THE DEVELOPMENT OF CAREER MATURITY AND CAREER DECISION SELF-EFFICACY AMONG HIGH-SCHOOL AGED YOUTH ENROLLED IN THE TEXAS 4-H HEALTHY LIFESTYLES PROGRAM

A Dissertation

by

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ABSTRACT

The purpose of this study was to assess the career aspirations, career maturity and career decision-making self-efficacy among youth in the Texas 4-H Healthy Lifestyles Program. While career development is a life-long process, the adolescent years are a critical time for youth to explore and confirm their career choices, which is seen as a major turning point in one's life.

A random sample of 350 was used to gather information from senior 4-H members who participate in the 4-H healthy lifestyles program. Data were collected with the use of an online survey instrument and resulted in a total of 170 responses (48.6%) with 127 of the responses (36.3%) being complete and usable.

A scale developed by the researcher was used to measure the impact involvement in the 4-H healthy lifestyles program had on youths' career development. Very low, positive relationships were discovered between the healthy lifestyles program impact statements and years in 4-H; however, they were not significant.

The Career Maturity Inventory (CMI) was incorporated into the online research instrument. The career maturity of the 4-H members was found to be greater than the high school norms. Significant differences were discovered based upon age. Very low, positive correlations were found for the CMI scores based upon years in 4-H; however, correlations were not significant. No significant differences were found for career maturity based upon gender.

The Career Decision Self-Efficacy – Short Form (CDSE-SF) was also used in the data collection process to reveal the confidence in youth to make career decisions.

Results indicate the 4-H members have good confidence in making career decisions. Females outscored males on the total mean score and four of the five sub-scales; however, the only significant difference based on gender was for problem solving. Significant differences were also discovered based upon age. When compared to years in 4-H, very low, positive correlations were found for the CDSE-SF mean score and all five sub-scales; however, only some were found to be significant.

The results indicate that participation in the 4-H healthy lifestyles program has had an impact on career choice and development. Youth have a readiness to make career decisions, and high levels of confidence in completing tasks necessary to make decisions about careers. However, years in 4-H and the highest level of participation in healthy lifestyles program activities did not have a statistically significant impact on youths' career development. Feedback provided by youth on what the 4-H program can do to promote youth career interests and choice, guided some of the recommendations provided by the researcher.

DEDICATION

First and foremost, all glory is given to God. With Him, all things are possible (Philippians 4:13). There is no way that I accomplished the task of obtaining a PhD without His guidance, support, love and forgiveness.

The biggest thanks are owed to my husband, Fred. I truly believe you deserve to walk the stage with me for all you have endured over the past three and one-half years. Throughout this journey, your support was unwavering. You dealt with weekly pizza and Chick-fil-A dinner nights while I was in class, took the lead with soccer and t-ball practices, let the kids tag along to church meetings, and you never once grumbled about it. Thank you for the sacrifices you have made for this goal of mine to be possible, and even more thanks for being the best father and daddy to our two beautiful children.

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CHAPTER I

INTRODUCTION

Young people need to be connected to programs, services, activities, and supports that help them learn about the various options available to them after completing school (Department of Labor, 2013a). Such career preparation and work-based learning experiences are essential for youth to develop aspirations and make informed choices about careers. According to the United States Department of Labor (2013b), all youth need information on career options, including

- Careers assessments to help identify youths' school and post-school preferences and interests
- Structured exposure to post-secondary education and other life-long learning opportunities
- Exposure to career opportunities, including information about educational and entry requirements
- Training designed to improve job-seeking skills and work-place basic skills.

Career development, including exposure to various career options is a major component of the Texas 4-H & Youth Development Program. The 4-H & Youth Development Program is a part of the Texas A&M AgriLife Extension Service with an established mission to "prepare youth to meet the challenges of childhood, adolescence and adulthood, through a coordinated, long-term progressive series of educational experiences that enhance life skills and develop social, emotional, physical and cognitive

competencies" (Texas 4-H & Youth Development, 2013a). Many youth organizations have career development programs that emphasize and help further develop critical life skills, such as goal setting and decision making, and the 4-H healthy lifestyles program is no exception. Involvement in the 4-H program provides youth with career education through a variety of methods, including project learning experiences, career development training and career-oriented camps and activities. Opportunities offered by the 4-H program align with recommendations by Lippman and Keith (2009) that youth are more likely to succeed in the workplace when they are given the opportunity to learn about topics and acquire skills that are relevant to work, have supportive adults guiding them, and when they are given opportunities to explore different careers.

Ford & Lerner (1992) suggested that career development is the result of a dynamic interaction of person and context, strongly affected by the historical, cultural, economic and social context. A young person's career choice can be influenced by a variety of factors, including family, school and the community (Ferry, 2006). Giving youth the opportunity to try out a variety of career options through job shadowing, short-term volunteer projects, and events that allow for in-depth experiences can help them make decisions about career interests (Walker, 1987). Offering career-focused educational efforts to youth is critical, as noted by Ferry (2006), because lack of support leads to uncertainty, the postponement of career decision-making and non-aspiring to challenging vocational choices. Having support from parents or other adults also helps youth develop career goals (Ali & Saunders, 2006), which is an important element in career decision-making that requires delay of gratification, prioritizing and planning, as

well as personal action (Dik, Sargent, & Steger, 2008). In order to identify and attain career goals, youth need to be exposed to a range of experiences, including

- Opportunities to engage in a range of work-based exploration activities such as site visits and job shadowing
- Multiple on-the-job training experiences, including community service that is linked to the content of a program of study
- Opportunities to learn and practice their work skills
- Opportunities to learn first-hand about specific occupational skills related to a career pathway (United States Department of Labor, 2013b).

One core component of adolescent career preparation is the achievement of a well-developed career-choice readiness, which is defined as the readiness and ability of a person to reach a well-founded career decision (Phillips & Blustein, 2007). The lack of a career decision, referenced as career indecision, is viewed as a "developmentally appropriate problem that results from a lack of information about self or the world of work" (Chartrand et al., 1994, p. 55). Such indecision can lead to a lack of participation in career development opportunities and making less satisfactory career choices (Nota, Ferrari, Scott, Solberg, & Soresi, 2007). In order to overcome career indecision, Hirschi (2001) suggested that youth be provided adequate information about the world of work, which should also inform youth of the challenges of adult life (Byars, 1996).

Two constructs often associated with career development and decidedness are career maturity and career decision-making self-efficacy. Positive relationships have been discovered between career maturity and career decidedness, with Rojewski (1994)

reporting that career indecision was the single most important predictor of career immaturity. Similarly, numerous research studies have discovered a relationship between career decision-making self-efficacy and career indecision (Betz, Klein & Taylor, 1996; Choi et al., 2011; Taylor & Popma, 1990). Career maturity and career decision-making self-efficacy have both been identified as key predictors of one's intention to participate in career exploration activities (Ochs & Roessler, 2004). Anderson and Brown (1997) found that the more confident a person is in his or her ability to engage in the career decision-making process, the more likely that person is to have mature attitudes toward career decision-making in general, noting that career decision-making self-efficacy plays a key role in an individual's career planning and development.

Statement of the Problem

Middle school years are a critical period when competency beliefs and vocational interests begin to form (Fouad & Smith, 1996; Tracey, 2002). It is developmentally appropriate for middle school students to explore and expand their learning experiences about potential career interests, including ambitious career aspirations and skills, since career interests and self-efficacy have begun forming (Jackson & Nutini, 2002). While some suggest a career choice should be made by the end of the eighth grade (Hirschi, 2011), the expectation is typically that a career decision is made by the end of high school (Super, Savickas, & Super, 1996). This career decision making is often viewed as a major turning point in one's life, as it plays a major role in establishing youth on a career path that opens as well as closes opportunities (Ferry, 2006).

There are numerous studies that have investigated the career development of youth, including career maturity and career decision-making self-efficacy with many of them exploring barriers and differences based upon gender, socioeconomic status, ethnicity, family support, place of residence and disability. However, Lent, Brown, and Hackett (2000) suggested that career barriers may be overemphasized in the literature and attention should focus on increasing social support rather than attempting to decrease perceptions of barriers. Some studies have been conducted in an attempt to reveal the positive impact the 4-H program had on the career choices among 4-H alumni, but the published studies that involve current 4-H members are scarce. Based upon their findings, Williams, Thompson, Taylor and Sanders (2010) recommended that those who work with 4-H & youth development programs might consider exposing youth to various careers through 4-H projects. Investigating perceived influence on career expectations is important because such perceptions are likely to influence behavior (Paa & McWhirter, 2000). Therefore, this study attempted to explore the impact involvement in the Texas 4-H Healthy Lifestyles Program had on youths' career choices, career maturity and career decision-making self-efficacy.

Purpose and Objectives of Study

The purpose of this study was to assess the career aspirations, career maturity, and career decision-making self-efficacy among youth in the Texas 4-H Healthy Lifestyles Program. The researcher sought to assess the impact youth involvement in the 4-H healthy lifestyles program has on youths' future career plans. The study also examined the readiness of youth involved in the 4-H healthy lifestyles program to make

career decisions, identified as career maturity. Lastly, the researcher attempted to reveal the confidence of youth involved in the 4-H healthy lifestyles program to make career decisions, known as career decision-making self-efficacy. Demographic information was also collected from participants to determine if there were any trends among the participants. The following research objectives were established:

a) Assess the impact youth involvement in the 4-H healthy lifestyles program has on their career aspirations.
b) Examine the readiness of youth involved in the 4-H healthy lifestyles program to make career decisions.
c) Reveal the career decision-making self-efficacy among youth involved in the 4-H healthy lifestyles program.

Hypotheses

The following null and alternative hypotheses were developed to guide this study.

Null Hypotheses

H_{O1}: The duration of involvement in 4-H does not have an impact on youths' career development.

H_{O2}: The duration of involvement in 4-H does not have an impact on youths' career maturity.

H_{O3}: The duration of involvement in the 4-H program does not have an impact on youths' career decision-making self-efficacy.

H_{O4}: The level of participation in the 4-H healthy lifestyles program activities did not impact youths' career development.

H_{O5}: The level of participation in the 4-H healthy lifestyles program activities did not impact youths' career maturity.

H_{O6}: The level of participation in the 4-H healthy lifestyles program activities did not impact youths' career decision-making self-efficacy.

Alternative Hypotheses

H_{A1}: The duration of involvement in 4-H has an impact on youths' career development.

H_{A2}: The duration of involvement in 4-H has an impact on youths' career maturity.

H_{A3}: The duration of involvement in the 4-H program has an impact on youths' career decision-making self-efficacy.

H_{A4}: The level of participation in the 4-H healthy lifestyles program activities has an impact on youths' career development.

H_{A5}: The level of participation in the 4-H healthy lifestyles program activities has an impact on youths' career maturity.

H_{A6}: The level of participation in the 4-H healthy lifestyles program activities has an impact on youths' career decision-making self-efficacy.

Significance of the Study

The results of this study will reveal the impact that youth involvement in the 4-H healthy lifestyles program has on their career maturity, career decision-making self-

efficacy and their career plans. Feedback from youth through the survey instrument will also help identify what the Texas 4-H and Youth Development Program can do to enhance career development programs offered to youth. Much of the research on career maturity and career decision self-efficacy has focused on varying ethnicities, socioeconomic status, barriers and family support in order to develop recommendations and conclusions directed to counselors and career professionals working with the particular group participating in the study (King, Madsen, Braverman, Paterson, & Yancey, 2008).

Previous studies targeting 4-H indicate the impact 4-H involvement has had on career selections; however, the few conducted have targeted 4-H alumni. This study assessed the career plans, career maturity, and career decision-making self-efficacy of high school age 4-H members currently involved in the 4-H healthy lifestyles program. The researcher selected the 4-H healthy lifestyles program for the purposes of this study because of the high level involvement among youth and the numerous learning activities and events that are offered through the program.

With the Texas 4-H and Youth Development Program reaching more than 50,000 through club membership and an additional 550,000+ through outreach educational programs (Texas 4-H & Youth Development, 2012a) it is of great benefit to the 4-H program strive to be identified as a leader in youth career development. Based upon the results of this research study, the 4-H program can potentially be recognized as a leader in fostering career growth and development, leading youth to career choice readiness and confidence in making career decisions. In addition, county, state, and federal

governments make a significant investment in the 4-H and Youth Development Program, therefore, making it valuable to reveal the impact of youths' career development.

Limitations of the Study

The results, conclusions and implications of this study have several limitations. These limitations include

1. The population of this study was limited to senior 4-H members involved in the 4-H healthy lifestyles program, which includes youth enrolled in the foods & nutrition and health projects. While findings for the study can be generalized to other youth involved in the healthy lifestyles program, they cannot be generalized to youth involved in other programs within the 4-H & Youth Development Program.
2. Since all responses were anonymous, the researcher could not follow up solely with the non-respondents. Instead, follow-up e-mails were sent to all subjects in the sample of the target audience.
3. Due to the anonymity of the study, there were no incentives offered to youth for completing the survey instrument. This may have resulted in a decrease in the potential number of responses.
4. With the research instrument administered online, there was no way to control or monitor who was completing the survey. The e-mail invitation was sent to the e-mail address(es) provided in the youths' 4-H membership profile on 4-H CONNECT. Some e-mail addresses were the same for the family profile and the

4-H member profile, while others provided two different e-mail addresses. In order to increase the chances of the e-mail and survey link getting directly to the youth, the recruitment e-mail was sent to both e-mail addresses, if provided. This may have resulted in a parent forfeiting the request to have their child complete the instrument or the parent completing the online instrument in place of the youth.

Definition of Terms

4-H: 4-H is the youth development program of the Texas A&M AgriLife Extension Service. The mission of the Texas 4-H & Youth Development Program is to prepare youth to meet the challenges of childhood, adolescence and adulthood, through a coordinated, long-term, progressive series of educational experiences that enhance life skills and develop social, emotional, physical and cognitive competencies (Texas 4-H & Youth Development, 2013a).

4-H year: September 1 to August 31 (Texas 4-H & Youth Development, 2012b).

Senior 4-H Member: A youth who is between the ages of 14 and 18 at the start of the 4-H year (Texas 4-H & Youth Development, 2012).

4-H Project: Projects are based upon a subject matter area and are the educational experiences in which 4-H members participate. Projects can be supported with group activities that take place at the club, county or district level or they can be self-directed.

4-H Healthy Lifestyles Program: The 4-H Healthy Lifestyles Program encompasses the foods & nutrition, health and safety projects (Texas 4-H & Youth Development, 2013b).

Since safety involves many aspects that are not health related, it was not included as a project criterion for the purposes of this research study.

Career Development: A longitudinal process over one's lifespan and refers to the preparation for, choice of, entry into, and adjustment to work in a specific field (Super, 1954).

Career Maturity: An individual's readiness to make informed and age-appropriate decisions about careers (Luzzo, 1993).

Career Decision-Making Self-Efficacy (CDMSE): An individual's belief that he or she can successfully complete tasks necessary to making career decisions (Taylor & Betz, 1983).

County Extension Agent: Professional educator that provides high-quality, relevant and research-based education to the citizens of Texas and provides leadership to the 4-H & Youth Development Program.

Level of Participation: The level at which a 4-H member participates in a 4-H project or activity. 4-H members have the opportunity to advance to higher levels of participation for competitive events. The levels of participation, from lowest to highest, include club, county, district, and state.

Chapter Summary

While career exploration and planning begin early in life, adolescence is a critical time for youth to explore and confirm their career choices. The interaction of various factors influence and help define a youth's career goals. With many factors having an impact on young people's career choices, it is important to recognize that 4-H

involvement can serve as one of the influential factors and, therefore, should provide structured career development opportunities to youth.

In order to adequately prepare youth for adulthood and the world of work, it is essential that the Texas 4-H & Youth Development Program strive to understand the impact youth involvement in the 4-H program has on their future career choices. Doing so can help identify the 4-H & Youth Development Program as an organizational leader in youth career development, while identifying how the program can better support youth in their quest to explore and choose a career path. In order to understand the impact youth involvement in 4-H has on their career aspirations, career maturity and career decision-making self-efficacy, a study to assess the impact youth involvement in the 4-H healthy lifestyles program has on their future career plans was conducted. As a result, additional research will need to be done in the area of career development that, perhaps, focuses on other program areas or 4-H in general.

CHAPTER II

REVIEW OF THE LITERATURE

A review of literature citing previous research in the field of career development, including career maturity and career decision-making self-efficacy, is included in Chapter II. The review includes an overview of the 4-H Healthy Lifestyles Program, overview of career development, career choice influences, career development in the 4-H program, career maturity, and career decision-making self-efficacy. This is followed by a summary of the literature reviewed and the theoretical framework selected for this research study.

Overview of 4-H Healthy Lifestyles Program

Healthy living has been a part of the 4-H and Youth Development Program since its inception in 1902 (4-H National Headquarters, 2011). On the national level, the 4-H Healthy Living Mission Mandate "engages youth and families through access and opportunities to achieve physical, social, and emotional well-being" (4-H National Headquarters, 2011, p. 1). In Texas, the healthy lifestyles program encompasses the food and nutrition, health, and safety projects (Texas 4-H & Youth Development, 2013b). The food and nutrition projects help youth learn to prepare nutritious and safe meals and snacks and adopt behaviors that can help reduce their risk for chronic disease. Some of the major learning experiences associated with this project are nutrition, menu planning, food purchasing, food preparations, and food safety. The health project teaches youth how to improve their physical, intellectual, emotional, and social health. The project also places emphasis on living a healthy lifestyle through prevention and wellness. Safety

concerns related to health issues, such as first aid and emergency preparedness, are also addressed in this project. The safety project, as related to healthy living, focuses on accident and injury prevention, as well as health and food and nutrition related safety concerns (Dodd & McCorkle, 2011).

Through involvement in 4-H projects, youth are given the opportunity to participate in contests, although participation in the competitive events is not required. As youth succeed in a contest, they may advance to the next level of competition, with the top level being state. Therefore, the progression of competition is county, district, and state level. For one who progresses through the levels of competition, the duration of involvement in the project is lengthened. The healthy lifestyles program offers a variety of competitive events, including

- *Food Show* – The food show is an individual contest in which a member prepares a dish in one of the four contest categories and presents the dish to a panel of judges. During the presentation and interview, the 4-H member exhibits his or her knowledge and skills gained through the 4-H food and nutrition project, such as food preparation, nutrition, functions of ingredients, personal dietary needs, healthy substitutions, and cost analysis.
- *Food Challenge* – The food challenge is a team event in which youth work together to create a recipe and prepare the dish within a set time frame using a predetermined set of ingredients. Teams also make a presentation to a judging panel to highlight the preparation steps, serving size, nutritional value and cost of the dish.

- *Nutrition Quiz Bowl* – The quiz bowl involves teams of youth who compete against each other in a tournament setting. Nutrition-based questions are asked, and teams use a buzzer system to indicate they are prepared to answer, with correct answers earning points. The teams progress through a tournament bracket throughout the contest until a champion is named.
- *Educational Presentations* – In this contest, often referred to as 4-H Roundup, youth give an oral presentation on a topic of their choice as an individual or with a team. Presentations may be accompanied with props, posters or a media presentation. The topic chosen is often associated with the 4-H member's project(s). Youth may compete in a variety of categories that center around the multiple 4-H projects offered; however, the topics associated with include family and consumer sciences, health, and safety.
- *Record Book Competition* – A 4-H Record Book is an annual record of growth and accomplishments, which reinforces the life skill of record keeping. Within the historical record, youth record the projects they have been involved in, what they have learned, and how they have grown both in their knowledge and personally through project experiences, leadership opportunities, and community service. Youth may submit a record book in a number of categories to be judged and evaluated against other record books, with the opportunity to advance from county to district and then state level competition. The healthy lifestyles categories for record book competition include food and nutrition, health, and safety (Dodd & McCorkle, 2011).

A variety of activities are available to youth with an interest in healthy living. Some of the activities are offered at the state level, which do not require pre-qualification of the youth at the county or district level.

