Program Planning and Evaluation Frameworks for Programs Serving Farmers With Disabilities: Lessons Learned from AgrAbility

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ABSTRACT (Academic)

One substantial vision of maintaining agricultural productivity and sustainability is to improve farmers' and communities' well-being and quality of life. Offering disability-inclusive programs can ideally improve agricultural producers' social, environmental, and economic conditions. In turn, it has the potential to accelerate efforts to achieve social justice across varied environments and contexts. Thus, the study explored AgrAbility as an agricultural assistance program serving people with disabilities. A mixed-method approach (survey and interview) was employed to (1) explore and aggregate frameworks used by different State and Regional AgrAbility Projects (SRAP) for planning assistance programs, (2) examine the common types of evaluations used for assessing AgrAbility program impact, and (3) identify good practices for maximizing self-report tools' usability in program evaluation. Sixteen AgrAbility states were included in this study (Iowa, West Virginia, Alaska, California, Colorado, Kansas, Maine, Missouri, Nebraska, North Carolina, Pennsylvania, South Dakota, Tennessee, Texas, Virginia, and Wisconsin). Two states (Iowa and West Virginia) represent affiliated projects; the other states represent state/national projects. The planning survey was completed by 16 respondents, followed by interviews with 7 of them. The evaluation survey was completed by 11 respondents, followed by interviews with 7 AgrAbility participants (i.e., clients). Three integrated planning models (the Targeting Outcomes of Programs [TOP] model, Sork's planning domains, and Cervero and Wilson's planning model) were used as a conceptual framework to guide the study

questions. The study findings offered a framework that could serve as a guideline to answer the following question: “To what extent is the ethical and social-political domain (i.e., power, interests, negotiation, and responsibilities) addressed or enacted within planning programs serving people with disabilities?” Also, the study findings revealed that self-report tools are very frequently used in evaluating AgrAbility outcomes. Ten recommendations were shared by AgrAbility evaluators and program participants with disabilities to improve self-report tools' usability and response rates, specifically in the disability context.

ABSTRACT (Public)

Disability has profound effects on farm households. Agricultural workers with disabilities need adequate assistance programs to help them be productive and motivated and feel safe and independent while performing their work. Also, establishing disability-inclusive assistance programs can improve social, environmental, and economic conditions. In turn, these programs have the potential to accelerate efforts to achieve social justice. I explored AgrAbility as an agricultural assistance program serving people with disabilities. I sought to understand AgrAbility's practical implications for enhancing rural well-being and, in turn, seeking social justice. Sixteen AgrAbility states were included in this study (Iowa, West Virginia, Alaska, California, Colorado, Kansas, Maine, Missouri, Nebraska, North Carolina, Pennsylvania, South Dakota, Tennessee, Texas, Virginia, and Wisconsin). They completed a survey asking questions about technical approaches to program planning, followed by interviews with 7. However, only 11 AgrAbility states completed the survey focused on some evaluation questions, followed by interviews with 7 AgrAbility participants with disabilities (i.e., clients). The purpose of the study was to (1) explore and aggregate frameworks used by different State and Regional AgrAbility Projects (SRAP) for planning assistance programs, (2) examine the common types of evaluations used for assessing AgrAbility program impact, and (3) identify good practices for maximizing self-report tools' usability in program evaluation. I came up with a framework that could serve as a guideline to answer the following question "To what extent is the ethical and social-political domain (i.e., power, interests, negotiation, and responsibilities) addressed or enacted within planning programs serving people with disabilities?" Also, the study findings showed that self-report tools are very

frequently used in evaluating AgrAbility outcomes. Ten recommendations were shared by AgrAbility evaluators and program participants with disabilities to improve self-report tools' usability and response rates, specifically in the disability context.

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Chapter I

Introduction

One substantial vision of maintaining agricultural sustainability is to improve farmers' (i.e., individual-level) and communities' (i.e., society-level) well-being and quality of life (Suvedi & Kaplowitz, 2016). The concept of rural development in the mid-1900s focused on two main pillars: economic growth and well-being. Suvedi and Kaplowitz (2016) defined rural development as collaborative efforts from different actors seeking to improve rural people's well-being on multifaceted levels (social, environmental, economic, and political). Improving rural communities' quality of life is one of the main concerns of the Extension system nationally and globally through translating knowledge and research from formal institutions into practice via extension and outreach programs to promote educational access and social justice. Seevers (1997) identified four basic principles that can conceptualize any extension work (i.e., outreach programs) in agriculture, home economics, 4-H youth, and community development. The principles are equality (i.e., people can access available opportunities), change (i.e., Extension work influences community development), science (i.e., knowledge delivered to a rural community is research-based), and education (i.e., people adopt lifelong learning). While extension work has traditionally been heavily focused on agricultural production and food security issues, there have also been calls for shifting efforts towards rural community development problems more broadly. Beaulieu and Cordes (2014) explained three goals for the extension of community development: building economically viable communities, renewing civic engagement, and enhancing community decision-making and governance. The first goal is to construct avenues to strengthen the economic aspects, such as promoting eco-tourism, local food systems, and entrepreneurship. The second goal encompasses civic engagement strategies

by including diverse actors who have active roles in overcoming the challenges that threaten community well-being. The last goal is to improve community decision-making by embracing strategies that help achieve evidence-based results; it helps people make decisions that enhance rural communities' quality of life. When we acknowledge the farming community's heterogeneity (i.e., different needs, behaviors, values, traditions, languages, and political powers), it can help meet current rural community needs, improve communities' quality of life, and ultimately promote social justice.

Agricultural professions involve severe risks for workers generally and workers with disabilities specifically. The risk of acquiring injuries and illnesses because of working in agricultural-related jobs may increase based on a worker's age and health conditions, lack of educational training, and lack of appropriate assistance programs. Agricultural workers with disabilities have a high chance of acquiring second illnesses and injuries, which are intrinsically problematic and slow down their performance, deteriorate their productivity, and ultimately threaten their abilities to keep working on farms. Due to exposure to farm risks, increasing mortality rates will eventually affect the employment rate and threaten the country's economic conditions. The employment rate for people with disabilities is lower than for those without disabilities (Mizunoya & Mitra, 2012). People who live with disabilities can experience being powerless with less engagement in making decisions and being less valued and privileged. One reason is that sometimes people with disabilities' values, interests, and voices "could not be considered at all by society, service providers, and others" (Rocco, 2005, p. 1) because of the unequal power relations.

Also, three crucial barriers impede workers with disabilities from performing and continuing their job: physical and structural obstacles at work, lack of rehabilitation services, and

lack of training centers (News Bank, 2016). Since disability profoundly affects farm household numbers (McNamara, 2004), agricultural workers with disabilities need adequate assistance programs to help them become productive and motivated and feel safe and independent while performing their work. Also, establishing assistance programs that encompass rehabilitation professionals and healthcare rehabilitation is needed (Gutenbrunner & Nugraha, 2018). Ultimately, offering assistance programs that are disability-inclusive will improve the social, environmental, and economic conditions. In turn, it has the potential to accelerate efforts to achieve social justice across varied environments and contexts.

Knowing what assistance programs could be offered to people with disabilities will help address inequitable situations. Understanding to what extent social-political and ethical domains shape the ongoing planning process for programs offered to them could contribute to understanding how power relations occur in planning outreach programs, specifically targeting vulnerable populations (i.e., people with disabilities). Thus, this study explored AgrAbility as an agricultural assistance program serving people with disabilities. I sought to understand AgrAbility's epistemological and practical implications for enhancing rural well-being and, in turn, seeking social justice. AgrAbility currently exists in 28 states and is funded by the United States Department of Agriculture (USDA). Three integrated planning models (the Targeting Outcomes of Programs [TOP] model, Sork's planning domains, and Cervero and Wilson's planning model) were used as a conceptual framework to guide the study's purposes.

Statement of the Problem

The agriculture sector plays a significant role in improving the Gross Domestic Product (GDP) growth rate and increasing the employment rate. More specifically, many countries heavily rely on the agriculture sector for various benefits, such as food production, economic

growth, and social and environmental improvements. However, working in the agriculture sector has many risks for workers compared to other industries, such as work in mining and construction vocations (Field & Jones, 2006; Geng, Stuthridge, & Field, 2013; Mathew, Field, & French, 2011; Purschwitz & Field, 1990). Agricultural workers are susceptible to acquiring injuries related to farm work. In turn, having injuries may affect agricultural workers' capabilities to continue farming efficiently and independently. Other agricultural workers were also born with disabilities that may challenge them to perform their jobs safely, efficiently, and independently. Another challenge is that people who live with disabilities have a lower chance of getting a job (Naami, 2015).

Mizunoya and Mitra (2012) examined the difference in employment rates between people who live with and without mobility limitations in 15 developing countries. The findings showed that the employment rate has declined for people who live with mobility limitations in nine out of the fifteen countries (Mizunoya & Mitra, 2012). One reason contributing to the increasing agricultural unemployment rate is excluding workers with disabilities from the workplace. Handicap International (HI) declared that banning people with disabilities from the labor sector leads to substantial macroeconomic costs (HI, 2016) and is unethical. One form of excluding workers with disabilities from the workplace is not offering disability-inclusive assistance programs. Other studies revealed that people who live with disabilities have less motivation to continue working because of the following reasons: less accessibility to various facilities and transportation, difficulties in performing their work efficiently and independently, and anxieties about experiencing additional injuries (Field & Jones, 2006; Lidal, Huynh, & Biering-Sørensen, 2007; Mathew, Field, & French, 2011). The several challenges facing people with disabilities support Buckup's (2009) notion that people who live with disabilities cannot perform their work

not because of their disabilities but because of the disabling environment. Furthermore, providing "development programs and policies that are not disability-inclusive will leave persons with disabilities behind" (Mactaggart et al., 2018, p. 1). Zidan (2012) pointed out the need to establish assistance programs that improve people with disabilities' quality of life (i.e., National AgrAbility Project, National Association of Social Workers [NASW], Council on Social Work Education [CSWE]).

The National AgrAbility Project, an example of a U.S. agricultural assistance program, was established via the 1990 Farm Bill and administered by the U.S. Department of Agriculture. It targets agrarian workers who live with disabilities to help them work independently and efficiently (AgrAbility Project, n.d.). The project also addresses assistive technologies, support, educational programs, training, and workshops to meet the work needs of farmers with disabilities. Many studies have evaluated the effects of the AgrAbility program on agricultural workers with disabilities' quality of life. Such studies highlighted that AgrAbility profoundly affects people's professional lives and emotional, social, and economic status (Fetsch & Turk, 2018; Hancock, 1998; Rodger, Jonge, & Driscoll, 2001). Existing assistive technology, assistance services, and training help agricultural workers with disabilities to return to work and perform their jobs safely, independently, and efficiently (Hancock, 1998; Wilbanks & Ivankova, 2015). The rural isolation, limited resources, limited rural service delivery systems, and inadequate access to agricultural assistance reduce agricultural workers with disabilities' ability to participate in the agri-business sector (Narayan, 2013).

Therefore, designing and planning agricultural assistance programs with disability-inclusive intention can contribute to (1) providing agricultural workers with disabilities with sufficient skills and knowledge to improve their livelihood, (2) upgrading supportive services to

meet agrarian workers with disabilities' work needs, and (3) increasing agricultural workers with disabilities' contributions to the agriculture sector (International Disability Alliance, 2018). To leverage assistance programs that serve agricultural workers with disabilities, there is a need to adopt the notion of pluralism. That means combining multidimensional efforts from the private sector, governmental sectors, and non-governmental organizations (Mahfouz & Awadallah, 2007). In addition, we need to understand better how those multidimensional efforts function.

Statement of Purpose

This study aimed to explore two major components within the program development framework in the context of programs serving people with disabilities in agriculture: program planning and program evaluation. Regarding the program planning component, the study had two specific objectives. First, it was to identify and elucidate essential elements of program planning approaches used in practice (i.e., the AgrAbility program). Second, it was to understand better how social-political and ethical stances appear within the program planning approaches.

Regarding the purposes of the study focused on program evaluation, there were three specific objectives: (1) identify the types of evaluation that have been commonly used to evaluate the programs of interest, (2) explore evaluation tools that have been widely employed to assess the programs, specifically focusing on the use of self-report tools, and (3) identify good practices for maximizing self-report tools' usability to foster better evaluation. Both a qualitative (i.e., interview and focus group) and a quantitative (i.e., survey) approach guided the elucidation of the collective framework of planning agricultural assistance programs serving agrarian workers with disabilities. Both methods helped me better understand the AgrAbility program's evaluation types and tools across different states.

Research Questions

The research questions guiding this study were:

1. What program planning approaches and frameworks are used for planning AgrAbility programs?
    a) How, if at all, is the social-political domain (i.e., power, interests, negotiation, and responsibilities) addressed or enacted within AgrAbility's planning frameworks?
2. What evaluation approaches and frameworks are used for the program evaluation of AgrAbility programs?
3. How and to what extent do AgrAbility programs use self-report tools in their evaluation approaches?
    a) What good emergent practices improve self-report tools' usability, specifically when evaluating programs serving farmers with disabilities?

Significance of the Study

This study provided benefits in several ways. First, exploring different AgrAbility states' planning approaches offered better insights into the current technical elements and good practices for program planning attuned to social-political and ethical considerations. Elucidating a common framework based on various states' approaches can serve as an initial source for other extension agents and program planners in different countries who seek to establish agricultural assistance programs for agricultural workers who live with disabilities. Before developing an assistance program in a new context, understanding the evaluation phase as one part of the program development framework is essential to avoid repetitive mistakes and improve the program outcomes, especially for programs that serve a vulnerable community. The study can help better understand the evaluation types and tools commonly used to assess program

processes and impacts. Since self-report tools are frequently employed to gather participants' feedback and evaluate program quality, good understanding practices for using self-report tools, specifically with farmers with disabilities, will give a better idea of maximizing their usability. What is more, the lessons learned about program planning and evaluation will have some generalizability to potential applications in other contexts, beyond just programs serving people in agriculture who live with disabilities.

Chapter II

Review of Theoretical and Empirical Literature

The primary purpose of this study was threefold: (1) exploring and aggregating frameworks used by different AgrAbility states for developing assistance programs that serve farmers who live with disabilities, (2) examining the common types of evaluations used for assessing programs' impact, and (3) identifying the good practices for maximizing self-report tools' usability in program evaluation, especially for programs serving farmers with disabilities. This section elaborates on three existing conceptual frameworks used as a conceptual framework for this study: The Targeting Outcomes of Programs (TOP) model, Sork's planning domains, and Cervero and Wilson's planning model. Also, the literature review in the following sections covers major topics that helped better understand how to approach the study questions. The topics focused on (1) the AgrAbility program and its epistemological implications from a partnership lens, (2) planning assistance programs from a power relations lens, focusing on the disability education context, (3) evaluating community-based programs, explicitly serving people with disabilities, and (4) self-report tools' use and validity problems.

Review of Literature

AgrAbility Program: Scope and Pluralistic Roles

The AgrAbility program is considered a valuable source for agricultural workers with disabilities in creating job opportunities and increasing a very high return to jobs (Hamm, Field, Jones, Wolfe, & Olson, 2012). Investing in such a program is considered an investment in the country's economic growth. The AgrAbility program provides agricultural workers with disabilities various supports; such supports could regain employment in the farming field and access assistive technology and rehabilitation services that improve their quality of life

(AgrAbility, n.d). The AgrAbility program also focuses on offering educational training for staff who collaborate to provide efficient services for clients.

AgrAbility is considered a partnership program where different actors play crucial and complementary roles to reach the U.S. Department of Agriculture's (USDA) goals. The USDA is a funding source for the lead agency National AgrAbility Project (NAP); the AgrAbility program currently exists in 28 states. In each state where the AgrAbility program exists, Vocational Rehabilitation (VR) Services collaborate to improve rural farmers with disabilities' quality of life. The key actors of the NAP are divided into two categories: the project team (i.e., director, consultants, technical specialists, and staff) and the advisory group (i.e., local non-profit organizations, Vocational Rehabilitation organizations, and current AgrAbility clients) (AgrAbility, n.d). Before presenting some empirical studies of how the AgrAbility program has positively influenced farmers with disabilities' quality of life, a brief explanation of AgrAbility and VRS roles within this system was illustrated.

AgrAbility, as mentioned earlier, is a national-funded program established by the Farm Bill in 1990 and administered by the National Institute of Food and Agriculture (NIFA) under the USDA to assist agricultural workers with disabilities. The NAP and State/Regional AgrAbility Projects (SRAPs) both have a partnership between a land grant university and at least one non-profit disability organization. All AgrAbility report to the USDA Cooperative State Research, Education, and Extension Service. The NAP plays a crucial role in coordinating state programs. It also offers limited services and supports to the remaining states that do not have funded programs.

Vocational Rehabilitation (VR) Services is a partnership between the federal government (which provides roughly 78% of the funding) and the state government (which provides the rest

of the budget) that exists in all 50 states; its mission is to assist people with disability to keep working independently. Each state has its way of distributing and using the fund via the Rehabilitation Services Administration (RSA), which is under the Office of the Special Education and Rehabilitation Services (OSERS)—a part of the Department of Education (Government Publishing Office, 2001). However, VR services provision is free of charge, eligibility for accessing VR services is based on three parameters as stated in Vocational Rehabilitation program federal regulations: (1) the applicant is diagnosed with physical or mental impairment, (2) the applicant's physical or mental impairment affects their employment, and (3) through the VR counselor's assessment, the applicant needs VR services to prepare for, secure, or regain work (Government Accountability Office, 2009).

Empirical studies have shown statistically that the AgrAbility program greatly influences agricultural workers with disabilities quality of life. For example, Fetsch, Jackman, and Collins (2018) conducted a pretest-posttest survey on 191 farmers and ranchers from 10 states who benefit from AgrAbility and live with various disabilities (i.e., arthritis, back injury, visual impairment, and joint injury). The findings indicated that AgrAbility significantly influences the quality of life (QOL) and participants' independent living and working (ILW). Also, the change in ILW, in turn, predicted 13 % of the variance in QOL level for participants. Also, Fetsch and Turk's (2018) study has provided further evidence supporting the statistically significant change in agricultural workers with disabilities quality of life and independent living and working.

AgrAbility Programs from a Partnerships Lens

AgrAbility has employed strategies that led to significant changes in people with disabilities' well-being; these strategies take many forms on different social, political, environmental, cultural, or economic levels. Different epistemological aspects of the work could

contribute to considerable changes within each level. I drew attention to AgrAbility's epistemological framing through the partnership lens, which linked agricultural workers with disabilities with education to improve the agricultural field. I postulated four examples of questions that can help to understand the partnership's formation and to highlight whose knowledge and experiences are neglected or privileged. I also supported the four partnership examples using empirical studies.

The first question was, how do people with disabilities access health care services, specifically people who live in a rural community and come from a minoritized population? AgrAbility has started to address the concern of health disparities among people in rural communities who live with disabilities, specifically minority populations, from the lens of the VR services-Land Grant University partnership. For example, rural farmers have faced challenges in Kentucky to access healthcare services and knowing where healthcare service provision exists. It led to deteriorations in their health status and influenced their capability to work. Kentucky AgrAbility had sought partnerships with a specific mission of disseminating healthcare service providers to the underserved rural community who live with disabilities in Kentucky, specifically women, minorities, and Appalachian small farmers. This partnership embraced Cardinal Hill Rehabilitation Hospital (where they have been providing rehabilitation services to people from Appalachian, Kentucky) and the Kentucky State University Land Grant Program (where they provide educational support for women and minorities). This partnership shifted attention to health disparities among rural communities living with disabilities by offering multifaced healthcare approaches (health care service provision and healthcare education) to the underserved population (Hunter, Hancock, Weber, & Simon, 2011).

The second question was, how do farmers and ranchers with disabilities seek help from available resources and programs and take advantage of public services? One main goal of AgrAbility is to disseminate trusted information and services to farmers and ranchers with disabilities. However, not all farmers and ranchers with disabilities know about the available resources or have the motivation to seek help. In this regard, Colorado AgrAbility sought to solve this concern from the lens of the AgrAbility-current AgrAbility participant's partnership. Christen and Fetsch (2008) examined the primary barriers that inhibit farmers and ranchers with disabilities from seeking assistance from outreach efforts. The authors surveyed 798 farmers and ranchers who live with disabilities and examined their awareness and attitudes towards seeking help from outside sources and their preferred ways to be notified about the available services. The findings showed farmers' lack of knowledge about the Colorado AgrAbility program's (CAP) services was the main barrier. Also, participants emphasized their preferences for receiving assistance or information from other farmers. There was a need to hire opinion leaders from CAP clients as crucial speakers to disseminate CAP's outreach efforts with the primary staff.

In response to the above question, AgrAbility has sought to spread the program's message and report how it positively influences agricultural workers with disabilities' quality of life by sharing participants' personal stories. Also, AgrAbility has encouraged beneficiaries to share their experiences and ideas with the program to enhance the services and the educational resources for future clienteles (Hamm et al., 2012). Spreading the program's value through AgrAbility's participants gives others hope that there are solutions to maintain farming work.

The third question was, how do farmers and ranchers with disabilities access services and trusted information that enhances their farm work from formal institutions? One example of how

AgrAbility has linked education and research with outreach efforts is the partnership between the Ohio AgrAbility program and the University of Dayton (Crosson, Jepsen, McGuire, & Zeller, 2014). The University of Dayton offers a research-based course related to engineering and innovation. To assist students who study the Engineering Innovation course (EGR 103), an engineering design project associated with the mission of AgrAbility, both AgrAbility and the university have contributed to the collaboration. The partnership aimed to help students identify and solve various agricultural systems problems and create creative design solutions and prototypes to improve farmers with disabilities' work. Ohio AgrAbility staff and clients helped students craft applicable problem statements, offered meaningful feedback, arranged site visits/tours for design teams, provided free of charge materials for design purposes, and tested realistic prototypes. The collaboration has improved experiential learning for students and highlighted how partnerships could achieve a win-win situation.

The fourth question was, how do farmers and ranchers with disabilities access various farming job opportunities? Stowell and Burnett (2019) conducted a study promoting horticultural therapy through partnerships to address this concern. The study aimed to explore the need to promote the profession among rural farmers and examine the value of partnering. The Tennessee AgrAbility Project (TAP) has partnered with other allied healthcare organizations to develop pilot horticultural therapy workshops for veterans. The findings showed that the partnership served as a source for introducing the study participants to possible farming career opportunities and other TAP programs and services.

Drawing on Lubell, Niles, and Hoffman's (2014) study, disseminating valuable knowledge through adopting "boundary-spanning partnerships that include various key knowledge network actors" (p. 1100) contributed to resolving the contemporary and complex

issues and problems that agricultural workers with disabilities faced. Furthermore, adopting the AgrAbility program's pluralism concept (i.e., combining multidimensional efforts) (Suvedi & Kaplowitz, 2016) helped provide adequate education and services to people with disabilities and seek social justice.

Community Development: Power Relations Concepts and Frameworks

Enhancing rural community quality of life (socially, environmentally, economically, and politically) is one of the significant concerns to improve the employment rate and, in turn, increase economic growth. Outreach programs (i.e., extension work) could be a solution to offer adequate education and services to the rural community. However, the question raised here is to what extent have the outreach programs been planned, implemented, and evaluated from the social justice lens? In other words, how do politics, equity, inclusion, engagement, and empowerment aspects take place in outreach programs to seek social justice? In this section, my goal was to illustrate some power relations concepts and frameworks that helped me grasp the ethical and epistemological implications of partnership formation in any organization.

When we seek to analyze the substantial reason behind the existing inequality in an environment and how that shapes community development, our attention usually goes to the excluded or privileged interests/needs. Inequality can occur within the society in various forms; it could take a form related to political aspects, participation, or power relations, and all relate to each other. Thus, understanding the bottom line of inequality requires focusing on political disparities or conflicts of interests and understanding power relations dynamics (Pettit & Mejia Acosta, 2014).

Unequal relations could occur between those of the property-owning classes and lower classes, resulting in marginalizing the voice of the latter group and them having less weight in

making decisions; this power relation form can be called an invisible power. It simply means accepting the status quo, such as dominant social justice norms, institutions, and behaviors; it leads to excluding the substantial representatives who are considered the real mirror of the community problem and replacing them with others who reproduce a new shape of power (Scott-Villiers & Oosterom, 2016). Another form of invisible power is discrimination that determines including or excluding people based on their identity and ultimately influences their value and power in the community (Howard & Vajda, 2016). Pettit (2016) pinpointed that discrimination could be related to "gender, age, ethnicity and disability, insecure access to land, employment, income and markets, violation of labor rights, vulnerability to climate-related disasters (drought and flooding), poor education and health services, and gender-based violence" (p. 92).

Since invisible power influences engaging or excluding people from making decisions that impact their lives, we need to understand "how inequality shapes power at each scale and across scales for understanding where the entry points are for change" (Gaventa & Martorano, 2016, p. 17). Gaventa (2006) depicted the power relations in a cube shape with three dimensions. One dimension is related to different power levels (global, national, local) that interrelate with varying forms of power (visible, hidden, invisible), and both influence the spaces of change (the third dimension). Back to my question, how do politics, equity, inclusion, participation, and empowerment aspects take place in extension work? The power cube approach could be used as an entry point to think about the interactions between those various aspects which ultimately inhibit or sustain social justice.

Understanding the power relations will direct our focus on where and how to engage people to strengthen community empowerment. Rowlands (2016) has sought to explore the process of enhancing and developing power analysis within an international non-governmental

organization (Oxfam). The author emphasized that understanding power relations contribute to imagining and identifying "approaches to partnerships, alliances, and other vital relationships – both in terms of who we work with and how we work" (p.126). Changing the patterns of power relations can change the participation pattern and ultimately change policies. Civic habitus is another power relation concept that we need to consider from the partnerships lens. Pettit (2016) has argued that civic habitus could be considered a motive that enables or constrains people from engaging in power relations. Based on Pettit's (2016) civic habitus definition drawn on other scholars' work (Bourdieu, 1977), it is a combination of one's inner beliefs (where invisible power works) plus the social boundaries (i.e., status quo) plus one's dispositions based on cognitive process. Thus, understanding power relations will help us understand how we can start to change the policies and the community's civic habitus, where we can nurture the social justice environment.

Planning Outreach Programs with a Power Relations Lens

In response to the need for sustaining democracy and seeking to promote social justice in any extension work, trends of extension provision have started to pass through different paradigms: from linear (top-down) approaches to participatory approaches, to demand-driven approaches, and lastly to pluralistic extension approaches (Suvedi & Kaplowitz, 2016). Contemporary problems and issues that the community has been facing associated with markets, gender integration, climate change, etc., pushed the extension system to adopt various power relations forms to meet the educational and informational needs of the rural community. Specifically, tackling the contemporary problems related to rural people who live with disabilities requires embracing multifaceted interventions (i.e., programs) with various collaborations to understand how we can meet their needs.

However, federal funds become a major constraint to pursuing extension community development programs. Beaulieu and Cordes (2014) suggested that the extension system should provide evidence that extension work has contributed to substantial changes at different times (short-, medium-, and long-term) and on different actors (who participated in community development programs and who do not) to maintain funding. This suggestion could shift planners' attention to the need to promote inclusivity within the extension work by embracing the community's voice, interests, values, and needs while planning the outreach programs.

In this section, I focused on the following question(s): to what extent do power relations shape the interactions between beneficiaries and other key stakeholders in planning outreach education programs? In other words, to what extent can power relations influence adult learners with disabilities in terms of their ability to share their interests, engage in making decisions, and participate in planning, implementing, and evaluating educational programs? Cervero and Wilson's (1994) work has contributed to perceiving planning and designing adult education programs from a political lens. The authors have presented a program planning model that will sustain the democratic nature of the planning process. They pinpointed that positioning power, interests, negotiation, and responsibility in the center of the planning process will support or threaten the community development, based on how the four concepts will be employed.

Power, from Cervero and Wilson's (1994) point of view, is defined as "not something to be given or taken away because it is always being negotiated" (p. 254). Suppose we want to seek democracy in planning educational programs for adult learners with disabilities. In that case, we need to direct our attention to power relations as a reciprocal negotiation and interaction that contributes to compromising different interests. Practically, to what extent do the power relations occur at a deepening level in planning adult education programs? I mean by the word "deepening

level," technical, ethical, and social-political level. Understanding how power relations happen in those different levels will help determine whose knowledge and experiences are excluded or privileged in the adult education context.

Looking at what domains contribute to shaping power relations in planning adult education pedagogy, Sork (2000) has presented three domains that conceptualize how power relations could be presented in planning programs. The technical element is the first domain; Sork (2000) has stressed that this element is usually the dominant attention in planning programs over the other two components (ethical, social-political). The technical domain represents the know-how of the planning process; the author has provided examples of questions to grasp how this domain takes place in planning programs, such as "How should I define the learner community and what do I need to know about it?" (p. 185). The second element is the social-political domain, which embraces questions about people's interests and power relations shaping planning procedures. One example is, "why are not more women involved in planning this program, and what will be the consequences of not changing this?"(p.185). The last domain deals with ethics; Sork (2000) has emphasized that this is the least-used domain while planning the program. One example is, "Is this action consistent with a commitment to social justice?" (p.186).

Drawing on what Wilson and Cervero (2001) have emphasized about planning adult education programs; they stressed for planning and designing adult education programs, there is a need to analyze "the relational and reciprocal connections between the systems of power in the society we embody, and the way in which our work produces and reproduces these systems" (p. 4). To make a significant change, we need to see first what is going on to implement adequate

outreach efforts. In other words, to create and achieve a successful vision to confront inequality in our world, we need to understand its way deeply (Livingstone, 2012).

Evaluating Community-Based Education Programs: An Introduction

Community development is considered one of the major scopes of the Cooperative Extension's missions. The Cooperative Extension System's overarching goal is to improve the rural community's well-being (socially, environmentally, economically, politically, and culturally) through outreach programs. Community-based programs' primary purpose is to improve rural people's quality of life personally and professionally in the short, medium, and long term. Because of decreasing federal funds and increasing competition for applying the grant dollars (Hachfeld, Bau, Holcomb, & Craig, 2013), program evaluators have to seek the impact of evidence-based programs. Evaluation is considered an integral part of the program development model; It is "measuring and reporting on the results and impacts of extension programs and projects" to sustain the programs' accountability (Suvedi & Kaplowitz, 2016, p. 121). Regardless of the various definitions of evaluation, evaluators seek to use good practices to reflect the evaluand's (i.e., program, policy, process, etc.) value based on its merit and worth (Mertens & Wilson, 2012). One main challenge that is associated with evaluating community-based programs is that evaluators conduct evaluation approaches (i.e., qualitative) that may not provide attributional evidence of the interventions (i.e., programs) (Suvedi & Kaplowitz, 2016; White, 2010).

Baughman, Boyd, and Franz (2012) examined which types of evaluation (i.e., instrumental use, concept use, persuasive use, or process use) are commonly employed by extension staff in four extension services areas. The areas are Agriculture and Natural Resources, Family and Consumer Sciences, 4-H Youth Development, and Community development. The

findings showed that persuasive use (also known as political use) is the most used by extension staff to share the programs' values, sustain fund resources and ultimately secure educational programs' accountability. Baughman, Boyd, and Franz's (2012) study findings could explain the advocacy for following the postpositivist paradigm (i.e., experimental and quasi-experimental design), the "gold standard," to proving evidence-based programs' effectiveness to maintain funding. However, it could be hard to "establish a control or comparison group, maintain uniform treatment and measure long-term impacts" (Suvedi & Kaplowitz, 2016, p. 126) for community-based programs. Evaluators seek other evaluation approaches for demonstrating programs' quality and credibility.

Evaluation Paradigms: Postpositivist, Pragmatic, Constructivist, and Transformative

To understand the extent to which evaluation paradigms could help one make claims about programs' impact, I first briefly reflected on the frequently discussed evaluation paradigms and their underpinning philosophical assumptions based on Mertens and Wilson's (2012) book, *Program Evaluation Theory and Practice*. Then I shifted attention to literature on evaluating community-based programs, explicitly those serving people with disabilities, using evaluation paradigms other than postpositivism. Mertens and Wilson (2012) have extensively explained four philosophical paradigms comprised of a series of assumptions associated with each evaluation paradigm: postpositivist (method branch), pragmatic (use branch), constructivist (values branch), and transformative (social justice branch). The four paradigms seek to understand the worldview through uncovering hidden meanings from different lenses.

Axiology (ethics) is the first philosophical assumption that focuses on evaluators' moral standards and values employed and followed through different evaluation branches. Ontology (reality), the second assumption, concentrates on evaluators' perspectives on interpreting reality

through different evaluation branches. The third assumption is epistemology (knowledge); it relates to the nature of knowledge and may determine the distance (engagement) between evaluators and stakeholders in the study. Methodology (systematic inquiry), the last assumption, focuses on the evaluators' decision to choose the systematic approaches that fit the evaluation's purpose. To answer the question, how does each evaluation branch contribute to examining the worldview? I elaborated on how the four philosophical assumptions are employed in each evaluation branch.

The method branch's (postpositivist paradigm) axiology concentrates on how evaluators follow ethical research conduct. The method branch's ontology sees only one reality, which could be known within a certain degree of probability. In this regard, this branch's methodological view depends on quantitative methods (i.e., experimental and quasi-experimental design); the evaluator is detached from participating in the study (epistemological perspective). In turn, the method branch seeks to attain objectivity and minimize any biases (Mertens & Wilson, 2012). The method branch is considered the dominant branch over others due to the high demand to provide evidence-based programs and secure funding continuity. However, this branch could lack sufficient interpretation of how interventions (i.e., programs) contribute to the changes and lack satisfactory interpretation of unrelated consequences that happened with the programs' provision period that contributed to changes.

The second evaluation branch is the use branch (pragmatic paradigm). The use branch's axiology stands on "the value of the evaluation as to how it is used and the results of that use" (Mertens & Wilson, 2012, p. 90); it reflects the ongoing application of the evaluation procedures. The use branch's ontological view stands on accepting different perspectives on reality based on evaluators' experiences in specific situations related to the phenomenon under investigation. The

epistemological perspective relies on establishing relationships between evaluators and stakeholders in the study and tends to be a pragmatist in nature. In this regard, the use branch inclines to use mixed-method (quantitative and qualitative) to achieve the evaluation's purpose. The way evaluators decide to select the combinations of the mixed methods is based on "what is right for a particular study in a particular context with a particular stakeholder group" (Mertens & Wilson, 2012, p. 91). One challenge of conducting evaluations from the use branch is sustaining the power balance between different stakeholders because stakeholders responsible for providing knowledge are privileged with power over other participants (Mertens & Wilson, 2012). Also, Brandon and Singh (2009) highlighted that the use-focused evaluations had been found to frequently not lead to use. That could be due to the validity problems in the following stages: designing the instrument, collecting the data, or analyzing it. Thus, the more problem that exists with the rigor of the methods, the less robust findings and the less dependent one might be on the use branch for evaluation.

