How Do I Get There From Here? An Evaluation of 4-H Influence on Participant Career Trajectories

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Abstract
4-H provides unique opportunities for youth to experience new things and prepare for their future. The purpose of this study was to examine how 4-H has influenced participant career trajectories. Data were collected using the Delphi method to produce a list of 70 unique items. There were 46 of 70 items that received 90-100% consensus in the final round of the process. A constant comparative method analysis identified six emergent themes having had the most influence of participant career trajectories: relationships, personal development, leadership development, life skills, civic engagement, and college and career preparation. The research provides a foundation of critical touchpoints which may impact participants' career trajectories. Additionally, specific recommendations for applying the results in 4-H and other youth development programs are provided.

Keywords: 4-H, career preparation, youth development, workforce preparation, life skills development

Introduction

"4-H is America's largest youth development organization—empowering nearly six million young people with the skills to lead for a lifetime" (National 4-H, 2020, para. 1). 4-H provides unique opportunities for youth to gain new experiences and prepare for their future. The Georgia 4-H Mission "is to assist youth in acquiring knowledge, developing life skills, and forming attitudes that will enable them to become self-directing, productive and contributing members of society" (2020, para. 3). Through various 4-H activities, competitions, and events, youth learn life skills that equip them for education and career avenues in the future (Lerner et al., 2005; Moran et al., 2019; Rusk et al., 2003). Career exploration and preparation are needed for all youth to become not only knowledgeable about the workforce, but to inform what careers they might be interested in pursuing (Sawi & Smith, 1997).

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4-H is a diverse organization that teaches life skills in leadership, communication, and citizenship that participants otherwise might not be to develop (Kelsey, 2020; Maass et al., 2005). Although 4-H is conducted differently in each state, the core values remain the same, "4-H's reach and depth are unmatched, reaching kids in every corner of America – from urban neighborhoods to suburban schoolyards to rural farming communities" (National 4-H, 2020, para. 5). Both in school and out of school enrichment are key components for program delivery (Burnett et al., 2000).

Hands-on and interactive approaches are used to engage 4-H members and give them new opportunities to grow and learn through experiential methods (Anderson et al., 2015; Murrah-Hanson et al., 2019). Previous research has found relationships between specific experiences within the 4-H program and subsequent behavior and aspiration changes. For example, Seevers and Dormody (1995) found youth to be more inclined to aspire to leadership roles when they participated in 4-H events such as fairs, contests, public speaking, and helping younger program members. Additionally, relationships were observed between participating as camp counselors in 4-H and perceptions of improved self-confidence and subsequent positive impacts on life perspectives (Brandt & Arnold, 2006). Research suggests 4-H enhances young people's lives by teaching them life and decision-making skills that prepares them for the future (Lerner & Lerner, 2013). As youth mature, many career related choices and decisions become more proximal, particularly during high school (Ferry, 2006). Based on the intended audience for youth development programs, such as 4-H, scholars have proposed 4-H may be uniquely positioned to inform and influence post-secondary educational experiences and future career preparation and decisions (Park & Dyer, 2005).

Research priority four within the American Association for Agricultural Education National Research Agenda for 2016-2020, is meaningful, engaged learning in all environments. Edgar et al. (2016) state that "creating meaningful, engaged learning opportunities is paramount in future learning environments" and "creating and evaluating meaningful learning environments is essential to educating future generations" (p. 38-39). Despite the extensive literature examining 4-H project or program related impact, such as judging programs (Rusk et al., 2003), camp counseling (Brandt & Arnold, 2006), formal leadership roles (Kelsey, 2020), and camp participation (Snider & Farmer, 2016), there remains a gap in the literature considering all potential programmatic experiences, and which experiences may in fact be the most impactful to participant, including their career prospects in the future (Astroth & Haynes, 2002). As Lerner and Lerner (2013) indicate, "The true value of 4-H programs may come not from short-term results or even the results over the few years […] The value may instead come from the program's influence on life-long pathways of development" (p. 39). The current study is intended to address this gap within the literature and further define and identify the events and experiences within the 4-H program which have the largest influence on participants' career trajectories.

Conceptual Framework

For the purposes of this study, Bandura's (1977) social learning theory (SLT) serves a framework to identify how 4-H participation can influence career trajectories. "SLT represents the reciprocal interaction between an individual, the environment, and the individual's subsequent behavior" (Lamm et al., 2016, p. 123). Consequently, SLT would suggest that the 4-H participants (individuals) are provided opportunities through 4-H activities and events (environment) that can influence their career (behavior). The interaction between the individual and the environment provide the basis from which subsequent behavioral changes occur (Grady, 1990).

