

ANALYSIS OF 4-H INFLUENCE ON CAREER TRAJECTORIES

by

MEGAN L. POWELL

(Under the Direction of KEVAN LAMM)

ABSTRACT

4-H is the largest youth development organization in the United States and empowers participants with life skills for the future. The purpose of the study was to analyze 4-H influence on career trajectories and was completed in two parts: a Delphi analysis amongst Georgia 4-H Foundation Advisory Board members, and empirical survey research amongst Georgia 4-H Alumni. Study one identified six primary themes related to the influence of 4-H on career trajectories: relationships, personal development, leadership development, life skills, civic engagement, and college and career preparation. Study one results informed data collection and analysis in study two. Results found 49.2% of respondents reported 4-H had “a great deal” of influence on preparing them for their career. Using ordinal logistic regression participation in following activities predicted higher of odds of respondents belief 4-H influenced their career preparation: 4-H club program, In-school 4-H program, National 4-H Congress, Judging program, and Collegiate 4-H.

INDEX WORDS: 4-H, career trajectory, Social Learning Theory, youth development

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CHAPTER 1

INTRODUCTION

Young people need opportunities to learn and develop skills, grow physically and emotionally, and form relationships. 4-H is the nation's largest youth development organization that reaches almost six million young people. 4-H provides opportunities for young people to learn and grow as they participate in 4-H activities. The Essential Elements of 4-H Youth Development are Belonging, Independence, Mastery, and Generosity (Kress, 2004). These Essential Elements when utilized during 4-H programs and activities create a positive impact on young people's lives. In each community, 4-H is needs based and adapts to best serve the youth in that area. Although each 4-H program is different, 4-H has the power to equip young people with the skills to lead for a lifetime. Belonging is an important Essential Element of 4-H because being a part of a group is something youth want (DeCubellis & Barrick, 2020). Feeling like one belongs also contributes to their reason for staying involved in 4-H (Hensley et al., 2007). The level of involvement can affect the outcomes and impact of 4-H.

4-H utilizes research-based information and is conducted through local, district, and state programming through public universities. "4-H can be a true complement to the educational system, and 4-H programs can be an asset in improving academic performance at any level. The assortment of programs provided by 4-H are usually practical applications of research based knowledge" (Burnett et al., 2000, p. 50). These various 4-H programs allow youth to learn life skills to prepare them for the future. "Life skills are abilities for adaptive and positive behavior that enable humans to deal effectively with the demands and challenges of life" (Life skills,

2020). Georgia 4-H works to “enable them to become self-directing, productive and contributing members of society” (Georgia 4-H, 2020). Life skills learned during youth development opportunities, like 4-H, give young people these skills as they continue in life. “4-H has as its core a mandate to prepare the next generation of citizenry by providing opportunities for learning civic, leadership, and life skills” (Bobek et al., 2009, p. 616). 4-H uses different and engaging activities that are practical and hands-on. These activities help young people learn, practice, teach, and share life skills. Youth that lack the skills needed for adulthood like working with others, communication, and decision-making may demonstrate at-risk behaviors. (Boyd et al., 1992). Literature indicates that 4-H presents young people with many ways to learn and grow their life skills (e.g. Fox et al., 2003; Radhakrishna & Doemekpor, 2009; Ratkos & Knollenburg, 2015; Sawi & Smith, 1997). 4-H provides an outlet for young people of any background to participate. Without 4-H, some individuals might not have the opportunity to learn life skills and develop socially to become a successful adult. “The top five life skills most influenced by participation in 4-H were public speaking, community service volunteering, self-discipline, self-responsibility, and teamwork” (Maass et al., 2006, para. 13).

Studies focused on State 4-H Leadership Boards have shown that individuals who have served on state level 4-H boards gained life skills from their 4-H experience. Louisiana 4-H State Board members indicated that they “gained ‘a lot’ of leadership life skills from their board involvement” (Moran, 2015, p. 45). Kelsey and Fuhrman’s (2020) study “confirmed that participants of the state-level leadership program enhanced their public speaking skills, confidence, self-awareness, critical thinking, problem solving, planning, managing, communicating, interacting effectively with others, and building positive relationships with peers and adults” (p. 25). Although these studies targeted leaders of their state organization, these

impacts on 4-H members also are true for 4-H members and leaders at the local level. 4-H officers and club members at local levels learn and practice some of the same skills that state leaders do.

4-H educates young people on their options after high school and helps to set educational and career goals. Career preparation is important for young people to be exposed to as they are developing. Young people are under pressure to make decisions about their education and careers early in life. “A 4-H career curriculum provides a valuable experiential learning experience for youths in the classroom” (Murrah-Hanson et al., 2019, para. 8). Children are exploring their career options and without exposure to their many options, they might not be aware of what opportunities are there for them. 4-H influences young people to become productive citizens. This looks different for each person, but 4-H works to educate young people on their options and grow their skills in order to match their interests. In a study by Andrews and Higson (2008), employers expect college graduates to be “employment-ready” and “equipped with the necessary skills and competencies, and able to work with the minimum of supervision” (p. 419). Traditional 4-H programming is from 5th-12th grade and 4-H works to prepare young people to enter college successfully. During their college experience, young people can utilize the life skills learned through 4-H to further enhance their education and become ready for employment.

Because of the research-based information and practical hands-on approach that 4-H uses, many young people credit 4-H to the development or enhancement of some of their major life accomplishments. Many successful adults were involved in 4-H. “The true value of 4-H programs may come not from short-term results or even the results over the few years spanned by our study. The value may instead come from the program’s influence on life-long pathways of

development” (Lerner, 2013, p. 39). 4-H’s large reach and vast program differences make impact difficult to measure on a large scale. The longer young people stay involved in 4-H, the greater potential for gain of life and leadership skills (Kelsey & Fuhrman, 2020). “The long-term impact often cannot be determined until the youth reach adulthood and can reflect back on how their 4-H experience has helped them” (Fitzpatrick et al., 2005). 4-H alumni expressed that their 4-H experiences impacted them later in life and that compared to other youth organizations, 4-H is superior (Radhakrishna & Sinasky, 2005).

Although participation in 4-H is voluntary, the impacts of the program are beneficial for young people. These studies work to learn how 4-H has influenced career trajectories and more specifically, the 4-H activities that had an effect on member’s career trajectories.

CHAPTER TWO

CONCEPTUAL FRAMEWORK

The conceptual framework for both of the studies is Bandura's (1977) social learning theory (SLT). This theory presents a model of interaction between an individual, the environment, and their behavior (Bandura, 1977). These three entities are independent, but they are all stimulated by each other. The individual and environment interact to define behavior (Davis & Luthans, 1980). For these studies, SLT is framed as the survey respondents (individuals) utilizing 4-H opportunities (environment) that could show an influence in their career trajectory (behavior). SLT would suggest that as an individual participates in 4-H opportunities, they could learn and experience skills that might be beneficial for their future. 4-H offers a strong connection between individual and environment, which contributes to an individual's behavior. "It [SLT] is the cognitive process of the individual analyzing and making decisions based on the observations of the environment around them which leads to behavioral choices" (Lamm et al., 2016, p. 123). An individual must make many decisions. "A variety of factors influence which career paths students may choose" (Lundry et al., 2015, p. 45). Each decision is shaped by a variety of internal and external influences (Krumboltz et al., 1976). When examining the relationships of these three entities upon each other, previous literature shows where SLT can be true in 4-H (e.g. Ratkos & Knollenburg, 2015; Radhakrishna & Doemekpor, 2009; Flynn et al., 2010; Fox et al., 2003; Pennington & Edwards, 2006). The relationships of these are significant and important, as well as different for each individual. Davis and Luthans (1980) refers to individual, environment, and behavior as "interacting components" that

contribute to each other (p. 288). 4-H provides a great organization to use SLT as the model for because of the extensive environment for growth and success that 4-H can create. “In Cooperative Extension and within engaged universities, many of the educational programs and environments we create employ social learning theory” (Sobrero, 2008, para. 21).