The third evaluation branch is the values branch (constructivist paradigm). Lincoln and Guba (2005) have contributed to offering meaningful insights into the values branch's philosophical assumptions. The axiology stands for consciously monitoring evaluators' values that could influence the evaluation's findings. The values branch's ontology relies on accepting different realities depending on evaluators' social experiences and their ongoing interaction with stakeholders in the study. The epistemological perspective creates extensive and meaningful dialogs between evaluators and stakeholders. In this regard, qualitative methods are commonly used to increase the chance of involving evaluators in the study (Lincoln & Guba, 2005).

The social justice branch (transformative paradigm) is the last evaluation branch. Its axiology stands on how evaluations fulfill cultural respect, seek social justice, sustain human

rights, and deal with inequality. The social justice branch's ontology relies on accepting different realities based on evaluators' experiences derived from privilege access. In other words, ontology stands for how evaluators interpret or live in different realities based on power and privilege. The epistemological perspective relies on understanding knowledge that centers on stakeholder power relationships. In this regard, evaluators are inclined to use mixed methods to "will best facilitate the use of the process and findings to enhance social justice" (Mertens & Wilson, 2012, p. 172).

Evaluating Community-Based Education Programs Serving People with Disability: From a Pragmatic, Constructivist, and Transformative Lens

Patton (2008) has recommended that evaluators "stop apologizing for not using randomized controlled trials (RCTs). Simply explain how and why the methods used are appropriate to the purpose, resources, timeline, and intended use by intended users of the evaluation." (p. 114). Drawing on Patton's (2008) call and drawing on other scholars' work who advocate using other evaluation branches for seeking programs' credibility, shifting attention to the pragmatic (use branch), constructivist (values branch), and transformative (social justice branch) paradigms in evaluating community-based education programs, specifically serving people with disabilities is needed.

Using any evaluation branch, either method, use, values, or social justice, will gain some advantages and disadvantages. Shifting our thoughts to the pragmatic, constructivist, and transformative paradigms is to identify the extent to which the program's merit and worth have contributed to making changes (impact) in the community. In this regard, the impact evaluation does not focus on the intervention's (i.e., program) attribution to changes; it does focus on the intervention's contribution to changes, drawing on White's (2010) article, *A Contribution to Current Debates in Impact Evaluation.*

White (2010) mentioned that deciding to use a specific methodology is based on defining the type of impact sought at the center of an evaluation. White distinguished two definitions of impact in evaluation; the first definition is associated with the solo attribution of the changes to interventions; the other is the interventions' contribution to changes. Thus, evaluating community-based education programs' impact on the programs' contribution can let us think about other evaluation branches to seek credibility.

Furthermore, Archibald (2019) has drawn attention in his article, *Whose Extension Counts? A Plurality of Extensions and Their Implications for Credible Evidence Debates* to foreground an ontological lens when seeking credible evidence on Extension programs. He explained that reconsidering the nature of the evaluand, which was in this study, "Extension," through ontological interpretation, can contribute to seeking credibility about Extension. He posed questions such as "Is Extension really knowledge-driven, or is it relationship-driven, or is it both?" (p. 31). Moreover, Archibald (2019) has mentioned, "what counts as credible evidence of Extension's impacts cannot be established if we ignore this ontological uncertainty (or plurality)" (p. 29). Drawing on this study, if we have a closer look at the evaluands' reality (i.e., community-based programs), it will give different perspectives on what we need to evaluate and which methods best fit the evaluation purpose. If evaluators interpret the community-based education programs' impact on serving people with disabilities, from the ontological view, in this case, programs' impact can hold different realities in making changes in the community. It may open the door to thinking about other evaluation branches rather than the method branch for proving programs' credibility.

Looking from the pragmatic paradigm's (the use branch) lens, the context, input, process, product (CIPP) evaluation model could offer a detailed picture of the program's contributions to

the changes (Mertens & Wilson, 2012). The CIPP evaluation model could help understand the descriptive-detailed picture of the program. Understanding the program's details (using mixed methods) will assist in capturing the short and medium-term changes that occurred to program participants (i.e., quantitative method). Also, it helps to assess the public values of the program (Franz, 2015) that reach people who do not participate in programs (using qualitative methods) and understand the ongoing process of program implementation and its context (using qualitative methods). In turn, credible evidence of program outcomes could be achieved since "the CIPP model is a time-tested approach to use-focused evaluation" (Mertens & Wilson, 2012, p. 110). What could shape evaluators' decision to use either the pragmatic paradigm (the use branch) or the constructivist paradigm (the values branch) in evaluating community-based programs is the degree of engagement between evaluators and program participants. Thus, identifying the evaluation purpose will guide evaluators to select either the pragmatic evaluation (the use branch) or constructivist evaluation (the values branch) to evaluate community-based programs.

Also, there is a need to call attention to the transformative paradigm (the social justice branch) and how it could be suited for evaluating community-based education programs, specifically serving people with disabilities. One reason for calling attention to this branch is that it deals with social justice issues targeting the disability context. It means that evaluators have to keep vulnerable participants' interests, values, needs, and privileges in their minds while conducting evaluations; one way to help evaluators is by working from the transformative paradigm (the social justice branch). Many evaluation theories have been articulated in the social justice branch to deal with disabilities, social justice issues, human rights, and cultural respect.

Drawing on Zola's (1993) notion, when we label people with disabilities with temporarily or momentarily able-bodies, it "breaks down the separateness of 'us' and 'them' and emphasizes

the continuity and inevitability of the disability experience" (p.171). In this regard, identifying people with specific labels will lead to positioning the problem on an individual's shoulder instead of seeing that as an obstacle in the surrounding environment that makes people with disabilities less functioning, powerless, and excluded (Rocco, 2005). In response to the community's perceptions towards labeling disability, Critical Disability Theory (CDT) (Kennedy & Minkler, 1998) is an example of the transformative theory. CDT highlights how the community can perceive disability from the social epistemological lens. CDT's central idea was that disability needs to be perceived as a social construct, not one's long-lasting impairments. It means that the surrounding social environment influences how people with disabilities are excluded or privileged, threatening their ability to fulfill their needs.

The theory reflects the perceived views of disability that evaluators should consider while evaluating the program's impact on serving people with disabilities. In other words, the theory explains that disability might not be the only factor that limits participants from programs' benefits. Still, other factors in the surrounded social environment could inhibit or support participants to benefit from the program. Incorporating theory that focuses on understanding specific contexts while evaluating (i.e., CDT) will help evaluators assess programs' contributions to people with disabilities by considering multifaced factors.

Self-Report Tools: Different Uses in Evaluation Field

A very commonly used evaluation tool to assess participants' knowledge, behavioral, and attitude changes after participating in a program is the self-report tool. Furthermore, a self-report tool could gather participants' feedback about the programs in which they participated. However, there are various challenges with using self-report tools in evaluating a program's impact. Ultimately, the existence of these challenges may influence the tools' validity. A self-report tool,

self-report questionnaire, and self-report survey, regardless of different names, are commonly used in various disciplines for several reasons based on the purpose of the study; It could be completed either by hand or online (Demetriou, Ozer, & Essau, 2014). A self-report tool is commonly used in measuring programs' impact or effectiveness (short, medium, and long-term) (Larese-Casanova, 2017). When evaluators decide to employ self-report tools in evaluating program impact, there are some considerations evaluators should keep in mind to maximize the utility of self-report tools. The purpose of this section was to review different uses of self-report tools in data collection, with a particular focus on measuring attitudes, cognitive skills, and behavioral changes.

Self-report tools could be used as a primary tool for collecting data and informing decision-making. They are also used to document participants' opinions towards the receiving program, such as reporting the availability and quality of activities and personal perception of the overall programs. For instance, Lei, Ashwin, Brosnan, and Russell (2019) designed an online questionnaire to assess students' opinions about social network structures and perceived social support during university transitions. In the extension context, program evaluators also use self-report tools to evaluate participants' views after receiving the programs; participants' feedback informs policymakers and program operators' decisions regarding keeping, stopping or modifying the programs.

Some outreach efforts (i.e., interventions, programs) are offered to change participants' cognitive skills (i.e., conscientiousness, emotional stability, persistence, self-control, social awareness, self-efficacy, and mindfulness). A knowledge test is the standard and best way to assess participants' cognitive skills. But if that is not feasible or ideal, it can be done by asking participants to rate their cognitive skills via a self-report survey. In the education context, Chen,

Feng, Heckman, and Kautz (2020) have sought to test students in the following: (1) to what extent offering or not offering clear instructions and clarification on survey questions can influence participants' noncognitive skills response rate and (2) to what extent offering incentives associated with performance can indirectly influence participants' noncognitive skills progress. The authors highlighted that using self-report for assessing participants' noncognitive skills is sensitive. Also, clear information related to survey questions and incentives influences the response rate. Using the finding in the extension context could offer insights that the more information provided to participants and clarification about the questions, the high possibilities to get answers that reflect participants' reality. Also, offering incentives to participants could positively or negatively influence the way participants provide their answers.

The call for measuring behaviors has been shifted to the participant's self-reported survey. These shifts occurred when funders and publishers heavily asked for measurement and statistical reports over descriptive reports; however, statistical reports do not accurately reflect what people do, want to do, or are willing to do (Baumeister, Vohs, & Funder, 2007). The primary purpose of measuring participants' behaviors is "to inform planning/evaluation of project-level activities, develop/evaluate policies intended to influence behaviors, and develop/test theoretical constructs" (Floress et al., 2018, p. 414). The authors highlighted that the study's purpose or the evaluation is a core element for deciding if self-report tools will suit measuring participants' behaviors or combine it with other methods.

The self-report tools assess participants' psychological and behavioral skills such as anxiety, resilience, and coping behaviors. For example, Grattan et al. (2020) have surveyed the University of Florida Agricultural Extension Agents (EAs) from 27 Florida counties impacted by Hurricane Irma. One purpose of the study was to measure agricultural EAs' behavioral and

physical health outcomes after Hurricane Irma. Participants rated their behavioral and health conditions in the following areas: alcohol use, problem-focused, emotion-focused, and disengagement coping styles, presence, and severity of depression symptoms, anxiety, and resilience. Self-report tools could also be used as a secondary tool and other data collection methods to assess specific received programs' impact. Young et al. (2013) have used a self-report tool, an interview, and market-level sales data to evaluate customers' fruit and vegetable consumption rates and sales rate at the farmer's market in low-income areas in Pennsylvania. Authors have used a self-report tool to assess customers' dietary behaviors (current consumption of fruit and vegetables and willingness to try new fruits or vegetables), their shopping frequency, and their food assistance programs' engagement.

Furthermore, Chao and Lam (2011) have measured participants' responsible environmental behaviors. They have sought to examine the validity of both self-report behaviors (SB) and other-reported behaviors (OB) by comparing the frequency of behavior intention (BI), self-report behaviors (SB), and other-reported behaviors (OB) by using the t-test. However, findings showed a higher frequency in SB than those of OB compared to BI. Using self-report tools for measuring behavioral changes needs more consideration from evaluators.

Another study has supported the same caution about using self-report tools only for measuring behavioral changes. Solansky (2010) has sought to evaluate the leadership development program by targeting 303 beneficiaries of the program and 41 mentors. The author has used a 360-degree assessment of leadership skills that beneficiaries will fill in and has used leadership mentors to observe behavioral changes. The findings mentioned that the self-report data are statistically significantly different from the mentors' observational reports. Understanding self-report uses will help (1) decide if self-report tools will fit the evaluation's

purpose and (2) determine if self-report tools should be used as a primary data collection tool or a secondary tool with other methods.

Self-Report Tools: Validity Problems Associated with the Tools' Design

The primary problems of self-report tools' validity could be categorized as problems associated with self-report tools' design and problems associated with participants' quality of responses. Understanding the significant problems associated with each category is needed to maximize the validity of self-report tools. This section highlighted the primary self-report tools' validity problems associated with tools' design. Then, it offered insights into how to maximize the self-report tool's validity in assessing programs, drawing on empirical studies. The following section highlighted the primary self-report tools' validity problems associated with participants' quality of responses, along with some insights into how to maximize the self-report tool's validity in assessing programs, drawing on empirical studies.

The first challenges associated with self-report tools' design in evaluating participants' behavioral changes are (1) misunderstanding and complicated questions, (2) miswording and misrepresentative responses, and (3) misdesigning of layout; all of that will lead to low response rates and low quality of answers. Self-report questions structured can restrict participants from expressing their real answers (Demetriou, Ozer, & Essau, 2014). For example, De Leeuw, Hox, and Dillman (2008) have called attention to avoiding double-barreled questions, separating the doubled questions into two separate questions, so participants will not be confused. The self-report tools' response scale could also inhibit participants from reflecting on honest answers. For example, when asking participants a question with a Likert scale, using the "neutral midpoint" may encourage participants to avoid expressing their opinions even when they have one (Demetriou, Ozer, & Essau, 2014). Also, the complicated layout with missing instructions could

limit the correct answers or push participants to leave questions blank (Demetriou, Ozer, & Essau, 2014). To overcome the dilemma of misdesigning and miswording self-report tools, Dillman, Smyth, and Christian (2014) have called attention to conducting pretesting self-report tools by competent advisory boards.

Another challenge associated with self-report tools' design is called cross-cultural adaptation. Beaton, Bombardier, Guillemin, and Ferraz (2000) have highlighted that cultural alteration can threaten the way participants give their responses, particularly when we use a translated version questionnaire. Beaton et al. (2000) have adopted Guillemin, Bombardier, and Beaton's (1993) Cross-cultural adaptation scenarios of self-report tools. The four scenarios that could trigger the researcher to adopt self-report tools' design in a way that fits the new context are (1) change in participants' culture only (i.e., immigrants reside in source country), (2) change in participants' culture, and country of use (i.e., participants talk the same language but in another country with diverse culture), (3) change in participants' culture and language (i.e., immigrants from a different culture and not speaking English but reside in the same source country), and (4) change in participants' culture, language, county of use (i.e., participants are in another country and talk a different language and have a different culture). Beaton et al. (2000) have highlighted six stages that the original survey should be passed by to adapt to the new context in response to the cross-cultural adaptation dilemma. Five steps: translation, synthesis, back translation, expert committee review, and pretesting will report to the sixth stage (submission and appraisal of all developers' written reports). The first five stages will increase the self-report validity before the actual use in different contexts.

The last challenge is the measurement error as one challenge associated with self-report tools' design and analysis. Subar et al. (2015) have discussed using self-report tools in the dietary

nutrition context and offered insights into dealing with measurement errors when assessing participants' dietary status. The measurement error in self-report data means "the difference between the observed or measured value and the true value. Such error is an inherent part of the measurement process" (Subar et al., 2015, p. 2640). However, the error could also be inherent in other measures, such as laboratory or clinical measures (Subar et al., 2015). Thus, to eliminate the measurement problem with self-report tools, Subar et al. have called attention to using appropriate analysis tools and study designs to adjust the measurement error.

Self-Report Tools: Validity Problems Associated with Participants' Quality of Responses

However, as explained in the preceding section, validity problems associated with self-report tools' design could influence participants' response rate and quality; other validity problems could lead to the same results. In 2003, Brener, Billy, and Grady reviewed peer-reviewed journal articles to examine factors that may affect measuring behavioral changes using self-report tools. Some examples of behavioral changes are alcohol and other drug use, tobacco use, behaviors related to unintentional injuries and violence, dietary behaviors, physical activity, and sexual behavior. They came up with two significant factors that may influence self-report tools' validity: situational factors and cognitive factors; both factors are fallen below the self-report tools' validity problems associated with participants' quality of responses. However, Brener, Billy, and Grady (2003) did not prove the degree of those factors to which they can threaten the validity of self-report tools.

The situational factors are associated with "validity problems that arise from characteristics of the external environment instead of internal processing" (Brener, Billy, & Grady, 2003, p. 437). Authors have mentioned that investigators' presence while collecting data, the confidentiality level disclaimed to participants, and other external factors could influence

participants' responses. Saw, Main, and Gastin (2015) have sought to determine factors that influence implementing self-report tools in athlete sports. The authors highlighted two factors: self-report tools factors and interpersonal and organizational levels factors; they are considered the main factors influencing the meaningful, accurate, and consistent data obtained from self-report tools.

The self-report tool factors were the tools' mode (either hard copy or digital), tool's accessibility (using technology or distance location), tool's questions design, and completion time. Saw, Main, and Gastin (2015) highlighted that self-report tool factors, specifically accessibility and completion time, influence participants' responses and influence completing the assessment in a fashion time. While the interpersonal and organizational levels factors that could influence participants' response rates were (1) the reasons for filling the self-report assessment, (2) how participants' feedback will take into account by administrators, and (3) the time participants receive the report and their contribution levels to the program (they participate in some or all program's activity). Saw, Main, and Gastin (2015) highlighted that explaining the reasons behind the assessment and elaborating on how participants' feedback will inform changes are the most influencing elements.

The cognitive factors are associated with various types of participants' biased responses. Participants usually answer self-report tools based on (1) the degree of understanding and comprehending the questions, (2) the degree of recalling the answers (recall bias), and (3) the decision to give answers based on how answers will reflect their self-image (social desirability bias) (Brener, Billy, & Grady, 2003; Dillman et al., 2014; Paulhus, 1991). One main challenge of using self-report tools in assessing participants' behavioral changes is the difficulties of accurately recalling the changes, leading to misreporting, low response rates, or incomplete

responses (Floress et al., 2018). In the healthcare context, Short et al. (2009) have sought to examine the concordance between using patients' self-report tools (for assessing healthcare utilization and absenteeism) with administrative claims records. However, the findings showed high agreement between self-report tools' results and the records and the ability to depend on one's self-reported data if the records are absent. Short et al. have mentioned that self-report tools worked well for shorter recall periods. In this regard, we could understand that not all extension programs could hold records for participants. When evaluators need to use self-report tools, they need to think about assessing participants' responses for a shorter recall period, not for an extended period after receiving the programs, because this may not reflect the accurate answers.

Using self-report tools to rate/measure participants' noncognitive skills could embarrass different biases, affecting accurate reflecting skills. One type of bias that appears is called social desirability bias (Paulhus, 1991). Participants will incline to select answers that show good self-image or public visibility. In other words, if participants feel less privacy when answering questions, they may respond incorrectly because of saving their self-image or because of "a fear of reprisal. In particular, behaviors that are illegal" (Brener, Billy, & Grady, 2003, p. 437). Paulhus (1991) has suggested that self-report tools need to be interpreted cautiously, and a mixture of various measures needs to be considered to eliminate social desirability bias.

Self-report tools cannot represent the independent variables corresponding to behavioral action and decision (Baumeister, Vohs, & Funder, 2007). External factors such as time, surrounding environment, and peers could shape one's behaviors, attitudes, and skills with the provided interventions (i.e., program). In this case, depending on self-report tools alone will not reflect the fundamental factors associated with one's behaviors, attitudes, and skills changes. To maximize self-report tools' validity in measuring participants' behavioral changes, using a

combination of data collection tools will maximize validity. Hershenberg et al. (2020) have used a self-report tool to assess participants' depression severity and Clinician Rated measures. The authors suggested using a self-report tool with the interview method to identify the agreement between participants' responses and interviewers' reports, specifically with participants who experienced long-term intervention exposure.

Furthermore, Floress et al. (2018) suggested other methods to measure behavioral changes. Methods could be ranged from high cost and time-consuming, and highly reliable information methods to lower costs, such as direct observation and field windshield surveys and GIS. The authors highlighted that the latter two methods would measure farmers' adoption rate for cultivating specific crops (as an example).

Another way to maximize validity is to establish criterion validity. Cheng, Martin-Biggers, Quick, Spaccarotella, and Byrd-Bredbenner (2016) conducted a study to develop a self-report inventory to assess physical activity checkups and the accessibility to physical activity in and near homes preschool children. To establish the validity of the self-report inventory, authors served as a "gold standard" along with children's parent responses to create criterion validity of the self-report questionnaire.

Summary

One of AgrAbility's programmatic approaches links agricultural workers with disabilities with educational assistance programs to improve their quality of life and enhance the rural community's well-being. Understanding the theoretical concepts of power relations is a beginning step to assessing if people with disabilities' voices, interests, needs, and experiences are excluded or privileged in planning extension works. For example, the power cube approach helped gain deeper insights into the different key actors' roles and how they may function within

any organization. Finally, other planning program theories were illustrated to offer insights into how power relations could be tackled in planning education programs, specifically programs serving people with disabilities.

Different evaluation paradigms such as the pragmatic (use branch), constructivist (values branch), and transformative (social justice branch) could be employed to claim programs' effectiveness, explicitly serving people with disabilities. The evaluation paradigms above-mentioned could also be used from the lens of the program's contributions to changes rather than the program's attributions to changes. Each evaluation branch's axiological, ontological, epistemological, and methodological assumptions give evaluators insights into which branch to use. Finally, shifting the call to using other evaluation branches rather than the method branch could provide an initial step towards employing various evaluation types (i.e., instrumental use, concept use, and process use) among program evaluators.

To maximize self-report tools' validity, associated with tools' design, evaluators have to take into consideration the following: (1) pretesting self-report tools by competent advisory boards to check self-report tools' design, layout, questions, and responses scale (Dillman, Smyth, & Christian, 2014), (2) following the six stages Cross-cultural adaptation (translation, synthesis, back translation, expert committee review, pretesting, and submission and appraisal of all written reports of developers) (Beaton et al., 2000) to check self-report tools' validity in a different context, and (3) using appropriate analysis tools and study designs to eliminate the measurement error problems with self-report tools (Subar et al., 2015).

To maximize self-report tools' validity associated with participants' responses that are influenced by the situational factors, evaluators have to take into consideration the following: (1) examining participants' level of education and if using technology and online self-report tools

version will work, (2) checking participants' location and decide the best accessibility means (either digital or on-site), (3) checking participants' willingness to fill out the questionnaires, (4) checking participants' schedules and the best time for receiving the questionnaire and double-check the deadline, (5) disclaiming participants' responses confidentiality, (6) limiting evaluators 'presence while collecting data using self-report tools, (7) articulating clearly the purpose of doing the assessment and how the results or feedback will be taken into account by administrators.

Finally, to maximize self-report tools' validity associated with participants' responses that influenced by the cognitive factors, evaluators have to take into consideration the following: (1) assessing participants' behavioral changes for a shorter recall period, not for more prolonged period after receiving the programs, to reflect the accurate responses and minimize recall bias (Floress & et al. 2018; Short et al., 2009), (2) using a mixture of various measures source to eliminate social desirability bias and to increase the possibility for getting evidence-based related to participants' noncognitive skills real progress (Brener, Billy, & Grady, 2003; Paulhus, 1991), and (3) using field windshield surveys and GIS to measure farmers' behavioral changes associated to rate of adoption (i.e. cultivating specific crops) along with self-report tools (Floress et al., 2018), and (4) serving as a "gold standard" along with program participants for establishing criterion validity of the self-report questionnaire (Cheng et al., 2016).

Conceptual Framework

Program Development: An Introduction

Outreach programs are one way the extension system engages with the community to meet their needs and promote social justice. Extension development programs play essential roles in enhancing rural communities' lives and work. Boyle (1981) has identified three

extension educational programs based on the educational objectives: development programs, institutional programs, and informational programs (Suvedi & Kaplowitz, 2016). The development programs' primary goal is to empower communities to identify their needs and figure out solutions that fit their needs and communities' context. These types of educational programs require various and multifaced stakeholders' involvement. The second type of institutional program aims to improve participants' basic KASA (knowledge, attitudes, skills, and aspirations) by offering training or demonstration workshops. Such programs ideally change their behaviors and influence social, environmental, and economic conditions. In this regard, the planning process may require involving communities at a moderate level. The last educational program type is the informational program; it aims to exchange information and knowledge between extension professionals and participants. In this case, the participants' engagement levels may decrease in the planning process (Boyle, 1981; Suvedi & Kaplowitz, 2016). We can understand from the three types of educational or extension programs that the diverse educational objectives tend to determine participants' engagement levels in planning educational programs that they will receive.

Israel, Harder, and Brodeur (2015) highlighted essential critical elements for programs that build on and reinforce each other: "(1) a focus on the needs of the target audience, (2) an intent to create change in a sequence of outcomes, (3) ongoing monitoring to assess progress, and (4) a final evaluation to measure outcomes" (p. 2). Understanding communities' genuine needs will help program planners plan and offer adequate programs, products, or services to meet local needs (Garst & McCawley, 2015). However, when program planners fail to identify communities' problems that need to be addressed accurately, it leads to "losing sight of the social good that was intended to result from the program" (Russell, Thurston, & Henderson, 2003, p.

337). Thus, identifying communities' real problems is the first step to deciding which planning approaches will suit communities' issues. Garst and McCawley (2015) highlighted that "participatory research techniques, data visualization techniques, and hybrid needs assessment approaches seek to understand social-environmental conditions surrounding community challenges and issues" (p. 37). In this case, positioning communities in the center of the planning process will help program planners to gain more insights into communities' genuine needs, interests, and social-cultural aspects.

The planning process means "studying the past, analyzing the present situation, and forecasting the future course of action" (Suvedi & Kaplowitz, 2016, p. 34). However, to understand the past, the current situation, and the future, program planners need to understand the factors embedded in program planning and how factors may inhibit or support the programming practices. Seevers (1997) has pinpointed factors that program planners need to consider when deciding which planning approaches to use. The factors were assembled in the acronym SHEEEP, which means social, historical, economic, educational, emotional, and political.

Understanding the social factors such as communities' characteristics will help program planners grasp how to engage communities in the planning process. When program planners consider the historical factors, it will help them examine how previous outreach programs interacted with the community and the drawbacks previous program planners have faced to avoid such disadvantages in future educational programs. The economic factors will assist planners in allocating resource distributions based on current financial situations. Moreover, understanding the educational factors will help planners know communities' educational backgrounds and preferred educational patterns associated with their literacy levels.

Another critical factor that planners need to consider is emotional factors. These factors will help planners to believe that "sometimes local people express ‘wants’ rather than real ‘needs,’ and people may not be able to articulate the needs, but the expression of wants may lead to the identification of the real needs beneath the surface" (Seevers, 1997, p. 97). Understanding the political factors will help planners consider the key players who influence the planning process locally, regionally, or globally. The last factor Seevers mentioned, along with the SHEEEP factors, is the personal factor. Planners must ensure that program objectives rely on communities' genuine needs rather than fulfilling what extension personnel wants to accomplish professionally.

Identifying communities' real needs, engaging communities in programming practices, and considering different factors embedded in planning programs are essential to deciding which planning approaches will meet all these criteria. However, choosing among other planning models is also based on the changing contexts, funding limitations, education purposes, and program coverage (Franz, Garst, & Gagnon, 2015). Due to the contemporary communities' issues and problems, program planners tend to "blend a number of program development models to fit communities' context, interests, and values" (Franz, Garst, & Gagnon, 2015, p. 6). The study used three program development models (TOP Model, Sork planning domains, and Cervero and Wilson) as a conceptual framework to guide the study's purposes. First, I highlighted the background of the three program development models. Then, I presented an integrated conceptual framework of the three models and explained how the integrated conceptual framework guided the study's purposes and approached the study's questions.

Targeting Outcomes of Programs (TOP) Model

The first program planning model I used as a conceptual framework is the Targeting Outcomes of Programs (TOP) Model, updated by Bennett and Rockwell (1994) from Bennett's model in 1975. The TOP model is used frequently in Extension (Diaz, Gusto, & Diehl, 2018). It helps program planners assess communities' needs, target outcomes for specific conditions, identify program opportunities, design a plan to achieve the targeted outcomes, and evaluate the program's contributions to making desired changes to the community (Rockwell & Bennett, 2004). Also, the TOP model is used to "guide program planners to work backward from desired outcomes to determine appropriate strategies" (Harder, 2009, p. 4). The TOP model encompasses two significant components: the program development side and the program performance side (Diaz, Gusto, & Diehl, 2018; Harder, 2009; Rockwell & Bennett, 2004); each side is considered a mirror to each other and encompasses seven steps. The seven steps (social, economic, environmental [SEE] conditions, practices, knowledge, attitudes, skills, aspirations [KASA], reactions, participants, activities, and resources) of the program development side are the same as on the program performance side. However, the first step of the program development side (i.e., SEE conditions) is considered the last step in the program performance side.

The first step of the program development side is SEE conditions. It refers to social, economic, and environmental conditions (Rockwell & Bennett, 2004); this step identifies the conditions that program planners should consider when designing the educational program. Considering the communities' boundaries will help plan educational programs that fit their needs, interests, and cultural-political aspects. On the other hand, the SEE conditions step of the program performance side is used by program evaluators to assess the extent to which the program has contributed to making changes in social, economic, and environmental conditions.

The second step of the program development side is the practices; Rockwell and Bennett (2004) have defined practices as behaviors or actions. Program planners need to specify certain practices (actions) included in the participants' educational program. Also, program planners need to identify and develop practices to influence SEE conditions significantly. The practices step in the program performance side, in contrast, is used by program evaluators to assess participants' behavioral changes after receiving the educational program.

The third step of the program development side is KASA; it means knowledge, attitudes, skills, and aspirations. Knowledge is the information or advice that participants could gain from receiving programs; attitudes are participants' beliefs, perspectives, and feelings towards issues; skills refer to participants' mental and physical skills; aspirations refer to participants' desires for future change. Program planners determine the educational program objectives, influencing participants' knowledge, attitudes, skills, and aspirations. Crafting educational goals considering KASA will help program planners develop activities and practices that improve the community's quality of life (socially, economically, and environmentally). Program evaluators use the KASA step of the program performance side to assess the extent to which the educational program has influenced participants' KASA. In turn, evaluators can assess participants' engagement levels in program activities (Rockwell & Bennett, 2004).

The fourth step of the program development side is reactions. Program planners need to consider and determine participants' degree of interest and their needs for educational programs in the following areas: program topics, program activities, program delivery methods, and willingness to participate in the program (Rockwell & Bennett, 2004). However, on the program performance side, participants' reactions are evaluated to determine the extent to which program activities are well-developed and contribute to sustaining participants' engagement levels in the

program. In other words, establishing well-developed program activities could lead to high engagement levels and a high probability of influencing participants' KASA and ultimately achieving program outcomes.

Participation, the fifth step of both the program development and the program performance side, reflects the targeted program participants who will receive the educational program and evaluate the program impact in the short, medium, and long term. The program development side's participation step could also encompass volunteers who will assist in planning, designing, and implementing the program (Diaz, Gusto, & Diehl, 2018).

The sixth step of the program development side is activities. Activities are "the various educational strategies used to inform, educate, or train the target audience" (Rockwell, Albrecht, Nugent, & Kunz, 2012, p. 181), such as "a class, workshop, seminar, field day, or consultation" (Diaz, Gusto, & Diehl, 2018, p. 4). Program planners determine program activities' frequency, duration, and content that fit participants' needs and interests. On the program performance side, program activities are evaluated to "compare actual activities delivered vs. planned activities" (Harder, 2009, p. 2). The TOP model's last step is program resources; it includes time, money, staff, materials, technologies, transportation, and technologies to plan and evaluate the program.

Sork's Program Planning Domains

I highlighted the second program planning model, Sork's (2000) basic program planning elements, generally focusing specifically on the planning domains underpinning the model. Sork's (2000) basic elements of the program planning model consist of six steps which are (1) analyze context and learner community, (2) justify and focus on planning, (3) clarify intentions, (4) prepare an instructional plan, (5) prepare an administrative plan, and (6) develop a summative evaluation. There are similarities between Sork's key elements and Rockwell and Bennett's TOP

model. For example, the first five steps in Sork's basic elements of the program planning model are similar to the TOP model's seven steps, and the evaluation step exists in both models. However, Sork highlighted three major domains underpinning the program planning model: technical, social-political, and ethical. The three domains underpinning Sork's planning model catalyze critical reflection. In other words, the domains can guide program planners to think critically about the social-cultural and ethical implications of each technical step in the planning process.

The first planning domain is the technical domain; this domain reflects the mechanical aspects of planning. Sork highlighted that the technical domain is usually the baseline for developing educational programs and getting planners' attention. Drawing on the six planning steps in Sork's model, we could see planners heavily focus on understanding communities' needs and educational objectives that meet their needs and identify the targeted participants and the educational programs' delivery method. However, Sork has depicted planners who are skilled only in the technical domain of planning programs as "on the 'surface' quite deliberately to suggest that a preoccupation of this domain overemphasized the craft of planning and neglects its artistry" (Sork, 2000, p. 185).

In this regard, Sork has shifted our attention to the social-political domain presented first by Cervero and Wilson in 1994 and has called attention to the ethical domain. In the social-political domain, the second domain, Sork explained that this domain is associated with interests and power relations that could support or inhibit program planning effectiveness. The last domain is the ethical domain. Sork mentioned that the ethical domain is "the deepest domain in the framework, and the one least often addressed in planning" (Sork, 2000, p. 186).

Cervero and Wilson's Program Planning Model

The third program planning model I highlighted is Cervero and Wilson's (1994) planning model. Program planning, from Cervero and Wilson's view, is defined as "a social activity in which people negotiate with each other in answering questions about a program's form, including its purpose, content, audience, and format" (Boone, Safrit, & Jones, 2002, p. 33). Planning educational programs is an integrated-dynamic relationship between participants, planners, and institutional and social partners. Cervero and Wilson's (1994) planning model consists of four major elements that shape the ongoing planning process: power, interests, negotiation, and responsibility. The model offers insights into how planners could perform planning procedures informed with the lens of power relations and interests to negotiate the various interests within different power relations and seek an equitable power balance among stakeholders.

Cervero and Wilson highlighted that power, the first element of their program model is reciprocity of communications among involved stockholders. In this case, the authors emphasized the importance of positioning participants in the center of the planning process because they are a profound source to understand communities' needs. Another reason Cervero and Wilson have emphasized the importance of placing participants in the center of the planning process was that planners' capacity to plan "is rooted in sets of historically-developing social and organizational relationships and is not consequences of individual attributes" (Cervero & Wilson, 1994, p. 254). We can understand that power relations are affected by many factors that shape planners' decisions. When program planners consider participants a core source for understanding and identifying communities' actual needs, maintaining democratic conditions could be reached. The second element is the interests; it reflects how stakeholders act or exercise

power relations. In other words, power relation structures are associated with stakeholders' specific interests (Cervero & Wilson, 1994).

