 3-6 FFS (BCFP, 2018)

Parent Response	Question 3: Does your daughter/son know how to follow through on their financial intentions?	Question 4: Does your daughter/son know how to save money?	Question 5: Does your daughter/son know when they do not have enough information to make a financial decision?	Question 6: Does your daughter/son struggle to understand financial information?
Parent 1	Yes	Yes	Yes	Yes
Parent 2	No	Yes	No	Yes
Parent 3	No	Yes	No	Yes
Parent 4	No	Yes	No	Yes
Parent 5	No	No	No	Yes
Parent 6	No	Yes	No	Yes
Totals	1 Yes, 5 No	5 Yes, 1 No	1 Yes, 5 No	6 Yes

Mixed Results

To answer the research question, “how does the qualitative data explain and elaborate on the quantitative data?” a case-oriented merged analysis positioned the young adults’ quantitative financial skill scores along with the qualitative text data about their valued financial skills and goals and their parents’ financial aspirations and goals for them. The qualitative data explained and elaborated on the quantitative data by suggesting despite needed underlying financial skills young adults’ strengths lay in clearly articulated values-talents and hobbies and continued education to pursue a livelihood as well as practical considerations such as owning transportation and having enough food and money.

The qualitative data explained and elaborated on the quantitative data by suggesting that although framed differently, parents’ aspired for their adult daughter or son to be meaningfully employed and independent-to include financial independence, and to possess the financial skills to manage the financial activities of adult daily life.

Recommendations

Improving young adults’ financial futures starts by understanding what they value. Young adults’ and their parents can work together to build towards the future young adults’ want by taking concrete actions to set goals, taking steps to achieve these goals, and identifying resources that can help (BCFP, 2018). Also, familial exposure to **financial socialization** at an early age exposes young adults’ to the **informal and formal financial skills** that will need as independent or independent with support adults.

Family financial socialization includes exposing young adults to everyday financial decisions (e.g., budgeting for food, managing bills, saving for a car and college, and investing). Parents’ can also model self-control in making financial decisions and problem-solving financial decisions for their daughters and sons to emulate.

Academic instruction in financial literacy should be evidence-based. Financial skill development can occur over time from primary through secondary education. Practitioner teaching techniques and strategies that are research-based include financial simulations, project-based learning, real-world case studies, and entrepreneurship education (BCFP, 2018).

Appendix J

Vita

Allison D'Aguilar was born in Chicago, Illinois, and is an American citizen. She graduated from Staples High School, Westport, Connecticut. She received her Bachelor of Science from the University of Hartford, Hartford, Connecticut in 1996. She received a Master of Education from George Mason University in 2009.