Beyond 4-H and youth development, SLT has been used to develop healthy living programs and curriculums. The need for a behavior change allowed these programs to focus on the individual and environment in order to help participants. A healthy living curriculum utilized in Iowa named SLT as a basis because of the strategies contributed to behavior change (Hoover et al., 2009). The curriculum used an individual centered approach to focus on the learner. The main strategies for SLT were “learning new skills and behaviors by watching others” and “Imitating the behavior of a role model” (Hoover et al., 2009, Table 1). Another program to encourage healthy eating was based on SLT because of the nature of the individual, environment, and behavior to be mutual factors of each other (Condrasky, 2006). This 6-week program received positive results on behaviors related to food, reading a nutrition label, and thawing food safely. A program developed in Nevada that was based on SLT inspired behavior change by using a variety of educational methods together (Spoon et al., 1998). “The underlying assumption of Social Learning Theory is that behavior is dynamic and depends on personal and environmental constructs that influence each other simultaneously” (Spoon, et al., 1998, para. 5).

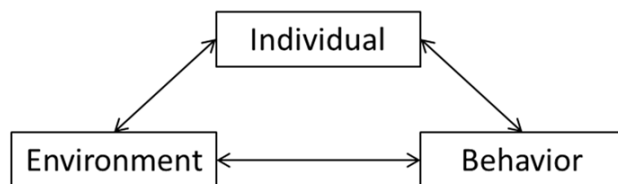


Figure 2.1. Social Learning Theory (Bandura, 1977)

Individual and Environment:

4-H offers a variety of opportunities that are engaging, challenging, rewarding, and diverse for individuals to participate in. 4-H programs are known for having caring, supportive employees and volunteers. Although a 4-H member may not realize it, during all 4-H activities they are learning. The environment that 4-H creates is safe, caring, and welcoming. These factors make 4-H opportunities ideal for young people to express themselves comfortably, make friends, and create memories. In a study conducted by Ratkos and Knollenburg (2015) respondents commented, “4-H made me a better leader and active member of the community while helping me build relationships and learn new skills” (para. 23) and “4-H made me more responsible and encouraged me to try harder in everything I did” (para. 22). Positive interactions in 4-H as the environment provides a foundation for 4-H to influence an individual’s career trajectory. The impact of 4-H varies depending on the amount of time one was involved in the program and the extent of participation. Long-term involvement in 4-H positively effects and advances young people (DeCubellis & Barrick, 2020). “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). “The ideas that increased immersion will improve learning has its roots in traditional social learning theory” (Woods, 2010, para. 22). This suggests that the longer one is involved in 4-H, the greater impact or influence that 4-H could have on an individual’s behavior. 4-H is a diverse organization. Both studies had respondents of individuals of multiple ages, genders, races, and ethnicities. Both studies also had individuals that had varying levels of active 4-H involvement.

Environment and Behavior:

The focus of building life skills in 4-H gives individuals more preparation for college, internship, and career opportunities as they get older. Each individual will experience different effects from 4-H, even if these individuals participated in the same activities. The 4-H experience is different for each person, which leads to different behavior outcomes. Being involved in groups is a part of what young people want to experience (DeCubellis & Barrick, 2020). 4-H as a youth organization contributes to an individual with much more than just career preparation. “Youth organizations, especially 4-H, have worth in that they help prepare youth to be responsible and contributing members of society” (Radhakrishna & Doemekpor, 2009, para. 1). “4-H places particular emphasis on empowering youth to have a voice in their clubs and, as well, tries to instill a sense of civic pride and obligation throughout all of their activities” (Bobek, et al., 2009, p. 625). The relationships that one creates in 4-H influences how the program will affect them. “A successful performance or positive feedback from other people increases the probability that certain types of activities will be repeated and therefore that certain types of skills will be developed to a greater extent” (Krumboltz et al., 1976, p. 75). Peers and adult role models can cause personal influence for an individual. Flynn, Frick, and Steele (2010, para. 21) state that “Participation in 4-H as a youth can contribute to the success of an individual in adulthood.” A study of who attended North Carolina 4-H Congress found that participants attending the event reported having “great knowledge of civic issues and responsibilities” and they became “more involved in community leadership, citizenship, and service during the school year” (Silliman, 2008, p. 4).

Individual and Behavior:

This study overall is looking to determine the amount of influence 4-H has and what specific 4-H activities have influenced career trajectories. “It is important for youth to translate

goals for the future into present behaviors that will set them on positive paths toward adulthood” (Schmid et al., 2011, p. 1127). Having access and support to resources relating to careers and employability can have a positive effect on career outcomes (Inceoglu et al., 2019). 4-H teaches and models these resources in a variety of ways including day programs, in-school meetings, after school activities, judging competitions, and other engaging activities. For example, Georgia 4-H offers Project Achievement. This event helps to prepare individuals to succeed in the future because of the skills gained to prepare and compete in this event. Various 4-H contests, activities, and events help young people create tangible resources and soft skills for their personal benefit. In a study conducted by Ratkos and Knollenburg (2015) respondents commented, “4-H helped me obtain professional work experience which helped me know I belong in the major I’m pursuing” and “4-H strongly contributed to what my interests are and helped me determine my college and career field” (para. 24). One part of SLT when used as a teaching technique for a learner-centered approach is goal setting (Young et al., 2011). Young et al. recommended to add goal setting into curriculum for Extension programs to make it easy to incorporate. Goal setting could influence an individual to make a different choice and change their behavior in the future.

CHAPTER THREE

DELPHI ANALYSIS OF 'HOW 4-H HAS INFLUENCED YOUR CAREER TRAJECTORY'¹

¹ Powell, M.L. and K.W. Lamm. To be submitted to *Journal of Agricultural Education*

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 career trajectories. Data were collected using the Delphi method to produce a list of 70 items. Expert panelists for this survey were selected based on their participation on the Georgia 4-H Foundation advisory board. 46 out of 70 items received 90-100% consensus in round three of the Delphi survey. A CCM analysis allowed six themes to emerge: relationships, personal development, leadership development, life skills, civic engagement, and college and career preparation. Further research could be continued to examine the cumulative levels of 4-H involvement and the relationship to an individual's future.

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). 4-H provides unique opportunities for youth to gain new experiences and prepare for their future. The Georgia 4-H Mission states, “enable them to become self-directing, productive and contributing members of society” (2020). Through various 4-H activities, competitions, and events, youth learn life skills that equip them for education and career avenues after high school. Career exploration and preparation is needed for all youth to not only become knowledgeable about the workforce, but to decide what careers they might be interested in. “4-H has focused on career development as a content area and emphasized the development of a set of "life skills" not unlike those that would enable a youth to be a valued employee -- as a youth and later as an adult” (Sawi & Smith, 1997, para. 1).

4-H allows youth to develop skills that they otherwise might not have the opportunity to. 4-H is a diverse organization that teaches life skills in leadership, communication, and citizenship. 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). In school and out of school enrichment are key components for program delivery. “4-H can be a true complement to the educational system, and 4-H programs can be an asset in improving academic performance at any level. The assortment of programs provided by 4-H are usually practical applications of research based knowledge” (Burnett et al., 2000, p. 50). In the American Association for Agricultural Education National Research Agenda for 2016-2020, Research Priority 4 is “Meaningful, Engaged Learning in All Environments”. Edgar, Retallick, and Jones (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). Hands-on and interactive approaches are used to engage 4-H members and give them new opportunities to grow. “A 4-H career curriculum provides a valuable experiential learning experience for youths in the classroom” (Murrah-Hanson et al., 2019, para. 8). According to Seevers and Dormody (1995, para. 9), “Activities identified and ranked as the number one contribution toward leadership development were holding office, teaching younger members, fairs, livestock shows, judging contests, demonstrations, public speaking, and community service.” Not only does 4-H provide enrichment opportunities in the classroom, but 4-H also provides a wealth of opportunity out of school. One example is that “involvement in a camp counselor program does indeed appear to have a long-term, positive impact on the lives of participants” (Brandt & Arnold, 2006, para. 17).

