MCCOLLUM, SHANNON BELLAMY. Youth Life Skills Development for 21st Century Workforce Preparedness. (Under the direction of Dr. Jim Flowers).

Youth preparedness for the workforce is an important part of future 4-H programming efforts. Identifying those skills that will help young people succeed in society as they enter the workforce is important.

Life skills are those abilities individuals can learn that help them to become successful in living a productive life. This study examined those life skills identified on the Targeting Life Skills Model, which was developed by Pat Hendricks from Iowa State University. Responses were tabulated for five of the thirteen members of the National 4-H Board of Trustees who participated in the study. Using these responses, the most important life skills under each category of life skills were identified as well as those life skills that were seen a deficient in the workplace of the respondents. Research participants numerically ranked the value they placed on the identified life skills within each category. They also identified life skills that they deemed deficient in their current employees within the business and industries they work. The information collected will be used to help identify life skills that will be necessary for those 4-H’ers entering the workforce.

Research Question 1 - To determine the most important life skills for workforce preparedness, as perceived by business and industry leaders using those life skills identified in the Targeting Life Skills model, which was adapted for 4-H.

Based on the feedback from the sample of business and industry leaders from the National 4-H Board of Trustees, it can be concluded that critical thinking, resilience, planning/organizing, communications, empathy, leadership, self-motivation, healthy life-
style choices and character are the most important life skills for youth to have to become prepared for the workforce.

Research Question 2. To determine perceptions of business and industry leaders of which life skills from the Targeting Life Skills Model are more deficient among recently hired employees.

Based on the feedback from the sample of business and industry leaders from the National 4-H Board of Trustees, it can be concluded that critical thinking, resilience, planning/organizing, conflict resolution, empathy, sharing, responsibility, self-motivation, stress-management, and self-responsibility are skills that are deficient among recently hired employees.
Youth Life Skill Development For 21st Century Workforce Preparedness

by
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APPROVED BY:

Dr. Jim Flowers, Chair of Committee
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Dr. Thearon McKinney
Dr. Marshall Stewart
DEDICATION

I have been fortunate to have the love and support from my family, co-workers and friends during the pursuit of this degree. This degree is dedicated to the memory of my grandmother Estelle Wayne Bellamy. She was a true leader in education during her lifetime. She made it possible for me to have an education that would allow me to pursue my career goals. She believed in education and wanted her grandchildren to have that opportunity. So Mema – this one is for you! Thank you for making it possible and for showing me that you can do anything you put your mind to. Thank you for believing in me!
BIOGRAPHY

Shannon Bellamy McCollum was born on March 4, 1967 and is a native of Enfield, NC, located in Halifax County, which is in eastern North Carolina. She is the daughter of Phes and Rose Bellamy and Linda Gregory.

She graduated from Enfield Academy (1985) and received a BS Degree (1990) from East Carolina University majoring in Child Development & Family Relations with a double concentration of Special Needs and Clothing & Textiles. She received her Masters Degree in 1999 from NC State University in Agricultural and Extension Education.

Shannon began her career in 1990 as a 4-H Agent in rural Halifax County, North Carolina. In 1996 she joined the Department of 4-H Youth Development at NC State University as an Extension 4-H Assistant working with Awards and Teen Programs. She was promoted to Extension 4-H Associate in 1999 upon the completion of her Master’s Degree. She applied and was accepted into the doctoral program in Agricultural and Extension Education at North Carolina State University.

In her current role as Extension 4-H Associate, she has overall responsibility for the 4-H Teen Leadership Program, the 4-H Awards and Incentives Program, 4-H Club Program, International Leadership Program and Staff Development. Through her efforts, youth and adults will continue to develop, improve, and apply leadership, citizenship and communications skills to improve their own lives, their local communities and the state of North Carolina.

Her appointment with the North Carolina 4-H Youth Development is 100% Extension based. She has worked with NC State and Cooperative Extension since June 1, 1990.
ACKNOWLEDGMENTS

“A hundred years from now it will not matter what my bank account was, the sort of house I lived in, or the kind of car I drove… but the world may be different because I was important in the life of a child” ("Hundred Years" n.d.). This quote is something that I have lived by every day of my life. My goal in life it to make sure that those that I come in contact with has those skills and abilities to succeed in life. This goal is not possible without the help of many people. I would like to express my appreciation and gratefulness to all of those people who have been a part of this journey.

My family means everything to me. They have been so supportive during this journey and when I say journey – I mean long journey. Scott McCollum, my wonderful loving best friend and husband whom I met through North Carolina 4-H. He has been with me through this entire journey. He is a true supporter and will be so glad when this dissertation is written. Logan, my handsome son who has shown me what it is to have unconditional love. Logan you are going to do great things in life and I have no doubt you will be great at whatever it is. I love you both!

My parents Phes and Rose Bellamy and Linda Gregory whose commitm ent and love have provided me with the opportunity of a lifetime full of happiness. My Dad and Rose have always loved me for who I was and always encouraged me to continue my education. I have a special bond with my niece and nephew – Ashley and Brad Bellamy. Ashley and Brad are like my own children except that I did not give birth to them. They deserve a special thank you for “allowing” me to move to Raleigh and follow my dreams.
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We have the best 4-H program team there is and I am very fortunate to work with great co-workers. Two who I would like to say thank you to. Sarah Kotzian – you have been
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CHAPTER 1

Introduction

Research Problem Description

Youth preparedness for the workforce is a major concern in the United States. The nation’s new workforce is “woefully ill-prepared for the demands of today’s and tomorrow’s workplace” according to a study conducted by The Conference Board, Corporate Voices for Working Families, and the Society for Human Resources Management (as cited by Casner-Lotto, p. 1, 2006).

In the Learning for 21st Century: A Report and Mile Guide for 21st Century Skills, Senge wrote,

A simple question to ask is, how has the world of a child changed in the last 150 years? And the answer is, ‘It’s hard to imagine any way in which it hasn’t changed.’ Children know more about what’s going on in the world today than their teachers, often because of the media environment they grow up in. They’re immersed in a media environment of all kinds of stuff that was unheard of 150 years ago, and yet if you look at school today versus 100 years ago, they are more similar than dissimilar. (as cited in Partnership for 21st Century Skills, 2003, p. 6)

There is widespread concern that youth lack the skills necessary for job success and are unprepared entering the workplace. Skills required for youth to succeed in the workplace have changed radically, but research has shown the skills emphasized in schools have not changed at the same pace (Levy & Murnane, 2006; Murnane & Levy, 1996; Partnership for 21st Century Skills, 2003; Secretary’s Commission on Achieving Necessary Skills (SCANS,
1991). This same report, the authors indicated that the job skills that most employees learn today would be obsolete within three to five years.

The skill gap is significant between new entrants into the workforce and the skills they needed. Two reports over the past 15 years (1991 and 2006) have documented a skills gap. The report *Are They Ready To Work?* addressed the issue of skills gap. Their survey results indicated young people were inadequately prepared to be successful in the workplace. Over-half of new high school entrants were deficiently prepared in the most important skills they needed for workforce preparedness. According to the Partnership for 21st Century Skills, (2003), this concern is highlighted in the results from a nationwide poll of registered voters. The poll revealed, “Americans are deeply concerned that the United States is not preparing young people with the skills that they need to compete in a global economy” (p. 1).

The apparent concern sparked the Department of Labor to action. The Secretary of Labor’s Commission on Achieving Necessary Skills (SCANS) identified what skills would prepare youth to participate in the modern workplace. Skill levels for entry-level jobs were also identified.

There is a profound gap between knowledge and skills taught in school curricula and the applied skills that are needed to prepare youth for competitiveness in the 21st Century workforce. According to The Workforce Readiness Report Card, new entrants with a high school diploma do not make the grade (McLester and McIntire, 2006). In fact, over half of the new workforce entrants with only a high school education were inadequately prepared in all ten of the skills that employers rated critical. These skills are identified in Table 1.
### Table 1

Percent of High School Students Deficient in Employable Skills

<table>
<thead>
<tr>
<th>Deficiency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communications</td>
<td>80.9</td>
</tr>
<tr>
<td>Professionalism/Work Ethic</td>
<td>70.3</td>
</tr>
<tr>
<td>Critical Thinking/Problem Solving</td>
<td>69.6</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>52.7</td>
</tr>
<tr>
<td>Ethics/Social Responsibility</td>
<td>44.1</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>38.4</td>
</tr>
<tr>
<td>Teamwork/Collaboration</td>
<td>34.6</td>
</tr>
<tr>
<td>Diversity</td>
<td>27.9</td>
</tr>
<tr>
<td>Information Technology Application</td>
<td>21.5</td>
</tr>
<tr>
<td>English Language</td>
<td>21.0</td>
</tr>
</tbody>
</table>


According to McLester and McIntire, college graduates remained ‘adequate rather than excellent’ in many key skill areas. Regardless of the education level, significant deficiencies were found especially in the areas of written and oral communications, general workplace professionalism, and leadership abilities. High school graduates were deficient in both basic skills and applied skills. Basic skills included writing, mathematics, and reading. Applied skills included critical thinking, work ethic, diversity, and teamwork.
The Junior Achievement Innovation Initiative identified the lack of life skills and professionalism as major concerns for the more than one thousand employers and employees surveyed by the Gallup organization. The lack of life skills included self-motivation, communication, and social skills. Interestingly, when employers were given a choice between having the best technical skills or the ability to work well with others, the ability to work well with others ‘trumps’ best technical skills (The Entrepreneurial Workforce, 2008). The majority of employers also indicated the new workforce must become entrepreneurial in order to be competitive in the global market.

Alan Greenspan, Federal Reserve Board Chairman (as cited in, The Partnership for Learning for 21st Skills, 2003), stated that technical know-how was not enough for success in the workplace. He noted that technical skills must be coupled with “the ability to create, analyze and transform information and to interact effectively with others” (p. 6).

In 1990, the Secretary of Labor appointed a commission to determine the workplace skills high school graduates need to master to succeed in the world of work. As a result of the findings of the Commission, Elizabeth Dole, then secretary of the Department of Labor, established the Secretary’s Commission Achieving Necessary Skills (SCANS). SCANS determined that workplace skills consisted of foundation skills and competencies. Foundation skills, academic and behavioral characteristics were used to build competencies. Foundation skills were categorized into three domains: basic skills, thinking skills, and personal qualities. Competencies included five domains: resources, interpersonal skills, information skills, systems skills, and technology utilization skills. SCANS also studied how proficient workers needed to be in foundation skills and competencies. Martin (1991), stated
that “in today’s economy, we must do more than educate students about reading, writing, and arithmetic” (p. 5). According to William E. Brock, the chair of SCANS, the end result “must include the publication of necessary functional and enabling skills which society must provide for every child in this country by the age of 16” (p.5). Although the Labor

The Partnership for 21st Century Skills, suggested that educational core subject mastery must be complemented by four other significant components: thinking and learning skills, information and communication technology literacy, life skills, and twenty-first century content. According to the partnership, these skills and subjects are not adequately being addressed today in the educational system (Partnership for 21st Century Skills, 2003).

For youth to be successful and prepared for the 21st century workforce youth must be involved in activities that are in and out of school. Those activities could include participating in other youth serving organizations such as 4-H, FFA, Scouts, YMCA, or church youth groups. 4-H is one organization that youth can participate in to teach life skill development. 4-H is the largest informal youth development organization in the nation. More than 6 million youth are participating in 4-H urban communities, suburban schoolyards and rural farm communities. According to National 4-H Council, 4-H members stand out among their peers, building opportunities and implementing community-wide change (National 4-H Council, 2003).