- *Healthy Lifestyles Advisory Board* – This leadership team is made of youth and adult volunteers who help guide and expand the Texas 4-H Healthy Lifestyles Program by ensuring relevancy of programs being offered, as well as coordinating events and educational experiences.
- *MASH Camp* – This camp provides an opportunity for youth to explore higher education and career opportunities in the areas of medicine, athletic training, nutrition, safety, emergency response, and health. The camp incorporates hands-on activities that help youth explore and gain skill sets used by professionals and interaction with professionals.
- *Healthy Lifestyles Invitational* – This is an invitational contest that is conducted annually during Texas 4-H Roundup. Youth utilize the knowledge and skills gained through their healthy lifestyles project experiences to judge and make decisions on a given scenario. Youth then also work in a team to give a presentation on a healthy lifestyles topic.
- *Recipe Rally* – In this invitational contest, youth are challenged with creating a video demonstration of the preparation of a recipe they have selected or created. The video demonstration must also include the 4-H member showcasing their knowledge of nutrition, food safety practices, serving size, and cost analysis (Texas 4-H & Youth Development, 2013b).

Within the three healthy lifestyles projects, as well as all 4-H projects, youth are encouraged to share with others what they have learned through leadership opportunities and promote healthy living and serve others through service-learning projects. Each project also presents the opportunity for youth to explore careers (Dodd & McCorkle, 2011).

Overview of Career Development

Career development, defined as making career decisions and career-related choices, is a longitudinal process over one's lifespan and refers to the preparation for, choice of, entry into, and adjustment to work in a specific field (Super, 1954). It involves "helping youth understand who they are and finding out what careers in the world could fit into their self-images" (Porfeli & Lee, 2012, p. 17). Previously referred to as vocational development, career development is just one aspect of an individual's whole development (Super, 1955), one ingredient of a general identity achievement (Raskin, 1985).

Three central variables, identified by Lent, Brown, and Hackett (2002) serve as building blocks of career development, which are

- *Self-efficacy* – people's beliefs about their capabilities "to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391).
- *Outcome expectations* – the personal beliefs about consequences or outcomes, such as rewards, of performing given behaviors that are acquired through learning experiences. They are also influenced by self-efficacy when

outcomes are determined by the quality of one's performance (Lent, Brown, & Hackett, 2002).

- *Personal goals* – the building blocks of career development and serve as a motivation for one's behavior. Setting personal goals helps one organize, guide and sustain their behavior. Lent et al. (2002) argue that behavior is motivated by one's self-directed goals in addition to other social cognitive factors.

Middle school years are a critical period when competency beliefs and vocational interests are formed (Fouad & Smith, 1996; Tracey, 2002). Career interests and self-efficacy have begun to form as middle school youth have begun making choices that will influence future decisions about education and careers (Jackson & Nutini, 2002). The career development goal with middle school youth should broaden their learning about potential career and educational interests, abilities, beliefs and options (Jackson & Nutini, 2002). Whether actively or passively, the high school years are when adolescents make critical decisions that directly relate to their postsecondary plans (Seligman, 1994). This career decision-making is often viewed as a major turning point in one's life, as it plays a major role in establishing youth on a career path that opens as well as closes opportunities (Ferry, 2006). Although the adolescent years are critical for career development, Super's (1980) Life-Career Rainbow, developed as a result of his career pattern study (Super, 1955), takes into account the various roles an individual may experience through the course of a lifetime. The interplay of roles one assumes

throughout life suggests that career development does not stop at high school or upon graduation from college.

Career Choice Influences

The process of making a career choice involves exploration, commitment and reconsideration (Porfeli & Lee, 2012). The career choice that adolescents make is a decision that is influenced not only by their development but also by the context in which they live (Ford & Lerner, 1992). Although it may be that intelligence and interests influence the content of an individual's career choice, they appear to be insignificant in the elements of the process of career decision-making (Albion & Fogarty, 2002). Research suggests that career interests are better predicted from perceived ability than from actual ability (Barak, 1981). Paa and McWhirter (2000) discovered that adolescents perceive their career expectations to be influenced by personal, background and environmental factors, with personal variables having the strongest influence on career motivation. Among the personal variables, interests were one of the top variables that had the most influence.

Career behavior and choices are also influenced by the community resources available to youth, by support of family members (Jackson, Kacanski, Rust, & Beck, 2006), peers (Ali, McWhirter, & Chronister, 2005) and by their own self-efficacy (Anderson & Brown, 1997). Numerous researchers have revealed evidence that family, peer and teacher support affects adolescents' career behavior (Ali et al., 2005). However, career decision-making is often postponed when adolescents do not get adequate assistance from their family and community in career development, which can also lead

to uncertainty (Ferry, 2006). Role models in the immediate environment of young people are also viewed as an important influence on young people's career development (Super, 1990). Research suggests that youth who have some personal connection to the person they identify as a role model experience greater benefit in making career choices (Yancey, Siegel, & McDaniel, 2002).

Results found by Hirschi (2011) propose that providing adequate information about the world of work is a major component to increase career readiness over time, an observation which supports many theoretical career decision-making models (Peterson, Sampson, & Reardon, 1991). Results of Hirschi's study (2011) also confirmed the importance of considering both personal and environmental variables as predictors of one's level of career choice readiness. Unless adolescents show highly above-average negative choice difficulties, an increase in readiness over time can be expected (Hirschi, 2011). This is supported by Brown and Rector's (2008) research that indicated three factors related to difficulties in career choice, in addition to lack of readiness, which include

- *Indecisiveness/trait negative effect* – includes aspects such as a dependent decision-making style, low levels of self-esteem, high neurotocism, anxiety, and an external locus of control beliefs.
- *Lack of information* – including a lack of self, occupational, or process information.
- *Interpersonal conflicts and barriers* – including situational constraints, interpersonal conflict, and external barriers.

Jackson, Potere, and Brobst (2006) found a significant association between participants' successful learning experiences and their top three or four occupations of interest, which provide support for Krumboltz's (1994) proposal that individual's interpretations of their learning experiences with successful task performance help form their career beliefs. Specific life experiences and situations provided exposure to careers in a way that gave participants personal meaning and importance (King et al., 2008). Based upon their findings, King et al. (2008) suggested that such life experiences can provide an early encounter with a possible career while also leading youth to look for a career in something else. Walker (1987) suggested exploration and reflection activities, including job shadowing and in-depth experiences, to help better meet the needs of youth. This is supported by the findings of King et al. (2008) that also discovered observational experiences of other people at work sometimes stimulated a career interest or curiosity among youth.

Career Development in the 4-H Program

The Texas 4-H & Youth Development Program gives youth the opportunity to explore a wide variety of project areas. Within the positive learning experiences offered through each 4-H project, youth are also given the opportunity to explore higher education and career opportunities which may influence future life decisions. Building leadership, citizenship and life skills through 4-H projects enhances responsibility, builds character, and helps develop communication skills that are used in all career fields.

Various studies have identified the positive impact 4-H involvement has had on the choice of and success with one's career. Williams et al. (2010) discovered that long-term participation in the 4-H and Youth Development Program, such as 4-H community clubs and after-school programming, has a positive impact on the career choice of youth ages 14-19. Their findings indicated that 4-H exposes youth to specific careers and occupational experiences. However, the results also demonstrate that youth in 4-H learn about careers not only through participation in 4-H but also through non-4-H activities. In another research study, alumni perceived the greatest impact of 4-H to be general career awareness concerning recognition of interests and abilities leading to a career, knowledge of career exploration resources, career considerations, and a sense of need to make a career choice (Matulis, Hedges, Barrick, & Smith, 1988). Less impact was revealed in areas such as discovering career obstacles and acquiring career information. The results of the alumni study also indicated that the least impact was in career planning through county 4-H agents, 4-H leaders and other 4-H members.

Rockwell, Stohler and Rudman (1984) studied a sample of Nebraska 4-H alumni to determine how they felt 4-H helped them select a career and assume adulthood roles 10 to 20 years after their 4-H experiences. It was found that 4-H activities and people involved with leading the 4-H program, including 4-H leaders and Extension Agents, influenced their choice of a career (Rockwell, Stohler, & Rudman, 1984). As youth remained in 4-H over a longer period of years, they were more likely to indicate that 4-H influenced their choice of an area of study or their selection of an institution of higher education (Rockwell et al., 1984).

Based upon these studies, a variety of recommendations have been made for the 4-H and Youth Development Program, including:

- Encouragement among youth to participate in a broad range of activities
- Continue and expand career awareness efforts, including recognition of interests and abilities that may lead to a career, sense of need to make a career choice, career choice considerations, and knowledge of career resources
- Expand career exploration experiences so youth may gain more information about a variety of careers and those of interest
- Continue to offer opportunities that foster competency development
- Emphasize work competencies and job-seeking skills, such as interviewing and resume building
- Equip 4-H leaders with tools and resources to initiate career education and development (Matulis et al., 1988; Rockwell et al., 1984).

Career Maturity

"The concept of vocational development leads logically to that of vocational maturity" (Super, 1955, p. 153). Career maturity is one aspect of career development, is one portion of the career development measure, and is considered an important determinant and outcome of development and an ingredient of general identity development (Super, 1990). Once referred to as vocational maturity, career maturity has been the subject of research since the mid-20th century and since has become one of the most widely researched aspects of the career development of adolescents (Powell &

Luzzo, 1998). Super (1955) originally proposed the idea of vocational development and maturity, upon identifying a gap in applied psychology and referred to it as a "ratio of vocational maturity to chronological age" (p. 153). This takes into account two important aspects to consider, the status of the individual on a behavioral scale of development and the status viewed in relation to the individual's age (Super, 1955). Being career mature implies that an individual is able to accomplish the tasks that are appropriate for his or her age and stage of development (Brown & Lent, 2005).

Super (1990) also defined career maturity as "an individual's readiness to cope with the developmental tasks for that stage of development" (Super, 1990, p. 213). It entails an individual's ability to make appropriate career choices including awareness of what is required to make a career decision and the degree to which one's choices are both realistic and consistent over time (King, 1989; Ohler, Levinson & Hays, 1996). Career maturity has also been referred to as the extent to which an individual has acquired the necessary knowledge and skills to make intelligent, realistic career choices. It is the readiness of an individual to make an informed, age-appropriate career decision and cope with appropriate career development tasks (Luzzo, 1993; Savickas, 1984). As adolescents become more career mature, they need to consider their abilities, interests and values in forming their occupational aspirations (Super, 1990).

Crites (1976) proposed a career maturity model that includes two dimensions – affective and cognitive. While the affective dimension takes into account attitudes and feelings toward career development, the cognitive dimension is represented by career decision-making skills and the awareness of a need for one to make a career decision as

well as an understanding of one's preferences. Such career decision-making is seen as part of the process of developing career maturity (Crites, 1973).

Career maturity can be broken down into stages, along a continuum, classified as exploratory, establishment, maintenance, and decline stages. Adolescents are in what is called an exploratory stage of career maturity, which is made up of sub-stages, including and described by Super (1955) and Crites (1973) as:

- *Orientation to vocational choice* – This stage involves one being concerned with making a choice and developing awareness that a choice needs to be made and what factors may influence the choice.
- *Information and planning about preferred occupation* – Within this sub-stage, adolescents are acquiring specific information about their preferred occupation, such as the requirements, duties, work conditions and opportunities. Mapping out a plan for what needs to be accomplished in high school, post-high school and entry into the profession is also explored.
- *Increasing consistency of vocational preferences* – Adolescents within this sub-stage are developing consistency with their preferences over time. Their vocational preferences are also becoming more consistent within an occupational field. This aligns with Super's (1955) suggestion that greater maturity should result in a narrowing of goals and the elimination of less attractive preferences.
- *The crystallization of traits relevant to vocational choices* – Adolescents developing career maturity will begin to more clearly define their interests

and accept the responsibility they have to make a career choice. The development of realistic attitudes toward work is also included within this sub-stage of career maturity.

- *Increasing wisdom of vocational preferences* – This sub-stage has been viewed as the most complex and difficult to manage, but also the most satisfying. A relationship among one's activities, abilities, interests and preferences are formed as the adolescent gains knowledge of his or her accessibility of their preferred occupation.

The exploratory stage is followed by the establishment stage, in which many are launching into a career, and extends to age 35 to 45. The maintenance stage follows and extends to between the ages of 55 and 70 and is then followed by the retirement stage, which extends until death (Crites, 1976). Success with and mastery of tasks in previous developmental stages is positively related to success in later developmental stages (Havighurst, 1953), which also indicates that youth who are more career-mature will be better career-adjusted during the transition from school to work (Crites, 1976). Individuals who are more career-mature in their decision-making during the exploratory stage have been found to be better adjusted in the initial years of the establishment stage, when many are transitioning from school to work, than those who were less career-mature in their choices before occupational entry (Crites, 1976).

A variety of research studies have focused on the numerous correlates of career maturity, including age or grade level differences, race, ethnic, and cultural differences, locus of control and socioeconomic status differences, sex or gender differences, and

work salience (Naidoo, 1998). Demographic variables of socioeconomic status (King, 1990; Schmitt-Rodermund & Silbereisen 1998), age (Stern, Norman, & Zevon, 1991) and gender (King, 1989; King, 1990; Patton & Creed, 2001) have been found to be positively correlated with career maturity. Differences in socioeconomic status (SES) and living in a specific culture, which leads to different ranges of opportunities, have been found to account for differences in the development of career maturity (Schmitt-Rodermund & Silbereisen, 1998). Patton and Creed (2001) found developmental differences with 15-17 year olds scoring higher on career maturity attitude and knowledge than the 12-14 year olds. King (1989) found that while age was the most important determinant of career maturity for boys, a sense of family cohesion and an internal locus of control were the main determinants for girls. Bernardelli, DeStefano, and Dumont (1983) discovered a correlation between career maturity and locus of control, indicating that one's belief in the ability to control the course of events in life is reflected in the nature of one's attitudes towards the world of work and career choice.

A variety of risk factors identified by Gottfredson (1986) place women, racial/ethnic minorities, and individuals with disabilities at particularly high risk for career choice problems, including low intelligence, poor education, cultural isolation, low self-esteem, functional limitations, nontraditional interests, social isolation, low/high intelligence compared with family/peers, primary caretaker, and primary economic provider. Studies of career maturity and gender have produced inconsistent results, revealing both positive and negative correlations. Girls have been known to show more career maturity at a given age than did boys (Omvig & Thomas, 1977; Westbrook, Cutts,

Madison, & Arcia, 1980), while some studies have found females scoring higher than males on the subscales of career maturity (Fouad, 1988). The gender differences discovered by Patton and Creed (2001) lead them to suggest "boys may benefit from increased attention to career knowledge and girls from attention to the appropriateness of career planning" (p. 349). Differences among males and females can also be explained by gender role expectations. With males being introduced to the world of work at a young age, females continue to face a dilemma of having a career or choosing motherhood (Patton & Creed, 2001).

Career exploration behavior has been noted as a prerequisite to achieving career maturity (Ochs & Roessler, 2004). Career maturity has also been associated with realistic self-appraisal, environmental experience, family cohesion (King, 1989; King, 1990), occupational information-seeking behavior (Bernardelli, DeStefano, & Dumont, 1983) and several personal characteristics such as intelligence and self-esteem (Ohler, Levinson, & Sanders, 1995). Hirschi (2011) found that environmental demands promote a developmental trend in readiness that overrules individual differences for the majority of students. Individual differences affect the level of readiness to a greater extent than the process of its development.

Career Decision-Making Self-Efficacy

Self-efficacy expectations are the beliefs about one's ability to successfully perform a given task or behavior (Lent, Brown, & Larkin, 1984). Self-efficacy beliefs have been shown to influence whether or not individuals will initiate a behavior and the degree of effort they will expend to sustain the behavior in the face of obstacles

(Bandura, 1997). Self-efficacy also has a strong influence on the development of interests (Lent, Brown, & Hackett, 1994; Lent et al., 2000), which in turn has an effect on intentions (Fouad & Smith, 1996) and is an important component of academic goal setting and achievement (Ali & Saunders, 2006). The confidence in one's ability to make career decisions is known as career decision-making self-efficacy, which has been measured using the task domains of accurate self-appraisal, gathering occupational information, goal selection, planning, and problem solving (Betz & Luzzo, 1996), based upon Crites' (1978) model of career maturity.

Hackett and Betz (1981) proposed two unique domains of career self-efficacy: the content and process domains of career decision-making. The content domain refers to self-efficacy in specific career fields, such as math, writing and science; whereas the process domain of career self-efficacy centers on self-efficacy in using the necessary strategies for successfully navigating a decision-making process. They extended self-efficacy theory to vocational behavior in a study of career development among women and were the first to suggest that self-efficacy expectations may have an important cognitive influence on career decision-making and vocational achievements. They also proposed that self-efficacy expectations influence the process of one's career decision-making and career motivation. According to self-efficacy theory (Bandura, 1977), self-efficacy beliefs may determine performance accomplishments and persistence in pursuing a difficult course of action. Hackett and Betz (1981) have hypothesized that efficacy expectations are related to the degree of persistence and success in college major and career choices.

Career decision-making self-efficacy was defined by Taylor and Betz (1983) as an individual's belief that he or she can successfully complete tasks necessary to make career decisions. In their original investigation into career decision-making, Taylor and Betz (1983), as well as subsequent studies (Choi et al., 2011; Betz et al., 1996; Taylor & Popma, 1990), discovered a relationship between career decision-making self-efficacy and career indecision, making career decision-making a strong predictor of one's level of career decision. "The more confident a person is in her or his ability to engage in the career decision-making process, the more likely that person will possess mature attitudes toward career decision-making in general" (Luzzo, 1993, p. 195). Similarly, participants who were more undecided reported less confidence in their ability to complete tasks necessary to make career decisions (Taylor & Betz, 1983). Taylor and Popma (1990) also discovered a negative relationship between career decision-making self-efficacy and career indecision, with career decision-making self-efficacy identified as the only significant predictor of career indecision in college students. Youth who experience high levels of career indecision are at risk of not being able to take advantage of vocational development opportunities and for making less satisfactory career choices (Nota et al., 2007). Another negative relationship discovered between career decision-making self-efficacy and locus of control suggests that the more external an individual's attribution of control over events and consequences in life, the lower the confidence in successful completion of career decision-making tasks. Therefore, a person that believes he or she has control through effort or talent to affect the outcome of his or her behaviors may also

possess confidence in the capacity to successfully master decision-making behaviors (Taylor & Popma, 1990).

Career decision-making self-efficacy has also been positively correlated with other career development variables, including age (Luzzo, 1993), career decidedness (Betz & Voyten, 1997; Taylor & Popma, 1990), vocational identity (Choi et al., 2011), self-esteem (Choi et al., 2011), exploratory behavior (Blustein, 1989), occupational self-efficacy (Taylor & Popma, 1990) and peer support (Choi et al., 2011). Luzzo (1993) discovered a significant, positive relationship between career decision-making self-efficacy and age, supporting the notion that self-efficacy expectations may increase somewhat with age. Luzzo (1993) also found that the strongest predictors of career decision-making attitudes were career decision-making skills and career decision-making self-efficacy. The career decision making self-efficacy of college students is a significant contributor to their overall attitudes toward career decision-making (Luzzo, 1993). Career decision-making attitudes have also been significantly predicted by age, and career decision-making skills were significantly predicted by GPA and gender (Luzzo, 1993; Gianakos, 2001).

Findings by Taylor and Popma (1990) suggest that higher self-efficacy for career decision-making behaviors distinguishes between those students who have declared their academic major or selected a career path from their counterparts who are undecided or have made only tentative selections of an academic major or career choice. The level of career salience also significantly predicts choice status which may imply that students who view work as less important to them may not engage in career relevant behaviors.