“The true value of 4-H programs may come not from short-term results or even the results over the few years spanned by our study. The value may instead come from the program’s influence on life-long pathways of development” (Lerner & Lerner, 2013, p. 39). Since all 4-H programs are different and youth’s involvement varies, it is difficult to measure the value that 4-H experiences can have on young people. Research suggests that being involved in 4-H has positive effects on a young person’s life. Astroth and Haynes (2002, para. 1) found that “4-H participants are less likely to shoplift or steal, smoke cigarettes, ride in a car with someone who has been drinking, or damage property for the fun of it. These participants are also more likely to develop self-confidence, social competence, and practical skills; to take on community leadership roles; and to feel more accepted and listened to by adults.” 4-H enhances young people’s lives by teaching them life and decision-making skills that will prepare them for the future. “During middle and high school, youth with a history of 4-H participation appear to be on a healthy trajectory” (Lerner & Lerner, 2013, p. 39). As youth get older, many important decisions must be made that will impact their future. “A major turning point in adolescents’ lives involves the career choice that they make while in high school” (Ferry, 2006, para. 1). Park and Dyer’s (2005) study found the following:

Leadership development and organizational participation in high school appears to translate into continued involvement in college. If a similar pattern would hold true into professional careers, some of the current undergraduate leaders may develop into community and state leaders in agriculture. Thus, continued support for the university, both philosophically and financially, may be an added benefit that 4-H and FFA provide, as students become professionals and community leaders. (p. 92)

By participating a variety of 4-H activities, youth are exposed to many career options while they develop life skills. Another way that 4-H can help young people is by “developing programs and strategies that assist both parents and youth in exploring a wide range of occupations can open the door to emerging and non-traditional career choices” (Ferry, 2006, para. 23). Parents and community are large influences on a young person’s decision. “Providing adolescents with learning opportunities in which they are challenged to make sense of situations that they will encounter in various types of employment can provide them with a greater understanding of career options” (Ferry, 2006, para. 23).

Conceptual Framework

Bandura’s (1977) social learning theory (SLT) has a model that shows how 4-H can influence one’s career trajectory. “SLT represents the reciprocal interaction between an individual, the environment, and the individual’s subsequent behavior” (Lamm et al., 2016, p. 123). In this study, SLT would suggest that the survey respondents (individuals) are given numerous opportunities through 4-H activities and events (environment) that can influence their career (behavior). “Social learning theory posits that psychological functioning can be explained in terms of the interaction of personal characteristics, previous behavior (learning) and environmental determinants” (Grady, 1990, p. 75).

Individual & Environment:

Most of the survey respondents in this study were previous 4-H members. Their 4-H participation varied in the amount of activities they participated in and the length of time they were involved. In a study conducted by Ratkos and Knollenburg (2015) respondents commented, “4-H made me a better leader and active member of the community while helping me build relationships and learn new skills” (para. 23) and “4-H made me more responsible and

encouraged me to try harder in everything I did” (para. 22). The correlation between individual and environment could be found important because of the impact that 4-H activities and events have on the members. “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 relationship between environment and behavior has been the most significant because of the extensive environment for learning and growth that can contribute to change in behavior. The behavior of 4-H influencing one’s career is documented in various studies. “Youth organizations, especially 4-H, have worth in that they help prepare youth to be responsible and contributing members of society” (Radhakrishna & Doemekpor, 2009, para. 1). This suggests that 4-H contributes to an individual in more than just career preparation. Flynn, Frick, and Steele (2010, para. 21) state that “Participation in 4-H as a youth can contribute to the success of an individual in adulthood.”

College, civic engagement, life skills, and adulthood have all been mentioned as being influenced by 4-H. “4-H can help meet the need of preparing students to navigate the demands, challenges, and rigor of college life” (Ratkos & Knollenburg, 2015, para. 32). 4-H allows young people to learn and explore in order to strengthen themselves for life after their experiences of being a 4-H member. Bandura’s social learning theory says 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). Fox, Schroeder, and Lodl (2003, para. 1) found that “4-H Club membership did have an influence on the development of all 32 life skills identified.” The life skills identified in their study were grouped into four categories including technical skills,

communication skills, personal/social skills, and leadership skills. “Participants in this study perceived that experiences in 4-H had a "major" impact on their civic engagement” (Pennington & Edwards, 2006, para. 25).

Individual & Behavior:

In a study conducted by Ratkos & Knollenburg respondents commented, “4-H helped me obtain professional work experience which helped me know I belong in the major I'm pursuing” and “4-H strongly contributed to what my interests are and helped me determine my college and career field” (2015, para. 24). New skills are learned as individuals are involved in 4-H.. The frequency of 4-H involvement is a factor in the skills and information learned that could be applied for a career. The longer an individual is involved, the more time they have to begin to learn or model behaviors and skills. These skills learned in 4-H can affect an individual’s choices as they begin to prepare for their college and career options.

Purpose and Research Objectives

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

1. Conduct a Delphi survey to create a list of items relating to 4-H experiences to influence career trajectories.
2. Analyze data by thematically grouping items to determine primary themes relating to 4-H experiences to influence career trajectories.

Methods

The Delphi method was developed by RAND in the 1950s. It was “originally to forecast the impact of technology on warfare” (Delphi Method, 2020, para. 1). “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 is used widely and the goal is for the expert responses to have a consensus. This study used three rounds. 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. One week later another email was sent with the survey link and a requested response date. A reminder email was sent to non-respondents two days after the original survey link was sent. Finally, non-respondents received a final reminder email one day before the close of the survey.

The current study was conducted as part of a larger project evaluating 4-H programming more generally. Specifically, data were collected from expert panelists related to the present study, as well as other overall project objectives. Disclosure of the context of the present study, and the relation of the data collection relative to the larger project context are presented according to recommendations within the literature (Kirkman & Chen, 2011; Zhang et al., 2013).

The first round of the Delphi asked the panel experts to give 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 76 items were generated in the first round of the process. Prior to the second round of the process, responses were reviewed for clarity and mutual exclusivity (Garson, 2014). Based on a review of the responses minor wording updates were made to improve clarity. Additionally, a duplicate item was removed, therefore a total of 74 items were presented during the second round of the process. The second round of the Delphi was used to rank the importance associated with the items developed during the first round of the

process. There was a five-point Likert-type scale (1 = *Not at all important*, 2 = *Somewhat important*, 3 = *Important*, 4 = *Very important*, 5 = *Extremely important*) for panelists to select the level of importance 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). The second round of the process had an 84% response rate with 26 of 31 individuals responding. The third round of the Delphi finalized the group's 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 taken out from the final list. For an item to be retained, a threshold of 80% or greater consensus was established *a posteriori*. This data collection began in October 2018 and continued through January 2019.

Data from round three of the Delphi survey were analyzed 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). Items were studied and grouped into like 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.

Experts were selected based on their participation on the Georgia 4-H Foundation advisory board. The quality of data collected using Delphi is dependent on the experts chosen for the panel (Garson, 2014). 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.

