Professional Development Needs of Utah State University Extension Professionals

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PROFESSIONAL DEVELOPMENT NEEDS OF UTAH STATE UNIVERSITY

EXTENSION PROFESSIONALS

by

Callahan K. Ward

A thesis submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

in

Family and Consumer Sciences Education and Extension

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2018
Many Utah State University (USU) Extension professionals are nearing retirement age; thus, the selection and placement of new professionals will be hired for posts across the state of Utah. As of March 1, 2017, 34% of USU Extension employees were 57 years of age or older and 40% were between 40 and 57 years of age. Before experience and knowledge are lost through these retirements, there is a need for competencies to pass to the new generation of Extension professionals.

The purpose of this two-staged mixed-method study was to identify professional development needs of Extension professionals and to evaluate competencies essential to be a successful Extension professional. For the first stage of the study, a qualitative approach was utilized during two focus group interview sessions. One session included USU Extension administrators and one session was comprised of a convenience sample of USU Extension professionals. The two focus groups assisted in developing a survey
instrument rooted in the Borich Needs Assessment Model for the second stage of the study. The qualitative data identified competency areas most important for the success of USU Extension professionals.

During the second stage, quantitative data were collected from the survey instrument managed by the web-based research tool Qualtrics and distributed to all USU Extension professionals. To find the discrepancy scores for each competency, a mean weighted discrepancy score (MWDS) was calculated for each competency. The MWDS was then ranked and the competencies with the largest discrepancy scores showed the highest need and priority for professional development.

The results of this professional development needs assessment study indicate that Extension professionals lack essential competencies to be successful. The results indicated that USU Extension needs to conduct more beneficial professional development trainings. The identified high-priority competencies documented in this research provide important information to improve the professional development needs process for new Extension professionals. With improvements as suggested, the effectiveness of professional development could be enhanced and therefore produce Extension professionals who work more efficiently and are committed to the success of USU Extension.
PUBLIC ABSTRACT

Professional Development Needs of Utah State University

Extension Professionals

Callahan K. Ward

Many Utah State University (USU) Extension personnel are nearing retirement age. The purpose of this study was to identify professional development needs of Extension professionals and assess USU Extension by evaluating competencies essential to be a successful Extension professional. USU Extension can conduct more beneficial professional development training by using identified high priority competencies and improve the onboarding process for new Extension professionals. With improvements as suggested, the effectiveness of professional development could be enhanced and produce Extension professionals who work more efficiently and are committed to the success of USU Extension.
ACKNOWLEDGMENTS

This study has truly expanded my educational experience. It sparked my interest in professional development, gave me a passion for research, and inspired me to be a leader of change in the Extension world. I hope the team of professionals who have guided me through this process know how grateful I am. I would especially like to express my sincerest appreciation to Dr. Windi Turner for pushing me to become a better writer and researcher. She has spent countless hours coaching me, helping me grow into a better student and professional. I would like to thank Dr. Debra Spielmaker for her wisdom and guidance through this process, her challenging and practical courses have prepared me to excel in my future career. I would like to thank Dr. Brian Warnick for sharing his extensive knowledge and positive outlook throughout this project, helping me grow my perception of the research world. I would like to thank Mr. Clark Israelsen for being an outstanding mentor and professional example, his proficient field experience was a great addition to this study. A huge thank you to the amazing administration and faculty with Utah State University Extension for their support of and participation in this study.

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Callie K. Ward
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CHAPTER I

INTRODUCTION

Problem Statement

The Morrill Act of 1862 created land-grant institutions so that working people citizens could have equal access to higher education with a focus on farming and mechanical skills (National Institute of Food and Agriculture [NIFA], 2017). To build on the land-grant institutions, the Smith-Lever Act was put into effect in 1914, creating the Cooperative Extension System (CES) with each land grant institution. CES continues to operate through the nation’s Land-Grant University System in partnership with the federal, state, and local governments (NIFA, 2017).

Since then, lifestyles have radically changed. The program has adapted to societal changes and has reoriented itself to a more industrial and service-oriented population. The introduction of technology such as the Internet and smart phones has opened fast methods of information gathering to a wide audience (Radunovich, Ellis, & Spangler, 2017). It is difficult to argue for the value of Cooperative Extension simply based on its ability to provide information to the public (Radunovich et al., 2017). There are multiple organizations, both public and private, that provide information; many of these organizations do not have the mandate of providing research-based and impartial information.

Currently, Utah State University (USU) Extension faces its own demographic and technology shifts. As many Extension professionals, who are in a pre- and post-
promotion and tenure track, are near retirement age, new Extension professionals need to be recruited and trained to replace those retiring. To maintain the Land-Grant University and CES, there is a need for Extension professionals to:

- Interpret science-based research into many forms that are appropriate for targeted audiences.
- Work with special interest groups and the local community to perform needs assessments, evaluate the effectiveness of learning tools, conduct research, and solve community problems.
- Live and work in the communities to build trust, address local needs, and form relationships within the communities to engage effectively with citizens.
- Meet the current societal demands brought about by advances in technology, population growth, and demographics (NIFA, 2017).

To better serve and prepare future Extension educators and agents, academic programs and training must continue to progress (Scheer, Ferrari, Earnest, & Connors, 2006). Success in Extension programming requires education, training, and skill in both the process area as well as the subject matter area (Gibson & Brown, 2003).

**Purpose and Objectives**

The purpose of this mixed-methods study was to identify the professional development needs of Extension professionals and assess USU Extension by evaluating competencies essential to be a successful Extension professional.

Objectives for this study included:

1. Identify competencies most important for the success of USU Extension professionals.
2. Recognize discrepancy or gap scores between competencies to determine competencies that should be part of the professional development training program for USU Extension professionals.
Assumptions

1. All USU Extension professionals know the competencies essential to be successful.

2. Competencies recognized in other studies will be similar to the competencies of USU Extension professionals.

3. Professional development needs will be addressed by identifying competencies needed to be a successful Extension professional.

Limitations

1. The survey will only be available via email and distributed through an Extension list serve. Individuals who are not part of the list serve will not be reached.

2. Extension professionals may not be able or willing to participate in the survey.

3. The use of anonymous survey tools limits recording which counties respond. Therefore, it cannot be determined that every Extension office in Utah is represented.

4. Previous research was used to develop the initial survey instrument. Administering a pilot test to solicit feedback would have attained additional credibility.

5. Both qualitative and quantitative data were self-reported and based upon the individuals’ perception.

Significance of the Study

As of March 1, 2017, 34% of USU Extension employees were 57 years of age or older and 40% were between 40 and 57 years of age (Utah State University Extension, 2017). See Figure 1 for a complete listing of employees by age.

The results from this study will help identify the professional development needs
of Extension professionals and assess USU Extension by evaluating competencies needed to be a successful Extension professional. Additionally, these findings can serve as a hiring tool for future employees based upon the core competencies essential for Extension professionals.

*Figure 1.* Extension employees by age.
CHAPTER II
LITERATURE REVIEW

The CES continues to operate through the nation’s Land-Grant University System in partnership with the federal, state, and local governments (NIFA, 2017). The program continuously adapts to societal changes and reorients itself to an increasingly more industrial and service-oriented population (Russell, 1995). For example, USU Extension is facing new demands associated with employee turnover largely due to retirement. To maintain the Land-Grant University and CES mission, Extension professionals need to continue to interpret science-based research to meet these current demands. A systematic review of the literature on the qualifications, preparedness, and training of Extension professionals was conducted for this study.

Literature Review Objectives

Studies on the professional development needs of Extension professionals were identified and evaluated. The objectives of this literature review included:

- Describe the current state of research on competency needs within the CES.
- Discuss the strengths and weaknesses found in previous research.
- Draw conclusions based on this information to fine-tune the research objectives and methodology for this study.

Keyword Searches

To locate studies for this review, a preliminary computer search was completed

**Inclusion and Exclusion Criteria**

Articles were included in the literature review if they met the following criteria.

- The study was a peer-reviewed primary source or an academic dissertation.
- The study was published between 2001 and 2017.
- The study incorporated CES program evaluation, Extension agent/educator competencies, and/or professional development needs.

**Review Discussion**

A systematic literature review of 12 articles was conducted. Nine of the peer-reviewed articles were published within the past 15 years. Because of the lack of current research in this area, all articles discussing descriptive information on Extension program evaluations were reviewed. The current state of research on competency needs for Extension professionals is limited due to outdated articles and the fluctuation of competency needs.
Sample Characteristics

Gender

Of the 12 articles, nine reported both male and female participants. The articles did not report on gender differences or generate findings based upon gender. Research was not conducted on the competency needs pertaining to genders. In order to understand the competency needs of Extension professionals and how they differ based upon gender, future research should consider gender differences.

Number of Years in Extension

All articles contained a variety of target audiences based upon the number of years of experience in Extension. One article showed the differences in the perceived level of importance of competencies for county agents and supervisors, excluding respondents that had less than 2 years of experience (Cooper & Graham, 2001). In two studies, Extension professionals were surveyed specifically for job title or position such as: Extension service administrators, state-level subject-matter specialists, and the Area Specialized Extension agents (ASEA; Gibson & Hillison, 1994) and county chairs/directors (Lindner, 2001) rather than number of years employed in Extension.

A similar needs assessment was conducted with Agriculture Education teachers to identify skills needed by preservice teachers and inservice teachers. The respondents consisted of early career teacher education students, advanced teacher education students, and teachers who had completed their first year of teaching and were just beginning their second year (Stair, Warner, & Moore, 2012). Future research should include the number
of years of experience in Extension to provide data based on competency needs and how they may transform throughout the career of an Extension professional.

Degree Earned

The 12 articles reviewed did not report any data based on highest educational degree earned by Extension professionals. Future research should include the education level of Extension professionals in the USU Extension System.

Professional Development Training

No articles reported data based on attendance at professional development training at conferences sponsored by professional associations, or by state and national organizations such as USU Extension, Utah 4-H, USU Extension Family and Consumer Sciences, National Association of County Agriculture Agents (NACAA), National 4-H, and National Association of Extension 4-H Agents (NAE4-HA). Future research should include the number and type of professional development trainings attended as an Extension professional.

Competencies

Of the 12 articles, three declared between eight and 12 core competencies needed to succeed as an Extension professional. Three articles covered a broader range of needs ranging from 17 to 57 competencies. Six articles did not report any competency findings. Future research should include both core and broad competency needs for Extension agents.
Research Design Characteristics

Type of Research Design

In seven articles, a qualitative research design was used. Three articles applied a mixed method of both qualitative and quantitative design, one study utilized a descriptive study frame, and another used a Delphi approach. Future research should continue to employ a mixed-method research approach of both qualitative and quantitative design.

Measures

Seven of the 12 studies were conducted using a survey questionnaire method utilizing the Likert scale or similar scale rating and delivered to the target audience either by mail or offered online. One study used the Needs Assessment Model (Borich, 1980) which uses the process of identifying training needs that can be conceptualized as a discrepancy analysis to identify the two polar positions of what is and what should be. The study recommended that future research should use this Needs Assessment Model.

Threats to Internal Validity

The qualitative research conducted in the 12 studies, all contained similar threats to internal validity. These issues included professional bias, selection bias, and self-reporting. Future research should continue to consider these issues of internal validity.