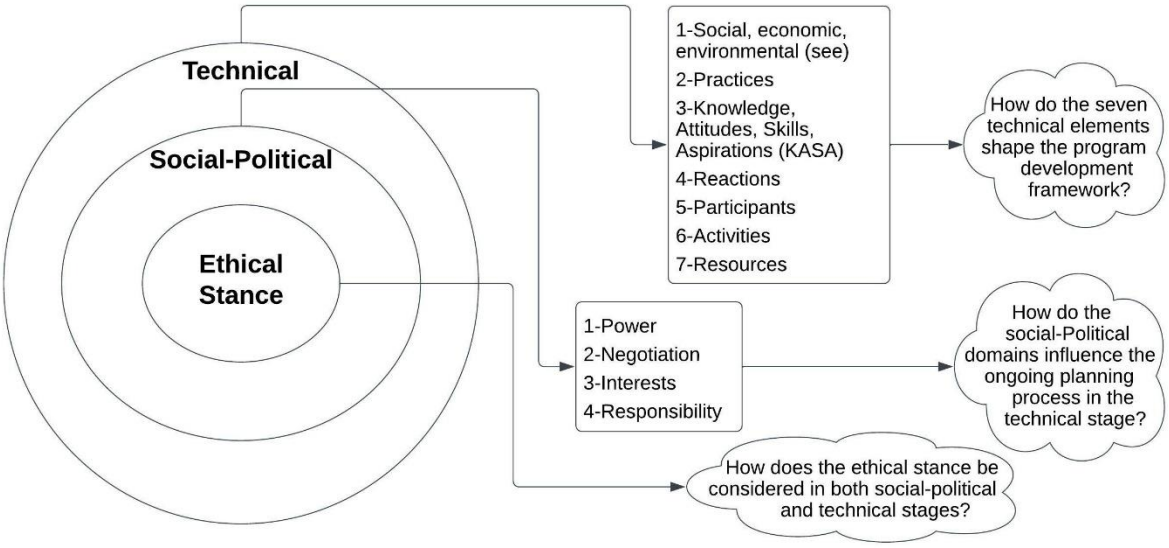
Negotiation, the third element, reflects the ongoing interactions with and between interests and constant communication about power relations and interests (Cervero & Wilson, 1994). Program planners present their interests based on their power and negotiate participants' interests and negotiate power relations and interests to compromise different interests within different power relations. Thus, planners "act in and act on their social contexts when planning a program" (Cervero & Wilson, 1994, p. 257). The last element is the responsibility, which reflects program planners' responsibilities to construct educational programs through managing different representative interests, and to consider the ethical stance about "whose interests matter and then depends on political skills to legitimately negotiate these interests" (Cervero & Wilson, 1994, p. 258).

Explanation of the Theoretical Underpinnings of the Study

Based on the three planning models described in the preceding sections, I used Sork's (2000) and Cervero and Wilson's (1994) planning models to complement the TOP planning model. Blending and integrating the three planning models (see Figure 1) guided the study's purposes in highlighting the essential boundaries and considerations of developing programs, specifically programs serving people who live with disabilities. Moreover, integrating the three planning models as a conceptual framework helped elucidate the ongoing planning process from the social-political and ethical lens.

Figure 1

The Three Integrated Planning Development Stages Are Refined from The Top, Sork, And Cervero and Wilson's Planning Models



I selected the TOP model to serve as a detailed technical planning model. In other words, I chose the TOP model due to its "relevancy and application to the operational contexts of Extension programming" (Diaz, Gusto, & Diehl, 2018, p. 2). However, the TOP model is commonly used for evaluation purposes, such as evaluating photographic events in non-formal education programs (Rockwell, Albrecht, Nugent, & Kunz, 2012) and creating an evaluation public policy Extension program (Rockwell, Meduna, & Williams, 2001). The TOP model could be used to develop educational programs, considering the seven steps.

Rockwell and Bennett (2004) explained how the TOP model functions on the program development side. They emphasized that developing programs usually begin with the assessment phase, regardless of their type. Rockwell and Bennett highlight two assessment types in the TOP model: need assessment and opportunity assessment. The first three steps of the TOP model (SEE, practices, and KASA) reflect the need assessment. However, the last four steps of the TOP

model (reactions, participants, activities, and resources) reflect the opportunity assessment. Furthermore, they highlighted that both assessments are intersected and overlapped.

Firstly, Rockwell and Bennett (2004) mentioned that educational programs are developed in response to community SEE needs. In other words, programs should improve social, environmental, and economic conditions. Program planners need to assess communities' needs through social indicator approaches or self-report approaches to reach this overarching vision. Both needs assessment approaches have negative and positive aspects regarding how both approaches accurately identify communities' real needs. Examples of questions Rockwell and Bennett (2004) suggested for assessing SEE conditions on the program development side are (1) How do the present social, economic, and environmental conditions compare with the desired social, economic, and environmental conditions? And (2) What public and private program benefits are needed? (p. 20). Another need assessment program planners should consider is to assess behaviors that need improvements. An example of a question related to the program development side's practices step is "What practices must people adopt to affect the SEE targets? (Rockwell & Bennett, 2004, p. 21).

The last needs assessment is related to assessing participants' KASA. Planners need to determine what knowledge, attitudes, skills, and aspirations participants need to influence their behaviors and improve the SEE conditions. The examples of questions related to the KASA step in the program development side are "What knowledge do people require to see the need for and effect changes in the practices? What types of attitudes are needed to effect changes in the practices? What skills are needed to effect changes in the practices? What desires, hopes, or ambitions are needed to effect changes in the practices? (Rockwell & Bennett, 2004, p. 21). The first three need assessments are the core of planning educational programs.

Rockwell and Bennett (2004) also highlighted another assessment type, the opportunity assessment, that planners need to consider for planning programs efficiently. When planners identify the required practices and KASA and compare them to the actual practices and KASA of targeted participants, then planners can assume the programming needs "gaps." Rockwell and Bennett highlighted that opportunity assessment, in the last four steps of the TOP model, contributes to developing, evaluating, choosing, and implementing the course of action. They assumed that "The higher the likelihood of obtaining the necessary reactions, participation, activities, and resources, the greater the opportunity for educational programming to significantly reduce the identified social, economic, and environmental needs" (Rockwell & Bennett, 2004, p. 11). In other words, when program planners estimate the needed resources, participants' interests regarding programs' topic and delivery method, participants' willingness to participate, and activities, it could increase the likelihood of improving participants' behaviors and SEE conditions. An example of a question related to the reactions step in the program development side is "How likely is it that the program activities will engage and retain the interest of the target audience(s)? (Rockwell & Bennett, 2004, P.21). An example of a question related to the program development side's participation step is "Who is included in the target audiences, i.e., intended program participants? (Rockwell & Bennett, 2004, p. 21).

An example of questions related to the activities step in the program development side is "What programs or activities are currently available that support transmitting the subject matter to the intended audience? How do they compare with what is needed? (Rockwell & Bennett, 2004, p. 21). Finally, examples of questions related to the resources step in the program development side are "What professional staff and volunteer expertise, and other resources, are needed to support the activities? (Rockwell & Bennett, 2004, p. 21). Drawing on the TOP

model's two assessment types and each technical planning step's suggested questions, I assumed that the TOP model could guide my study's purposes to understanding the technical frameworks for planning AgrAbility programs in different states.

Since I focused on planning educational programs that serve people with disabilities, I suggested incorporating the Sork (2000) and Cervero and Wilson (1994) planning models as complementary to the TOP planning model to ascertain if the ongoing planning process has occurred in a democratic environment. People who live with disabilities' voices, values, needs, and interests must be considered while planning educational programs. Both the Sork (2000) and Cervero and Wilson (1994) models helped understand how AgrAbility incorporates program recipients' values, voice, needs, etc., into the planning phase and understand the underpinning power relations that influenced planning AgrAbility's frameworks.

Cervero and Wilson's overarching purpose is to action planning in a way that seeks democracy and social justice, precisely when programs target vulnerable populations such as people who live with disabilities. Negotiation is considered the primary element of the Cervero and Wilson planning model; it is the "central form of actions that planners undertake in constructing programs (Boone, Safrit, & Jones, 2002, p. 33). Cervero and Wilson's planning model program participants are placed in the planning process. Placing participants in the planning process will help negotiate their needs and interests, including "needs assessment, the educational, management, and political objectives, instructional design and implementation, administrative organization and operation, and formal and informal education strategies and curricula" (Franz, 2015, p. 8).

Negotiating participants' needs and interests with institutional stakeholders will incorporate participants' voices and values in the planning process. Furthermore, it will help

overcome the shortage of relying only on social indicators or self-report need assessment. Planners should be "Knowledgeable about their respective institution, politically astute, skilled in negotiating, and capable of creating and sustaining substantively democratic planning processes" (Cervero & Wilson, 1994, p. 3) to employ the Cervero and Wilson planning model effectively (Diaz, Gusto, & Diehl, 2018).

Furthermore, I suggested integrating Sork's (2000) planning domains because that approach focuses on raising questions instead of offering detailed planning educational programs. Sork assumed that "answering questions will lead to better decisions and, therefore, better programs (Sork, 2000, p. 35). Since most planning approaches stand on technical procedures, I found Sork's planning domains can shift planners' attention (and my attention as a researcher) to the ethical and social-political stances at play in the planning process. The questions reflecting the technical domain that Sork mentioned are (1) what is the best way to determine the kinds of programs the learner community wants? How should we describe the purpose of this program so that it will be supported by the institution? (Sork, 2000, p. 185). These questions are quite similar to Rockwell and Bennett's (2004) suggested technical questions. Because actions and decisions in planning programs always have ethical implications, Sork has called attention to examining the ethical and social-political domains during the planning phase to minimize negative implications.

In the social-political domain, Sork posited questions such as "who is not here, who should be, and how can we get them involved? What will happen to our credibility if we continue to ignore the advice we are getting from stakeholders" (Sork, 2000, p. 185)**.** Thus, considering these question examples will provide planners with insights into the dynamic relationships between power and politics shaping planning programs. Sork suggested questions

related to morality regarding the ethical domain, such as "is this the right thing to do? How can this be done in a way that is consistent with the ethic of care that is the focus of the program? (Sork, 2000, p. 186).

Summary

In conclusion, I suggested integrating three planning development models (the TOP Model, Sork's planning domains, and Cervero and Wilson's planning model) to understand different AgrAbility programs' planning frameworks used to serve farmers who live with disabilities. I also sought to integrate the models to grasp how democracy and social justice occur in AgrAbility's planning frameworks. However, the TOP model extensively offered a detailed technical step-by-step planning process. A step focused on valuing social justice was absent in this model.

To employ the integrated models effectively, planners have to be knowledgeable about the social context along with the institutional context, be aware of political aspects and their influence on power relations, and be skilled in maintaining the planning process in a democratic way (Boone, Safrit, & Jones, 2002). In this regard, Sork's planning domains (ethical, social-political, and technical) and Cervero and Wilson's planning model (power, interests, negotiation, and responsibility) helped us understand the underpinning social-political and ethical domains in the ongoing planning process within the technical stage. Moreover, Sork's planning domains and Cervero and Wilson's planning model helped us understand how AgrAbility's frameworks have contributed to sustaining social justice in the planning process.

Chapter III

Research Design and Methodology

Design of the Study

The primary purpose of this study was threefold: (1) exploring and aggregating frameworks used by different State and Regional AgrAbility Projects (SRAP) for planning assistance programs that serve farmers who live with disabilities, (2) examining the common types of evaluations used for assessing AgrAbility program impact, and (3) identifying the good practices for maximizing self-report tools' usability in program evaluation, specifically programs serving farmers with disabilities. A mixed-method design (a quantitative approach, a survey followed by a qualitative approach, an interview) fulfilled the first study purpose. In contrast, a survey and focus group methods fulfilled the second and the third study purposes.

An explanatory sequential design was followed to explore AgrAbility program planning frameworks to understand the program planning process technically and deeply through an ethical and social-political lens. The explanatory sequential design is a method that "involves a two-phase data collection project. The researcher collects quantitative data in the first phase, analyzes the results, and then uses the results to plan the second, qualitative phase" (Creswell & Creswell, 2017, p. 221). The survey (phase 1, a quantitative method) collected data about program planning from the technical side. Then, I analyzed the data to understand how each AgrAbility state program has framed the assistance programs from a technical stance. Furthermore, the analyzed data guided the interview questions in the second phase. After that, I conducted interviews (phase 2, a qualitative method) with representatives of some AgrAbility states to gain deeper insights into how the ethical and social-political stance manifests within the ongoing planning process, specifically focusing on disability contexts. Using the explanatory

sequential design helped fulfill the first study's purpose. To illustrate, the quantitative data (using a survey) helped construct a collective-technical framework that could be generalized to use in other contexts. Also, the quantitative data helped construct the interview questions in a way that helped focus intensely on how other domains (i.e., the social-political and ethical domains) took place within the planning process from different AgrAbility states' viewpoints. After conducting interviews and analyzing the qualitative data, insights from that process informed my efforts to elucidate key elements of a collective planning framework that includes the three domains (technical, ethical, and social-political).

A mixed-method approach (i.e., survey and focus group) is the second design I followed to fulfill the second and the third study purposes. AgrAbility evaluators were surveyed to identify the evaluation types commonly used, mainly focusing on self-report tools in evaluating programs. The quantitative data also helped to grasp the extent to which self-report tools are used in different evaluation types. The main reason for following a quantitative approach (i.e., survey) in the second study purposes was because of its "economy of the design and rapid turnaround in data collection" (Creswell & Creswell, 2017, p.149). Since program evaluators design self-report tools to collect data from program participants who live with disabilities, both viewpoints and insights on how self-report tools' usability could be maximized are needed. Thus, a qualitative approach (i.e., focus group) was used to understand program participants with disabilities' attitudes and feedback regarding improvements in the evaluation process.

Research Questions

The research questions guiding this study were:

1. What program planning approaches and frameworks are used for planning AgrAbility programs?

    a) How, if at all, is the social-political domain (i.e., power, interests, negotiation, and responsibilities) addressed or enacted within AgrAbility's planning frameworks?
2. What evaluation approaches and frameworks are used for the program evaluation of AgrAbility programs?
3. How and to what extent do AgrAbility programs use self-report tools in their evaluation approaches?
    a) What good emergent practices improve self-report tools' usability, specifically when evaluating programs serving farmers with disabilities?

Research Context and Participants

The study context was the AgrAbility program, which currently exists in 28 states. I collected data from 16 states; 16 states completed planning surveys, and seven states agreed to participate in a follow-up interview. However, 11 states out of the 16 completed the evaluation survey. Also, three states helped reach out to program participants, with 7 participants from all three states (see Appendix A). The data from the researched states contributed to deeply understanding AgrAbility's planning and evaluation approaches from different perspectives. It helped develop an overarching understanding of the assistance program frameworks used explicitly for farmers who live with disabilities. I targeted three types of participants; I aligned each target participant with the study questions and the study design (see Appendix B). The first category was individuals who are responsible for the assistance programs' planning phase in the 16 states (Iowa, West Virginia, Alaska, California, Colorado, Kansas, Maine, Missouri, Nebraska, North Carolina, Pennsylvania, South Dakota, Tennessee, Texas, Virginia, and Wisconsin). The second category was those responsible for the assistance programs evaluation phase from 11 states (West Virginia, California, Colorado, Kansas, Missouri, Nebraska,

Pennsylvania, South Dakota, Tennessee, Texas, and Wisconsin). The third category was AgrAbility program participants with disabilities from 3 states (Colorado, Nebraska, and Texas). The program director and program coordinator of each 16 states were the first person who helped in the recruitment process for the following participants: program planners, program evaluators, and program participants with disabilities.

The study followed an explanatory sequential design (phase 1, planning survey; phase 2, interview). In phase one (planning survey), I collected data from 16 states. However, I interviewed seven states in the second phase (interview). Purposive sampling was used to select the seven states to approach the interview to gain deeper insights into how the technical framework has been planned from the political and ethical stance. Two criteria directed the seven states' selection. The first criterion was that the selected state was the first state who completed the planning survey (in phase 1) and expressed their willingness to be interviewed (in phase 2). The rationale for choosing the first criterion is that the second design phase (interview) was built on the data derived from analyzing the quantitative data (planning survey). Given that, any states who will first complete and return the survey will give a chance to start the analysis step to build up the interview questions to conduct the second phase (interview) and explain the meaning of the data derived from both phases. The quickness of receiving the completed survey and the state's agreements to be interviewed helped fulfill the first criterion.

The second criterion was interviewing states representing affiliated projects and other states representing state/national projects. The second criterion's rationale was to represent two viewpoints from different project types to understand how the program frameworks have been planned and their underpinning social-political and ethical domains. The program planners from the 16 states were surveyed to understand the AgrAbility planning program's technical aspects.

However, selected program planners (7 states) based on the abovementioned criteria were interviewed to deeply explore other domains underpinning the technical frameworks for planning programs that assist farmers with disabilities.

On the other hand, program evaluators from the 11 states were surveyed to gain insights into which common evaluation types they usually use to assess program impact and understand to what extent self-report tools are used in program evaluation. Purposive sampling was used to select program participants with disabilities (the third category); only three states could help to recruit program participants for the focus group. The selected program participants were interviewed to understand their opinions and preferences regarding improvements they would like to experience when evaluating the services or other assistance they get from the AgrAbility program to improve the evaluation process. Participants were selected based on two criteria. The first criterion was that participants recently (3-6 months) engaged in assessing received assistance programs. The second criterion was that participants agreed to participate in the research study. The state program directors and coordinators used the two criteria to identify the potential program participants for the focus group; also, they requested to see the potential focus group questions protocol to check its compatibility for participants.

Data Collection Tools

A survey and Zoom interview were used as data collection tools. The purpose of using a survey was twofold: (1) collecting data about AgrAbility's technical planning phase and (2) collecting data about AgrAbility's evaluation phase. On the other hand, using the Zoom interview helped (1) understand AgrAbility's ongoing planning process from the ethical and social-political stance, and (2) understand program participants with disabilities' preference improvements regarding evaluation approaches and processes. Using an online survey mode

helped reach participants quickly and easily and improved the response rate. Also, the Qualtrics online survey facilitates survey format and design and offers options that will help participants answer questions efficiently, such as the skip logic.

The first target participant was AgrAbility's program planners in 16 states who received a Qualtrics online survey (see Appendix C). The questions focused on AgrAbility program planning from the technical stance (i.e., need assessment, program participants, collaboration, and resource allocations); questions consisted of close and open-ended questions. The survey questions were constructed based on the TOP model. AgrAbility's evaluators in 11 states, the second targeted participant group, received a Qualtrics online survey (see Appendix D). The survey consisted of two major topics: evaluation types commonly used and feedback on the usability of self-report tools. The survey questions included close and open-ended questions. The last target participants, AgrAbility program participants with disabilities, who recently engaged in evaluating AgrAbility, were interviewed using focus groups. The focus group questions (see Appendix E) focused on participants' feedback and preference improvements regarding the evaluation process and approach. I used the literature review as an initial source to build and generate the items for the three data collection tools (2 surveys, an interview, and a focus group).

The second tool was the Zoom interview. The Zoom platform's advantage was to engage with participants verbally and non-verbally. Using an online platform for interviews also helped get participants with less cost, less time, and flexible location. The interview's purpose was to follow up with participants after analyzing the planning survey data. The interview questions were crafted after analyzing the survey data from seven AgrAbility states, in which one program represents affiliated programs, and the other six represent state projects. The interview questions (see Appendix F) focused on two pillars: (1) program planning from an ethical stance and (2)

program planning from a social-political stance. Also, I used the Targeting Outcomes of Programs (TOP) model, Sork's planning domains, and Cervero and Wilson's planning model to generate the potential questions that will align with the survey data analysis (phase one).

The three focus groups (2 participants in two states; 3 participants from the third state; 7 participants in total) were interviewed using the Zoom platform to get better insights into how evaluation approaches could be improved from people with disabilities' point of view.

Data Collection Procedures

I started collecting data from December 2021 to March 2022. The data collection procedures were passed in four phases sequentially. The four phases were (1) reviewing and approving the study by Virginia Tech Institutional Review Board (IRB), (2) recruiting the three target participant groups, (3) reaching the recruited participants and getting their approval, and (4) distributing data collection tools.

I submitted the study proposal and the data collection tools to get IRB approval in phase one. Once the IRB reviewed and approved the study (see Appendix G), I moved to the second phase: participant recruitment. I got the 16 AgrAbility directors' and coordinators' emails from the AgrAbility website. Then, I sent the first email (see Appendix H) introducing the research study to AgrAbility states; the email included the study's aim and the IRB approval letter. Also, I offered to meet with AgrAbility directors and coordinators over the Zoom platform for any additional inquiries about the study. Some states asked for a zoom meeting, and others sent their questions about the research study by email. Once I got the 16 states' approval either by email or over the Zoom meeting, I followed up with them with a second email. The second email encompasses information about the recruitment process and the script that could be used to recruit target participants (see Appendix I). The recruitment process information determines the

target participants along with their selection criteria. Also, I checked which communication mode (email or phone) works best to reach participants (planners, evaluators, and program participants with disabilities). I also asked AgrAbility's directors and coordinators to get initial approval from the three selected participants to participate in the study before I contact them in phase three directly.

When I got potential target participants' names and email addresses and got the participants' initial approval from AgrAbility's directors or coordinators, I contacted the potential participants to start phase three. I emailed planners and evaluators an informational letter and the consent form (see Appendix J). The informational letter included the study's purpose and what we needed from participants; the consent form was used as a formal document to get their approval to participate in the study. Specifically, the consent form included information for planner participants to get their approval to participate in a follow-up interview over the Zoom platform. Regarding the focus groups, two states got approval from program participants to share their contact emails with me; I sent an email to each state's participants, described the study purpose, and attached the consent forms (see Appendix K). However, one state's team suggested setting up the group meeting with participants on my behalf and suggesting one program staff presence during the interview. Thus, there was no need to contact the program participants directly and explain the study purpose; I only shared my schedule time with the program team. Then, they informed the participants and helped set up the group meeting over the Zoom platform.

Phase four consisted of three pillars; the final phase of the data collection procedures: distributing the Qualtrics online survey link via email to AgrAbility's planners and evaluators, conducting an interview with seven AgrAbility planners, and conducting focus groups with

seven AgrAbility program participants with disabilities (over the Zoom platform). When I got the initial approval from AgrAbility's planners, I sent them the survey link and its instructions using the Qualtrics online survey. The completed survey took approximately 10-15 minutes. After two weeks of distributing the survey, I sent out a reminder email regarding the survey completion deadline to those who had not started yet. Once I received survey data from at least some states that are affiliated projects and the others that represent state/national projects, I analyzed the data (using descriptive statistics) to generate the potential interview questions. Then, I sent out an email to those who agreed to be interviewed that included (1) scheduling time for the interview phase over Zoom and (2) the interview instructional information, such as its length, recording purpose, etc. The interview took 30 minutes; it was recorded for transcription purposes. I conducted the interview using the Zoom platform (with six states) to be able to engage with participants verbally and non-verbally. However, the seventh state has internet access issues, so we interviewed over the phone. The total time that planner participants spent in phase one (survey) and phase two (interview) was around 40-45 minutes. After interviewing the seven states, a thank you email was sent out electronically to acknowledge their efforts and contribution to the study. Simultaneously, I distributed the Qualtrics online survey to AgrAbility's evaluators. I sent out the survey along with its instructional information. The survey took from 20-25 minutes to be completed. A reminder email about the survey deadline was sent two weeks after the survey distribution. After collecting survey data, I sent out an acknowledgment email to thank participants for their study contribution.

Finally, I conducted three focus groups with AgrAbility participants with disabilities. The Nebraska program helped reach out to 3 participants; Texas helped reach out to 2 participants, and Colorado helped reach out to 2 participants. I interviewed seven program participants; each

state was interviewed separately. The interview took around 30-40 minutes; it was recorded for transcription. Also, I explained the interview's instructional information before starting the interview.

Data Analysis Procedures

The study generated two types of data: quantitative and qualitative. I cleaned and organized both survey data using Excel spreadsheets. Then, I analyzed and described data using descriptive statistics (frequencies and percentages); also, I used Crosstabs to describe the interactions between two categorical variables. The Statistical Package for Social Science Research (SPSS) software was used as an analysis tool. Secondly, the data generated from the open-ended questions in the surveys were analyzed using the inductive approach and presented in tables. I also organized the interview transcripts (planners and program participants' focus groups). Then, I highlighted the quotes, and ATLAS.ti software helped generate and organize codes and themes by following the inductive approach.

The inductive approach is a systematic analysis that generates concepts, themes, and models by interpreting the raw data into details (Thomas, 2006). Given that, using the inductive approach has a threefold purpose: (1) condense raw textual data into a brief, summary format, (2) establish clear links between the evaluation or research objectives and the summary findings derived from the raw data, and (3) develop a framework of the underlying structure of experiences or processes that are evident in the raw data (Thomas, 2006, p. 237). The outcomes of using the inductive approach are "themes or categories most relevant to research objectives identified" (Thomas, 2006, p.241).

The inductive analysis procedures pass by five steps sequentially to create a concept or a model that incorporates the most important categories (Thomas, 2006). The first step is called

data cleaning or preparation; this is a phase in which the researcher will ensure a standard format for the raw data and set a backup for the data. The second step is called text reading; the researcher should read in detail to become familiar with the data and grasp the meaning of the themes. The third step is called categories creation; two-level of categories will be generated in this phase. The first level is the upper-level categories which come from the study objectives.

In contrast, the second level is the lower level derived from re-reading the raw data. The fourth step is called overlapping codes; in this case, the researcher may aggregate similar codes within different categories and detach the uncoded text that is not aligned with the research objectives. The last step is called category refinement. The researcher in this phase will revise and search "subtopics, including contradictory points of view and new insights … [and] select appropriate quotations that convey the core theme or essence of a category. The categories may be combined or linked under a superordinate category when the meanings are similar." (Thomas, 2006, p. 242; Lincoln & Guba, 1985).

Trustworthiness

Trustworthiness consists of four criteria to ensure the quality of the data: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Peer debriefing was the first technique used to establish credibility. It is "the review of the data and research process by someone who is familiar with the research being explored" (Creswell & Miller, 2000, p. 129). Four committee members familiar with the research topic reviewed the research tools (survey and interview questions), the analyzed data, and the study findings. Also, I followed a triangulation technique (survey and interview) to have more evidence to ensure the quality of the interpreted data. To ensure transferability and dependability, a thick description technique was used. I explained the study context, study participants, methodology, analysis procedures, and

findings in detail. Lastly, to establish confirmability, data were reviewed by the committee members who are familiar with the research study. I also shared supporting quotes examples for each generated theme so that the reader can see both the researcher's interpretations and the essential quotations.

Assumptions

I assumed that using a mixed-method design would help me answer the research questions. I assumed that using a quantitative approach (survey) would help generalize the data. While using the qualitative approach (interview) will help get a sense of the program's ongoing underpinning domains. I assumed that AgrAbility's directors or coordinators would help in the recruitment process; they are more familiar with the program's hierarchy and each member's roles within the program system. Moreover, getting to planner and evaluator participants via online platforms (i.e., Zoom and Qualtrics online survey) will be more accessible, assuming emails and internet accessibility. Finally, I assumed that sharing the study findings, related explicitly to self-report tools' usability maximization with the AgrAbility project, will serve as an initial step towards improving self-report tools' validity for evaluation purposes. Consequently, the study findings will serve program participants in the long term.

Chapter IV

Results

This chapter is divided into two parts: results derived from (1) analyzing the planning survey and the seven AgrAbility planners' interviews, and (2) analyzing the evaluation survey and AgrAbility participants' interviews. Each part includes respondents' profiles, survey findings, and major themes from analyzing the interview transcripts and key quotations.

Program Planning: Part 1

Survey Results

Respondents Characteristics Profile

The planning survey was completed by 16 respondents who hold various positions in AgrAbility. Most respondents are program directors (43.75%). While 18.75% of respondents are program coordinators, the remaining are specialists, program managers (12.50% of each), project assistants, and an evaluation consultant (6.25%). Half of the respondents have more than ten years' experience working in AgrAbility; the others have less than ten years of experience in AgrAbility. Each position has varied responsibilities in the program planning stages. Program planning activity was the highest selected responsibility in the planning stages among all respondents with 22.05%, followed by recruiting program stakeholders (20.58%). Social, Economic, and Environmental SEE need assessment and resource allocation were selected by 11 respondents with an equal percentage in both stages (16.17%). The minor responsibilities chosen in the planning stages were the need assessment stage related to (participants' behaviors) and the need assessment stage related to (participants' Knowledge, Attitudes, Skills, and Aspirations, or KASA) at 13.23% and 11.76%, respectively (Table 1).

Table 1

Respondent's Profile (AgrAbility Planners)

Respondents Profile	Frequency	%
Position in AgrAbility		
Director	7	43.75
Coordinator	3	18.75
Specialist	2	12.50
Program manager	2	12.50
Project assistant	1	6.25
Evaluation Consultant	1	6.25
Period of working in AgrAbility	8	50
< 10 years	8	50
>10 years		
Responsibility in AgrAbility planning Stages		
Planning program activities	15	22.05
Recruiting program stakeholders	14	20.58
Need assessment (SEE* conditions)	11	16.17
Need assessment (resources allocation)	11	16.17
Need assessment (participants' behaviors)	9	13.23
Need assessment (participants' KASA**)	8	11.76

n=16

*SEE: Social, Economic, and Environmental.

**KASA: Knowledge, Attitudes, Skills, and Aspirations

Study Context Profile

Sixteen AgrAbility states were included in this study (Iowa, West Virginia, Alaska, California, Colorado, Kansas, Maine, Missouri, Nebraska, North Carolina, Pennsylvania, South Dakota, Tennessee, Texas, Virginia, and Wisconsin). Two states (Iowa and West Virginia) represent affiliated projects; states are no longer funded through USDA AgrAbility, but they still have other fund sources to provide services. The other states represent state/national projects. The survey's first question was about briefly describing the program and its purpose. Three states

built their answer based on one assistance program example they offer; however, the other states shared the overall state program purpose (see Appendix L).

All AgrAbility states' primary purpose is to support and help farmers/ranchers with disabilities via different assistance. Those assistances are modified equipment, assistive technology, on-site assessment, educational training, or referral to other service providers to start/continue farming or return to the farm worksite. Ultimately, the goal is that farmers become successful and independent in their chosen occupation. AgrAbility states differ in describing the program's focus; some states, such as Alaska, Iowa, Maine, Missouri, Nebraska, North Carolina, Pennsylvania, Tennessee, and Virginia, mentioned improving individuals' social, economic, and environmental (SEE) conditions is the core purpose. While California, Kansas, South Dakota, West Virginia, and Wisconsin mentioned it, they expanded their focus to improving other levels' (i.e., families, communities, agencies or organizations, and regions) and improving individuals' SEE conditions.

Furthermore, the 16 AgrAbility states are in different program life cycles. For example, North Carolina mentioned that the program is currently in the reconstructed phase. While Alaska, for instance, mentioned that the program is in the implementation phase. Moreover, Iowa and West Virginia states are no longer funded through AgrAbility, but they still assist people with disabilities using other fund sources.

AgrAbility Program: Program Participants with Disabilities

The most type of disabilities that are being served by all 16 AgrAbility states are arthritis, back impairments, and visual impairments (9.30% of each). The following disability types, such as spinal cord injuries/paralysis to cerebral palsy (see Table 2), were selected by most AgrAbility states with around (8%). In contrast, around 4 AgrAbility states mentioned that mental health

conditions/congenital or traumatic injury is also being served. Lastly, addiction, women's illnesses such as endometriosis, and chronic illness (i.e., diabetes) were highlighted as the minor disability types (0.58%) served by AgrAbility.

Table 2

Type of Disabilities Being Served by the 16 AgrAbility States

Type of Disability	Frequency	%
Arthritis	16	9.30
Back impairments	16	9.30
Visual impairments	16	9.30
Spinal cord injuries/paralysis	15	8.72
Brain injury	15	8.72
Disabling diseases	15	8.72
Respiratory impairments	15	8.72
Head injury	15	8.72
Hearing impairments	14	8.14
Amputations	14	8.14
Cerebral palsy	14	8.14
Mental Health conditions/ Congenital or traumatic injury	4	2.33
Addiction	1	0.58
Women illness such as endometriosis	1	0.58
Chronic illness (i.e., diabetes)	1	0.58

n=16

Another question on the survey focused on understanding the AgrAbility program's goals regarding participants with disabilities' KASA desired changes. As depicted in Table 3, changing participants' skills was highlighted by the majority (29.79%), followed by changing knowledge with 27.66%. Moreover, changing attitudes and aspirations had an equal percentage of selection (21.28%).

Table 3

The Program's Goals on Participants' KASA Desired Changes

My Program Focuses on	Frequency	%
Changing participants' Skills	14	29.79
Changing participants' Knowledge	13	27.66
Changing participants' Attitudes	10	21.28
Changing participants' Aspirations	10	21.28

n=16

AgrAbility Program: Need Assessment and Resource Allocations

When developing a program for people with disabilities, knowing what type of information needs to be considered is crucial to help identify gaps between "what is" and "what should be." Thirteen states chose social and economic information as the first two crucial pieces of information to understand the current gaps (14.77%). Also, historical information (i.e., help examine previous outreach programs and their drawbacks), educational information (i.e., help know communities' educational backgrounds and their literacy levels), and emotional information (i.e., help differentiate between local people's "wants" rather than actual "needs") were considered necessary information with 13.64%. The least three highlighted information by AgrAbility states were environmental information, geography, and infrastructure information, and political and legal structure information at 11.36% and 6.82%, respectively (see Table 4).

Table 4

Information Needs to Be Collected in The Need Assessment Phase

Type of Information	Frequency	%
Social information	13	14.77
Economic information	13	14.77
Historical information	12	13.64
Educational information	12	13.64
Emotional information	12	13.64
Environmental information	10	11.36

Geography and infrastructure information	10	11.36
Political and legal structure information	6	6.82

n=16

Each AgrAbility state varied in the methods used to assess the gaps between "what is" and "what should be" vis-à-vis the stated objectives. Respondents had an option on the survey to select all methods used to assess gaps. Direct observation (16.42%) and survey (14.93%) were the most used methods, followed by the case study method with 11.94%. More than half of AgrAbility states have selected the remaining methods that also help assess gaps (see Table 5). Also, social network analysis (4.48%) and farm family members' meetings (1.49%) were chosen as methods to help assess gaps but with less percentage.

Table 5

Methods Used to Assess the Gaps (i.e., Between "What Is" And "What Should Be" Vis-À-Vis the Stated Objectives of The AgrAbility Program

Method Used	Frequency	%
Direct observation	11	16.42
Survey	10	14.93
Case study	8	11.94
Advisory groups and task forces	7	10.45
Community meetings	6	8.96
Statistical records	6	8.96
Key informant	5	7.46
Focus groups	5	7.46
Content analysis	5	7.46
Social network analysis	3	4.48
Farm family members meeting	1	1.49

n=16

Since no one method fits all situations, I asked AgrAbility planners to share their reasons for choosing specific methods to assess the gaps (see Table 6). Some AgrAbility states selected one method, others selected more than one, and a few states selected all options on the survey. For example, who selected the survey method only, the main reasons were its low cost, friendly

use, and efficiency in aggregating changes over time. Moreover, those who selected community meetings only stated that it is a low-cost tool, similar to the survey, and efficient in strengthening networking. Furthermore, AgrAbility planners highlighted other reasons to choose specific methods when assessing gaps. For instance, it needs limited time, it fits the purpose of use, it fits shortage in staff numbers, it fits small scale participants, and it is culturally fit.