Results

Delphi round one captured 76 items. Before round two, the results from round one were analyzed and grouped thematically. The second round of the Delphi intended to rank the importance associated with the items individually recognized in round one. Specific item mean scores and standard deviation information is available in Table 3.1 below. This allowed expert panelists to provide more specific responses and eliminated double-ended questions. The means for the items captured in round two ranged from 2.85 to 4.60. The item with the highest mean and lowest standard deviation was public speaking confidence. The majority of the top ten items (Table 3.1) that influenced respondents career trajectory were related to public speaking, confidence, and friendships. The top two specifically were public speaking confidence and built lifelong friendships, both with a mean of 4.60.

Table 3.1.

Delphi Round One and Two Results: How has 4-H influenced your career trajectory ($n = 76$)

Item	<i>M</i>	<i>SD</i>
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

Item	<i>M</i>	<i>SD</i>
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
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

Item	<i>M</i>	<i>SD</i>
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 finalized the group's consensus. This is shown in Table 3.2. 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 reached the highest consensus of 94.1%. These top items revolved around working with teams and different age groups, thinking on their feet and adapting, presentation and leadership skills, and improved self-image and confidence.

Table 3.2.

Delphi Round Three Results: How has 4-H influenced your career trajectory (*n* = 70)

Item	Consensus %
Working with teams – general	94.1
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

Item	Consensus %
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
Communication practice	88.2
4-H taught me how to network and the importance of those relationships	88.2
Consensus building	87.5

Item	Consensus %
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 was used to analyze data from round three of the Delphi survey. The first comparison highlighted initial codes such as “leader”, “skills”, “working with others”. These initial codes were developed into six themes in order to encompass all survey items. The theme categories are: (1) Relationships (16 items), (2) Personal Development (13 items), (3) Leadership Development (12 items), (4) Life Skills (12 items), (5) Civic Engagement (9 items), and (6) College and Career Preparation (8 items). These categories are shown in Table 3.3.

Table 3.3.
Results Thematically Categorized ($n = 70$)

Themes	Number of Items Overall	Number of Items with 90-100% Agreement
<i>Relationships</i>	16	11
Working with teams – general		

Meeting others from all over Georgia		
Taught me the importance of relationships		
Stellar peer group		
Relationships		
Made me function well in teams to accomplish a common goal		
How to work cooperatively with others		
Created network of friends		
Created network of acquaintances		
Opportunities to interact with friends		
Meeting people with similar interests		
Built lifelong friendships		
4-H taught me how to network and the importance of those relationships		
Expanded understanding of others		
Built lasting friendships		
Association with outstanding youth		
<i>Personal Development</i>	13	10
Instilled confidence		
Improved self-image		
Taught me to strive to improve myself		
Taught me to always do my best and understand the motto To make the best better.		
Opportunities to succeed		
Made me a better member of my community		
How to be a graceful winner and loser		
Opportunities – general		
General – vital in my development		
Desire to serve others		
Confidence		
Character development		
Opportunities to perform		
<i>Leadership Development</i>	12	10
Observed role models		
Leadership skills		
To exercise leadership		
Skills in leading different age groups		
Opportunities to exercise leadership		
Observed great leadership in action		
Met state leaders		
Met local leaders		
Leadership training		
Prepares individuals to lead		
Consensus building		
Connections with high profile adults in Georgia		
<i>Life Skills</i>	12	9

Understanding how to think on my feet and knowing that when something is not going as planned to change		
Presentation skills		
Improved confidence in speaking skills		
Public speaking experience		
Public speaking confidence		
Life skills		
Soft skills		
Public speaking skills		
Critical thinking		
Communication practice		
Confidence speaking in front of groups		
Organizational skills		
<i>Civic Engagement</i>	9	1
Skills in working with different age groups		
Citizenship		
Broadened my horizons		
Being a camp counselor allowed me to understand my love of all children from all walks of life		
Increased interest to travel the world		
Exposure to options		
Diversity		
Learning experiences nationally		
Increased interest to work in Washington D.C.		
<i>College and Career Preparation</i>	8	5
Work ethic		
Expanded network of colleagues		
Increased social capital		
Understanding of resources available		
Taught me how to prepare to achieve specific goals		
Resume building		
Interview skill development		
Scholarship		

Conclusion, Implications, and Recommendations

After thematically grouping the items from the Delphi survey, the six categories highlight primary themes that emerged relating to 4-H experiences that influenced career trajectories. The “Relationships” theme included 16 of the 70 items. This theme had the highest number of items and was the most prominent. The items identified in the “Relationships” theme may have a potentially larger influence of career trajectories in combination with the 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. The “Personal Development” theme had 13 of the 70 items with items relating to confidence, improvement, and opportunities. The qualitative analysis to further analyze these specific opportunities provides additional insights related to highly efficacious events and interventions 4-H and youth development educators can capitalize to maximize the beneficial experiences for young people. The “Leadership Development” theme included 12 of the 70 items. This theme emerged based on the frequency of items that referenced leader and leadership. The “Life Skills” theme also included 12 of the 70 items. As indicated throughout the literature, 4-H provides numerous ways for young people to develop various life skills (e.g. Fox et al., 2003; Radhakrishna & Doemekpor, 2009; Ratkos & Knollenburg, 2015; Sawi & Smith, 1997). However, this category may be difficult to measure because of the wide range of items that one might consider to be life skills. Nevertheless, the results of the present study provide a set of items to help support and inform this thematic area. The “Civic Engagement” theme included nine of the 70 items. The items in this category related to exposure and diversity and experiences that encouraged youth to participate in their communities locally and beyond. Finally, the “College and Career Preparation” theme included eight of the 70 items. Although this category may have been expected to have more items emerge based on the context for the study, it is notable that several of the final list of items and themes are indirectly related to “College and Career Preparation”. Nevertheless, the results provide an interesting 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. A recommendation for future 4-H programming is to ensure that activities allow youth to engage with their peers and adult mentors to build on skill development around interacting with others and developing interview skills.

The results of the study indicate the top 46 items received 90-100% consensus in round three of the Delphi survey. 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 purposively highlight particular outcomes. An additional recommendation is to further 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.

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 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 advisory board.

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. 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 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.

In addition to the results of the study from a direct 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 posits 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, in particular, their career choices.

At the individual level, the results indicate there are numerous experiences which may interact to influence career trajectories. In particular, the Relationships, Personal Development, Leadership Development, Life Skills, and Career and College Preparation themes might be associated with the individual learner within the educational setting. Overall, the themes refer to the experience and development of the individual within the learning experience. These results

are similar to the results identified within the literature (e.g. Ratkos & Knollenburg, 2015; Radhakrishna & Doemekpor, 2009). A recommendation is for 4-H and other youth development educators to consider the list of specific items generated from the current study to develop learning outcomes and interventions. For example, communication practice was an item in the Life Skills theme that did not reach the 90-100% consensus level. A lesson or program could be developed for young people to prepare and practice different methods of communication with groups of people. From a learning environment perspective, the Civic Engagement, College and Career Preparation, Relationships, and Leadership Development themes appear to have the highest level of conceptual overlap. Specifically, the themes reinforce trends previously identified within the literature regarding the influence of 4-H programming on behavioral outcomes (e.g. Fox et al., 2003). The results of the present study indicate that individuals arrived at a consensus on several higher order items, as opposed to very specific programs. For example, serving as a camp counselor, increasing interest to work in Washington D.C., meeting local and state leaders, and so forth. A recommendation for 4-H and youth development educators would be to look for opportunities to integrate the higher-level environmental 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. An additional recommendation for future research would be to further investigate 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 warrant the need for further investigation (e.g. Pennington & Edwards, 2006).