Individual & Environment

In a study conducted by Ratkos and Knollenburg (2015), respondents indicated 4-H helped them to become more active engaged leaders within their community, develop new relationships, and work

harder in general. Previous research has noted the correlation between participants (individual) and 4-H activities and events (environment), "By participating in 4-H programs and activities, alumni believe that they learned many day-to-day skills, values, and responsibilities" (Radhakrishna & Doemekpor, 2009, para. 21).

Environment & Behavior

The role of 4-H programming (environment) influencing participant's careers has been previously documented within the literature (Anderson et al., 2015; Flynn et al., 2010; Rusk et al., 2003; Radhakrishna & Doemekpor, 2009). Collegiate preparation (Ratkos & Knollenburg, 2015), civic engagement (Pennington & Edwards, 2006), and life skills (Fox et al., 2003) all have been identified as being influenced by 4-H. Bandura's (1977) social learning theory posited that behaviors are learned through modeling. "A person is influenced by what they see other people achieve and the actions they take" (Career Development Theory, 2019, para. 10). Previous literature indicates 4-H provides environmental conditions conducive for youth participants to learn and explore in order to strengthen themselves for life after their experiences of being a 4-H member. For example, Fox et al. (2003) found 4-H club membership had a positive influence on participant self-reported technical skills, communication skills, personal/social skills, and leadership skills. Additionally, Pennington and Edwards (2006) found 4-H participation resulted in higher levels of civic engagement amongst participants.

Behavior & Individual

As a final linkage within the SLT framework, it is anticipated that an individual's behavior will have an influence on the individual's perception of self through either reinforcement, or dampening, of behavior based on social cues (Bandura, 1977). The reciprocal nature between behavior and the individual, particularly within a 4-H context, are demonstrated in previous research. For example, a participant in a study conducted by Ratkos and Knollenburg (2015) stated, "4-H helped me obtain professional work experience which helped me know I belong in the major I'm pursuing […] 4-H strongly contributed to what my interests are and helped me determine my college and career field" (para. 24). These findings are consistent with those of McFarland and Thomas (2006) who found youth activities influenced subsequent engagement in political engagement as an adult.

Purpose and Research Objectives

The purpose of this study was to examine how 4-H has influenced participants' career trajectories. This purpose was fulfilled by the following research objectives:

1. Develop a comprehensive list of 4-H activities and experiences which influenced participants' career trajectories.

2. Arrive at a consensus of specific 4-H activities and experiences which influenced participants' career trajectories.

3. Develop a heuristic thematic grouping of 4-H activities and experiences which influences participants' career trajectories.

Methods

Background

This study was conducted as part of a larger research project examining and evaluating the impact of 4-H on participants across a variety of outcomes, including career trajectory. Data were collected using a modified Delphi methodology from a panel of experts beginning in October 2018 and continuing through January 2019. The experts for the study were members of the Georgia 4-H foundation board of trustees and had a range of direct and indirect experience with the 4-H program. The panel of experts provided input on numerous outcomes of interest within a common questionnaire; however, the current study is focused only on the influence of 4-H on participant's career trajectories. Nevertheless, the context for the study and data collection are provided to add clarity regarding the methods for the research as recommended within the literature (Kirkman & Chen, 2011; Zhang et al., 2013).

Expert Panel

The data obtained from the Delphi process are limited to the expertise of the individuals included within the expert panel (Garson, 2014). A recommendation within the literature is to ensure a variety of perspectives and experiences are included within the panel to avoid the potential of bias, specifically, "if experts are all professionals in the same area, bias toward a professional agenda may emerge" (Garson, 2014, Location No. 462). To ensure a broad range of experiences, insights, and expertise experts for the current study were selected based on their participation on the Georgia 4-H foundation board of trustees. The board "consists of volunteers from around the state with a variety of professional backgrounds and 4-H experiences" (Georgia 4-H Foundation, 2022, para. 2). Based on recommendations within the literature (Lamm et al., 2021a), the board was selected based on their role as an informal influence on the 4-H program associated with an informal power role defined as "individuals that had influence but did not have the ability to affect change directly" (p. 70). The insights from the board were sought based on their awareness of the 4-H program and unique perspectives from an external programmatic perspective (Lamm et al., 2021a). These experts had a range in 4-H involvement, age, and gender. The demographics of the expert panel were 60% ($n = 15$) male and 40% ($n = 10$) female with the youngest respondent at age 18 and oldest respondent at age 70. The average age of the respondents was 50. Involvement with Georgia 4-H ranged between two and 60 years for the panelists and five of the respondents were not involved in 4-H growing up.