Table 6

Reasons for Choosing Methods in Gaps Assessment Via 16 AgrAbility States

Chosen Method(s) by AgrAbility States	Reasons
Survey	Low cost, User-friendly, Efficient tool to aggregate changes over the years
Direct observation, Advisory groups, and task forces, Survey	Low cost, limited time need
Direct observation; Advisory groups and task forces	Recognize farmers' needs, Look for modification solutions/ideas, and Efficient tools for small scale (participants)
Direct observation, Survey	Low cost, limited staff fit, Help identify gaps/limitations (firsthand knowledge)
Direct observation, Survey, Key informant Direct observation, Case study, Key informant, Advisory groups, task forces, Focus groups	Low cost, purpose fit Help identify gaps/limitations
Statistical records, Content analysis, Case study	Purpose fit
Content analysis, Case study, Survey, Community meetings	Help identify gaps/limitations, Understand success implementation, Outreaching use
Community meetings	Low cost, Efficient tool to strengthen networking

Table 6 Continued

Chosen Method(s) by AgrAbility States	Reasons
Statistical records, Direct observation, case study, social network analysis, Key informant, Community meetings, Focus groups	Low cost, Helps identify gaps/limitations (without making assumptions)
Statistical records, Direct observation, Case study, Content analysis, social network analysis, Survey, Community meetings, Focus groups, Family member	Purpose fit
All above processes	Low cost, culturally fit, Efficient tool to strengthen networking, Efficient tool to obtain statewide inputs

Respondents were asked to share the methods frequently used to assess two different planning program stages: assess potential participants' characteristics and assess potential participants' KASA needs. Table 7 showed that 13 AgrAbility states selected direct observation as a method used frequently to assess participants' KASA needs. In contrast, personal interview (one-on-one) was the most selected method by ten states to assess participants' characteristics; in contrast, it was the lowest selection method to assess participants' KASA needs. AgrAbility planners chose around eight methods out of 14 options on the survey with different ranges to assess participants' characteristics. The frequently selected methods in order, following the personal interview, were survey, group interview with staff (n=9 of each), focus group (n=6), farm family members meeting, partners across the state/organizations providing services in rural areas/ Extension (n=2 of each), and advisory groups, statistical records (n=1 of each).

Regarding participants' KASA need assessment, the survey method took second place (n=11), followed by a community meeting, focus group (n=7 of each), then advisory groups (n=6), case study, statistical records (n=5 of each), key informant (n=4), content analysis (n=3), social network analysis (n=2), nominal group process, and personal interviews (n=1 of each).

Looking over the most frequently used methods in both need assessments, we could see that survey (19.05%), followed by direct observation (12.38%), and focus groups (12.38%) were the highest selection over the other methods (see Table 7).

Table 7

Methods Used to Assess (1) Potential Participants' Characteristics and (2) Participants' KASA Needs

Methods Used	Frequency		%
	Participants' Characteristics	Participants' KASA	
Direct observation		13	12.38
Survey	9	11	19.05
Case study		5	4.76
Advisory groups and task forces	1	6	6.67
Community meetings		7	6.67
Statistical records	1	5	5.71
Key informant		4	3.81
Focus groups	6	7	12.38
Content analysis		3	2.86
Social network analysis		2	1.90
Nominal group process		1	0.95
Personal interviews (one-on-one)	10	1	10.48
Group interviews with staff	9		8.57
Farm family members meeting	2		1.90
Partners across the state/organizations providing services in rural areas/ Extension	2		1.90

n=16

Around 16 methods were highlighted by respondents with a different frequency to be used in three need assessments: gaps assessment, participants' characteristics assessment, and participants' KASA need assessment. Table 8 shows the frequency of using each method for the three need assessment purposes. The most highlighted methods were survey, direct observation,

and focus group at 17.44%, 13.95%, and 10.47%, respectively. The remaining methods were slightly close in percentage, approximately 4% to 8%. The less percentage (< 3%) went to social network analysis, farm family members meetings, partners across the state/organizations providing services in rural areas/Extension, and nominal group process.

Table 8

Method Used in Three Need Assessments Stages: Gaps, Participants' Characteristics, and Participants' KASA Needs

Method	Frequency	%
Survey	30	17.44
Direct observation	24	13.95
Focus groups	18	10.47
Advisory groups and task forces	14	8.14
Case study	13	7.56
Community meetings	13	7.56
Statistical records	12	6.98
Personal interviews (one-on-one)	11	6.40
Key informant	9	5.23
Group interviews with staff	9	5.23
Content analysis	8	4.65
Social network analysis	5	2.91
Farm family members meeting	3	1.74
Partners across the state/organizations providing services in rural areas/ Extension	2	1.16
Nominal group process	1	0.58

n=16

AgrAbility planners were asked to choose among five options the most challenges/constraints faced when conducting a needs assessment and assessing participants' KASA needs specifically (see Table 9). Time to conduct need assessment was the top choice in both need assessments (30.26%). Money availability was the second choice when conducting need assessment generally; however, the level of staff expertise was a second constraint to assess participants' KASA needs. Political considerations and decision-makers was the little

challenges/constraints in both need assessments (13.16%). Furthermore, four AgrAbility states mentioned additional constraints associated with conducting need assessment: data analysis, location, coordinating engagement rules with Covid precautions, and program participants' responsiveness rate. Lastly, one respondent mentioned the following constraints related to assessing participants' KASA needs: burden on the participants, response rates on evaluations, and lack of incentives to complete surveys.

Table 9

Challenges/Constraints Faced When (1) Conducting Needs Assessment, Generally, and (2) Assessing Participant's KASA Needs, Specifically

Challenges/Constraints	Frequency		%
	Need assessment	KASA Needs	
Time to conduct the need assessment	12	11	30.26
Money availability to conduct need assessment	11	8	25.00
Level of staff expertise to conduct the assessment	10	9	25.00
Political considerations and decision-makers issues to involve the community in need of identification	6	4	13.16
Others	4*	1**	6.58

n=16

* (Data analysis, Location, coordinating engagement rules in Covid time, and program participants' responsiveness).

** (Burden on the participants, Response rates on evaluations, and Lack of incentives to complete surveys)

Resource mobilization is an integral part of program planning. It leads to synergy, efficiency, and effectiveness in programs and allocating resources needed. Financial resources (26.67%) and Support from outside donors (private and public) (24.44%) were the first two constraints resources selected by the majority of respondents when preparing resource

mobilization plans (see Table 10). In addition, respondents selected capacities and skills of staff, local public and private, non-governmental organizations and institutions collaborations, and physical assets as constraints at 15.56%, 13.33%, and 11.11%, respectively. On the other hand, volunteer staff resources were considered resource mobilization constraints by three states with 6.67%. Lastly, only one state selected leadership skills and personal networks as a challenge when preparing a resource mobilization plan.

Table 10

Most Constrained (Have A Limited Amount Of) Assets/Resources When Preparing a Resource Mobilization Plan

Constraints	Frequency	%
Financial resources	12	26.67
Support from outside donors (private and public)	11	24.44
Capacities and skills of staff	7	15.56
Local public and private, non-governmental organizations and institutions collaborations	6	13.33
Physical assets (i.e., land, buildings, equipment, roads, vehicles, etc.)	5	11.11
Volunteer staff	3	6.67
Leadership skills and personal networks	1	2.22

n=16

Based on respondents' shared constrained resources when preparing a resource mobilization plan, I asked them to elaborate strategies they follow to maintain financial, staff, volunteer, etc., commitment to achieve program goals. Three strategies were the most repetitive among all respondents: program publicity, securing and supporting funds, and empowering partnerships and relationships (see Table 11). The first strategy shares the public/community

program's mission and impacts via showcasing and publications. The second strategy highlights the necessity to expand fund resources to meet communities' needs, specifically modified farm equipment and assistive technology. Lastly, empowering partnership and relationship strategy promotes diversity, inclusion, and a sense of belonging to maintain the program's accountability and success.

Table 4

AgrAbility Strategies to Maintain Financial, Staff, Volunteer, Etc., Commitment to Achieve Program Goals

Strategies	Supported Quote
Program publicity	"Getting the word out about our purpose and mission." "Collect, enter, proof, analyze, report, and publish the program results." "Provide data and case studies showing the program's impact in ag-producer and family life."
Securing and supporting funds	"More support from USDA, US and State Depts of Education, US and State Dept of Labor, US and State Dept of Economic Development or other sources. Less competition on the funding. Provide funding for all states." "We would like to develop a method for securing donations and in-kind services for farmers and ranchers with disabilities to receive funding for equipment modifications. This is critical for those not eligible or interested in working with VR."

Table 5 Continued

Strategies	Supported Quote
Empowering partnership and relationship	"Showing up consistently and limiting staff turnaround as much as possible helps strengthen commitments over the years." "Continual communication, follow-up, and buy-in from all involved." "Working as a team for the good of the program v/s working independently on narrow goals." "Recognition of volunteer, partners involvement/contributions."

AgrAbility Program Planning: Collaboration and Teamwork

I asked respondents to choose stakeholders who are the most engaged in developing and planning any assistance/services provided to their clients. As depicted in Table 12, the program staff was 37.21% who engaged in the planning process. Around 13 states mentioned that program participants are included in the planning process. In addition, external organizations (i.e., non-profit organizations, education and rehabilitation services, etc.) (27.91%), advisory council members, and Funders (4.65%) have participated in the planning process.

Table 6

Stakeholders Who Engage in Developing and Planning Any Provided Assistance/ Services.

Stakeholders	Frequency	%
Program staff	16	37.21
Participants (who will get benefits from the planning program)	13	30.23
External organizations (i.e., non-profit organizations, education and rehabilitation services, etc.)	12	27.91
Others*	2	4.65

n=16

* (Advisory council members, and Funders).

The 13 AgrAbility states who selected program participants as stakeholders in the planning process ranked "*lack of members participating in the discussion"* as a first challenge (38.89%) when engaging program participants. The second challenge with a similar percentage of 27.78% was that some participants are much more vocal than others, and participants do not quickly generate quantities of ideas. The last challenge, *"Participants have conflicts with program team members' perspectives,"* was highlighted by only one respondent (see Table 13).

Table 13

Challenges When Engaging Program Participants in Developing and Planning Any Assisted/ Services for Them

Challenges	Frequency	%
Lack of members participating in the discussion	7	38.89
Some group members are much more vocal than others	5	27.78
Participants do not quickly generate quantities of ideas	5	27.78
Participants have conflicts with program team members' perspectives	1	5.56

n=16

AgrAbility planners in the 16 states shared the most important public agencies, private organizations, and other entities that must collaborate to reach AgrAbility program goals. Around 23 organizations/ entities were mentioned. Those organizations/entities are the following: National AgrAbility Project at Purdue University, State or Regional AgrAbility Projects, Land Grant Universities, University-based research, Cooperative Extension, Vocational Rehab staff, Easterseals, Farm Bureau, Tech Act Center, Adaptive technology staff, Tool manufacturers, Centers for Independent Living, Department for Aging and Rehabilitative Services, Physical and Occupational Therapy clinics, Medical rehab entities, Federally Qualified

Health Centers, Disability organizations, Rural Health Association, Agromedicine staff, Grower organizations (coops, beef, wheat, etc.), Livestock vendors, Non-profit partner, and Public and private agencies that serve disabilities.

Interview Results

Overview of Them

Seven AgrAbility planners out of sixteen were interviewed. One state represents affiliated projects, and six states represent state/national projects. Three major themes were generated from analyzing transcripts: (1) AgrAbility program planning: Capacity-building, (2) AgrAbility program planning: Approaches promote social justice, and (3) AgrAbility program planning: Challenges influence the ongoing planning process. I described below each theme, its subthemes, and the essential quotations.

AgrAbility Program Planning: Capacity-Building

This theme focused on the competencies and resources needed for planning programs serving people with disabilities. It also highlighted the major partnership and relationships that built the AgrAbility program. In addition, this theme focused on different alternative funds to secure program accountability when funds are limited or stopped.

Competencies and Resources Needed for planning programs

The first competency frequently highlighted by interviewees is understanding and integrating farming and disability backgrounds. One interviewee mentioned that coming from a farming background contributes to earning farmers' trust. Also, the way we talk with people about their disabilities influences their trust as well:

> They know that I come from a farming background, so I already have a couple of steps ahead of everybody else because they already know me as a farmer. So, I'm credible in their eyes; I don't have to earn their trust because I'm one of them. You could have trouble earning the farmers' trust if you do not have the farmer elements upfront. So, whenever I'm talking to the farmer, I never say the word "disability" because if I do, they

> will shut down because they don't have a disability, you know, yeah, don't have a leg, but they get along just fine. There is that stigma with disability.

Another interviewee supported the same notion about the importance of having an agriculture background: “Also making sure that our staffs are present in some ways to people who are out in the community, making sure they can talk to them, they have an agricultural background, and they can speak to their communities, that's important.” Regarding having disability backgrounds, one interviewee explained that AgrAbility staff should be trained to deal with several types of disabilities:

> We had to be trained on different disabilities that affect the military veteran population, greater than in the general population. So, when you think about AgrAbility as a whole, you think, well, it’s probably mostly older farmers, people that have had accidents, you know, older male farmer stereotype. But when we get into this special population, that changes a lot in about 70% of our current clientele that we serve our military veterans with service-connected disabilities.

An interviewee also clarified that AgrAbility staff seek to promote broad perspectives of disability types, specifically for extension county agents who help reach out to farmers with disabilities:

> Because most of our county agents, when we say we work with farmers and ranchers with disabilities, think of people in wheelchairs, people with a missing leg or a missing arm or eye, or something like that. We try to get them to think of arthritis and back problems because those are the major issues in our National AgrAbility project studies: the two top priorities disabilities.

Acquiring communication skills was the second pinpointed competency by interviewees. One interviewee described the communication process that usually occurs with AgrAbility participants to understand their current situation and needs:

> We're trained to respond by following up and setting up a time to talk; we can sometimes answer the questions by email. Sometimes they're just looking for resources or something specific. But, often, with the farmers looking for assistive technology assistance, we will set up a meeting to go over their case. If appropriate, we will take it a step further, do it on a farm visit, and do an assessment, which may take one or two visits. Then we read up

> on the assessment, provide recommendations, and proceed with those applying the recommendations, which may include applying for funding.

Communication with farmers, specifically with disabilities, needs persistence and wisdom when building relationships. One interviewee mentioned that:

> If there is some hesitancy to work with us, we show them other examples. The national project had the barn builders book, which had many case studies of people with similar disabilities. So, if we have somebody else that's a producer or a farmer that we can bring along with us or visit with a person to reach out to that person with us out of the picture, sometimes that can warm them up to working with us. Also, not be discouraged because you'll hear "no" several times before they start warming up to it. And there's a balance of not being too pushy but still being persistent and being there, making contacts with them, forming those relationships; it's real relationships that help.

Another interviewee emphasized the need for persistence by clarifying how sometimes farmers with disabilities need to hear about the program more than once to be able to connect with AgrAbility staff.

> I say that somebody has to hear about the program three times before even clicking. So, the first time somebody hears about it, they say, oh, that's nice, that's great you're doing good things. And then the second time they hear about it, they'll go, " Oh yeah, I've heard about that, I have an old neighbor down the road who could benefit from your program, so it's getting closer to the Center point. And then the third time, they'll say, hey, you know what, I have been having a really hard time doing this, maybe you can help me.

Also, engaging farmers in conversation and showing them you are knowledgeable about their cases and disabilities will open and warm up the communication. One interviewee explained:

> We train whoever is going to be at the outreach table to engage in conversation and talk to them about certain very common illnesses that we see in agricultural workers and farmers, like arthritis that is very common. So, we have information on our site, and then we also have some shared resources from the national AgrAbility. We don't just give them a brochure when we pass out this information. We let them know, "Hey, there's information on arthritis; I heard it is very common in agriculture. Then they'll say, "oh, it's true! When I'm working, I have these aches and pains, or I've had to stop working because of this," so it's about getting somebody who feels comfortable talking to other people and not just passing out a brochure.

Interviewees stressed the necessity of knowing farmers' culture and lifestyle: "knowing the culture of the clients we serve and what they're comfortable with is important for people that

work with our project in which staff is trained on, how to talk to them, what just their culture, lifestyles, and habit." Another interviewee mentioned the importance of educating counselors and therapists on the nature of farming as a core vocation for farmers to maximize help and assistance for farmers and keep quitting farms as the last option:

> I remembered a farmer who got their fingers cut off; he needed to go to town to get a computer job because he couldn't drive his tractor anymore. That's not true; in our case, once the guy found us and connected with us, we connected him with a prostheses test in Denver, who took an image of the hand, which was fine, reversed it, and created two prostheses for another hand, the one that he could put on there. He could slip a crescent wrench or a screwdriver and operate on this machinery. So, the counselor needed to learn that, you know, if you lose your fingers or have other problems, it doesn't mean your farming days are over; it might mean that for a few farmers who do want to leave. The farm or ranch there it's pretty much a vocation.

One interviewee highlighted that sometimes farmers with disabilities skip some appointments or visit assessments due to other commitments. In turn, this behavior should not translate into disrespect to AgrAbility staff. Rather than it is circumstances that people could pass by, specifically who experience disabilities:

> If they don't make our appointment or call us and say, "Hey, you know I cannot have you come in today," it's perfectly fine. Even if the farmer canceled on us five or six times, it's okay; we're going to meet them where they're at; I'm not going to start thinking of a farmer or somebody who is always late because I don't know why they canceled that. Maybe they had to see their doctor, maybe somebody fell sick in their family, and they needed to help them, and that's more important than a 10-minute appointment with us because we will come at the time they need. So, we try to understand what's going on before coming to our conclusions.

To advocate for farmers with disabilities and meet their different needs based on their situations, AgrAbility staff should be aware of agencies' rules, laws, and available resources. One interviewee emphasized:

> When you are in the profession of being a public servant, you have to have a whole array of resources in your head, even if they're not your resource. Because, as you become close to these people, you build a relationship, you provide a service to them, they may open up and talk to you about other needs. That has been key for us, which has given us a pretty varied pool of farmers and different ethnicities and races.

Another interviewee articulated an example of how they sought to connect a case with different resources to meet the case's needs:

> Yesterday, I had somebody email me; he was a congressman's office; he said, I have a 90-year-old; I need a cell phone for safety reasons; what do you have for suggestions? And so, I sent it out to the contacts that I have within our state; it's called the IRIS network, which is a vision place. I sent it to VR vision of the blind and visually impaired. I sent it out to an assistive technology professional. And I have four different suggestions to send back to that person, using our little spider web of resources.

Another emphasis from the interviewee was that understanding agencies' rules and resources, specifically within the VR system, will increase cases' chances of being eligible for getting funded services:

> The other thing would be to know what resources are there. For instance, if you're working with VR, know what they do inside and out because if not, you cannot be a strong advocate for your farmer because they're going to at least here, they tell us "No" they're not eligible, "No" we can't do that. When I know they can, I have to become that strong advocate, and if I did not know what services VR provides, what the law is, and all of that, I would not be effective.

Additionally, looking up at the latest agriculture and types of disabilities trends and new research will improve farmers' current situations and provide them with the best match assistance:

> An important part of our project is always looking at what new research says and how population trends are different; we're always revamping how we do things. We kind of look at the trends; I guess the trend in our state drives what populations we try to be serving. We've recently put in a proposal for the grant to focus more on mental health, which has been very prevalent with the military veteran population we work with. We've done some training for our staff on that, just further training on mental health needs and concerns in our population stress management, incorporating like health professionals who have that experience with our project.

Another interviewee mentioned that looking for the USDA census helps identify underserved populations: "We are required through the USDA funding to make it accessible to all, and then we use demographics from our state, and we use the USDA census, to help us identify who some

of those underserved populations are." Moreover, being aware of new knowledge are essential because cases and their illness and needs may vary over time:

> Farmers' conditions change; it can change very quickly for certain illnesses by the time you're trying to work through one solution that might not even be feasible anymore. You need to jump on to the next thing because their condition is maybe more advanced.

Further resources that are essential to operate and manage program planning effectively are selecting the teamwork who will represent AgrAbility to the community and talking to farmers with disabilities:

> A key component of any successful AgrAbility project is to pick your team carefully, pick your team member, pick people who can connect well with farmers and ranchers with disabilities, preferably people with a farming background or ranching background. So they can make a quick connection with each of your people. Because you don't have much time, you get about 30 seconds to 60 seconds for somebody [farmers] that thought "well, they don't understand me-- I don't want to talk to them, or yeah, they got it --they understand me, I need to go further and let's go to the next step.

Also, case management skills are essential to track program participants' progress and ensure they are on the right track:

> We also give ourselves as case managers kind of a process and the deadline for checking in with them, which the client is always informed of whether that's monthly, quarterly, or weekly. Whatever meets their needs to ensure that they're staying on top of the progress of their case. And then, whenever they fall off the wagon, or we don't hear from them for several months, we can contact them and see if something's going on and amend those parameters we set in.

Moreover, each case needs customized assistance that best matches their needs and situations. Thus, being skilled in customizing the way of delivering services and assistance to a farmer with disabilities is the core of achieving each case's needs:

> We have changed what we produce for people; we don't just give them a report anymore. We are walking with them on that path as they go through the steps because it can be overwhelming if you say, "here you go, here's a plan for your success," and it's too overwhelming. So, we have, over the years, revised our product that goes to the farmer—the end goal changes based on the season, based on their health.

Another interviewee also emphasized the necessity of planning the service or assistance based on each case's current situation, culture, and needs:

> I'm trying to develop resources for other special populations and looking at their culture, what area they're in, what they currently have access to, or they don't have access to. So, I guess all populations are very different in needs, and we have very different program outcomes for each of those.

In addition to tracking each case, tracking the overall program progress is essential too because it will present how the program is doing based on the program's vision and goals:

> One of the big things we do is keep track of how many clients we serve and their outcomes based on the extension model of evaluation, following that logic model that USDA has from the short-term impacts the whole way out to the larger outcomes.

AgrAbility states need to ensure that program services and assistance are well used for people with disabilities to sustain the USDA grant: "We get funded because we can provide this service. If no one utilizes it, we can't justify having this project to help people." The last competency that AgrAbility staff have to acquire is thinking about planning assistance or services from a holistic approach perspective. In other words, one interviewee meant with the holistic concept to look at how the individual with a disability's body function currently, what they need to help them function well, and consider the type of their vocation to apply a suitable solution: "I like our holistic approach of occupational therapy, how the body works, what the body needs to do, and then the farming perspective; really, it's a team effort."

Partnership & Relationship with Several Entities

Each AgrAbility state collaborates with different entities to accommodate farmers with disabilities' needs. For example, Vocational Rehabilitation Services (VR) is an important partnership that assists with assistive technology funds was highlighted by all interviewees:

> Our AgrAbility comes in to be able to help them [farmers] by having a good relationship with VR. Our AgrAbility team, under my leadership, created a strategic plan about how

> we were going to build a relationship with VR and write a really good plan that counselors and supervisors would fund. Then you will be addressing farmers' needs.

Collaborating with land grant universities, agriculture extension, Independent Living Center, and Easterseals (a nonprofit organization providing disability services) are also significant partnerships. These partnerships help AgrAbility to support farmers with disabilities and reflect the diversity of agriculture needs and the disability community as well:

> That's important here, where we have more than one land grant university. We are representing our agricultural communities with that kind of diversity. I think it's also really important that there are advisory groups. Our partners reflect the diversity of agriculture needs and the disability community and are at the table, making decisions. And that's what we try and work with a center for Independent Living and Vocational rehabilitation Services. We work with nurses; we work with a variety of partners, bridging the agriculture and the disability communities together.

One interviewee explained how partnering with extension agents helped reach out to farmers with disabilities and promoting AgrAbility services to them, specifically when AgrAbility launched at the beginning when no one was aware of it:

> We started doing winter workshops here in the state in December, January, and February that farmers and ranchers could come to an education workshop. We work with our extension agents to schedule; this year, we have seven winter workshops all across the state. So, we go to them; they won't drive more than 60, sometimes 70 or 80 miles, to come to a workshop. So, if they were all to come here, where the land grant university is, some would have to drive six to seven hours each way to get here, and that's asking too much; they won't do it, particularly in the wintertime. We have seven workshops scheduled all over the state, where we have workshops with the county agents. Those were initially our best ways of getting participants because by working with the county agent, they know who can use AgrAbility.

Also, the benefit of collaboration with Easterseals (a nonprofit organization providing disability services) was highlighted by another interviewee:

> Also, Easterseals is part of our team, which has contacts with other disability serving organizations, so that's another route. The more we tell people in all of our conversations about AgrAbility, the help attract clients to us. So, networking is a big part of it with other disability-serving organizations.

Another interviewee described the program partnership structures which help serve farmers with disabilities from a holistic approach lens:

> Our program is structured differently; our program is the university, cooperative extension, the independent Living Center, and three independent contractors. So, extension brings to agriculture, and our nonprofit brings independent living. And then, our three contractors: one's a farmer, and she has her own home modification business. one is an occupational therapy assistant, who has her own business. She does assistive technology assessments and contracts with the Department of Labor already. And then our last one is a retired military veteran who was a farmer and is a female. It is a holistic approach to working with each client, and it's all about networking and what each person brings.

Some AgrAbility states have a partnership with occupational therapy and universities. In addition, they offer internship opportunities to students who are occupational therapists to co-create the services together. One interviewee said:

> Another thing that we've done recently that's resulted in referrals from the medical field because we started to present at an occupational therapy class every semester. It started like they were looking for people to present on assistive technology in the workplace. They googled and found our project; the university invited us to present. We've built that relationship, and so we present about 40 students each time we do that. They come from all over the country to this school for occupational therapy; some of them become occupational therapy doctorates. So, they'll go back out to maybe rural or urban. Still, we get to see a lot more referrals. We also get student internships who are occupational therapists to help us with some of our goals for our project because of the collaboration we've had with that occupational therapy class.

Another AgrAbility state interviewee who also focuses on co-elevating students' partnership said:

> We also work with students, so we provide a one-week experience for them to learn about our program, and then we offer a 12-week experience, where they are working with clients with us, and they produce an end product. They are occupational therapy students; they have to be masters, mostly master levels. We've only had two, and they both are interested in production agriculture. One was raised on a dairy farm, and the other had horses growing up, so they had to be interested in agriculture to do the field work experience.

One partnership advantage explained by one interviewee was health organizations' partnership in which they can refer AgrAbility services to the patients with disabilities who need assistance on their farm vocations:

> We tackle some of the public health campaigns. So, if there are health fair events, we don't just sit at our table, go around, and network with the other organizations there. Because of the different organizations, they are perhaps serving different populations. Those organizations are providing direct services to some of these rural populations. They can remember, "Oh, I remember meeting this [AgrAbility] that has this kind of service; perhaps they would be a match." And often, we [AgrAbility] get a callback, not necessarily from the farmer, but the organization's representative. And they'll say, "Hey, I met this person [farmers]; I think this person can benefit from AgrAbility services" because they [health organizations] are already trying to help them [farmers].

One interviewee stressed that having a solid bond relationship contributes to raising funds, in turn, improves assistance accountability even when AgrAbility's actual grant fund stopped:

> They still come to me [farmers]; even agencies that know we don't have funding now call just because I can't physically come out to them. I still have the network and the connections and know where to help. If the farmer needs money to buy something, I can figure out places where raise money. So, even agencies that know we have no funds still call me. I still get farmers that call me.

Another interviewee supported the preceding notion and articulated how strong building relationships with organizations in some events helped in Covid time AgrAbility to still have referral clients from those networking even when in-person outreaching has stopped:

> For instance, now that we had a covid happen, the networking that we had done before with other organizations continues to bring in some of the clients because they already know us, they've seen us on multiple events, so they understand what we do. Whereas a lot of the outreach has stopped, we cannot be out there as much as we used to, so they're still referring to the previous clients.

The last partnership highlighted was collaboration on a national level in which strengthening the AgrAbility program states' resources and services to increase services accessibility by farmers with disabilities:

> On a national level, you know, each State has its thing. Here, we're working with fishermen and farmers; they're working with fishermen in the other two states. We

> shouldn't be operating in a vacuum; we shouldn't be operating in a silo; we should collaborate and develop publications or outreach efforts that can be applied in those three states or wherever there's the fishing industry. So, we're collaborating to create this database of factsheets so that anybody anywhere can go onto the national AgrAbility website, and if there's a fact sheet, it'll pop up. So, you don't have to go State to State to look for that resource, or you don't have to know who to ask, just trying to make the information more accessible that way.

Securing Alternative Funds

Vocational Rehabilitation services are the primary federal funds that could assist farmers with disabilities with assistive technology: “The VR here are the ones who have the federal funding to be able to buy the assistive technology if they can be persuaded that by helping this particular farmer, they will be successful on the farm as a business” Another interviewee confirmed that VR is the first funding source that AgrAbility starts to work with to assist the farmer with disabilities:

> We refer a lot to VR, so we have an actual system approved through the state, where we have internal forms that we can fill out and refer our clients who need assistance with assistive technology and modifications for their farm or ranch. We do a lot of referrals to them formally. So, if we have an individual with a disability that comes to us, we feel like they would be a good candidate for VR. They need funding; they may not have a lot of financing options to fund equipment that we have to work through the vocational rehab system.

In addition, VR could assist with a budget fund for farm assessment visits so AgrAbility could conduct farm assessment visits, especially in remote areas of the state. One interviewee said:

> Our project has a big state, so we don't have a travel budget to go to areas that would be like a 15-hour drive from where I am. And so, it's not economical for us to do an onsite assessment for every individual who might be interested in what AgrAbility can provide. So, we have to think about selecting individuals who are good candidates for an actual set onsite assessment because we can't justify visiting every farm in the State. We coordinate that with VR, which has some funding available a lot of times for assistive technology. Plus, we have a contract with them where they can pay us to conduct the farm assessment and make the recommendation report. That becomes a sustainability plan for us when they pay for our service as doing those farm assessments.

Two interviewees highlighted that farmers with disabilities usually do not want to take out a loan to buy modified equipment. Also, they cannot afford to get a loan due to the heavy expenses: "Many of our farmers are struggling to pay their taxes, so if you're talking about a $10,000 modification to a piece of equipment, it isn't happening. They'll have to put the roof on their barn or pay their taxes." Another emphasis was:

> Sometimes, we've gotten approval from the USDA farm service agency that individuals can utilize their low-interest farm loans for assistive technology and tractor modifications and things like that. Still, the clients don't always want to take out a loan, and so you really decrease the options that they have for funding, equipment, or modifications, and so they're like, oh well, I thought you could help me, you can't pay, you know, you can't help me get this stuff.

AgrAbility states use different approaches to seek alternative funds if the program grant fund stops or is limited: "Our funding doesn't go up as quickly as our expenses. So as with everything else. We could do more with more money, but we worked with what we have." An interviewee emphasized fundraising as an alternative approach to keep assisting farmers with disabilities with modified farm equipment after the program grant fund stopped:

> Where USDA always says what will happen if the funds go away, and every state is supposed to come up with a plan. Here, we're not rich, so finding other monies just is, you know, very rich in ingenuity. If I have a farmer, I will do this all the time; if I have somebody who needs something and can't find the funding, I have our local volunteer fire departments that use spaghetti dinners to raise money. We have the 4-H and FFA clubs that are willing to jump in and help and do fundraisers or whatever, so we use a lot of ingenuity to come up with how to meet some of those deficits.

In addition, an interviewee from a national/state project also stressed fundraising and partnering with other organizations so they still can support farmers with assistive technology:

> We can't afford assistive technologies; they cannot be purchased with grant funding. So, we have to use outside resources. That is a limitation of the grant program at the USDA level. But we are encouraged by USDA and NIFA to create opportunities. We have an assistive technology fund that we set up through Easterseals, and people could donate to that, so we do fundraise.

Also, sponsors' support is another way to sustain funds: “we cannot provide money directly for farmers to help implement recommendations. So, sustainability is one of the directives, but how can we create a sustainable program? So we are trying to get sponsors to create some path to sustainability.” One interviewee explained an example of how outside fund sources helped farmers with a disability to get funds and purchase farm equipment:

> It depends on the case; it can be different every single time. Sometimes yes, the farmer can buy their equipment, that's fine; sometimes, different resources, they have the grant to update some of those things, they have the grant to update some of the tractors. We've had a farmer who could get the grant for over 75% of the tractor, but the one he already had could not be retrofitted; it was not safe to add the steps he needed. So, he needed to buy a new one through that grant, and he was able to pay for 75% of it.

Sometimes, not all cases need high-tech devices to perform their work. One interviewee shared how AgrAbility tried to incorporate some economic farm tools via the Tech Act project that they are associated with to assist farmers with some economic farm tools.

> We serve a lot of smaller farmers, and many of them oftentimes will not have the funding. We can say, look, there's this economic tool that might help. So, every state has a Tech Act project that helps to bring assistive devices to people with disabilities, but when I looked into the device lending library that they had, there was nothing related to farming. So, what we did was we started to incorporate some tools for farming. Because we needed to bridge the gap in farming equipment, it might be too hard for people to loan up. We started with garden equipment because that was a good transition; some people are starting to garden, and had those tools would be available in good for the population that the program is already serving. When I first started working with AgrAbility, I realized that it was worthless to say there's this that can help you, if there was no way for them to access it

The last shared securing fund idea suggested a return-investment evaluation on assistive technology purchases. It will prove how much money we are putting into the program and how much money these farmers are making using this assistive technology that they wouldn't have made if they did not have it. In turn, it helps sustain funds:

> We want to do a little more research on the return on investment, so how much money are we putting into the program, and how much money are these producers making that they wouldn't have made on the other end of it. So, we do that for VR, so VR buys a

> piece of technology, we try to tell them, well, if you buy them this piece of technology, it will allow them to make this much money, which in turn means they're paying this much in taxes, so it comes back to the State. So, you know, looking at those return-on-investment tools, I think it would be something that we could do more of right now. The quality-of-life survey helps us measure each individual we serve and how they've progressed with it. Still, it really to prove our effectiveness, especially to our funding partners, having that return on investment.

AgrAbility Program Planning: Approaches Promote Social Justice

This theme presented two significant approaches that could contribute to promoting social justice. The first approach, outreaching approaches, focused on targeting different outreach venues to reach various populations (i.e., overlooked and underserved people), farming size, type of disabilities, culture, etc. The second approach was about engaging people with disabilities in the ongoing planning process (i.e., engaging people with disabilities' voices, needs, interests, knowledge, etc.).

Outreaching Approaches

Interviewees shared various approaches to ensure farmers with disabilities' voices, needs, and interests are met. Using the outreaching methods such as telephone, internet, survey, etc. that fit farmers' skills and literacy are essential:

> It happens in various ways, depending upon the skills and tools that a particular farmer or rancher has and uses. Sometimes, they use the telephone, so sometimes, one of our team members will be talking with them over the telephone to line things up. Sometimes it'll be like over zoom, if they have broadband and if they know how to use it, etc. So, it can be different ways, we also send our quality-of-life survey, so there's the US post office mailing.