As it relates to behavior associated with the learning contexts, the results of the present study indicate that almost all the retained items, and associated themes, may have some behavioral influence. For example, exposure to options, increased social capital, created network of friends, character development, to exercise leadership, and communication practice represent a specific item from each of the emergent themes. Each item might be considered as a behavior, whether through emergent practice, or intellectual influence, such as through reflection (Roberts, 2006). Based on the findings, a recommendation for future research would be to investigate whether there are some cumulative effects acquired through program participation that may influence career trajectories. For example, in addition to examining specific program influences as recommended previously, an additional recommendation would be to examine whether the total number of programs an individual participates in has an influence on their career trajectory. Additionally, a recommendation would be to examine whether duration of program participation has an influence on career trajectory. Based on the ubiquity of behavioral items identified in the current study, future research is recommended to analyze whether higher-order effects may also have an influence.

Lastly, as a synthesis of the study findings relative to the SLT conceptual framework, an additional recommendation is proposed for 4-H and youth development educators. Educators are recommended to purposively 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 should first 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). Although it is likely that public speaking opportunities are provided within

4-H and youth development contexts already, 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 of learners. An additional recommendation for future research is to further investigate whether specific experiences are reinforced, or mitigated, when combined. Using the previous recommendation as an 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 (Durlak et al., 2013)? Lastly, the confidence coaching in combination with the public speaking opportunity, may be considered relative to the individual's desire and willingness to take on additional leadership roles.

Although there has been considerable research within the literature related to 4-H and youth development programming, and the associated benefits of such programs (e.g. Flynn et al., 2010), this study specifically examines the role of the 4-H program in influencing participants career trajectories. The specific items and associated themes help to provide a foundation to inform future programming and research efforts.

CHAPTER FOUR

ANALYSIS OF 4-H PARTICIPATION ON CAREER TRAJECTORIES

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Abstract

Young people learn and develop skills to prepare for their future in a variety of ways through 4-H activities. The purpose of this study is to examine how frequency and participation in 4-H influences career preparation. A descriptive research design was used for this study and the online survey platform, Qualtrics, was used to collect data. Five of the 13 4-H activities listed were determined statistically significant using ordinal logistic regression in the SPSS software: 4-H club program, In-school 4-H program, National 4-H Congress, Judging program, and Collegiate 4-H. 49.2% of respondents reported that 4-H had “a great deal” of influence on preparing for their career.

Introduction

4-H is the largest youth development organization in America (National 4-H, 2020). Because of this reach, “4-H has the opportunity to significantly influence the development of young people” (Fox et al., 2003, para. 3). 4-H has had an impact on many youth and adults across the nation by offering engaging and educational opportunities. The opportunities that 4-H provides for young people allow them to develop skills and competencies that create a lasting impression on their lives. Extension youth programs list life skills as a benefit of many programs (Sawi & Smith, 1997). Career development is one area of life skills that 4-H highlights during programming.

Every state has a different way of implementing 4-H, but the values of the program remain the same. 4-H is a community for young people where they can discover their talents and develop their strengths. Some of the ways that 4-H works to increase reach is by conducting in-school and out of school enrichment opportunities. 4-H delivers research-based information that can be helpful in enhancing academic performance in students and supplement education

(Burnett, Johnson, and Hebert, 2000). In Research Priority 4 of the American Association for Agricultural Education National Research Agenda for 2016-2020, Edgar, Retallick, and Jones (2016) state that “creating and evaluating meaningful learning environments is essential to educating future generations” (p. 38-39). Many teaching and learning strategies are used when delivering 4-H programs. Interactive and hands-on methods allow students to learn by doing and experience learning in multiple ways. “A 4-H career curriculum provides a valuable experiential learning experience for youths in the classroom” (Murrah-Hanson et al., 2019, para. 8). It is suggested that Extension educators continue to use inventive ways to develop leadership and life skills in 4-H youth (Radhkrishna & Sinasky, 2005). Many times, these youth are learning without realizing it. 4-H activities provide leadership development opportunities inside and outside of school such as becoming an officer, helping younger members, judging events, presentations, public speaking, community service, and the camp counselor program (Seevers & Dormody, 1995; Brandt & Arnold, 2006).

The value and impact of a 4-H program on young people’s lives is hard to measure due to the varying activities, levels of involvement, and unique experiences of each individual. Short-term results might not bring true value, but 4-H impact is found in life-long pathways of growth (Lerner & Lerner, 2013). Positive results are shown in young people because of their 4-H involvement. Youth that have been involved in 4-H are less likely to participate in stealing, smoking, drinking, or damaging property for entertainment (Astroth & Haynes, 2002). These decision-making skills are taught and practiced during various 4-H activities and events. In high school, youth are under pressure and one significant point in their lives is an education and career choice (Ferry, 2006). A pattern of participation in leadership development like 4-H and FFA in high school can carry over into participation in similar organizations during college (Park

& Dyer, 2005). This pattern may also predict that those student leaders will become community and state leaders as well as provide financial support to their alma mater later in life (Park & Dyer, 2005).

Conceptual Framework

4-H influence on one's career can be modelled similarly to the social learning theory (SLT) from Albert Bandura (1977). SLT suggests that an individual, the environment, and their behavior are all stimulated by each other (Bandura, 1977). Davis and Luthans (1980) state "the person and the environment are considered to be independent entities that somehow combine to determine behavior" (p. 282). In this study, individuals are the survey respondents, the environment is the 4-H activities and frequency, and the behavior is their career choice.

4-H alumni have unique experiences that make the relations between individual and environment, environment and behavior, and behavior and individual all important and significant. This is influenced by the number of activities participated in and the number of years they were active in 4-H. Ratkos and Knollenburg (2015) found that 4-H helped people build relationships, learn new skills, practice responsibility, meet college requirements, explore career options, and gain professional experience. Radhakrishna and Doemekpor (2009) found that 4-H alumni learned valuable skills as members and were prepared to be contributing members of society. Individual, environment, and behavior are all "interacting components" that contribute to each other (Davis & Luthans, 1980, p. 288).

SLT reigns true in 4-H because of the extensive environment for growth and success that 4-H activities, relationships, and programs can create. Continuing 4-H involvement long-term positively effects and advances young people (DeCubellis & Barrick, 2020). 4-H focuses on life

skills and because of that many members are more prepared for internship and career opportunities as they get older.

Individual:

The survey respondents in this study were Georgia 4-H alumni. These respondents gave representation of different genders, races, and ethnicities. They each had varying years of being an active 4-H member and their actual involvement varied as well.

Environment:

This is where the actual experiences of the 4-H member ties in. Although some members can have similar experiences or participate in the same activities, the way 4-H affects someone differs for every person. Youth want to participate in group activities (DeCubellis & Barrick, 2020). Relationships are a large part of 4-H and the personal influence of an adult role model or close friend can affect one's choices.

Behavior:

The effect of 4-H on one's career outcomes is the focus of this study. 4-H offers a strong connection between individual and environment, which contributes to an individual's behavior. Providing more resources relating to careers and employability can have a positive effect on career outcomes (Inceoglu et al., 2019). Georgia 4-H teaches these skills through Project Achievement; seventh through twelfth graders have the opportunity to complete a 4-H portfolio and demonstration for the Project Achievement competition. This portfolio is helpful to students as they are transitioning to college and completing resumes and scholarship applications. At the state level, the 4-H'er is interviewed and must answer questions about the portfolio and their 4-H experience. 4-H prepares young people and creates tangible resources for their benefit as they grow.

Purpose and Research Objectives

The purpose of this study is to examine how frequency and participation in 4-H influences career preparation. This purpose was completed using these research objectives:

1. Describe the frequency of activity participation in the 4-H program.
2. Identify the average number of activities 4-H alumni participate in.
3. Describe 4-H alumni self-identified levels of influence 4-H had on their career preparation.
4. Determine the amount of influence specific 4-H activities had on perceived levels of career preparation.