Research Outcomes

Similar dependent variables can be found in all 12 articles. In a study conducted by Cooper and Graham (2001), shifts of competencies were found amongst Extension
agents in Arkansas. Agents believed that a strong work ethic and character traits such as being dependable and fair, honest, and trustworthy will bring the most success for Extension agents. People skills, credibility, and earning peer/clientele respect will always bring success to this changing organization. The authors recommended that the competencies identified as most important for the success of agents should be incorporated into inservice training, especially management training for supervisors. Further, a balance is needed between process skills and technical subject-matter training for all field staff (Cooper & Graham, 2001).

Gibson and Brown (2003) suggested building a curriculum that encompasses time management and prioritizing, listening and organizing, and thinking clearly and analytically. Scheer et al. (2006) agreed that it is imperative for the curriculum presented to be competency based and grounded in theory as well as in practice. Since the need for Extension programming is a vital importance, future research should be conducted in this area.

The University of Tennessee (UT) has faced reduced funding and organizational restructuring (Franck, Penn, Wise, & Berry, 2017). Many state Extension programs have reorganized counties into region-based entities and limited family and consumer sciences (FCS) to specialized programs in areas such as foods and nutrition, but UT continued to recognize the importance of having an Extension agent in all of the counties. UT developed a competency-based professional development plan for new FCS agents focusing on overall subject matter competencies. UT has identified five focused areas: community health, family economics, housing and environmental safety, human
development, and nutrition and food safety (Franck et al., 2017).

Another approach to the change in Cooperative Extension System was addressed in a collaborative effort in Maryland, involving a train-the-trainer model and sharing how Extension curriculum can be integrated into the school systems. It was reported that exit surveys suggest a positive impact on family and consumer sciences teachers and their students with the involvement of Cooperative Extension (Holland & Coleman, 2017).

New Extension professionals need the opportunity to experience the work of Extension in real-world settings through field experiences, internships, and service-learning projects (Scheer et al., 2006). An intern can be a valuable asset to county agents and their programs. Interns can bring current research-based knowledge and the latest in technology, as well as energy and enthusiasm to the community. Furthermore, internships are a successful strategy for recruiting new professionals into the CES (Wilken, Williams, Cadavieco, & Walker, 2008).

Scheer et al. (2006) suggested that Extension education core competencies be based on the literature and the essential skills required for employment by state Extension organizations. The 10 identified competency areas are as follows: (a) Extension knowledge, leadership, and management; (b) technology; (c) communications; (d) program planning, implementation, and evaluation; (e) applied research; (f) diversity and pluralism; (g) marketing and public relations; (h) theories of human development and learning; (i) risk management; and (j) community development process and diffusion. These competencies, along with the practical application of theory, provide future Extension professionals with proper skills and capacity to succeed in the profession.
Based on this study, it was suggested that, although it may not be practical to create an Extension education major in many universities, an option for Extension education certification programs or Extension education specializations within established degree programs should be offered (Scheer et al., 2006).

Hamilton, Chen, Pillemor, and Meador (2013) surveyed 388 county-level agents in New York State and found that they demonstrated a strong interest in and recognize the value of research in Extension. Attitudes, experiences, and preparation were properly aligned with this goal; however, several challenges were identified as needing to be overcome in order to achieve positive views of research. The educators were confident in their ability to read and understand research, including journal articles, and reported consulting research frequently. The rise of concern was discussed when two trends were found: (a) analysis of the results by program area highlighted that 4-H educators reported less proficiency in research than educators in agriculture and family and consumer sciences, and (b) educator dependence on and preference for the Internet and peers as sources of research. It was suggested that the first pattern of the less proficient 4-H educators may reflect idiosyncrasies in the Cornell Extension system, with many more professorial faculty members working in areas supporting agriculture and family and consumer sciences, whereas only a few specialize in a 4-H youth development program.

As for the dependency on and preference for the Internet, recommendations were made to expand on the research area of understanding how educators assess the quality of information, be it from the Internet or from peers, and how research-based information travels (Hamilton et al., 2013).
In 2014, Western Region Extension leaders gathered to take a look at the rich history of the CES and chart a map for the future endeavors of the organization (Carroll et al., 2017). In reviewing the “Manifesto for Extension Engagement” at this event, seven components related specifically to FCS and how they may change the way programs are delivered to clientele were identified: (a) engaged scholarship, (b) university integration, (c) learning technologies, (d) demand-driven agenda, (e) open source, (f) culture, and (g) identity and staffing. Using the seven components provided an open discussion to help determine future direction, not only programmatically but also philosophically, and most important, strategically. Carroll et al. (2017) suggested that the use of the “Manifesto for Extension Engagement” as a platform to aid in increased program relevance and effectiveness (Carroll et al., 2017).

Professionals from Mississippi State University (MSU) developed an organizational capacity survey (OCS) to capture an Extension system’s current state and to pinpoint areas for improvement (Peterson, Downey, & Hardman, 2017). The majority of the questions were phrased to assess the current perceptions of MSU Extension agents and how they should be ideally (Peterson et al., 2017). This format allowed for the calculation of discrepancy or gap scores, similar to the Needs Assessment Model (Borich, 1980), between paired items to identify areas in which competency was needed and/or desired. Specifically, discrepancy scores were calculated for questions about organizational vision and commitment, plan of work, working relationships, diversity and pluralism, and public value by subtracting the “ideal” response from the “current” response to demonstrate the size and direction of the gap (Peterson et al., 2017). Findings
from an OCS can reveal gaps in what an organization is doing and what an organization’s employees perceive the organization should be doing. Using the method of discrepancy scores such as the OCS or Borich (1980) Needs Assessment Model identified areas of need that can in turn be addressed by professional development.

A study conducted by Lindner (2001) examined perceptions of Ohio State University Extension county chairs regarding their human resource management (HRM) competencies and performance of HRM activities. This descriptive and correlational study also sought to describe the relationship between HRM competencies and performance of HRM activities of county chairs. Findings indicated that the highest competencies perceived by county chairs were written comprehension, oral comprehension, written expression, information gathering, inductive reasoning, and problem sensitivity. Recommendations included that additional research is needed to study the relationship between individual variables to gain a better understanding of the interrelationships between the two composite measures, similar to the design of the Borich (1980) Needs Assessment Model.

Another design comparable to the Borich (1980) Needs Assessment Model was discovered in the literature review; a modified importance-performance framework. This framework was used in evaluation of recreation-based experiential learning programs by researchers from the Department of Recreation, Park, and Tourism Management at Pennsylvania State University. Researchers shared how the Importance-Performance Analysis (IPA) provides an effective and readily applicable means of evaluating many programs (Pitas, Murray, Olsen, & Graefe, 2017). CES may use the modified IPA
framework to provide more distinct information about overall program performance that may be useful in making decisions regarding the continuation or elimination of recreation-based experiential learning programs. The IPA framework is best used for university recreation-based experiential learning courses containing both a classroom component and a field component but may not be ideal for determining professional development training needs (Pitas et al., 2017).

An article in a field similar to Extension identified concerns of preservice and inservice teachers in Agricultural Education. From this study, different levels of concern were identified across three groups consisting of early career teacher education students, advanced teacher education students, and teachers who completed their first year of teaching and were beginning their second year (Stair et al., 2012). The preservice students enrolled in an introductory course expressed the highest number of both nonteaching and self-concerns, while the preservice students in a methodology course did not express non-teaching concerns but a higher percentage of task concerns. The first-year teachers expressed the highest percentage of impact concerns, which involved larger educational decisions and considerations of the impact of current trends and issues on students in the classroom. Impact concern statements included: provide classroom activities that help students problem solve and think critically and; curriculum prepares students to work in the current agricultural industry. Among the three groups, respondents indicated a shift from non-teaching concerns to the higher-level impact concerns. These results indicate a difference in the number of agricultural education specific concerns between the three groups of respondents (Stair et al., 2012).
Conclusion

To better serve and prepare future Extension professionals, creating and revising academic programs must continue to progress (Scheer et al., 2006). Successful Extension programming requires education, training, and skill in both the process and the subject matter areas (Gibson & Brown, 2003). Several studies focused on specific competencies needed for Extension professionals including:

1. Extension knowledge (Cooper & Graham, 2001; Gibson & Hillison, 1994; Harder, Place, & Scheer, 2010; Scheer et al., 2006);
2. Leadership and Management (Cooper & Graham, 2001; Gibson & Hillison, 1994; Harder et al., 2010; Peterson et al., 2017; Scheer et al., 2006);
3. Technology (Cooper & Graham, 2001; Harder et al., 2010; Peterson et al., 2017; Scheer et al., 2006);
4. Communications (Cooper & Graham, 2001; Harder et al., 2010; Lindner, 2001; Peterson et al., 2017; Scheer et al., 2006);
5. Program planning, implementation, and evaluation (Cooper & Graham, 2001; Hamilton et al., 2013; Peterson et al., 2017; Scheer et al., 2006; Wilken et al., 2008);
6. Applied research (Cooper & Graham, 2001; Gibson & Hillison, 1994; Hamilton et al., 2013; Peterson et al., 2017; Scheer et al., 2006);
7. Diversity and pluralism (Cooper & Graham, 2001; Peterson et al., 2017; Scheer et al., 2006);
8. Marketing and public relations (Cooper & Graham, 2001; Peterson et al., 2017; Scheer et al., 2006; Wilken et al., 2008b);
9. Theories of human development and learning (Cooper & Graham, 2001; Gibson & Hillison, 1994; Peterson et al., 2017; Scheer et al., 2006);
10. Risk management (Cooper & Graham, 2001; Peterson et al., 2017);
11. Community development process and diffusion (Cooper & Graham, 2001;
Minimal research has been conducted on the current needs for professional development in the area of specific competencies essential for Extension professionals. There is also a deficit in tools to aid with assessment of inservice training, creation of professional development curricula, and the development of more marketable skills in Extension. Though minimal, current research on the competency needs of Extension professionals provides a foundation which can be improved upon through the Borich (1980) Needs Assessment Model. This specific model will build on the current research by designing a survey in such a manner that respondents provide data that can be weighted and ranked in order of priority so that responses are linked to a practical decision framework for program improvement (Borich, 1980).

This model has been widely used since 1980 as evidenced by approximately 200 studies within a Google Scholar search of “Borich Needs Assessment Model.” The Borich (1980) Needs Assessment Model identifies the void between “what should be” and “what is,” therefore it was appropriate to use in this study. The Borich model is inclusive of Extension professionals’ input and is a systematic process to prioritize professional development needs.

There are also gaps in the research with regards to sample characteristics. For example, gender, professional development trainings attended, highest degree earned, general Extension role, and leadership role should be considered. Additionally, a diverse
sample of respondents should be obtained.

To improve competencies of Extension professionals, more research has been conducted on the types of professional development needs for Extension professionals. Conducting a study based on the professional development needs of Extension professionals will (a) identify essential competency areas; (b) generate stronger areas for inservice assessment; (c) create a standardized professional development curriculum; and (d) develop additional marketable skills pertaining to the specific proficiencies and competencies needed in Extension. With a better understanding of the competency needs of Extension professionals, USU Extension can improve upon inservice trainings through appropriate professional development opportunities.
CHAPTER III

METHODOLOGY

The purpose of this mixed-method study was to identify professional development needs of Extension professionals and assess the USU Extension System by evaluating competencies needed to be a successful Extension professional. Data was collected using a survey instrument framed by a Borich (1980) Needs Assessment Model. From the identified competencies needed for Extension professionals, a hiring tool for future employees was created to generate stronger areas for inservice assessment, a standardized professional development curriculum can be implemented, and additional marketable skills for Extension professionals can be developed.

Objectives for this study included:

1. Identify competencies most important for the success of USU Extension professionals.

2. Recognize discrepancy or gap scores between competencies to determine competencies that should be part of the professional development training program for USU Extension professionals.