Another interviewee said the importance of considering different target populations' languages and cultures when offering information about AgrAbility services:

> Here, several service provider groups already target audiences who are Americans or migrant workers. I think women fall under that also, so our perspective is what we can do to support those audiences. So, we've done health cards translated from English into Somali Bantu, or French Creole, offering that extra step of access to making it readily available.

Farmers with disabilities could know about program services and resources through websites and brochures: “We have general contact information. Then we have our specific names and numbers on the website and our brochure so that anyone can call any of us.” Another interviewee added to those approaches, extension county agent offices where AgrAbility printed materials could be distributed there and help expand networking with farmers with disabilities: “We are with Cooperative Extension, and we have 16 counties. We have an Extension person in each office, we have material available in each of those county offices, and we try to educate those providers about AgrAbility.” Also, webinars are one outreaching approach to large-scale audiences. “So, we stopped doing in-person programming, and we offered recorded webinars so that people could look at it at their own pace.” Furthermore, the interviewee who represents the affiliated AgrAbility project mentioned that even outreach starts reducing due to limited resources and staff, phone calls and live chats are approaches to doing outreaching stuff.

> It is very limited at this point because I am the one that did that. I still have access to all of the information, so if we get a farmer that needs assistance, I literally talk to them a lot on the phone or live video where they're having problems and send it to me. And then, I try to figure out and make recommendations. If I know of other agencies in the state that I think will be able to help them, I make sure that I hook them up with whatever other agencies are out there. It downscaled a lot of what we used to do.

To ensure reaching out to different populations with different cultures, ethnicities, and races, one interviewee mentioned hitting different channels of outreach in different kinds of events:

> Even before we start to plan a service for somebody, I mean somebody who we're going to provide a service, or in mind. So, what we do is that we vary our outreach, so we have different channels of outreach, and we do outreach in different kinds of events. We target different populations, especially because it's very dependent on where you go. There are a lot of ethnicities; there are a lot of races; there are a lot of different cultures. So, when we get people into our program, we're trying to get as many people as possible from different backgrounds, from big farming operations to small farming operations to niche operations.

Considering farmers with disabilities' family members (called caregivers) as a source of networking with a farmer with disabilities is essential to reach out to them:

> We are working with their [farmers] caregivers, so if it's an older person, oftentimes, their spouse and working through their spouse helps us. If it's a younger client, and we have a few of those here, some that had birth defects led to them wanting to work on their parent's farm, but they couldn't because of those limitations from their birth defects. When adapting that case, we're working with their parents. So, normally, there's somebody else that I can think of in most cases. It's not just directly working with the person with a disability; it's working with either their parents or spouse. Sometimes have another family member; it could be a brother or a sister trying to seek assistance.

The same notion was supported by another interviewee in which caregivers are a great resource to convince farmers with disabilities to reach out to AgrAbility services:

> Some of our outreach methods are hitting the spouses or the caregivers or the wives or the partners on the farm, so by reaching out to garden clubs or different groups where you may find the spouses. Then they can be nagging to say [to farmers with disabilities]: hey, talk to AgrAbility.

Also, one interviewee mentioned that the AgrAbility team tries to involve all stakeholders related to farmers with disabilities in the outreaching process:

> What I advise our team to do is every time they go out to the onsite visit that they think systemically and invite all the major stakeholders, anybody over 14 years old, who is involved with that farm. It might be a grandmother who owns the land or a grandfather who owns the land.

Another outreaching approach is having some representative in AgrAbility teamwork who could help reach out to specific populations and to present their needs as well to the AgrAbility program:

> We have the veteran's voice covered by one of our staff members, the veteran coordinator at a small farm outreach program. One of our staff members is an extension agent who works with dairy farmers who've been hired and largely hit by the farm stress and mental health concerns. So, we want to make sure we have a variety of different farmers but different farms in different contexts covered as much as we can.

One interviewee mentioned that AgrAbility does outreach for service providers where they educate them about disability terminology and disability services available in the state. Through those service providers, AgrAbility could reach out to a wide range of populations:

> We do outreach to service providers. There are two different groups of the service provider. There are the agricultural service providers and what we do is educate them about disabilities and barriers to help them better understand the terminology. So, we are educating them about disabilities and disability service providers that are available. And then the other service providers are the disability service providers and have them better understand farm culture. So, we are explaining the farm culture and the value of the farm culture.

Another outreaching could occur through events, workshops, or organizations' referrals: "we have a rehab hospital that will reach out to us and say "hey, we have somebody we think you could help, so those types of things, help us reach out to that group [farmers with disabilities]." Also, more referrals could occur through having connections with VR counselors:

> The more we work and collaborate with other organizations like vocational rehab counselors and the word gets out about the types of services we can provide people; we will see more referrals in that area. If we have a workshop in a certain area and organizations there at the workshop, they learn about what we do, or we go to an event there, we will typically see a lot more referrals in that area.

Engagement Approaches

Interviewees shared five practical approaches to engaging farmers with disabilities in the planning process. The first approach was transparency with farmers in planning processes regarding fund availability and its use. Three interviewees confirmed that they make sure to let farmers know upfront what AgrAbility can assist with and what they cannot assist with, specifically purchasing assistive technology:

> We strictly explained we're not here to prescribe you something, and it will work. So, what we do is we tell them [farmers], here we are these, these are the resources that we can provide, we can show them a lot of different devices, we cannot purchase the devices, but different organizations might be able to help. We flat out at the beginning explained to them what it would look like.

Another emphasis was that assistive technology or modified equipment needs to be purchased by grant or loans, so AgrAbility clarifies to their clients from the beginning that there will be some processes that need to walkthrough:

> We make sure they know up front that we can't purchase equipment that will try to connect them with resources; you can, but if it's grants or loans, they'll likely require a business plan, and there are some things that the client is going to be responsible for in that process. But keeping them accountable for that is always a good case management decision on our part.

A representative from the affiliated AgrAbility project also shared that letting farmers know the financial situation and how it will work is critical, specifically in a situation where the USDA grant is stopped:

> They know I'm very open with them. I just had a farmer who needed a modification for his tractor, and I explained to him that we don't have the money right now, but I said, I have some contacts; I know some people who design and fabricate things. So, I gave him a design; he had his friends, and he could build what he needed himself through his farm. He just needed somebody to give him an idea and show him what he could do, and then he could take it and go from there.

The second engagement approach articulated by interviewees was expanding AgrAbility assistance to various disabilities. One interviewee mentioned that most funds usually go to assist physical disabilities. Still, they plan to dedicate part of the future fund to assist other types of disabilities (i.e., psychological issues) such as high-stress anger, depression, or suicidal thinking:

> Initially, we did not deal with any psychological issues; we just referred people. We only dealt with the physical; it's only through additional funding. Now, we are expanding our AgrAbility project. If we get funded in this new cycle and review, we will use that $183,000 to focus primarily on the physical issues. Still, we will see then where there is high-stress anger, depression, or suicidal thinking; we will involve them with some of our new behavioral health therapists that we're hiring to expand AgrAbility.

Other types of disabilities considered by AgrAbility are Parkinson's disease and arthritis. One interviewee highlighted that when AgrAbility started, it focused on physical limitations. Still, in

the recent ten years, AgrAbility shifted focus to other disabilities that are not obvious and could be helped by AgrAbility:

> AgrAbility started with assistive technology “how do we adapt equipment to help farmers that have mobility impairments” is where it started. Ten years ago, it was more for all types of disabilities, including potentially stress-related or mental and those types of things. Some of those diseases that aren't as obvious as required, you know, if somebody loses a limb or has paralysis, they think, oh yeah, AgrAbility is for me. The ones like Parkinson’s disease or arthritis sometimes don't always get those as being seen as something AgrAbility will serve, so we try to market more to those groups.

AgrAbility states sought to engage different populations based on the state size, culture, etc. interviewees stressed that they sought to make AgrAbility accessible to different target populations; this was the third engagement approach. One interviewee said AgrAbility sought to research the overlooked populations, specifically veteran and Hispanic populations:

> One of the big things that we started with was the veteran military “veteran population.” We looked at our state, and there's a large military veteran population. So, we had developed some specific resources and programs for them to get into agriculture, knowing that they had a higher rate of disability and service-connected disability than the general population. We also serve some migrants in the Hispanic farmworker populations, so make sure those aren't overlooked. From research we've done, we know there's a very large population, but it doesn't seem like there are very many resources to help them.

AgrAbility states sometimes need to reach out to some people who educate them on approaching specific population cultures. Native American populations were highlighted by two interviewees where they need specific engagement approaches:

> We are currently trying to reach out to the Native American population, but there's a lot of education about being culturally appropriate when approaching those audiences. So, we are trying to find connections within those groups to educate us and determine their needs based on what's coming out of that culture.

Another interviewee also shared that AgrAbility targets Hispanic and Native American populations too:

> We reach out to other communities through farm shows and other projects. We do have a fairly large Hispanic community, but oftentimes they're working for other people; they're

> not the ones that own farm “ownership” the minority part of it is small. So, we try, you know, and that those owners go to the same farm shows that we mark it out, and you know, we don't exclude anybody for any reasons. We have been reaching out more to our native American communities.

One interviewee explained that AgrAbility doesn’t determine specific populations to serve, but they do different outreach to reach all different populations in the state:

> When it comes to the farmers ready for services, it doesn't matter if it's a female or male, different ethnicities; it is whatever comes through our referrals. But we try to do outreach in different venues. The reality is that the farmers that attend the small farm's Conference are very different than the farmers that are going to attend the Latino farmer Conference, is very different than the farmers that are going to attend the Hmong farmers Conference, are very different than the farmers that are going to attend the Eco farm Conference, are very different than the farmers that are going to attend a women's farming conference. So, we try to mix it up when we're doing our outreach.

The fourth approach was associated with using various communication methods to help engage farmers with disabilities in the planning process. One interviewee explained that AgrAbility uses visual demonstrations with farmers with disabilities to help them understand what modified equipment should look like:

> Whenever we were out there, I would not only talk about AgrAbility. I also had a resource library of assistive technology that I would take with me and demonstrate. Many people couldn't wrap their heads around how a person with a disability could still farm. I provided visuals using some assistive technologies, and then I could take them with me and demonstrate.

Another way of communication is via translating AgrAbility materials into other languages to involve farmers with disability in the process: “Through some of our other projects here that we interact and network with; we have some services that we can provide like safety and health materials in Spanish in those type of things.” Additional communication approach was through customizing delivered information to somebody with a traumatic brain injury or post-traumatic stress disorder to involve them in the process:

> We had to modify the way our materials were printed and how we did case management. We sent a list of many tasks for the individual to follow up on each month, but for

> somebody with a traumatic brain injury or post-traumatic stress disorder, that could be very overwhelming. So, we are chopping those down into smaller tasks; this is the way we present the information to them. Ask the options that we give them for checking in with us, if a phone call is better than an email, you know, letting them have some of the freedom to do what's best for them based on their disability and needs.

The last highlighted approaches were related to engaging farmers with disabilities' voices and needs in the planning process. Each state has its strategy to include farmers in the planning process with different engagement levels. For example, one interviewee mentioned that farmers' voices are involved in the planning process and different key stakeholders: "We had extension agents, multiple teams, people who were not staff in AgrAbility, but AgrAbility staff included. We worked with the farmer veteran coalition; we had farmers involved. So, it was multi-stakeholder." Another engagement is through giving farmers a chance to share their solutions with AgrAbility, and both works together:

> They know they'll have to figure things out independently, but they're heads against the wall. So, I'm there as they call me to figure out if there is anything they are not trying, is there anything they are not seeing. I've worked in the disability field for over 40 years, so I have a lot of contacts and can give them a lot of insights that they may not have thought about.

One interviewee raised the cultural humility approach as a way of engaging farmers' voices and needs:

> We practice cultural humility; we understand that we are by no far and by no means an expert in their lives; they [farmers] are the experts. We are open to hearing what they say, so we let them do a lot of the talking. We experienced some of their work because I need to understand how hard they're doing. So, maintaining ourselves very open to what they have to say and understanding that it is our responsibility to become part of the team is also very important. It's not just us going out there on the farm; we were out there to represent a program. There is a lot of talking back and forth that can happen.

An interviewee described the preliminary process of understanding farmers' situations and engaging farmers' needs in the process:

> We take some preliminary information from them (name, their farm, a bit of their disability) and the quality-of-life survey. So, we get a picture of what their disability is,

> what their current situation is. Also, we check if they are either in agriculture or planning to get into agriculture because those are requirements to be established as a client. Then we ask them what their goals are, what they want and need, and then we start making a plan for concrete deadlines. It's not always focused on what our goals are for them; it's more about what they're looking for from us.

In contrast, one interviewee shared that AgrAbility hears from clients about their needs, but it's filtered through the staff to take many data points and figure out what assistance could be to address that.

> We don't exist in a bubble, so each of the staff, like one of them is a veteran farmer, all bring our perspective of being able to identify with that audience. I would say "No," it's not just the program staff, but we don't also run it out to the wider audience. You know, how do we address this? We try to run it through the staff and our advisory council regarding what's appropriate and what we can provide. So, the farmer group may say we want X, Y, and Z, and we can't provide that, so we don't even put that on the menu to offer. So, a wider input, in the beginning, look for suggestions for training or to plan something, and then, a smaller group people with perspective, but within our staff to develop the training.

AgrAbility Program Planning: Challenges Influence the Ongoing Planning Process

The last theme explained challenges that influence the ongoing planning process. Challenge was associated with several factors, explicitly dealing with farmers with disabilities and financial issues. The interviewees raised seven main challenges that influence the ongoing planning process. The first challenge associated with planning programs is related to time issues. One interviewee mentioned that gathering all stakeholders, including farmers with disabilities, in planning programs is always a time issue:

> Probably more of a timing issue since everyone's so busy. Farmers were willing to share, we had relationships, so it was not a challenge to make decisions or how much money we needed to spend on what kind of activities. Putting all the people together is always a time issue.

Moreover, the time issue was highlighted by another interview in terms that farmers with disabilities have a busy schedule day, so they sometimes step away from talking with AgrAbility because they do not want to stop working to take time away:

> One of the big challenges is that if they're still working to some extent, they don't want to stop working to take time away, you know, from what doing to step away from that to talk to us or do other things. They feel like they're too busy, even though talking to us would probably help them do their job safer and easier, but they've got a routine already. They maybe don't see that they could use our help or don't see the benefit of it, so there are lots of little challenges along the way.

The second challenge is the shortage of AgrAbility staff members, which influences their abilities to receive many cases that need help, doing on-site assessments, etc.: “It's a small program, I counted on my hand, so there's seven of us across the whole state, and I’m the only one who's a full time, everybody else is part-time like three hours a week, three hours of months.” Another interviewee mentioned the many cases that they usually manage at one time:

> We work with more than 30 cases at one time, so we're always working on them. These cases also don't just stop; they can be ongoing people come back to us for additional needs. So, it's not like one five minutes, and we're done, like no, we're usually working with people for months at a time.

Also, another emphasis was said on-time issues and sometimes having a backlog of cases to visit because AgrAbility doesn't have enough people in time to go out:

> So, we often don't have more people [farmers] than we can help. We can serve just about everybody that comes through our door and say, " Hey, we'd like help with this, "to recommend what would help them. Sometimes, we have a backlog of cases to visit just because we don't have enough people in time to go out and visit everybody, so it goes back to that money and time limitation, but most of the time, we can; it's just, we can only take it so far.

The same interviewee also explained that sometimes the shortage of staff members could minimize AgrAbility outreaching because they don’t want to keep a lot of clients on a waiting list:

> If we had more people that could dedicate themselves to the marketing side. As I said, we are busy sometimes with clients and have a little bit of a list to work on, but if we have more people to put on the task, we could have more business. We advertise some, but we will get more clients than we know we want to do if we advertise too much. So, we try to keep a balance of how many clients we have on the list to work with and how many people we have that can do stuff with them; we don't want to discourage people by getting them on the list than having them to sit for a long time.

The third highlighted challenges among the majority of interviewee were farmers' disability stigma. Farmers with disabilities may not see losing one member of their body as a disability, so they understand disability differently from others. One interviewee said: "Whenever we're talking about AgrAbility, it's specifically dealing with the disability. Most farmers, they don't understand disability. If I tell them they have a disability, they like, "oh, no I don't, I just lost my leg that's not a disability." Another interviewee also highlighted that sometimes people with disabilities could see others more in need of AgrAbility assistance over them, so they do not ask for help:

> We see that a lot with our military veterans, where they may have a disability and, you know, maybe they have a traumatic brain injury, but they have a friend, a battle buddy that had a double amputation. So, they say well, you know, yeah, this bothers me a little bit with my daily tasks, but it's not something that I need a lot of help with like there's a lot of people worse than me I don't want to take this from somebody else. And so we have to remind them that they're not taking any services or assistance away from anyone else by utilizing us.

Sometimes, farmers' families don't want them to gain second injuries on farms due to their disability. One interviewee explained a situation when the farmer's wife did not want AgrAbility to come to her husband's farm because she was afraid of exposing him to second injuries:

> Our team dealt with a couple; they mainly dealt with the man they would make the client and forgot to involve her wife in the onsite visit. So, for the next month, every time they made a telephone call, she would answer and say he was not here. Finally, after six months, they got him and said we've been trying to reach you. He says, oh, I bet you've been getting my wife; she doesn't want me to participate in AgrAbility; she didn't want me to get on a tractor again because she is afraid I'm hurting myself. She wants us to sell everything and move off the farm. Our team failed to get her involved as a major

> stakeholder in the initial visit. And if we don't involve all the major stakeholders, somebody may sabotage the results.

In addition to the disability stigma issue, farmers are sometimes not ready to receive AgrAbility assistance or services; they do not ask for help: “This is a population of very independent people. They are never until this point in their life that they have to ask anybody for help. They can plow an entire field; they can do everything by themselves.” Sometimes, farmers with disabilities may ask for help when they've exhausted all of their other resources for help:

> I feel like the population we work with, farmers and ranchers, don't like to ask for help. So, when they don't have any other option or exhausted all of their other, you know, the resources that they can think of, they've got neighbors to help, spouses and kids, and like I cannot keep up with this, and so that puts us in a position where they have to continue their farm.

A third interviewee highlighted both issues: disability stigma and farmers never asking for help. The interviewee explained that when a farmer with a disability does not recognize their disability, they will not seek help outside:

> I have found that people don't generally willingly admit they have a disability if it's not obvious. Then there's a certain mentality or culture with farmers where they're going to get it done despite anything else, so they're not going to consider themselves as being, you know, having a barrier. So, they don't readily or easily recognize that they need help. And I would say, you know, that could be a male thing, but I think it's a personal thing; I mean, as a male who doesn't like to ask for help, I don't know if it's gender-specific. So, many people do not self-report; they do not say, hey, I’d like to become a client.

One interviewee shared a story of how farmer with disabilities is reluctant to ask for help:

> I got a call from a guy, and I said, you know, your name sure sounds familiar. Have you and I met before? He says, " Yeah, I came to one of your workshops ten years ago, I didn't need you then, but I need you now.” He had lots of troubles by then; It would have been a lot easier if he had contacted us 2, 3, 4, or 5, 10 years earlier, but he was reluctant. They said we don't need any handouts, don't want government involvement in my life, and don't need any. On the part of some of our people, there's quite a bit of reluctance to ask for help or think they need help.

The fourth challenge is understanding farm culture and reaching out to them. One interviewee emphasized:

> There are many cultural issues that put up barriers to asking for help from other cultures, and those types of things and how that works. Many of those cultures, especially the Native American ones, help each other very well, so they oftentimes don't seem they see us as a government program. So, they don't seek help from a government program; they seek help from within their community, so they do a good job of helping each other out like that, but we keep trying to reach out to those communities.

The fifth challenge is associated with the program accountability issue. When the program is launched, getting many cases at the beginning could be problematic because people are unaware. In turn, it may decrease the use of USDA funds, and AgrAbility may not be able to approve the impact of such a program, and the fund might stop:

Lastly, a couple of interviewees mentioned that the process of working with VR systems and other agencies is a little bit complicated; a farmer with disabilities also usually confused and gets overwhelmed with documentation and paperwork:

> The vocational rehab system is not a very easy system to work through. It takes a long time. Sometimes, VR asks for information the client is unwilling to give them, like financial information, income, and medical histories. So, we get some hesitancy on the client working with vocational rehab, even to do an intake with them and see if they would be eligible.

Another interviewee highlighted an issue with the length of the process with the VR system and how it takes time to get farmers with disabilities modified farm equipment:

> It's a lot of times out of our control when it gets to the point where we've made recommendations to vocational rehab for funding, and they just kind of sit on it, and it doesn't seem to be going anywhere, and it may be years and farmers still waiting on their equipment. So, it is a big barrier for us, you know, we don't want the impression of the client to be that this organization doesn't provide what they say they will, even though we don't have any control over whether VR will fund equipment or not, so that's a big hurdle.

Being an advocate for farmers with disabilities is vital to help them get through the complicated process with other agencies; one interviewee said:

> I need to know or whoever's working with that person needs to know what they're going to do or what agency provide and then be able to advocate on your farmer's behalf. I hate to say this, but most of the time, when I send a farmer to some agencies, they come out so totally confused; I feel like it's almost these agencies' jobs to like to confuse our farmers.

> Now, there are a few; it depends on the worker; there are a few that are very good, but for the most part, I found that it's very difficult for our farmers because, first of all, they don't want to ask for help, and second of all they're not used to having to jump through 1000 loops to be able to get what they need.

The financial issue, the last shared challenge, was stressed many times by the interviewees. Funding assistive technology and modified farm equipment, specifically for those in some AgrAbility states where modified equipment is the central assistance for farmers with disabilities, was a significant barrier:

> Whenever I'm talking about our farmers here, the modifications are the biggest thing, whether the extra step on the tractor, backup camera, or a utility vehicle to get out around the field because they have mobility issues. So, the biggest thing that I can see is if there's a funding source out there someplace that will specialize in grants, specifically for farmers to make those modifications because if they have this modification, they're going to continue farming. Without those modifications, we're losing farmers

Another interviewee mentioned that buying assistive technology for farmers with disabilities is prioritized based on the VR list in which they serve cases based on their severe disabilities. Also, the interviewee mentioned that it might decrease the chances for some disabilities to get funded because they do not place at the beginning of the VR list:

> The big limitation of who gets served and who doesn't depend on the funding available to them either for the services or the stuff they need to adapt their work environment for whatever their disability may be, so that goes back to like VOC rehab. At least in our State, VOC has a list of whom they're going to serve, the most severe disabilities first, and then go down the list. So, the severity of the disability oftentimes impacts whether they can get funding or not, and that's where that Parkinson's, arthritis, maybe even mental disabilities aren't seen as a high a priority, as some of the physical disabilities that if they can do stuff and get them back to work. So, it's all based on getting them back to work and making a productive part of society, but the priority comes more from the funding sources than from us.

Program Evaluation: Part 2

Survey Results

Respondents Characteristics Profile

Eleven AgrAbility evaluators completed the evaluation survey; 81.81% were internal evaluators, while 18.18% were external evaluators (see Table 14). Slightly more than half of the AgrAbility evaluators (63.63%) have less than ten years of experience in AgrAbility, while 36.36% have more than ten years of experience. The highest selected evaluation stage responsibility among all 11 evaluators was "*After the program wraps up"* with 31.42%, followed by "*The start-up stages*" and "*While the program is in progress"* with a similar percentage of 25.71%. However, the follow-up evaluation stage was selected by only six evaluators (17.14%).

Table 14

Respondent's Profile (AgrAbility Evaluators)

Respondents Profile	Frequency	%
Position in AgrAbility		
Internal Evaluator	9	81.81
External Evaluator	2	18.18
Period of working in AgrAbility		
< 10 years	7	63.63
>10 years	4	36.36
Responsibility in AgrAbility Evaluation Stages		
The start-up stages	9	25.71
While the program is in progress	9	25.71
After the program wraps up	11	31.42
Long after the program finishes (follow-up)	6	17.14

n=11

AgrAbility Program: Evaluation's Types and Tools

Evaluators selected among four types that best represent the purpose of using AgrAbility evaluation results/findings. Among the four evaluation use types, persuasive use was the principal purpose of use evaluation results by 8 AgrAbility states (72.73%). Two AgrAbility states' purpose of using evaluation results was conceptual use (18.18%). One AgrAbility state evaluator selected the instrumental use. However, none of the 11 evaluators chose the process use purpose (see Table 15).

Table 15

Purpose of Using AgrAbility Programs Evaluation Results/Findings

Purpose of Use	Frequency	%
Persuasive use (i.e., evaluation findings sustain fund accountability or inform annual reporting requirements to keep program continuity)	8	72.73
Conceptual use (i.e., evaluation findings elevate program staff/ key stakeholders' understanding of the program in a new way (larger context vs. specific context, educational purpose vs. direct actions)	2	18.18
Instrumental use (i.e., evaluation findings inform a specific decision either stop, modify, maintain the program continuity in some way)	1	9.09
Process use (i.e., evaluation findings contribute to building evaluators' intellectual and critical thinking capacities)	0	0

AgrAbility evaluators employed various evaluation methods to assess program impact in the short, medium, and long term. All respondents selected self-report forms (e.g., surveys/questionnaires) with 26.19% compared to other methods, followed by the direct observation method (23.81%) (see Table 16). Interview and photograph methods were highlighted by six evaluators (14.29%). While document reviews, focus groups, and reflective appraisal of programs (RAP) were less used to assess program impact at 9.52%, 7.14%, and 4.76%, respectively.

Table 16

Methods Most Used to Evaluate the AgrAbility Program Impact in The Short, Medium, And Long-Term

Methods	Frequency	%
Self-report forms (e.g., surveys/questionnaires)	11	26.19
Direct observation	10	23.81
Interviews	6	14.29
Photography	6	14.29
Document reviews	4	9.52
Focus groups	3	7.14
Reflective Appraisal of Programs (RAP)	2	4.76

n=11

On the survey, I asked respondents to share the two most important factors that inform their decisions to choose and use specific evaluation method(s) (see Table 17). Three factors ranked equally (22.73%) that inform AgrAbility evaluators' decision to choose methods: method encourages local participation, flexible in time and space, and fits respondents' specific types of disabilities. The method is concrete in specifying or generalizing results and ranked after the methods mentioned earlier with 18.18%. While the other two factors had a minor impact on informing evaluators' methods selection decision, two factors were the method's cost (9.09%) and contribution to decreasing response bias (4.55%).

Table 17

Essential Factors That Inform AgrAbility Evaluators' Decisions to Use Specific Method(S) In Evaluation

Factors	Frequency	%
It encourages local participation	5	22.73
It is flexible in time and space	5	22.73
It fits respondents' specific types of disabilities	5	22.73
It is concrete in specifying or generalizing results	4	18.18
Its cost	2	9.09
It contributes to decreasing response bias	1	4.55

n=11

Respondents shared three recommendations that evaluators should consider when deciding on specific evaluation methods to evaluate programs that serve people with disabilities (see Table 18). First and foremost, the evaluation's purpose should be determined to choose evaluation methods. Respondents shared that understanding and determining the purpose of evaluation beforehand will produce meaningful results that reflect the program's vision accomplishments. The second recommendation was associated with designing evaluation tools that improve response rates. Specifically, respondents highly recommended (knowing the audience, selecting evaluation tools based on that, considering participants' heterogeneity, and articulating to what extent their response will impact program progress). Lastly, because AgrAbility program participants experience limitations and disabilities, respondents also recommend checking their preference of evaluation method, such as sharing varieties of methods or offering help in filling out assessments.

Table 18

Recommendations Should Be Considered When Deciding on Specific Evaluation Methods to Evaluate Programs That Serve People with Disabilities

Choosing Evaluation Methods: Recommendations	Supported quotes
Determine the purpose of the evaluation	"Only measure what needs to be measured for the project and impact because producers with a disability are busy. We should not waste their time on meaningless surveys and evaluations." "Examine the mission and vision of the National AgrAbility Project and design an IRB-approved method that all funded SRAPs can use without too much expense in time and energy to assess to what extent we are accomplishing our vision."
Design the evaluation tool that contributes to improving the response rate	"Understanding the audience for which the evaluation tool is designed." "Methods available to the client." "Provide a clear statement on their participation's impact on program, services, activities, etc., to encourage participation. Evaluation method must be accessible to meet all participants' needs (language level, technology access, alternate format, first language preference, etc.)."
Check with participants about their preference for the evaluation method	"Ask participant preferred method of evaluation." "The participants' preference of evaluation method and method with ease of completion." "Offering a variety of methods for evaluation. For example, surveys may be difficult for someone with a TBI to complete independently. If we offer to complete them with the client, we risk them not sharing true information/bias. Some evaluation tools are so lengthy that they discourage people with attention deficits from completing."

The evaluation process passes by different levels; I asked the 11 evaluators to share if the AgrAbility program does evaluate nine levels of program outcomes. As depicted in Table 19, evaluating program activities' effectiveness (i.e., a class, workshop, seminar, field day, or consultation, etc.) was done by ten AgrAbility states. It is followed by evaluating participants' practices/behaviors/actions outcomes and long-term impacts (SEE) selected by eight states in each category. Also, seven AgrAbility states evaluate participants' KASA changes, participants' satisfaction, and allocation/expenditure of program resources. Around 5 AgrAbility states assess participants' engagement in program activities (for example, attending program activities, asking questions, communicating with each other, having discussions, etc.). However, slightly less than half of the evaluators (n=4) mentioned that the AgrAbility program evaluates teamwork effectiveness outcomes (such as how program staff, facilitators, volunteers, program participants, etc., collaborate) and the program's public value benefits (including non-program participants).

Table 19

Nine Levels of Program Outcomes Being Evaluated By 11 AgrAbility States

Outcome Evaluation Categories	**Do you evaluate the following outcome evaluation levels?**		
	Yes	**No**	**Missing**
Participants' practices/ behaviors/ actions outcomes	8	2	1
Participants' KASA changes	7	4	0
Long-term impacts SEE	8	2	1
Teamwork effectiveness outcomes	4	5	2

Table 19 Continued

Outcome Evaluation Categories	Do you evaluate the following outcome evaluation levels?		
	Yes	No	Missing
Participants' engagement	5	5	1
Participants' satisfaction	7	3	1
Programs' activities' effectiveness	10	0	1
Allocation/expenditure of program resources	7	2	2
Program's public value	4	7	0

n=11

Table 20 demonstrates the evaluation stage of the AgrAbility different levels of program outcomes evaluated. The start-up stage encompasses evaluating three levels of program outcomes: evaluating participants' practices/ behaviors/ actions (n=7), followed by evaluating participants' KASA changes (n=5), and collaborative situations/teamwork effectiveness outcomes (n=4). All levels of program outcomes are evaluated in the progress stage but with different frequencies. Evaluating participants' KASA changes and participants' satisfaction with the qualities of program activities were the highest outcome levels evaluated by 7 AgrAbility states in the progress stage. Regarding the wrap-up stage, it is seen that evaluating participants' practices/ behaviors/ actions and participants' satisfaction with program activities' qualities was highly selected by ten evaluators in the wrap-up stages and over the other stages.

Around 3 to 4 respondents mentioned that evaluating participants' practices/ behaviors/ actions and participants' KASA changes occur in the extended (follow-up) stage. Lastly, evaluating participants’ engagement in program activities was the lowest level of outcome evaluation in AgrAbility compared to other outcomes levels. Only five evaluators mentioned that

participants' engagements were evaluated in the progress stage, while only two evaluators pinpointed its occurrence in the wrap-up stage.

Table 20

Program Life Cycle Stages in Which Levels of Program Outcomes Evaluated

Outcome Evaluation Categories	Program Life Cycle Stages			
	Start-Up	**In Progress**	**Wraps Up**	**Long (Follow-Up)**
Participants' practices/ behaviors/ actions	7	3	10	4
Participants' KASA changes	5	7	7	3
Participants' engagement		5	2	
Participants' satisfaction with the qualities of program activities		7	10	
Participants' satisfaction with program activities and overall program qualities		6	8	
Collaborative situations/teamwork effectiveness outcomes	4	4	3	

n=11

AgrAbility evaluators were asked to select which methods among 20 different methods are commonly used in evaluating eight levels of program outcomes. The eight levels are evaluating (1) participants' practices/ behaviors/ action outcomes, (2) participants' KASA, (3) participants' engagement, (4) collaborative situations or teamwork effectiveness, (5) program activities, (6) programs' resource allocation, (7) program's (SEE) outcomes, and (8) program's public value. In Table 21, self-report forms were the top choices over other methods (26.59%). The second highest selected method was direct observation with 15.61%. Focus group and group meetings with staff were the third selection with the same percentage (6.36%). The rest of the

methods had various frequencies. The lowest-ranked methods were expert reviews and success stories of non-program participants at 1.16% and 0.58%, respectively.

Table 21

*Methods Used in Evaluating Eight Outcome Evaluation Categories**

Methods	Frequency	%
Self-report forms (e.g., surveys/questionnaires)	46	26.59
Direct observation	27	15.61
Focus groups	11	6.36
Group meetings with staff	11	6.36
Pre/post-tests	10	5.78
Photography	9	5.20
Interviews	8	4.62
Monitoring	8	4.62
Document reviews	6	3.47
Reflective Appraisal of Programs (RAP)	6	3.47
Staff reports in an electronic database	5	2.89
Attendance records	4	2.31
Incident reports	4	2.31
Audience counts	3	1.73
Contact records	3	1.73
Meeting agendas or minutes	3	1.73
Public records	3	1.73
Retrospective pretest with post-test	3	1.73
Expert reviews	2	1.16
Successful stories of non-program participants	1	0.58

n=11

*****(1) participants' practices/ behaviors/ action outcomes, (2) participants' KASA, (3) participants' engagement, (4) collaborative situations or teamwork effectiveness, (5) program activities, (6) programs' resource allocation, (7) program's (SEE) outcomes, and (8) program's public value

AgrAbility Program: Using Self-Report Tools in Evaluation

All respondents (100%) (see Table 22) stated they use self-report tools with farmers with disabilities to evaluate program outcomes.

Table 22

Do You Use Self-Report Forms (Surveys/Questionnaires) for Evaluating Program Outcomes for Farmers with Disabilities?

Response	Frequency	%
Yes	11	100
No	0	0

n=11

I asked evaluators to determine the three most common purposes of using self-report forms (see Table 23). Measuring participants' attitudes and reactions, measuring participants' behavioral changes, and getting participants' feedback were the most purposes of the use at 25.00% and 21.88%, respectively. Getting participants' suggestions and recommendations had 15.63% over other purposes. In addition, 12.50% was only associated with using self-report tools to measure participants' knowledge. Lastly, only one respondent mentioned that self-report tools aim to measure participants' cognitive and practical skills.