Data Collection

The Delphi method was developed by the RAND corporation in the 1950s, "The method entails a group of experts who anonymously reply to questionnaires and subsequently receive feedback in the form of a statistical representation of the "group response, after which the process repeats itself" (Delphi Method, 2020, para. 1). This method has been used extensively within the literature such as food safety (Lamm et al., 2021b), sustainable food systems (Allen et al., 2018), animal based food production (Lamm et al., 2021c), and agricultural education (Albritton & Roberts, 2020) and is helpful for topics where there are no definitive correct answers (Garson, 2014).

This study used a three round Delphi process. Each round was delivered by emailing an online Qualtrics survey to each expert. This method is E-Delphi, which is electronic Delphi. Using internet-based survey instruments allows for faster response times, participation from any location, and reduced cost (Garson, 2014). The Tailored Design Method (Dillman et al., 2008) was used by sending a pre-notice via email to all expert panelists before the survey. Within one week, an email invitation was sent to all respondents with a personalized survey link and a requested response date. A series of four reminder

emails were sent to non-respondents every two to five days including a final reminder sent one day before the survey closed.

The first round of the Delphi asked the panel experts to provide up to five open-ended responses to the question: 'How has 4-H influenced your career trajectory?'. There was an 81% response rate with 25 out of 31 individuals responding. A total of 91 total responses were provided by the panel respondents. The items were then reviewed for potential duplication (Garson, 2014). A total of 15 duplicate items were identified and removed, leaving 76 unique items were generated in the first round of the process. Prior to the second round of the process, responses were further reviewed for clarity with minor wording updates made to improve readability (Garson, 2014).

The second round of the Delphi ranked the importance associated with the items developed during the first round of the process. Data were collected on a five-point Likert-type scale (1 = *Not at all important*, 2 = *Somewhat important*, 3 = *Important*, 4 = *Very important*, 5 = *Extremely important*). Panelists selected the level of importance they associated with each item. A minimum mean score threshold was established *a posteriori*, specifically, items with a score of 3.55 or higher were retained for round three of the Delphi (Garson, 2014). A total of 74 items were retained. The second round of the process had an 84% response rate with 26 of 31 individuals responding.

The third round of the Delphi process was used to establish group consensus. There was a 71% response rate with 22 of 31 respondents for Delphi round three. The panelists were able to select whether an item should be retained or removed from the final list. For an item to be retained, a threshold of 80% or greater consensus was established *a posteriori*. A total of 70 items were retained.

Constant Comparative Method Analysis

Data retained from round three of the Delphi process were analyzed further using the Constant Comparative Method (CCM). This method uses qualitative information and further breaks down the items into codes and themes (Glaser, 1965). "This method is a continuous growth process—each stage after a time transforms itself into the next" (Glaser, 1965, p. 439). The research team studied and grouped items into themes based on similarities. The CCM helped transform the data into information that could be interpreted more easily after the themes were represented with different numbers of items and different range of consensus. To improve rigor and trustworthiness of the process the results of the study were presented to the board of trustees during a formal meeting of the board as a form of member checking (Lincoln & Guba, 1985). Member checking has been recommended "as a means of enhancing rigor in qualitative research, proposing that credibility is inherent in the accurate descriptions or interpretations of phenomena" (Birt et al., 2016, p. 1803). The results from the analysis were presented to the board followed by discussion among the members. The results and interpretation of the data were confirmed by the panel.

Results

The results of the Delphi rounds one and two are presented in Table 1. The observed mean scores in round two ranged from 2.85 to 4.60. The items with the highest mean scores were public speaking confidence and building lifelong friendships, both with a mean of 4.60. Six of the top eight items were related to speaking skills, the remaining two items in the top eight were related to friendships.