Research Design

A two-staged mixed-method research design was used to identify the professional development needs of Extension professionals in the USU Extension. Competencies needed to be a successful Extension professional were evaluated to determine how to improve professional development and build upon competency areas that are essential for Extension professionals.

In compliance with the research protocol established by USU approval from the
Institutional Review Board for Research Involving Human Subjects (IRB) was secured prior to implementation of the research. Included in the request for IRB approval, supplementary materials such as recruitment e-mails, proposed informed consent documents, focus group discussion, and the survey instrument were provided. Data collection began immediately following the notification of IRB approval.

For the first stage of the study, a qualitative approach was utilized during two focus group interview sessions. One session included USU Extension administrators and one session contained a convenience participant sample of USU Extension professionals. The two focus groups assisted in the process of developing a survey instrument rooted in the Needs Assessment Model (Borich, 1980) for the second stage of the study.

During the second stage, quantitative data was collected from the survey instrument managed by the web-based research tool Qualtrics and distributed to all USU Extension professionals via a list serve that was created by the researcher. In order to solicit potential respondents, USU Extension administrators and Utah 4-H faculty were contacted to request that a recruitment email be sent to the Extension professionals who subscribe to the respective email list serves. For the purpose of this study, Extension professionals have been defined as professionals pre- and post-promotion and tenure track, including the titles of Associate Professor, Assistant Professor, and Professional Practice.

**Population and Target Audience**

For the first stage of the study, members of the USU Extension administration
were selected for their position as either regional director, county director or supervisor, or Utah 4-H administrator to participate in the first focus group. Within this administrative focus group, four Extension professionals: three males and one female, participated.

To form the second focus group, a convenience sample included representation from each of the four discipline areas: (a) Agriculture and Natural Resources; (b) Horticulture; (c) Home, Family, and Food; and (d) Utah 4-H and Youth. Both groups convened through the Zoom online meeting. Within the Extension professional focus group, five Extension professionals, two males and three females, participated.

During the second stage of the study, a recruitment email requesting participation in the online survey was sent to approximately 60 county Extension professionals across the state of Utah and 70 Extension professionals located at the USU main campus in Logan, Utah. Approximately 125 survey respondents were projected. The survey was housed using the web-based research tool Qualtrics.

The dependent variables in this study were competencies needed for Extension professionals. Themes such as assessment of inservice training, creation of professional development curricula, and development of additional marketable skills in Extension emerged.

Materials

Recruitment Emails

To recruit the two focus groups, members of USU Extension administration and a
convenience sample of Extension professionals were contacted by email to explain the purpose of the study and request their participation (see Appendix A). Upon completion of competency statements and the development of the survey measurement tool based upon the Borich (1980) Needs Assessment Model, an initial email was sent to all Extension professionals with the link to the survey. Within the initial email, the purpose of the study was explained and their participation was requested. Two follow-up emails were sent; one week after the initial email and one after the extended deadline (see Appendices B and C).

**Informed Consent for Focus Groups**

An informed consent form was provided to all focus group participants for the following reasons: to fully pronounce the purpose and audience of the study; to clarify the involvement of participation; to recognize that consent to participate is voluntarily; and to indicate that withdrawing from the study at any time is without penalty or prejudice. Signed consent forms were obtained from all focus group respondents prior to conducting the interviews. Respondents were given the opportunity to ask questions and to obtain a copy of the results at the conclusion of the study (see Appendix D).

**Informed Consent for Survey Respondents**

An informed consent form for survey respondents was included in the online survey (see Appendix E). Respondents were informed that they may discontinue their participation at any time, their responses will remain strictly confidential, and their name will never be associated with either the responses or the results. Upon consent, the
following demographic information was collected: gender, race, age, highest level of education, number of years of experience in Extension, position title, and number of professional development trainings attended. By starting the Qualtrics survey, respondents agreed to participate in the study.

Focus Group Interview

The process of identifying professional development needs can be conceptualized as a discrepancy analysis that identifies the two polar positions of what is and what should be (Borich, 1980). To form the survey, competency statements were derived from the focus group participants (see Appendix F).

Software/Hardware

Zoom, an online cloud video conferencing service, was utilized to facilitate the focus group meetings during the first stage of data collection. The web-based research tool Qualtrics was used to house the survey distributed to respondents during the second stage of data collection.

Procedures

In the first stage, the focus group of four USU Extension administrators met together for approximately one hour via Zoom during early summer 2017 to identify the core competencies needed to successfully work as an Extension professional from the perspective of administrators. The second focus group of five USU Extension professionals met together approximately one hour via Zoom during early summer 2017.
to identify the core competencies needed to successfully work as an Extension professional and from the perspective of Extension professionals.

For both focus groups, a list of core competencies grounded in specific theoretical foundations of CES was provided. The theoretical foundations along with a partial list of supporting references guided the discussions and provided a starting point for formulating the competency statements (see Appendix F). Each focus group discussion was recorded and housed in a restricted-access folder on Box.com; an encrypted, cloud-based storage system.

The derived competency statements were then used to formulate a needs assessment survey instrument. The instrument was used to rate each competency statement by: (a) the relevance of each competency to their current job function (or perceived future job function), and (b) their current level of attainment of each competency. This instrument was produced using the web-based research tool Qualtrics. Discrepancies with the greatest positive rank difference have the highest priority for revising USU Extension professional development training.

In the second stage of the study, USU Extension professionals were recruited by email through a list serve created by the researcher of USU Extension professionals who have or are currently working on promotion and tenure. A follow-up email was sent to the same list serve 1 week later reminding Extension professionals of the study and to encourage participation. Data was collected, stored, managed, and analyzed using the web-based research tool Qualtrics. This information was securely stored in a restricted-access folder on Box.com.
Data Analysis

The data examined addressed the following research objectives.

1. Identify competencies most important for the success of USU Extension professionals.

2. Recognize discrepancy or gap scores between competencies to determine competencies that should be part of the professional development training program for USU Extension professionals.

To address Objective One, two focus groups were used to identify the most important competencies needed for the success of USU Extension professionals. The first focus group included USU Extension administration. Members of USU Extension administration were selected to identify competencies because of their knowledge of human resources and policy. Participants in this group also provided insight of USU Extension’s goals and mission from the university’s perspective.

The second focus group consisted of a purposeful sample of Extension professionals from each of the four discipline areas. To gain multidimensional perspective, county and regional faculty from the field were included. Extension professionals have first-hand experience and may possess knowledge of competencies that make them successful in Extension. Having Extension professionals separated from administrators provided Extension professionals confidentiality and a discussion free from discrimination or fear of administration retaliation.

Both focus groups suggested competencies needed for successful Extension professionals with the direction of the focus group discussion answering the question: What competencies are needed to be a successful Extension professional in [insert Core Competency Area]? (See Appendix F for full discussion cues.)
Upon completion of both focus group discussions, the qualitative data was analyzed. Each response to the discussion questions were coded into one core competency area: (a) extension knowledge; (b) leadership and organizational management; (c) education and information technology; (d) communications; (e) program evaluation and applied research; (f) diversity and pluralism; and (g) work ethic and professionalism. The seven core competency areas were based on findings in the literature review as well as engagement of the topic amongst the focus groups.

During the second iteration of data analysis, duplications were removed and similar competency statements were combined. This provided a simple and compressed list consisting of seven core competency areas and 64 competency statements (see Appendix G).

Using the competency list (Appendix G), a needs assessment survey was created and inputted into the web-based research tool Qualtrics. Within the instrument, respondents were asked to rate each competency statement two times by: (a) level of importance—the relevance of each competency to your current job function or perceived future job function and; (b) level of attainment—your current level of attainment of each competency. A 1-5 Likert-type scale: (1 = very low, 2 = low, 3 = neutral, 4 = high, 5 = very high) was provided for the respondents to rate each competency. Also included in the instrument were the following basic demographic questions: gender, age, extension role, and leadership role.

The online survey was sent to all USU Extension professionals via an email list serve which was produced by contacting the USU Extension Human Resources
Department. In order to solicit potential respondents, a recruitment was sent to pre- and post-promotion and tenured faculty. Emails were sent three times over a 2-week period during the fall of 2017. The closing date was November 1, 2017. On this day, it was determined that not enough respondents had completed the survey and an extension was set in place for November 10, 2017. Respondents who had not completed the survey in its entirety were then sent an additional email request to complete the survey. USU Extension Regional Directors also encouraged department faculty to contribute to this study. With the added time extension, the total response time frame was 15 business days.

On November 10, 2017, responses were downloaded from Qualtrics into a Microsoft Excel file. McKim and Saucier (2011) recommended using the Excel-based mean weighted discrepancy score (MWDS) calculator. This method expedited the process of calculating MWDS, eliminating any need to make manual calculations. Furthermore, the Excel-based MWDS calculator reduced opportunities for user error (McKim & Saucier, 2011).

Utilizing a MWDS for each competency, Objective Two was addressed. The process of the MWDS starts by identifying a discrepancy score (DS). This DS was initially calculated for each respondent for each competency by subtracting the ability score from the importance score. A weighted discrepancy score (WDS) was then calculated by multiplying the DS by the mean importance rating for each competency. Finally, a MWDS for each of the competencies was then calculated by taking the sum of the WDS and dividing by the number of observations. Sorting by the MWDS, the
competencies were then ranked. The competencies with the largest discrepancy scores
demonstrate the highest need and priority for professional development. According to
Borich (1980), the highest MWDS would have the highest priority for revising
professional development (J. Christensen, Warnick, Spielmaker, Tarpley, & Straquadine,
2009).

Data was then transferred into the Statistical Package for Social Sciences (SPSS) 24.0 for Windows. Using SPSS 24.0 allows researchers to perform statistical analysis quickly and effectively. To determine if the survey instrument had an acceptable reliability value, a post-hoc analysis of the survey instrument was performed. As an estimate of internal consistency, Cronbach’s coefficient was established at $\alpha = .948$. This coefficient is considered very high.
CHAPTER IV

RESULTS AND FINDINGS

The purpose of this mixed-methods study was to identify the professional development needs of Extension professionals and assess the USU Extension System by evaluating competencies essential to be a successful Extension professional. For the purpose of this study, Extension professionals have been defined as professionals in pre- and post-promotion and tenure track including the titles of Associate Professor, Assistant Professor, and Professional Practice.

At the time of the study, 134 Extension professionals met the defined criteria for participation. Of the 134, 80 responded to the survey while 54 did not. Multiple assumptions can be made for the non-respondents: individuals did not receive the emails, emails went to spam folder, only received one of the three emails sent. From the 80 responses received, 66 were completed for a response rate of 49.3%. The survey responses were analyzed to determine the professional development needs of USU Extension professionals and to meet the two objectives developed for the study.

Objective One: Identify competencies most important for the success of Utah State University Extension professionals.

The administrator focus group and Extension professional focus group of nine individuals consisted of five males (55.6%) and four females (44.3%). Each group represented the target audience. Members of both focus groups have been employed with USU Extension for more than one year and represented all Extension discipline areas. Through the focus group discussions, seven core competency areas or themes were
identified.

1. **Extension Knowledge**—Understand the history, philosophy, and contemporary nature of Extension.

2. **Leadership and Organizational Management**—Proactively influence a wide range of diverse individuals and groups in a positive manner.

3. **Education and Information Technology**—Apply technology and delivery methods that support educational programs and guide behavior change.

4. **Communications**—Communicate effectively both orally and in writing with clients and stakeholders.