Self-efficacy and support may be more influential in the development of career goals than status variables such as parent's education, occupation, or SES (Ali et al., 2005; Lent, Brown, & Hackett, 2000). Ali, McWhirter, and Chronister (2005) found that peer and sibling support served as an important predictor of career and educational self-efficacy expectations for youth of a lower socioeconomic status (SES) youth. Differences in SES imply different educational opportunities and expectations, variation in exploration activities, and different parent styles (Schulenberg, Vondracek, & Crouter, 1984). Wolfe and Betz (2004) found that parental relationship was related to both career decision-making self-efficacy and career indecisiveness. Ali et al. (2005) also suggested that sibling support may play a major role in the career development of adolescents from lower SES backgrounds and may have a stronger impact on career development than parental support. Peer support was also found to be an important predictor of career and education self-efficacy (Ali et al., 2005), which was consistent with Paa & McWhirter's (2000) findings. Adolescents who had greater support from parents and peers also had lower perceptions of barriers (Ali et al., 2005), which complies with the suggestion of Nota, Ferrari, Scott, Solberg, and Soresi (2007) that "healthy family systems are also believed to positively impact career decision-making because such systems help youth establish a stable identity structure" (p. 182).

Blustein and Phillips (1988) suggested that exploration is a critical element of the career decision-making process. Research conducted by Blustein (1989) found that career decision-making self-efficacy emerged as a more prominent predictor of exploratory activity than any of the other variables (goal instability, age and gender).

Solberg, Good, Fischer, Brown, and Nord (1995) found that individuals reporting stronger career search self-efficacy beliefs are more likely to engage in exploration behavior, which is a critical component of the career development process. However, several research studies (Betz & Voyten, 1997; Creed, Patton, & Prideaux, 2007) have discovered that one's level of career indecision was a significant predictor of exploration intentions, suggesting that youth who are undecided engage in more career planning and exploration. Brown, Darden, Shelton, and Dipoto (1999) found that beliefs about career exploration significantly predict consumer decision-making self-efficacy. They suggested that how youth perceive the process of exploration may impact their self-efficacy for making career decisions. "As such, the beliefs that one can successfully plan his or her job search in detail and find employment in a preferred career choice suggests that he or she is expressing some degree of confidence in ability to make career decisions" (Brown et al., 1999, p. 235).

Summary of Literature Reviewed

Throughout the literature review, an overview of career development was provided, with the central variables identified. The various factors that influence one's career decisions were explored including the impact such variables have on one's career choice readiness and decidedness. Career maturity and career decision-making self-efficacy were both discussed as constructs in this career development study, with an exploration into risk factors and positive and negative correlations of each. In this chapter, the few studies that have examined career development among 4-H alumni were also described, with research-based recommendations for 4-H & Youth Development

programmers outlined. Minimal career development research conducted with current 4-H members was discovered. Based upon the literature reviewed and the high participation rates among the 4-H healthy lifestyles program, the variables of interest were identified to be career aspirations of youth involved in the 4-H healthy lifestyles program, as well as career maturity and career decision self-efficacy of the youth. In order to assess these variables, high-school aged youth currently enrolled in the 4-H healthy lifestyles program were assessed through an online survey.

Theoretical Framework

Throughout several recent decades, there have been shifts in the direction of career development research and theory, with a trend toward focusing on the cognitive variables and processes that help guide one's career behavior (Lent et al., 2002). With this trend has come a rediscovery that people shape and construct their own career outcomes, and their beliefs play a key role in the process of career development.

Social cognitive career theory (SCCT) expanded Bandura's (1986) social cognitive theory. The theory was introduced to help explain the career development of adolescents and young adults from a socio-cognitive behavioral framework (Ali et al., 2005) and was intended to offer a unifying framework, building conceptual linkages with other theories of career development (Lent et al., 2002). It also has strong linkages to Hackett and Betz's (1981) career self-efficacy theory, explaining the dynamics of various internal and external career development factors, and Krumboltz's (1979) social learning theory of career decision making (SLTCDM). From the perspective of Krumboltz's (1979, 1994) SLTCDM, learning experience is the most essential concept

for understanding how individuals develop occupational preferences and related skills and beliefs. One aspect of Lent, Brown and Hackett's (1994) social cognitive career theory assumes that performance accomplishments, or success with learning experiences, lead to the development of both self-efficacy beliefs and interests. This is also supported by Krumboltz's (1994) SLTCDM that states "people will prefer an occupation if they have succeeded at tasks they believe are like tasks performed by members of that occupation" (p. 19).

Although closely aligned with other career theories, SCCT emphasizes the cognitive process that accompanies learning experiences and guides career behavior, the interrelation of interests, abilities and values, and how personal and contextual factors influence career outcomes (Lent et al., 2002). SCCT assumes a complex interplay among the three central variables of career development, which are self-efficacy, outcome expectations and personal goals previously described in this chapter (Lent et al., 2002). For example, "self-efficacy and outcome expectations affect the goals that one selects and the effort expended in their pursuit. Personal goals, in turn, influence the development of self-efficacy and outcome expectations" (Lent et al., 2002, p. 263). This interaction can be seen in SCCT's interest model, depicted in Figure 1. According to the model, self-efficacy and outcome expectations regarding activity involvement exert an important, direct effect on the formation of career interests. It depicts the theory's assertion that people form interest in an activity when they view themselves as competent at it. Similarly, people are likely to fail to develop interests in activities in which their self-efficacy is weak or they anticipate receiving neutral or negative

comments. The model also shows how emergent interests promote particular goals for activity involvement, which increase the likelihood of engaging in an activity (Lent et al., 2002).

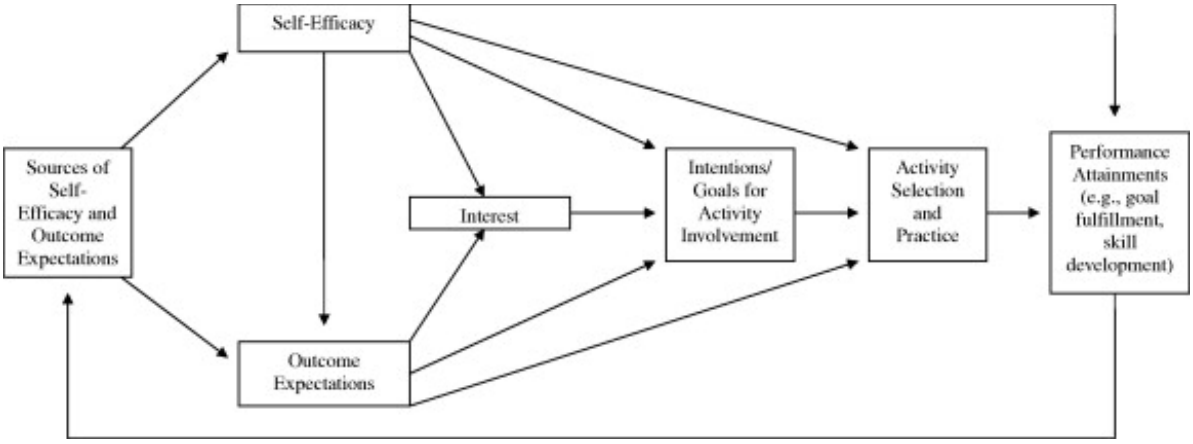

Figure 1. Model of How Basic Career Interests Develop Over Time (Lent, Brown & Hackett, 2002, p. 266)

According to the SCCT model, background contextual factors, such as exposure to role models, emotional and financial support for participating in activities, and barriers to career progress, shape learning experiences, giving rise to self-efficacy and outcome expectations, which in turn are responsible for the development of career interests and goals (Ali et al., 2005). SCCT hypothesizes that personal, contextual, and social cognitive factors influence the development of career interests, selection of career goals, and career behaviors (Ali et al., 2005). It views occupational aspirations and expectations as a reflection of the adolescent's career self-efficacy (Patton & Creed,

2007). The theory also claims that personal and contextual variables do not determine an individual's career interests and goal activities but set the stage for the experiences that influence the career development process (Ali et al., 2005). According to SCCT, vicarious learning experiences influence both the development of self-efficacy expectations and the initiation of behavior (Lent et al., 1994). Occupational aspirations are influenced by the different socialization practices to which adolescents are exposed as well as by adolescents' internalization of these different experiences (Patton & Creed, 2007).

SCCT also aligns with other theories in recognizing the influence that genetic factors, special abilities and environmental conditions have on career decisions (Lent et al., 2002). Numerous studies have revealed that the "levels of support adolescents receive from parents, family, peers, and teachers have been found to predict educational plans, career aspirations, perceptions of structure of opportunity, plans for staying in schools, self-efficacy, and the perception of opportunity and school outcomes" (Ali et al., 2005, p. 42), providing evidence that family, peer and teacher support affects adolescents' career behavior.

The SCCT provides a framework for this career development research of current 4-H members involved in the 4-H healthy lifestyles program. The SCCT was introduced to explain career development of adolescents and young adults from a socio-cognitive perspective as well as create linkages among various career theories. For the purposes of this research study, emphasis was placed on the interest model of SCCT, which depicts the development of career interests based upon one's competence and success with a

specific career-related task, which then promotes goal development, as youth do throughout their 4-H project experiences.

CHAPTER III

METHODS AND PROCEDURES

The methodology used throughout this research study is discussed in Chapter III. The content includes an overview of the population and sample, instrumentation, the pilot study, and procedures used in collecting and analyzing the data. An explanation of the methodology used to address the following three research objectives is explained:

- Assess the impact youth involvement in the 4-H healthy lifestyles program has on their career aspirations.
- Examine the readiness of youth involvement in the 4-H healthy lifestyles program to make career decisions.
- Reveal the career decision-making self-efficacy among youth involved in the 4-H healthy lifestyles program.

Population and Sample

The target audience for this study was youth who met the following criteria

- Member of the Texas 4-H & Youth Development Program in the current year (2012-2013) enrolled through the Texas 4-H Enrollment System (4-H CONNECT);
- Classified as a senior 4-H member;
- Enrolled in at least one of the following 4-H healthy lifestyles projects (food & nutrition, health); and
- Have an e-mail address.

The online 4-H registration and enrollment management system used by the Texas 4-H & Youth Development Program, known as 4-H CONNECT, was used to determine 4-H members that met the criteria for the research study. The system stores contact information, demographics, as well as program involvement for each 4-H member. It also allows Extension personnel to search and develop reports based upon various parameters, such as county, age, and program activities.

The sampling frame, consisting of those who met the criteria of the study, included 2,753 youth. Twenty-nine names were removed due to no e-mail address provided, which was required since having an e-mail address was a criterion for participation in the study and the online instrument was sent as a link in an e-mail to the participants. An additional 129 names were removed because an e-mail address belonging to an Extension employee or military program coordinator, who was not a legal parent or guardian, was used when the membership profile was set up in 4-H CONNECT. Of the 2,590 names left in the sampling frame, a random sample of 350 4-H members, representing 155 counties, was selected to participate in the study, which was derived based upon Krejcie and Morgan's (1970) determination of sample size.

Instrumentation

The research instruments used for this study were previously developed, in addition to one developed by the researcher.

Healthy Lifestyles Program Involvement

This portion of the survey collected information on the participant and their involvement in the 4-H Healthy Lifestyles Program activities. Participants were asked to

indicate the number of years they had been enrolled in the 4-H program, the healthy lifestyles projects and activities in which they had participated, as well as their highest level of participation, with options consisting of *club*, *county*, *district*, *state*, and *did not participate*.

Healthy Lifestyles Program Impact

This section assessed the participants' level of agreement with statements on the impact the 4-H Healthy Lifestyles Program had on the youths' future career choices. Five statements comprised this section, for which participants were asked to respond to a four-point Likert scale, 1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, and 4 = *strongly agree*. The statements included (a) I have acquired information about what I think I want to pursue as a career; (b) I have considered what career I want to pursue after college; (c) I developed a sense of need to make a career choice; (d) I learned about things to consider in choosing career; and (e) I think I will pursue a career in the healthy lifestyles field. Because of the low reliability coefficient in the pilot, the researcher recalculated Cronbach's alpha among the usable responses, which was .88.

Career Maturity Inventory Counseling Form C

Crites developed the original Career Maturity Inventory (CMI) to assess career attitudes and competencies of children and adolescents in grades 5-12. It was the first paper-and-pencil measure of vocational development used to measure a student's readiness to make occupational choices (Savickas & Porfeli, 2011). The CMI was developed based upon Super's (1955) Career Pattern Study that looked at the process of making career choices rather than the content of those choices (Savickas & Porfeli,

2011). The original instrument was developed in 1961 and underwent several revisions to address limitations of the form only measuring vocational maturity in general, which resulted in a counseling form, screening form, and an adult version (Savickas & Porfeli, 2011).

For the purposes of this research study, the CMI Counseling Form C was used. The instrument is available for use to the public free of charge at www.vocopher.com, which is a career collaboratory that provides researchers and professionals with career development resources. One author of the CMI – Form C, Mark Savickas, was contacted and granted permission to the researcher to use the instrument for the purposes of this research study.

Savickas' (2005) career construction theory was applied in the development of the inventory, which has a central feature of career adaptability, defined as a "multidimensional construct that characterizes an individual's psychosocial readiness and resources for coping with current and imminent vocational development tasks, occupational transitions, and work traumas" (Savickas & Porfeli, 2011, p. 357). They go on to state that "pertaining to the CMI, as students particular 'adapt-adaptabilities' increase, so too does the general readiness to make realistic occupational choices" (Savickas & Porfeli, 2011, p. 357).

The instrument consists of 24 statements about choosing the kind of job or work one will probably do when they finish school, to which respondents either agree or disagree, earning a point for each statement answered correctly. The instrument is made up of four sub-scales, each consisting of six statements. It is intended for use by

counselors and educators that want to tailor career interventions to the needs of their clientele and students. Savickas and Porfeli (2011) point out that, pertaining to the CMI, as youths' ability to adapt increases, so too does their general readiness to make realistic occupational choices. In a research study conducted by Savickas & Porfeli (2011), the coefficient alpha for the CMI Form C total score was .86, and correlated .75 to the CMI Form A-1 total score and correlated with the five content scales in Form B-1, other versions of the form, which offered evidence of convergent validity. Cronbach's alpha was calculated by the researcher for the total CMI to determine the reliability of the instrument with the usable responses. The alpha coefficient was calculated to be .816.

The inventory provides five different scores.

- *Total score* – this total score for career maturity is based on the 18 items in the concern, curiosity and confidence scales.
- *Concern* – the extent to which an individual is oriented to and involved in the process of making career decisions. Becoming aware of choices that must be made in the immediate and intermediate future is the first step in the career decision-making process.
- *Curiosity* – the extent to which an individual is exploring the work world and seeking information about occupations and their requirements. Confusion about the career decision-making process can be minimized when one explores their own abilities and interests along with occupations that fit the individual's personality and talents.

- *Confidence* – the extent to which an individual has faith in his or her ability to make wise career decisions and realistic occupation choices. When one is confident in the career decision-making process it means they can anticipate being successful in overcoming challenges and problems they may encounter.
- *Consultation* – The fifth score measures the extent to which an individual seeks assistance in career decision-making by requesting information or advice from others. A high score means the individual consults with family and friends about career choices in an interdependent relationship style, while a low score indicates the individual's preference to make career choices with an independent relational style. Savickas and Porfeli (2011) point out that seeking information and advice on how to make wise and realistic choices is more important than what specific occupation to choose. The score for these six questions are not included in the total adaptability score in recognition of one's preference to consult significant people in their lives while others choose to make decisions on their own (Savickas & Porfeli, 2011).

Career Decision Self-Efficacy – Short Form

The Career Decision-Making Self-Efficacy Scale (CDSE) was developed to measure an individual's belief that he or she can successfully complete tasks necessary to make career decisions (Betz & Taylor, 2012) . Crites' (1973, 1978) five career choice competencies were used as the basis for the construction of the scale, which was made up of five subscales and included behaviors pertinent to

1. Accurate self-appraisal

2. Gathering occupational information
3. Goal selection
4. Making plans for the future
5. Problem solving.

The original version of the CDSE was developed to assess college students and examine the relationships of career decision-making self-efficacy expectations to career indecision (Taylor & Betz, 1983). The original instrument included 50 questions, with 10 items for each competency area, and a 10-level response scale ranging from *complete confidence* (9) to *no confidence* (0). The instrument was later revised to include 25 statements and a five-level response continuum, currently known as the CDSE-SF. In the revision process, statements were removed so that each of the five sub-scales was represented with five questions. For each statement, participants rated their personal level of confidence in making decisions about their future career on a five-point Likert scale ranging from 1 (*no confidence at all*) to 5 (*complete confidence*). Example statements include "make a plan of your goals for the next five years" (Betz & Taylor, 2012, p. 37) and "choose a major or career that will fit your interests" (Betz & Taylor, 2012, p. 38). Data regarding reliability and validity has indicated that the five-level response continuum works well, made evident in a study conducted by Betz, Hammond, and Multon (2005) which found that a five-level response continuum provided scores as reliable as those obtained with a 10-level response continuum.

Both versions of the CDSE have been found to be reliable. The original sample of students used to examine the CDSE instrument was made up of college students from

a private liberal arts college and a large state university. They reported internal consistency reliability coefficients ranging from .86 to .89 for the sub-scales and .97 for the total score (Taylor & Betz, 1983). Additional researchers have reported comparable levels of internal consistency, including Luzzo (1993) who reported a total alpha of .93. Research using the short form (CDSE-SF) and the five-point response continuum has revealed alpha values ranging from .80 to .87 for the sub-scales, with a total alpha score of .95 in both studies (Paulsen & Betz, 2004; Smith, 2001).

Evidence of the criterion and construct validity of the CDSE-SF is solid. The most consistent and important correlate of career decision self-efficacy is career indecision. Research has consistently demonstrated that stronger perceptions of career decision-making self-efficacy are related to lower levels of career indecision, which was also found by Betz and Klein (1997). Relationships of the CDSE-SF to career indecision were discovered to be even stronger than that of the original scale, ranging from -.19 to -.66 for indecision and from -.03 to -.76 for certainty (Betz et al., 1996). With use of the short form, there is also evidence that there is a tighter connection between self-perceptions of career decision-making competence and decisional certainty.

In order to use the Career Decision-Making Self-Efficacy – Short Form, the researcher was required to purchase a license, as well as a user manual, from Mind Garden (www.mindgarden.com) for online distribution to 350 people. A special request was also submitted, and granted by Mind Garden, to distribute the instrument online with other instruments for the purposes of this study. A reliability coefficient for the

CDSE-SF was calculated for the 127 usable responses in this research study, which was .95.

Career Aspirations and Influences: Participants were asked to respond to six questions about their plans post high school graduation. The questions, which were multiple choice and open-ended, included (a) do you plan to attend college after graduating from high school; (b) what is the highest degree you plan to achieve; (c) what is your intended major; (d) what career do you plan to pursue; (e) who has had the most impact on your intended major and career choice; and (f) what can the 4-H program do more effectively to help you prepare for a career choice/interest.

Demographics: This section asked participants to respond to three questions that provided the researcher with information on their current grade, age and gender.

Pilot Study

A pilot study was conducted with two different groups to establish validity and reliability of the healthy lifestyles program impact scale of the survey instrument developed by the researcher. On October 16, 2012, 13 members of the Texas A&M University Collegiate 4-H Club completed the paper-based survey instrument during their monthly gathering. Participants were asked to complete all sections of the survey to the best of their ability. All participants completed the survey instrument within 11 minutes. They were also asked to make notes on the survey to assist the researcher in readability of the survey, grammatical or punctuation errors, formatting issues, and any item(s) or instructions that were not clear. This feedback was requested in an effort to ensure face and content validity. This was important since the participants of the

research study randomly selected to participate in the study would be completing the survey instrument online.

In an effort to acquire more participants for the pilot study, 12 members of the Texas 4-H Technology Team also completed the paper-based survey instrument on November 2, 2012 at the start of a weekend retreat. Like the previous group, they were asked to complete all sections of the survey to the best of their ability. It was also requested of the participants that they makes notes on the survey to assist the researcher in clarifying instructions and wording of any questions, grammatical and punctuation errors and formatting issues. All participants completed the survey within 14 minutes. After the pilot test was completed with both groups, data were entered into SPSS® 21 for Macintosh.

Reliability was calculated for the healthy lifestyles program impact scale developed by the researcher by generating a Cronbach's alpha coefficient, which was .75. According to Fields (2009), a value of .7 to .8 is often viewed as an acceptable value for Cronbach's alpha. The researcher also recognized that not all pilot participants were actually participants in the 4-H healthy lifestyles program, which likely impacted this score and, therefore, moved forward with the research study. As a result of the pilot test and feedback received from pilot test participants, final corrections were made and the instrument was developed online and ready for administration.