Table 1

Delphi Round One and Two Results: Level of Importance for How 4-H Has Influenced Your Career Trajectory (n = 76)

Item	M	SD
Public speaking confidence	4.60	0.94
Built lifelong friendships	4.60	0.99
Public speaking experience	4.55	0.94
Public speaking skills	4.55	0.94
Confidence speaking in front of groups	4.55	0.94
Built lasting friendships	4.55	1.00
Improved confidence in speaking skills	4.50	1.00
Presentation skills	4.45	1.05
Created network of friends	4.45	1.00
Leadership skills	4.45	0.94
To exercise leadership	4.45	1.05
Leadership training	4.40	0.99
Confidence	4.40	1.05
Prepares individuals to lead	4.35	1.04
Opportunities to exercise leadership	4.35	1.09
Observed role models	4.30	1.03
Opportunities to interact with friends	4.30	1.08
Relationships	4.30	1.03
Understanding how to think on my feet and knowing that when something is not going as planned to change	4.30	1.08
Instilled confidence	4.30	1.03
Citizenship	4.25	1.07
Life skills	4.25	1.12
Opportunities to succeed	4.25	1.07
Meeting others from all over Georgia	4.25	1.07
Taught me to strive to improve myself	4.25	1.16
Desire to serve others	4.20	1.01
Taught me to always do my best and understand the motto 'To make the best better'	4.20	1.11
Made me a better member of my community	4.20	1.11
Stellar peer group	4.20	1.06
General – vital in my development	4.20	1.06
Observed great leadership in action	4.15	1.04
4-H taught me how to network and the importance of those relationships	4.15	1.09
Communication practice	4.15	1.14
Opportunities – general	4.10	1.12
Working with teams – general	4.10	1.07
Broadened my horizons	4.10	1.07
Association with outstanding youth	4.10	0.97
Soft skills	4.10	1.12
Skills in leading different age groups	4.05	1.10
Made me function well in teams to accomplish a common goal	4.05	1.10
Taught me the importance of relationships	4.05	1.00
Taught me how to prepare to achieve specific goals	4.05	1.15

Item	M	SD
Increased social capital	4.05	1.05
Character development	4.00	1.03
Created network of acquaintances	4.00	1.03
Work ethic	4.00	0.97
Interview skill development	4.00	1.21
Improved self-image	4.00	1.17
Scholarship	3.95	1.05
Learning experiences nationally	3.95	1.15
Exposure to options	3.95	1.10
Expanded network of colleagues	3.95	1.05
Opportunities to perform	3.95	1.28
Consensus building	3.95	1.05
How to work cooperatively with others	3.95	1.05
How to be a graceful winner and loser	3.95	1.15
Critical thinking	3.95	1.15
Skills in working with different age groups	3.90	1.21
Expanded understanding of others	3.90	1.07
Learning experiences nationally	3.90	1.21
Meeting people with similar interests	3.90	1.12
Increased interest to travel the world	3.85	1.18
Organizational skills	3.85	1.09
4-H helped me find my passion/purpose	3.80	1.15
Connection to the University of Georgia	3.80	1.32
Being a camp counselor allowed me to understand my love of all children from all walks of life	3.80	1.24
Resume building	3.75	1.25
Connections with high profile adults in Georgia	3.75	1.37
Met state leaders	3.70	1.30
Understanding of resources available	3.68	1.20
Diversity	3.65	1.31
Met local leaders	3.65	1.31
Increased interest to work in Washington D.C.	3.60	1.50
Teaching project clubs in my county gave me insight to planning lesson plans and implementing them in my classroom	3.55	1.23
Though 4-H, I learned my passion for Agricultural Policy	3.25	1.41
Health project	2.85	1.31

The third round of the Delphi process was intended to establish group consensus (Table 2). The consensus levels ranged from 71.4% to 94.1%. Three items fell below the 80% threshold for retention giving this round a 95.9% retention rate. There were no items that reached 100% consensus. The top nine items all had a consensus of 94.1%. These top items included: working with teams and different age groups, adaptation, presentation and leadership skills, and improved self-image and confidence.