5. **Program Evaluation and Applied Research**—Plan, design, implement, evaluate, and account for significant Extension education programs.

6. **Diversity and Pluralism**—Be aware of and commit to include cultural perspectives, norms, beliefs, and values.

7. **Work Ethic and Professionalism**—Demonstrate behaviors that reflect high levels of performance, a strong work ethic, and a commitment to self-assessment and continuing education.

From the seven core competency areas, competency statements such as the following were derived from both focus groups.

- A member of the administration focus group stated, “In Extension, we are often encouraged to identify a ‘flagship’ early on in our careers; it would be interesting to see if that is truly relevant to USU Extension professionals.” A flagship can be identified as an Extension professional’s core program or expertise area.

- A member of the Extension professional focus group commented: “When designing programs for youth, is it important to design effective evaluation instruments that meet their reading/writing levels and can Extension professionals use different types of evaluation methods such as conducting surveys, personal interviews, participant observations, and focus groups.”

- A member of the Extension professional focus group suggested: “There is a need for Extension professionals in any leadership role to have transparency.” A discussion amongst the focus group came about skilled in using transparency within leadership roles by having: communication about how decisions are made, county and department budgets, as well as positive relationships between leadership roles.
Competency statements were then consolidated by the researcher. Eliminating duplicates and combining related statements into one statement resulted in a simplified instrument. A total of 64 competencies were identified as most important for the success of USU Extension professionals (see Appendix G).

**Objective Two:** Recognize discrepancy or gap scores between competencies to determine competencies that should be part of the professional development training program for Utah State University Extension professionals.

The electronic survey generated 66 completed responses. Self-reported demographic data included: 33 females (50.0%), 28 males (42.2%), and 5 no response (7.6%); 33 respondents (50.0%) reported six or more years in a pre- or post-tenure position, 21 (31.8%) reported five years or less in a pre- post-tenure position, and the remaining 12 (18.1%) did not disclose Extension experience. The number of Extension professionals in current university positions included 14 (21.2%) Extension Assistant Professors, 24 (34.4%) Extension Associate Professors, 13 (19.7%) Extension Professors, seven (10.6%) Professional Practice, and five (7.6%) did not select an Extension position. Respondents in Extension Leadership roles comprised 16 (24.2%) administrators (includes regional and county directors), 24 (36.4%) county faculty members, 21 (31.8%) campus and/or regional specialists, and five (7.6%) did not disclose (see Table 1).

During the first stage of this study, 64 competencies were identified. In stage two, those competencies where ranked by perceived importance and ability. Tables 2-8 (discussed and shown separately below) summarize the responses from the USU Extension professionals based upon the core competency areas.
Table 1

Demographic Profile of Survey Respondents

<table>
<thead>
<tr>
<th>Description</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>33</td>
<td>50.0</td>
</tr>
<tr>
<td>Male</td>
<td>28</td>
<td>42.2</td>
</tr>
<tr>
<td>Did not disclose</td>
<td>5</td>
<td>7.6</td>
</tr>
<tr>
<td>Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Years or Less</td>
<td>21</td>
<td>31.8</td>
</tr>
<tr>
<td>6 Years or More</td>
<td>33</td>
<td>50.0</td>
</tr>
<tr>
<td>Did not disclose</td>
<td>12</td>
<td>18.1</td>
</tr>
<tr>
<td>Extension position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension assistant professor</td>
<td>14</td>
<td>24.2</td>
</tr>
<tr>
<td>Extension associate professor</td>
<td>24</td>
<td>36.4</td>
</tr>
<tr>
<td>Extension professor</td>
<td>13</td>
<td>19.7</td>
</tr>
<tr>
<td>Professional practice</td>
<td>7</td>
<td>10.6</td>
</tr>
<tr>
<td>Did not disclose</td>
<td>5</td>
<td>7.6</td>
</tr>
<tr>
<td>Leadership role</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>16</td>
<td>24.2</td>
</tr>
<tr>
<td>County faculty</td>
<td>24</td>
<td>36.4</td>
</tr>
<tr>
<td>Campus/regional faculty</td>
<td>21</td>
<td>31.8</td>
</tr>
<tr>
<td>Did not disclose</td>
<td>5</td>
<td>7.6</td>
</tr>
</tbody>
</table>

For the core competency area Extension Knowledge: An understanding of the history, philosophy, and contemporary nature of Extension, Extension professionals responded that they were most able to distinguish Extension from Distance Education \(M = 4.35\). Being capable and excited to promote Extension had the highest mean importance score \(M = 4.71\). Extension Knowledge results are summarized in Table 2.

The highest mean importance score for the core competency area of Leadership and Organizational Management was proactively influence a wide range of diverse
Table 2

*Extension Knowledge*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Mean importance</th>
<th>Mean ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be capable and excited to promote Extension</td>
<td>4.71</td>
<td>4.25</td>
</tr>
<tr>
<td>Be able to distinguish Extension from Distance Education</td>
<td>4.24</td>
<td>4.35</td>
</tr>
<tr>
<td>Have an understanding of 4-H and its mission</td>
<td>4.21</td>
<td>3.95</td>
</tr>
<tr>
<td>Have a knowledge base and familiarity of the Land Grant System</td>
<td>4.13</td>
<td>4.05</td>
</tr>
<tr>
<td>Show an interest in all program areas related to Utah State University Extension</td>
<td>3.62</td>
<td>3.49</td>
</tr>
<tr>
<td>Have past work or volunteer experience in Extension</td>
<td>3.41</td>
<td>3.83</td>
</tr>
<tr>
<td>Have experience in 4-H as a 4-H member or volunteer</td>
<td>2.92</td>
<td>3.27</td>
</tr>
</tbody>
</table>

*Note.* (1 = very low, 2 = low, 3 = neutral, 4 = high, 5 = very high).

Individuals and groups in a positive manner \((M = 4.65)\). The highest mean ability score was the ability to promote and exhibit teamwork \((M = 4.14)\). Leadership and Organizational Management results are summarized in Table 3.

The results for the core competency area Education and Information Technology: Application of technology and delivery methods that support educational programs and guide behavior change, include using technology for word processing, information access, data storage, and data analysis as the highest mean importance \((M = 4.45)\). The highest mean ability reported was discover and experiment with new technology \((M = 3.95)\). For a summary of Education and Information Technology core competency area results, see Table 4.

For Communications: Communicate Effectively Both Orally and in Writing with Clients and Stakeholders, Extension professionals responded that the most important information \((M = 4.54)\). Results show that the highest mean ability score is both
Table 3

Leadership and Organizational Management

<table>
<thead>
<tr>
<th>Competency</th>
<th>Mean importance</th>
<th>Mean ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>4.65</td>
<td>3.57</td>
</tr>
<tr>
<td>Promote and exhibit teamwork</td>
<td>4.58</td>
<td>4.14</td>
</tr>
<tr>
<td>Be receptive to suggestions and open minded</td>
<td>4.57</td>
<td>4.13</td>
</tr>
<tr>
<td>Have ability to delegate and avoid micromanaging</td>
<td>4.46</td>
<td>3.92</td>
</tr>
<tr>
<td>Be able to identify resources and others’ talents</td>
<td>4.44</td>
<td>3.87</td>
</tr>
<tr>
<td>Be able to de-escalate and overcome different forms of conflict</td>
<td>4.43</td>
<td>3.57</td>
</tr>
<tr>
<td>Have an understanding of volunteer development (develop, educate, and sustain volunteer leaders)</td>
<td>4.37</td>
<td>3.49</td>
</tr>
<tr>
<td>Provide leadership and resources for individuals with different types of needs</td>
<td>4.24</td>
<td>3.46</td>
</tr>
<tr>
<td>Be able to make decisions quickly and competently</td>
<td>4.19</td>
<td>3.79</td>
</tr>
<tr>
<td>Be skilled in using transparency within leadership roles</td>
<td>4.06</td>
<td>3.59</td>
</tr>
<tr>
<td>Apply and learn diverse leadership styles</td>
<td>4.05</td>
<td>3.16</td>
</tr>
<tr>
<td>Motivated and able to discover one’s identity as a leader</td>
<td>4.03</td>
<td>3.44</td>
</tr>
<tr>
<td>Utilize and incorporate peer mentoring</td>
<td>3.86</td>
<td>3.17</td>
</tr>
</tbody>
</table>

Note. (1 = very low, 2 = low, 3 = neutral, 4 = high, 5 = very high).

Table 4

Education and Information Technology

<table>
<thead>
<tr>
<th>Competency</th>
<th>Mean importance</th>
<th>Mean ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use technology for word processing, information access, data storage, and data analysis</td>
<td>4.45</td>
<td>3.95</td>
</tr>
<tr>
<td>Discover and experiment with new technology</td>
<td>4.25</td>
<td>3.40</td>
</tr>
<tr>
<td>Administer and integrate Social Media Networks into programing</td>
<td>4.03</td>
<td>3.02</td>
</tr>
<tr>
<td>Be innovative in the use of technology in program development and design</td>
<td>4.03</td>
<td>3.17</td>
</tr>
<tr>
<td>Design educational materials using marketing software to meet the needs of varied clients and contexts</td>
<td>3.83</td>
<td>3.00</td>
</tr>
<tr>
<td>Design and maintain website</td>
<td>3.65</td>
<td>2.68</td>
</tr>
<tr>
<td>Demonstrate proper video production equipment and software use</td>
<td>3.40</td>
<td>2.79</td>
</tr>
</tbody>
</table>

Note. (1 = very low, 2 = low, 3 = neutral, 4 = high, 5 = very high).
competency was to communicate using proper scholarly writing and research based confidence in writing skills and desire and willingness to contribute to writing projects ($M = 3.95$). Communications results are summarized in Table 5.

For the core competency area of Program Evaluation and Applied Research: Plan, Design, Implement, Evaluate, and Account for Significant Extension Education Programs, Extension professionals ranked make effective presentations based upon research findings as the most important ($M = 4.68$). Make effective presentations based upon research findings also scored the highest mean ability ($M = 4.05$). Program Evaluation and Applied Research results are summarized in Table 6.

For the core competency area of Diversity and Pluralism: Awareness and Commitment to Include Cultural Perspectives, Norms, Beliefs, and Values: the highest mean importance ($M = 4.48$) and the highest mean ability ($M = 3.51$) was to recognize the needs of diverse ethnic, religious, and cultural groups. Diversity and Pluralism results are summarized in Table 7.