Methods

A descriptive research design was used for this study and the online survey platform, Qualtrics, was used to collect data. Quantitative and qualitative data collection was included in the Qualtrics survey. This instrument was influenced by previously used instruments, feedback from the Georgia 4-H Foundation Advisory Board Delphi method, and expert reviewers. The Georgia 4-H administrative office provided access to a database with 1,418 names and email addresses of Georgia 4-H alumni. Of those, 1,261 potential respondents were identified after 157 email addresses were determined to no longer be in use. The response rate was 38% after 481 total people responded. The Tailored Design Method was used for data collection. In March 2019, the Georgia 4-H program leader sent a pre-notice to the prospective respondents of the database. A personalized email was sent within two days to all prospective respondents. For four weeks, reminders were sent to non-respondents. In April 2019, the survey was closed. Most of the survey respondents lived in the state of Georgia.

The SPSS statistical software tool was used to analyze data. Ordinal logistic regression (Peng et al., 2002) was used to further analyze the influence of unique 4-H activities on career influence. The level of significance was determined *a priori* ($p = .05$).

The respondents indicated their gender, race, and ethnicity. The demographics of the respondents were 38% male ($n = 153$), 61.5% female ($n = 248$), and 0.5% prefer not to answer ($n = 2$). The respondents were 87.3% White ($n = 349$), 9.5% Black or African American ($n = 38$), 0.3% American Indian or Alaska Native ($n = 1$), 1.8% Asian ($n = 7$), and 1.3% Other ($n = 5$). The respondents indicated that 2.3% ($n = 9$) considers themselves Hispanic/Latino(a)/Chicano(a) and 97.7% do not ($n = 379$). The survey asked what years the individuals started and stopped participating in 4-H. Between 1945 and 2016 the respondents started participating in 4-H and between 1959 and 2018 they stopped participating in 4-H. The years started subtracted from the year stopped is the calculation used for total years in 4-H. The average response was 8 years ($M=9.77$ $SD=6.15$) with a range from 0 years to 61 years.

The survey included a list of 4-H activities and individuals were asked to select whether they participated in those activities. The list was initially based on the types of 4-H programs listed on the national 4-H website (National 4-H Program). These National 4-H program types include 4-H club program, 4-H camps, After-school 4-H programs, In-school 4-H programs. The rest of the activities listed were indicated from the Georgia 4-H Foundation Research that highlighted the most impactful parts of the 4-H program (Lamm, 2019). These Georgia 4-H program types include Project work, State conferences/congress, Judging program, Served as a counselor, National 4-H Congress, Collegiate 4-H, Citizenship Washington Focus, Cloverbuds, and Other.

Results

Table 4.1.

4-H Activities Frequencies

Activity	Number of Respondents
4-H club program*	411
4-H camps*	365
Project work	347
State conference/congress	331
After-school 4-H programs*	303
In-school 4-H programs*	293
Judging program	292
Served as a counselor	168
National 4-H Congress	148
Collegiate 4-H	136
Citizenship Washington Focus	58
Cloverbuds	39
Other	89

Note: * indicates National 4-H Program type

Table 4.2 shows the overall participation value. This was determined by summing the total number of activities the respondents selected. The average was 6.6 activities ($M=6.58$ $SD=2.65$) and with a range of 0 to 12 activities.

Table 4.2.

Total 4-H Activity Count

Activity Count	Number of Respondents	% of Total
0	13	2.9
1	17	3.8
2	8	1.8
3	23	5.1
4	29	6.4
5	43	9.5
6	65	14.3
7	80	17.7
8	54	11.9
9	59	13
10	49	10.8
11	12	2.6
12	1	0.2
Total	453	100

Table 4.3 shows the respondents self-identified levels of influence 4-H had on their career preparation. This was determined using descriptive statistics from the Qualtrics survey. 71.2% of respondents indicated that 4-H had ‘a lot’ or ‘a great deal’ of influence on their career preparation.

Table 4.3.
Amount of influence 4-H had on Career Preparation

Item	Frequency	% of Total
None	12	6.3
A little	14	7.3
A moderate amount	29	15.2
A lot	42	22.0
A great deal	94	49.2

Ordinal logistic regression was used to determine whether program experiences within 4-H were associated with amount of influence 4-H had on preparing individuals for their career. Model fit was examined to determine whether there was a statistically significant improvement in model fit of the proposed model relative to the intercept only model. A statistically significant improvement was observed for the proposed model over the null model [$\chi^2(13) = 99.69, p < .000$]. Next, goodness of fit was examined using both Deviance and Pearson chi-square tests. Specifically, non-significant results are indicators the model fits the data well. The Deviance test was found to be non-significant [$\chi^2(531) = 318.34, p = 1.000$]. Similarly, the Pearson test was also found to be non-significant [$\chi^2(531) = 422.43, p = 1.000$]. Additionally, pseudo R-square values were calculated for the proposed model. Although interpretation of values should be done with caution, the results are presented in Table 4.4.

Table 4.4.
Pseudo R-square Values

	Values
Cox and Snell pseudo R^2	0.41
Nagelkerke pseudo R^2	0.44

Based on the model and goodness of fit analysis the data were subsequently analyzed according to ordinal logistic regression protocols with 4-H career influence serving as the variable of interest and specific 4-H programs serving as the predictor variables. The results of the analysis are presented in Table 4.5.

Table 4.5.
Ordinal Logistic Regression Analysis

Item	<i>B</i>	Standard Error	Exp(<i>B</i>)	<i>p</i>
Outcome variable: Please indicate the amount of influence 4-H had on your preparing you for your career:				
None	1.04	0.72	2.82	0.149
A little	2.22	0.72	9.20	0.002
A moderate amount	3.61	0.76	37.01	0.000
A lot	4.98	0.79	145.20	0.000
Predictor variable:				
4-H club program	2.40	0.71	11.00	0.001
4-H camps	-0.17	0.44	0.84	0.702
In-school 4-H programs	1.41	0.39	4.10	0.000
After-school 4-H programs	-0.50	0.37	0.61	0.175
National 4-H Congress	1.16	0.39	3.19	0.003
Citizenship Washington Focus	-0.09	0.45	0.91	0.836
Project work	0.06	0.38	1.06	0.872
State conference/congress	0.39	0.39	1.48	0.319
Judging program	0.81	0.34	2.24	0.019
Served as a counselor	-0.24	0.37	0.78	0.509
Collegiate 4-H	2.06	0.40	7.81	0.000
Cloverbuds	1.11	0.66	3.04	0.091
Other	0.17	0.38	1.18	0.660

There were five programs, or predictor variables, that were observed to be statistically significant: 4-H club program, In-school 4-H program, National 4-H Congress, Judging program, and Collegiate 4-H. As all predictor variables were binary, the slope represented the difference in log odds between individuals that participated in the activity or not. For individuals that participated in the 4-H club program, the log odds of being in a higher level of 4-H career influences was 2.40 points higher on average as compared to those individuals that did not

participate in the 4-H club program. Additionally, the odds of a respondent identified as having participated in the 4-H club program being in a higher 4-H career influences category was 11.00 times that of a respondent that did not participate in the 4-H club program. For individuals that participated in in-school 4-H programs, the log odds of being in a higher level of 4-H career influences was 1.41 points higher on average as compared to those individuals that did not participate in in-school 4-H programs. Additionally, the odds of a respondent identified as having participated in in-school 4-H programs being in a higher 4-H career influences category was 4.10 times that of a respondent that did not participate in in-school 4-H programs. For individuals that participated in National 4-H Congress, the log odds of being in a higher level of 4-H career influences was 1.16 points higher on average as compared to those individuals that did not participate in National 4-H Congress. Additionally, the odds of a respondent identified as having participated in National 4-H Congress being in a higher 4-H career influences category was 3.19 times that of a respondent that did not participate in National 4-H Congress. For individuals that participated in the judging program, the log odds of being in a higher level of 4-H career influences was 0.83 points higher on average as compared to those individuals that did not participate in the judging program. Additionally, the odds of a respondent identified as having participated in the judging program being in a higher 4-H career influences category was 2.24 times that of a respondent that did not participate in the judging program. Lastly, for individuals that participated in Collegiate 4-H, the log odds of being in a higher level of 4-H career influences was 2.06 points higher on average as compared to those individuals that did not participate in Collegiate 4-H. Additionally, the odds of a respondent identified as having participated in Collegiate 4-H being in a higher 4-H career influences category was 7.81 times that of a respondent that did not participate in Collegiate 4-H.