Table 2

Delphi Round Three Results: Level of Consensus for How 4-H Has Influenced Your Career Trajectory (n = 74)

Item	Consensus %
Working with teams – general	94.1

Item	Consensus %
Understanding how to think on my feet and knowing that when something is not going as planned to change	94.1
Skills in working with different age groups	94.1
Presentation skills	94.1
Observed role models	94.1
Leadership skills	94.1
Instilled confidence	94.1
Improved self-image	94.1
Improved confidence in speaking skills	94.1
Work ethic	93.8
To exercise leadership	93.8
Taught me to strive to improve myself	93.8
Taught me to always do my best and understand the motto 'To make the best better'	93.8
Skills in leading different age groups	93.8
Public speaking experience	93.8
Public speaking confidence	93.8
Opportunities to succeed	93.8
Opportunities to exercise leadership	93.8
Observed great leadership in action	93.8
Met state leaders	93.8
Met local leaders	93.8
Meeting others from all over Georgia	93.8
Made me a better member of my community	93.8
Life skills	93.8
Leadership training	93.8
How to be a graceful winner and loser	93.8
Expanded network of colleagues	93.8
Taught me the importance of relationships	93.3
Stellar peer group	93.3
Soft skills	93.3
Relationships	93.3
Public speaking skills	93.3
Prepares individuals to lead	93.3
Opportunities – general	93.3
Made me function well in teams to accomplish a common goal	93.3
Increased social capital	93.3
How to work cooperatively with others	93.3
General – vital in my development	93.3
Critical thinking	93.3
Created network of friends	93.3
Created network of acquaintances	93.3
Understanding of resources available	92.9
Taught me how to prepare to achieve specific goals	92.9
Opportunities to interact with friends	92.9
Meeting people with similar interests	92.9
Desire to serve others	92.9
Confidence speaking in front of groups	88.9
Confidence	88.9
Character development	88.9
Built lifelong friendships	88.9

Item	Consensus %
Communication practice	88.2
4-H taught me how to network and the importance of those relationships	88.2
Consensus building	87.5
Citizenship	87.5
Broadened my horizons	87.5
Being a camp counselor allowed me to understand my love of all children from all walks of life	87.5
Resume building	86.7
Organizational skills	86.7
Interview skill development	86.7
Expanded understanding of others	86.7
Built lasting friendships	86.7
Association with outstanding youth	86.7
Scholarship	85.7
Opportunities to perform	85.7
Increased interest to travel the world	85.7
Exposure to options	85.7
Diversity	85.7
Learning experiences nationally	84.6
Increased interest to work in Washington D.C.	80.0
Connections with high profile adults in Georgia	80.0
Connection to the University of Georgia	75.0
4-H helped me find my passion/purpose	73.3
Teaching project clubs in my county gave me insight to planning lesson plans and implementing them in my classroom	71.4

The Constant Comparative Method (CCM) was used to analyze data from round three of the Delphi process. Preliminary codes such as "leader", "skills", and "working with others" were applied to the retained items. These initial codes were expanded and refined into six themes encompassing retained items. The thematic categories included: (a) Relationships (16 items), (b) Personal Development (13 items), (c) Leadership Development (12 items), (d) Life Skills (12 items), (e) Civic Engagement (9 items), and (f) College and Career Preparation (8 items). Categories and associated items are presented in Table 3.

Table 3

Constant Comparative Method Analysis Summary (n = 70)

Themes	Number of Items Overall	Number of Items with 90-100% Agreement
Relationships	16	11
4-H taught me how to network and the importance of those relationships		
Association with outstanding youth		
Built lasting friendships		
Built lifelong friendships		
Created network of acquaintances		
Created network of friends		
Expanded understanding of others		

Made me function well in teams to accomplish a common goal
How to work cooperatively with others
Meeting others from all over Georgia
Meeting people with similar interests
Opportunities to interact with friends
Relationships
Stellar peer group
Taught me the importance of relationships
Working with teams – general

Personal Development   12   9
Character development
Confidence
Desire to serve others
General – vital in my development
How to be a graceful winner and loser
Improved self-image
Instilled confidence
Opportunities – general
Opportunities to perform
Opportunities to succeed
Taught me to always do my best and understand the motto 'To make
    the best better'
Taught me to strive to improve myself

Leadership Development   12   10
Connections with high profile adults in Georgia
Consensus building
Leadership skills
Leadership training
Met local leaders
Met state leaders
Observed great leadership in action
Observed role models
Opportunities to exercise leadership
Prepares individuals to lead
Skills in leading different age groups
To exercise leadership

Life Skills   12   9
Communication practice
Confidence speaking in front of groups
Critical thinking
Improved confidence in speaking skills
Life skills
Organizational skills
Presentation skills
Public speaking confidence
Public speaking experience
Public speaking skills
Soft skills
Understanding how to think on my feet and knowing that when
    something is not going as planned to change