Table 5

Communications

<table>
<thead>
<tr>
<th>Competency</th>
<th>Mean importance</th>
<th>Mean ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate using proper scholarly writing and research based information</td>
<td>4.54</td>
<td>3.94</td>
</tr>
<tr>
<td>Desire and willingness to contribute to writing projects</td>
<td>4.41</td>
<td>3.95</td>
</tr>
<tr>
<td>Confidence in writing skills</td>
<td>4.33</td>
<td>3.95</td>
</tr>
<tr>
<td>Utilize visual and audio platforms to reach targeted audiences and programs</td>
<td>4.05</td>
<td>3.21</td>
</tr>
<tr>
<td>Communicate clearly and professionally using Social Media Networks</td>
<td>4.08</td>
<td>3.18</td>
</tr>
</tbody>
</table>

*Note. (1 = Very Low, 2 = Low, 3 = Neutral, 4 = High, 5 = Very High).*
Table 6

*Program Evaluation and Applied Research*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Mean importance</th>
<th>Mean ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make effective presentations based upon research findings</td>
<td>4.68</td>
<td>4.05</td>
</tr>
<tr>
<td>Publish research findings for public use (e.g., journal articles, fact</td>
<td>4.63</td>
<td>3.73</td>
</tr>
<tr>
<td>sheets, reports, newspapers, mass media</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and engage stakeholders in Extension programming</td>
<td>4.57</td>
<td>3.67</td>
</tr>
<tr>
<td>Develop and professionally write a grant proposal</td>
<td>4.56</td>
<td>3.62</td>
</tr>
<tr>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>4.51</td>
<td>3.55</td>
</tr>
<tr>
<td>Develop a program design based on needs assessment findings</td>
<td>4.46</td>
<td>3.65</td>
</tr>
<tr>
<td>Acquire and allocate resources</td>
<td>4.39</td>
<td>3.66</td>
</tr>
<tr>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>4.38</td>
<td>3.30</td>
</tr>
<tr>
<td>Develop clear learning objectives</td>
<td>4.35</td>
<td>3.76</td>
</tr>
<tr>
<td>Differentiate between outputs and outcomes</td>
<td>4.33</td>
<td>3.86</td>
</tr>
<tr>
<td>Separate wants and needs and prioritize needs to address problems</td>
<td>4.32</td>
<td>3.60</td>
</tr>
<tr>
<td>Analyze evaluation data and report findings in clear concise manner</td>
<td>4.32</td>
<td>3.54</td>
</tr>
<tr>
<td>Design effective evaluation instruments (e.g., write clear questions,</td>
<td>4.31</td>
<td>3.35</td>
</tr>
<tr>
<td>survey length, adapt to different reading/writing levels)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participate in community site visits (e.g., farm, home, garden, 4-H club)</td>
<td>4.27</td>
<td>3.77</td>
</tr>
<tr>
<td>and provide research-based information to attendees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtain Institutional Review Board (IRB) approval for research projects</td>
<td>4.16</td>
<td>3.51</td>
</tr>
<tr>
<td>Conduct surveys, personal interviews, participant observations, and focus</td>
<td>4.11</td>
<td>3.43</td>
</tr>
<tr>
<td>groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct community forums/expansion and review committees</td>
<td>3.97</td>
<td>3.13</td>
</tr>
<tr>
<td>Write field reports based on community site visits</td>
<td>3.48</td>
<td>2.84</td>
</tr>
</tbody>
</table>

*Note.* (1 = very low, 2 = low, 3 = neutral, 4 = high, 5 = very high).
Table 7

*Diversity and Pluralism*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Mean importance</th>
<th>Mean ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize the needs of diverse ethnic, religious, and cultural groups</td>
<td>4.48</td>
<td>3.51</td>
</tr>
<tr>
<td>Address issues of socioeconomic status in Extension programming</td>
<td>4.27</td>
<td>3.35</td>
</tr>
<tr>
<td>Understand different learning styles and create resources to fit those needs</td>
<td>4.27</td>
<td>3.49</td>
</tr>
<tr>
<td>Be aware of and offer resources associated with generational differences</td>
<td>4.13</td>
<td>3.17</td>
</tr>
</tbody>
</table>

*Note.* (1 = Very Low, 2 = Low, 3 = Neutral, 4 = High, 5 = Very High).

Results for the core competency area of Work Ethic and Professionalism:

Demonstration of Behaviors that Reflect High Levels of Performance, A Strong Work Ethic, and A Commitment to Self-Assessment and Continuing Education, show that maintain life and work balance has the highest mean importance ($M = 4.76$). The highest mean ability was give credit where credit is due ($M = 4.52$). Work Ethic and Professionalism results are summarized in Table 8.

By recognizing discrepancy or gap scores between competencies, areas of improvement to professional development training can be determined. This is accomplished by calculating the MWDS for each competency based on the Borich Needs Assessment Model (Borich, 1980). The competency statements are ranked in order based on the MWDS for each competency.

The top-ranked competency need in which Extension professionals can improve on is maintain life and work balance (MWDS = 8.09). This competency had the largest
gap between level of importance and level of attainment as well as a large margin between the other top competencies: (a) skilled in using transparency within leadership roles (MWDS = 5.02); and (b) use time management to prioritize and organize effectively (MWDS = 4.86). The competencies that ranked lowest show the smallest gap or a negative MWDS, having a low level of importance. The competencies ranking lowest are: (a) have past work or volunteer experience in Extension (MWDS = -1.41); (b) have experience in 4-H as a 4-H member or volunteer (MWDS = -1.02); and (c) be able to distinguish Extension from Distance Education (MWDS = -0.47). Overall MWDS for all competencies are summarized in Table 9.
### Table 9

*Professional Development Needs of Extension Professionals—Overall Mean Weighted Discrepancy Score (MWDS; N = 66)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain life and work balance</td>
<td>1</td>
<td>8.09</td>
</tr>
<tr>
<td>Skilled in using transparency within leadership roles</td>
<td>2</td>
<td>5.02</td>
</tr>
<tr>
<td>Use time management to prioritize and organize effectively</td>
<td>3</td>
<td>4.86</td>
</tr>
<tr>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>4</td>
<td>4.73</td>
</tr>
<tr>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>5</td>
<td>4.58</td>
</tr>
<tr>
<td>Recognize the needs of diverse ethnic, religious, and cultural groups</td>
<td>6</td>
<td>4.33</td>
</tr>
<tr>
<td>Develop and professionally write a grant proposal</td>
<td>7</td>
<td>4.27</td>
</tr>
<tr>
<td>Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)</td>
<td>8</td>
<td>4.19</td>
</tr>
<tr>
<td>Identify and engage stakeholders in Extension programming</td>
<td>9</td>
<td>4.14</td>
</tr>
<tr>
<td>Administer and integrate Social Media Networks into programming</td>
<td>10</td>
<td>4.10</td>
</tr>
<tr>
<td>Address issues of socioeconomic status in Extension programming</td>
<td>11</td>
<td>3.93</td>
</tr>
<tr>
<td>Be aware of and offer resources associated with generational differences</td>
<td>12</td>
<td>3.93</td>
</tr>
<tr>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>13</td>
<td>3.81</td>
</tr>
<tr>
<td>Be able to make decisions quickly and competently</td>
<td>14</td>
<td>3.80</td>
</tr>
<tr>
<td>Communicate clearly and professionally using Social Media Networks</td>
<td>15</td>
<td>3.69</td>
</tr>
<tr>
<td>Discover and experiment with new technology</td>
<td>16</td>
<td>3.65</td>
</tr>
<tr>
<td>Develop a program design based on needs assessment findings</td>
<td>17</td>
<td>3.61</td>
</tr>
<tr>
<td>Commitment to self-assessment and continuous self-improvement after promotion and tenure by continuing to meet the mission, vision, and goals of Extension</td>
<td>18</td>
<td>3.60</td>
</tr>
<tr>
<td>Have an understanding of volunteer development (develop, educate, and sustain volunteer leaders)</td>
<td>19</td>
<td>3.60</td>
</tr>
<tr>
<td>Design effective evaluation instruments (e.g.: write clear questions, survey length, adapt to different reading/writing levels)</td>
<td>20</td>
<td>3.56</td>
</tr>
<tr>
<td>Design and maintain website</td>
<td>21</td>
<td>3.53</td>
</tr>
<tr>
<td>Innovative use of technology in program development and design</td>
<td>22</td>
<td>3.46</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilize visual and audio platforms to reach targeted audiences and programs</td>
<td>23</td>
<td>3.39</td>
</tr>
<tr>
<td>Analyze evaluation data and report findings in clear concise manner</td>
<td>24</td>
<td>3.36</td>
</tr>
<tr>
<td>Design educational materials using marketing software to meet the needs of</td>
<td>25</td>
<td>3.34</td>
</tr>
<tr>
<td>varied clients and contexts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct community forums/expansion and review committees</td>
<td>26</td>
<td>3.33</td>
</tr>
<tr>
<td>Understand different learning styles and create resources to fit those</td>
<td>27</td>
<td>3.32</td>
</tr>
<tr>
<td>needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Able to de-escalate and overcome different forms of conflict</td>
<td>28</td>
<td>3.30</td>
</tr>
<tr>
<td>Acquire and allocate resources</td>
<td>29</td>
<td>3.13</td>
</tr>
<tr>
<td>Separate wants and needs and prioritize needs to address problems</td>
<td>30</td>
<td>3.08</td>
</tr>
<tr>
<td>Make effective presentations based upon research findings</td>
<td>31</td>
<td>2.94</td>
</tr>
<tr>
<td>Communicate using proper scholarly writing and research based information</td>
<td>32</td>
<td>2.83</td>
</tr>
<tr>
<td>Conduct surveys, personal interviews, participant observations, and focus</td>
<td>33</td>
<td>2.81</td>
</tr>
<tr>
<td>groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate public speaking skills</td>
<td>34</td>
<td>2.71</td>
</tr>
<tr>
<td>Obtain Institutional Review Board (IRB) approval for research projects</td>
<td>35</td>
<td>2.71</td>
</tr>
<tr>
<td>Apply and learn diverse leadership styles</td>
<td>36</td>
<td>2.63</td>
</tr>
<tr>
<td>Develop clear learning objectives</td>
<td>37</td>
<td>2.55</td>
</tr>
<tr>
<td>Provide leadership and resources for individuals with different types of</td>
<td>38</td>
<td>2.54</td>
</tr>
<tr>
<td>needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilize and incorporate peer mentoring</td>
<td>39</td>
<td>2.41</td>
</tr>
<tr>
<td>Able to identify resources and others’ talents</td>
<td>40</td>
<td>2.37</td>
</tr>
<tr>
<td>Write field reports based on community site visits</td>
<td>41</td>
<td>2.25</td>
</tr>
<tr>
<td>Demonstrate proper video production equipment and software use</td>
<td>42</td>
<td>2.21</td>
</tr>
<tr>
<td>Use of technology for word processing, information access, data storage</td>
<td>43</td>
<td>2.19</td>
</tr>
<tr>
<td>and analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Be capable and excited to promote Extension</td>
<td>44</td>
<td>2.17</td>
</tr>
<tr>
<td>Participate in community site visits (e.g., farm, home, garden, 4-H club)</td>
<td>45</td>
<td>2.13</td>
</tr>
<tr>
<td>and provide research based information to attendees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differentiate between outputs and outcomes</td>
<td>46</td>
<td>2.06</td>
</tr>
<tr>
<td>Have ability to delegate and avoid micromanaging</td>
<td>47</td>
<td>2.03</td>
</tr>
<tr>
<td>Desire and willingness to contribute to writing projects</td>
<td>48</td>
<td>2.03</td>
</tr>
<tr>
<td>Relate to people with a personable, friendly, outgoing, and positive attitude</td>
<td>49</td>
<td>1.95</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivated and able to discover one’s identity as a leader</td>
<td>50</td>
<td>1.93</td>
</tr>
<tr>
<td>Receptive to suggestions and open minded</td>
<td>51</td>
<td>1.67</td>
</tr>
<tr>
<td>Promote and exhibit teamwork</td>
<td>52</td>
<td>1.66</td>
</tr>
<tr>
<td>Confidence in writing skills</td>
<td>53</td>
<td>1.65</td>
</tr>
<tr>
<td>Show a strong work ethic (e.g., self-motivated, determined, dedicated)</td>
<td>54</td>
<td>1.43</td>
</tr>
<tr>
<td>Represent Extension in a professional manner including professional dress</td>
<td>55</td>
<td>1.37</td>
</tr>
<tr>
<td>Desire to make a difference</td>
<td>56</td>
<td>1.34</td>
</tr>
<tr>
<td>Identify and create a professional “flagship”</td>
<td>57</td>
<td>1.32</td>
</tr>
<tr>
<td>Have an understanding of 4-H and its mission</td>
<td>58</td>
<td>1.07</td>
</tr>
<tr>
<td>Give credit where credit is due</td>
<td>59</td>
<td>0.51</td>
</tr>
<tr>
<td>Show an interest in all program areas related to Utah State University Extension</td>
<td>60</td>
<td>0.46</td>
</tr>
<tr>
<td>Have a knowledge base and familiarity of the Land Grant System.</td>
<td>61</td>
<td>0.33</td>
</tr>
<tr>
<td>Be able to distinguish Extension from Distance Education.</td>
<td>62</td>
<td>-0.47</td>
</tr>
<tr>
<td>Have experience in 4-H as a 4-H member or volunteer</td>
<td>63</td>
<td>-1.02</td>
</tr>
<tr>
<td>Have past work or volunteer experience in Extension.</td>
<td>64</td>
<td>-1.41</td>
</tr>
</tbody>
</table>

The highest ranking professional development need in Extension Knowledge: An Understanding of the History, Philosophy, and Contemporary Nature of Extension, is: *be capable and excited to promote Extension* (MWDS = 2.17); whereas the three negative discrepancy scores were found in this core competency area: (a) be able to distinguish Extension from Distance Education (MWDS = 0.47); (b) have experience in 4-H as a 4-H member or volunteer (MWDS = 1.02); (c) have past work or volunteer experience in Extension (MWDS = 1.41). For a summary of Extension Knowledge, see Table 10.