Table 23

Three Most Common Purposes for Using Self-Report Tools

Purpose of Self-Report Tools Use	Frequency	%
Measuring participants' attitudes, reactions	8	25.00
Measuring participants' behavioral changes	7	21.88
Getting participants' feedback	7	21.88
Getting participants' suggestions and recommendations	5	15.63
Measuring participants' knowledge	4	12.50
Measuring participants' cognitive and practical skills	1	3.13

Around 72.73% of respondents asked program participants with disabilities about their disability type in the demographic information section on self-report forms. 27.27% did not ask that question on self-report forms (see Table 24).

Table 24

Do You Commonly Ask About Respondents' Type of Disabilities in The Demographic Information Section on Self-Report Forms?

Response	Frequency	%
Yes	8	72.73
No	3	27.27

n=11

Respondents who said yes to the initial question, "Do you commonly ask about respondents' type of disabilities in the demographic information section on self-report forms?" identified the top five disabilities surveyed AgrAbility program outcomes. Table 25 shows that back impairments, arthritis, disabling diseases, and spinal cord injuries/paralysis were the first four choices at 20.00%, 17.50%, 12.50%, and 10.00%, respectively. The fifth choice has fallen into four types with a similar percentage (7.50%): amputations, brain injury, visual impairments, and hearing impairments. Respiratory impairments, head injury, and mental illness (depression, PTSD, anxiety) were selected once to twice. In contrast, none of the respondents selected cerebral palsy.

Table 25

Top Five Types of Disabilities Experienced by People Evaluate AgrAbility Program Outcomes Using a Survey

Type of Disability	Frequency	%
Back impairments	8	20.00
Arthritis	7	17.50
Disabling diseases	5	12.50
Spinal cord injuries/paralysis	4	10.00
Amputations	3	7.50

Table 25 Continued

Type of Disability	Frequency	%
Brain injury	3	7.50
Visual impairments	3	7.50
Hearing impairments	3	7.50
Respiratory impairments	2	5.00
Head injury	1	2.50
Mental Illness (depression, PTSD, anxiety)	1	2.50
Cerebral palsy	0	0.00

n=11

The most standard self-report format used by the AgrAbility program was printed paper filled by participants (sent by mail) (54.54%). Face-to-face questionnaires were the second used format (27.27%), While 18.18% of respondents mentioned web-online questionnaires as a standard format (see Table 26).

Table 26

The Standard Self-Report Tools Format That AgrAbility Program Participants Receive

Self-Report Format	Frequency	%
Printed paper filled by participants (sent by mail).	6	54.54
Face-to-face questionnaires	3	27.27
Web-online questionnaires	2	18.18

n=11

Respondents shared the main reasons for using a specific standard self-report format. Evaluators who chose printed paper filled by participants (sent by mail) as a standard format highlighted several reasons. Respondents said that the printed format works with people either because of its confidentiality and limited time needed or due to law internet access by participants. Also, respondents mentioned that this type of format helps participants reflect their opinion more comfortably; it reduces bias compared to other formats. Evaluators who selected the format of the face-to-face questionnaire highlighted its effectiveness to the low burden on participants and avoided asking them a lot of things to do, specifically with people with

disabilities. Lastly, the web-online questionnaires format's advantages were its accessibility and returning it in a fashion time (see Table 27).

Table 27

The Primary Reason for Using a Specific Standard Self-Report Format

Self-Report Format	Reasons for Use (Supported Quotes)
Printed paper filled by participants (sent by mail).	"Convenience." "It works." "Confidentiality and time" "Always have had it that way; not many clients have internet access or our comfortable using a computer." "Give participants a choice that reflects their needs and reinforces the purpose of self-report forms." "Just like the paper survey better for the customers than online formats and other formats may cause some bias."
Face-to-face questionnaires	"We try to weave the questions into a conversation to avoid giving farmers an additional thing to do." "Most effective when working with individuals with disabilities."
Web-online questionnaires	"Online is at own convenience." "Ease of access and time for getting it back to us."

However, self-report tools are commonly used for different purposes and formats; I asked evaluators to share the top two common challenges/obstacles when using self-report forms with people who experienced disabilities. As shown in Table 28, respondents with disabilities' response rates were the first challenge evaluators usually face (36.36%). The second top challenge was respondents' willingness to respond and respondents' demographic characteristics

(type of disability, age, gender, etc.) with the same percentage (22.73%). On the other hand, respondents provided an accurate response, and respondents' time availabilities were the minor challenges (9.09% of each).

Table 28

The Top Two Choices Are Considered Common Challenges/Obstacles When Using Self-Report Forms with People Who Experienced Disabilities

Challenges	Frequency	%
Respondents' response rate	8	36.36
Respondents' willingness to respond	5	22.73
Respondents' demographic characteristics (type of disability, age, gender, etc.)	5	22.73
Respondents provide an accurate response	2	9.09
Respondents' time availabilities	2	9.09

n=11

Respondents were asked at the end of the survey to share, based on their experiences, what recommendations evaluators should consider improving self-report tools' usability with respondents with disabilities. Four recommendations were generated from what evaluators shared (see Table 29). The first recommendation is to choose a time that works for participants because they have different work schedules based on the type of work. The second recommendation is to keep the self-report tool's design and instructions simple. Specifically, respondents highly recommended considering the self-report form length, stating the purpose of questions, aligning the form's questions with the purpose of evaluation, and offering multiple formats of self-report tools. The third recommendation is to check the best self-report format that will work for participants. Specifically, evaluators who use self-report tools need to consider

different cultures, literacy, and mode of communication that will best work with people with disabilities. The last shared recommendation is to share the purpose of the questions and share the self-report results with participants.

Table 29

Improving Self-Report Tools Usability with Respondents with Disabilities: Recommendations

Improving Self-Report Tools Usability: Recommendations	Supported Quotes
Choose a time that works for participants	"Work with them to find a time that fits them; 8-5 will generally not work." "Send surveys at a time that is convenient to them."
Keep the self-report tool's design and instructions simple	"Make it as easy as possible to complete. Only ask important questions. Have a purpose for each question." "Short survey with few questions" "Keep the survey short. Only ask questions that you need answers for." "Making sure the questions pertain to the services received. If individuals feel like they are answering questions that do not directly pertain to how the services impacted them, they are less likely to complete the survey. Survey length also contributes to lower completion rates. There should also be multiple formats for completing the survey depending on what method is best for the person with the disability."
Check the best self-report format that will work for participants.	"Survey administration method, assess for literacy (do not assume everyone can read or if they are Latino that they'd speak Spanish), ASK if x/y/z is okay sometimes certain things are not okay within a culture." "Telephone, face-to-face, read survey to them, oral communication." "Give them options for receiving questionnaire (mail, electronic, over the phone) and accessible."

Table 29 Continued

Improving Self-Report Tools Usability: Recommendations	Supported Quotes
Share the purpose of the questions and share back with participants the self-report results	"Provide examples of how the program has evolved based on input from previous participants." "Having them take a retrospective survey to retrospectively look back on their knowledge, skills, abilities, and attitudes before receiving services to after receiving services. Often, the clients will be optimistic in their response to the pre-test, especially farmers & ranchers, because they generally do not like to be seen as disabled. After receiving services, they have told us that they wish they could go back and make a more accurate representation of their "before" experience." "Let them know what the purpose of the survey is; if possible, report back (share results)."

Interview Results

Interviewee Profile

I interviewed seven AgrAbility program participants with disabilities from three different states: Colorado, Nebraska, and Texas. Three participants were from the Nebraska program; two were in each other states (see Table 30). Five interviewees are male, and the remaining are female. Interviewees' disabilities ranged from amputation, back problems, multiple sclerosis, paraplegia, and permanent disability. At the same time, one participant did not share their disability type. Also, most of the participants' occupations are farming and livestock production; one participant is a rancher. Interviewees highlighted four assistance/services from AgrAbility: on-site assessment, modified farm equipment, educational training, and other service providers

(i.e., occupational therapy). However, one participant did not specify what assistance he got from AgrAbility.

Table 30

Respondent's Profile (AgrAbility Program Participants with Disabilities)

Respondents Profile	Frequency	%
AgrAbility states (participants numbers)		
Colorado	2	28.57
Nebraska	3	42.85
Texas	2	28.57
Gender		
Female	2	28.57
Male	5	71.42
Disability Conditions		
Amputation	2	28.57
Back problems	1	14.28
Multiple sclerosis	1	14.28
Paraplegic	1	14.28
Permanent disability	1	14.28
Did not share	1	14.28
Occupation		
Farming/ livestock production	6	85.71
Ranching/ raising grass-fed beef	1	14.28
AgrAbility assistance/ services received		
On-site assessment	5	33.33
Modified farm equipment	5	33.33
Educational training	2	13.33
Referring to other service providers (i.e., occupational therapy)	2	13.33
Did not share	1	6.66

n=7

Evaluation Approaches Used for Getting AgrAbility Participants' Feedback

The seven interviewees highlighted different ranges of evaluation approaches commonly used by AgrAbility staff. The two participants who got the educational training mentioned that training took around one day; the assessment took place at the end via a questionnaire: "At the end of the programs as a questionnaire." The other participants said: "I give my feedback throughout the program course, but the surveys, the actual paper surveys are all at the end of the course. When I first started taking these courses with battleground program, most of them are one day."

Other participants who got modified farm equipment and on-site assessment slightly experienced the following evaluation approach face-to-face for an on-site assessment and an email or a phone call for follow-up checking or filling out questionnaires. For example, one participant stated that the majority of assessments are sent via emails with a regular checking phone call each quarter from AgrAbility staff:

> Most of the assessments happen through email. I do get phone calls from time to time. We've probably talked once or twice about every quarter, maybe three to four months, as we're usually talking on the phone or sending an email back and forth about whatever's going on with the ranch here and my conditions.

Another participant who went through an on-site assessment mentioned using phone calls for checking purposes while face-to-face for evaluating the current situation and needs:

> First, they [AgrAbility staff] came in and met me at my home and saw my challenges, and we began to develop a plan. Then, I began the AgrAbility paperwork, culminating in the modifications necessary specifically for me and the ranch I worked on to succeed. AgrAbility staff has been diligent in checking in with me, finding out how are things going, and being supportive."

Moreover, phone calls have been used for evaluation: "I had a face-to-face assessment when AgrAbility staff came out to my farm site to check things over. Also, I do many things over the phone, do some paperwork, and sometimes some email, but usually over the phone." Another

participant highlighted both evaluation approaches. He went through phone calls and paper questionnaires. “I usually fill the questionnaires over the phone. The questionnaires I’ve filled out this year were all on paper, but they're self-explanatory and easy to fill out.” Lastly, one participant expressed that evaluation usually occurs at the end of the process, but AgrAbility staff keep regular communication for checking:

> So, for me, we communicated a lot, but there was no evaluation of the process that's the AgrAbility servicing until the end. And so again, it was, you know, a couple of years process for me. There is a huge gap between that it can be covered; what it does makes you feel like you're moving forward or making progress.

Participants with Disabilities’ Evaluation Approaches Preferences

Interviewees shared their preferences about evaluation approaches. Also, they shared their notification method preferences to participate in any evaluation process. Interviewees’ preferences varied from phone calls, in-person site assessments, emails, and interviews. One participant selected phone call and on-site assessment as the first top choices: “I’d like a phone call or even some onsite assessment and looking at some equipment, sometimes, those are very helpful.” Another interviewee went with a phone call and email; he said:

> I prefer a phone call, but an email would be all right too. I want to get to it right away because we're working, and it's always changing or doing something so. I prefer a phone call; I like to talk to people.

Other interviewees selected interviews over questionnaires: “To me, personally, an interview is much better because as the conversation flows, and the interview flows, you know, you may stumble across an avenue that you never considered or that a questionnaire will not cover in-depth.” One interviewee also said that questionnaires would not be his first preference to go with; instead, he tends to in-person communication:

> So, I’m a more in-person guy, like over the phone or email, regarding the surveys and feedback. When I get the standard survey questions, I know what kind of information they will get out of it, so I take my time because they need that information to improve

> the program and everything, so I understand its necessity. It wouldn't be my first option if I had a choice.

In contrast, one participant was open to any evaluation approach without specific preferences: “It didn't matter to me, I did some interviews plus I did the paper one; all the questions are simple, and I’ve had to give my life history so many times, it doesn't affect me either way.” While another one mentioned the necessity of the milestone evaluation process:

> It involves you in the process, so I better understand where I am at in the process and where I am in the system. I usually get a phone call, and they say they're working on it, and that's great. Instead of having the feel-good phone call, a call says, " Hey, we're working on it, we're still looking for funding, and everything's good to go.” If I have a survey or feedback that I can provide that says, “Hey, you know my situation has changed, or I’ve noticed this,” it will allow them to refine their process better and focus their resources on exactly what I need. That milestone-based assessment evaluation process becomes key.

Regarding the most chosen methods by interviewees to get notification about the evaluation process, around three methods were highlighted. One participant preferred to be notified via email:

> Usually, send me an email away ahead of time, so I have time to work through my schedule because, like right now, we're having (calving season), so I’m checking calves all the time, so the best way will be to send me an email or message ahead of time.

In contrast, another participant prefers getting a phone call to be notified about the current evaluation process over getting an email:

> Um, an email is fine initially. It depends because if you just get an email about a survey, you may not know who it's from. So, if they send out a survey, I would prefer a phone call follow-up, like “hey, this is why we sent this out,” because you may not quite understand why they need this information initially. So that the phone call could be before or after, but it's just the clarification.

The additional participant selected a phone call or mail to be notified about the evaluation. She said, “Usually, a prior phone call would be good for me or a mail, one of the two.” Lastly, one participant confirmed the importance of getting upfront clarification about the survey, but without specifying methods: “The preference to the survey, you know, getting an explanation for

it, you know, like we're here to ask questions, find out what you thought so that we can improve for further iterations of the Program. So, it's a fairly upfront thing."

AgrAbility Participants' Opinions About the Survey/Questionnaires Format

Interviewees shared their opinion about survey/questionnaire questions and the completion time needed. The majority of interviewees said that the AgrAbility survey/questionnaires' questions are simple, clear, and straightforward:

> I take a lot of surveys during my time, and I'm trying to think specifically about AgrAbility. Most of those questions are generally pretty focused on what they're asking about; if it's a program you've used or a service they provided, they want specific feedback on that instance. It's not so broad that it seems unnecessary or overreaching.

The other two participants confirmed that they do not have a problem with the survey's questions: "I don't have a problem with it." In addition, one participant shared his opinion generally on how survey questions should look like:

> Some questions get to what you need to know and about basic demographics and things like that, but a questionnaire is never static; it's an evolving process, depending on how your program goes. So different points in time with different classes, you may need to modify that survey to ask different things.

On the other hand, one participant commented on survey questions. She stated that understanding the purpose behind asking a specific question on the survey sometimes is not clear:

> There was one question I had at one point; a question was asking me for my medication lists, and I thought, well, what does that matter about, you know, getting funding for my equipment that I was needing, so that was one question I didn't think was about getting my equipment.

In terms of survey/questionnaires' completion time needed, one interviewee articulated that the AgrAbility survey always is below 10 minutes, which helped to complete the survey in a fashion time:

> Most surveys should probably take under 10 to 15 minutes, and most of them are underneath that. I haven't seen one survey from AgrAbility come out that's longer than 10 minutes because when you get into anything longer than that, you actually get mad at the survey, and you just don't pay attention to the questions.

Another participant also shared the necessity of considering survey completion time needed: "If surveys are too long, people are less apt to fill it out; likewise, if you have a survey that short but you send out a lot of surveys, they're also less likely to answer those surveys too." Furthermore, this participant mentioned that AgrAbility asked about his preferences of how to be contacted to fill out the survey:

> I know that's a personal preference for some people. Depending on your demographic, whether or not you have social media to be contacted by text, phone call, email, or letter. And I'm trying to think back on some of the surveys I've done, and I want to say it's one of the programs when they're [AgrAbility staff] gathering the initial data and asked how you want to be contacted, and then they drive it from there.

AgrAbility Participants' Suggestions About Expanding Evaluation Results Usability

Interviewees explained the importance of sharing AgrAbility program results/feedback on a large scale to promote program services and assistance. Ultimately, it helps raise funds on a large scale and improve program accountability (i.e., funds and program process). One participant shared that fund availability was the considerable constraints she faced to get some farm equipment and continue her work:

> This last year I have had some issues with funding in my particular case where they didn't have any money for some of the equipment when I wish I could have some funding available. It took me probably about a year and a half to get some of the equipment that I needed, and I was in desperate need of getting equipment to do some fieldwork, and I couldn't get out there on my farm. I know the funds are always short, but I always had some issues with that's one thing.

Another participant added that sometimes the AgrAbility process is slow and takes time:

> Basically, the only thing would be, you know, the process, I know it's the government, so it takes forever; that's the main thing. It takes a long time to get from when you apply; you get enrolled in the program or whatever you call it to like get funding. It was probably a year before I finally got equipment on the farm.

Furthermore, two participants shared that AgrAbility resources and services need to be promoted and advertised on a large scale so that people will be aware of it and it help raise funds:

> I found it; it was like a two-inch by two-inch or two-inch by three-inch little ad in the newspaper. That said, if you have physical or cognitive disabilities, we're having a meeting to discuss what programs and options are available for you, and that's basically what it said. So, I was like, I'm going to drive an hour to check this thing out. And I'm glad that I did, but, as you mentioned, the advertising piece isn't there. I know a lot of times when they're getting ready to visit this area, or there's going to be a conference or an informational seminar for folks, a lot of it is word of mouth.

The other interviewee said:

> Overall, my biggest comment would be that AgrAbility needs to put some money into advertising. Every TV station and social media can be approached from a nonprofit standpoint, you know, to produce that advertising and help AgrAbility grow and help find funding.

Therefore, social media different platforms and showcases were the top suggestions by interviewees. One participant mentioned the necessity to incorporate social media as a feedback tool:

> They could probably market themselves better for the feedback on maybe some social media. Yes, the surveys are great, and they are voted out, go to grants, and people who approved these grants need that kind of information. If you're looking for some broader spectrum feedback, you probably need to reach out to social media. Like maybe two questions surveys, like, what do you think about this program because I think you're not going to get to the next level unless you're using a lot of social media for at least some.

Another participant confirmed the importance of social media by giving attention to additional resources, such as TV and podcast:

> There are ways that it can be done. Imagine a public service informational podcast, social media, intertwined with TV, and there's a match with actual clients showing how they've been served and then leaving a picture worth 1000 words. So, I know that once you embed that image in people's minds and put it out there, you're showing actual clients climbing up this tractor, then ask how you can help and how you can solidify the agricultural basis. I think the situation needs to be multiplied and magnified on a much grander scale than it is to survive.

Also, one participant supported the idea of showcasing to promote AgrAbility services and assistance. He said:

> One thing that AgrAbility might do to help promote themselves is showcasing a program, maybe every once a week or once a month. And then, they kind of break it down over the weeks on how best it fits different clients and maybe showcase those clients and how it helped them in different areas of their operation. That way, they can reach more people. I mean, you need the micro and the macro-level experiences there. Otherwise, if you're telling people what we offer in this program, but you don't see any results, nobody will follow up or follow it or try to experience it.

Summary

This chapter presented quantitative and qualitative research results addressing the three research questions of this study. The first question associated with identifying and exploring approaches used for planning AgrAbility programs was answered using an explanatory sequential design (a quantitative approach, a survey, a qualitative approach, an interview). The second and the third questions associated with evaluation approaches used for evaluating AgrAbility programs, explicitly focusing on self-report tools, were answered using a mixed-method approach (a survey and a focus group). Sixteen AgrAbility states were included in this study (Iowa, West Virginia, Alaska, California, Colorado, Kansas, Maine, Missouri, Nebraska, North Carolina, Pennsylvania, South Dakota, Tennessee, Texas, Virginia, and Wisconsin). Two states (Iowa and West Virginia) represent affiliated projects; other states represent state/national projects. The planning survey was completed by 16 respondents, followed by interviews with 7 of them. The evaluation survey was completed by 11 respondents, followed by interviews with 7 AgrAbility participants (i.e., clients).

The planning survey findings revealed that arthritis, back impairments, and visual impairments were the three most types of disabilities reported by all 16 AgrAbility states, followed by other types with different frequencies. Changing AgrAbility participants' skills was

highlighted by the majority as the core focus of programs, followed by changing their knowledge. Thirteen states chose social and economic information as the first two crucial pieces of information to understand the participants' current gaps, followed by historical, educational, and emotional information. While environmental information, geography, infrastructure information, and political and legal structure information were the least highlighted needed information. Respondents selected the survey, direct observation, and focus group methods to assess gaps, potential participants' characteristics, and potential participants' KASA needs.

Also, time to conduct a need assessment was the top challenge/constraint faced when conducting a needs assessment and assessing participants' KASA gaps. Money availability was the second choice when conducting need assessment generally; however, the level of staff expertise ranked as a second constraint to assess participants' KASA gaps. Financial resources and Support from outside donors (private and public) were the first two constraints resources selected by most respondents when preparing resource mobilization plans. Lastly, 13 respondents mentioned that program participants are involved in the planning process and other stakeholders. In addition, the lack of members' participation in the discussion was the first challenge highlighted by 13 respondents when engaging program participants. Some participants are much more vocal than others, and participants do not quickly generate quantities of ideas.

AgrAbility program planning: Capacity-building, AgrAbility program planning: Approaches promote social justice, and AgrAbility program planning: Challenges influencing the ongoing planning process were the major themes generated from analyzing the seven interview transcripts. The first theme focused on the competencies, partnerships, and different alternative funds needed for planning programs serving people with disabilities.

Understanding farming and disability backgrounds, being trained to deal with several types of disabilities, acquiring communication skills, knowing farmers' culture and lifestyles, being an advocate for farmers, being aware of available resources, looking up at the latest research and trends related to agriculture and disabilities, customized assistance and services, selecting program teamwork, acquiring case management skills, tracking case's progress and program progress, networking with different entities, and securing alternative funds were the key takeaways from the first theme.

Outreaching to target different venues and engaging program participants with a wide range of inclusion and diversity considerations was the second theme's focus. Lastly, the main challenges raised by interviewees that influenced the ongoing planning process were time issues, shortage of AgrAbility staff members, farmers' disability stigma, farmers never asking for help, accountability issue, agencies' processing system, and financial issue.

The evaluation survey findings showed that persuasive use was the principal purpose of use evaluation results by 8 AgrAbility states out of 11. Two AgrAbility states' purpose of using evaluation results was conceptual use. Only one AgrAbility state evaluator selected the instrumental use. AgrAbility evaluators employed various evaluation methods to assess program impact in the short, medium, and long term. All respondents selected self-report forms (e.g., surveys/questionnaires) compared to other methods, followed by direct observation. Six respondents highlighted interview and photograph methods. Three factors are equally ranked, informing AgrAbility evaluators' decision to choose methods: method encourages local participation, flexible in time and space, and fits respondents' specific types of disabilities.

Evaluating program activities' effectiveness, evaluating participants' practices/ behaviors/ actions outcomes and long-term impacts (SEE) were the higher selected outcome evaluation

levels done by AgrAbility. However, slightly less than half of the respondents mentioned that the AgrAbility program evaluates teamwork effectiveness outcomes the program's public value. Respondents were asked to select among 20 different methods commonly used in evaluating eight levels of program outcomes. The eight levels are evaluating (1) participants' practices/ behaviors/ action outcomes, (2) participants' KASA, (3) participants' engagement, (4) collaborative situations or teamwork effectiveness, (5) program activities, (6) programs' resource allocation, (7) program's (SEE) outcomes, and (8) program's public value. Self-report forms were the top choices over other methods, followed by direct observation, focus groups, and group meetings with staff.

Furthermore, measuring participants' attitudes and reactions, measuring participants' behavioral changes, and getting participants' feedback were the most purposes of self-report tools use. Back impairments, arthritis, disabling diseases, and spinal cord injuries/paralysis were the first four types of disabilities surveyed AgrAbility program outcomes. The most standard self-report format used by the AgrAbility program was printed paper filled by participants (sent by mail). Face-to-face questionnaires were the second used format, followed by web-online questionnaires. Respondents with disabilities' response rates were the first challenge evaluators usually face when using self-report forms with people who experienced disabilities. The second top challenge was respondents' willingness to respond and respondents' demographic characteristics (type of disability, age, gender, etc.).

Lastly, based on their experiences, AgrAbility evaluators shared four recommendations to improve self-report tools' usability with respondents with disabilities. The four recommendations are (1) choose a time that works with participants, (2) keep the self-report tool's design and instructions simple, (3) check the best self-report format that will work for

participants, and (4) share the purpose of the questions and share back with participants the self-report results.

The focus group interviewees highlighted different evaluation approaches commonly used by AgrAbility staff: questionnaires, face-to-face interviews, and phone calls. Interviewees shared their preferences about evaluation approaches. Interviewees' preferences varied from phone calls, in-person site assessments, emails, and interviews. Regarding the most chosen methods by interviewees to get notification about the evaluation process, around three methods were highlighted: email, phone call, and mail. Interviewees shared their opinion about survey/questionnaire questions and the completion time needed. Most interviewees said that the AgrAbility survey/questionnaires' questions are simple, clear, and straightforward. Only one participant commented on the survey questions. She stated that understanding the purpose of asking a specific survey question.

In terms of survey/questionnaires' completion time needed, one interviewee articulated that the AgrAbility survey is consistently below 10 minutes, which helped complete the survey on time. Another interviewee shared the necessity of considering the survey completion time needed. Lastly, the Interviewees explained the importance of sharing AgrAbility program results/ feedback on a large scale to promote program services and assistance. Ultimately, it helps raise funds on a large scale and improve program accountability (i.e., funds and program process). The top suggestions by interviewees were social media, different platforms, and showcases.

Chapter V

Discussion and Conclusion

Discussion

This chapter discusses the research findings from data collected on planning and evaluation. All research findings are discussed based on the research study objectives. The three objectives were (1) exploring and aggregating frameworks used by different AgrAbility states for planning assistance programs that serve farmers who live with disabilities, (2) examining the common types of evaluations used for assessing AgrAbility program impact, and (3) identifying the good practices for maximizing self-report tools' usability in program evaluation, specifically programs serving farmers with disabilities. Moreover, this chapter presents study limitations and future research. In addition, the implications of the study findings and the conclusion are explained.

Program Planning Approaches and Frameworks Used for Planning AgrAbility (Technical Stance)

The planning survey findings helped me understand the technical planning approaches, specifically from two perspectives: state projects and affiliated projects, where the USDA funding stopped for the latter. Respondents highlighted different types of disabilities that are being served by AgrAbility, including but not limited to physical limitations, psychological limitations, etc. Changing the skills and knowledge of farmers with disabilities were the highest program goals among the 16 AgrAbility programs. Moving to another element of the planning program: SEE conditions assessment, AgrAbility planners expressed the necessity of collecting some information over others based on the current context, needs, and situations (i.e., social, economic, historical, educational, emotional, environmental, geography, and political information).

Seevers (1997) pinpointed the crucial importance of understanding different factors and information to see how factors may inhibit or support the programming practices. Not only does AgrAbility assess SEE conditions, but also potential participants' characteristics and their KASA needs are assessed. Understanding each case's needs and situations will help customize the assistance or services that best match their conditions. Surveys, direct observation, and focus groups were the most used methods that help in need assessment. AgrAbility planners choose the methods based on methods that need limited time; it fits the shortage of staff numbers, the small scale of participants, or the goodness of cultural fit. That findings aligned with the constraint expressed by AgrAbility planners in which time to conduct need assessments were the significant challenges when conducting need assessments. Also, it may help draw assumptions about why the survey was ranked as the first used method over other methods. Also, the survey findings presented that financial resources and support from outside donors (private and public) were the first two constraints selected by the majority of respondents when preparing resource mobilization plans. Based on these challenges, securing funds was one of the AgrAbility planners' core strategies to maintain program accountability because of decreasing federal funds (Hachfeld, Bau, Holcomb, & Craig, 2013). In addition, respondents highlighted program publicity as another route for maintaining program accountability by sharing program results and showing program impact (Fetsch and Turk, 2018).

Furthermore, empowering partnership and relationships is shared as a third strategy, from respondents' experience, to maintain financial, staff, volunteer, etc., commitment to achieve AgrAbility goals. This strategy is aligned with previous empirical studies that revealed the significant impact of creating partnerships with different entities (Crosson, Jepsen, McGuire, & Zeller, 2014; Hamm et al., 2012; Hunter, Hancock, Weber, & Simon, 2011; Stowell and Burnett,

2019). The survey addressed the extent to which program participants were involved in planning program activities and the challenges of engaging them in the planning process. Slightly half of the surveyed AgrAbility planners consider involving program participants. Drawing on what Wilson and Cervero (2001) have emphasized about planning adult education programs, the more engaging participants in the process, the more equity and inclusion occur. In addition, including program participants in the planning process help gain more insights into communities' genuine needs, voices, interests, and social-cultural aspects (Garst and McCawley, 2015). The lack of members participating in the discussion in the planning process was mentioned as the most significant challenge when engaging participants. Some participants are much more vocal than others, and participants do not quickly generate quantities of ideas.

The findings from interviewing AgrAbility planners helped with further clarification and explanation of understanding to what extent ethical and social-political stances were addressed or enacted within the ongoing planning process. Drawing on the key findings of the planning survey, the TOP model could serve as a conceptual model to guide a planning program, using its elements but with some justifications of how each element serves the planning process based on the program structure and context (Diaz, Gusto, & Diehl, 2018).

Program Planning Approaches and Frameworks Used for Planning AgrAbility (Social-Political and Ethical Stances)

Understanding power relations is a key to confronting inequality and promoting social justice (Gaventa & Martorano, 2016; Livingstone, 2012; Pettit & Mejia Acosta, 2014). The Sork (2000) and Cervero and Wilson (1994) planning models guided the study to focus on ethical and social-political domains in the planning process. The findings of the interviews with AgrAbility planners helped me grasp to what extent these domains were addressed in the AgrAbility program. In addition, the findings were integrated into a framework that highlighted three

significant factors; each factor consists of some elements. The framework could serve as a guideline to answer the following question "To what extent is the ethical and social-political domain (i.e., power, interests, negotiation, and responsibilities) addressed or enacted within planning frameworks?" The three major factors are (1) planning building capacity, (2) approaches that promote social justice, and (3) challenges of planning programs. Planning building capacity consists of (1) competencies and resources needed for planning programs, (2) partnerships and relationships, and (3) securing alternative funds. The second factor is that approaches promote social justice by focusing on outreach and engagement approaches. Lastly, the third factor is challenges that influence the ongoing planning process (see Figure 3). The three factors might shape some power relations: invisible, visible, or hidden, that might influence addressing ethical and social-political stances in the planning process (Gaventa, 2006).

The first element of the planning capacity-building factor highlighted what planners need to be equipped with to consider ethical, social-political, and cultural stances within the planning process. Understanding that communities are not homogeneous, embracing different behaviors, values, traditions, languages, and political powers is the entry-level that informs the possibility of an existing conflict of interests (Chambers, 1983). The study findings confirmed Chambers' notion. Having background about people with disabilities' vocations, their type of disabilities, culture, lifestyles, and needs is an essential competency that planners should acquire. First, knowing people with disabilities' socio-cultural aspects will help customize the assistance/ service.

Moreover, it guides planners in understanding how to communicate with and engage people with disabilities in the planning process. Also, the more planners are aware of the surrounded environment of people with disabilities, the more planners can advocate for agencies

and other fund resources. It can be suggested that giving more attention to the socio-cultural aspect of people with disabilities might help minimize one shape of the invisible power. It might eliminate substituting people with disabilities' fundamental interests, voices, and needs with others not relevant to them (Scott-Villiers & Oosterom, 2016). It also supports the necessity of shifting the planning process from a top-down approach to a participatory to a demand-driven approach to ensure people with disabilities' knowledge is privileged (Blum, Cofini, & Sulaiman, 2020; Suvedi, & Kaplowitz, 2016).

Other planning capacity-building elements might also influence the power relations and people with disabilities' participation patterns in the planning process. For example, managing each case and checking their progress could be a way to examine people with disabilities' reactions towards the assistance as an outcome and their satisfaction with the ongoing process. Considering people with disabilities' voices and interests as a source of knowledge for specific planning approaches will create a solid relationship and eliminate the potential conflict of interests (Lubell, Niles, and Hoffman, 2014). Understanding people with disabilities' current situations (i.e., individual level), system staffs' competencies and resources needed (i.e., institutional level), and the context conditions (i.e., community level) would serve as a holistic approach for planning programs from ethical and social-political stances.

The second and the third elements associated with the planning capacity building factor are (1) partnership and relationship and (2) securing alternative funds. AgrAbility planners highly stressed that relationships and partnerships have the potential power to include people with disabilities in different levels of the planning process or leave them behind. In addition, relationships play a vital role in securing and supporting funds, specifically securing funds for purchasing assistive technology or modified farm equipment. AgrAbility states varied in their

partnerships with other entities. They mentioned Vocational rehabilitations, land grant universities, extension agents, non-profit organizations, and other entities as foundational networking that builds the AgrAbility system.

First of all, the diversity in networking will convey the notion of pluralism (Mahfouz & Awadallah, 2007). In turn, it contributes to leveraging the assistance programs' quality by considering the different sources of knowledge. The partnership and relationship element supported Lubell, Niles, and Hoffman's (2014) argument that cooperative extension is not the only core source for producing and distributing knowledge. However, other diverse actors collaborate, such as governmental agencies, non-governmental organizations, and consultants. For that reason, if people with disabilities' needs and voices are heard via different and diverse networking channels, it will increase the chances to consider and meet their needs in the planning process.

Having a solid network with various entities will help secure funds when the grant funds are insufficient to cover all expenses. A pluralistic system should embrace various service providers, approaches, funding resources, and interrelated knowledge system networking (Suvedi & Kaplowitz, 2016). The study findings highlighted fundraising and sponsorship as essential sources of alternative funds. If the relationship with other entities is weak, there wouldn't be a chance to support alternative funds, and there is a high probability of leaving people with disabilities' needs behind. Specifically, the research presented that some AgrAbility programs' participants with disabilities are highly dependent on assistive technology and modified farm equipment to continue farming. It can explain how the partnership could strengthen or hinder participation patterns and, ultimately, privilege or ignore people with disabilities' interests.

Moving on to the second factor, which is approaches that promote social justice. Outreaching and engagement approach, the two elements helped examine power relations, negotiation, and interests that might influence engaging farmers with disabilities in the planning process. The outreach approach focused on the approaches used to let farmers with disabilities know about the AgrAbility assistance/services. The findings highlighted that understanding people with disabilities' skills, literacy, culture, and languages are essential to reaching out to them and letting them know about the available resources. Another approach to helping people with disabilities decide to get involved in AgrAbility is considering their family as a critical stakeholder. Some AgrAbility planners stressed that sometimes people with disabilities' families are the key person who shares their needs and voices with AgrAbility. It is either because farmers' type of disabilities hinders them from sharing their needs or because of disability stigma that makes farmers not aware they have a disability. In turn, they do not seek any help. Thus, considering and involving farmers' families (i.e., caregivers) in outreaching is essential to include farmers' voices.