Civic Engagement   10   2

Being a camp counselor allowed me to understand my love of all
    children from all walks of life
Broadened my horizons
Citizenship
Diversity
Exposure to options
Increased interest to travel the world
Increased interest to work in Washington D.C.
Learning experiences nationally
Made me a better member of my community
Skills in working with different age groups

College and Career Preparation   8   5
    Expanded network of colleagues
    Increased social capital
    Interview skill development
    Resume building
    Scholarship
    Taught me how to prepare to achieve specific goals
    Understanding of resources available
    Work ethic

Conclusions, Implications, and Recommendations

After thematically grouping the items from the Delphi process, there were six primary themes which emerged relating to 4-H experiences which influenced career trajectories. An acknowledged limitation associated with the analysis, and ultimately the development of the overarching themes associated with the CCM analysis, was the subjective nature of thematic groups and specific items. Based on the quantity of similar items standalone themes were proposed when they appeared to be warranted. However, the likelihood that different thematic lenses' and perspectives may result in different groups should be recognized. Nevertheless, an overarching recommendation for the study is to consider the results as a starting point for additional analysis and refinement. Defining the domain and proposing thematic grouping associated with activities and experiences influencing participant career trajectories should provide a robust foundation upon which to conduct additional research as well as inform practice from a research-oriented perspective.

Thematic Groupings

The *Relationships* theme had the largest number of items and was the most prominent. Based on the results of the analysis, an associated observation may be the substantial influence *Relationships* may have on career trajectories relative to other identified themes. Many of the retained items related to networking, friendships, and working with others, are all activities and experiences that one would expect to be present across numerous 4-H experiences, regardless of specific events (Fox et al., 2003). As previous research with adult populations, such as participants with adult agricultural leadership development programs, has found, the network effects associated with relationships may have significant interactions with perceptions of advice, support, and industry influence (Lamm & Carter, 2019). Therefore, a recommendation would be for the 4-H program to focus on cultivating these relationship building opportunities, and to focus on such interactions as not just an ancillary benefit, but as an intended programmatic goal.

The *Personal Development* theme included 12 items relating to confidence, self-improvement, and opportunities. The CCM analysis further explicates specific opportunities and insights related to

effective events and interventions 4-H and youth development educators can use to maximize the beneficial experiences for participants. An associated recommendation would be for educators to look for opportunities to link programmatic experiences to more general conditions of personal development. For example, within a 4-H competition activity, educators may look for opportunities to reinforce the nature of competition and the need for participants to see value in both winning and losing. This recommendation is consistent with Dweck (2008) and encouraging the development of a growth mindset and looking for opportunities for improvement and development.

The *Leadership Development* theme included 12 related to leading and leadership. As acknowledged previously as a potential limitation, the grouping of items within themes is inherently influenced by the perspective of the research team. Nevertheless, the volume of items would appear to justify leadership as an independent theme, not one subsumed by a more general theme such as *Life Skills*. Based on the results of the study, a recommendation would be to identify opportunities for participants to apply leadership skills within contextual areas. For example, encouraging older members to teach younger members may help to foster leadership development (Seevers & Dormody, 1995).

As indicated throughout the literature, 4-H provides numerous ways for young people to develop various life skills (Fox et al., 2003; Radhakrishna & Doemekpor, 2009; Ratkos & Knollenburg, 2015; Sawi & Smith, 1997). However, the *Life Skills* theme was somewhat difficult to define clearly based on the wide range of items that one might consider to be life skills. For example, seven of the 12 proposed items related to communication skills. However, the remaining five items while conceptually linked to communication, were somewhat less distinct, and also were more generalizable beyond communication. For example, organization, critical thinking, and adaptability might all be necessary components for effective communication; however, communication is not necessarily the context under which the skills may be employed. The results of the present study may be useful as a foundation for further analysis and empirical investigation. For example, within the *Life Skills* thematic area future research is recommended to collect quantitative data from a sample of previous 4-H participants and to analyze whether there are other factors which may emerge. Perhaps the communication related items are perceived to be independent from the other items included within the *Life Skills* thematic grouping. Such analyses may then help to inform curriculum and programmatic choices to ensure top areas of potential benefit are addressed.