These findings are consistent with previous research that knowledge in Extension is not ranked of high importance to be successful. According to Cooper and Graham (2001), the need for practical experience has decreased as an important competency for
Table 10

Professional Development Needs of Extension Professionals—Extension Knowledge
Mean Weighted Discrepancy Score (MWDS; \(N = 66\))

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be capable and excited to promote Extension</td>
<td>1</td>
<td>2.17</td>
</tr>
<tr>
<td>Have an understanding of 4-H and its mission</td>
<td>2</td>
<td>1.07</td>
</tr>
<tr>
<td>Show an interest in all program areas related to Utah State University Extension</td>
<td>3</td>
<td>0.46</td>
</tr>
<tr>
<td>Have a knowledge base and familiarity of the Land Grant System</td>
<td>4</td>
<td>0.33</td>
</tr>
<tr>
<td>Be able to distinguish Extension from Distance Education</td>
<td>5</td>
<td>-0.47</td>
</tr>
<tr>
<td>Have experience in 4-H as a 4-H member or volunteer</td>
<td>6</td>
<td>-1.02</td>
</tr>
<tr>
<td>Have past work or volunteer experience in Extension</td>
<td>7</td>
<td>-1.41</td>
</tr>
</tbody>
</table>

Extension professionals; however, the educational level of today’s audience has changed, and competence in agriculture and family and consumer sciences requires more specialized training.

The highest ranking professional development need in Leadership and Organizational Management: Proactively Influence a Wide Range of Diverse Individuals and Groups in a Positive Manner, is: *skilled in using transparency within leadership roles* (MWDS = 5.02). The results for Leadership and Organizational Management are summarized in Table 11.

These findings are consistent with other research in that developing and maintaining a positive work environment to which employees are motivated and teamwork thrives is of high importance. Skilled in using transparency within leadership roles may correlate with developing and maintaining positive work environment and also was rated high (Lindner, 2001).
Table 11

*Professional Development Needs of Extension Professionals—Leadership and Organizational Management Mean Weighted Discrepancy Score (MWDS; N = 66)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled in using transparency within leadership roles</td>
<td>1</td>
<td>5.02</td>
</tr>
<tr>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>2</td>
<td>3.81</td>
</tr>
<tr>
<td>Be able to make decisions quickly and competently</td>
<td>3</td>
<td>3.80</td>
</tr>
<tr>
<td>Have an understanding of volunteer development (develop, educate, and sustain volunteer leaders)</td>
<td>4</td>
<td>3.60</td>
</tr>
<tr>
<td>Able to de-escalate and overcome different forms of conflict</td>
<td>5</td>
<td>3.30</td>
</tr>
<tr>
<td>Apply and learn diverse leadership styles</td>
<td>6</td>
<td>2.63</td>
</tr>
<tr>
<td>Provide leadership and resources for individuals with different types of needs</td>
<td>7</td>
<td>2.54</td>
</tr>
<tr>
<td>Utilize and incorporate peer mentoring</td>
<td>8</td>
<td>2.41</td>
</tr>
<tr>
<td>Able to identify resources and others’ talents</td>
<td>9</td>
<td>2.37</td>
</tr>
<tr>
<td>Have ability to delegate and avoid micromanaging</td>
<td>10</td>
<td>2.03</td>
</tr>
<tr>
<td>Motivated and able to discover one’s identity as a leader</td>
<td>11</td>
<td>1.93</td>
</tr>
<tr>
<td>Receptive to suggestions and open minded</td>
<td>12</td>
<td>1.67</td>
</tr>
<tr>
<td>Promote and exhibit teamwork</td>
<td>13</td>
<td>1.66</td>
</tr>
</tbody>
</table>

The highest ranking professional development need in Education and Information Technology: Application of Technology and Delivery Methods that Support Educational Programs and Guide Behavior Change, is: *administer and integrate Social Media Networks* into programing (MWDS = 4.10). The results for Education and Information Technology are summarized in Table 12.

The highest ranking professional development need in Communications: Communicate Effectively Both Orally and in Writing with Clients and Stakeholders, is: *communicate clearly and professionally using Social Media Networks* (MWDS = 3.69). The results for Communications are summarized in Table 13.
Table 12

*Professional Development Needs of Extension Professionals—Education and Information Technology Mean Weighted Discrepancy Score (MWDS; N = 66)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administer and integrate Social Media Networks into programming</td>
<td>1</td>
<td>4.10</td>
</tr>
<tr>
<td>Discover and experiment with new technology</td>
<td>2</td>
<td>3.65</td>
</tr>
<tr>
<td>Design and maintain website</td>
<td>3</td>
<td>3.53</td>
</tr>
<tr>
<td>Innovative use of technology in program development and design</td>
<td>4</td>
<td>3.46</td>
</tr>
<tr>
<td>Design educational materials using marketing software to meet the needs of varied clients and contexts</td>
<td>5</td>
<td>3.34</td>
</tr>
<tr>
<td>Demonstrate proper video production equipment and software use</td>
<td>6</td>
<td>2.21</td>
</tr>
<tr>
<td>Use of technology for word processing, information access, data storage and data analysis</td>
<td>7</td>
<td>2.19</td>
</tr>
</tbody>
</table>

Table 13

*Professional Development Needs of Extension Professionals—Communications Mean Weighted Discrepancy Score (MWDS; N = 66)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate clearly and professionally using Social Media Networks</td>
<td>1</td>
<td>3.69</td>
</tr>
<tr>
<td>Utilize visual and audio platforms to reach targeted audiences and programs</td>
<td>2</td>
<td>3.39</td>
</tr>
<tr>
<td>Communicate using proper scholarly writing and research based information</td>
<td>3</td>
<td>2.83</td>
</tr>
<tr>
<td>Desire and willingness to contribute to writing projects</td>
<td>4</td>
<td>2.03</td>
</tr>
<tr>
<td>Confidence in writing skills</td>
<td>5</td>
<td>1.65</td>
</tr>
</tbody>
</table>

The highest ranking professional development need in Program Evaluation and Applied Research: Plan, Design, Implement, Evaluate, and Account for Significant Extension Education Programs, is: *select and conduct the most appropriate needs assessment method* (MWDS = 4.73). The results for Program Evaluation and Applied Research are summarized in Table 14.
Table 14

Professional Development Needs of Extension Professionals—Program Evaluation and Applied Research Mean Weighted Discrepancy Score (MWDS; N = 66)

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>1</td>
<td>4.73</td>
</tr>
<tr>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>2</td>
<td>4.58</td>
</tr>
<tr>
<td>Develop and professionally write a grant proposal</td>
<td>3</td>
<td>4.27</td>
</tr>
<tr>
<td>Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)</td>
<td>4</td>
<td>4.19</td>
</tr>
<tr>
<td>Identify and engage stakeholders in Extension programming</td>
<td>5</td>
<td>4.14</td>
</tr>
<tr>
<td>Develop a program design based on needs assessment findings</td>
<td>6</td>
<td>3.61</td>
</tr>
<tr>
<td>Design effective evaluation instruments (e.g., write clear questions, survey length, adapt to different reading/writing levels)</td>
<td>7</td>
<td>3.56</td>
</tr>
<tr>
<td>Analyze evaluation data and report findings in clear concise manner</td>
<td>8</td>
<td>3.36</td>
</tr>
<tr>
<td>Conduct community forums/expansion and review committees</td>
<td>9</td>
<td>3.33</td>
</tr>
<tr>
<td>Acquire and allocate resources</td>
<td>10</td>
<td>3.13</td>
</tr>
<tr>
<td>Separate wants and needs and prioritize needs to address problems</td>
<td>11</td>
<td>3.08</td>
</tr>
<tr>
<td>Make effective presentations based upon research findings</td>
<td>12</td>
<td>2.94</td>
</tr>
<tr>
<td>Conduct surveys, personal interviews, participant observations, and focus groups</td>
<td>13</td>
<td>2.81</td>
</tr>
<tr>
<td>Obtain Institutional Review Board (IRB) approval for research projects</td>
<td>14</td>
<td>2.71</td>
</tr>
<tr>
<td>Develop clear learning objectives</td>
<td>15</td>
<td>2.55</td>
</tr>
<tr>
<td>Write field reports based on community site visits</td>
<td>16</td>
<td>2.25</td>
</tr>
<tr>
<td>Participate in community site visits (e.g., farm, home, garden, 4-H club) and provide research based information to attendees</td>
<td>17</td>
<td>2.13</td>
</tr>
<tr>
<td>Differentiate between outputs and outcomes</td>
<td>18</td>
<td>2.06</td>
</tr>
</tbody>
</table>

The highest ranking professional development need in Diversity and Pluralism: Awareness and Commitment to Include Cultural Perspectives, Norms, Beliefs and Values, is: recognize the needs of diverse ethnic, religious, and cultural groups (MWDS = 4.33). The results for Diversity and Pluralism are summarized in Table 15.
Table 15

**Professional Development Needs of Extension Professionals—Diversity and Pluralism**

*Mean Weighted Discrepancy Score (MWDS; N = 66)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize the needs of diverse ethnic, religious, and cultural groups</td>
<td>1</td>
<td>4.33</td>
</tr>
<tr>
<td>Address issues of socioeconomic status in Extension programming</td>
<td>2</td>
<td>3.93</td>
</tr>
<tr>
<td>Be aware of and offer resources associated with generational differences</td>
<td>3</td>
<td>3.93</td>
</tr>
<tr>
<td>Understand different learning styles and create resources to fit those needs</td>
<td>4</td>
<td>3.32</td>
</tr>
</tbody>
</table>

The highest ranking professional development need in Work Ethic and Professionalism: Demonstration of Behaviors that Reflect High Levels of Performance, A Strong Work Ethic, and A Commitment to Self-Assessment and Continuing Education, is: *maintain life and work balance* (MWDS = 8.09). The results for Work Ethic and Professionalism are summarized in Table 16.