Conclusion, Implications, and Recommendations

After analyzing these items using statistical significance, five programs were found to be significant: 4-H club program, In-school 4-H program, National 4-H Congress, Judging program, and Collegiate 4-H. Of these five programs, two were indicated as National 4-H program types, 4-H club program and In-school 4-H program.

4-H club program received the highest number of respondents ($n = 411$) for 4-H activities. The 4-H club program is a broad category. A qualitative analysis to determine the specific means by 4-H club program's influence on career trajectories could further research in this area. When comparing these five programs to the number of respondents indicated they participated in that program (Table 3.1), Collegiate 4-H received the lowest ($n = 136$). Of all 13 programs, Cloverbuds received the lowest ($n = 39$).

The largest number of respondents indicated they participated in seven 4-H activities ($n = 80$; 17.7%), while 13 respondents participated in zero 4-H activities (2.9%) and 1 respondent participated in 12 activities (0.2%).

Although not all items were determined statistically significant in this study, there are other aspects that these programs could have a notable impact on. Of the 13 programs, five were found to be statistically significant predictor variables in relation to career trajectory. Further research is recommended using other variables of interest (enjoyment, loyalty, knowledge gained, etc.) with these same 13 programs. The eight programs not determined to be statistically significant in career trajectory are: 4-H camps, After-school 4-H programs, Citizenship Washington Focus, Project work, State conference/congress, Served as a counselor, Cloverbuds, and Other.

A recommendation is for 4-H and youth development professionals to use these results when planning future programs centered around career preparation/development and life skills. A qualitative study to learn more about specifically which aspect of these programs influenced career trajectories could help to further inform 4-H professionals on the areas of programs to improve and change. For example, a study with a focus of “What portions of the 4-H Judging program influenced your career trajectory?” could give insight for specific judging program experiences that were influential or detrimental for a young person. Information from such study might produce concrete opportunities for overall 4-H growth in the area of judging programs. If the goal of a judging program is to influence young people to make wise decisions quickly and back-up their decisions, a study could work to determine what areas of the judging program become useful to college and career success.

This study will help to increase the works of literature with a focus on 4-H career influence. Although this study informs readers about the specific 4-H activities that were influential to one’s career, there are limitations that should be addressed. This study was conducted using one state’s alumni database and received a 38% response rate. Not all results from this study will apply to all state 4-H programs. The activities listed in the survey were based on the national 4-H website and from previous Georgia 4-H Foundation Research (Lamm, 2019). Each county program in Georgia offers a wide variety of programs and teaches various topics during 4-H programming. While this study provides insight in an overview of programs impactful to career trajectory, the activities listed are broad and could be misinterpreted by respondents depending on their 4-H experiences. Regardless of these limitations, 4-H and youth development professionals should use these results to begin additional studies relating to 4-H impact.

Not only does this study use descriptive and inferential statistics to give perspective, there is also a theoretical perspective. Bandura's (1977) social learning theory (SLT) is the conceptual framework for this study that allows us to focus on the relationship between individuals, environment, and subsequent behaviors. SLT provides a model that young people that participated in 4-H programs will see an impact on their choices and behavior, depending on the length and types of 4-H experiences had. The behavior chosen to focus on for this study is career trajectory.

Experiences that can change one's career trajectory vary based on the individual. For this study, the 4-H activities determined to be statistically significant were 4-H club program, In-school 4-H program, National 4-H Congress, Judging program, and Collegiate 4-H. These programs teach life skills and allow participants to engage in real-world experiences. These experiences develop understanding and demonstrate the knowledge gained of specific life skills.

This study examines the 4-H activities that had an influence in career trajectory among alumni and contributes to the research and literature relating to 4-H and youth development programming. Findings from this study and specific activities determined significant can be beneficial for future 4-H programming and evaluation efforts.

CHAPTER FIVE

CONCLUSIONS

4-H is an impactful program that has the potential to influence a young person's life in various ways. The two studies reported in this thesis have identified themes and specific 4-H activities where 4-H has influenced career trajectories. These results can be used to inform future 4-H programming and studies. The results from these two studies work to learn what 4-H experiences influence career trajectories. The results from the first study inform us of specific items/skills/opportunities that individuals believe 4-H influenced them in their career trajectories. The results from the second study inform us of the specific 4-H activities that individuals believe influenced them in their career trajectories.

Teaching and learning life skills is incorporated into most 4-H activities. Utilizing the Essential Elements of 4-H Youth Development (Kress, 2004), 4-H professionals serve youth and teach them skills needed to succeed in life. If influencing career trajectories by equipping young people with life skills is the goal of 4-H, our organization must be more intentional about teaching skills that fall in the "College and Career Preparation" theme. Although in the second study 49.2% of respondents reported that 4-H had "a great deal" of influence on preparing for their career, the theme with the lowest number of items in the first study was "College and Career Preparation". Other themes contribute to the influence that 4-H can have on someone's career trajectory. The skills learned through 4-H indirectly and directly benefit young people for their future. 4-H professionals can use the themes presented in the first study as a guide on what to strengthen when creating new 4-H curriculum or preparing to implement a program. 24 of the

70 responses for the Delphi round three in the first study received a consensus less than 90%. These items are areas that 4-H professionals can focus on (Confidence speaking in front of groups, citizenship, broadened my horizons, resume building, interview skill development, diversity, etc.). The other 46 items that received between a 90-100% consensus should still be skills taught in 4-H.

Keeping the Essential Elements of 4-H Youth Development (Kress, 2004) in mind when teaching skills to young people is important. Belonging is an important Essential Element because youth want to be a part of a group (DeCubellis & Barrick, 2020). In the first study, “Relationships” was the theme with the most items (16) as well as the most items that received 90%-100% agreement (11). As youth are a part of a healthy group such as 4-H, they are taught skills to work with others, build relationships, meet friends, and work cooperatively. This feeling of belonging also contributes to some 4-H’ers reason for staying involved in 4-H (Hensley et al., 2007). The “Personal Development” theme also has items that are related to belonging such as improved self-image, desire to serve others, and character development. These characteristics that respondents listed are affecting not only their career trajectories, but their personal wellbeing also.

When looking at the five statistically significant 4-H activities on career trajectories from the second study, it is interesting to compare those activities to the six themes from the first study. 4-H club program, In-school 4-H program, National 4-H Congress, Judging program, and Collegiate 4-H are all major 4-H activities. Thinking about these activities, all six of the themes are relevant to these activities (Relationships, Personal Development, Leadership Development, Life Skills, Civic Engagement, College and Career Preparation). Developing skills around the six theme topics that emerged is a goal of 4-H activities. 4-H can help with complementing

education and boosting academic performance (Burnett, Johnson, & Hebert, 2000). Not only does 4-H help in academics, 4-H prepares young people for “the next generation of citizenry” (Bobek et al., 2009, p. 616). “The top five life skills most influenced by participation in 4-H were public speaking, community service volunteering, self-discipline, self-responsibility, and teamwork” (Maass et al., 2006, para. 13). Although this study was looking at 4-H influence on career trajectory, some of the items received in the Delphi are comparable to those life skills found by Maass et al.