The *Civic Engagement* theme included 10 items related to exposure to options, diversity, and experiences that encouraged youth to participate in their communities locally and beyond. A recommendation associated with the results would be for 4-H and other youth educators to consider using community or civic experiences as an opportunity for participants to consider how they might pursue a career in which they can engage in the civic process (McFarland & Thomas, 2006). This recommendation is consistent with previous literature which suggested programs like 4-H may be important conduits to engage community leaders of the future (Lamm et al., 2020).

Finally, the *College and Career Preparation* theme included eight items. Although this category may have been expected to have more items emerge based on the context for the study, it is notable that many of the other items and themes described previously are indirectly related to *College and Career Preparation*. Again, the contextual boundaries between themes may lack distinctness leading to reasonable questioning regarding the existence of certain themes and not others, or specific items appearing under one thematic heading and not another. Nevertheless, the results are intended to provide a framework within which to consider the broader influences that occur within youth development programming in preparing individuals for careers. For example, specific career preparation activities such as resume building and interview skill development occurred less frequently than did contextual items such as relationships, confidence, and making friends. An associated recommendation for future 4-H programming is to ensure that activities allow youth to engage in both peer and adult interactions.

Improved confidence would be anticipated as youth gain experience interacting with others, describing their efforts, and answering questions (Rusk et al., 2003).

Study Limitations

Although the present study attempts to address a specific gap in the literature, specifically, those experiences in the 4-H youth development program which had the largest impact on individuals career trajectories, there are limitations to the research that must be addressed. First, the value of Delphi process is limited to the insights and expertise of the panelists providing responses (Garson, 2014). The present study attempted to mitigate this limitation and potential bias by purposively selecting a panel of individuals already recognized for their 4-H insights and career expertise by their inclusion on the state level 4-H foundation board of trustees, and the informal power role of the board within the organization (Lamm et al., 2021a). Additionally, the experts included in the panel included a diversity of 4-H experiences including both direct and indirect. The contribution of a wide range of insights allowed for consideration of a wider range of potential experiences throughout the process. However, the nature of the board participants also presents a potential limitation. Specifically, there were respondents with no direct involvement in 4-H as a youth. Their awareness and insights are based on secondary observations and experiences. The result of the present study should be considered within this context.

A second limitation is the applicability of the study results within differing contexts. The present study was focused primarily on one state's 4-H program; therefore, a recommendation is to again only interpret results within this context. Not all items are necessarily applicable to all 4-H programs, nor to all youth development programs more broadly. Despite this limitation, 4-H and youth development educators are encouraged to use the current results as a starting point for further study and potential application within different programs and contexts. The list of identified experiences and higher-order themes should provide a useful starting point for programming considerations.

Recommendations for Practice

Somewhat surprisingly, there were 46 items receiving over 90% consensus in the final round of the Delphi process. With so many items sharing a high level of agreement on the impact they had on career trajectories, it is likely there are more critical touchpoints than previously identified through a single study. A recommendation is for 4-H and youth development educators to use these results to inform future programs, specifically, to look for potential gaps in current programming or to look for opportunities to highlight specific outcomes purposely. Specifically, 4-H and other youth development educators may wish to consider the list of specific items generated from the current study to develop learning outcomes and interventions within their programs. For example, communication practice, an item in the *Life Skills* theme, may be integrated into a livestock program where participants are encouraged to prepare and practice different methods of communication with groups of people, such as other livestock program participants as well as members of the general public.

Next, a recommendation is for 4-H and youth development educators to look for opportunities to integrate the higher-level thematic outcomes into specific activities or projects. For example, highlighting the networking and relational platform the program provides when interacting with others, beyond the transactional nature of information exchange, or simply listening to speakers may provide 4-H participants a higher-level of engagement and potential benefit.

Lastly, 4-H and youth development educators are recommended to purposely link activities and learning interventions across the individual, environmental, and behavioral domains to increase efficacy (Lamm et al. 2016). For example, to encourage learners to take on more leadership roles (behavior), the program curriculum first should allow learners to develop a greater sense of confidence (individual),

therefore, educators may consider providing opportunities for individuals to present and practice their public speaking skills (environment). Within the theoretical example presented it is likely that public speaking opportunities are already provided within 4-H and youth development contexts, the recommendation is to provide appropriate coaching and instruction on the benefits to an individual's confidence as a result of developing their public speaking skills. Based on SLT, the reciprocal effect of layering and connecting experiences would be expected to have a reinforcing effect on learners (Bandura, 1977).