Respondents self-selected their number of years of experience in Extension. A natural break between “5 years or less experience” and “6 years or more experience” was recognized and MWDS were sorted in each group. Table 17 shows data based on competency needs and how they may transform throughout the career of an Extension professional.

Table 17 also reflects current USU Extension professionals that are nearing retirement age and the selection and placement of new professionals across the state of Utah. As of March 1, 2017, 34% of USU Extension employees were 57 years of age or older and 40% were between 40 and 57 years of age (USU Extension Annual Conference, 2017).
Table 16

Professional Development Needs of Extension Professionals—Work Ethic and Professionalism Mean Weighted Discrepancy Score (MWDS; N = 66)

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain life and work balance</td>
<td>1</td>
<td>8.09</td>
</tr>
<tr>
<td>Use time management to prioritize and organize effectively</td>
<td>2</td>
<td>4.86</td>
</tr>
<tr>
<td>Commitment to self—assessment and continuous self—improvement after promotion and tenure by continuing to meet the mission, vision, and goals of Extension</td>
<td>3</td>
<td>3.60</td>
</tr>
<tr>
<td>Demonstrate public speaking skills</td>
<td>4</td>
<td>2.71</td>
</tr>
<tr>
<td>Relate to people with a personable, friendly, outgoing, and positive attitude</td>
<td>5</td>
<td>1.95</td>
</tr>
<tr>
<td>Show a strong work ethic (e.g., self—motivated, determined, dedicated)</td>
<td>6</td>
<td>1.43</td>
</tr>
<tr>
<td>Represent Extension in a professional manner including professional dress</td>
<td>7</td>
<td>1.37</td>
</tr>
<tr>
<td>Desire to make a difference</td>
<td>8</td>
<td>1.34</td>
</tr>
<tr>
<td>Identify and create a professional “flagship”</td>
<td>9</td>
<td>1.32</td>
</tr>
<tr>
<td>Give credit where credit is due</td>
<td>10</td>
<td>0.51</td>
</tr>
</tbody>
</table>

To compare different leadership roles, respondents were asked to select their current leadership role: (a) administration- including regional and county directors (N = 16); (b) county faculty (N = 29); (c) specialists- including on-campus and regional faculty (N = 21). Results for “Leadership Roles within Extension Compared” are summarized in Table 18.

Respondents were also asked to select the Extension roles in which they currently work: (a) 4-H (N = 31); (b) Agriculture (N = 18); (c) Family and Consumer Sciences (N = 22); (d) Horticulture and Agronomy (N = 11); (e) Natural Resources (N = 12). The top 10 competencies for each Extension role are summarized and shown later in Tables 19-22. Thirty-one respondents reported having a percentage of their role in 4-H. A summary of the top 10 competencies for Extension roles in 4-H are listed in Table 19.
Table 17

*Years in Extension Compared Mean Weighted Discrepancy Score (MWDS)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>MWDS</th>
<th>N&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Competency</th>
<th>MWDS</th>
<th>N&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 years or less experience in extension</td>
<td></td>
<td></td>
<td>6 years or more experience in extension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintain life and work balance</td>
<td>10.76</td>
<td>21</td>
<td>Maintain life and work balance</td>
<td>6.55</td>
<td>33</td>
</tr>
<tr>
<td>Develop and professionally write a grant proposal</td>
<td>7.63</td>
<td>21</td>
<td>Use time management to prioritize and organize effectively</td>
<td>3.77</td>
<td>33</td>
</tr>
<tr>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>7.26</td>
<td>21</td>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>3.68</td>
<td>33</td>
</tr>
<tr>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>7.18</td>
<td>21</td>
<td>Recognize the needs of diverse ethnic, religious, and cultural groups</td>
<td>3.17</td>
<td>33</td>
</tr>
<tr>
<td>Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)</td>
<td>6.96</td>
<td>21</td>
<td>Identify and engage stakeholders in Extension programming</td>
<td>3.01</td>
<td>33</td>
</tr>
<tr>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>6.60</td>
<td>21</td>
<td>Communicate clearly and professionally using Social Media Networks</td>
<td>3.01</td>
<td>33</td>
</tr>
<tr>
<td>Use time management to prioritize and organize effectively</td>
<td>6.35</td>
<td>21</td>
<td>Administer and integrate Social Media Networks into programing</td>
<td>2.87</td>
<td>33</td>
</tr>
<tr>
<td>Have an understanding of volunteer development (develop, educate, and sustain volunteer leaders)</td>
<td>6.16</td>
<td>21</td>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>2.78</td>
<td>33</td>
</tr>
<tr>
<td>Develop a program design based on needs assessment findings</td>
<td>6.16</td>
<td>21</td>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>2.72</td>
<td>33</td>
</tr>
<tr>
<td>Separate wants and needs and prioritize needs to address problems</td>
<td>5.88</td>
<td>21</td>
<td>Commitment to self—assessment and continuous self—improvement after promotion and tenure by continuing to meet the mission, vision, and goals of Extension</td>
<td>2.67</td>
<td>33</td>
</tr>
</tbody>
</table>

<sup>a</sup>*N* = Number of Extension professionals who responded to the competency.
### Table 18

**Leadership Roles within Extension Compared Mean Weighted Discrepancy Score (MWDS)**

<table>
<thead>
<tr>
<th>Administration Competency</th>
<th>MWDS</th>
<th>N</th>
<th>County faculty Competency</th>
<th>MWDS</th>
<th>N</th>
<th>Specialist Competency</th>
<th>MWDS</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain life and work balance</td>
<td>6.62</td>
<td>16</td>
<td>Maintain life and work balance</td>
<td>8.96</td>
<td>29</td>
<td>Maintain life and work balance</td>
<td>8.93</td>
<td>21</td>
</tr>
<tr>
<td>Communicate clearly and professionally using Social Media Networks</td>
<td>4.38</td>
<td>16</td>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>5.96</td>
<td>29</td>
<td>Use time management to prioritize and organize effectively</td>
<td>6.00</td>
<td>21</td>
</tr>
<tr>
<td>Recognize the needs of diverse ethnic, religious, and cultural groups</td>
<td>3.88</td>
<td>16</td>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>5.96</td>
<td>29</td>
<td>Address issues of socioeconomic status in Extension programming</td>
<td>5.84</td>
<td>21</td>
</tr>
<tr>
<td>Administer and integrate Social Media Networks into programming</td>
<td>3.45</td>
<td>16</td>
<td>Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)</td>
<td>5.74</td>
<td>29</td>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>5.45</td>
<td>21</td>
</tr>
<tr>
<td>Address issues of socioeconomic status in Extension programming</td>
<td>3.05</td>
<td>16</td>
<td>Use time management to prioritize and organize effectively</td>
<td>5.58</td>
<td>29</td>
<td>Recognize the needs of diverse ethnic, religious, and cultural groups</td>
<td>5.12</td>
<td>21</td>
</tr>
<tr>
<td>Understand different learning styles and create resources to fit those needs</td>
<td>2.88</td>
<td>16</td>
<td>Develop and professionally write a grant proposal</td>
<td>5.46</td>
<td>29</td>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>4.94</td>
<td>21</td>
</tr>
</tbody>
</table>

* (table continues)
<table>
<thead>
<tr>
<th>Administration</th>
<th>County faculty</th>
<th>Specialist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency</td>
<td>MWDS</td>
<td>N&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>2.85</td>
<td>16</td>
</tr>
<tr>
<td>Design effective evaluation instruments (e.g.: write clear questions, survey length, adapt to different reading/writing levels)</td>
<td>2.84</td>
<td>16</td>
</tr>
<tr>
<td>Obtain Institutional Review Board (IRB) approval for research projects</td>
<td>2.79</td>
<td>16</td>
</tr>
</tbody>
</table>

N = Number of Extension professionals who responded to the competency.
Table 19

*Professional Development Needs of Extension Professionals—Professional with an Extension Role in 4-H Mean Weighted Discrepancy Score (MWDS; N = 31)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain life and work balance</td>
<td>1</td>
<td>8.51</td>
</tr>
<tr>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>2</td>
<td>5.39</td>
</tr>
<tr>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>3</td>
<td>5.36</td>
</tr>
<tr>
<td>Recognize the needs of diverse ethnic, religious, and cultural groups</td>
<td>4</td>
<td>5.14</td>
</tr>
<tr>
<td>Develop and professionally write a grant proposal</td>
<td>5</td>
<td>5.13</td>
</tr>
<tr>
<td>Use time management to prioritize and organize effectively</td>
<td>6</td>
<td>4.98</td>
</tr>
<tr>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>7</td>
<td>4.95</td>
</tr>
<tr>
<td>Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)</td>
<td>8</td>
<td>4.71</td>
</tr>
<tr>
<td>Design effective evaluation instruments (e.g., write clear questions, survey length, adapt to different reading/writing levels)</td>
<td>9</td>
<td>4.68</td>
</tr>
<tr>
<td>Identify and engage stakeholders in Extension programming</td>
<td>10</td>
<td>4.68</td>
</tr>
</tbody>
</table>

Eighteen respondents reported having a percentage of their role in Agriculture. A summary of the top 10 competencies for Extension roles in Agriculture are listed in Table 20. Twenty-two respondents reported having a percentage of their role in Family and Consumer Sciences. A summary of the top 10 competencies for Extension roles in Family and Consumer Sciences are listed in Table 21. Eleven respondents reported having a percentage of their role in Horticulture and Agronomy. A summary of the top 10 competencies for Extension roles in Horticulture and Agronomy are listed in Table 22. Twelve respondents reported having a percentage of their role in Natural Resources. A summary of the top 10 competencies for Extension roles in Natural Resources are listed in Table 23.
Table 20

*Professional Development Needs of Extension Professionals—Professional with an Extension Role in Agriculture Mean Weighted Discrepancy Score (MWDS; N = 18)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain life and work balance</td>
<td>1</td>
<td>7.52</td>
</tr>
<tr>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>2</td>
<td>4.78</td>
</tr>
<tr>
<td>Design effective evaluation instruments (e.g., write clear questions, survey length, adapt to different reading/writing levels)</td>
<td>3</td>
<td>4.28</td>
</tr>
<tr>
<td>Administer and integrate Social Media Networks into programing</td>
<td>4</td>
<td>3.78</td>
</tr>
<tr>
<td>Use time management to prioritize and organize effectively</td>
<td>5</td>
<td>3.50</td>
</tr>
<tr>
<td>Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)</td>
<td>6</td>
<td>3.50</td>
</tr>
<tr>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>7</td>
<td>3.47</td>
</tr>
<tr>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>8</td>
<td>3.33</td>
</tr>
<tr>
<td>Identify and engage stakeholders in Extension programming</td>
<td>9</td>
<td>3.29</td>
</tr>
<tr>
<td>Develop and professionally write a grant proposal</td>
<td>10</td>
<td>3.01</td>
</tr>
</tbody>
</table>

Table 21

*Professional Development Needs of Extension Professionals—Professional with an Extension Role in Family and Consumer Sciences Mean Weighted Discrepancy Score (MWDS; N = 22)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain life and work balance</td>
<td>1</td>
<td>10.83</td>
</tr>
<tr>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>2</td>
<td>6.89</td>
</tr>
<tr>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>3</td>
<td>6.60</td>
</tr>
<tr>
<td>Use time management to prioritize and organize effectively</td>
<td>4</td>
<td>6.45</td>
</tr>
<tr>
<td>Recognize the needs of diverse ethnic, religious, and cultural groups</td>
<td>5</td>
<td>5.90</td>
</tr>
<tr>
<td>Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)</td>
<td>6</td>
<td>5.75</td>
</tr>
<tr>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>7</td>
<td>5.43</td>
</tr>
<tr>
<td>Discover and experiment with new technology</td>
<td>8</td>
<td>5.36</td>
</tr>
<tr>
<td>Analyze evaluation data and report findings in clear concise manner</td>
<td>9</td>
<td>5.36</td>
</tr>
<tr>
<td>Develop and professionally write a grant proposal</td>
<td>10</td>
<td>5.27</td>
</tr>
</tbody>
</table>
Table 22