Data Collection

Data collection was performed using an online instrument with the researcher following the guidelines for web survey implementation proposed by Dillman (2009).

This included personalized contacts with respondents. Recruitment and follow-up e-mails were delivered to participants and included a link to the online survey. All e-mail correspondence was sent with the use of Constant Contact, an e-mail management system used by the Texas 4-H & Youth Development Program to send personalized e-mails to large groups. The e-mail was set up so that each of the 350 participants would receive an e-mail personally addressed to the 4-H member randomly selected to participate in the study. Some participants had two e-mail addresses listed in their membership profile, in which case the recruitment e-mail was sent to both addresses for a total of 406 e-mail addresses.

County Extension Agents in the 155 counties represented in the random sample were notified that 4-H member(s) from their county had been selected to participate in the study. Notification was provided so agents were aware of the study being conducted should a 4-H member or parent mention or question it; however, participant names were not shared.

Reminders about the study were sent after one, two and three weeks, in accordance with the recommendations by Dillman (2009) to make multiple contacts with participants. Since the responses were anonymous, the researcher could not follow-up solely with non-respondents. Therefore, follow-up e-mails were sent to all participants on a weekly basis over a four-week time period. After three weeks, an e-mail was sent by Dr. Chris Boleman, Texas 4-H Program Director, endorsing the research study and encouraging participation. A final reminder was sent to all participants one week later,

notifying them of the final day to complete the survey and provide feedback. The survey was closed after being open for four and one-half weeks.

Handling of non-response error

Due to a low response rate (28.5%) after four and one-half weeks, additional measures were taken to reduce non-response error and increase participation. The researcher used procedures outlined by Lindner, Murphy, and Briers (2001), specifically using method three to compare early respondents with late-respondents. Phone calls were made to all participants in the random sample to introduce and remind youth about the research study and asked if they had completed the survey. If yes, then appreciation was expressed for the 4-H member's participation and feedback. If the 4-H member indicated he or she had not completed the online survey, then the researcher asked if he or she was willing to complete the survey within the week if a web link was sent in an e-mail. Additional e-mail addresses were acquired during this process, with most belonging to the 4-H member instead of the parent. Where phone calls were not answered, a message was left for the 4-H member, if possible, providing information about the survey and a call back number. After the phone calls were placed, one final reminder was e-mailed to all participants about the survey with one final opportunity to complete it and offer feedback. This final reminder was also sent to the 39 newly acquired e-mail addresses.

The phone calls and a final e-mail resulted in an additional 70 (20%) participants responding to the online survey, which is greater than the minimum of 30 responses recommended by Lindner et al. (2001). Of the 70 additional survey responses, 57 were

usable. When data collection was complete, comparisons between early respondents and late respondents were made for demographics, healthy lifestyles program impact, career maturity, and career decision-making self-efficacy. The results of the independent samples *t*-test, as revealed in Table 1, indicate that there were no significant differences ($p<.05$) between the early respondents and late-respondents for healthy lifestyles program impact, career maturity and career decision-making self-efficacy. In addition, no significant differences ($p<.05$) were calculated for the four demographic questions, including years in 4-H, age, grade, and gender.

Table 1

Comparison of Early Respondents to Late Respondents on Healthy Lifestyles Program Impact, Career Maturity, and Career Decision-Making Self-Efficacy

Construct	Respondent Mean[d]	SD	Non-respondent Mean[e]	SD	*t*-value	df	Sig.[f]
Program Impact[a]	2.78	.77	2.82	.57	-.368	125	.713
Career Maturity[b]	18.37	4.17	17.44	4.24	1.25	125	.216
CDSE-SF[c]	4.03	.66	3.96	.59	.691	125	.491

[a]Scale: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Agree*, 4 = *Strongly Agree*
[b]Scale: 1 for correct responses and 0 for incorrect responses on *Agree/Disagree* scale. Maximum score: 24.
[c]Scale: 1 = *No Confidence At All*, 2 = *Very Little Confidence*, 3 = *Moderate Confidence*, 4 = *Much Confidence*, 5 = *Complete Confidence*
[d]n=70 respondents
[e]n=57 non-respondents
[f]*p* is significant at <.05

Analysis of Data

SPSS 21.0® for Macintosh OS was used for data analysis. An alpha level of $p<.05$ was set *a priori* to determine statistical significance for all analyses.

Objective 1

The first objective was to assess the impact youth involvement in the 4-H healthy lifestyles program has on their career plans. Descriptive statistics (frequencies and percentages) were used for reporting the youths' involvement in the 4-H healthy living projects, activities and their level of participation. Mean scores and standard deviations were used to quantify the impact youths' participation in the 4-H healthy lifestyles program had on their career plans. A Pearson product-moment correlation coefficient (r) and an analysis of variance (ANOVA) were tabulated to determine if there were any significant differences in the career development impact of participation in the 4-H healthy lifestyles program based upon years in 4-H and the level of participation in program activities. Answers to the question pertaining to who or what had the most impact on the youths' intended major and career choice were also tallied and summarized to determine the most impactful.

Objective 2

The second objective was to examine the readiness of youth involved in the 4-H healthy lifestyles program to make career decisions. To satisfy this objective, mean scores and standard deviations were used to quantify the participants' level of readiness to make career decisions. A *t*-test was used to compare this mean to gender, and an analysis of variance (ANOVA) was calculated to compare the mean to age, and highest

level of participation in healthy lifestyles program activities. A Pearson product-moment correlation coefficient (r) was also calculated to determine the relationship between career maturity and years in 4-H.

Objective 3

The third objective was to reveal the career decision-making self-efficacy among youth involved in the 4-H healthy lifestyles program. To satisfy this objective, mean scores and standard deviations were used to quantify the participants' self-perceived ability to make decisions about their future career. A t-test was used to compare this mean to gender, and analyses of variance (ANOVAs) were calculated to compare the mean to age and highest level of participation in healthy lifestyles program activities. A Pearson product-moment correlation coefficient (r) was also computed to determine the relationships between career decision-making self-efficacy and years in 4-H.

CHAPTER IV

RESULTS AND DISCUSSION

Purpose and Objectives of Study

In this chapter, a summary of the population response is provided along with a profile of the research participants. The results are discussed for each research objective as well as each of the six hypotheses. Feedback on the participants' career aspirations, as well as what the 4-H program can do to promote career interests, is also summarized in this chapter.

Population Response

Response among the population was slow throughout the online data collection process. After the initial e-mail invitation to participate in the research study was sent to the random sample, 100 (28.5%) responded to the survey, with only 74 (21.1%) fully completed. At the conclusion of the data collection process, which consisted of multiple e-mail reminders and a phone call to participants, 170 (48.5%) of the 350 participants responded to the survey. This response rate exceeds the range of online response rates found by Nulty (2008), which ranged from 23 to 47 percent. Of the 170 responses, there were 135 (38.5%) fully completed surveys. Eight participants indicated they had not participated in any of the 4-H healthy lifestyles projects or activities and, therefore, were removed, leaving the researcher with 127 (36.3%) usable responses that made up the data sample for the study.

Profile of Participants

Of the 127 participants, 91 (71.1%) were female and 36 (28.3%) were male. The mean age of participants was 15.91 years (SD=1.21) with ages ranging from 14 to 18 years and grades nine through 12 represented. The breakdown of participants by grade and age are displayed below in Tables 2 and 3.

Table 2

Breakdown of Participants by Grade (n=127)

Grade	Frequency	Percent
9th grade	35	27.6%
10th grade	45	35.4%
11th grade	18	14.2%
12th grade	29	22.8%

Table 3

Breakdown of Participants by Age (n=127)

Age	Frequency	Percent
14 years old	16	12.6%
15 years old	37	29.1%
16 years old	31	24.4%
17 years old	29	22.8%
18 years old	14	11.0%

The average years in 4-H among the 127 participants was 7.43 years with responses ranging from one year to 10 years with the most frequented response being eight years. The breakdown of years in 4-H is displayed in Table 4.

Table 4

Breakdown of Participants by Number of Years in 4-H (n=127)

Years in 4-H	**Frequency**	**Percent**
1 year	2	1.6%
2 years	2	1.6%
3 years	5	3.9%
4 years	4	3.1%
5 years	9	7.1%
6 years	13	10.2%
7 years	21	16.5%
8 years	26	20.5%
9 years	22	17.3%
10 years	23	18.1%

Youth were asked to indicate their participation in the 4-H healthy lifestyles projects, which were identified as a) food and nutrition, b) health, and c) safety. Among the three projects, food and nutrition was the most popular, with 119 (93.7%) youth

participating. The participation rating for all three projects are displayed in Table 5. Of the usable responses, five indicated that they had not participated in any of the three projects; however, they later indicated they had participated in some of the healthy lifestyles related activities, such as district (3) and state food show (1) and district food challenge (1). Therefore, their responses were deemed usable for statistical analysis by the researcher.

Table 5

Breakdown of Youth Involvement in the 4-H Healthy Lifestyles Projects (n=127)

Project	**Frequency**	**Percent**
Food & Nutrition	119	93.7%
Health	42	33.1%
Safety	32	25.2%

Note: Youth participants could select multiple responses.

Participants were also asked to indicate their participation in competitive healthy lifestyles activities by designating their highest level of participation. The levels of participation, in rank order, were defined as *club*, *county*, *district*, and *state*. Participation at the club level is considered to be the lowest level of participation, with state being the highest level of participation. A *did not participate* option was also provided on the research instrument. A summary of participation for each of the events is provided in Table 6. Data provided by respondents indicates the competitive event in which the most

youth participated at the highest level, which is the state level, was record book competition, with 19 indicating they had participated at the highest level. This was followed by the food challenge, with 13 indicating they had participated at the state level. The contest with the least amount of participation at the state level was the nutrition quiz bowl.

Table 6

Rank Order of Highest Level of Participation in Healthy Lifestyles Activities (n=127)

	Highest Level of Participation				
Activity	**Club**	**County**	**District**	**State**	**Percent of Youth Participating**
Food Show	6	27	52	12	76.4%
Record Book Competition	4	10	54	19	68.5%
Food Challenge	6	6	48	13	57.5%
Educational Presentations	10	15	13	10	37.8%
Nutrition Quiz Bowl	5	2	14	5	20.5%

For each activity, youth participants selected their highest level of participation, with options being *club, county, district, state*, or *did not participate*.

In the research instrument, participants were asked to indicate whether or not they participated in four additional 4-H healthy lifestyles activities that are coordinated at the state level. The activities included (1) *healthy lifestyles advisory board*, (2) *MASH Camp*, (3) *healthy lifestyles invitational*, and (4) *recipe rally*. The most frequently selected activity was recipe rally, yet only six (4.7%) participants revealed they had

participated. This was followed by the Healthy Lifestyles Invitational, in which five (3.9%) indicated they had participated, and then the healthy lifestyles advisory board and MASH Camp, in which four (3.1%) indicated they had participated.

Findings Related to Objective One

Results of the healthy lifestyles program impact scale were evaluated to meet objective one. A set of five statements made up the section of the research instrument to determine the impact, if any, that involvement in the 4-H healthy lifestyles program has had on youths' future career choices. For each statement, the participants responded according to a scale defined as 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Agree*, and 4 = *Strongly Agree*. A grand mean for the set of five questions was calculated to be 2.80 (SD=.69). Responses to each of the five statements were also analyzed individually with use of the mean values, standard deviations, frequencies and percentages, which are exhibited in rank order by mean in Table 7. The highest ranked mean was for the statement "I learned about things to consider in choosing a career" (3.09, SD=.76). The lowest ranked mean was for the statement "I will pursue a career in a healthy lifestyles field" (2.19, SD=.77).

Table 7

Rank Means, Standard Deviations, Frequencies, and Percentages for Program Impact Among Youth Participating in the 4-H Healthy Lifestyles Program

Statement	Mean Scores			Frequencies and Percentages			
	N	Mean	SD	Strongly Disagree	Disagree	Agree	Strongly Agree
Learned about things to consider in choosing a career	127	3.09	.76	5 (3.9)	16 (12.6)	68 (53.5)	38 (29.9)
Developed a sense of need to make a career choice	127	2.96	.89	8 (6.3)	28 (22.0)	52 (40.9)	39 (30.7)
Considered what career I want to pursue after college	127	2.92	.88	7 (5.5)	33 (26.0)	50 (39.4)	37 (29.1)
Acquired information about what I think I want to pursue as a career	127	2.85	.86	7 (5.5)	37 (29.1)	51 (40.2)	32 (25.2)
Will pursue a career in a healthy lifestyles field	127	2.19	.77	21 (16.5)	68 (53.5)	31 (24.4)	7 (5.5)

Scale: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Agree*, 4 = *Strongly Agree*

A Pearson product-moment correlation coefficient (*r*) was calculated to measure the relationship between the grand mean of the five healthy lifestyles impact statements and years in 4-H. Each of the statements was analyzed separately in relation to the years in 4-H since there were only five statements. Results are displayed in Table 8. Very low, positive correlations were found for the grand mean (r=.09, p=.32) and all five individual statements, none of which were statistically significant at the .05 level. However, the highest significance value was for the statement "I have acquired information about what I think I want to pursue as a career." Supported by the Social Cognitive Career Theory, this indicates that although the youth may not have plans to pursue a career in a healthy lifestyles field, their involvement in the program helped

them learn what they want to pursue as a career, which was also found by King et al. (2008).

Table 8

Pearson Product Moment Correlation Coefficients for Healthy Lifestyles Program Impact Scores and Years in 4-H

Healthy Lifestyles Program Impact	***r***	***p*[a]**
Grand Mean	.09	.32
I have acquired information about what I think I want to pursue as a career.	.07	.44
I have considered what career I want to pursue after college.	.11	.22
I developed a sense of need to make a career choice.	.11	.21
I learned about things to consider in choosing a career.	.16	.07
I think I will pursue a career in a healthy lifestyles field.	-.10	.26

[a]Significant at $p<.05$

Analyses of Variance (ANOVAs) were calculated for the grand mean of the Healthy Lifestyles Impact questions as the dependent variable and the highest level of participation in healthy lifestyles program activities as the independent variable with options of *state*, *district*, *county*, *club*, and *did not participate* (Table 9). The analyses did not reveal a significant difference ($p<.05$) in the impact the healthy lifestyles program had on career development based upon the highest level of participation.

Table 9

Analysis of Variance Healthy Lifestyles Program Impact and Highest Level of Participation in Healthy Lifestyles Activities

	Healthy Lifestyles Program Career Development Impact						
Activity	**Club[a]**	**County[a]**	**District[a]**	**State[a]**	**None[a]**	**F**	**Sig[b]**
Food Show	2.93	2.87	2.79	3.13	2.60	1.51	.204
Food Challenge	3.03	3.17	2.78	3.00	2.71	1.12	.350
Nutrition Quiz Bowl	3.08	2.40	2.53	2.48	2.85	1.36	.253
Educational Presentations	2.72	2.96	2.86	3.36	2.70	2.43	.052
Record Books	2.55	2.90	2.89	2.89	2.65	1.02	.402

[a]n for each level of participation is reported in Table 6
[b]Significant at $p<.05$

Participants were asked to indicate who, or what, had the most impact on their intended major and career choice. The list of options from which participants made a selection included (1) *4-H club leader or volunteer*, (2) *4-H project experiences*, (3) *County Extension Agent*, (4) *father*, (5) *grandparent*, (6) *mother*, (7) *own interests and experiences*, (8) *professionals I have interacted with*, (9) *sibling*, and (10) *teacher*. The most popular choice with 54 participants (42.5%) indicating the most impact on their intended major and career choice was their own interests and experiences. Second to their own interests and experiences was mother (n=22, 17.3%), followed by father (n=14, 11.0%). The two choices not selected by any participants were 4-H club leader or volunteer and grandparent. A summary of all options that were selected by participants is displayed in Table 10.

Table 10

Rank Order of Selections of Who or What has had the Most Impact on Participants' Intended Major and Career Choice (n=127)

	Frequency	Percent
My own interests and experiences	54	42.5%
Mother	22	17.3%
Father	14	11.0%
4-H project experiences	13	10.2%
Professionals I have interacted with	9	7.1%
Teacher	8	6.3%
County Extension Agent	5	3.9%
Sibling	2	1.6%

Additional options included *club leader or volunteer* and *grandparent*, which were not selected by any participants.

Findings Related to Objective Two

Results of the Career Maturity Inventory (CMI) were evaluated to ascertain objective two. The overall mean score on the CMI was calculated at 17.95 (SD=4.21, n=127). The CCC score is based on the sum of the concern, curiosity, and confidence sub-scales, as noted by Savickas and Porfeli (2011), which was 13.65 (SD=4.01). This is greater than the total (CCC) score that is presented as a high school norm by Savickas and Porfeli (2011), which was a mean of 9.88 (SD=1.28). Participants ranked highest for the sub-scale of concern (5.39, SD=1.13), which is the first step in the career decision-

making process. Although the lowest sub-scale was confidence (3.46, SD=1.96), the participants still outscored the high school norms. When compared to the high school norms provided by Savickas and Porfeli (2011), it is evident that the 4-H members scored higher on three of the four sub-scales. Participants scored lower (4.31, SD=1.50) than the high school norm (4.94, SD=1.4) on the consultation construct, which indicates a preference to make career choices with an independent relational style (Savickas & Porfeli, 2011). The mean and standard deviations for each sub-scale are presented in rank order in Table 11 as well as the high school norms.

Table 11

Rank Order of Career Maturity Inventory Sub-Scale Mean Scores (n=127)

Sub-Scale	Mean	SD	Norm Mean[b]	Norm SD[b]
Concern	5.39	1.13	4.6	1.4
Curiosity	4.79	1.72	2.72	2.56
Consultation	4.31	1.50	4.94	1.4
Confidence	3.46	1.96	2.56	1.97

[a]Scores for each sub-scale ranged from 0 to 6.
[b]Mean scores and standard deviations provided by Savickas and Porfeli (2011)

A *t*-test was calculated to determine if any significant differences existed between males and females for the scores associated with the CMI. Mean scores that were compared for gender include the total score, CCC, and then each of the four constructs. The results, displayed in Table 12, indicate that males outscored females on

the total score, CCC and the curiosity, confidence, and consultation constructs, which is consistent with research on self-esteem indicating adolescent males have higher self-esteem than females (Erol & Orth, 2011). However, the mean score for the concern construct was higher for females (5.43, SD=1.09) than males (5.28, SD=1.23). Overall, the *t*-test did not reveal a significant difference ($p<.05$) among males and females for any of the mean scores calculated.

Table 12

Comparison of Career Maturity Inventory Scores by Gender

	Males		Females				
Scale	**Mean[a]**	**SD**	**Mean[b]**	**SD**	***t*-value**	**df**	**Sig.[c]**
CMI Total[d]	18.53	4.58	17.73	4.06	.968	125	.335
CCC[e]	14.08	4.21	13.47	3.94	.963	125	.442
Concern[f]	5.28	1.23	5.43	1.09	-.678	125	.499
Curiosity[f]	4.86	1.79	4.77	1.69	.271	125	.787
Confidence[f]	3.94	1.85	3.27	1.97	1.754	125	.082
Consultation[f]	4.44	1.16	4.25	1.62	.646	125	.520

[a]n=36
[b]n=91
[c]Significant at $p<.05$
[d]Score range was 0 to 24.
[e]Score range was 0 to18.
[f]Score range was 0 to 6.