4-H is the youth development program for the 109 land-grant universities and the Cooperative Extension System. 4-H fosters a “learn by doing” approach with proven results (National 4-H Council, 2003). The 4-H Study of Positive Youth Development shows that youth engaged in 4-H programs are:
• Nearly two times more likely to get better grades in school;
• Nearly two times more likely to plan to go to college;
• 41 percent less likely to engage in risky behaviors; and
• 25 percent more likely to positively contribute to their families and communities. (National 4-H Council, 2013).

One of the most pressing issues facing youth-serving organizations, such as 4-H, is how to best support youth in becoming productive, contributing individuals of society. Leffert, Saito, Blyth, and Kroenke (1996) found the experiences young people have during early adolescence provide the foundation on which they develop their personalities and life skills. 4-H has the opportunity to significantly influence the development of young people. The importance of reaching these youth is documented by Ladewig and Thomas (1987), which indicated that life skills and attitudes formed during 4-H carry into adulthood. Thus, 4-H can help bridge the gap, offering youth experiential opportunities for application of knowledge and strengthening applied skills necessary to be successful in today’s workforce.

Workforce Preparation Defined

The terms workforce preparedness, readiness, development, preparations are terms used synonymously. A review of current literature will define these terms, state why workforce preparedness is critical for the 21st century workplace, identify skills needed for workforce preparedness, and the relationship of these skills to 4-H life development and the 4-H Targeting Life Skills model.

According to Ferrari (2003), workforce preparation is a method to introduce youth to the world of work and develop workforce skills necessary for success through active

The National Governor’s Association defined workforce development as the education, employment, and job-training efforts designed to help employers to get a skilled workforce and individuals to succeed in the workplace (Grubb, 1999). Grubb (1999) agreed but added that workforce development provides individuals with preparation necessary for employment, including technical, basic, and academic competencies.

Jacobs (2002) defined workforce development as a coordinated effort of school, company, and governmental policies and programs, collectively, enabling individual opportunity to realize a sustainable livelihood and organizations to achieve exemplary goals, consistent with the history, culture, and goals of the societal context. Furthermore, Jacobs (2002) concluded that workforce development comes to focus on four societal issues:

- How schools and agencies prepare individuals to enter or re-enter the workforce;
- How organizations provide learning opportunities to improve workforce performance;
- How organizations respond to changes that affect workforce effectiveness; and
- How individuals to undergo life transitions related to workforce participation (p. 13).
Jacob proposed workforce development should seek to bridge the individual, organizational, and societal interests, in ways that benefit each other.

Lippman and Keith (2009) defined workplace readiness as the competencies necessary for a person to become a valued and skilled employee in the areas of social, cognitive, and psychological development. These authors concluded that current criteria by business and government leaders for employability tend to emphasize general behaviors, skills, and competencies.

The National 4-H Council (1993) defined workforce development as a network of programs designed to help youth explore career opportunities, acquire applied skills, and gain experience in the workforce. This definition is flexible, inclusive of all age groups within the 4-H parameters, which consists of 5 – 19 year olds, and is focused on non-formal educational opportunities. In reviewing all of the definitions of workforce development, this is the one the researcher has deemed appropriate for the purpose of this study.

**Targeting Life Skills Model**

The Targeting Life Skills Model was developed by Pat Hendricks (1998) from Iowa State University in 1998 as a tool the help youth development professional provide opportunities for life skill development that would carry them into adulthood. The concept behind the model uses the 4-H clover categories: Head, Heart, Hands and Health. Under each component of the 4-H Clover, categories of life skills are identified and are placed under each of the categories. The intended use of the model is to help youth development professionals develop age appropriate programs that guide a young person to develop those life skills as they participate in the 4-H program during their 4-H career.
**Purpose of the Study**

The purpose of this study is to determine the life skills as identified in the Targeting Life Skills model that business and industry leaders believe are most important for 21st Century workforce preparedness. A secondary purpose of the study was to identify life skills business and industry leaders perceived to be deficient in the new workforce today.

**Research Objectives**

1. To determine the most important life skills for workforce preparedness, as perceived by business and industry leaders using those life skills identified in the Targeting Life Skills model, which was adapted for 4-H.
2. To determine perceptions of business and industry leaders of which life skills from the Targeting Life Skills Model are more deficient among recently hired employees.

**Definitions of Terms**

**Applied skills** – critical thinking/problem solving, oral communication, written communications, teamwork/collaboration, diversity, information technology application, leadership, creativity/innovation, lifelong learning/self direction, professionalism/work ethic, ethics/social responsibility

**Basic knowledge/skills** – English language (spoken), reading comprehension (in English), writing in English (grammar, spelling), mathematics, science, government/economics, humanities/arts, foreign languages, history/geography

**Technical skills** – cognitive skills and basic credentials specific to job occupation

**Entrepreneurial skills** – taking the initiative and assuming risk to create value for the company or business
**Foundation skills** – basic skills (reading, writing, speaking, listening, and knowing arithmetic and mathematical concepts)

**Life skill** – abilities one can learn in order to help them become successful in living a productive life

**Assumptions of the Study**

The survey respondent will give honest rankings of the most important life skills for workforce readiness from the Targeting Life Skills model.

The survey respondents will understand the definition of the identified life skills.

**Limitations of the Study**

One limitation of the study was the number of business and industry leaders who responded to the study. The researcher requested the Chief Executive Officer of the National 4-H Board of Trustees to send the questionnaire to the Board members. At the direction of the CEO, the Chief of Staff sent the questionnaire email to the members of the Board who were accessible at the time the study was being conducted. The selected group was chosen because the Board of Trustees was participating in three other studies at the time this was one submitted. The CEO did not want to overload the Board with three different surveys at the same time, so the three surveys were randomly divided among the Board members. Another limiting factor was that the Chief of Staff might not have understood the importance of having business and industry leaders participate in the study. Ideally, the questionnaire would have been sent to all business and industry members of the National 4-H Board of Trustees but excluding the agents and students who are on the Board. Therefore the results of this study are limited to those who responded to the survey.
Summary

Today’s education system faces irrelevance unless the gap between how students live and learn is bridged. A profound gap exists between the knowledge and skills most youth learn in school and the knowledge and skills that will be needed in the 21st century workplace.

Research has shown applied skills are just as critical to workforce preparedness as traditional basic skill development. Applied skills are those life skills such as communications, conflict resolution, leadership and self-motivation. Basic skills are those that are taught in school such as math, English, and writing. Research identified foundation skills and subsequent competencies reiterating traditional basic skills and applied skills. 4-H is one informal community-based youth organization that teaches life skill development. This study will help guide and direct future programming efforts for 4-H nationally as it relates to preparing youth for the workforce in the 21st Century.
CHAPTER II
Theoretical Framework and Review of Related Research

Theoretical and Conceptual Framework

Targeting Life Skills Model (TLS) encompasses the Positive Youth Development Model also knows as the Assets Model and the Ecological Model to identify concrete competencies and skills youth must acquire to be successful in the real world. The TLS model focuses on a process that youth development practitioners use to influence positive youth growth through practice of needed skills. The purpose of the TLS model is to simplify coordination of life skill development with ages and stages to ensure developmentally appropriate learning and identified outcome.

The Ecological Model by Bronfenbrenner (1979), focused on the environment and how it affects human development. Interactions with others and the environment are the key to this model. The model identifies the four different environmental systems. The first environmental system is the Microsystem. The microsystem is the immediate interaction between the individual and the environment. The Mesosystem is the interrelationships among two or more settings in which the person actively participates. The Exosystem is the setting in which the individual is not actively involved currently but it still affects the individual. The Macrosystem is the belief system where relationships involving the culture, religious influences in addition to economics and political systems. The Chronosystem is described as the patterning of environmental events and transitions over the course of life. The Micro is the face-to-face interactions with family and peers. The Mesosystem is the relationships between parents and school (Gauvain & Cole, 2005 p. 3-7).
In the Ecological Model, each component interacts with other components. This interaction creates a highly complex context in the life of a child. The child is not a passive recipient; the child is at the center of the model, interacting directly with the people in the microsystems. Interaction between the child and people go both ways. As people affect the child, the child has an influence on the people. As the child affects the people, the people have influences on the child. It is a fluid model and nothing remains static. As a result, the child, systems and the environments are changing constantly due to the influences from the environment. These are factors both inside and outside the child’s immediate environment that influences the experiences the child has. Those factors could include the media, politics, neighbors, family, school, church, and peers. Those experiences are those life skills that youth learn daily.

Early experiences in childhood help shape the child’s development in later years. It is important for extension professionals to understand the Ecological Model is important to developing those skills in young people that will enable them to have the necessary tools to be employable after graduation and as they enter the workforce.

The conceptual framework for this study is based on the Targeting Life Skills model. Targeting Life Skills (TLS) is based on the Search Institute’s Positive Youth Development Model and the Ecological Model. The National 4-H Council (1993) defined workforce development as a network of programs designed to help youth explore career opportunities, acquire applied skills, and gain experience in the workforce. This definition is flexible, inclusive of all age groups within the 4-H parameters, which consists of 5 – 19 year olds, and is focused on non-formal educational opportunities.
Figure 1.
Youth Development Conceptual Framework: Meeting Needs and Building Competencies. This figure illustrates the Positive Youth Development Model used in 4-H Nationally. Figure is in the public domain. Adapted from Cathann Kress (1999).
Positive Youth Development (PYD) as identified by the Search Institute (2006), is a strength-based model in contrast to models that focus almost exclusively on negative factors (p.1). See Figure 1. The Positive youth development model focuses on a young person’s strengths, skills and possibilities. William Damon of Stanford University explains that this model is a strength-based approach to define and understand how children influence and is influenced by their contexts over time (Benson, Scales, Hamilton and Sesma, 2006 p. 1). The model focuses on the community as an incubator for positive youth development. The five core constructs of the PYD include: developmental context, the nature of the child, the child’s developmental strengths, the reduction of high risk behaviors and the promotion of thriving.

Developmental context is identified as the places, settings, ecologies and those relationships that are within the community that surround a young person. Those developmental contexts help to generate support, opportunities and resources for a young person. The capacity for the child to grow, thrive and engage activity with supportive constructs is defined as the nature of the child. Another important part of the core constructs is the child’s developmental strengths, which include attributes such as skills, competencies, values and dispositions, are important for engaging successfully in the world. Two other important parts of these constructs include the reduction of high-risk behaviors and the promoting of thriving. If a young person is engaged in positive youth development those high risk behaviors would hopefully be minimal to non existent, which will in turn allow the young person to thrive (Benson, Scales, Hamilton and Sesma, 2006). These five core
theoretical ideas are the basis for seven hypotheses that establish the Positive Youth Development. The seven hypothesis as identified by the Search Institute are noted below:

**Hypothesis 1:** Changes in contexts change young people, and we can intentionally change young people’s context(s) to enhance their development success.

The Social Development Research Group identified 15 objectives that all programs need to build developmental nutrients. Those 15 objectives include: promote bonding; foster resilience; promote social competence, cognitive competence, behavioral competence, moral competence; foster self-determination; foster spirituality; self-efficacy; clear and positive identity; belief in the future; provide recognition for positive behavior; provide opportunities for prosocial involvement’ and foster prosocial norms. (p. 3).

**Hypothesis 2:** When youth themselves take action to improve their contexts, their efforts are empowering and also improve the contexts for themselves and their peers.

**Hypothesis 3:** Both the person and the context matter.

**Hypothesis 4:** Increasing the number of developmental nutrients across settings is what matters most, not increasing specific strengths or combinations of strengths in any single setting.

**Hypothesis 5:** Building developmental nutrients can have an impact at the time of intervention as well as later in life.

**Hypothesis 6:** Community-wide efforts to build developmental nutrients are as important as those on the organization, family, and individual levels.
**Hypothesis 7:** Community-level interventions to build developmental supports and opportunities will benefit all or almost all youth (p. 2-10).