These results not only inform programmatic and topic driven content that can be developed and enhanced in 4-H, they can also be used as recommendations and justification for funding of Georgia 4-H for county and university administrators. In-school program was found statistically significant and is one of Georgia 4-H’s base programs. Using items from the Delphi and statistics from the ordinal logistic regression analysis, information could be presented to stakeholders to provide justification for funding or request an increase in funding. Collegiate 4-H was also found statistically significant. Using these studies as justification, colleges and universities could incorporate more Collegiate 4-H programs in Georgia and use this experience to capitalize on connections with 4-H and Extension professionals in nearby counties.

Bandura’s (1977) social learning theory (SLT) gives insight from a theoretical standpoint. The interaction between an individual and their environment contributes to their behavior. These studies provide information showing that 4-H (environment) did influence career trajectory (behavior) and help inform 4-H professionals on events and topics to improve our focus for the future.

These studies have furthered the research and literature available about 4-H influencing careers. Further studies could be conducted specifically about 4-H influence on other parts of

one's life (e.g. Health, Nutrition, Finances, etc.). Using career trajectory as a variable, five of the 13 4-H activities listed in the second study were found statistically significant. A recommendation is to change the variable in order to learn the significance of other 4-H activities. For example, 4-H camp might have not influenced one's career, but it could have influenced their involvement in 4-H overall. More research is needed about the broader impact of 4-H overall on a young person.

One limitation of these studies is that the data collected for these studies were from Georgia 4-H Foundation Advisory Board members/past members and Georgia 4-H Alumni. It is recommended that other states conduct similar studies about 4-H influence on career trajectory. Some of the events referenced in the second study are national events. States could have varying results and may find areas to focus on based on the study.

Georgia 4-H works with young people to “enable them to become self-directing, productive and contributing members of society” (Georgia 4-H, 2020). These studies allow us to see that members of Georgia 4-H have obtained skills that have stuck with them past their 4-H career as a member. The results of these studies allow 4-H professionals to feel confident that 4-H influences career trajectories and teaches skills to young people.

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Appendix A

UNIVERSITY OF GEORGIA CONSENT FORM STUDY 1

INFORMED CONSENT

Protocol Title: Identifying Critical Issues in the Georgia ANR Industry

Please read this consent document carefully before you decide to participate in this study. You were selected as part of an expert panel to participate in a Delphi study designed to identify the critical issues facing the Georgia agricultural and natural resources (ANR) industry. Thank you for taking the time to participate in this study. Your participation is completely voluntary. There is no penalty for not participating. If you choose to participate, you will respond to three separate on-line questionnaires, taking between 5 - 30 minutes each for a total of 15 - 90 minutes. You can stop any time without penalty and you do not have to answer any question you do not wish to answer.

All answers are confidential to the extent provided by law. There are no known risks associated with this study and there is no compensation or other direct benefit to you for participation. By accessing the link to the first survey at the above URL, you are acknowledging that you have consented to participate in the study.

If you'd like to learn more about this study, please contact the researcher, Dr. Kevan Lamm at 141 Four Towers, 706-542-4198.

Appendix B

UNIVERSITY OF GEORGIA CONSENT FORM STUDY 2

INFORMED CONSENT

Protocol Title: 4-H Alumni Perceptions

Please read this consent document carefully before you decide to participate in this research study. The purpose of this study is to examine 4-H alumni experiences with the 4-H program. Thank you for taking the time to participate in this study. Your participation is completely voluntary. There is no penalty for not participating. The decision to participate or not will have no bearing on status. If you choose to participate, the instrument will take approximately 10 minutes to complete. You can stop any time without penalty and you do not have to answer any question you do not wish to answer.


All answers are confidential to the extent provided by law. There are no known risks associated with this study and there is no compensation or other direct benefit to you for participation. This research involves the transmission of data over the Internet. Every reasonable effort has been taken to ensure the effective use of available technology; however, confidentiality during online communication cannot be guaranteed. By accessing the link to the survey at the above URL, you are acknowledging that you have consented to participate in the study.

If you'd like to learn more about this study, please contact the researcher, Dr. Kevan Lamm at 141 Four Towers, 706-542-4198. If you have questions about your rights as a research participant, contact the University of Georgia Institutional Review Board at (706) 542-3199 or irb@uga.edu.

Appendix C

DATA COLLECTION STUDY 1

Figure 6.1. Screen Shot of Delphi Round 1 Data Collection Interface Qualtrics



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Next, we would like to know how has the 4-H program **influenced your career trajectory**.
Please use a word or short description to briefly describe up to five of the top influences
using the space below.

Influence 1:


Influence 2:

Influence 3:

Influence 4:

Influence 5:

Figure 6.2. Screen Shot of Delphi Round 2 Data Collection Introduction Qualtrics




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This portion of the survey is related to the the **ways in which the 4-H program influenced your career trajectory** everyone identified in the first survey.

← →

Figure 6.3. Screen Shot of Delphi Round 2 Data Collection Interface Qualtrics




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Please indicate the level of importance you associate with each of the following **ways in which the 4-H program influenced your career trajectory**:

	Not at all important	Somewhat important	Important	Very important	Extremely important
Character development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soft skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to be a graceful winner and loser	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved self-image	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased social capital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instilled confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Life skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

← →

Figure 6.4. Screen Shot of Delphi Round 3 Data Collection Introduction Qualtrics



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This portion of the survey is related to the **the ways in which the 4-H program influenced your career trajectory** everyone identified in the first survey, and rated importance of in the second survey.

← →

Figure 6.5. Screen Shot of Delphi Round 3 Data Collection Interface Qualtrics



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Please indicate whether each of the following **ways in which the 4-H program influenced your career trajectory** should be retained:


	Yes	No
4-H helped me find my passion/purpose	<input type="radio"/>	<input type="radio"/>
4-H taught me how to network and the importance of those relationships	<input type="radio"/>	<input type="radio"/>
Association with outstanding youth	<input type="radio"/>	<input type="radio"/>
Being a camp counselor allowed me to understand my love of all children from all walks of life	<input type="radio"/>	<input type="radio"/>
Broadened my horizons	<input type="radio"/>	<input type="radio"/>
Built lasting friendships	<input type="radio"/>	<input type="radio"/>
Built lifelong friendships	<input type="radio"/>	<input type="radio"/>
Character development	<input type="radio"/>	<input type="radio"/>
Citizenship	<input type="radio"/>	<input type="radio"/>
Communication practice	<input type="radio"/>	<input type="radio"/>
Confidence	<input type="radio"/>	<input type="radio"/>
Confidence speaking in front of groups	<input type="radio"/>	<input type="radio"/>
Connection to the University of Georgia	<input type="radio"/>	<input type="radio"/>
Connections with high profile adults in Georgia	<input type="radio"/>	<input type="radio"/>
Consensus building	<input type="radio"/>	<input type="radio"/>

← →

Appendix D

DATA COLLECTION STUDY 2

Figure 6.6. Screen Shot of Study 2 Program Data Collection Interface Qualtrics



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Please indicate whether you participated in the following types of 4-H activities by checking all that apply:

4-H club program
4-H camps
In-school 4-H programs
After-school 4-H programs
National 4-H Congress
Citizenship Washington Focus
Project work
State conference/congress
Judging program
Served as a counselor
Collegiate 4-H
Cloverbuds
Other - Please describe: <input type="text"/>

Figure 6.7. Screen Shot of Influence Data Collection Interface Qualtrics

Please indicate the amount of influence 4-H had on your preparing you for your career:

None
A little
A moderate amount
A lot
A great deal

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