Analyses of variance (ANOVAs) were calculated with the dependent variable being the CMI mean scores and the independent variable being age, with a range of 14 to

19. The results of the analyses, which included descriptive data (Table 13), revealed the mean for each age group for the total, CCC, and the four individual constructs. The highest total mean score was the 18 year olds (20.79, SD=1.76, n=14), followed by the 14 year olds (18.88, SD=4.30, n=16). The lowest total mean score was for the 15 year olds (16.46, SD=4.51, n=37). This indicates a drop in career maturity after age 14, which is consistent with some research found on adolescent self-esteem indicating a decrease in adolescence (Erol & Orth, 2011). For the CCC score, 18 year olds had the highest mean score (16.50, SD=1.29) and 15 year olds (12.43, SD=4.31) having the lowest mean score. For the four individual constructs, the 18 year olds had the highest score for all but consultation, which was led by the 14 year olds (5.00, SD=1.10). The ANOVA also revealed a significant difference ($p<.05$) between age groups for the total score ($p=.012$), CCC score ($p=.010$), and the curiosity ($p=.027$) and confidence ($p=.008$) constructs. As a result, Ryan-Einot-Gabriel-Welsch F (R-E-G-W-F) was run as a post hoc analysis to determine between what ages the differences existed. The analysis revealed that 18 year olds scored significantly higher ($p<.05$) than 15 year olds for the total score of the CMI. For the CCC score, as well as the curiosity and confidence constructs, the 15 and 16 year old participants scored significantly lower ($p<.05$) than 18 year olds.

Table 13

Analysis of Variance for Career Maturity by Age

	Mean Score by Age						
	14 years	**15 years**	**16 years**	**17 years**	**18 years**	**F**	**Sig.**
	n=16	n=37	n=31	n=29	n=14		
CMI Total[c]	18.88[ab]	16.46[a]	17.52[ab]	18.45[ab]	20.79[b]	3.357	.012
CCC[d]	13.88[ab]	12.43[a]	12.90[a]	14.48[ab]	16.50[b]	3.461	.010
Concern[e]	5.19[a]	5.16[a]	5.52[a]	5.41[a]	5.86[a]	1.216	.307
Curiosity[e]	5.00[ab]	4.41[a]	4.35[a]	5.14[ab]	5.86[b]	2.832	.027
Confidence[e]	3.69[ab]	2.86[a]	3.03[a]	3.93[ab]	4.79[b]	3.584	.008
Consultation[e]	5.00[a]	4.03[a]	4.61[a]	3.97[a]	4.29[a]	1.919	.111

[ab]Means in rows having letter designations in common are not significantly different at the .05 level using REGWF post hoc analysis method.
[c]Scores range from 0 to 24.
[d]Scores range from 0 to 18.
[e]Scores range from 0 to 6.

Descriptive data, including means and standard deviations, for the CMI scores were calculated based upon the number of years participants had been in the 4-H program (Table 14). For the total score, youth in 4-H for only one year had the highest score (21.00, SD=4.24, n=2), followed by those in 4-H for ten years (20.78, SD=2.73, n=23). The lowest total score was for youth who had been in 4-H for two years (13.50, SD=.71, n=2).

Table 14

Summary of Career Maturity Inventory Mean Scores and Standard Deviations by Years in 4-H (n=127)

		CMI Total[a]		**CCC[b]**		**Concern[c]**		**Curiosity[c]**		**Confidence[c]**		**Consultation[c]**	
Years in 4-H	N	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1 year	2	21.00	4.24	16.50	2.12	6.00	.00	6.00	.00	4.50	2.12	4.50	2.12
2 years	2	13.50	.71	8.00	1.41	4.00	.00	2.50	.71	1.50	.71	5.50	.71
3 years	5	19.80	1.48	15.00	1.41	5.80	.45	5.80	.45	3.40	1.52	4.80	.84
4 years	4	18.25	4.11	14.75	5.25	5.50	1.00	4.50	1.91	4.75	2.50	3.50	2.08
5 years	9	16.44	4.74	12.56	4.16	5.11	1.36	4.78	1.79	2.67	1.66	3.89	1.45
6 years	13	18.77	3.54	14.00	3.61	5.85	.38	4.69	1.84	3.46	1.98	4.77	1.30
7 years	21	17.62	4.83	13.24	4.38	4.95	1.69	4.71	1.98	3.57	1.99	4.38	1.63
8 years	26	15.88	4.20	11.69	4.34	5.04	1.15	4.12	1.82	2.54	1.94	4.19	1.47
9 years	22	17.55	4.07	13.41	3.36	5.59	.96	4.73	1.75	3.09	1.77	4.14	1.75
10 years	23	20.78	2.73	16.43	2.66	5.78	.67	5.70	.88	4.96	1.36	4.34	1.40

[a]Scores range from 0 to 24.
[b]Scores range from 0 to 18.
[c]Scores range from 0 to 6.

A Pearson product-moment correlation coefficient (*r*) was calculated to measure the relationship between career maturity and years in 4-H (Table 15). Very low, positive correlations were found for the CMI total score (r=.094, p=.29) and four of the five sub-scales that were not significant at the .05 level. A low, negative relationship was found for the consultation sub-scale (r=-.050, p=.57), which also was not significant at the .05 level.

Table 15

Pearson Product Moment Correlation Coefficients for Career Maturity Inventory Scores and Years in 4-H

Career Maturity	**r**	***p***
CMI Total	.094	.29
CCC	.159	.08
Concern	.076	.40
Curiosity	.075	.40
Confidence	.132	.14
Consultation	-.050	.57

*Significant at the .05 level.

Analyses of variance (ANOVAs) were also tabulated with the total Career Maturity Inventory score as the dependent variable and the highest level of participation in healthy lifestyles program activities as the independent variable with options of *state*, *district*, *county*, *club*, and *did not participate*. Results are displayed in Table 16 with the use of the CMI total scores. The analyses did not reveal a significant difference ($p<.05$) in career maturity based upon the highest level of participation. No significant differences were discovered for CCC or any of the four construct scores based upon the highest level of participation in healthy lifestyles activities.

Table 16

Analysis of Variance for Career Maturity Inventory Total Scores and Highest Level of Participation in Healthy Lifestyles Activities

	CMI Total Score[a]						
Activity	**Club[b]**	**County[b]**	**District[b]**	**State[b]**	**None[b]**	**F**	**Sig[c]**
Food Show	16.67	18.96	17.27	19.08	18.03	1.09	.363
Food Challenge	17.50	19.83	16.88	18.38	18.65	1.53	.197
Nutrition Quiz Bowl	18.20	16.50	17.29	20.40	17.94	.57	.688
Educational Presentations	19.00	18.53	18.62	17.50	17.66	.42	.791
Record Books	19.00	18.00	17.43	19.26	17.93	.73	.575

[a]Scores range 0 to 24.
[b]n for each level of participation is reported in Table 6
[c]Significant at $p<.05$

Findings Related to Objective Three

Results of the career decision self-efficacy – short form (CDSE-SF) were evaluated to meet objective three. A grand mean was calculated for the 25-item CDSE-SF as well as each of the five sub-scales. Betz and Taylor (2012) recommend that scores of 3.5 or above indicate moderate to high confidence and are predictive of a willingness to approach or try the behavior in question. Scores ranging from 2.5 to 3.5 reveal moderate confidence and are descriptive of one who may be comfortable exploring or may need some help. Low to little confidence indicates a need for intervention and is predicted by scores ranging from 1.0 to 2.5. The grand mean of participants' scores on the CDSE-SF was 4.00 (SD=.63). Based upon this mean, the 127 participants can be considered to have good confidence related to making career decisions. The statement

with the highest mean (4.43, SD=.78) was "talk with a person already employed in the field you are interested in." This was followed by "choose a major or career that will fit your interests" (4.39, SD=.80). The statement receiving the lowest mean score was "make a career decision and then not worry about whether it was right or wrong" (3.30, SD=1.05).

The mean score and standard deviation was calculated for each of the five sub-scales of the CDSE-SF (Table 17). The sub-scale with the greatest mean was occupational information (4.17, SD=.69), and the lowest mean was problem solving (3.88, SD=.70). Each of the sub-scale means ranged between 3.5 and 5.0, which indicates the participants have good confidence for the competencies.

Table 17

Rank Order of Career Decision-Making Self-Efficacy Sub-Scale Mean Scores (n=127)

Sub-Scale	**Mean**	**SD**
Occupational Information	4.17	.69
Self-Appraisal	4.05	.67
Planning	3.99	.77
Goal Selection	3.93	.69
Problem Solving	3.88	.70

Scale: 1 = *No Confidence At All*, 2 = *Very Little Confidence*, 3 = *Moderate Confidence*, 4 = *Much Confidence*, 5 = *Complete Confidence*

A *t*-test was calculated to determine if any significant differences existed between males and females for the total CDSE-SF and the five sub-scales, with results displayed in Table 18. The mean scores for the CDSE-SF indicate females had a greater mean score (4.04, SD=.64, n=91) than males, (3.90, SD=.61, n=36). Females also scored higher on four of the five sub-scales, with males (3.95, SD=.63) outscoring females (3.92, SD=.72) on the goal selection sub-scale. However, the *t*-test yielded only one significant difference ($p<.05$), which was between males and females for the problem-solving sub-scale with a *t*-value of -2.040 and $p=.045$. A significant difference was not found among gender for the overall mean score and the other four sub-scales of self-appraisal, occupational information, goal selection, and planning.

Table 18

Comparison of Career Decision Self-Efficacy – Short Form Mean Scores by Gender

	Males		Females				
Scale	**Mean[a]**	**SD**	**Mean[b]**	**SD**	***t*-value**	**df**	**Sig.[c]**
CDMSE-SF	3.90	.61	4.04	.64	-1.194	125	.235
Self-Appraisal	3.96	.59	4.10	.69	-1.075	125	.285
Occupational Information	4.06	.67	4.21	.69	-1.136	125	.258
Goal Selection	3.95	.63	3.92	.72	.245	125	.807
Planning	3.84	.78	4.04	.76	-1.364	125	.175
Problem Solving	3.68	.69	3.96	.70	-2.040	125	.045[c]

[a]n=36
[b]n=91
[c]Significant at $p<.05$

An ANOVA was calculated with the dependent variable being CDSE-SF score and the independent variable being age, with a range of 14 to 19. The results of this analysis, displayed in Table 19, revealed the mean for each age group. The highest mean score among the participants was 18 year olds (4.32, SD=.42), and the lowest mean score was 15 year olds (3.80, SD=.63). The results also revealed that the 14 year olds (3.99, SD=3.99) scored higher on the assessment than the 15 (3.80, SD=.63) and 16 year olds (3.90, SD=.65). The ANOVA only yielded one significant difference ($p<.05$), which was between the CDSE-SF mean score and age of participants. As a result, a Ryan-Einot-Gabriel-Welsch F (R-E-G-W-F) was run as a post hoc analysis to determine between what ages the differences existed. The mean score of 15 year olds on the CDSE-SF was statistically lower ($p<.05$) than the 17 and 18 year olds.

Analyses of variance were also calculated with the dependent variable being the grand mean for each of the five sub-scales and the independent variable being age, with a range of 14 to 19. The analyses calculated a mean for each age group for the entire scale and each sub-scale (Table 9). The 18 year olds (n=14) had the highest mean score for each of the sub-scales, which were 4.29 (SD=.59) for self-appraisal, 4.46 (SD=.53) for occupational information, 4.33 (SD=.55) for goal selection, 4.36 (SD=.40) for planning, and 4.16 (SD=.51) for problem solving. The ANOVAs also yielded statistically significant differences ($p<.05$) for the mean score of the CDSE-SF and the goal selection ($p=.014$), planning ($p=.006$), and problem solving ($p=.021$) sub-scale mean scores based upon age. An R-E-G-W-F was run as a post hoc analysis to determine between what ages the differences existed for each sub-scale. The CDSE-SF scores for

15 and 16 year olds were found to be statistically lower ($p<.05$) than the 18 year olds. For goal selection, the mean score of 15 and 16 year olds were significantly lower ($p<.05$) than the score of the 18 year old youth. For the planning and problem solving sub-scales, the mean scores of 15 year olds were found to be significantly lower ($p<.05$) than the scores of the 17 and 18 year old participants. These results indicate a drop in career decision-making self-efficacy after the age of 14, followed by a steady increase from age 15 to 18, which is consistent with some research found on adolescent self-esteem indicating a decrease in adolescence (Erol & Orth, 2011).

Table 19

Analysis of Variance for Career Decision Self-Efficacy – Short Form Scores by Age

	CDSE-SF Mean Score by Age						
	14 years	**15 years**	**16 years**	**17 years**	**18 years**	**F**	**Sig.***
	n=16	n=37	n=31	n=29	n=14		
CDSE-SF	3.99[ab]	3.80[a]	3.90[a]	4.23[ab]	4.32[b]	3.20	.015
Self-Appraisal	4.03[a]	3.89[a]	3.99[a]	4.25[a]	4.29[a]	1.70	.154
Occupational Information	4.00[a]	4.03[a]	4.08[a]	4.38[a]	4.46[a]	2.12	.083
Goal Selection	3.86[ab]	3.77[a]	3.75[a]	4.16[ab]	4.33[b]	3.25	.014
Planning	4.06[ab]	3.66[a]	3.91[ab]	4.26[b]	4.36[b]	3.76	.006
Problem Solving	3.99[ab]	3.62[a]	3.79[ab]	4.11[b]	4.16[b]	3.01	.021

[ab]Means in rows having letter designations in common are not significantly different at the .05 level using REGWF post hoc analysis method.
Scale: 1 = *No Confidence At All*, 2 = *Very Little Confidence*, 3 = *Moderate Confidence*, 4 = *Much Confidence*, 5 = *Complete Confidence*
*Significant at $p<.05$

Descriptive data, including means and standard deviations, were computed for the CDSE-SF scores based upon the youths' years in 4-H, which are displayed in rank order in Table 20. Results indicate youth in 4-H for ten years had the highest mean (4.30, SD=.48, n=23) on the CDSE-SF, followed by those in 4-H for nine years (4.18, SD=.53, n=22). Youth in 4-H for only two years had the lowest mean score of 3.14 (SD=.08, n=2). To measure the relationship between career decision-making self-efficacy and years in 4-H, a Pearson product-moment correlation coefficient (r) was calculated (Table 21). Very low, positive correlations were found for the CDSE-SF total score (r=.193, p=.03) and all five sub-scales. Three of the six scores (CDSE-SF = .193, occupational information = .229, and problem solving = .188) revealed very low, positive relationships that were significant at the .05 level. Although the results lack some statistical significance, they do reveal that a longer duration of participation in the 4-H program resulted in higher career decision-making self-efficacy.

Table 20

Rank Order of Career Decision Self-Efficacy – Short Form Mean Scores by Years in 4-H (n=127)

Years in 4-H	**N**	**Mean**	**SD**
10 years	23	4.30	.48
9 years	22	4.18	.53
3 years	5	4.14	.18
6 years	13	3.98	.48
1 year	2	3.96	.57
4 years	4	3.93	.52
7 years	21	3.87	.86
5 years	9	3.87	.50
8 years	26	3.80	.72
2 years	2	3.14	.08

Table 21

Pearson Product Moment Correlation Coefficients for Career Decision Self-Efficacy – Short Form Scores and Years in 4-H

Career Decision Self-Efficacy	***r***	***p***
CDSE-SF	.193	.03*
Self-Appraisal	.159	.08
Occupational Information	.229	.01*
Goal Selection	.146	.10
Planning	.151	.09
Problem Solving	.188	.03*

*Significant at the .05 level.

Additional ANOVAs were tabulated to determine if the level of participation in 4-H healthy lifestyles activities had an impact on their career decision-making self-efficacy, with results summarized in Table 22. The dependent variable was the mean score on the CDSE-SF, and the independent variable was the highest level of participation, with options of *state*, *district*, *county*, *club*, and *did not participate*. The analyses did not reveal a significant difference ($p<.05$) in career decision-making self-efficacy based upon the 4-H members' highest level of participation in healthy lifestyles program activities.

Table 22

Analysis of Variance for Career Decision Self-Efficacy – Short Form Scores and Highest Level of Participation in Healthy Lifestyles Activities

	Career Decision Self-Efficacy – Short Form						
Activity	**Club[a]**	**County[a]**	**District[a]**	**State[a]**	**None[a]**	**F**	**Sig**
Food Show	4.04	3.90	3.98	4.27	4.02	.711	.586
Food Challenge	4.15	4.17	3.97	4.02	3.99	.230	.921
Nutrition Quiz Bowl	4.12	4.32	4.19	3.94	3.97	.536	.709
Educational Presentations	3.97	4.21	4.13	4.09	3.94	.806	.524
Record Books	3.92	4.07	3.98	4.14	3.96	.318	.865

[a]n for each level of participation is reported in Table 6

Career Aspirations of Participants

Among the 127 participants, 125 (98.4%) indicated they plan to attend college after graduating from high school. Participants were also asked the highest degree they plan to achieve with options being (1) *technical certification*, (2) *associate degree*, (3) *bachelors degree*, (4) *masters degree*, and (5) *PhD/EdD/MD*, with 115 (90.6%) indicating they plan to achieve at least a bachelor's degree. The breakdown of participants' responses is displayed in Table 23.

Table 23

Breakdown of Participants' Highest Degree in Rank Order (n=127)

Degree	Frequency	Percent
Master's Degree	50	39.4%
Bachelor's Degree	37	29.1%
PhD/EdD/MD	28	22.0%
Associate Degree	7	5.5%
Technical Certification	5	3.9%

Participants were also asked to indicate their intended major and the career they plan to pursue through two open-ended questions. A summary of the responses from participants that *strongly agreed* (n=7) or *agreed* (n=31) with the statement "I think I will pursue a career in a healthy lifestyles field" in the healthy lifestyles program impact section are summarized in Table 24 and 25. Among the seven that strongly agreed with the statement, five indicated they plan to pursue a degree and career in a medical field, such as nursing or pre-medicine. The other two responses included Culinary Arts and Ag leadership and development with a possible career in Extension, with both career options providing the opportunity to promote healthy living. Responses of all participants, including those who *strongly disagreed* (n=21) or *disagreed* (n=68) with the statement, are included in Appendices G, H, I, and J.

Table 24

Summary of Responses of Intended Major and Career Plans of Participants who Strongly Agreed They Will Pursue a Career in a Healthy Lifestyles Field (n=7)

Intended Major	**Career Plans**
Ag leadership and development	Not completely sure, but possibly extension agent
Nursing	Nurse practitioner
Occupational Therapy	Would like to work with disabled children
Baking and Cooking: Culinary Arts	Taking care of my family
Health Sciences/pre-med	Medical
Pre-Med	Orthopedic Surgeon
Bachelor of Science	Bachelor of Science in Nursing (Registered Nurse); then Nurse Practitioner in Trauma Care

Response options to statement "I think I will pursue a career in a healthy lifestyles field" included 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Agree*, and 4 = *Strongly Agree*.

The responses of participants that agreed (n=31) with the statement "I think I will pursue a career in a healthy lifestyles field" are summarized in rank order in Table 25. The most popular response of major and career plans was in the medical field, with eight indicating they were going to major in or pursue a career in biomedical science, nursing, pre-medicine, physician, and obstetrics. This was followed by animal science and veterinary science with seven indicating interest.

Table 25

Summary of Responses of Intended Major and Career Plans of Participants who Agreed They Will Pursue a Career in a Healthy Lifestyles Field (n=31)*

Intended Major and Career Plans	**N**	**Percent**
Medical Field	8	25.7%
Animal Science/Veterinary Science	7	22.5%
Agriculture	2	6.5%
Food Science	2	6.5%
Genetics	2	6.5%
Agriculture Communications	2	6.5%
Business	2	6.5%
Uncertain	2	6.5%
Dental Hygiene	1	3.2%
Chemistry	1	3.2%
Welder	1	3.2%

Response options to statement "I think I will pursue a career in a healthy lifestyles field" included 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Agree*, and 4 = *Strongly Agree*.
*One respondent did not provide answers to the two questions on major and career plans.

What the 4-H Program Can Do To Promote Career Interests

Participants were presented with an open-ended question in the research instrument, "what can the 4-H program do more effectively to help you prepare for a career choice/interest." All 88 responses are presented in Appendix K as written by the

4-H member in the online survey. Some of the more common responses, provided by multiple participants include

- Offer career fairs and workshops for youth to learn about career opportunities and interact with professionals.
- Host career booths and information at district and state events.
- Coordinate visits to campuses across the state.
- Offer career-based camps, like MASH Camp, to allow youth to learn more about careers associated with a specific subject matter.
- Create an internship program for senior 4-H members to explore careers of interest.
- Place more emphasis on career opportunities in all 4-H projects, building it into the project curriculum.
- Train adults to foster discussion on careers and present career opportunities as they lead projects and clubs.
- Continue to offer opportunities for job skill development, such as public speaking, interview skills, and resume building.