According to Positive Youth Development researchers and practitioners, there is a continuing need for more standardized measures of core youth development outcome (Benson, Scales, Hamilton and Sesma, 2006 p. 2-10).

Youth development programs based around life skill development support that programs should focus on each young person as an individual; should support a sense of belonging; should build responsibility within a young person, and should support youth as resources. Life skills are abilities youth can learn to be more productive in life. The Targeting Life Skills model categories of life skills are divided on the basis of the four H’s from the 4-H Clover that represent Head, Heart, Hands, and Health. Table 2 shows a representation of how the life skills are divided.

**Table 2**

*Life Skills Categories with the 4-H Clover*

<table>
<thead>
<tr>
<th>4-H Clover</th>
<th>Categories of Life Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head</td>
<td>Thinking, Managing</td>
</tr>
<tr>
<td>Heart</td>
<td>Relating, Caring</td>
</tr>
<tr>
<td>Hands</td>
<td>Working, Giving</td>
</tr>
<tr>
<td>Health</td>
<td>Being, Living</td>
</tr>
</tbody>
</table>

*Note.* Adapted from *Developing Youth Curriculum Using the Targeting Life Skills Model Incorporating Developmentally Appropriate Learning Opportunities to Assess Impact of Life Skill Development*, p. 4, by Hendricks 1998.
Figure 2.

Hendricks developed The Targeting Life Skills Model to be inclusive for all of the life skills. The life skills are generic and the model allows the youth development staff to develop curriculum that will incorporate any specific skill that youth development programmers are trying to teach. The purpose of the model is to provide a way to simplify
coordination of life skill development with any age or stage that a young person may be in. Developmentally appropriate practices are a major part of curriculum development when using this model (p. 4).

The model identifies eight categories and life skills:

*Table 3*

**HEAD**

*Managing and Thinking Life Skills Category with each life skill identified under each Category*

<table>
<thead>
<tr>
<th>HEAD</th>
<th>Managing</th>
<th>Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Resiliency</td>
<td>Service Learning</td>
</tr>
<tr>
<td></td>
<td>Keeping Records</td>
<td>Critical Thinking</td>
</tr>
<tr>
<td></td>
<td>Wise Use of Resources</td>
<td>Problem Solving</td>
</tr>
<tr>
<td></td>
<td>Planning/Organizing</td>
<td>Decision Making</td>
</tr>
<tr>
<td></td>
<td>Goal Setting</td>
<td>Learning to Learn</td>
</tr>
</tbody>
</table>
Table 4

**HEART**

Relating and Caring Life Skills Category with each life skill identified under each Category

<table>
<thead>
<tr>
<th>Heart</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relating</strong></td>
<td><strong>Caring</strong></td>
</tr>
<tr>
<td>Accepting Differences</td>
<td>Nurturing Relationships</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>Sharing</td>
</tr>
<tr>
<td>Social Skills</td>
<td>Empathy</td>
</tr>
<tr>
<td>Cooperation</td>
<td>Concern for Others</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
</tbody>
</table>

Table 5

**HANDS**

Giving and Working Life Skills Category with each life skill identified under each Category

<table>
<thead>
<tr>
<th>Hands</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Giving</strong></td>
<td><strong>Working</strong></td>
</tr>
<tr>
<td>Community Service Volunteering</td>
<td>Marketable Skills</td>
</tr>
<tr>
<td>Leadership</td>
<td>Teamwork</td>
</tr>
<tr>
<td>Responsible Citizenship</td>
<td>Self-motivation</td>
</tr>
<tr>
<td>Contributions to Group Effort</td>
<td></td>
</tr>
</tbody>
</table>
Table 6

HEALTH

Living and Being Life Skills Category with each life skill identified under each Category

<table>
<thead>
<tr>
<th>Health</th>
<th>Living</th>
<th>Being</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Safety</td>
<td>Self-discipline</td>
<td></td>
</tr>
<tr>
<td>Disease Prevention</td>
<td>Managing Feelings</td>
<td></td>
</tr>
<tr>
<td>Stress Management</td>
<td>Character</td>
<td></td>
</tr>
<tr>
<td>Healthy Lifestyle Choices</td>
<td>Self Responsibility</td>
<td></td>
</tr>
</tbody>
</table>

The Targeting Life Skills Model identified competencies to ensure children function well in their environment. The description of the model implicates that these competencies and skills are learned in sequential steps related to their age and developmental stage. Specific skills are acquired through learning by doing activities and use of the experiential learning model. The life skills within the model have been specifically identified or inference implied to workforce preparation.

Introduction to the Review of Research

A review of literature was conducted to identify life skills that are needed to be successful once a young person enters the workforce. These address those skills that are
needed a review was conducted that focuses on 3 main areas: 1) skills for workforce preparedness, 2) developing life skills in youth, and 3) connecting life skills development to 4-H Youth Development.

**Skills for Workforce Preparedness**

Researchers have identified an array of life skills for youth to be successful in the world of work. According to Farrari workforce skills must build on early foundations on knowledge, skills, attitudes and experiences (2003). The Partnership for 21st Century Skills identified 21st century skills for education. As shown in Table 7, the four significant components of the learning system are identified (p. 3).

*Table 7*

**21st Century Skill Components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Identified Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinking &amp; learning skills</td>
<td>Critical thinking and problem solving, creativity and innovation, communication, and collaboration skills.</td>
</tr>
<tr>
<td>Information and communication technology literacy</td>
<td>The ability to accomplish thinking and learning skills through the use of technology</td>
</tr>
<tr>
<td>Life Skills</td>
<td>Leadership, ethics, personal productivity, self-directed learning</td>
</tr>
<tr>
<td>Twenty-first century content</td>
<td>Global awareness and business fundamentals and economic literacy</td>
</tr>
</tbody>
</table>

Note. These skills were identified by not only educational leaders, but also national business leaders, as being critical for 21st century work preparedness.
The study conducted by The Conference Board, Corporate Voices for Working Families, and the Society for Human Resources Management (as cited in The Are They Really Ready to Work? Casner-Lotto, 2006), verified assumptions about what to expect from the upcoming workforce. The findings showed that employers placed much greater value on the applied skills of leadership, critical thinking, and problem solving than on the more traditional basic skills including reading comprehension and mathematics. The basic skills were still fundamental to preparedness for the workplace, but employers were seeking a balance of the basic and applied skills. The four organizations, as noted earlier, surveyed over 400 employers across the United States to determine critical skill sets for workforce readiness focused on recently hired graduates from high school, two-year colleges, and four-year colleges. According to McLester and McLintire (2006) the following were the skills identified as critical to success in the 21st century workforce:

1. A combination of basic knowledge and applied skills, with applied skills trumping basics are in the top five most important for any level of education.;

2. Professionalism/work ethic, teamwork, coloration, and oral communications are rated the three most important applied skills;

3. Knowledge of foreign languages, an area that will increase in importance in the next five years, more than any other basic skills; and

4. Creativity/innovation, which is projected to increase in importance for future workforce entrants (p.1).

McLester and McLintire (2006), identified critical skills for today and tomorrow for workforce. Businesses rated the following as (must have) for new workplace entrants.
1. A combination of basic knowledge and applied skills, with applied skills trumping basics as in the top five most important for any level of education.

2. Professionalism/work ethics, teamwork/collaboration, and oral communications, which are rated the three most important applied skills.

3. Knowledge of foreign languages, an area that will increase in important in the next five years, more than any other basic skills;

4. And creativity/innovation, which is projected to increase in importance for future workforce entrants (p. 1).

Employers’ placed greater value on the applied skills of leadership, critical thinking and problem solving. Reading comprehensive and mathematics the more traditional basic skills were not valued as highly as the applied ones. This does not suggest that employers do not value the basic skills, however a more balance of basic and applied skills are needed. This study further addresses communication issues, workplace professionalism and global awareness. Klein (as cited in McLester and McIntyre, 2006), a former executive with the Marriott Corp. stated, “it’s just so hard today to find entry-level people who can communicate effectively” (para. 14). Curson (as cited in McLester and McIntyre, 2006), a veteran high-tech executive and CFO and cofounder of the San Francisco Bay Area’s Complete Genomics DNA Sequencing Company said, “they may have good ideas, but they are simply unable to express them, either in writing or orally” (para. 16). The study also indicated concerns about new hire’s lack of professionalism. Punctuality, courtesy, and manners are some of the qualities that are not prevalent in today’s generations like they were in the Baby Boomers. American employees no longer hold the global market with superior
education and technical expertise. Nations around the world have invested heavily in education and technology that pose a global barrier for the entering workforce. Lippman and Keith (2009) identified specific competencies and skills needed for workforce readiness. In summarizing the report, these competencies and comparing competencies that researchers have found are necessary to be ready for college, work and are needed to be successful as one transition to adulthood. These areas include social, cognitive and psychological development. Social development as defined by Lippman and Keith is a set of skills necessary to interact with people, to be generous and thoughtful and the use of social techniques. Specific social competencies found in workplace readiness research include the ability to communicate well with diverse groups and conflict resolution. Those specific competence skills are:

- The ability to interact with other people such as: resolving conflicts, cooperating; working together on a team; understanding and being tolerant of other people and cultures; and working with diverse populations.
- Choosing words precisely, being persuasive and listening
- Crafting effective written communications such as email, memos, reports
- The ability to speak a second language (p. 1).

Workplace readiness literature suggests that there is a less emphasis on good grades and achieving a high school diploma, which are normally seen as necessary for college readiness. Some employers are administering their own hiring test to determine the readiness
of students for a particular job rather than relying on their high school transcripts. Job specific skills and competencies include:

- Obtaining a workforce readiness credential, such as a certificate in a specific trade;
- Having previous internships or work experience;
- The quality of internship or work experience;
- The ability to use technology; and
- Critical thinking/problem solving skills (p. 2).

Good psychological development helps young people succeed at work. Those personal qualities identified in psychological development include..

- Positive self-esteem;
- Optimism and planfulness;
- Coping skills, resilience and flexibility;
- Good judgment;
- Self-management, such as motivation, autonomy, initiative, responsibility, time management, and
- Moral development, such as a strong work ethic, reliability, honesty, integrity, and professionalism (p. 2).

According to Robinson (2000), employability skills are those basic skills necessary for job success. They are more generic and are sometimes referred to as soft skills rather than job specific. Robinson categorized employability skills into 3 skill sets: a) basic
academic, b) higher-order thinking skills and c) personal qualities (p. 2). Table 8 gives a listing of the employability skills included within each skill set.

Table 8

Employable Skills

<table>
<thead>
<tr>
<th>Basic Academic Skills</th>
<th>Higher-Order Thinking Skills</th>
<th>Personal Qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Reading</td>
<td>- Learning</td>
<td>- Responsible</td>
</tr>
<tr>
<td>- Writing</td>
<td>- Reasoning</td>
<td>- Self Confidence</td>
</tr>
<tr>
<td>- Science</td>
<td>- Thinking</td>
<td>- Self Control</td>
</tr>
<tr>
<td>- Math</td>
<td>- Creatively</td>
<td>- Social skills</td>
</tr>
<tr>
<td>- Oral Communication</td>
<td>- Decision Making</td>
<td>- Honest</td>
</tr>
<tr>
<td>- Listening</td>
<td>- Problem Solving</td>
<td>- Have Integrity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Adaptable and Flexible</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Team spirit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Punctual and Efficient</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Self Directed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Good Work Attitude</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Well Groomed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Cooperative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Self Motivated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Self Management</td>
</tr>
</tbody>
</table>

Note. Table 8 gives a listing of the employable skills included within each skill set. Adapted from The Workplace: What Are Employable Skills?, p. 2, by Robinson, 2000.