Also, expanding the venues to reach out to different populations was another route to ensure AgrAbility assistance could be presented in several venues, specifically events, workshops, etc., that invited different farm populations, such as Hispanic, Native American, etc. Interestingly, the findings showed that hiring some representative within the team who could help reach out to specific populations, especially those that are overlooked and underserved, is another approach to consider equity and inclusion.

The engagement approach highlighted several components that strengthen participation patterns for farmers with disabilities. Being transparent with farmers in the beginning about the financial situation and to what extent AgrAbility could support them with money or not purchase

farm equipment or assistive technology is crucial in building a trustworthy relationship. Like the outreaching approach, engaging different types of disabilities, including but not limited to physical limitations, psychological limitations, etc., and including overlooked populations in AgrAbility assistance has contributed to promoting social justice. Considering farmers' disabilities type in terms of using various communication methods helped engage farmers with disabilities in the planning process; this is another level of increasing people participation pattern. The last engagement approach is using cultural humility. Habashy and Cruz (2021) have noted that the "cultivation of cultural humility could potentially serve to open doors for meaningful relationships and partnerships between individuals of different cultural backgrounds." (p. 26).

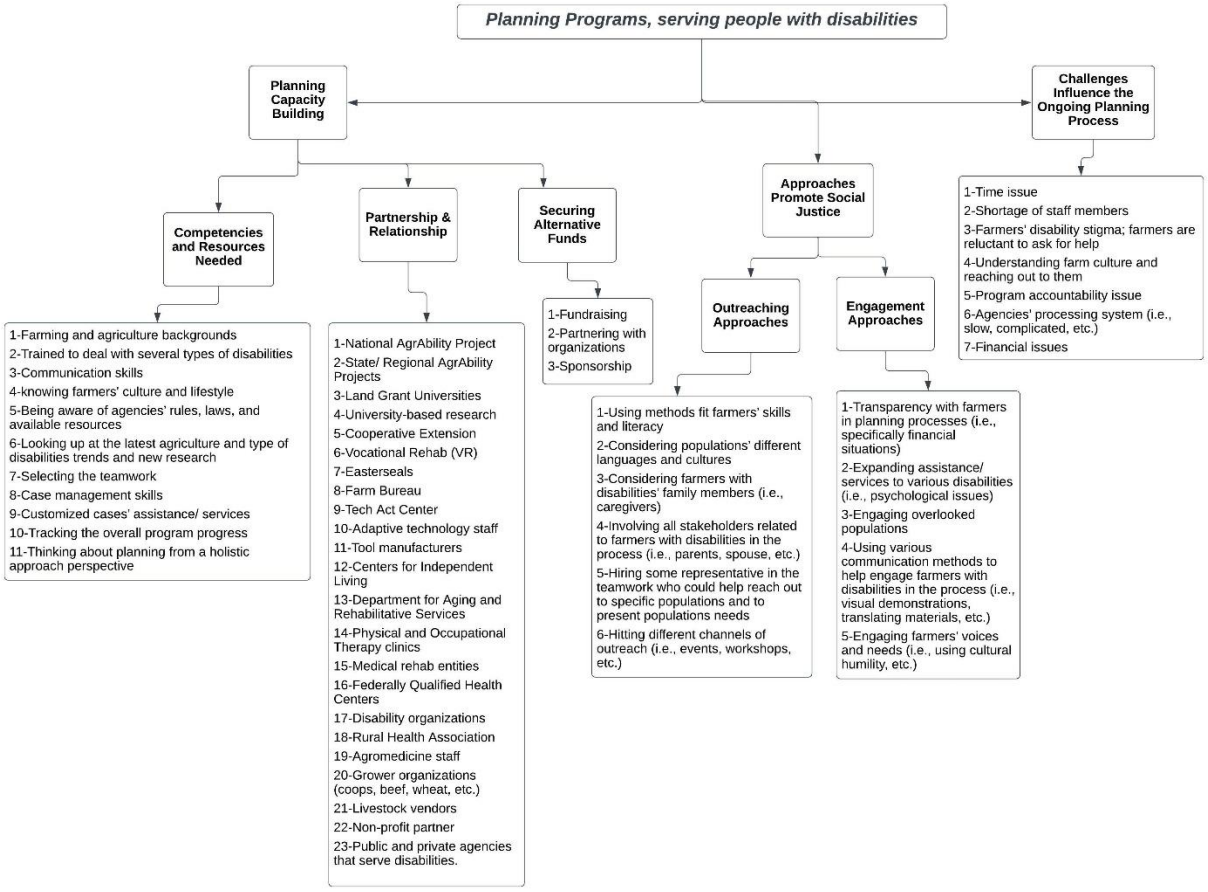
The last factor of the framework addressed the challenges that could influence the ongoing planning process; this reflects the hidden power that may influence the planning process from ethical and social-political sides. Time issues and shortage of staff numbers are highlighted as challenges that influence engaging farmers with disabilities in the planning process. Some AgrAbility planners revealed that engaging all stakeholders, including farmers with disabilities, in the planning process is all about the time issue. However, other planners mentioned that people with disabilities are busy. Sometimes, they cannot step away from their work to engage in any conversation, even if it will help them do their job safely and easily. Drawing on time issue challenge, considering farmers with disabilities' lifestyle and the nature of their farm work will guide planners to choose the way of communication and the time that fit farmers' schedule. Ultimately, it improves the participation pattern and relationships. Supporting what has been shared previously, disability stigma and understanding farm cultures were highlighted again as major challenges that influence the ongoing participation in the planning process. For example,

some planners mentioned that the way they discuss the “disability” word with farmers affects the negotiation, ultimately strengthening or hindering the ongoing interactions. (Kennedy & Minkler, 1998; Rocco, 2005; Zola, 1993). In addition, program accountability is highlighted as a challenge to maintain under the shortage of funds. It helps conclude the importance of considering several outreach and engagement approaches to ensure the program impacts farmers with disabilities' quality of life.

Similarly, when the program is launched, a few people are aware of it. In turn, reaching out to people with disabilities to engage them in the program become essential to improve program accountability and sustain funds. How planners decide to do the outreach and engage people could shape a hidden power. Furthermore, this study, as have others (Beaulieu & Cordes, 2014; Franz, 2015), highlighted the importance of tracking program progress to provide evidence that the program has an impact at different times (short-, medium-, and long-term) and on different actors (including public value) to maintain funding. Lastly, agencies’ (i.e., VR) processing systems are described as complicated and slow. AgrAbility planners mentioned that farmers with disabilities sometimes withdraw from working with partnering agencies because of the heavy load of paperwork and its long process. For that reason, the complexity of some agencies’ processes will influence the ongoing negotiation and inhibit farmers’ power to get involved in the planning process. In a similar, the financial issue has a massive impact on whether considering farmers with disabilities’ needs or excluding their needs due to fund issues, specifically their need for assistive technology and modified farm equipment. It may help conclude that financial issues would lead to another shape of hidden power in the planning process.

Figure 2

The Framework Used for Planning Programs Serving People with Disabilities, In Agriculture, From the Social Justice Lens



Evaluation Approaches Used for Evaluating AgrAbility Programs

Not surprisingly, the study supports Baughman, Boyd, and Franz' (2012) study findings that persuasive use was the principal purpose of use evaluation results by the majority in AgrAbility. Persuasive use means the evaluation findings sustain fund accountability or inform annual reporting requirements to keep program continuity (Baughman, Boyd, and Franz, 2012). The current study found that the self-report form (e.g., surveys/questionnaires) was the most used tool for evaluating the AgrAbility program impact (short, medium, and long-term). This finding aligned with Larese-Casanova' (2017) research. It is interesting to note that the self-report form

was frequently used in evaluating eight outcome evaluation categories, followed by the direct observation method. The eight outcome evaluations highlighted in the study were (1) participants' practices/behaviors/action outcomes, (2) participants' KASA, (3) participants' engagement, (4) collaborative situations or teamwork effectiveness, (5) program activities, (6) programs' resource allocation, (7) program's (SEE) outcomes, and (8) program's public value. Previous studies (Chen, Feng, Heckman, & Kautz, 2020; Grattan et al., 2020; Lei, Ashwin, Brosnan, & Russell, 2019) highlighted several uses of self-report tools with a particular focus on measuring attitudes, cognitive skills, and behavioral changes.

AgrAbility evaluators expressed three significant factors that inform their decision to use specific method(s) in evaluation methods. The method encourages local participation, flexible in time and space, and fits respondents' specific types of disabilities were the factors. Previous research mentioned that using self-report tools' is less time consumed (Creswell & Creswell, 2017). However, understanding to what extent self-report tools encourage local participation and fit respondents' specific types of disabilities needs more clarification. With that, AgrAbility evaluators shared some recommendations that should be considered when deciding on specific evaluation methods to evaluate programs that serve people with disabilities. This study and others (Floress et al., 2018) highlighted that determining the evaluation's purpose was the first important consideration. It helps check what you want to measure and what tools will help measure that. Another recommendation was to design an evaluation tool that improves the response rate.

Similarly, previous research revealed that self-report forms with complicated questions, miswording, misrepresentative responses, and misdesigning layouts would lead to low response rates (Demetriou, Ozer, & Essau, 2014; Dillman, 2008). The last recommendation was the

necessity to check with participants about their preference for the evaluation method. It may help conclude that based on respondents' type of disabilities, specific evaluation methods should be employed to improve response rates and the quality of the data.

Another key finding from the evaluation survey was that not all the eight outcome evaluation categories detailed above were employed by all surveyed AgrAbility states. Slightly more than half highlighted the following outcome evaluations: evaluating program activities' effectiveness, evaluating participants' practices/ behaviors/ actions outcomes, evaluating participants' KASA changes, and participants' satisfaction. In contrast, assessing participants' engagement in program activities was the lowest employed outcome evaluation.

We could explain the findings based on the nature of the program services. Since AgrAbility assistance and services, generally speaking, are individual-based customizations, the outcome evaluation will be based on evaluating the case's progress. Surprisingly, only four states out of eleven surveyed mentioned that the AgrAbility program evaluates teamwork effectiveness outcomes and the program's public. It can be suggested that giving more attention to evaluating teamwork effectiveness and program public values improves program accountability and ultimately sustains grant funds (Franz, 2015).

Furthermore, the findings showed that most of the eight outcome evaluations occur while the program is in progress and in the wrap-up stages. Around 7 to 8 AgrAbility states said they evaluate participants' KASA and behavioral action. However, only 3 to 4 states considered the follow-up stage of evaluating participants' KASA and behavioral action over time. Regardless of provided assistance, AgrAbility usually works with the case for several months or years; thus, considering long-term evaluation, specifically changes in participants' KASA and their behavioral actions, will help (1) updating the assistance/services based on the case's health

conditions and (2) tracking case's progress in which reflects how the program does impact people quality of life (Fetsch, Jackman, and Collins, 2018)

Improving Self-Report Tools' Usability, Specifically When Evaluating Programs Serving Farmers with Disabilities

All AgrAbility evaluators said they use self-report tools with farmers with disabilities to evaluate program outcomes. Measuring participants' attitudes, reactions, behavioral changes, and getting participants' feedback were the most purposes of the use. However, previous research (Baumeister, Vohs, & Funder, 2007; Chao and Lam, 2011; Floress et al., 2018; Young et al., 2013) stressed that measuring behavioral changes needs more consideration from evaluators; this could be done by incorporating other tools with self-report forms. Back impairments, arthritis, disabling diseases, and spinal cord injuries/paralysis were the most frequent types of disabilities people experienced using people evaluate AgrAbility program outcomes. This finding may align with what was mentioned earlier by AgrAbility evaluators when they said method fits respondents' specific types of disabilities is a factor that informs their decisions to use specific method(s) in evaluation. Even other types of disabilities, such as brain injury, visual impairments, and mental illness, were surveyed by AgrAbility. Still, a few states have selected that, assuming program participants' families help fill out self-report forms.

AgrAbility evaluators highlighted different self-report formats used; the printed paper followed by face-to-face questionnaires were the most used. The accessibility of self-report forms (either technology or distance location) could influence the response rates (Saw, Main, and Gastin, 2015). This study showed that respondents' response rate is considered the most prominent challenge/obstacle when using self-report forms with people who experienced disabilities. It is followed by respondents' willingness to respond and respondents' demographic characteristics (type of disability, age, gender, etc.). Thus, part of the current study was to

understand AgrAbility evaluators and program participants with disabilities' opinions of improving self-report tools' usability to improve response rates (see Table 31).

AgrAbility evaluators and program participants brought seven recommendations; however, program participants with disabilities shared the other three recommendations to improve self-report usability. The first recommendation is to determine the purpose of the evaluation. When self-report questions have a target measurement, it will increase response rates and encourage respondents to get involved in the evaluation because it has a meaningful purpose. The second is to check with participants about their preference for the evaluation method. Program participants varied in their preferences of which evaluation methods they preferred; the majority inclined to interviews over questionnaires. However, questionnaires are frequently employed by AgrAbility for different purposes; therefore, other recommendations were highlighted by both points of view to improve response rates, specifically using self-report forms.

Giving program participants options in deciding which format of the self-report tool they want to receive is highly encouraged by AgrAbility evaluators. Also, program participants who get interviewed confirmed the same recommendation; they stressed the necessity to check their preference of how to be notified to get involved in evaluations. Some interviewees preferred text messages, others email or mail. Therefore, considering program participants' preferences will increase the chance of engaging them in the evaluation. Not surprisingly, keeping the self-report tool's design and instructions simple was preferred; self-report questions and completion time was the most highlighted elements. Suppose the completion time for self-report forms is less than 10 min. It may encourage respondents to answer questions, but checking their time availability plays a critical role in increasing the response rate. Saw, Main, and Gastin's (2015)

study findings showed that completing the assessment in a fashion time is associated with self-report tools' accessibility and time of completion.

Sharing the purpose of self-report questions was addressed to ensure that respondents understand why you ask those specific questions. A clear statement of the self-report purpose also could influence response rates (Chen, Feng, Heckman, & Kautz, 2020). Interestingly, program participants expressed their need for progress checking. This recommendation might support the conclusion that the necessity that AgrAbility program needs to consider evaluating participants' KASA and behavioral actions overtimes. In addition, program participants expressed their need to be aware of the evaluation process. For example, one interviewee highlighted that when they become engaged in all processes, there would be a chance for the participant to refine the process and resources on precisely what fits the current situation, specifically advanced health conditions. Sharing back evaluation findings and results was the last recommendation. It helps prove how the program has an impact and helps raise funds. Ultimately, it sustains program accountability.

Table 31

Improving Evaluation Approaches, Specifically Self-Report Tools Usability: Recommendations by AgrAbility Evaluators and Program Participants with Disabilities

Recommendations	Supporting Quotes	
	AgrAbility Evaluators	**Program Participants with Disabilities**
Determine the purpose of the evaluation	"Only measure what needs to be measured for the project and impact because producers with a disability are busy. We should not waste their time on meaningless surveys and evaluations."	"Some questions get to what you need to know and about basic demographics, but a questionnaire is never static; it's an evolving process, depending on how your program goes. So different points in time with different classes, you may need to modify that survey to ask different things."

Table 31Continued

Recommendations	Supporting Quotes	
	AgrAbility Evaluators	**Program Participants with Disabilities**
Check with participants about their preference for the evaluation method	"Offering a variety of evaluation methods. For example, surveys may be difficult for someone with a TBI to complete independently. If we offer to complete them with the client, we risk them not sharing true information/bias. Some evaluation tools are so lengthy that they discourage people with attention deficits from completing."	"Personally, an interview is much better because as the conversation flows, and the interview flows, you know, you may stumble across an avenue that you never considered or that a questionnaire will not cover in-depth."
Check the best self-report format that will work for participants.	"Give them options for receiving questionnaire (mail, electronic, over the phone) and accessible."	"So, I'm a more in-person guy regarding the surveys and feedback, like over the phone or email. When I get the standard survey questions, I know what kind of information they will get out of it, so I take my time because they need that information to improve the program and everything, so I understand its necessity. It wouldn't be my first option if I had a choice."
Check with participants about their preference of how to be notified to get involved in evaluations		"Um, an email is fine initially. It depends because if you just get an email about a survey, you may not know who it's from. So, if they send out a survey, I would prefer a phone call follow-up, like "hey, this is why we sent this out," because you may not quite understand why they need this information initially.

Table 31 Continued

Recommendations	Supporting Quotes	
	AgrAbility Evaluators	**Program Participants with Disabilities**
Keep the self-report tool's design and instructions simple	"Make it as easy as possible to complete. Only ask important questions. Have a purpose for each question."	"Most surveys should probably take under 10 to 15 minutes, and most of them are underneath that. I haven't seen one survey from AgrAbility come out that's longer than 10 minutes because when you get into anything longer than that, you actually get mad at the survey, and you just don't pay attention to the questions."
Choose a time that works for participants	"Send surveys at a time that is convenient to them."	"Usually, send me an email away ahead of time, so I have time to work through my schedule because, like right now, we're having (calving season), so I'm checking calves all the time, so the best way will be to send me an email or message ahead of time."
Share the purpose of the self-report questions	"Let them know what the purpose of the survey is; if possible, report back (share results)."	"There was one question I had at one point; a question was asking me for my medication lists, and I thought, well, what does that matter about, you know, getting funding for my equipment that I was needing, so that was one question I didn't think was about getting my equipment."
Follow up with participants and check their progress		"We've probably talked once or twice about every quarter, maybe three to four months, as we're usually talking on the phone or sending an email back and forth about whatever's going on with the

		ranch here and my conditions.”
Keep program participants updated with the evaluation process		“It involves you in the process, so I better understand where I am at in the process and where I am in the system. I usually get a phone call, and they say they're working on it, and that's great. Instead of having the feel-good phone call, a call says, " Hey, we're working on it, we're still looking for funding, and everything's good to go.”
Share back evaluation results	“Provide examples of how the program has evolved based on input from previous participants.”	“They could probably market themselves better for the feedback on maybe some social media. Yes, the surveys are great, and they are voted out, go to grants, and people who approved these grants need that kind of information. If you're looking for some broader spectrum feedback, you probably need to reach out to social media.”

Summary and Conclusion

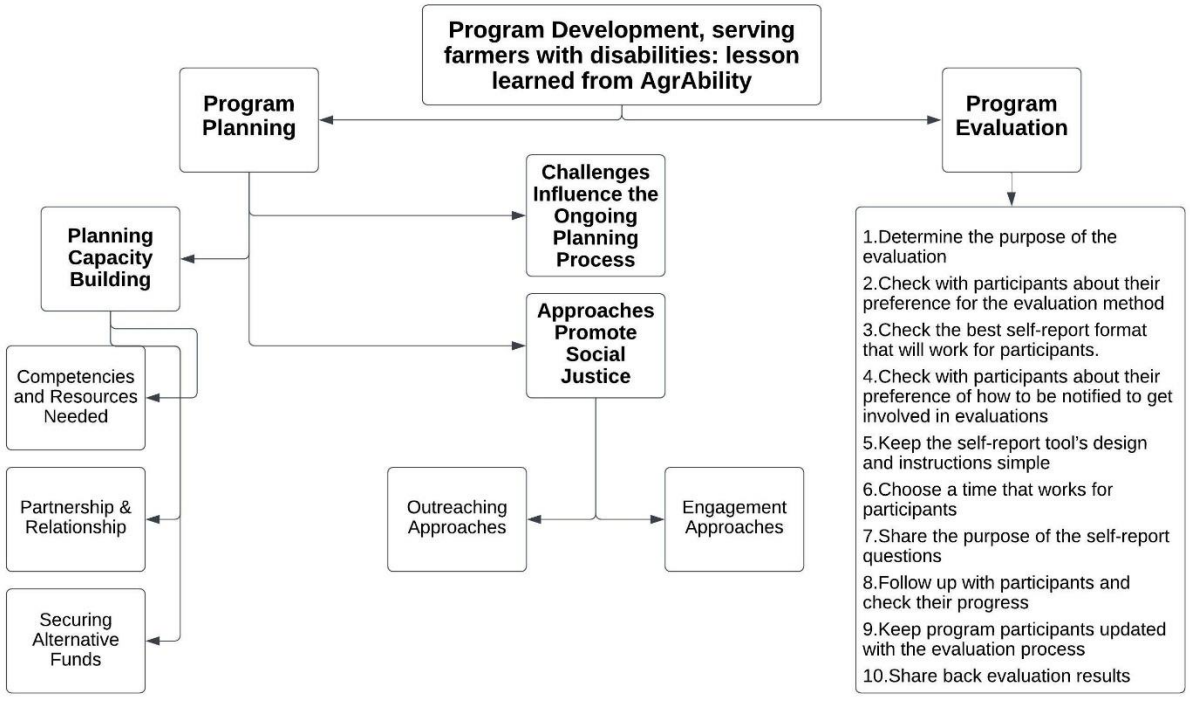
The study findings provide insights and a nuanced understanding of how program planning and evaluation occur in a disability context, specifically in agriculture. The study covered the technical side of planning assistance programs for people with disabilities using the TOP model. Also, the study helped understand to what extent ethical and social-political stances are addressed or enacted within the ongoing planning process. The planning survey and interviews helped underline the important factors integrated into a framework. The framework could guide planning programs serving people with disabilities, focusing on ethical and social-

political stances. Also, I suggest that this framework could also guide evaluators to assess how programs promote social justice considering the highlighted factors (see Figure 4).

Furthermore, the study findings examined the standard evaluation approaches used by AgrAbility. In addition, AgrAbility evaluators and program participants with disabilities shared from their experiences ten recommendations that could help improve self-report tools' usability with people with disabilities (see Figure 4). In conclusion, developing programs that serve people with disabilities needs an extra careful understanding of the current context and situations (i.e., social, economic, environmental, cultural, historical, educational, emotional, geographical, and political) to consider equity, diversity, inclusion. Ultimately, programs contribute to promoting social justice, explicitly serving vulnerable communities.

Figure 3

Program Development Framework, Serving Farmers with Disabilities: Lesson Learned from AgrAbility



Limitations and Future Research

The study has several limitations that need to be considered in future research. Using the explanatory sequential design with 16 AgrAbility states (a quantitative approach, a survey, a qualitative approach, an interview) helped identify and elucidate essential elements of program planning approaches used in practice. However, collecting data from two affiliated project states out of the 16 states did not wholly convey the approaches of planning programs in states where USDA funds stopped, assuming that the approaches might be different based on the available funds. Secondly, interviewing seven people contributed to understanding better how social-political and ethical stances appear within the program planning approaches, specifically from a national/state project's point of view. Because only one affiliated state was interviewed, it led to a lack of evidence for understanding the ongoing planning process from social-political and ethical stances from the affiliated project's point of view.

Another limitation was associated with conducting a focus group. Because one state suggested the presence of one program staff during the interview, interviewees struggled to engage fully in sharing their opinion about the evaluation process and preference improvements they would like to see. It presented a lack of evidence for improvements to be considered to enhance evaluation approaches. In addition, there were some difficulties reaching out to AgrAbility participants with disabilities in different states, which led to getting perspectives about evaluation programs from a small number of participants. The last limitation is struggling to get evaluation program perspectives from all 16 states; only 11 AgrAbility states shared evaluation program approaches. Some AgrAbility states could not fill out the evaluation survey because people were busy, and the survey completion time was a little bit over 15 min.

Moreover, other states do not currently conduct any assessments or evaluations because they are no longer have a state grant.

Future studies might need to investigate other programs serving farmers with disabilities in other countries to examine more elements of program planning approaches used in practice, specifically in a disability context. Additional studies will be necessary to identify further improvements for evaluation programs serving people with disabilities. It could be improved by interviewing additional people with disabilities with different demographic characteristics. Another topic for future research is examining to what extent these research elements of program planning approaches are applicable in another context, focusing on serving people with disabilities.

Implications of the Study Findings

The study findings offered several venues for future implications, specifically for people planning and evaluating programs serving people with disabilities in agriculture. The framework based on various state planning approaches can be used as a catalyst reflection. It may help program staff understand what they might need to consider enhancing program planning effectiveness (from a technical side) and what program staff might need to consider promoting social justice (from social, ethical, and political sides). The shared recommendations regarding (1) reasons for choosing specific methods when conducting need assessments and (2) strategies to maintain financial, staff, volunteer, etc., commitment to achieve program goals could serve as suggestions for future program planners to improve program accountability and its effectiveness.

Sharing recommendations about improving self-report tools usability from program participants with disabilities and AgrAbility evaluators would minimize several limitations that influence evaluating program impacts, specifically that serving people with disabilities. Also,

considering program participants with disabilities' suggestions about expanding evaluation results usability on a large scale, using social media, different platforms, and showcases to raise funds would contribute to shifting AgrAbility evaluators and other evaluators' perspectives towards enhancing program results/ feedback usability. Lastly, the lessons learned about program planning, and evaluation would be generalizable to potential applications in other contexts beyond just programs serving people in agriculture who live with disabilities.

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Appendix A

Data Collection Samples

Table 1

Data Collection Samples

AgrAbility states	Planner survey	Evaluator survey	Interview	Focus group
Alaska AgrAbility Project	√			
California AgrAbility Project	√	√	√	
Colorado AgrAbility Project	√	√	√	√
Iowa (affiliate)	√			
Kansas AgrAbility Project	√	√		
Maine AgrAbility	√		√	
Missouri AgrAbility Project	√	√		
Nebraska AgrAbility	√	√	√	√
North Carolina AgrAbility	√			
AgrAbility for Pennsylvanians	√	√		
South Dakota AgrAbility Project	√	√		
Tennessee AgrAbility Project	√	√		
Texas AgrAbility	√	√	√	√
AgrAbility Virginia	√		√	
West Virginia AgrAbility Project (affiliate)	√	√	√	
AgrAbility of Wisconsin	√	√		
Total	16	11	7	3

Appendix B

Study Questions Aligned with Study Design and Target Participants

Table 2
Study Questions Aligned with Study Design and Target Participants

	Study Questions	Study Design	Target Participants
1)	What program planning approaches and frameworks are used for planning AgrAbility programs?		
a)	How, if at all, is the social-political domain (i.e., power, interests, negotiation, and responsibilities) addressed or enacted within AgrAbility's planning frameworks?	Quantitative Method (survey)	16 states' program planners
		Qualitative Method (interview)	7 states' program planners who are the first participants complete the survey (phase 1) and are willing to engage in the second phase (interview). Also, one states are affiliated projects, and the other six states are state/national projects.
2)	What evaluation approaches and frameworks are used for the program evaluation of AgrAbility programs?		
		Quantitative Method (survey)	11 states' evaluators are responsible for program evaluation either as an internal or external evaluator recruited by the state's program director.
3)	How and to what extent do AgrAbility programs use self-report tools in their evaluation approaches?		
a)	What good emergent practices improve self-report tools' usability, specifically when evaluating programs serving farmers with disabilities?	Quantitative Method (survey) Qualitative Method (focus group)	11 states' evaluators Seven program participants with disabilities from 3 states

Appendix C

AgrAbility Planners Survey

Basic Information

1- Would you please provide an example (i.e., the name) of the AgrAbility program on which you will focus when responding to the remainder of these questions? The program could be in the implementation phase (already has been delivered to participants) or in the planning phase (still in the preparation stage). [text entry]

2- Which of the following types of programs is most closely associated with the example program, you indicated in response to Question 1? [select **ONE**]

- o A program to help improve individuals' social, economic, and environmental (SEE) condition
- o A program to help improve families' SEE condition
- o A program to help improve groups/communities' SEE condition
- o A program to help improve agencies or organizations' SEE condition
- o A program to help improve regions' SEE condition
- o A program to help improve all the above categories

3- Please briefly describe the program's purpose. [text entry]

4- Based on the program example you provided, which are the **types** of disabilities experienced by people being served through this program? [select **ALL** that apply]

- □ Arthritis
- □ Spinal cord injuries/paralysis
- □ Back impairments
- □ Amputations
- □ Brain injury
- □ Visual impairments
- □ Hearing impairments
- □ Disabling diseases
- □ Cerebral palsy
- □ Respiratory impairments
- □ Head injury
- □ Others (please specify) [text entry]

Program Development: Need Assessment Questions:

When you start to develop a program for farmers with disabilities, recognizing the current social, economic, and environmental (SEE) condition(s) is an important step to identify gaps between "what is" and "what should be."

5- What processes do you use to assess the characteristics of potential participants? (Select **ALL** that apply)

- □ Personal interviews with administrators

- Group interviews with staff
- Surveys
- Focus groups
- Others (please specify) [text entry]
- None

6- Based on your program example, please select the information on participants you collect in the needs assessment phase. [select **ALL** that apply]

- Social information
- Economic information
- Environmental information
- Historical information
  (i.e., that help examine how previous outreach programs interacted with the community and the drawbacks of previous program planners have faced avoiding such disadvantages in future educational programs)
- Educational information
  (i.e., that help know communities' educational backgrounds and their preferred educational patterns associated with their literacy levels)
- Emotional information
  (i.e., that help to differentiate between local people "wants" rather than actual "needs," and the expression of wants that lead to the identification of the fundamental needs which is beneath the surface)
- Political and legal structure information
  (i.e., that help consider the key players who influence the planning process either locally, regionally, or globally)
- Geography and infrastructure information
  (i.e., road, irrigation system, project area, etc.)
- Others (please specify) [text entry]

7- Which of the following processes do you use to assess the gaps (i.e., between "what is" and "what should be" vis-à-vis the stated objectives of your program)? [select **All** that apply]

- Statistical records
- Content analysis
- Direct observation
- Case study
- Social network analysis
- Survey
- Key informant
- Nominal group process
- Delphi technique
- Advisory groups and task forces
- Community meetings
- Focus groups
- Others (please specify) [text entry]

8- Based on your answer to **Q7**, please share **Two reasons for Each choice** of the processes you use to assess the gaps. (i.e., because of low cost, more efficient, etc.) [text entry]

9- What are the challenges that you face when you conduct a needs assessment? [select **All** that apply]

- Time to conduct the need assessment
- Money availability to conduct need assessment
- Level of staff expertise to conduct the assessment
- Political considerations and decision-makers issues to involve the community in need identification
- Others (please specify) [text entry]

Program Development: Program Participants Questions

10- Which of the following choices does your program example focus on regarding participants' desired changes or outcomes? [select **ALL** that apply]
My program example focuses on changing participants'……..

- Knowledge
  (i.e., program focusing on increasing awareness, understanding, and problem solving)
- Attitudes
  (i.e., program focusing on changing outlooks, perspectives, or viewpoints)
- Skills
  (i.e., program focusing on improving verbal or physical abilities, developing new skills or improving performance)
- Aspirations
  (i.e., program focusing on altering ambitions, hopes, or behaviors)

11- Which of the following processes do you use to assess target participants' knowledge, attitude, skills, or aspirations needs [select **ALL** that apply]?

- Statistical records
- Content analysis
- Direct observation
- Case study
- Social network analysis
- Survey
- Key informant
- Nominal group process
- Delphi technique
- Advisory groups and task forces
- Community meetings
- Focus groups
- Others (please specify) [text entry]

12- What challenges do you face when assessing the participant's knowledge, attitude, skills, or aspirations (KASAs) gaps? [select **ALL** that apply]

- Time to conduct the need assessment.
- Money availability to conduct the assessment.
- Level of staff expertise to conduct the assessment.
- Political considerations and decision-makers issues to involve the community in assessing KASAs gaps.
- Others (please specify) [text entry]

13- Who do you engage in developing these educational strategies to ensure success? [select **ALL** that apply)

- Program staff
- Participants
- External organizations (i.e., non-profit organizations, education and rehabilitation services, etc.)
- Others (please specify) [text entry]

14- If you select the "participants" option in Q14, what are the most difficult challenges you face with engaging participants in developing these educational strategies? [select **ALL** that apply]

- Lack of members participating in the discussion.
- Some group members are much vocal than others.
- Participants do not easily generate quantities of ideas.
- Participants have conflicts with program team members' perspectives.
- Others (please specify) [text entry]

Program Development: Collaboration and Teamwork Questions:

15- In your program example, which public agencies, private organizations, or other entities must collaborate to reach program goals? [text entry]

Questions About "Resources" To Help Understand the Programming Scope:

Resource mobilization is an integral part of program planning. It leads to synergy, efficiency, and effectiveness in programs, resulting in allocating resources needed. Ultimately, it will foster coordination with stakeholders and establish trust with participants.

16- Based on your experiences, which of the following assets/resources are the most constrained (have a limited amount of) when preparing a resource mobilization plan? [select **ALL** that apply]

- Capacities and skills of staff (skills, training, knowledge, influence)
- Local public and private, non-governmental organizations and institutions collaborations
- Physical assets (i.e., land, buildings, equipment, roads, vehicles, etc.)
- Leadership skills and personal networks
- Support from outside donors (private and/or public)
- Volunteer staff

- Financial resources
- Others (please specify) [text entry]

17- Could you share your experiences of what strategies could be followed to maintain the financial, staff, volunteer, etc., commitment to completing the program goals? [text entry]

Demographic Information

18- Which of the following program development stages are you responsible for or collaborate on in the AgrAbility project? [select **ALL** that apply]

- Need assessment stage (SEE conditions/context assessment)
- Need assessment stage (participants' practices/behaviors)
- Need assessment stage (participants' KASA)
- Need assessment stage (acquire and allocate resources)
- Planning program activities
- Identifying and recruiting program stakeholders such as program staff, facilitators, volunteers, program participants, etc.
- Others (please specify) [text entry]

19- Approximately how long (rounded to the nearest year) have you worked with the AgrAbility Project? [text entry]

20- What is your position within the AgrAbility project (i.e., project director, etc.)? [text entry]

21- Name:

22- E-mail:

Thank you for completing this survey!