Tests of Hypotheses

In order to effectively test the hypotheses for this research study, a series of independent samples *t*-tests, Pearson product-moment correlations, and analyses of variance (ANOVAs) were calculated. An alpha level of .05 was set *a priori* to determine statistical significance.

Null Hypothesis One

The first null hypothesis stated that the duration of involvement in 4-H does not have an impact on youths' career development. To test this hypothesis, Pearson product-moment correlation coefficients (r) were calculated to measure the relationship between the level of participants' agreement with the healthy lifestyles program impact statements and years in 4-H. The first coefficient measured the relationship between the healthy lifestyles program impact grand mean and years in 4-H. In addition, each of the statements was analyzed separately in relation to the years in 4-H since there were only five statements. All results are displayed in Table 26. Very low, positive correlations were found for the grand mean (r=.09, p=.32) and all five individual statements, none of which were statistically significant at the .05 level. Due to the positive correlations lacking statistical significance (p<.05), the researcher failed to reject the null hypothesis that stated the duration of involvement in 4-H does not have an impact on youths' career development.

Table 26

Pearson Product Moment Correlation Coefficients for Healthy Lifestyles Program Impact Scores and Years in 4-H

Healthy Lifestyles Program Impact	**r**	***p***
Grand Mean	.09	.32
I have acquired information about what I think I want to pursue as a career.	.07	.44
I have considered what career I want to pursue after college.	.11	.22
I developed a sense of need to make a career choice.	.11	.21
I learned about things to consider in choosing a career.	.16	.07
I think I will pursue a career in a healthy lifestyles field.	-.10	.26

Response options for each statement included 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Agree*, and 4 = *Strongly Agree*.

Null Hypothesis Two

The second null hypothesis stated that the duration of involvement in 4-H does not have an impact on youths' career maturity. To test this hypothesis, a Pearson product-moment correlation coefficient (r) was calculated to measure the relationship between career maturity and years in 4-H (Table 27). Very low, positive correlations were found for the CMI total score (r=.094, p=.29) and four of the five sub-scales, all of which were not significant at the .05 level. A low, negative relationship was found for the consultation sub-scale (r=-.050, p=.57), which also was not significant at the .05 level. Because of the lack of statistical significance, these data cannot support rejecting

the null hypothesis that stated the duration of involvement in 4-H does not have an impact on youths' career maturity.

Table 27

Pearson Product Moment Correlation Coefficients for Career Maturity Inventory Scores and Years in 4-H

Career Maturity	**r**	***p***
CMI Total	.094	.29
CCC	.159	.08
Concern	.076	.40
Curiosity	.075	.40
Confidence	.132	.14
Consultation	-.050	.57

*Significant at the .05 level.

Null Hypothesis Three

A third Pearson product-moment correlation (*r*) was computed to test the third null hypothesis and measure the relationship between career decision-making self-efficacy and years in 4-H among the youth participants (Table 28). Very low, positive correlations were found for the CDSE-SF total score (*r*=.193, p=.03) and all five sub-scales. Three of the six scores (CDSE-SF = .193, occupational information = .229, and problem solving = .188) revealed very low, positive relationships that were significant at the .05 level. Although positive correlations were found, some of which were

statistically significant ($p<.05$), the lack of statistical significance among the total score of the CDSE-SF when compared to years in 4-H and two of the five sub-scales, these data cannot support rejecting the null hypothesis that the duration of involvement in 4-H does not have an impact on youth's career decision-making self-efficacy.

Table 28

Pearson Product Moment Correlation Coefficients for Career Decision Self-Efficacy – Short Form Scores and Years in 4-H

Career Decision Self-Efficacy	**r**	***p***
CDSE-SF	.193	.03*
Self-Appraisal	.159	.08
Occupational Information	.229	.01*
Goal Selection	.146	.10
Planning	.151	.09
Problem Solving	.188	.03*

*Significant at the .05 level.

Null Hypothesis Four

Null hypothesis four stated there was no impact on youth's career development based upon their level of participation in the 4-H healthy lifestyles program activities. To test this hypothesis, an Analysis of Variance (ANOVA) was calculated to compare the mean of healthy lifestyles program impact with the highest level of youths' participation in healthy lifestyles program activities. These activities included food show, food

challenge, nutrition quiz bowl, educational presentations, and record book competition, which offer opportunities for youth to progress through levels of competition thereby increasing the duration of the 4-H member's project experiences.

Results of the ANOVA are displayed in Table 29, which revealed no statistically significant difference ($p<.05$) in the impact the healthy lifestyles program had on career development based upon the highest level of participation. Based upon this analysis, the data could not support rejecting the null hypothesis.

Table 29

Analysis of Variance for Healthy Lifestyles Program Impact and Highest Level of Participation in Healthy Lifestyles Activities

	Healthy Lifestyles Program Career Development Impact						
Activity	**Club[a]**	**County[a]**	**District[a]**	**State[a]**	**None[a]**	**F**	**Sig[b]**
Food Show	2.93	2.87	2.79	3.13	2.60	1.51	.204
Food Challenge	3.03	3.17	2.78	3.00	2.71	1.12	.350
Nutrition Quiz Bowl	3.08	2.40	2.53	2.48	2.85	1.36	.253
Educational Presentations	2.72	2.96	2.86	3.36	2.70	2.43	.052
Record Books	2.55	2.90	2.89	2.89	2.65	1.02	.402

[a]n for each level of participation is reported in Table 6
[b]Significant at $p<.05$

Null Hypothesis Five

Another ANOVA was calculated to test the fifth null hypothesis that stated the level of participation in the 4-H healthy lifestyles program activities did not impact youths' career maturity. The ANOVA compared the Career Maturity Inventory (CMI) mean score with the highest level of participation in healthy lifestyles program activities. Results are displayed in Table 30. The analysis did not reveal a statistically significant difference ($p<.05$) in career maturity based on the highest level of participation in the 4-H healthy lifestyles program activities. Therefore, the null hypothesis could not be rejected.

Table 30

Analysis of Variance for Career Maturity Inventory and Highest Level of Participation in Healthy Lifestyles Activities

	CMI Total Score[a]						
Activity	**Club[b]**	**County[b]**	**District[b]**	**State[b]**	**None[b]**	**F**	**Sig[c]**
Food Show	16.67	18.96	17.27	19.08	18.03	1.09	.363
Food Challenge	17.50	19.83	16.88	18.38	18.65	1.53	.197
Nutrition Quiz Bowl	18.20	16.50	17.29	20.40	17.94	.57	.688
Educational Presentations	19.00	18.53	18.62	17.50	17.66	.42	.791
Record Books	19.00	18.00	17.43	19.26	17.93	.73	.575

[a]n for each level of participation is reported in Table 6
[b]Significant at $p<.05$

Null Hypothesis Six

The sixth hypothesis stated that the level of participation in the 4-H healthy lifestyles program activities did not impact youths' career decision making self-efficacy. Another ANOVA was tabulated to test this hypothesis and compare the mean score of the Career Decision Self-Efficacy – Short Form (CDSE-SF) with the highest level of youths' participation in healthy lifestyles program activities. Results are displayed in Table 31, which did not reveal a statistically significant difference ($p<.05$) in career decision-making self-efficacy based upon the 4-H members' highest level of participation in healthy lifestyles program activities. Therefore, the null hypothesis was not rejected.

Table 31

Analysis of Variance for Career Decision-Making Self-Efficacy and Highest Level of Participation in Healthy Lifestyles Activities

	Career Decision Self-Efficacy – Short Form						
Activity	**Club[a]**	**County[a]**	**District[a]**	**State[a]**	**None[a]**	**F**	**Sig**
Food Show	4.04	3.90	3.98	4.27	4.02	.711	.586
Food Challenge	4.15	4.17	3.97	4.02	3.99	.230	.921
Nutrition Quiz Bowl	4.12	4.32	4.19	3.94	3.97	.536	.709
Educational Presentations	3.97	4.21	4.13	4.09	3.94	.806	.524
Record Books	3.92	4.07	3.98	4.14	3.96	.318	.865

[a]n for each level of participation is reported in Table X (profile of participants)
[b]significant at $p<.05$

Because no statistically significant ($p<.05$) differences were found between the healthy lifestyles program impact, career maturity, and career decision-making self-efficacy and the highest level of participation in 4-H healthy lifestyles program activities, the researcher failed to reject the null hypothesis. It can be concluded from this that one's level of participation in 4-H healthy lifestyles program activities has no statistically significant difference on youth's career development.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In this final chapter, a summary of the findings and how they relate to previous research is provided for each research objective. The purpose of this research is provided, followed by a summary of the findings and conclusions for each research objective. Recommendations for practitioners, the 4-H program, and future research are also included in this chapter.

The purpose of this study was to assess the career aspirations, career maturity and career decision-making self-efficacy among youth in the Texas 4-H Healthy Lifestyles Program. The researcher sought to assess the impact youth involvement in the 4-H healthy lifestyles program has on youths' future career plans. The study also examined the readiness of youth involved in the 4-H healthy lifestyles program to make career decisions, identified as career maturity. Lastly, the researcher attempted to reveal the career decision-making self-efficacy among youth involved in the 4-H healthy lifestyles program. Demographic information was also collected from participants to determine if there were any trends among the participants. Responses to open-ended questions on the research instrument provided insight to current 4-H members' view of what the 4-H program can do to better promote career interests of youth. These served as the basis for many of the recommendations provided by the researcher.

Summary of Findings

Although the researcher failed to reject any of the six null hypotheses established for this research study, valuable information was gained as a result of this study, which

indicated that participants of the 4-H healthy lifestyles program are career mature and have good confidence in making career decisions. A summary of the findings for each objective, and how the findings relate to previous research, is included below.

Objective One

The first objective was to determine if youth involvement in the 4-H healthy lifestyles program had an impact on youth's career choice and development. The findings indicate that as a result of involvement in the 4-H healthy lifestyles program

The majority (83.5%) of participants indicated they strongly agree (29.9%) or agree (53.5%) that they learned about things to consider in choosing a career. A majority (71.7%) of the participants indicated they strongly agree (30.7%) or agree (40.9%) that they developed a sense of need to make a career choice. These findings are similar to those of Matulis, et al. (1988) who found one of the greatest impacts of 4-H, according to alumni, to be the development of a sense of need to make a career choice.

The majority (68.5%) of participants indicated they strongly agree (29.1%) or agree (39.4%) they considered what career they want to pursue after college. A majority (65.4%) of participants indicated they strongly agree (25.2%) or agree (40.2%) they acquired information about what they think they want to pursue as a career.

Less than one-third (30%) of participants indicated they strongly agree (5.5%) or agree (24.4%) they will pursue a career in a healthy lifestyles field. However, King et al. (2008) suggested that life experiences can provide an early encounter with a possible career while also leading youth to look for a career in something else. Although the majority of the youth participants did not plan to pursue a career with emphasis in

healthy living, the majority of youth agreed with the other four statements regarding healthy lifestyles program impact. This indicates to the researcher that their involvement had an impact on career choice and development, even it if led them to a different career path, as suggested by King et al. (2008).

Additional information was obtained in relation to who, or what, the youth indicated had the most impact on their intended major and career choice. Nearly half (42.5%) of the youth participants indicated their own interests and experiences had the most impact on their intended major and career choice. This was followed by their mother (17.3%) and father (11%) having the most impact. This is consistent with the findings of Paa and McWhirter (2000), who found that personal variables having the strongest influence on adolescents' career motivation, with interests as one of the top personal variables that had the most influence and is supported by the Social Cognitive Career Theory (Lent, Brown, & Hackett, 2002). While the results are consistent with findings previously cited and the SCCT, the results may have better confirmed the model used for this research study had the respondents been selected based upon healthy lifestyles being their most active project.

Rockwell, Stohler, and Rudman (1984) found among 4-H alumni that people involved with leading the 4-H program (including leaders and Extension Agents) influenced their choice of a career. Matulis et al. (1988) discovered the least impact of 4-H among alumni was in career planning through county 4-H agents, 4-H leaders, and other 4-H members. In this study, only five (3.9%) participants indicated their County Extension Agent had the most impact, with no one indicating a *club leader or volunteer*

having the most impact on their intended major and career choice. The researcher acknowledges that the wording may have affected the outcome of this question. Participants were asked to select the option that has had the most impact, whereas the results may have been different if they could have selected more than one choice.

Objective Two

Objective two was to examine the readiness of youth involved in the 4-H healthy lifestyles program to make career decisions. To meet this objective, grand means for each participant's responses were calculated for total score, CCC, and each of the four constructs of the Career Maturity Inventory (CMI). These grand means were compared to the high school norms provided by Savickas and Porfeli (2011). Participants' CCC score (13.65, SD=4.01), which is the score Savickas and Profeli (2011) recommend be used in interpretation of scores, was greater than the high school norm (9.88, SD=1.28). Participants also outscored the high school norms for three of the four constructs, which were concern, curiosity, and confidence. These higher scores reflect more advanced development (Savickas & Porfeli, 2011).

Omvig and Thomas (1977), as well as Westbrook et al. (1980) have found that girls show more career maturity at a given age than boys, while Fouad (1988) discovered females scoring higher than males on the sub-scales of career maturity. Researchers have also found that male adolescents have higher self-esteem than female adolescents (Erol & Orth, 2011), which was consistent with the findings of this research study related to career maturity. Although the differences were not found to be statistically significant ($p<.05$) in the current study, a *t*-test found that male participants outscored females on

the total score, CCC, and the curiosity, confidence, and consultation constructs, while the mean score for the concern construct was higher for females than males.

Stern, Norman, and Zevon, (1991) found age to be positively correlated with career maturity. Students in the higher grades should score high on concern, curiosity, and confidence, according to Savickas and Porfeli (2011). In the current study, 18 year-old participants (n=14) had the highest score for the total, CCC, and all constructs except consultation. However, it is worthy to note that the CCC score is often used in interpreting scores, which does not include the consultation score. This is in recognition of one's preference to consult significant people in their lives while others choose to make decisions on their own (Savickas & Porfeli, 2011).

Objective Three

The final objective was to reveal the career decision-making self-efficacy among youth involved in the 4-H healthy lifestyles program. Grand means were calculated for the total score of the Career Decision Self-Efficacy – Short Form (CDSE-SF) and each of the five sub-scales. The grand mean of participants' scores on the CDSE-SF was 4.00 (SD=.63). The grand means of scores for each of the five sub-scales were 4.17 (occupational information), 4.05 (self-appraisal), 3.99 (planning), 3.93 (goal selection), and 3.88 (problem solving). Betz and Taylor (2012) recommend that scores of 3.5 or above indicate moderate to high confidence and are predictive of a willingness to approach or try the behavior in question. Scores ranging from 2.5 to 3.5 reveal moderate confidence and are descriptive of one who may be comfortable exploring or may need some help. Low to little confidence indicates a need for intervention and is predicted by

scores ranging from 1.0 to 2.5. Based upon the results scales presented by Betz and Taylor (2012) and the grand means calculated, all of which exceed 3.5, the 4-H participants have good confidence related to making career decisions.

Differences in career decision-making self-efficacy based upon gender have also been discovered through previous research (Gianakos, 2001). In the current study, a *t*-test was calculated to determine if any significant differences existed based upon gender. Mean scores among female participants were higher than males for the entire CDSE-SF as well as four of the five sub-scales. The males outscored females on the goal selection sub-scale. However, the only statistically significant difference among males and females was on the problem solving sub-scale with a *t*-value of -2.040 (p=.045). Therefore, the researcher concluded that statistically significant differences did not exist in career decision-making self-efficacy among the 4-H participants based upon gender.

Luzzo (1993) found that career decision-making self-efficacy was positively correlated with age, among other variables, suggesting that self-efficacy expectations may increase with age. In the current study, participants' mean scores on the CDSE-SF were compared by age. The 18 year olds had the highest mean score for the entire scale and each of the sub-scales, with significant differences occurring among ages for the goal selection, planning, and problem solving sub-scales. The CDSE-SF scores for 15 and 16 year olds were statistically different (p<.05) from the 18 year olds. For goal selection, the mean score of 15 and 16 year olds was significantly different (p<.05) from the score of the 18 year old participants. For the planning and problem solving sub-scales, the mean scores of 15 year olds were significantly different (p<.05) than the

scores of the 17 and 18 year olds. Therefore, the researcher concluded that older youth had greater career decision-making self-efficacy.

Conclusions

Based on the findings from this study, data collected and analyzed, the following conclusions can be made. Although the six null hypotheses stated by the researcher failed to be rejected, conclusions can still be drawn from the results of this research.

Based upon the findings of the research, it was concluded that the duration of youths' involvement in 4-H does not have an impact on their career development, career maturity, and career decision-making self-efficacy. Although, the null hypotheses failed to be rejected, it is important to note that the participants in this research study exceeded the high school norms for career maturity, denoting that they are career mature. The results of the current study also indicated that the participants had good confidence in making career decisions, based upon their mean scores on the CDSE-SF.

It was also concluded that the level of participation in the 4-H healthy lifestyles program activities did not impact youths' career development, career maturity, and career decision-making self-efficacy. This can serve as a good indication to the 4-H program about where emphasis should be placed. While competitive events are a big part of 4-H projects, they are not the primary purpose of the program. Instead, the engagement of youth in the learning and development process through project experiences at the local level, and ensuring high-quality learning experiences are provided, is where the emphasis should be placed.

The results of this study also included feedback from 4-H members on what the 4-H program can do to better promote career interests. The responses provide a clear indication that the 4-H program can do more to promote career development, and serve as a guide for many of the recommendations provided. It is evident that if the 4-H program is going to emphasize career development, it needs to make it a priority by offering career development opportunities for each project.

Recommendations

Based upon the findings of the current research, previous research findings highlighted in the literature review, and participant responses to the question "what can the 4-H program do more effectively to help you prepare for a career choice/interest?" the researcher proposes the following recommendations.

Recommendations for Practitioners

Ensure career development is integrated into each 4-H project

Youth indicated they would like to see a better connection between projects and related career opportunities. The 4-H program should take a close look at the career development component of each 4-H project. Each project should give youth the opportunity to explore careers through various methods including activities, interactions, and special programs. This may require a lot of time and effort on behalf of the 4-H program staff; however, doing so will ensure career development is built into each 4-H program regardless of the subject matter of the project.

Expand career exploration experiences

Participant responses indicated they would like to see the 4-H program offer career fairs, career workshops, college tours, and more career camps. This recommendation is also supported by those of Lippman and Keith (2009) who suggested youth are more likely to succeed in the workplace when they are given the opportunity to explore different careers. Albion and Fogarty (2002) also pointed out that career decision-making difficulties can be effectively relieved by providing access to relevant, up-to-date resources and information. Therefore, the 4-H program should give consideration to incorporating a career fair into current events at the state level, such as 4-H Roundup, or even district-level events.

Offer career camps

One specific comment provided by a 4-H member was "get more programs like MASH Camp for other areas." Therefore, the 4-H program should consider offering additional career exploration camps based upon the project areas. Such career development programs provide youth with in-depth learning experiences and the opportunity to interact with professionals (Walker, 1987). Offering such programs can also provide youth with an early encounter with a possible career while also leading them to look for a career in something else (King et al., 2008). Therefore, based upon previous research and the results of this current study, it is recommended the 4-H program expand the career exploration opportunities offered to youth.

Equip 4-H leaders with tools and resources to foster career development

The 4-H program should train adult volunteers to help in career choices, goal setting, and interests. Super (1990) acknowledged that role models serve as an important influence on a young person's career development, and lead to success in the workplace (Lippman & Keith, 2009). Training 4-H volunteers at the local level on how to promote careers related to 4-H project areas, methods of fostering career exploration, and the positive impact they can make by serving as a role model will benefit youth career development. Albion and Fogarty (2002) point out that a crucial role of teachers, parents, career advisors, and mentors is to help provide this information.