The Entrepreneurial Workforce, Junior Achievement Innovative Initiative (2009) study identified a lack of life skills and professionalism as major concerns for companies. Unwillingness to learn new skills, lack of technical skills and the inability to learn new skills were the three other greatest limitations faced by youth entering the workforce. Self-
motivation was viewed as the most important skill for success in the workplace, followed by flexibility. Social and communication skills top off the three most important skills for success. The study also showed employers valued entrepreneurship and felt that it was very important to success in the workplace. The vast majority (96%) felt it was important for the American workforce to become more entrepreneurial to keep us competitive in the global market. Nearly half of the respondents believed the best place to learn entrepreneurship is in grades K-12.

Secretary’s Commission on Achieving Necessary Skills (SCANS) identified workplace skills high school graduates need to be successful in the workplace. Foundation skills are those academic and behavioral characteristics that are used to build competencies. Foundation skills fall into three domain.

- Basis skills – reading, writing, speaking, listening, and knowing arithmetic and mathematical concepts;
- Thinking skills – reasoning, making decisions, thinking creatively, solving problems, seeing things in the mind’s eye, and knowing how to learn; and
- Personal qualities – responsibility, self-esteem, sociability, self-management, integrity, and honest.

Competencies are identified as:

- Resources – identifying, organizing, planning, and allocating time, money, materials, and workers;
• Interpersonal skills – negotiating, exercising leadership, working with diversity, teaching other new skills, serving clients and customers, and participating as a team member;

• Information skills – using computers to process information and acquiring and evaluating, organizing and maintaining, and interpreting and communicating information;

• System skills – understanding systems, monitoring and correcting system performance, and improving and designing systems; and

• Technology utilization skills – selecting technology, applying technology to a task and maintaining and troubleshooting technology (as cited in What Work Requires of Schools: A SCANS Report for America 2000. The Secretary's Commission on Achieving Necessary Skills, a publication of the US Department of Labor, June 1991 p. xi).

A Casner-Lotto (2006) study identified employers’ perspectives on the basic and applied skills for the 21st century workforce. The participating organizations included: The Conference Board, Corporate Voices for Working Families, Partnerships for 21st Century Skills and the Society for Human Resource Management. The organizations surveyed over 400 employers across the United States to identify those basic and applied skills related to workforce readiness. The most important skills include: Professionalism/Work Ethic, Oral and Written Communications, Teamwork/Collaboration and Critical Thinking/Problem Solving. Their research showed that applied skills on all educational levels trump those basic knowledge skills. The basic knowledge/skills and applied skills are identified in Table 9.
### Table 9

**Basic & Applied Skills**

<table>
<thead>
<tr>
<th>Basic Knowledge/Skills</th>
<th>Applied Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language (spoken)</td>
<td>Critical Thinking/Problem Solving</td>
</tr>
<tr>
<td>Reading Comprehension (in English)</td>
<td>Oral Communications</td>
</tr>
<tr>
<td>Writing in English (grammar, spelling)</td>
<td>Written Communications</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Teamwork/Collaboration</td>
</tr>
<tr>
<td>Science</td>
<td>Diversity</td>
</tr>
<tr>
<td>Government/Economics</td>
<td>Information Technology Application</td>
</tr>
<tr>
<td>Humanities/Arts</td>
<td>Leadership</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>Lifelong Learning/Self Direction</td>
</tr>
<tr>
<td>History/Geography</td>
<td>Professionalism/Work Ethics</td>
</tr>
<tr>
<td></td>
<td>Ethics/Social Responsibility</td>
</tr>
</tbody>
</table>

Note. Table 9 identifies the basic and applied skills. *Adapted from (Casner-Lotto et al., 2006)*

Cochran and Ferrari (2008) worked with a group of Ohio State University Extension professional to conduct a review of literature to determine a framework of skills supporting the knowledge economy. This group identified six categories of skills that are needed in supporting the knowledge economy. Those categories included thinking skills, communication, teamwork and leadership, lifelong learning and self-direction, technology...
adaption and application, and professionalism and ethics. Table 10 identifies those skills for success in the knowledge economy.

**Table 10**

**Knowledge Economy Skills**

<table>
<thead>
<tr>
<th>Thinking Skills</th>
<th>Thinking skills include critical thinking, problem-solving, creativity, and innovation. Expert thinking skills involve the ability to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Evaluate relevance, assess accuracy, and use information to solve problems.</td>
</tr>
<tr>
<td></td>
<td>• Use creativity to generate new ideas and innovative solutions.</td>
</tr>
<tr>
<td></td>
<td>• Understand how systems (e.g. social, organizational) work, how to operate within them, and how to make improvements.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communication</th>
<th>The ability to communicate effectively using the methods and tools available in today’s environment. Communication skills include:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Listening, interpreting, and conveying information to others.</td>
</tr>
<tr>
<td></td>
<td>• Articulating thoughts and ideas clearly and effectively orally and in writing (e.g., one-on-one communications and larger public speaking skills, writing instructions).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teamwork and Leadership</th>
<th>The interpersonal skills to work effectively in a team and provided leadership include an ability to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Work cooperatively with others and contribute to a group effort.</td>
</tr>
<tr>
<td></td>
<td>• Build collaborative relationships, work with diverse teams, negotiate, and manage conflict.</td>
</tr>
<tr>
<td></td>
<td>• Motivate an individual or group, bring out the best in those around them to inspire innovation and performance.</td>
</tr>
<tr>
<td></td>
<td>• Leverage the strengths of others to achieve common goals; use interpersonal skills to coach and develop others.</td>
</tr>
</tbody>
</table>

*Table 10 continues*
There has been widespread consensus on what type of skills are needed to be successful. Cochran and Ferrari (2008) state that “According to employers, there is a widening gap between the skills employers need and the capabilities of new entrants to the workforce, and therefore, addressing the skills gap is very important for our future” (p. 17).

A great deal of attention has been given to remedy the skills gap (traditional vs applied) focused at a school-based perspective. Financial woes, school day, and after school programs open the door for the important role youth development organizations can play, specifically 4-H (Pittman, Irby, Yohalem, & Wilson-Ahlstom, 2004). According to Schwarz & Stolow (2006), youth development programs were recognized as a key resource in preparation for the world of work, but the true potential of these programs have not been realized.

| Lifelong learning and Self-direction | A willingness to take responsibility for continually improving capabilities and skills which include: • Taking responsibility to set goals and improve skills through mentoring, training, formal education, or other learning activities. • Showing initiative by soliciting and receiving feedback and learning from one’s mistakes. |
| Technology Adoption and Application | A firm foundation of technology skills include: • An understanding of technology concepts and systems. • Selecting and using appropriate technology to accomplish a given task. • Identifying and solving problems with technology. |
| Professionalism and Ethics | Demonstrate personal accountability, effective work habits, and ethical behavior (e.g., punctuality, working effectively with others, time and workload management, acting responsibly with larger community in mind). |

Source: Cochran and Lekies (2007)
The importance of building partnerships is very important in the understanding of workforce preparedness. It is necessary to build collaborations in order to give those opportunities for youth to develop those skills needed to succeed. Hawley and Taylor (2002) “evaluated the workforce development programs run by employer associations, which coordinate the involvement among educational institutions, business, and other organizations to provide services to individuals seeking employment (Jacobs, 14).

As the focus on preparing youth for the workforce, the question becomes how do we ensure that what the youth are learning is applicable to the job. Learning skills and knowledge in one framework and applying it to a different one is important to that learning process. Cochran and Farrari (2008) suggested in their research the concern about connecting the learning to the transfer of learning is part of the problem society is facing. Programs that are organized around real work experiences will prevail in providing youth the opportunities to learn cooperation and teamwork by that real world application. Experiential learning engages youth in hands on learning, critically looking at what is happening, determining what information was useful or important to remember, and uses that information to adapt it to another activity. Educators should strive to provide those opportunities to enable that transfer of knowledge to happen.

The best way to learn is through the actual process of experiential learning. The experiential learning model is very effective as it fosters real-life application over time. Youth development programs that use the experiential learning model are a great venue to help youth transfer that knowledge to real life situations. Adolescent who are assuming new roles in the workforce are dealing with a major transition time in their life. Many of the jobs
that teens have do not prepare them with the opportunities that will enhance their life skills development. Workforce preparedness programs can provide that opportunity for teens that will enable them to become successful (Cafarella, 2002; Carlson & Maxa, 1998).

Many youth development programs focus on the development of practical life skills (Perkins & Borden, 2003). The introduction of the 4-H Life Skills Wheel (Hendricks, 1998) gave 4-H professionals a model to assist in developing programs for 4-H youth. 4-H professionals have adopted this model as a framework to plan, implement, and evaluate 4-H Youth Development programs.

**Developing Life Skills in Youth**

According to Quinn “there is a strong theoretical basis for the argument that positive youth development can be fostered by well planned community programs and services” (as cited in Psychosocial Disturbances in Young People, Challenges for Prevention, Rutter, 1995, p 280). The Carnegie Council on Adolescent Development conducted a three-year study of American youth organizations in an effort to expand developmentally appropriate, community-based service for America’s adolescents. The study found evidence to support the rationale of expanding the role of community-based youth development programs: theoretical evidence and empirical evidence. Theoretical evidence analyzed the appropriateness of content and approaches to programs contributing to positive youth development. Empirical evidence demonstrated that participation in such programs was perceived valuable by youth and adults and does have a positive and significant impact on youth needs or competencies.
The authors concluded that young people, their parents and other concerned adults want community-based programs. Young people value and want more programming to help them build personal and social skills. Young people and adult alumni value their participation in non-school youth programs. Further findings included that participation in targeted programs led to reduction in high-risk behaviors and participation in a comprehensive youth development programs led to reduction of high-risk behaviors. Lastly, the study concluded that sustained and comprehensive community based programs stood the best chance of effecting real change in lives of youth (Rutter, 1995).

Maass, Wilkens, Jordan, Culen, and Place (2006) conducted a study of 444 4-H Alumni in Oklahoma to determine the influence of 4-H and other youth development programs of 36 life skills. These skills included critical thinking, goal setting, communication, decision-making and community service. There was a response rate of 58% or 223 alumni. Life skills were measured using the Life Skills Inventory. The 4-H alumni responded to questions regarding the following aspects of their 4-H careers: 4-H experiences, influential aspects of 4-H, participation in other youth development organizations, life skill development attained through participation in 4-H and other youth development organizations, current community involvement, and demographics. The 4-H alumni reflected on 4-H experiences and described the influence each had on 36 life skills. Nearly all respondents (92.6%) reported that they had been a member of other youth organizations in addition to 4-H. The top five life skills most influenced by 4-H participation were public speaking, community service, volunteering, self-discipline, self-responsibility, and teamwork. Stress management, healthy lifestyle choices, conflict resolution, personal
safety, and disease prevention were the life skills least influenced by 4-H participation. Significant differences were also documented between the influence of 4-H and other youth development organization in 30 of the 36 life skills.

A study of the Texas 4-H program conducted by Boyd, Herring, & Briers, (1992) compared the leadership life skill development of 4-H Club members and youth who had not participated in 4-H. The level of 4-H participation and the relationship between leadership life skills were also examined in the study. Five hundred 4-H Club members, ages 13 to 19, randomly selected from 19 randomly selected Texas counties were included in the study. Sixty-two percent n= 309 responded to the leadership life skill inventory about their perceived leadership life skill development and 4-H participation. Five hundred fifty eight non 4-H youth, grades 7 through 12, were randomly selected from 28 schools in Texas and asked to respond to similar questions about leadership life skill development. Findings revealed that 4-H Club member’ perceptions of their development of leadership life skills were significantly higher than the perceptions of non 4-H youth for all measurement scales used in the study. As a group, 4-H Club members rated themselves higher on working with groups, understanding self, communicating, and making decisions. Research indicated that participation in the 4-H program is positively related to perceived leadership life skill development. The study further indicated that the level of leadership life skill development increased as the level of participation in 4-H increased.