Appendix D

AgrAbility Evaluators Survey

AgrAbility Programs: Evaluation's Types and Tools

1- Evaluation is essential to maintaining program effectiveness and accountability. However, evaluation results could be used differently based on a specific purpose. Based on your experiences, which of the following **most represent** the purpose of using AgrAbility programs evaluation results/findings? (Select **ONE**)

- o Instrumental use
  (i.e., evaluation findings inform a specific decision either stop, modify, maintain the program continuity in some way)
- o Conceptual use
  (i.e., evaluation findings elevate program staff/ key stakeholders' understanding about the program in a new way (larger context vs. specific context, educational purpose vs. direct actions)
- o Persuasive use
  (i.e., evaluation findings sustain fund accountability or inform annual reporting requirements to keep program continuity)
- o Process use
  (i.e., evaluation findings contribute to building evaluators' intellectual and critical thinking capacities from engagement in the evaluation process either directly or indirectly)

2- Based on your experiences, which of the following methods are **most often used to** evaluate AgrAbility program impact in the short, medium, and long-term? (Select **ALL** that apply)

- □ Direct observation
- □ Self-report forms (e.g., surveys/questionnaires)
- □ Focus groups
- □ Interviews
- □ Document reviews
- □ Photography
- □ Reflective Appraisal of Programs (RAP)
- □ Others (please specify) [text entry]

3- Identifying the evaluation purposes and the program context (i.e., participants, time, place, resources) are important in selecting the evaluation method. Suppose you decide to conduct a specific evaluation method (survey, observation, or interview, etc.). What would be the most **TWO important factors** that inform your decisions to use evaluation method(s)? For example, suppose focus group and interview methods will fit the evaluation purposes and program's context. What would be the **TWO most critical factors** that will make you decide which method to choose? (Select **TWO** only)

- □ Its cost.
- □ It encourages local participations

- ☐ It contributes to decreasing response bias
- ☐ It is flexible in time and space
- ☐ It is concrete in specifying or generalizing results
- ☐ It fits respondents' specific types of disabilities
- ☐ Others (please specify) [text entry]

4- AgrAbility programs serve and assist agricultural workers with disabilities. Based on your experiences, what recommendations should evaluators who evaluate programs that serve people with disabilities consider when **deciding on specific evaluation methods** to fit respondents with disabilities status? (i.e., ask respondents for their evaluation method preferences, etc.). [text entry]

Outcome Evaluation Questions: At Program's Performance Various Levels

5- In general, are AgrAbility program participants' practices/behaviors/actions outcomes evaluated? (Select **ONE**)
- o Yes
- o No
- o Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 6**
[If your answer **NO],** move to **Question8**

6- In which evaluation stage are AgrAbility programs participants' practices/behaviors/actions evaluated? (Select **ALL** that apply)
- ☐ The start-up evaluation stage (before participants involved in the programs)
- ☐ While the program is in progress (participants get involved in the program)
- ☐ After the program wraps up (participants have completed the program)
- ☐ Long after the program finishes (follow-up)
- ☐ Others (please specify) [text entry]

7- What processes do you use to assess participants' practices/behaviors/action outcomes? (Select **ALL** that apply)
- ☐ Retrospective pretest with post-test
- ☐ Pre/post-tests
- ☐ Direct observation
- ☐ Self-report forms (e.g., surveys/questionnaires)
- ☐ Focus groups
- ☐ Document reviews
- ☐ Photography
- ☐ Peer/parent/self-ratings
- ☐ Reflective Appraisal of Programs (RAP)
- ☐ Others (please specify) [text entry]

8- In general, are AgrAbility program participants' knowledge, attitudes, skills, and aspirations (KASA) outcomes evaluated? (Select **ONE**)

- o Yes
- o No
- o Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 9**
[If your answer **NO],** move to **Question11**

9- In which evaluation stage are AgrAbility program participants' knowledge, attitudes, skills, and aspirations evaluated? (Select **ALL** that apply)

- □ The start-up evaluation stage (before participants involved in the programs)
- □ While the program is in progress (participants get involved in the program)
- □ After the program wraps up (participants have completed the program)
- □ Long after the program finishes (follow-up)
- □ Others (please specify) [text entry]

10- What processes do you use to assess participants' KASA outcomes? (Select **ALL** that apply)

- □ Retrospective pretest with post-test
- □ Pre/post-tests
- □ Direct observation
- □ Self-report forms (e.g., surveys/questionnaires)
- □ Focus groups
- □ Document reviews
- □ Photography
- □ Peer/parent/self-ratings
- □ Reflective Appraisal of Programs (RAP)
- □ Others (please specify) [text entry]

11- In general, are AgrAbility program long-term impacts (i.e., changes in the social, economic, environmental conditions (SEE) evaluated? (Select **ONE**)

- o Yes
- o No
- o Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 12**
[If your answer **NO],** move to **Question 13**

12- What processes do you use to assess the program's social, economic, environmental conditions (SEE) outcomes? (Select **ALL** that apply)

- □ Self-report forms (e.g., surveys/questionnaires)
- □ Public records
- □ Incident reports
- □ Monitoring

- Reflective Appraisal of Programs
- Retrospective pretest with post-test
- Others (please specify) [text entry]

13- Do AgrAbility programs evaluate teamwork effectiveness outcomes (such as how program staff, facilitators, volunteers, program participants, etc., collaborate)? (Select **ONE**)

- Yes
- No
- Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 14**
[If your answer **NO],** move to **Question 16**

14- In which evaluation stage are AgrAbility programs collaborative situations or the teamwork effectiveness outcomes being evaluated? (Select **ALL** that apply)

- The start-up evaluation stage (before participants involved in the programs)
- While the program is in progress (participants get involved in the program)
- After the program wraps up (participants have completed the program)
- Others (please specify) [text entry]

15- What processes do you use to evaluate collaborative situations or the teamwork effectiveness outcomes? (Select **ALL** that apply)

- Group meetings with staff
- Self-report forms (e.g., surveys/questionnaires)
- Focus groups
- Videotapes
- Direct observations
- Sociograms
- Meeting agendas or minutes
- Expert reviews
- Others (please specify) [text entry]

16- In general, are AgrAbility program participants' engagement in program activities (for example, attending program activities, asking questions, communicating with each other, making discussions, etc.) being evaluated? (Select **ONE**)

- Yes
- No
- Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 17**
[If your answer **NO],** move to **Question 19**

17- In which evaluation stage do AgrAbility program participants' engagement in program activities being evaluated? (Select **ALL** that apply)

- ☐ While the program is in progress (participants get involved in the program)
- ☐ After the program wraps up (participants have completed the program)
- ☐ Others (please specify) [text entry]

18- What processes do you use to evaluate participants' engagement in program activities? (Select **ALL** that apply)

- ☐ Attendance records
- ☐ Audience counts
- ☐ Contact records
- ☐ Self-report forms (e.g., surveys/questionnaires)
- ☐ Staff reports in an electronic database
- ☐ Direct observation
- ☐ Focus groups
- ☐ End-of-session questionnaires/ feedback forms
- ☐ Reflective Appraisal of Programs (RAP)
- ☐ Others (please specify) [text entry]

19- In general, are AgrAbility program participants' reactions (satisfaction) towards program activities and qualities being evaluated? (Select **ONE**)

- o Yes
- o No
- o Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 20**
[If your answer **NO],** move to **Question 22**

20- In which evaluation stage are AgrAbility program participants' reactions (satisfaction) towards program activities and qualities evaluated? (Select **ALL** that apply)

- ☐ While the program is in progress (participants get involved in the program)
- ☐ After the program wraps up (participants have completed the program)
- ☐ Others (please specify) [text entry]

21- What processes do you use to evaluate participants' reactions (satisfaction) towards program activities and quality outcomes? (Select **ALL** that apply)

- ☐ Self-report forms (e.g., surveys/questionnaires)
- ☐ Focus groups
- ☐ Direct observations
- ☐ End-of-session questionnaires/ feedback forms
- ☐ Reflective Appraisal of Programs (RAP)
- ☐ Others (please specify) [text entry]

22- In general, are AgrAbility programs' activities' (i.e., a class, workshop, seminar, field day, or consultation, etc.) effectiveness being evaluated? (Select **ONE**)

- o Yes
- o No

- Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 23**
[If your answer **NO],** move to **Question 25**

23- In which evaluation stage are AgrAbility program participants' reactions (satisfaction) towards program activities qualities (i.e., contents, delivery methods, time, etc.) being evaluated? (Select ALL that apply)
- While the program is in progress (participants get involved in the program)
- After the program wraps up (participants have completed the program)
- Others (please specify) [text entry]

24- What processes do you use to evaluate program activities (i.e., a class, workshop, seminar, field day, or consultation, etc.) effectiveness outcomes? (Select **ALL** that apply)
- Self-report forms (e.g., surveys/questionnaires)
- Focus groups
- End-of-session questionnaires/ feedback forms
- Reflective Appraisal of Programs (RAP)
- Others (please specify) [text entry]

25- In general, do allocation/expenditure of AgrAbility program resources being evaluated (using resources on programs in an appropriate way that increases programs' effectiveness)? (Select **ONE**)
- Yes
- No
- Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 26**
[If your answer **NO],** move to **Question 27**

26- What processes do you use to evaluate programs' resource allocation (i.e., using resources on programs appropriately that increase programs' effectiveness) outcomes? (Select **ALL** that apply)
- Group meetings with staff
- Surveys/ self-report/ questionnaires
- Focus groups
- Direct observations
- Expert reviews
- Others (please specify) [text entry]

27- In general, do AgrAbility programs evaluate the program's public value (benefits) (including non-program participants)? (Select **ONE**)
- Yes
- No
- Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 28**
[If your answer **NO],** move to **Question 29**

28- What processes do you use to assess the program's public value outcomes? (Select **ALL** that apply)

- ☐ Direct observation
- ☐ Self-report forms (e.g., surveys/questionnaires)
- ☐ Focus groups
- ☐ Document reviews,
- ☐ Photography
- ☐ Peer/parent/self-ratings
- ☐ Reflective Appraisal of Programs (RAP)
- ☐ Videotapes
- ☐ Public records
- ☐ Incident reports
- ☐ Monitoring
- ☐ Successful stories of non-program participants
- ☐ Others (please specify) [text entry]

Self-report Tools in the AgrAbility Programs Evaluation

A self-report tool, self-report questionnaire, self-report survey, regardless of the different names, are commonly used for several reasons based on the evaluation purpose and the evaluation stage (start-up, in progress, wrap up). In this section, we would like to understand, from your experiences, how self-report tools' validity could be maximized to increase the quality of responses from participants with disabilities.

29- Do you use self-report forms (e.g., surveys/questionnaires) for evaluating program outcomes on farmers with disabilities? In other words, evaluating participants' knowledge, skills, attitudes, behavioral changes, or getting participants feedback, etc. (select **ONE**)

- o Yes
- o No

[If your answer **YES/ Others],** move to **Question 30**
[If your answer **NO],** move to **Question 31**

30- What are the **THREE** most common purposes for your use of self-report forms (e.g., surveys/questionnaires) to evaluate AgrAbility program outcomes among farmers with disabilities? (Select **THREE** only)

- ☐ Measuring participants knowledge
- ☐ Measuring participants attitudes, reactions
- ☐ Measuring participants cognitive and practical skills
- ☐ Measuring participants behavioral changes
- ☐ Getting participants' feedback
- ☐ Getting participants suggestions and recommendations
- ☐ Others (please specify) [text entry]

31- When evaluating AgrAbility program outcomes among people with disabilities, do you commonly ask about their type of disabilities in the demographic information section? (Select **ONE**)

- o Yes
- o No
- o Others (please specify) [text entry]

[If your answer **YES/ Others],** move to **Question 32**
[If your answer **NO],** move to **Question 33**

32- Which are the top **FIVE types** of disabilities experienced by people commonly surveyed (receiving self-report forms filled out by themselves or with assistance from others) to evaluate AgrAbility program outcomes on the short, medium, and long-term changes? (Select **Five** only)

- □ Arthritis
- □ Spinal cord injuries/paralysis
- □ Back impairments
- □ Amputations
- □ Brain injury
- □ Visual impairments
- □ Hearing impairments
- □ Disabling diseases
- □ Cerebral palsy
- □ Respiratory impairments
- □ Head injury
- □ Others (please specify) [text entry]

33- What is the standard format in which AgrAbility program participants receive self-report forms (e.g., surveys/questionnaires) to fill out? (Select **ONE**)

- o Web-online questionnaires
- o Printed paper filled by participants (sent by mail).
- o Telephone questionnaires
- o Face-to-face questionnaires
- o Others (please specify) [text entry]

34- Based on your answer in **Q 33,** what is the primary reason for using this specific delivery format? [text entry]

35- Which top **TWO choices** do you consider as common challenges/obstacles when using self-report forms (e.g., surveys/questionnaires) to evaluate program outcomes with people who experienced disabilities? (Select **TWO** only)

A. Respondents' willingness to respond
B. Respondents provide an accurate response
C. Respondents' response rate
D. Respondents' time availabilities
E. Respondents' demographic characteristics (type of disability, age, gender, etc.)

F. Others (please specify) [text entry]

[If your answer **A],** move to **Question 36**
[If your answer **B],** move to **Question 37**
[If your answer **C],** move to **Question 38**
[If your answer **D],** move to **Question 39**
[If your answer **E],** move to **Question 40**
[If your answer **F],** move to **Question 41**

36- Based on your experiences, what recommendations should evaluators who evaluate programs that serve people with disabilities consider to improve participants' willingness to respond using self-report forms (e.g., surveys/questionnaires)? [text entry]

37- Based on your experiences, what recommendations evaluators evaluate programs that serve people with disabilities should consider to improve participants with disabilities response quality? [text entry]

38- What recommendations should evaluators who evaluate programs that serve people with disabilities consider regarding improving participants with disabilities' response rate? [text entry]

39- Based on your experiences, what recommendations should evaluators who evaluate programs that serve people with disabilities consider regarding meeting participants with disabilities' time availability? [text entry]

40- What recommendations should evaluators who evaluate programs that serve people with disabilities consider regarding fitting participants with disabilities' demographic characteristics? [text entry]

41- Based on your experiences, what recommendations should evaluators who evaluate programs that serve people with disabilities consider regarding improving self-report forms (e.g., surveys/questionnaires), response rates, and response quality? [text entry]

Demographic Information

42- Which of the following options do you consider yourself? (Select **ONE**)
- o Internal evaluator
- o External evaluator
- o Others (please specify) [text entry]

43- Approximately how many years have you worked as an evaluator in the AgrAbility Project? [text entry]

44- Which of the following evaluation stages are you responsible for? (Select **ALL** that apply)
- □ The start-up stages

- While the program is in progress
- After the program wraps up
- Long after the program finishes (follow-up)
- Others (please specify) [text entry]

45- Name:

46- E-mail:

Thank you for completing this survey!

Appendix E

AgrAbility Program's Participants Focus Group Questions

You are a valued participant in the AgrAbility program. Getting your viewpoints, feedback, and suggestions about the services' quality or other assistance you get from the AgrAbility program is very important to improve the program's effectiveness in the future. The purpose of this focus group is to learn from your opinions and preferences regarding improvements you would like to see in the evaluation process. There are no right or wrong answers; we only want to know what you truly think. You are free to skip any questions you would like. Your participation is completely voluntary, and your responses will remain confidential and be reported only in the aggregate.

General Information

1- Could you start introducing yourself (i.e., your name, what do you do, anything else you would like to share with us)?

2- Could you share the type of services/assistance that you have received from the AgrAbility program?

> *For example, on-site assessment, assistive technologies (equipment/ tools/ devices), modified work practices, access to informational materials on a variety of topics related to disability and agriculture, education/ training, referring to other service providers for potential assistance (i.e., financial, rehabilitation, educational), or others.*

Evaluation Approaches/ Preferences Improvements

3- How usually do you share with AgrAbility your viewpoints and feedback about the received services/products?

> *For example, interviewing with AgrAbility face-to-face, over the phone, over an the online platform, filling out forms, others.*

AgrAbility cares about participants' satisfaction with the services/products they have received. So, I will ask you some questions to understand from your experiences the best way to reach program participants and request their contributions in the evaluations.

4- If you have a chance to choose the method to share your viewpoints, feedback, experiences with AgrAbility, what would be that method? Why?

> *For example, filling forms, doing an interview, doing a face-to-face focus group interview, sharing your success stories (either verbally or written) in events where AgrAbility will hold, others.*

5- Which communication ways would you prefer to be notified about involving in evaluations? Why?

For example, to be notified by receiving mail letter, a text message, a phone call, an electronic email

6- To what extent do you see that the time it takes you, for example, to fill out forms or to do interviews, etc., needs improvement?

7- To what extent do you see that providing information about the evaluation purposes, disclaiming participants' responses, confidentiality, and information about the directions on answering questions needs improvements?

8- Are there any other thoughts/recommendations you would like to be considered to make the evaluation process easy and not overwhelmed.

Appendix F

AgrAbility Planners Interview Questions

1- Could you share what (NAME)----------AgrAbility does to ensure prog participants' interests & voices are heard and taken into consideration, within planning phase?

2- Could you share what (NAME)----------AgrAbility does to enhance equity and inclusion within the program?

a. (Gender, disability types, access to assistance, different Agr professions).

3- Could you share a concrete example of how (NAME)----------AgrAbility engages prog participants in any planning phase?

- when you design services or assistance
- the way you deliver assistance
- including their suggestions into actions

4- Could you share some hurdles that contribute to limiting or even sometimes excluding prog participants from engaging in the planning phase?
(Think about political, social, economic factors).

Appendix G

IRB Approval Letter

VIRGINIA TECH

Division of Scholarly Integrity and Research Compliance
Institutional Review Board
North End Center, Suite 4120 (MC 0497)
300 Turner Street NW
Blacksburg, Virginia 24061
540/231-3732
irb@vt.edu
http://www.research.vt.edu/sirc/hrpp

MEMORANDUM

DATE: November 19, 2021

TO: Thomas Greig Archibald, Nesma Osama Osman

FROM: Virginia Tech Institutional Review Board (FWA00000572)

PROTOCOL TITLE: Program Planning and Evaluation Frameworks for Programs Serving Farmers with Disabilities: Lesson Learned from AgrAbility

IRB NUMBER: **21-801**

Effective November 19, 2021, the Virginia Tech Human Research Protection Program (HRPP) determined that this protocol meets the criteria for exemption from IRB review under 45 CFR 46.104 (d) category(ies) 2(ii).

Ongoing IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit an amendment to the HRPP for a determination.

This exempt determination does not apply to any collaborating institution(s). The Virginia Tech HRPP and IRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

https://secure.research.vt.edu/external/irb/responsibilities.htm

(Please review responsibilities before beginning your research.)

PROTOCOL INFORMATION:

Determined As:	**Exempt, under 45 CFR 46.104(d) category(ies) 2(ii)**
Protocol Determination Date:	**November 19, 2021**

ASSOCIATED FUNDING:

The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.

Appendix H

First Email Recruitment

Dissertation's Research Study on (state name) AgrAbility: Inquiry

My name is Nesma Osman. I am a Ph.D. student at Virginia Tech. My dissertation focuses on exploring program planning and evaluation approaches used in practice, specifically focusing on programs serving farmers with disabilities. Thus, I am interested in studying AgrAbility. In turn, the research study will help extension agents and program planners in different countries who seek to establish agricultural assistance programs for agricultural workers with disabilities. The reviewed IRB protocol (21-801) is attached.

What does the research study include?

This is a multi-step research study process (see the table).

What	Format	Completion Time	Who/ Criteria/number	Research Study Outcome(s)	Data Collection Estimated Timeline
AgrAbility (Planning Approaches)					
Sending a Survey	Online link	10-15 min	To ONE person who has collaborated in planning programs for farmers with disabilities	Learn about AgrAbility program planning approaches	Dec 1st- January 10th
Interview	Over an online platform (i.e., zoom)	30 min	The same person who has filled the survey regarding the program planning phase.	Learn more in-depth about AgrAbility program planning approaches, specifically focusing on the social justice stance in the ongoing planning process.	Any time between Dec 1st to January 17th after completing the survey
AgrAbility (Evaluation Approaches)					
Sending a Survey	Online link	20 min	To ONE person who has collaborated in evaluating programs for farmers with disabilities	Learn which common evaluation types are usually used to assess program impact and understand to what extent self-report tools are used in program evaluation	Dec 1st- January 10th
Conducting a non-formal	over an online	1 hour	with two to three farmers with disabilities who recently (around 3-6	Learn from farmers the improvements they would like to experience when evaluating the services or	Any time between Jan 1st- Jan 31st

conversation (Focus Group)	platform (zoom) if farmers have internet access		months) engaged in evaluating any received assistance from AgrAbility.	assistance they get from AgrAbility, using self-report forms (i.e., survey, questionnaire)	

I understand that planning and evaluating AgrAbility programs are collaborative teamwork; however, you could choose one person who could share the experience that helps understand AgrAbility frameworks. To conclude,

- I need to survey and interview ONE person who has collaborated in planning any assistance programs for farmers with disabilities.
- I need to survey ONE person who has collaborated in evaluating AgrAbility programs
- I need to talk with 2 to 3 farmers with disabilities who recently evaluated any received assistance from AgrAbility.

What would be the research study procedures?
Suppose you accept to assist me in this research study. In that case, you will ask the THREE target participants if they are willing to participate in the research study by using a recruitment script (include info about research purpose, instructions, contact information, etc.) that I will share with you. Once you get their initial approval to participate in my research, there are two options:

The first option is to provide me with the THREE target participants' contact information. Then, I will contact them directly.

The second option is that

- I could send you the survey links by email; you will forward them to people who met the selection criteria.
- Regarding the conversation with farmers, you could share my contact information with them along with the recruitment script via email. If they are willing to participate, they can reach to me.

I am happy to talk about the research process over a short phone call or a Zoom call with you and answer any questions you may have.
Or, if everything is so far clear, just let me know by email:
If you agree to assist in this research study, what options will work best to reach target participants and any questions about the research study.
I hope to start the data collection process in December (excluding Christmas break).

I appreciate your time, and I look forward to hearing from you!

Appendix I

Recruitment Scripts

AgrAbility Planner (Survey & Interview) Recruitment Script

Hello,

There is a Ph.D. student from Virginia Tech School who wants to learn about AgrAbility program planning approaches used in practice in our state program. This is a research study; the IRB number (21-801). Planner participants' eligibility criteria is that who collaborate in planning and designing AgrAbility program to understand the planning program's technical aspects.

Participation includes completing an online survey focused on AgrAbility program planning from a technical stance; it will take about 20-25 minutes. The student will ask you for a follow-up interview zoom call to learn more in-depth about AgrAbility program planning approaches, specifically focusing on the social justice stance in the ongoing planning process. The interview will last between 30-40 minutes and will be video recorded. You may select to complete the survey without doing the interview phase.

Your experience will help the student understand more about AgrAbility program planning frameworks. In turn, it will serve as an initial source for other extension agents and program planners in different countries who seek to establish agricultural assistance programs for agricultural workers who live with disabilities.

Do you have any questions? [yes – answer questions] [no – proceed to next paragraph]
Would you like to talk to this student and her teacher? [yes – say thank you and request email and phone contact information] [no – say thank you for your time]
If you have any questions or concerns about the research, please feel free to contact Nesma Osman at nesma@vt.edu

AgrAbility Evaluator (Survey) Recruitment Script

Hello,

There is a Ph.D. student from Virginia Tech School who wants to learn about evaluation approaches used to assess AgrAbility program outcomes, specifically, interested in using self-report tools to evaluate short-, medium-, and long-term outcomes. This is a research study; the IRB number (21-801). Evaluators participants' eligibility criteria is that who collaborate in evaluating AgrAbility program to gain insights into which common evaluation types they usually use to assess program impact and understand to what extent self-report tools are used in program evaluation.

Participation includes completing an online survey that focused on evaluation tools that have been widely employed to assess the programs, specifically focusing on the use of self-report tools; it will take about 20-25 minutes.

Your experience will help the student understand more about AgrAbility program evaluation approaches, as well will help future evaluators evaluate agricultural programs that serve people with disabilities efficiently.

Do you have any questions? [yes – answer questions] [no – proceed to next paragraph] Would you like to talk to this student and her teacher? [yes – say thank you and request email and phone contact information] [no – say thank you for your time]

If you have any questions or concerns about the research, please feel free to contact Nesma Osman at nesma@vt.edu

AgrAbility program participants (Focus Group) Recruitment Script

Hello, my name is _____. I am a director of the (state) AgrAbility. There is a student from Virginia Tech School who wants to learn from your opinions and preferences regarding improvements you would like to experience when evaluating the services or other assistance you get from the AgrAbility program. This is a research study; the IRB number (21-801). Focus group participants' eligibility criteria is that who recently (3-6 months) engaged in assessing received assistance programs from AgrAbility.

Participation includes being involved in a non-formal conversation with the student and other farmers (around 6-8 people) over an online call (zoom). The interviews will be video recorded. The conversation will take one hour. The questions will focus on understanding from your experiences the best way to improve the evaluation process.

Do you have any questions? [yes – answer questions] [no – proceed to next paragraph]
Would you like to talk to this student and her teacher? [yes – say thank you and request email and phone contact information] [no – say thank you for your time]
If you have any questions or concerns about the research, please feel free to contact Nesma Osman at nesma@vt.edu

Appendix J

Consent Forms (Planners and Evaluators)

Information Sheet for Participation in a Research Study

Principal Investigator:

Nesma Osman, PhD Candidate
Virginia Tech | Agricultural, Leadership, & Community Education
nesma@vt.edu
Thomas Archibald, Associate Professor & Extension Specialist
Virginia Tech | Agricultural, Leadership, & Community Education
tgarch@vt.edu

IRB# and Title of Study:
Program Planning and Evaluation Frameworks for Programs Serving Farmers with Disabilities: Lesson Learned from AgrAbility

You are invited to participate in a research study. This form includes information about the study and contact information if you have any questions.

- WHAT SHOULD I KNOW?

If you decide to participate in this study, *you will be asked to complete a survey that will take approximately 10-15 minutes. The survey questions focus on program planning approaches, such as need assessments, resources, program activities, etc. You will access the survey using a link that will be sent to your email. Also, there will be a follow-up interview that will take 30 minutes. The interview questions will focus on understanding how the ethical and social-political stance is manifest within the ongoing planning process, specifically focusing on disability contexts. The interview will take place over zoom call, or over a phone call based on your preferences. The phone call will be audio recorded to help Ms. Osman remembers what you said. You may select to complete the survey without doing the interview phase.*
The study should take approximately 10-15 minutes of your time for completing survey. The risk associated with this study is that we do not anticipate any risks from completing this study.

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse

to answer any questions you don't want to answer and remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

- CONFIDENTIALITY

We will do our best to protect the confidentiality of the information we gather from you, but we cannot guarantee 100% confidentiality. Any data collected during this research study will be kept confidential by the researchers. Your interview will be audio-recorded using a digital recorder and then transcribed. The researchers will code the transcripts using a pseudonym (false name). The recordings will be uploaded to a secure password-protected computer in the researcher's office. The researchers will maintain a list that includes a key to the code. The master key and the recordings will be stored for 3 years after the study has been completed and then destroyed.

- WHO CAN I TALK TO?

If you have any questions or concerns about the research, please feel free to contact **Nesma Osman at nesma@vt.edu and Thomas Archibald at tgarch@vt.edu.** You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact the Virginia Tech HRPP Office at 540-231-3732 (irb@vt.edu).
Please print out a copy of this information sheet for your records.

Information Sheet for Participation in a Research Study

Principal Investigator:

Nesma Osman, PhD Candidate
Virginia Tech | Agricultural, Leadership, & Community Education
nesma@vt.edu
Thomas Archibald, Associate Professor & Extension Specialist
Virginia Tech | Agricultural, Leadership, & Community Education
tgarch@vt.edu

IRB# and Title of Study:
Program Planning and Evaluation Frameworks for Programs Serving Farmers with Disabilities: Lesson Learned from AgrAbility

You are invited to participate in a research study. This form includes information about the study and contact information if you have any questions.

- WHAT SHOULD I KNOW?

If you decide to participate in this study, *you will be asked to complete a survey The survey questions focus on which common evaluation types used to evaluate AgrAbility program impact and understand to what extent self-report tools are used in program evaluation. You will access the survey using a link that will be sent to your email.*
The study should take approximately 20 minutes of your time.
The risk associated with this study is that we do not anticipate any risks from completing this study.

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

- CONFIDENTIALITY

We will do our best to protect the confidentiality of the information we gather from you, but we cannot guarantee 100% confidentiality. Any data collected during this research study will be kept confidential by the researchers.

- WHO CAN I TALK TO?

If you have any questions or concerns about the research, please feel free to contact **Nesma Osman at nesma@vt.edu and Thomas Archibald at tgarch@vt.edu.** You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact the Virginia Tech HRPP Office at 540-231-3732 (irb@vt.edu).
Please print out a copy of this information sheet for your records.

Appendix K

Consent Forms Program Participants with Disabilities

Information Sheet for Participation in a Research Study

Principal Investigator:

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Thomas Archibald, Associate Professor & Extension Specialist
Virginia Tech | Agricultural, Leadership, & Community Education
tgarch@vt.edu

IRB# and Title of Study:
Program Planning and Evaluation Frameworks for Programs Serving Farmers with Disabilities: Lesson Learned from AgrAbility

You are invited to participate in a research study. This form includes information about the study and contact information if you have any questions.

- WHAT SHOULD I KNOW?

If you decide to participate in this study, you will be asked to being involved in a non-formal conversation with the researcher and other farmers (around 2-3 people). The conversation will take place over an online call (zoom), if possible. The questions will focus on understanding your opinions and preferences regarding improvements you would like to experience when evaluating the services or other assistance you get from the AgrAbility program to improve the evaluation process. The call will be audio recorded to help Ms. Osman remembers what you said.
The study should take approximately 60 minutes of your time.
The risk associated with this study is that we do not anticipate any risks from completing this study.

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

- CONFIDENTIALITY

We will do our best to protect the confidentiality of the information we gather from you, but we cannot guarantee 100% confidentiality. Any data collected during this research study will be kept confidential by the researchers. Your interview will be audio-recorded using a digital recorder and then transcribed. The researchers will code the transcripts using a pseudonym (false name). The recordings will be uploaded to a secure password-protected computer in the researcher's office. The researchers will maintain a list that includes a key to the code. The master key and the recordings will be stored for 3 years after the study has been completed and then destroyed.

- WHO CAN I TALK TO?

If you have any questions or concerns about the research, please feel free to contact **Nesma Osman at nesma@vt.edu and Thomas Archibald at tgarch@vt.edu.** You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact the Virginia Tech HRPP Office at 540-231-3732 (irb@vt.edu).
Please print out a copy of this information sheet for your records.

Appendix L

Researched AgrAbility Programs (N=16): Brief Description

Table 3

Researched AgrAbility Programs (N=16): Brief Description

AgrAbility state	Interviewee's quotes
Alaska AgrAbility Project	"Alaska AgrAbility is in the implementation stage with assessments done for several clients. It helps improve individuals' social, economic, and environmental (SEE) condition. We provide directly to producers of field Agr, aquaculture or timber workers an assessment from occupational therapy and adaptive tech therapy. The assessment then can be used to modify equipment or possibly apply for grants (by the producer themselves). The producer then can be offered other appropriate technical assistance or referrals for other Vocational Rehab or Agr related services."
California AgrAbility Project	"The California AgrAbility Program helps improve individuals' SEE condition, families' SEE condition, groups/communities' SEE condition, agencies or organizations' SEE condition; and regions' SEE condition. The Program's mission is to promote independence in farming and rural living for people with injuries, disabilities, and illnesses. The mission also incorporates stakeholders such as family, community and direct service agencies."
Colorado AgrAbility Project	"The National AgrAbility Project Quality of Life (QOL) and Independent Living and Working (ILW) Program Evaluation Study is an [example of program in Colorado AgrAbility]. The purpose of this program is to assess pretest-posttest changes in AgrAbility clients' QOL because our mission is to improve AgrAbility clients' QOL levels."
Iowa (affiliate)	"We are not funded through AgrAbility, so we are not an AgrAbility Program. Easterseal's Iowa Rural Solutions program does support farmers and farm family members with disabilities. A program helps improve individuals' SEE condition."
Kansas AgrAbility Project	"The program helps improve families' SEE condition. It helps farmers, ranchers and family continue to participate in agriculture or agribusiness and maintain their quality of life."
Maine AgrAbility	"The program helps improve individuals' SEE condition. It assists production agriculture workers who have an illness or health condition, or disability to overcome barriers, work safely and successfully."
Missouri AgrAbility Project	"The Ergonomic Tool Talk for Women with Disabilities is an [example of program in Missouri AgrAbility]. The program helps improve individuals' SEE condition. The purpose of the program is to teach women with disabilities the importance of selecting, using, storing and using ergonomic tools."

Nebraska AgrAbility	“The program helps improve individuals' SEE condition. The purpose of the program is doing comprehensive worksite assessment for farmers and ranchers and connection to resources to continue working”
North Carolina AgrAbility	“Most the work in NC has been focused on assisting clients at the individual level, making partnering groups and Extension aware of the resources of AgrAbility in NC, and developing some specific trainings geared to farmworkers and Veterans. The program helps improve individuals' SEE condition. At this phase, NC AgrAbility can be construed to have activities rather than distinct programs.”
AgrAbility for Pennsylvanians	“The program helps improve individuals' SEE condition. The purpose of the program is to supporting farmers and agricultural workers who have a disability or long-term health condition.”
South Dakota AgrAbility Project	“The Renewal AgrAbility Project Pine Ridge Reservation SD is an [example of program in South Dakota AgrAbility]. The program helps improve individuals' SEE condition, families' SEE condition, groups/communities' SEE condition, agencies or organizations' SEE condition; and regions' SEE condition.”
Tennessee AgrAbility Project	“The program helps improve individuals' SEE condition. TN AgrAbility is a resource for agriculture producers, employees and family members who have physical challenges. Our purpose is to assist our customers in finding ways through assistive technology to make their farming tasks easier with their physical challenge(s).”
Texas AgrAbility	“The purpose of the program is assisting farmers and ranchers with disabilities in Texas including beginning farmers & ranchers, military veterans, and migrant & seasonal farmworkers”
AgrAbility Virginia	“The program helps improve individuals' SEE condition. AgrAbility Virginia promotes safety, wellness, and accessibility on the farm through education, rehabilitative services, and assistive technology. We offer support services to farmers that include but are not limited to: Developing educational resources and trainings for farmers, farmworkers, and families, providing disability advocacy, identifying assistive technology for accessibility and mobility, coordinating community services and outreach, and connecting farmers to funding sources.”
West Virginia AgrAbility Project (affiliate)	“The program helps improve individuals' SEE condition, families' SEE condition, groups/communities' SEE condition, agencies or organizations' SEE condition; and regions' SEE condition. West Virginia AgrAbility assists farmers who have physical disabilities or cognitive limitations find ways to overcome new and unfamiliar barriers allowing them to continue in their chosen agriculture related professions. It is our belief that farmers with disabilities can attain or maintain independence by making informed decisions about how they want to live and work on their farm. AgrAbility strives to better meet the needs of an often overlooked and underserved segment of the agricultural society, new and beginning farmers with disabilities.

	Educational opportunities provided to underserved agricultural producers provides them the ability to continue in their chosen occupation.”
AgrAbility of Wisconsin	“The program helps improve individuals' SEE condition, families' SEE condition, groups/communities' SEE condition, agencies or organizations' SEE condition; and regions' SEE condition. Since 1991, AgrAbility of Wisconsin has been promoting success in agriculture for farmers and their families living with a farm injury, disability, or limitation. It is a partnership between the University of Wisconsin Extension and Easter Seals Wisconsin. AgrAbility of Wisconsin has created a significant impact on Wisconsin agriculture by providing assistance to 2,500 farmers and farm families who have been able to continue farming or return to the farm worksite through intervention. A strong partnership between Easterseals and Extension has been key to making Wisconsin’s project one of the most successful of its kind in the country.”