Continue to offer opportunities that foster competency development

It is presumed that the higher level at which one participates in the 4-H program, the longer the duration of their involvement in the project. However, the results of this study indicate that the highest level of participation in various healthy lifestyles program activities did not have a significant impact on youths' career development. In order to offer opportunities that foster competency development, the 4-H program should place more emphasis on the project learning experiences, by which youth gain competencies in the subject matter, instead of the competitive side of the project. Youth having the opportunity to learn about topics and acquire skills relevant to work lead to greater success in the workplace (Lippman & Keith, 2009). Such competency development can also lead to successful task performance, which impacts career beliefs (Krumboltz, 1994). As noted in SCCT's interest model (Lent et al., 2002), self-efficacy and outcome

expectations, which are likely gained through 4-H project experiences, exert an important, direct effect on the formation of career interests.

Continue to offer basic training in job readiness skills

4-H members suggested continuing and expanding programs that teach job skills, such as interviewing, resume building, public speaking, and communication. All of these skills are beneficial in any job setting. One 4-H member went further to suggest the 4-H program should offer a career readiness project that would give specific instructions on how to prepare for a career. Based upon this, the 4-H program may want to consider emphasizing the work readiness skills in all project areas or starting a career readiness program.

Recommendations for 4-H

Expand efforts to communicate with 4-H members

This recommendation does not come from any specific results of this study. Rather, it comes from the process of data collection. Even following Dillman's guidelines for web survey implementation, it became obvious throughout the data collection process that more was needed. It was discovered during the research project that only 30 to 40 percent of e-mails sent from the Texas 4-H & Youth Development Program are actually opened by the recipients. Therefore, many never opened the e-mails sent to them requesting their participation in the study. Because of a very low response rate, personal phone calls made to the participants increased the response rate. It was evident in conversation that the phone calls created a personal connection with the 4-H member and family. 4-H practitioners may also explore additional means of

communication with 4-H members, such as texting, to increase communication channels and response rate for future surveys. This can serve as an effective tool for youth practitioners working at all levels of the organization, whether local, district or state level.

Request more information on project involvement

Although participants in this study were somehow involved in the 4-H healthy lifestyles program, information was not acquired on whether or not one of the healthy lifestyles projects (food and nutrition, health, and safety) was the project in which they were most involved. The 4-H program already asks youth to indicate the projects in which they are involved; however, they program may want to go one step further and ask the members to indicate their number one project. This may help guide the educational experiences offered in the program and can help select participants for future research studies.

Recommendations for Future Research

Expand research beyond the healthy lifestyles program

The current research study focused on youth in the healthy lifestyles program, which presents some limitations. It is likely that youth participants would not consider one of the healthy lifestyles projects to be their most active. Future research that investigates the impact 4-H involvement has on youths' career choices may look beyond the healthy lifestyles program. Doing so may allow youth to provide feedback related to career development impact based upon the project in which they are most active.

Assess the career development of youth also involved in other organizations

Youth are often involved in multiple organizations beyond 4-H, some of which also strive to foster career development and work-readiness skills. Previous research has found that youth in 4-H learn about careers not only through participation in 4-H but also through non-4-H activities (Williams et al., 2010). Therefore, future research may want to consider comparing the impact the 4-H program has on career choice and development with other organizations in which they are involved. The results may reveal the impact of the 4-H program in relation to other organizations.

Make comparisons with non-4-H members

The current research study only involved current members of the 4-H program. Conducting research that involves a group of 4-H members and a control group of non-4-H members will allow for comparisons to be made, showing the differences, if any, of the impact the 4-H program has on youths' career development.

Overall, this research indicates current 4-H members who participate in the 4-H healthy lifestyles program are career mature and have a high level of career decision-making self-efficacy. However, additional research will expand the findings to other project areas offered in the 4-H program and make comparisons to other youth organizations.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD – HUMAN SUBJECTS RESEARCH

APPROVAL LETTER

DIVISION OF RESEARCH

Office of Research Compliance and Biosafety

TEXAS A&M UNIVERSITY

APPROVAL DATE:	02/07/2013
MEMORANDUM	
TO:	Summer F Felton Odom ALRSRCH - Agrilife Research - Ag Leadership, Education & Communication
FROM:	Dr. James Fluckey Chair Institutional Review Board
SUBJECT:	Initial Review Approval

Protocol Number:	IRB2012-0730
Title:	The Development of Career Maturity and Career Decision Self-Efficacy Among High-School Aged Youth Enrolled in the Texas 4-H Healthy Lifestyles Program
Review Type:	Expedite
Approved:	2/7/2013
Continuing Review Due:	12/31/2013
Expiration Date:	01/31/2014
Review Categories and Regulatory Determinations:	Category 7: Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies
Documentation of Consent:	Waiver approved under 45 CFR 46.117 (c) 1 or 2/ 21 CFR 56.109 (c)1

Provisions:

Comments: Waiver of parental permission, minor assent approved.

This research project has been approved. As principal investigator, you assume the following responsibilities

1. **Completion Report:** Upon completion of the research project (including data analysis and final written papers), a Completion Report must be submitted to the IRB Office.
2. **Adverse Events:** Adverse events must be reported to the IRB Office immediately.
3. **Deviations:** Deviations from protocol must be reported to the IRB office immediately.
4. **Amendments:** Changes to the protocol must be requested by submitting an Amendment to the IRB Office for review. The Amendment must be approved by the IRB before being implemented.

This electronic document provides notification of the review results by the Institutional Review Board.

750 Agronomy Road, Suite 2701
1186 TAMU
College Station, TX 77843-1186

Tel. 979.458.1467 Fax. 979.862.3176
http://rcb.tamu.edu

APPENDIX B

RECRUITMENT E-MAILS

Dear Toby,

The Texas 4-H & Youth Development Program would like your help! A survey is being conducted for research purposes and to assist the Texas A&M AgriLife Extension Service in making the 4-H & Youth Development Program even better for you! We would specifically like to know how your 4-H program involvement has had an impact on your future career choices. Your responses will also help the Texas 4-H Program know what can be done to better promote your career choices and interests.

You have been randomly selected to participate in this research project because you meet the following criteria:

- Member of the Texas 4-H & Youth Development Program in the current year (2012-2013) enrolled through the Texas 4-H Enrollment System (4-H CONNECT);
- Between the ages of 14 and 19;
- Enrolled in at least one of the following 4-H healthy lifestyles projects (food & nutrition, health); and
- Have an e-mail address.

Your participation in this research project is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are entitled as a 4-H member. You may also discontinue your participation at any time without penalty or loss of any benefits.

Information about you will be kept confidential to the extent permitted or required by law. People who have access to your information include the Principal Investigator and research study personnel. Representatives of regulatory agencies such as the Office of Human Research Protections (OHRP) and entites such as the Texas A&M University Human Subjects Protection Program may access your records to make sure the study is being run correctly and that information is collected properly.

For questions about your rights as a research participant; or if you have questions, complaints, or concerns about the research, you may call the Texas A&M University Human Subjects Protection Program office at 979.458.4067 or irb@tamu.edu.

If you would like to participate, please click the link at the bottom of this e-mail to go to the online survey. The survey will take 10-15 minutes to complete. By completing the survey, you are giving permission for the investigator to use your information for research purposes.

Click here to access online survey!

Sincerely,

Courtney F. Dodd, CVA, MS
Extension Program Specialist

E-mail: cfdodd@ag.tamu.edu
Phone: 979.845.6533

STAY CONNECTED

Forward this email

Dear Toby,

You may recall seeing an e-mail sent last week about Texas 4-H & Youth Development Program needing your help! A survey is being conducted for research purposes and to assist the Texas A&M AgriLife Extension Service in learning how your 4-H program involvement has had an impact on your future career choices. Your feedback will also help us improve the 4-H Program!

If you are a parent of the 4-H member named above, please share this information and work with your child to complete the online survey. It only takes 10-15 minutes.

If you have already responded to this survey, ***thank you***! If not, I hope you will take a few minutes to answer the questions by clicking on the link below.

Click here to access online survey!

If the link above does not work, you can copy and paste the following link into your web browser:
http://tamuag.qualtrics.com/SE/?SID=SV_aW6zSQz40zO0gJv

Sincerely,

Courtney F. Dodd, CVA, MS
Extension Program Specialist

E-mail: cfdodd@ag.tamu.edu
Phone: 979.845.6533

More information about the survey:

You have been randomly selected to participate in this research project, and your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are entitled as a 4-H member. You may also discontinue your participation at any time without penalty or loss of any benefits.

Information about you will be kept confidential to the extent permitted or required by law. People who have access to your information include the Principal Investigator and research study personnel. Representatives of regulatory agencies such as the Office of Human Research Protections (OHRP) and entites such as the Texas A&M University Human Subjects Protection Program may access your records to make sure the study is being run correctly and that information is collected properly.

For questions about your rights as a research participant; or if you have questions, complaints, or concerns about the research, you may call the Texas A&M University Human Subjects Protection Program office at 979.458.4067 or irb@tamu.edu.

If you would like to participate, please click the link provided above to go to the online survey. The survey will take 10-15 minutes to complete. By completing the survey, you are giving permission for the investigator to use your information for research purposes.

Dear Toby,

Spring is a very busy time, and I hope you are enjoying your Spring Break! Some time this week, I hope you will take 10-15 minutes to complete an online survey and tell us how your 4-H involvement has had an impact on your future career choices. Your responses will also help the Texas 4-H Program make improvements.

If you have already responded to this survey, ***thank you***! If not, I hope you will take a few minutes to answer the questions by clicking on the link below.

If you are a parent of the 4-H member named above, I am hopeful you will share this information and work with your child to complete the online survey. The survey will be closing soon, and I want to make sure your child has had a chance to participate.

Thank you in advance for taking the time to complete the survey. Your responses are important!

Click here to access online survey!

If the link above does not work, you can copy and paste the following link into your web browser:
http://tamuag.qualtrics.com/SE/?SID=SV_aW6zSQz40zO0gJv

Sincerely,

Courtney F. Dodd, CVA, MS
Extension Program Specialist

E-mail: cfdodd@ag.tamu.edu
Phone: 979.845.6533

Forward this email

Dear Toby,

We need your help! You were randomly selected to participate in a research project to evaluate our programs and projects regarding career development. One of our goals in Texas 4-H and Youth Development is to do our best to provide YOU and future 4-Hers with opportunities to build on their career interests.

So, please help us! We know you have lots going on, but we hope you will take a few minutes to provide your responses.

Thanks for all you do as a Texas 4-H Member! We are proud of you!

Sincerely,

Christopher T. Boleman, PhD
4-H & Youth Development Program Director
Texas A&M AgriLife Extension Service
E-mail: chris.boleman@agnet.tamu.edu
Phone: 979.845.1211

Click here to access online survey!

If the link above does not work, you can copy and paste the following link into your web browser:
http://tamuag.qualtrics.com/SE/?SID=SV_aW6zSQz40zO0gJv

If you have already responded to this survey, ***thank you***!

Dear Toby,

Today is the LAST DAY to provide your feedback to the Texas 4-H and Youth Development Program! Your completion of the online survey will help us better understand the impact your involvement has had on your career development and help us to provide an even better program for you!

So, please help us! The survey will be available (see link below) until midnight tonight! I hope you will take a few minutes to provide your responses.

Sincerely,

Courtney F. Dodd
Extension Program Specialist - 4-H
Texas A&M AgriLife Extension Service
E-mail: cfdodd@ag.tamu.edu
Phone: 979.845.6533

Click here to access online survey!

If the link above does not work, you can copy and paste the following link into your web browser:
http://tamuag.qualtrics.com/SE/?SID=SV_aW6zSQz40zO0gJv

If you have already responded to this survey, ***thank you***!

Dear Toby,

Over the past day or two, you may have received a phone call or voice mail about a survey the Texas 4-H & Youth Development Program is conducting. The purpose of this study is to learn more about the impact your involvement in the 4-H healthy lifestyles program has had on your future career choices. This is your **last chance** to offer feedback by completing the online survey, which will only take 10 minutes of your time. Your completion of the online survey will also help us provide an even better program for you!

Parents - if you are receiving this message, please share it with your child, named above. I hope you will help us! The survey will be available (see link below) through this weekend!

If you, or your child, has already completed the survey, please disregard this message and know that we appreciate your responses.

Sincerely,

Courtney F. Dodd
Extension Program Specialist - 4-H
Texas A&M AgriLife Extension Service
E-mail: cfdodd@ag.tamu.edu
Phone: 979.845.6533

Click here to access online survey!

If the link above does not work, you can copy and paste the following link into your web browser:
http://tamuag.qualtrics.com/SE/?SID=SV_aW6zSQz40zO0gJv

If you have already responded to this survey, ***thank you***!

APPENDIX C

NOTIFICATION E-MAIL TO COUNTY EXTENSION AGENTS

Courtney Dodd

From: Courtney Dodd
Sent: Tuesday, February 19, 2013 4:23 PM
To: Ryan Merrel; Justin Gilliam; Jennifer Hofferichter; Kathy Carr; Sam Womble; John Grange; Beth A. Collins; Monica W. Walker; Matthew T. Bochat; Micah Holcombe; Greg Myles; Gretchen Sanders; Katherine Whitney; Cherrie Curtis; Shane Jennings; Flora Williams; Evans Kott; Nicolas Gonzales; Dusty Tittle; Linda S. Wells; Carissa Wilhelm; Charles Seely; Marco Ponce; Pamela Lincoln; Felice Acker; Dawn Dockter; Missy Hodgin; Jan Yanez; Sharon Grahmann; Karla Friesenhahn; Milissa Wright; Phyllis Griffin; Shane Martin; Beth Whitener; Whitney Walston; Tamra McGaughy; Margaret Jover; Anthony Netardus; Sammy Gavito; Makenzie Wyatt; Shawnte Clawson; Ben Tice; Page Bishop; Megan Logan; Barbara Boren; Bethany J. Arie; Kayla Kaspar; Dana Groat; Joe Mask; Teresa Petkoff; Micah D. Walker; Charlene Belew; Tracy Berger; Joan Chandler; Joan Gray-Soria; DeeLee Smith; Kim Hall; Matthew J. Miranda; Todd Beyers; Chelsea Dorward; Kendra Conley; Sheryl Nolen; Sonja Davis; Jane Rowan; Richard Parrish; Jackie D. Cole; Christina Perez; Marty Vahlenkamp; Johanna Hicks; Mandy Patrick; Tommy Yeater; Sara Allen; Kristy Synatschk; Alinda Cox; Michael Hiller; Starla Garlick; Barbara Wymore; Kristen Greer; Meagen Mohr; Jana Osbourn; Jay Kingston; Laurinda Boyd; Claudette Primeaux; Toby Oliver; Frank Escobedo; Laura Graves; Mandi Seaton; Shannon DeForest; Tonya Poncik; Cayla Christianson; Alexis Cordova; Vanessa Casad; Ronda Alexander; Laura Reyna; Deanna Franklin; Isaac Cavazos; Sandra Kunkel; Missy Spellings; Cheryl Walker; Elsie Lacy; Michelle Mihalek; Jennifer C. Johnson; Emily Cooper; Tasha N. Baxter; Zach Davis; Michael Wilkes; Lynette Babcock; Kayla Neill; Karan Heffelfinger; Darla Cude; Alyssa Puckett; Kyle Stewart; Jesse Schneider; Denita Young; Kimberly G. Peters; Travis J. Helm; Meko Miller; Michael Donalson; Amber Moore; Todd Williams; Sandy Taylor; Willie Arnwine; Jerry Nickerson; Adrian Arredondo; Neal Alexander; Schleicher County Office; Sarah Hindman; Omar Montemayor; Cindy Bryant; Kit Horne; Mary Collier; Courtney Barbee; Cory Talley; Doug Weir; Raymond Quigg; Christina Nass; Tommy Phillips; Alyssa N. Smith; Kristy Titzman; Abigail Pritchard; Brice Mund; Christine Sanchez; Lynn Hough; Maranda Revell; Seth Hall; Megan Wright; Joslyn Kotzur; Chase Settle; Chrissy Karrer; Clint Perkins; Becky Wilmeth; Penny Warren
Subject: 4-H Members Invited to Participate in Research Project

To: Certain County Extension Agents

You are receiving this e-mail because a 4-H member(s) from your county has been randomly selected to participate in a survey. The survey is being conducted for research purposes and to assist the Texas A&M AgriLife Extenison Service in making the 4-H & Youth Development Program even better! We are specifically looking at how 4-H program involvement has influenced the future career choices of youth involved in the 4-H healthy lifestyles program. Responses to the survey will also help the Texas 4-H Porgram know what can be done to better promote career choices and interests.

Youth from your county were randomly selected to participate in this research project because they met the following criteria:

- Member of the Texas 4-H & Youth Development Program in the current year (2012-2013) enrolled through the Texas 4-H Enrollment System (4-H CONNECT);
- Between the ages of 14 and 19;
- Enrolled in at least one of the following 4-H healthy lifestyles projects (food & nutrition, health); and
- Have an e-mail address.

Later this week, the 4-H members will be receiving an e-mail from me with information about the research project and a link to the online survey, which should only take 10-15 minutes for them to complete.

In case you get any questions about this research project, I wanted you to be aware that the research is being conducted through the state 4-H office and that participation is voluntary. Information is kept confidential to the extent permitted or required by law. If anyone has questions about the research project, please have them contact me directly or they may call the Texas A&M University Human Subjects Protection Program office at 979.458.4067 or irb.tamu.edu.

Thank you!

Courtney F. Dodd, CVA
Extension Program Specialist
4-H & Youth Development
Texas A&M AgriLife Extension Service

4180 State Highway 6
College Station, TX 77845
Phone: 979.845.6533
FAX: 979.845.6495
E-mail: cfdodd@ag.tamu.edu

4-H is a community of young people across America
who are learning leadership, citizenship, and life skills.

APPENDIX D

RESEARCH INSTRUMENT (WITH THE EXCEPTION OF THE CAREER DECISION SELF-EFFICACY – SHORT FORM)

Default Question Block

Thank you for taking the time to complete this survey and help the Texas 4-H Program learn more about the impact your involvement has had on your future career choices. Your responses will also help the Texas 4-H Program know what we can do to better promote your career choices and interests.

The survey should take your approximately 10-15 minutes to complete. If you or your parents have any questions or concerns about the survey, contact me directly at cfdodd@ag.tamu.edu or 979.845.6533. Thank you!

How many years have you been enrolled in the 4-H program (including this current year)?

Please tell us about your participation in the 4-H healthy lifestyles program.

Please indicate the healthy lifestyles related projects you have participated in as a 4-H member.

	Yes, I participated.	No, I did not participate.
Food & Nutrition	○	○
Health	○	○
Safety	○	○

Please indicate the healthy lifestyle activities you participated in as a 4-H member.

	Yes, I participated.	No, I did not participate.
Healthy Lifestyles Advisory Board	○	○
MASH Camp	○	○
Healthy Lifestyles Invitational	○	○
Recipe Rally	○	○

For each of the activities listed below, please indicate your **highest level** of participation.

	State	District	County	Club	Did not participate
Food Show	○	○	○	○	○
Food Challenge	○	○	○	○	○
Nutrition Quiz Bowl	○	○	○	○	○
Educational Presentations	○	○	○	○	○
Recordbook Competition	○	○	○	○	○

Please indicate your level of agreement with each of the following statements.

Because of my participation in the 4-H healthy lifestyles program...

	Strongly Agree	Agree	Disagree	Strongly Disagree
I have acquired information about what I think I want to pursue as a career.	○	○	○	○
I have considered what career I want to pursue after college.	○	○	○	○
I developed a sense of need to make a career choice.	○	○	○	○
I learned about things to consider in choosing a career.	○	○	○	○
I think I will pursue a career in a healthy lifestyles field.	○	○	○	○

There are 24 statements about choosing the kind of job or work that you will probably do when you finish school. Read each statement. If you agree or mostly agree with it, then select "agree" next to the statement. If you disagree or mostly disagree with it, then select "disagree" next to the statement.