Fitzpatrick, Gagne, Jones, Lobley, & Phelps (2005) conducted a study in Maine of 4-H alumni and volunteers to measure the long-term impact of Maine 4-H Youth Development programs. The qualitative study incorporated telephone interviews with 4-H
alumni and adult volunteers. Two questions from each of the four areas of the 4-H Life Skills Wheel were arbitrarily selected and participants were asked both multiple-choice and open-ended questions. Sixty-three potential 4-H alumni were contacted. Forty-three adult volunteers were identified six counties in Maine. The highest ranked 4-H life skills by alumni included accepting people who are different, community service, making healthy choices, and learning job skills. The highest ranked for adult volunteers included record keeping, community service, making decisions, communicating, making healthy choices and learning job skills. Common themes from alumni of narrative responses included self-esteem, teamwork, responsibility, planning/organizing, and cooperation. Adult themes included self-esteem/confidence, teamwork, responsibility, planning/organizing, and cooperation. The study finding concludes involvement in 4-H Youth Development programs help youth learn and use specific life skills.

According to Cochran and Catchpole (2010), “an intentional focus on workforce preparation will improve the impact of 4-H programming by more clearly demonstrating a return on investment to stakeholders, better preparing future leaders for the workforce and life, and helping fill a gap for employers” (p. 1). The fast-paced, knowledge-intensive workplace, changing demographics, technology, and other forces facing youth today will require different skills for success. According to Cochran, Catchpole, Arnett and Ferrari (2010), U.S. employers are finding new entrants into the workplace are not prepared. These authors propose that 4-H can assist in closing the skills gap. Extension professionals use the term “life skills” that are now described as “skills for success in the knowledge economy,” “21st century skills,” or “applied skills (p.1).” Extension professionals need to use the
employer’s language as well as target development of these skills. The authors cited examples of Extension 4-H programs that focus on workforce preparation: JET (Job Experience and Training) in Dayton, Ohio and the Friend’s Care Intergenerational Garden in Greene County, Ohio. These authors concluded that Extension programming will not need a massive change to successfully integrate 21st century skills into their programming efforts.

Goodwin, Carroll, & Oliver (2007) conducted a study in Colorado to measured the impact that the 4-H Youth Development experience had on young people. The populations for the study consisted of a stratified random sample of 15 counties in Colorado. In each county, four schools were randomly selected from a complete list of schools that had 5th, 7th, and 9th grades that were representative of audience served by 4-H. The survey instrument assessed ways young people spent their time out of school and how that use of time affected their academic, emotional, social, and cognitive development. There were no significant differences in behaviors of non 4-H and 4-H members with two years or less. 4-H youth development membership showed themselves to be more positive socially and academically than non 4-H classmates. 4-H youth members were more likely to be involved as leaders in their school than non 4-H classmates and more likely to help others within their communities. 4-H youth responded more positively to control over things, pride in accomplishment, and life purpose than non 4-H classmates. 4-H youth also responded more positively to social competency statements. 4-H youth were also more likely to volunteer in class to lead activities, meet and great new people, more comfortable speaking in public and better money managers. The authors concluded 4-H youth development students appeared to have more assets and demonstrated more leadership behaviors than non 4-H classmates.
Astroth & Haynes (2002) surveyed students’ of out-of-school time in 21 randomly selected counties in Montana. Within each of these counties, two school districts were randomly selected for the study, all students 5th, 7th, and 9th grades. There were 2,500 useable surveys in the analysis, including school on four of Montana’s seven reservations. An analysis of the data showed youth who were involved in out-of-school activities were found to be less likely to be involved in a range of at-risk behaviors when compared to youth not involved in any out-of-school activities. The study showed few significant differences between the active and non-active students in the 5th grade. More differences were demonstrated in the 7th grade but the differences increased significantly in the 9th grade responses. Non-active students in both 7th and 9th grades reported they were less likely to get good grades and more likely to engage in at-risk behaviors. After analysis of data, youth that had participated in 4-H for more than a year were compared with non 4-H peers. The differences were substantial and showed 4-H youth are ‘better off’ than their non 4-H peers. Three-fourths of all 4-H members (75%) were involved in up to four out-of-school activities in addition to 4-H. In fact, 4-H members were more likely to be involved in all out-of-school activities than other youth. 4-H participants were more likely than non 4-H youth to: succeed in school, be involved as leaders in their school and community, serve as role models, and help others in their communities. 4-H youth were also more likely to take on leadership roles in their community and school, to lead activities, and demonstrate a higher level of leadership involvement than non 4-H youth. 4-H members were more likely to have positive view of their role in the community, to feel accepted and safe, to have supportive environments, and better relationships with adults than youth who have not been in 4-H. The
study revealed significant research to prove the worth of sustained, continuous 4-H participation in building life skills.

Goodwin, Barnett, Pike, Peutz & Lanting (2005) conducted a study to study measured the impact of the Idaho 4-H experience on the quality of life of young people. Students, 5th, 7th, and 9th grades, were selected from four randomly selected schools in each of the 16 randomly selected counties in the state. The Idaho 4-H Impact Study was a replication of the Astroth and Haynes study. The questionnaire assessed the ways young people spent their time out-of-school and how that use of time affected their academic, emotional, social, and cognitive development. The 4-H members were more involved as leaders in their school in active leadership roles than non 4-H classmates. 4-H youth had better relationships with adults than non 4-H classmates. 4-H youth were also more likely to go their parents to discuss issues related to drugs, alcohol, sex, and other such issues than non 4-H classmates. There were significant positive differences in the way 4-H members responded to worldview questions than non 4-H classmates. 4-H members responded more positively to social competency questions than non 4-H classmates and as well as questions of self-confidence, character, and empowerment. 4-H members were also more likely to volunteer in class to lead activities and set the example, more comfortable at public speaking, organizing, and at managing money than non 4-H classmates. The study authenticated the significance of successful 4-H youth development programs and membership. 4-H proved to be an informal, experiential educational program that taught youth valuable life skills.

Farrari, Lekies & Arnett (2009) conducted a study on youth’s perspectives of their involvement at Adventure Central. Adventure Central is a comprehensive 4-H youth
development program based in an urban park facility in Daytona, Ohio. It was developed in response to a community need for positive youth development programs. It brings the 4-H experience into an urban environment serving youth ages 5 through 18 during out-of-school hours. Qualitative methods were used through focus groups. Four focus groups were conducted with a total of 16 participants with the criteria of having to attend the program for at least three years. In the interviews, youth noted the types of opportunities provided in the program. These included experiences with nature and with the workforce. Workforce related experiences included completing job applications, developing resumes, job interviews, and on-the-job experiences at Adventure Central and other parks. Opportunities to go places were viewed positively as well as opportunities in teamwork, public speaking, and literacy programs. They noted skills learned in leadership, teamwork, decision-making, and emotional stability. The youth placed a higher value on positive interactions with adults and peers, they felt more supported, had more adults to listen, and to assist with personal difficulties. The youth indicated they felt they were viewed as role models for younger children, and they had opportunities to productively contribute to the program. They noted the skills learned would help them in their future careers and specifically detailed 21st century skills: leadership, problem solving, and teamwork. Youth indicated as they grew older, new opportunities inspired them, such as serving as a youth leader and participating in workforce skills programs. Implications from the study included: intentionally develop activities that are relevant in the world to enable participants to make the transition in adulthood; provide youth with progressively more responsible roles, leadership opportunities and challenging experiences; provide experiences to take youth out of their comfort zones and provide
sufficient support. The study clearly supported the growing literature on positive outcomes of long-term participation in youth development.

**Connecting Life Skill Development to 4-H Youth Development**

The 4-H Life Skills Wheel identifies and defines 35 life skills. The overall purpose of the model is to provide a way to coordinate life skills development with ages and stages task so program can be developmentally appropriate.

According to Hendricks (1998), the model provides a format for youth development planning in the following ways:

- assisting youth to reach their full potential through a positive approach to life skill development
- delivering information and skill practice at the appropriate developmental level for the target audience
- writing specific learning objectives for life skill development that are measurable
- completing an instructional plan that creates experiences based on experiential learning theory to achieve life skill development
- identifying observable/measurable indicators of change using these indicators to effectively evaluate program impact/goal (p. 6).

Life skills are those abilities individuals can learn that help them to become successful in living a productive life. The Life Skills wheel are identified and divided based
on the premises of the 4-H Clover. The clover is the center of the wheel and it represents the Head, Heart, Hands, and Health.

The goal of every 4-H educator is to provide developmentally appropriate opportunities for youth people to experience these life skills all throughout their life. By participating in the experiential learning process, youth learn the knowledge necessary to apply life skills in their life.

According to Mosier (2008) in a study of Indiana 4-H members, the five most important life skills they have learned by participating in 4-H are: self responsibility, self motivation, communication, social skills and leadership (p. 2). Members were asked to assess how their participation in 4-H helped them build 35 important life skills.

**Summary**

This chapter provided a review of literature stating that life skills are needed to be successful once a young person enters the workforce. The issues that were discussed are: 1) skills for workforce preparedness, 2) developing life skills in youth, and 3) connecting life skills development to 4-H Youth Development. Research shows that life skills are extremely necessary to the success of young people. As the literature review shows, the applied skills that are taught through the various youth development programs are necessary in the development of human life and will help them become successful employees. The development of our young people is a fundamental cornerstone of our society. Efforts to promote positive youth development by instilling those life skills in our young people is in every social sphere that surround a young person. The literature presented advocates a wide
range of positive attributes that will contribute to a healthy personal and social development in young people.
CHAPTER III

Methodology

The purpose of this study is to determine the life skills that business and industry leaders feel are most important for 21st Century workforce preparedness. Furthermore, to identify life skills perceived to be deficient in the new workforce today. This chapter addresses the following topics related to the methodology use for this study: Research design, population for the study, instrumentation, data collection, and statistical procedures used in analyzing the data.

Research Design

The quantitative research design used in this study was survey research in an effort to rank skills within the Targeting Life Skills model that are critical to youth skill development for 21st century workforce preparedness. Descriptive research was used to describe characteristics, phenomena, conditions that exist, etc. in a given population. It helps present quantitative descriptions in a manageable form.

A survey is an appropriate method of collecting data for descriptive or explanatory studies. The survey was designed so the participants could respond independently and confidentially.

Population

The population for this study was the National 4-H Board of Trustees. The Board of Trustees is made up of business, executives and governmental officials from all across the country. They represent a diverse background of 4-H donors, alumni, business and industry. It is made up of what National 4-H Council refers to as “The Public Class”. There are
corporate executives and other private citizens from a wide array of backgrounds. The study was intended to be conducted with the business and industry representatives of the National 4-H Board of Trustees. Due to circumstances beyond the researcher’s control, the study actually consisted of a selected sub-group of the members of the Board of Trustees who represent business, industry and government officials across the United States. An email message was sent to the Chair of the National 4-H Board of Trustees, asking her to forward to the Trustee members. The email message consisted of contact information, purpose of the study, and a link to the online study (See Appendix A). The National 4-H Board of Trustees’ consist of 33 business and industry men and women across the state as well as three 4-H young alumni. The chair selected Trustee members to participate in the study. There were three surveys the National Board of Trustees was participating in at the time of this study. The Chief Executive Officer of the Board of Trustees and the Chief of Staff divided the Trustees for the 3 studies and assigned a study to each one. The accessible population for this study was 11 members.