Recommendations for Future Research

The results of the present study indicate that respondents arrived at a consensus on several higher order items, as opposed to specific programs. For example, serving as a camp counselor, increasing interest to work in Washington D.C., and meeting local and state leaders were identified and agreed more readily than specifically named programs such as Citizenship Washington Focus (CWF). The current study is directly responsive to recent recommendations within the literature, specifically, "Future studies should investigate how participation in nationally sponsored events such as CWF drive youth through a thriving trajectory and lead to desirable developmental outcomes" (Jackson & Roberts, 2021, p. 121). From this perspective, the current study provides a unique perspective on the multiple experiences which may influence participant development and long-term outcomes, such as career success (4-H Program Leaders Working Group, 2021). A recommendation for future research would be to extend the current study and investigate further whether there are any specific programs, projects, or activities, that may have an influence on participants' careers. Although the results of the present study tended to fail to reach consensus on specific programs, the results of previous research may indicate the need for further investigation (Jackson & Roberts, 2021; Pennington & Edwards, 2006).

An additional recommendation is to research specific items in greater depth. A qualitative study focused on the lived experiences of youth, and how specific experiences influenced their career trajectories would provide additional insights for educators. For example, a study focused on the "Understanding how to think on my feet and knowing that when something is not going as planned to change" item may provide additional insights regarding the context for the experiences. In turn, this information may provide opportunities for educators to help create opportunities for youth to experience the need to react quickly, but thoughtfully, to a changing environment. This recommendation is presented in accordance with recent 4-H related literature also recommending, "retrospective studies be conducted with former 4-H members who participated in the CWF program to examine their long-term civic outcomes" (Jackson & Roberts, 2021, p. 121). Although there is extensive literature examining the impacts of youth development programs such as 4-H (Astroth & Haynes, 2002; Brandt & Arnold, 2006; Flynn et al., 2010; Lerner & Lerner, 2013; Kelsey, 2020; Rusk et al., 2003; Snider & Farmer, 2016), there is also a need to provide ongoing triangulation for such programs and impacts to increase "scope, depth and consistency in methodological proceedings" (Flick, 2002, p. 227). The present study provides a heuristic framework through which replication, validation, and investigation of such programming efforts may occur.

Based on the findings from the present study, a recommendation for future research would be to investigate whether there are some cumulative effects acquired through program participation that may influence career trajectories. Based on the learning and reflection ongoing cycle associated with experiential learning (Roberts, 2006), it may be interesting to investigate whether more learning opportunities, in the form of programs and/or total program participation duration, have an influence on career trajectory.

An additional recommendation for future research is to further investigate whether specific experiences are reinforced, or mitigated, when combined. For example, future research may investigate

whether using personal confidence development instruction as an antecedent of public speaking has an effect on the speaker's experience. Specifically, was the individual able to focus on the long-term benefits of the speaking versus the short-term anxiety that is frequently associated with public speaking (Durlik et al., 2014)? Using the present study to first define the domain, and then begin linking variables of interest may provide novel insights to further enhance program insights (Flick, 2002).

Discussion

Although there has been considerable research within the literature related to 4-H and youth development programming, and the associated benefits of such programs (Astroth & Haynes, 2002; Brandt & Arnold, 2006; Flynn et al., 2010; Lerner & Lerner, 2013; Kelsey, 2020; Rusk et al., 2003; Snider & Farmer, 2016), this study specifically examined the role of the 4-H program in influencing participants career trajectories. The items and associated themes are intended to help provide a foundation to inform future programming and research efforts. Additionally, the present study provides an opportunity to indirectly replicate the findings and observations from previous research and determine whether results are consistent across multiple contexts. In this regard, the present study also addresses recommendations in the literature, specifically, "conducting replications on important findings is essential to moving toward a more reliable and trustworthy understanding of educational environments" (Makel & Plucker, 2014, p. 313).

In addition to the results of the study from an observational perspective, the current study also provides insights from a theoretical perspective. Specifically, using Bandura's (1977) social learning theory (SLT) as the conceptual framework for the research provides a context within which to consider the observations. The SLT suggests learning is constructed through the reciprocal relationship between individuals, the environment, and the behavior (Bandura, 1977). In combination, these concepts reinforce, influence, and direct the outcomes of learning situations. The present study may provide additional insights regarding the various experiences which may influence behavior and subsequently their career choices and trajectories.

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