	Agree	Disagree
There is no point in deciding on a job when the future is so uncertain.	○	○
I know very little about the requirements of jobs.	○	○
I have so many interests that it is hard to choose just one occupation.	○	○
Choosing a job is something that you do on your own.	○	○
I can't seem to become very concerned about my future occupation.	○	○
I don't know how to go about getting into the kind of work I want to do.	○	○
Everyone seems to tell me something different; as a result, I don't know what kind of work to choose.	○	○
If you have doubts about what you want to do, ask your parents or friends for advice.	○	○
I seldome think about the job that I want to enter.	○	○
I am having difficulty in preparing myself for the work that I want to do.	○	○
i keep changing my occupational choice.	○	○
When it comes to choosing a career, I will ask other people to help me.	○	○
I'm not going to worry about hcoosing an occupation until I am out of school.	○	○
I don't know what courses I should take in school.	○	○
I often daydream about what I want to be, but I really have not chosen an occupation yet.	○	○
I will choose my career without paying attention to the feelings of other people.	○	○
As far as choosing an occupation is concerned, something will come along sooner or later.	○	○
I don't know whether my occupational plans are realistic.	○	○
There are so many things to consider in choosing an occupation, it is hard to make a decision.	○	○
It is important to consult close friends and get their ideas before making an occupational choice.	○	○
I really can't find any work that has much appeal to me.	○	○
I keep wondering how I can reconcile the kind of person I am with the kind of person I want to be in my occupation.	○	○
I can't understand how some people can be so certain about what they want to do.	○	○
In making career choices, one should pay attention to the thoughts and feelings of family members.	○	○

Do you plan to attend college after graduating from high school?

- Yes
- No

What is the highest degree you plan to achieve?

- Technical Certification
- Associate Degree
- Bachelors Degree
- Masters Degree
- PhD/EdD/MD

What is your intended major?

What career do you plan to pursue?

Who has had the MOST impact of your intended major and career choice?

- 4-H Club Leader/Volunteer
- 4-H Project Experiences
- County Extension Agent
- Father
- Grandparent
- Mother
- My own interests and experiences
- Professionals I have interacted with
- Sibling
- Teacher

What can the 4-H program do more effectively to help you prepare for a career choice/interest?

You've reached the last section! Please tell us a little bit about yourself!

In what grade are you currently enrolled?

- 9th
- 10th
- 11th
- 12th

What is your current age?

- 14
- 15
- 16
- 17
- 18
- 19

Gender:

- Male
- Female

APPENDIX E

PERMISSION TO USE CAREER MATURITY INVENTORY

Courtney Dodd

From: Mark Savickas <ms@neomed.edu>
Sent: Wednesday, October 10, 2012 4:33 PM
To: Courtney Dodd
Subject: CMI Permission granted
Attachments: CMI master.pdf; CAAS master.pdf; CAAS USA.pdf; CAAS International.pdf; CMI-Revised.pdf; SCORING KEYS.docx

Dear Courtney:
CMI-Form C available for free on www.Vocopher.com.
You have permission to use it. PDf and article attached.
Also, find attached info on CA-AS
Mark Savickas

APPENDIX F

LICENSE FOR CAREER DECISION SELF-EFFICACY – SHORT FORM

www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her research:

Instrument: ***Career Decision Self-Efficacy Scale***

Authors: ***Nancy E. Betz and Karen M. Taylor***

Copyright: ***2012 Nancy E. Betz and Karen M. Taylor. All rights reserved.***

Three sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

APPENDIX G

RESPONSES TO QUESTIONS REQUESTING INTENDED MAJOR AND CAREER PLANS AS TOLD BY THE PARTICIPANTS THAT STRONGLY AGREED WITH THE STATEMENT "I THINK I WILL PURSUE A CAREER IN A HEALTHY LIFESYTLES FIELD."

Question: What is your intended major?

Question: What career do you plan to pursue?

Responses:

	Intended Major	Career Plans
1.	Ag leadership and development	Not completely sure, but possibly extension agent
2.	Nursing	Nurse practitioner
3.	Occupational Therapy	Would like to work with disabled children
4.	Baking and Cooking: Culinary Arts	Taking care of my family
5.	Health Sciences/pre-med	Medical
6.	Pre-Med	Orthopedic Surgeon
7.	Bachelor of Science	Bachelor of Science in Nursing (Registered Nurse); then Nurse Practitioner in Trauma Care

APPENDIX H

RESPONSES TO QUESTIONS REQUESTING INTENDED MAJOR AND CAREER PLANS AS TOLD BY THE PARTICIPANTS THAT AGREED WITH THE STATEMENT "I THINK I WILL PURSUE A CAREER IN A HEALTHY LIFESYTLES FIELD."

Question: What is your intended major?

Question: What career do you plan to pursue?

Responses:

	Intended Major	**Career Plans**
1.	Agriculture Business with minor in meat science	Peace corps volunteer at first to aid 3rd world countries with ag deficiencies
2.	Animal science	Physical therapy
3.	ANSC	Research or production
4.	Veterinarian science	Veterinarian or animal science
5.	Still looking at my option	Still looking at my option
6.	Unknown	Unknown
7.	Business	
8.	Animal science	Veterinary medicine
9.	Genetics	Animal breed development
10.	ANSC	Specialize in animal nutrition and/or genetics…however, I also have a huge calling to work with 3rd world countries and promote sustainable agriculture and nutrition
11.	Biomedical science	Children pediatric nurse
12.	Food Science	Marketing Expert for food company or Management of divisions of companies
13.	Nursing	Nurse
14.	I want to Go into public relations and/or communications, but now sure exactly what.	I haven't decided yet, but I am pending my options.
15.	Chemical Engineering	Food Scientist
16.	Animal Science	Veterinarian/Chef
17.	Agriculture Science with Teaching Certification	Ag Science Teacher
18.	Agriculture Communications	Not sure yet
19.	Pre-Medicine	Immunology
20.	Business	I am not sure
21.	Genetics and Biology	Genetist/Genetic Research
22.	Field of health – biology or sports medicine	Sports or child physician
23.	?	Medical related
24.	Surgical nurse in the Army	United States Army
25.		Welder
26.	Animal Science	Veterinarian

27.	Dental Hygiene	Dental Hygienist
28.	Chemistry	Become a scientist
29.	Biology	OBGYN
30.	Obstetrician	Medical field
31.	No response	

APPENDIX I

RESPONSES TO QUESTIONS REQUESTING INTENDED MAJOR AND CAREER PLANS AS TOLD BY THE PARTICIPANTS THAT DISAGREED WITH THE STATEMENT "I THINK I WILL PURSUE A CAREER IN A HEALTHY LIFESYTLES FIELD."

Question: What is your intended major?

Question: What career do you plan to pursue?

Responses:

	Intended Major	Career Plans
1.	Computer Engineering/Programming	Game development/programming and design
2.	Neurology	Surgeon
3.	Wildlife biology	Wildlife Biologist
4.	Entrepreneurship (social track)	Social entrepreneur
5.	Undecided	Undecided
6.	Agribusiness/Rand and Wildlife Management	Soil Conservationist with the U.S. Dept. of Agriculture/Natural Resource Conservation Service
7.	Medical field	Radiology
8.	Accounting	Certified Public Accountant
9.	Political Science	Attorney, politics
10.	Education and health	Math teacher and coach
11.	Law enforcement	Sniper
12.	Pharmacy	Pharmacist
13.	Undecided	Undecided
14.	Veterinary medicine	Veterinarian
15.	Forensics	To work with a police force
16.	Either medical or veterinary medicine	Either orthopedics or veterinarian
17.	Acting	Actor
18.	Forensic anthropologist	Forensic anthropologist
19.	Political Science	Law and politics
20.	History	Archaeology
21.	Engineering Degree	Engineering
22.	Political Science	Law and politics
23.	Wildlife or Forestry	Game Warden
24.	Agriculture Science/Ranch and Wildlife Management	I plan to continue my employment with the U.S. Dept. of Agriculture/Natural Resource Conservation Service and be a Soil Conservationist
25.	Ag business with mean science minor	Running family business
26.	Equine therapy	Massage
27.	Undecided	Undecided
28.	Accounting	Certified Public Accountant
29.	Unknown	Unknown
30.	English	Teacher
31.	Undecided	Undecided

32.	Agricultural degree	Not sure yet
33.	Agriculture	Not sure
34.	Animal science	Judging
35.	Engineering	Architect
36.	Ag Communications	Physical/Occupational Therapy
37.	Education	Teaching
38.	Mass Communication	Sports Broadcasting
39.	Law	Lawyer
40.	I don't know	I want to be maybe an accountant, surgeon, physical therapist, or chemical engineer.
41.	Animal Science	Sheep and Goat Specialist
42.	Science	Physics
43.	Computer Science	Computer and Information Systems Manager
44.	Design Graphics and Computer Science/Poultry Genetics Science	Poultry Genetics and Design
45.	Wildlife Management	Wildlife Game Manager or Game Warden
46.		Cosmetology
47.	Ag Communications	Undecided
48.	Journalism	News reporter
49.	History or Communications	Ministry: missions or evangelism
50.	Agribusiness	Entrepreneur
51.	Physical therapy	Physical therapist
52.	Education	Teaching and coaching
53.	Wildlife or Forestry Management	Game Warden
54.	Ag Communications	Lawyer
55.	Animal Science	Large animal nutrition and reproduction
56.	Engineering Technology, Grafit engineering	Engineering
57.	Radiology or medical field	Radiologist
58.	Biology or zoology	Marion biology
59.	Ag. Comm.	Journalism
60.	Agricultural Nutrition	Animal Nutritionist or Scientist
61.	Undecided	Undecided
62.	Medical	Therapist
63.	Architect	Architecture
64.	Undecided at this time	Something involved with education
65.		Furniture and room design
66.	No response	
67.	No response	
68.	No response	

APPENDIX J

RESPONSES TO QUESTIONS REQUESTING INTENDED MAJOR AND CAREER PLANS AS TOLD BY THE PARTICIPANTS THAT STRONGLY DISAGREED WITH THE STATEMENT "I THINK I WILL PURSUE A CAREER IN A HEALTHY LIFESYTLES FIELD."

Question: What is your intended major?

Question: What career do you plan to pursue?

Responses:

	Intended Major	Career Plans
1.	History	Cultural Preservationist
2.	I'm not sure yet	I would like to be a coach
3.	No idea	No idea
4.	History	Teacher/author
5.		Computer Programmer
6.	Christian Studies with Youth Ministry Emphasis	Youth Minister
7.	Biology	Wildlife Biology
8.	Agriculture Science with a Teaching Certificate	Ag Teacher
9.	Vet-animal science	Vet
10.	History	Culture Preservationist
11.	Bachelor of Arts	Hospitality, travel rep, art curator, community organizational leadership
12.	Welding License	Welding
13.	Animal science agribusiness	
14.	Vet	Vet
15.	Pre-Law	Attorney
16.	Veterinary Science	Veterinarian
17.	Chemical engineering & materials engineering	The same in many different industries possible
18.	Digital Media-Liberal Arts	Photographer
19.	Agriculture and genetics	Agriculture teacher or doctor
20.	English	Teacher
21.	Animal Science/Genetics	Embryologist

APPENDIX K

RESPONSES TO QUESTIONS REQUESTING WHAT THE 4-H PROGRAM CAN DO MORE EFFECTIVELY TO HELP YOUTH PREPARE FOR A CAREER CHOICE AND INTEREST AS TOLD BY THE PARTICIPANTS

Question: What can the 4-H program do more effectively to help you prepare for a career choice/interest?

Responses:

1. Have a career fair at roundup
2. They can have speakers to talk about different careers make a camp or an event on careers. Maybe could be like a 4-H career day.
3. Our agent is the greatest…I can't think of anything…she has always helped my family and 4-H leaders.
4. Continue to offer projects that help me determine my interests.
5. Nothing
6. Many programs have been started to prepare for career choices like the Vet Teach program. I am personally pursuing a health careers line of work and would have like to have a Health Careers program much like the Vet Tech Program. I did attend MASH camp that was very informative and fun. Through the years I have found shadowing different occupations really helped me decide the type of work that was right for me and that I wanted to learn more about. I, like many people my age, learn best from personal hands on experiences, rather than reading from a book.
7. Have more career training or discussion about what jobs are available. Our extension agent has never encouraged us only our parents and ag teachers at school.
8. Continue to encourage healthy lifestyle activities and even make more! Also continue with the process of recordbooks and interviews!
9. Keep thinking outside of the box to reach youth
10. Training for local adults to help in career choices, goal setting, interests, etc.
11. Not sure
12. Have career days where you can learn more about different careers and majors.
13. More community service
14. It's all good, keep promoting new experiences!
15. Health program
16. They have a wide range of activities related to Food Science industry as well as contests that have prepared me though creating presentations and public speaking.
17. A career day
18. 4-H has taken a big part in my life. I appreciate everything it has done for me and I plan to use everything I've learned in the future. I would like to be a part of something bigger than just Chillicothe, Texas. Right now, I'm known as the girl that goes to every 4-H event there is. I know many people from all over Texas and would love to meet many more. I would love to have the summer camp Spectra' back. I've never been, but last year was my last yeat to go to an actual camp. This summer, I plan to participate in the Mission Possible. I love getting kids involved in everything I can. If there was any way more to include mentally disabled kids in 4-H events, let me know! I would love to help! Thank you.

19. Food Show
20. Not me but other kids, see what their interested in and help them get into some 4-H projects and let them know that they may want to choose something related to the project as a career. Veterinary science program was perfect for me.
21. Have a program that tell of all the opportunitys related to the 4-h world that are available to them. The 4-H program is not a club or organization it is a way of life that needs to be keep running. I <3 4-H
22. The 4-H program has taught me so many valuable lessons. I believe 4-H is doing a fantastic job at preparing kids for their future.
23. I can learn different skills in the various projects that can help me prepare fo rhte profession I intend to pursue.
24. Offer a questionare that will use a 4-Her's answers to guide them towards careers that will fit their interests.
25. More oppurtunities to speak with experts, more tours at colleges
26. Nothing
27. Offer more programs
28. Open up to more fields of study
29. Develop more interest and competitions for intellectual projects and not just animal projects
30. Have a work force day for 4-H members to talk to with speakers/interactions with careers all over the board. Using manual laborers, technologists, as well as physicians.
31. I would like to have more activities in the Wildlife and Fisheries in my county.
32. I learned so much from the 4-H program, including career options, and enjoyed getting to learn about those possibilities and fields. However, my interests lined up with a career choice outside of my 4-H experiences. I am grateful 4-H provided me with the experiences and information it did. 4-H could better inform members of the career fields related to 4-H projects as well as the colleges that offer those programs, other than the colleges that host State Roundup.
33. There is nothing I can think of that can more effectively help me prepare for a career.
34. Develop a short internship program for Senior level 4-H members.
35. I think 4-H is already doing a great job.
36. I learned what I want to study in college and pursue as a career largely through my 4-H project experiences. However, I do think that more emphasis should be placed on exactly what types of career options are available to people involved in any given project. That said, we should also emphasize that skills like public speaking and cooking are helpful in all career choices.
37. Have more projects and programs in my area of interest
38. Offer workshops with speakers and different career options
39. Continue to offer wide variety of options for us to explore. I REALLY enjoyed MASH Camp last year. I sincerely hope that (1) I can go again this summer and (2) there are different things offered during the camp than last year so I can see more of the medical field that are available for career choices.

40. Leadership and development
41. Knowing h
42. Program curriculum could emphasize what career opportunities are available for project areas more. For instance, Food and Nutrition curriculum might include a list of job opportunities that are open to professionals in the food and nutrition field. 4-H could also start a Career Readiness project that could give specific instructions on how to prepare for a career.
43. Well I held office which helped with my confidence and speaking skills. Also I do a lot of community service which helps with my interaction with other people and people for different backgrounds.
44. I think 4-H has done a great job of helping choose a prepare for a career because 4-H is diversified and you can look at and try so many different things.
45. The dissemination of information at the local level is minimal. New families and members need to get the information that club managers receive in order to make educated decisions on where they want to go in 4-H. Finances are a major set back in attending district, state and national events.
46. More career planning clinics
47. A clinic that would allow me to have a little more hands on for equine therapy.
48. The 4-H program is there as a resource and I will look to it when I need to narrow down my choices. Recrodbook competitions assist me in documenting and thinking about career choices.
49. Living in a very small town it is very hard to know about lots of opportunities that are out there. It would be good to have info about what is available outside of our little area.
50. It exposes me to lots of different options
51. Engineering activities
52. Provide me with information on how to get the prerequisites I need.
53. Not sure. I think we each have our own responsibility to work towards a goal.
54. Have more communication style events to help people like me further reach their goals.
55. Provide opportunitys to visit my field of interest
56. Sadly I have not been able to attend MASH camp because it has been in conflict with a different 4-H camp that was mandatory for myself but that seems like a good camp that I really wish I could have attended this summer and last summer! I think camps like that that are specifically related to career choices is best becuase there are so many jobs out there and it is getting more and more difficult to choose one because we are exposed to so many as teenagers.
57. I think 4-H does an amazing job preparing you for your future. Growing up in this program has been amazing. My only problem is that I can't decide on a specific career
58. College prep days and seminars / college trips / career days
59. 4-H does an excellent job of preparing students to make career choices by providing so many different project groups in which they can be involved. It also effectively teaches valuable life skills. I do believe that although promoting team

building and teamwork is very important, and 4-H does a wonderful job of that, learning to do things on your own is equally important. I was heavily involved in the Food Show competition, and it was from this that I learned most of what I know about nutrition, cooking, the food industry, and career opportunities in that industry. However, the Food Show is rapidly being replaced by the Food Challenge, and I think this is a mistake. Both are important, because both develop different skills. I offer this as an example of something 4-H should keep. Don't take away or water down contests and opportunities like the Food Show, because they truly teach LOTS of valuable knowledge and can be more influential in preparing one for a career choice than other contests and opportunities.

60. Inform school advisors of the opportunities in career choice, small school do not have the best advisors or advisors with knowledge of other opportunities
61. Do more projects in wildlife area.
62. The 4h program has done absolutely everything right. They are very helpful and supportive about everything. I think that at this point I am too worried about what other people think, and it is something that I am going to have to figure out on my own.
63. 4-H offers many opportunities to serve in the community and I believe this is part of the ground work for being in the ministry.
64. Have better communication
65. More wildlife, outdoor type programs and information.
66. Career camp or an opportunity to meet professionals in fields you are interested in.
67. See that I have taken the time and made the effort to be involved to the highest level and help me obtain scholarships through the 4-H program for college
68. Give more choices on careers and give information on them.
69. Do projects that have to do with a variety of careers.
70. Offer more scholarships.
71. Maybe at State or District Round Up have a career booth that shows what agricultural careers there are in the field of agricultural. With so much changing over the last 50 years in the agricultural field.
72. Not make me take these surveys.
73. Relevance to Modern Day Careers, Qualified Judges in Competitions, Leadership training from qualified leaders not college kids, Relevant leadership training activities at leadership labs, relevant training for leaders and agents, holding food related competitions in hygienic conditions i.e. not in barns with animal waste on floor,
74. Just more information. Or someone to sit down with and discuss possible career options!
75. I don't think it is a problem with the 4-H or school or parents. I just don't like to make decisions. I rather be told what I need to do then I can do it. I don't even like picking what I want to eat at a restaurant or picking clothing to buy. I am unable to tell my parents what I want for Christmas, so picking a major or a career is impossible.

76. Continue to have more projects around computer technology
77. More hands-on community service projects in the local area and expand the communication project.
78. The 4H program did a lot to help me prepare for my career choice.
79. We have great programs at our extension office that helps out. And I have close relations with local vets.
80. Program choices are very limited if you don't plan for a career in agriculture or ranching.
81. I thing the 4-H program is doing what is needed to prepare youth for career choices.
82. As we meet people along the way whether it is at a contest or a major show it would be neat that at state 4-H contest or at district round-up there would be a career fair or career informational booth of what fields that are out there.
83. Our leaders are great!
84. Easy access to plenty of community service and trainings in many aspects of leadership
85. Host many representatives from many different careers as possible…on a county level.
86. Allow more technology like dealing with web design/photoshop or even the basic things like PowerPoint & Excel
87. Get more programs like MASH Camp for other areas
88. Have more animal programs other than just stockshows