Instrumentation

A survey instrument was designed to collect information from the population that was directly related to the purpose and objectives of the study (See Appendix B). The information from the instrument was adapted from the Targeting Life Skills Model developed by (Hendrick, 1998). Participants numerically ranked the value they place on the identified life skills within each subgroup. The instrument also included items that identified those skills that they felt were missing but are important to the success of their company. This instrument obtained single-response and multi-response variables. The instrument can
be considered valid because it directly used the items from the TLS Model that is widely accepted by the profession.

The first section of the instrument was devoted to the actual Frequency of life skills. Each life skill has been placed in categories as identified by the Targeting Life Skills Model. Under each of those categories, each respondent ranked each individual life skill from least important too most important.

The second section of the instrument focused on their perceived abilities of the respondents’ recent hires related to the life skills listed on the 4-H Targeting Life Skills Model. The respondent selected from the list of life skills those skills they believed their current employees are most often missing. They were able to select more than one. Data were analyzed looking at the frequencies for Frequency for each category of life skills.

The last section of the instrument focused on the following demographics: area of job responsibility, gender, job tenure, educational level of the recent hires, average age of the most recent hires within the last 6 months, race/ethnicity, and highest educational level obtained. Descriptive data were collected to gain an understanding of the vast experience of the respondents.

The instrument was Pilot tested by the North Carolina 4-H Development Fund Board. This board is made up of donors, alumni 4-H’ers, business and industry men and women across North Carolina who has a vested interest in 4-H youth development. Panel members were contacted utilizing a simple email cover letter, which explained the request.

A pilot test was conducted using a test-retest approach to establish the reliability of the instrument used for this study (See Appendix C). To establish general test-retest
reliability, mean scores were calculated twice for each question in the instrument (i.e., T1, T2). The researcher compared the Frequencies for the two administrations of the instruments and found no significant differences. Therefore the instrument was deemed to be stable.

**Data Collection**

Data were collected using an online survey. A web-based instrument was used for the purpose of this study. The initial electronic message to the participants contained a cover letter from the researcher and a link to the web-based questionnaire. The cover letter gave an explanation on how to complete the electronic instrument. The letter also explained information about confidentiality of their responses and the general procedures used for handling and processing of the data. The letter also included that participation in the online survey is completely voluntarily. The population for this study was the National 4-H Board of Trustees. After discussions with the Chief of Staff and CEO of National 4-H Council, 13 members were chosen to participate in this study. The board governs National 4-H Council. A cover letter and questionnaire was emailed to the CEO of National 4-H Council who requested her Chief of Staff to emailed the letter and link to 13 Trustee members asking them to rank the life skills in order of importance as well as those skills that they see missing in their current employees at their current place of employment. Then the study was conducted using these instruments. After one week, the researcher sent a reminder survey to the Chief Executive Officer requesting that she send a reminder to the National 4-H Board of Trustees. A reminder email was sent every week for three weeks. There were seven completed the questionnaires out of thirteen. Two of the respondents data was discarded due to the fact that
they did not represent Business and Industry leaders. There were a total of five respondents once the two were discarded.

**Data Analysis**

Basic descriptive statistical procedures were used to determine the mean scores. The researcher used mean scores of the Frequencys to determine the overall Frequency of the life skills. Qualtrics were used to determine the mean and frequency scores.

**Summary**

The purpose of this descriptive research was to determine the importance of the various life skills and the levels at which entry level employees have developed those skills. The sample of the population for the study consisted of selected board members of the National 4-H Board of Trustees. The survey questions were developed based on a Life Skills Model to address the research question.
CHAPTER IV

Findings

The purpose of this study is to determine the life skills as identified in the Targeting Life Skills model that business and industry leaders feel are most important for 21st Century workforce preparedness. Furthermore, to identify life skills perceived to be deficient in the new workforce today. Specifically, this study examined the importance of the various life skills at the levels at which entry-level employees have developed those skills. Data were collected using an online program called Qualtrics and analyzed utilizing the same program. Descriptive data were collected to gain an understanding of the vast experience of the respondents. This chapter presents the demographic data and the research findings.

Demographic Data

Seven questions were asked on the electronic survey instrument to gather demographic information about the sample of the population who completed the survey. There was a range from 1 year to 35 years of experience in their current jobs. The level of education of the people who work in their company reported from the respondents were distributed equally between, two indicated that their company hired Doctoral Degrees, two reported Masters Degree, one reported Undergraduate Bachelor’s degree and two reported that their company hired employees with a High School Diploma. In this section, they were allowed to report more than one level of education. There were three female and two male respondents. The data indicated that there was a range from High School graduates to Graduate School employees in the companies that the respondents represented. The age range of the employees at the business and industries represented by the respondents were
from 26 years old and older. Two of the respondents indicated that their companies were small business (20-49), one slightly larger business (50-99), one intermediate size business (100-249) and one large business (250 – 499). Lastly, the respondents’ titles include, Trustee, Chief People Officer, Direct and two indicated they were the Chairman of their company.

**Research Objective 1 Findings**

The first research objective was to determine the most important life skills for workforce preparedness, as perceived by business and industry leaders using those life skills identified in the Targeting Life Skills model, which was adapted for 4-H. In the TLS Model, categories of life skills are divided on the basics of the four H’s represented in the 4-H Clover. Two general categories of skills are included under each of the 4 headings. The research findings are listed below utilizing the TLS model categorization.

For each of the categories of skills, the participants ranked the individual skills from 1 to 5, with 1 being the most important skills and 5 being the least important skill within that category. Basic descriptive statistical procedures were used to determine the mean scores. The researcher used mean scores of the frequencies to determine the overall frequency of the life skills.

The first category of skills was the Thinking Category of the Targeting Life Skills Model. There was a great deal of consensus that ranked critical thinking and problem solving as the top two most important life skills in the Thinking Category. Critical thinking was ranked the most important skill in the category, with three of the five respondents frequency it as first. Two respondents listed problem solving as the most important life skill in the category. Service Learning represented a unanimous agreement that it was the least
important of the life skills in this category. The results for each item are presented in Table 11.

Table 11

*Frequency of Importance of Life Skills in the Thinking Category, as Perceived by the Participants*

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Frequency of Responses</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking</td>
<td>3 2 0 0 0</td>
<td>1.40</td>
<td>0.55</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>1 3 1 0 0</td>
<td>2.00</td>
<td>0.71</td>
</tr>
<tr>
<td>Decision Making</td>
<td>1 0 1 3 0</td>
<td>3.20</td>
<td>1.30</td>
</tr>
<tr>
<td>Learning to Learn</td>
<td>0 0 3 2 0</td>
<td>3.40</td>
<td>0.55</td>
</tr>
<tr>
<td>Service Learning</td>
<td>0 0 0 0 5</td>
<td>5.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Resilience and Planning/Organizing were identified by the respondents as the most important life skills in Managing category. They each were ranked equally first through fifth place. Goal setting ranked third in the category receiving three second place rankings. Wise use of resources and keeping records ranked fifth and sixth respectively, in the category. The results for each item are presented in Table 12.
Table 12

Frequency of Importance of Life Skills in the Managing Category, as Perceived by the Participants

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Frequency of Responses</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2.40</td>
<td>1.67</td>
</tr>
<tr>
<td>Planning/Organizing</td>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2.40</td>
<td>1.67</td>
</tr>
<tr>
<td>Goal Setting</td>
<td></td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2.60</td>
<td>0.89</td>
</tr>
<tr>
<td>Wise Use of Resources</td>
<td></td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3.60</td>
<td>0.55</td>
</tr>
<tr>
<td>Keeping Records</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4.00</td>
<td>1.73</td>
</tr>
</tbody>
</table>

Communications was selected overwhelmingly as the most important life skill in the Relating category. Cooperation ranked second with three of the respondents selecting it as second most important. Social skills ranked third. Conflict resolution followed as Frequency fourth while Accepting Difference was least important. The results for each item are presented in Table 13.
Table 13

Frequency of Importance of Life Skills in the Relating Category, as Perceived by the Participants

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Frequency of Responses</th>
<th>1&lt;sup&gt;st&lt;/sup&gt;</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt;</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt;</th>
<th>4&lt;sup&gt;th&lt;/sup&gt;</th>
<th>5&lt;sup&gt;th&lt;/sup&gt;</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications</td>
<td></td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.80</td>
<td>1.79</td>
</tr>
<tr>
<td>Cooperation</td>
<td></td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2.60</td>
<td>0.89</td>
</tr>
<tr>
<td>Social Skills</td>
<td></td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td></td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3.60</td>
<td>0.89</td>
</tr>
<tr>
<td>Accepting Differences</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4.00</td>
<td>1.73</td>
</tr>
</tbody>
</table>

The respondents selected Empathy as the most important life skills under the Caring Life Skills category. Concern for Others ranked second. Nurturing relationships ranked third, followed by sharing, as the lowest. The results for each item are presented in Table 14.
Table 14

Frequency of Importance of Life Skills in the Caring Category, as Perceived by the Participants

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Frequency of Responses</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
</tr>
<tr>
<td>Empathy</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Concern for Others</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Nurturing Relationships</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Sharing</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Leadership ranked number one in the Giving category with two respondents

Frequency it first and second. Responsibility ranked close, which rated it as second most important. Contribution to group and community service/volunteering respectively ranked third and fourth. The results for each item are presented in Table 15.
Table 15

Frequency of Importance of Life Skills in the Giving Category, as Perceived by the Participants

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Frequency of Responses</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
</tr>
<tr>
<td>Leadership</td>
<td>2 2 1 0</td>
<td>1.80</td>
<td>0.84</td>
</tr>
<tr>
<td>Responsibility</td>
<td>2 1 1 1</td>
<td>2.20</td>
<td>1.30</td>
</tr>
<tr>
<td>Contribution to Group</td>
<td>1 1 2 1</td>
<td>2.60</td>
<td>1.14</td>
</tr>
<tr>
<td>Community Service/Volunteering</td>
<td>0 1 1 3</td>
<td>3.40</td>
<td>0.89</td>
</tr>
</tbody>
</table>

With only three life skills to choose from in the Working category, Self-Motivation was selected as the most important life skill in the working category. Marketable/Useful Skills ranked second with Teamwork Frequency last in the category. The results for each item are presented in Table 16.
Table 16

*Frequency of Importance of Life Skills in the Working Category, as Perceived by the Participants*

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Frequency of Responses</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
</tr>
<tr>
<td>Self-Motivation</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Marketable/Useful Skills</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Teamwork</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

The respondents selected Healthy Life Style Choices as the most important life skills under the Living Category with all five respondents Frequency it either first or second most important. Stress management ranked second while Personal safety ranked third. Disease prevention ranked last with all of the respondents Frequency it as the third or forth most important life skills. The results for each item are presented in Table 17.
Out of the five life skills in the Being category, Character was overwhelmingly ranked as number one with four of the five respondents Frequency it as the most important life skill in this category. Only one of the other life skills in this category, Self Responsibility, was ranked as the most important by respondents. While Self Discipline was considered as an important life skill, none of the participants ranked it ahead of Character. There was a consensus that Managing Feelings and Self Esteem were the least important life skill in this category. The results for each item are presented in Table 18.
Table 18

Frequency of Importance of Life Skills in the Being Category, as Perceived by the Participants

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Frequency of Responses</th>
<th></th>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
<td>4th</td>
<td>5th</td>
</tr>
<tr>
<td>Character</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Self-Responsibility</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Self Discipline</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Managing Feelings</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Research Objective 2 Findings

The research objective two was to determine perceptions of business and industry leaders of which life skills from the Targeting Life Skills Model are more deficient among recently hired employees. Frequency of responses were used to describe the data related to this objective. The respondents were asked to indicate those skills that they felt were deficient in the employees at their place of employment. The respondents were able to list more than one life skill they felt were deficient.

On the tables below, the response column represents the number of respondents who identified this life skill as deficient.

In the Thinking category, Critical Thinking was the life skill that was determined to be most deficient. There were fewer consensuses on whether the other life skills were
deficient. However, two respondents did represent 40% of the participants. The results for each item are presented in Table 19.

Table 19

Frequency of Deficient Life Skills in the Thinking Category, as Perceived by the Participants

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking</td>
<td>4</td>
</tr>
<tr>
<td>Learning to Learn</td>
<td>2</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>2</td>
</tr>
<tr>
<td>Service Learning</td>
<td>2</td>
</tr>
<tr>
<td>Decision-Making</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Respondents could select more than one life skills as being deficient.

In the Managing category, Resilience and Planning/Organizing were chosen as the top life skill as being deficient with each receiving three responses. Goal setting was chosen third and had only two responses from the respondents. Wise Use of Resources was fourth with only one response. None of the respondents indicated keeping records as a deficient life skill in the managing category. The results for each item are presented in Table 20.
Table 20

*Frequency of Deficient Life Skills in the Managing Category, as Perceived by the Participants*

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td>3</td>
</tr>
<tr>
<td>Planning/Organizing</td>
<td>3</td>
</tr>
<tr>
<td>Goal Setting</td>
<td>2</td>
</tr>
<tr>
<td>Wise Use of Resources</td>
<td>1</td>
</tr>
<tr>
<td>Keeping Records</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Respondents could select more than one life skills as being deficient.

Under the Life Skill category of Relating, Conflict Resolution was identified as the most deficient Life Skill and received three responses. Communications, cooperation ranked equally deficient with two responses each. Social Skills was ranked next to last with only one response and Accepting differences was not chosen as being deficient in this category.

The results for each item are presented in Table 21.
Table 21

*Frequency of Deficient Life Skills in the Relating Category, as Perceived by the Participants*

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict Resolution</td>
<td>3</td>
</tr>
<tr>
<td>Communications</td>
<td>2</td>
</tr>
<tr>
<td>Cooperation</td>
<td>2</td>
</tr>
<tr>
<td>Social Skills</td>
<td>1</td>
</tr>
<tr>
<td>Accepting Differences</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Respondents could select more than one life skills as being deficient.

In the Caring Life Skill category, Sharing and Empathy were equally identified as the most deficient with each receiving three responses each. Nurturing Relationships was next to last and received only one response with no one selecting Concern for Others as being seen deficient. The results for each item are presented in Table 22.
**Table 22**

*Frequency of Deficient Life Skills in the Caring Category, as Perceived by the Participants*

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing</td>
<td>3</td>
</tr>
<tr>
<td>Empathy</td>
<td>3</td>
</tr>
<tr>
<td>Nurturing Relationships</td>
<td>1</td>
</tr>
<tr>
<td>Concern for Others</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Respondents could select more than one life skills as being deficient.

Under the Giving Life Skills category, All of the respondents identified Responsibility as a deficient life skill among their employees. Community service/volunteering was tied with Leadership with both receiving two responses each. Contribution to Group received no response. The results for each item are presented in Table 23.
Table 23

Frequency of Deficient Life Skills in the Giving Category, as Perceived by the Participants

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibility</td>
<td>5</td>
</tr>
<tr>
<td>Community Service/Volunteering</td>
<td>2</td>
</tr>
<tr>
<td>Leadership</td>
<td>2</td>
</tr>
<tr>
<td>Contribution to Group</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Respondents could select more than one life skills as being deficient.

In the Working Category, Self Motivation was identified as the most deficient life skill and received a total of three responses. Marketable/Useful Skills and teamwork tied for second in deficiency with two responses each. The results for each item are presented in Table 24.
Table 24

Frequency of Deficient Life Skills in the Working Category, as Perceived by the Participants

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Motivation</td>
<td>3</td>
</tr>
<tr>
<td>Marketable/Useful Skills</td>
<td>2</td>
</tr>
<tr>
<td>Teamwork</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Respondents could select more than one life skills as being deficient.

In the Living category, only two of the life skills were identified as being deficient, with Stress Management being identified most often by the respondents. Two of the life skills in this category were not seen as deficient in their employees by the participants in this study. The results for each item are presented in Table 25.
Table 25

Frequency of Deficient Life Skills in the Living Category, as Perceived by the Participants

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress Management</td>
<td>4</td>
</tr>
<tr>
<td>Healthy life-style choices</td>
<td>2</td>
</tr>
<tr>
<td>Disease Prevention</td>
<td>0</td>
</tr>
<tr>
<td>Personal Safety</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Respondents could select more than one life skills as being deficient.

The respondents reported less consensus in the Being Category of Life Skills related to their employees deficiencies. Self-Responsibility was ranked as most deficient with 3 responses. There were three life skills identified as equally deficient by the responses: Self esteem, character and character acquired two responses equally. Managing feelings was identified least deficient with only one response. The results for each item are presented in Table 26.
Table 26

*Frequency of Deficient Life Skills in the Being Category, as Perceived by the Participants*

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Responsibility</td>
<td>3</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>2</td>
</tr>
<tr>
<td>Character</td>
<td>2</td>
</tr>
<tr>
<td>Self Discipline</td>
<td>2</td>
</tr>
<tr>
<td>Managing Feelings</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Respondents could select more than one life skills as being deficient.
CHAPTER V

Summary, Conclusions, Implications, and Recommendations

Summary

The purpose of this study was to determine the life skills that business and industry leaders feel are most important for 21st Century workforce preparedness. Furthermore, to identify life skills perceived to be deficient in the new workforce today.

The conceptual framework used for the purpose of this study is the Targeting Life Skills Model (1998). The model identifies concrete competencies and skills youth must acquire to be successful in the real world. The Targeting Life Skills model focuses on a process that youth development practitioners use to influence positive youth growth through practice of needed skills. The purpose of the Targeting Life Skills model is to simplify coordination of life skill development with ages and stages to ensure developmentally appropriate learning and identified outcomes.

Exploring the life skills that are most important for 21st Century workforce preparedness is needed to establish such programs for 4-H on the local, state, and national levels. Life skills are critical to workforce preparedness in young people. In order to lessen the gap between knowledge and skills youth learn in school with the ones they need for the 21st century workplace, program centered on those skills will be critical.

The study examined the importance of the various life skills at the levels at which entry-level employees have developed those skills. The population for this study was the National 4-H Board of Trustees. The Board of Trustees is made up of business, executives and governmental officials from all across the country. They represent a diverse background
of 4-H donors, alumni, business and industry. Thirteen members of the Board of Trustees were surveyed using a survey program called Qualtrics. An email message was sent to the CEO of the National 4-H Council asking her to send the instrument to the Trustees. Seven out of thirteen of those receiving the questionnaire completed the study. The researcher was only able to use data from five of the respondents. The data were analyzed using Qualtrics reports. Descriptive data were collected to gain an understanding of the experiences of the respondents. Research participants numerically ranked the value they placed on the identified life skills within each category as defined by the Targeting Life Skills Model. They also identified life skills that deemed deficient in their current employees within the business and industries they work. The information collected was used to help identify important life skills that will be necessary for those 4-H’ers entering the workforce. The researcher identified a need in the current 4-H program efforts on developing life skills in which teens needed to be competitive in the workplace.

The findings in this study identified critical thinking, resilience & planning/organizing, communications, empathy, leadership, self-motivation, healthy lifestyle choices, and character as the most important life skills from the Targeting Life Skills Model. The study also found that critical thinking, resilience & planning/organizing, conflict resolution, sharing & empathy, responsibility, self-motivation, stress management, and self-responsibility as the most deficient life skills from the Targeting Life Skills Model.

Conclusions

The conclusions of this study have been presented under each of the research questions below.
Research Question 1 - *To determine the most important life skills for workforce preparedness, as perceived by business and industry leaders using those life skills identified in the Targeting Life Skills model, which was adapted for 4-H.*

Based on the feedback from the business and industry leaders from the National 4-H Board of Trustees, it can be concluded that business and industry leaders have determined that many of the life skills in the 4-H Targeting Life Skills Model are essential to employment in the 21st Century workplace. Critical thinking, resilience, planning/organizing, communications, empathy, leadership, self-motivation, healthy lifestyle choices and character are the most important life skills for youth to have to become prepared for the workforce.

Research Question 2. *To determine perceptions of business and industry leaders of which life skills from the Targeting Life Skills Model are more deficient among recently hired employees.*

Employees are deficient in several of the essential life skills in the 4-H Targeting Life Skills Model. Critical thinking, resilience, planning/organizing, conflict resolution, empathy, sharing, responsibility, self-motivation, stress-management, and self-responsibility are skills that are deficient among recently hired employees.

**Implications and Discussion**

Employment is a significant turning point in the transition from youth to adulthood. The ability to living independently heavily depends on the ability be effective in the workplace. Out of school programs are beneficial in increasing the youth’s ability to find a job as well as being successful in that job.
Research shows that this study is consistent with the study referred to by the Partnership for 21st Century Skills in the Readiness Report Card. This study identified the top ten skills that were deficient in high school graduates. The skills in this study found lacking paralleled with the Workforce Readiness Report Card. While the terminology in Targeting Life Skills and Basic and Applied skills identified in the McLester and McIntire study are different, the definitions are similar and consistent. Both studies show consistency in identifying deficient skills of those entering the workforce. The results of this study were consistent with the findings of Cochran and Farrari (2008) indicated that thinking skills, communication, teamwork and leadership, lifelong learning were among six categories identified as important to workforce preparedness. This study is consistent with Cochran and Farrari’s study in that communications, teamwork and leadership are important life skills for workforce preparedness. The study conducted by Oklahoma 4-H by Maass, Wilkens, Jordan, Culen & Place (2006) on 4-H alumni found that critical thinking and communications were important life skills for entering the workforce. These same two skills were identified in this research study. Priorities for 4-H programming efforts need to address deficient skills. This study outlined those skills that should have more emphasis on in future 4-H Programming efforts. In a study by the Gallup organization for the Junior Achievement conducted in 2008, it was concluded that a lack of life skills and professionalism were cited as areas of concern. The lack of “life skills such as self-motivation, communication and social skills were found as significant obstacles at employees’ companies” (p. 3). It is important to consider these skills in future 4-H programming efforts as curriculum is
developed for 4-H. In order to prepare young people to enter the workforce prepared, there is a need to find ways to promote those life skills as a younger age.

**Recommendations for Future Studies**

Developing life skills as identified in the targeting life skills model have been found to be critical to the development of workforce preparedness for young people. The results of this study provide implications of specific life skills that are most important for workforce preparedness.

The researcher also recommends further studies with a larger sample of business and industry leaders across the country. Surveying a larger audience could help to increase the generalizability of the findings of this study. Other groups could be targeted to determine if the skills identified hold true with a larger population.

It is important for 4-H to conduct programs that will build these life skills in young people. This finding is consistent with the study mentioned in chapter one that was conducted by The Conference Board, Corporate Voices for Working Families, and the Society for Human Resources Management (2006). That study found that employers placed much greater value on the applied skills of leadership, critical thinking, and problem solving than the more basic skills including math and reading comprehension. It is important to consider these skills in future 4-H programming efforts as curriculum is developed for 4-H.

Conducting this study with 4-H alumni, or other youth serving organizations to determine a youth perspective would only strengthen the study. The researcher recommends a new study to determine the perception of 4-H alumni as to which of the Targeting Life Skills were most important to their success as they entered the employment field.
Preparing future leaders is very important to the future of our workforce. The workforce needs to be diverse, creative and prepared with the skills necessary to be productive employees. In order for young people to meet the demands of the workforce and to be competitive, the development of program to teach those life skills identified in this study are critical. There is a strong need to find ways to promote workforce readiness program in all ages.

Future 4-H programs and curriculum should be designed to focus on skills that were identified as important and more importantly those that were found as deficient by this study as well as other studies that have been conducted.
References


National 4-H Council, (2013). http://www.4-h.org/about/youth-development-organization/


Appendix
Appendix A

Email to Chief Executive Officer for National 4-H Board of Trustees

Jennifer:

Will you please forward to the National 4-H Council Board of Trustees.

Thanks so much!
Shannon McCollum

National 4-H Council Board of Trustees:

Hello, My name is Shannon McCollum. I work with North Carolina 4-H as an Extension Associate. My job responsibilities on the State 4-H/FCS Team include: 4-H Teen Programming, 4-H Club Program, International 4-H Programs, 4-H Awards and Incentives and Staff Development for 4-H and FCS Field Staff.

I am currently working on my Doctoral Degree at NC State in the College of Agriculture and Life Sciences in the Department of Ag and Extension Education. I am asking you as Board of Trustee members to the National 4-H Council to complete a survey that will help me identify life skills that will prepare our 4-H’ers for the workforce. I feel that your input will be very valuable as I work towards developing young people in North Carolina and helping them gain those life skills that will help them become career ready.

I would like to explain a little about my dissertation so you can get an idea of what I will be asking on the survey.

The purpose of this study is to identify youth life skills within the Targeting Life Skills model that are critical to 21st century workforce preparedness. Furthermore, to identify life skills perceived to be deficient in the new workforce today. As a 4-H professional, the research will help guide and direct the design of curriculum that will focus specifically on the skills that have been identified as lacking for workforce readiness. This curriculum will be used in the North Carolina 4-H Teen programming efforts to better prepare our youth for the workforce.

As a 4-H Alumnus, former 4-H Agent and current State 4-H Staff person, the information gathered on this survey will help shape the future of our 4-H’ers. I am a product of 4-H and would not be where I am today without those caring adults who taught me life skills and helped me become a successful adult.
Feel free to email me directly if you have questions. My email address is: 
shannon_mccollum@ncsu.edu or feel free to call me: (919)515-8486 - Work or (919)868-5989 - Mobile

Thanks so much for taking time to help me with this research.

Please click on the following link to access the survey!

http://ncsu.qualtrics.com//SE/?SID=SV_0kWZINVzm2q47k1

Shannon
Appendix B

Life Skills for Workforce Preparedness Survey Questionnaire

North Carolina State University
INFORMED CONSENT FORM for RESEARCH
Life Skills for Workforce Readiness

Shannon B. McCollum  Dr. Jim Flowers

What are some general things you should know about research studies?
You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of research studies is to gain a better understanding of a certain topic or issue. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above.

What is the purpose of this study?
The purpose of this study is to rank skills within the Targeting Life Skills model that are critical to youth skill development for 21st century workforce preparedness.

What will happen if you take part in the study?
If you agree to participate in this study, you will be asked to: Participant will receive an email asking them to complete an online survey. A reminder email will be sent weekly for 4 weeks asking them to complete the survey. The entire survey will take you between 10-15 minutes. In order to test for reliability, I will be using the test retest method. This will only be used to track responses during this test of reliability. For the purpose of the Reliability test, I will be asking the participants – NC 4-H Development Fund Board of Directors to create an id code of their own by using their date of birth in this format: 03041967. This is March 4, 1967. This will only be used to match their first response to their second response in the reliability-testing phase. This will not be done for the actual study to participants.

Risks

No known risks.
Benefits

There are no direct benefits to the participants. Because this research will be used to develop curriculum for 4-H Youth to strengthen life skill development, participants may indirectly benefit by having future employees with stronger life skills.

Confidentiality

The information in the study records will be kept confidential to the full extent allowed by law. Data will be stored securely in a password-protected file on a state-owned computer. No reference will be made in oral or written reports, which could link you to the study.

Compensation

None

What if you have questions about this study?

If you have questions at any time about the study or the procedures, you may contact the researcher, Shannon B. McCollum at shannon_mccollum@ncsu.edu or (919)868-5989.

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Deb Paxton, Regulatory Compliance Administrator, Box 7514, NCSU Campus (919/515-4514).

Consent To Participate

“I have read and understand the above information. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time.

If you agree to participate please click “continue” and it will take you to the survey.

If you choose not to participate please click “no”.
Thank you for participating in this survey. The intention of this survey is to identify life skills that a 4-H’er needs to be competitive when they join the workplace.

Each of the life skills have been placed in sub-categories as identified by the Targeting Life Skills Model developed by Pat Hendricks from Iowa State University.

As a 4-H professional, the research will help guide and direct the design of curriculum that will focus specifically on the skills that have been identified as lacking for workforce readiness.

There are 25 questions in this survey. It will take you about 10 minutes to complete the entire survey.

Life Skills Importance

*This section will help determine potential employer Frequency of life skills to the success of youth in the workforce. Please rank each set of skills in order of importance under each sub-category.*

1. **Thinking Life Skills**
   Please number each box in order of preference from 1-5. 1 being most important and 5 being least important as it relates to what skills is needed for employees to be workforce ready.
   
   Learning to Learn
   Decision–Making
   Problem Solving
   Critical Thinking
   Service Learning

2. **Managing Life Skills**
   Please number each box in order of preference from 1-5. 1 being most important and 5 being least important as it relates to what skills is needed for employees to be workforce ready.
   
   Goal Setting
   Planning/Organizing
   Wise Use of Resources
   Keeping Records
   Resilience

3. **Relating Life Skills**
   Please number each box in order of preference from 1-5. 1 being most important and 5 being least important as it relates to what skills is needed for employees to be workforce ready.
Communications
Cooperation
Social Skills
Conflict Resolution
Accepting Differences

4. Caring Life Skills
Please number each box in order of preference from 1-4. 1 being most important and 4 being least important as it relates to what skills is needed for employees to be workforce ready.

Concern for Others
Empathy
Sharing
Nurturing Relationships

5. Giving Life Skills
Please number each box in order of preference from 1-4. 1 being most important and 4 being least important as it relates to what skills is needed for employees to be workforce ready.

Community Service/Volunteering
Leadership
Responsibility
Contribution to Group

6. Working Life Skills
Please number each box in order of preference from 1-3. 1 being most important and 3 being least important as it relates to what skills is needed for employees to be workforce ready.

 Marketable/Useful Skills
Teamwork
Self-Motivation

7. Living Life Skills
Please number each box in order of preference from 1-4. 1 being most important and 4 being least important as it relates to what skills is needed for employees to be workforce ready.

Healthy life-style choices
Stress Management
Disease Prevention
Personal Safety

8. Being Life Skills
Please number each box in order of preference from 1-5. 1 being most important and 5 being least important as it relates to what skills is needed for employees to be workforce ready.

Self Esteem
Self-Responsibility
Character
Managing Feelings
Self Discipline

Perceived Ability
As part of determining which skills we should focus training around, we need to know which skills your current employees are most often missing. From the following skills, please mark the corresponding button to those skills that you believe your current employees are most often missing.

9. Thinking Life Skills
Of the following Thinking life skills listed below, please mark the corresponding button to those skills that you believe your current employees are most often missing.

Learning to Learn
Decision–Making
Problem Solving
Critical Thinking
Service Learning

10. Managing Life Skills
Of the following Managing life skills listed below, please mark the corresponding button to those skills that you believe your current employees are most often missing.

Goal Setting
Planning/Organizing
Wise Use of Resources
Keeping Records
Resilience
11. Relating Life Skills
Of the following Relating life skills listed below, please mark the corresponding button to those skills that you believe your current employees are most often missing.

Communications
Cooperation
Social Skills
Conflict Resolution
Accepting Differences

12. Caring Life Skills
Of the following Caring life skills listed below, please mark the corresponding button to those skills that you believe your current employees are most often missing.

Concern for Others
Empathy
Sharing
Nurturing Relationships

13. Giving Life Skills
Of the following Giving life skills listed below, please mark the corresponding button to those skills that you believe your current employees are most often missing.

Community Service/Volunteering
Leadership
Responsibility
Contribution to Group

14. Working Life Skills
Of the following Working life skills listed below, please mark the corresponding button to those skills that you believe your current employees are most often missing.

 Marketable/Useful Skills
Teamwork
Self-Motivation

15. Living Life Skills
Of the following Living life skills listed below, please mark the corresponding button to those skills that you believe your current employees are most often missing.

Healthy life-style choices
Stress Management
16. **Being Life Skills**

Of the following Being life skills listed below, please mark the corresponding button to those skills that you believe your current employees are most often missing.

- Self Esteem
- Self-Responsibility
- Character
- Managing Feelings
- Self Discipline

**Background Information**

17. **How many years have you been employed in your current job?**

Please write your answer here:

18. **What is the highest level of education you have completed?**

Please choose only one of the following.
- Doctoral Degree
- Masters Degree
- Undergraduate Bachelor’s Degree
- High School Diploma/Equivalent
- No High School Diploma

19. **What is your Gender?**

- Female
- Male

20. **What education level are the people you are employing?**

Please choose from the following:
- Graduate School
- College Graduates
- Technical School Graduates
- High School Graduates
- None of the Above

21. **What is the age range of the majority of your employees?**

Please choose only one of the following:
- 18-21
- 22-25
- 26-29
30-35
36 and older

22. How many employees are in your company?
Size class 1 (1 to 4 employees)
Size class 2 (5 to 9 employees)
Size class 3 (10 to 19 employees)
Size class 4 (20-49 employees)
Size class 5 (50 to 99 employees)
Size class 6 (100 to 249 employees)
Size class 7 (250 to 499 employees)
Size class 8 (500 to 999 employees)
Size class 9 (1,000 or more employees)

23. What is your professional title as it is listed on your business card?
Appendix C

Email to Pilot Study Participants

4-H Development Fund Board Members:  
Hello, My name is Shannon McCollum. I work on the State 4-H/FCS Program Team at NC State University. My job responsibilities on the State 4-H/FCS Team include: Teen Programming, 4-H Club Program, Awards and Incentives and Staff Development. As some of you know, I am currently working on my Doctoral Degree at NC State in the College of Agriculture and Life Sciences in the Department of Ag and Extension Education. I am currently working to gather data for my dissertation. In order to move forward, I need to test my survey for reliability. I am using a test retest method. I would like for you all to test my survey, if you are willing. You will be asked to click on the link below and complete the survey. It will take you less than 10 minutes to complete it. Once it has been completed - I will send you all a second email and ask you to take it one more time. This will help me determine if the survey is reliable and will allow me to move forward in this process. Once the test for reliability is complete, I will send it to the National 4-H Board of Trustees to complete to the actual survey. My intent is to do a national survey in order to gain input from folks across the country.

As you are taking the survey, please answer this survey to the best of your knowledge. I would like to explain a little about my dissertation so you can get an idea of what I will be asking on the survey.

The purpose of this study is to identify youth life skills within the Targeting Life Skills model that are critical to 21st century workforce preparedness. Furthermore, to identify life skills perceived to be deficient in the new workforce today. As a 4-H professional, the research will help guide and direct the design of curriculum that will focus specifically on the skills that have been identified as lacking for workforce readiness. This curriculum will be used in the North Carolina 4-H Teen programming efforts to better prepare our youth for the workforce.

Please click on the link below to complete the survey.  
http://ncsu.qualtrics.com//SE/?SID=SV_3gYbVWzS4zmbvRH  
Feel free to email me directly if you have questions. My email address is: shannon_mccollum@ncsu.edu or feel free to call me: (919)515-8486 - Work  or (919)868-5989 - Mobile

Thanks so much for taking time to help me with this research. Shannon