*Professional Development Needs of Extension Professionals—Professional with an Extension role in Horticulture and Agronomy Mean Weighted Discrepancy Score (MWDS; N = 11)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain life and work balance</td>
<td>1</td>
<td>6.45</td>
</tr>
<tr>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>2</td>
<td>5.16</td>
</tr>
<tr>
<td>Use time management to prioritize and organize effectively</td>
<td>3</td>
<td>5.16</td>
</tr>
<tr>
<td>Design effective evaluation instruments (e.g., write clear questions, survey length, adapt to different reading/writing levels)</td>
<td>4</td>
<td>4.56</td>
</tr>
<tr>
<td>Administer and integrate Social Media Networks into programing</td>
<td>5</td>
<td>4.17</td>
</tr>
<tr>
<td>Be able to de-escalate and overcome different forms of conflict</td>
<td>6</td>
<td>4.13</td>
</tr>
<tr>
<td>Identify and engage stakeholders in Extension programming</td>
<td>7</td>
<td>4.05</td>
</tr>
<tr>
<td>Develop and professionally write a grant proposal</td>
<td>8</td>
<td>3.88</td>
</tr>
<tr>
<td>Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)</td>
<td>9</td>
<td>3.87</td>
</tr>
<tr>
<td>Commitment to self-assessment and continuous self-improvement after promotion and tenure by continuing to meet the mission, vision, and goals of Extension</td>
<td>10</td>
<td>3.87</td>
</tr>
</tbody>
</table>

Table 23

*Professional Development Needs of Extension Professionals—Professional with an Extension Role in Natural Resources Mean Weighted Discrepancy Score (MWDS; N = 12)*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rank</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain life and work balance</td>
<td>1</td>
<td>9.10</td>
</tr>
<tr>
<td>Proactively influence a wide range of diverse individuals and groups in a positive manner</td>
<td>2</td>
<td>5.44</td>
</tr>
<tr>
<td>Use time management to prioritize and organize effectively</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>Address issues of socioeconomic status in Extension programming</td>
<td>4</td>
<td>4.42</td>
</tr>
<tr>
<td>Be aware of and offer resources associated with generational differences</td>
<td>5</td>
<td>4.42</td>
</tr>
<tr>
<td>Select and conduct the most appropriate needs assessment method</td>
<td>6</td>
<td>4.05</td>
</tr>
<tr>
<td>Be able to de-escalate and overcome different forms of conflict</td>
<td>7</td>
<td>3.68</td>
</tr>
<tr>
<td>Write Extension evaluation reports and share results and impacts</td>
<td>8</td>
<td>3.61</td>
</tr>
<tr>
<td>Design effective evaluation instruments (e.g., write clear questions, survey length, adapt to different reading/writing levels)</td>
<td>9</td>
<td>3.54</td>
</tr>
<tr>
<td>Recognize the needs of diverse ethnic, religious, and cultural groups</td>
<td>10</td>
<td>3.25</td>
</tr>
</tbody>
</table>
CHAPTER V
DISCUSSION AND RECOMMENDATIONS

Discussion

Purpose and Objectives of the Study

The purpose of this mixed-methods study was to identify the professional development needs of Extension professionals and assess the USU Extension by evaluating competencies essential to be a successful Extension professional.

Objectives for this study included:

1. Identify competencies most important for the success of USU Extension professionals.

2. Recognize discrepancy or gap scores between competencies to determine competencies that should be part of the professional development training program for USU Extension professionals.

Objective One

From the two focus group discussions, seven core competency areas were identified: (a) extension knowledge; (b) leadership and organizational management; (c) education and information technology; (d) communications; (e) program evaluation and applied research; (f) diversity and pluralism; (g) work ethic and professionalism. From the seven core competency areas, 64 competencies were identified. Of these, 61 competencies had a positive mean weighted discrepancy score.

Discrepancies with the greatest positive rank difference have the highest priority for revising the professional development training with USU Extension (Borich, 1980). Competencies reporting a positive ranking may be viewed as important for the success of
USU Extension professionals.

**Objective Two**

**Overall.** The findings indicate that maintain life and work balance (MWDS = 8.09) is the highest priority, by a large margin; thus, USU Extension needs to address this competency in professional development trainings. This competency ranked the highest in every discipline area, leadership role, and experience level.

Additional findings show that Extension professionals ranked the following competencies as most important: (a) transparency within leadership roles (MWDS = 5.02); (b) manage time to prioritize and organize effectively (MWDS = 4.86); (c) needs assessment methodology (MWDS = 4.73); (d) write Extension evaluation reports and ability to share results and impacts (MWDS = 4.58); (e) recognize the needs of diverse ethnic, religious, and cultural groups (MWDS = 4.33); (f) write a grant proposal (MWDS = 4.27); (g) publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media) (MWDS = 4.19); (h) identify and engage stakeholders in Extension programming (MWDS =4.14); and (i) administer and integrate Social Media Networks into programing(MWDS = 4.10).

**Experience.** Extension professionals with 5 years or less experience ranked the following competencies as most important: (a) maintain life and work balance (MWDS = 10.76); (b) develop and professionally write a grant proposal (MWDS = 7.63); (c) write Extension evaluation reports and share results and impacts (MWDS = 7.26); (d) select and conduct the most appropriate needs assessment method (MWDS = 7.18); (e) publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers,
mass media) (MWDS = 6.96); (f) proactively influence a wide range of diverse individuals and groups in a positive manner (MWDS = 6.60); (g) use time management to prioritize and organize effectively (MWDS = 6.35); (h) understand volunteer development (develop, educate, and sustain volunteer leaders) (MWDS = 6.16); (i) develop a program design based on needs assessment findings (MWDS = 6.16); (j) separate wants and needs and prioritize needs to address problems (MWDS = 5.88).

Extension professionals with five years or less experience are more likely to be working on promotion and tenure (P&T). It is evident that this cohort of respondents is greatly focused on competencies required for advancement and to obtain tenure. The competencies that ranked highest for Extension professionals with 5 years or less experience included: develop and professionally write a grant proposal (MWDS = 7.63); write Extension evaluation reports and share results and impacts (MWDS = 7.26); select and conduct the most appropriate needs assessment method (MWDS = 7.18); and publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media; MWDS = 6.96). These listed competencies correlate with the requirements for P&T.

Extension professionals with six years or more experience ranked the following competencies as most important: (a) maintain life and work balance (MWDS = 6.55); (b) use time management to prioritize and organize effectively (MWDS = 3.77); (c) proactively influence a wide range of diverse individuals and groups in a positive manner (MWDS = 3.68); (d) recognize the needs of diverse ethnic, religious, and cultural groups (MWDS = 3.17); (e) identify and engage stakeholders in Extension programming
(MWDS = 3.01); (f) communicate clearly and professionally using social media networks (MWDS = 3.01); (g) administer and integrate social media networks into programing (MWDS = 2.87); (h) write Extension evaluation reports and share results and impacts (MWDS = 2.78); (i) select and conduct the most appropriate needs assessment method (MWDS = 2.72); (j) commitment to self-assessment and continuous self-improvement after promotion and tenure by continuing to meet the mission, vision, and goals of Extension (MWDS = 2.67).

Extension professionals with six years or more experience have more likely obtained tenure. This cohort had a very different view of what professional development is needed including: use time management to prioritize and organize effectively (MWDS = 3.77); proactively influence a wide range of diverse individuals and groups in a positive manner (MWDS = 3.68); recognize the needs of diverse ethnic, religious, and cultural groups (MWDS = 3.17); and identify and engage stakeholders in Extension programming (MWDS = 3.01).

This list of competencies connects more with the USU Extension mission statement: “Utah State University Extension provides research-based programs and resources to the citizens of Utah with the goal of improving the lives of individuals, families and communities” (USU Extension, 2017). The competencies also correlate with a statement from NIFA.

Extension provides non-formal education and learning activities to people throughout the country — to farmers and other residents of rural communities as well as to people living in urban areas. It emphasizes taking knowledge gained through research and education and bringing it directly to the people to create positive changes. (NIFA, 2017)
Comparing the different levels of experience may show that the priorities are different over the course of an Extension professional’s career. Reviewing levels of experience may also show the differences in professional development needs based upon age.

**Leadership roles.** Again, the highest MWDS across leadership roles was maintain life and work balance (Administration—MWDS = 6.62; County Faculty—MWDS = 8.96; Specialists—MWDS = 8.93), the next highest MWDS ranking competencies between leadership roles were: (a) Administration—communicate clearly and professionally using social media networks (MWDS = 4.38); and recognize the needs of diverse ethnic, religious, and cultural groups (MWDS = 3.88); (b) County Faculty—proactively influence a wide range of diverse individuals and groups in a positive manner (MWDS = 5.96); and select and conduct the most appropriate needs assessment method (MWDS = 5.96); (c) Specialist—use time management to prioritize (MWDS = 6.00); and organize effectively and address issues of socioeconomic status in Extension programming (MWDS = 5.84).

When considering how the respondents in different leadership roles rated maintain life and work balance, there is a large discrepancy between how Administration (MWDS = 6.62) rated verses how County Faculty (MWDS = 8.96) and Specialist (MWDS = 8.93) rated the competency. Though maintain life and work balance was the highest priority for Administration, the difference between them and the other leadership roles (County Faculty and Specialist) is large, with over two point’s difference.

After the top ranking competency of maintain life and work balance amongst all
the leadership roles, the next top competencies between the leadership roles are different. Administration may be focusing on items such as Extension marketing, building a brand across the state, using social media networks. Administration also rated diversity high, which correlates with Extension’s goal to reach broad and perhaps underserved communities.

County faculty continuously work on community programs by addressing the needs of the community as well as demands from stakeholders. County faculty rankings relate to their role statements and Extension mission by proactively influencing a wide range of diverse individuals and groups in a positive manner (MWDS = 5.96); be it expansion and review board, coalitions, volunteer committees, or colleagues. To meet the needs of their communities, Extension professionals need to select and conduct the most appropriate needs assessment method (MWDS = 5.96).

Likewise, Specialists also ranked competencies according to their role statement. Specifically, specialists ranked organize effectively and address issues of socioeconomic status in Extension programming (MWDS = 5.84) in the top. This is interesting since specialists are often the professionals tasked with statewide programing and applying for additional funding. Most funding opportunities are developed to help specific socioeconomic demographics.

**Extension roles.** There was also a large difference between the Extension roles, again the highest MWDS was maintain life and work balance (4-H—MWDS = 8.51; Agriculture—MWDS = 7.52; Family and Consumer Sciences (FCS)—MWDS = 10.83; Horticulture and Agronomy—MWDS = 6.45; Natural Resources—MWDS = 9.10).
As reported, FCS professionals \((N = 22)\) rated maintain life and work balance the highest amongst Extension roles. In this population, 95.45\% of respondents were female. This is interesting since balance of life and work is what FCS professionals teach, yet data indicates they cannot obtain balance in their personal lives. The gender of FCS professionals may also correlate with such a high ranking of maintain life and work balance. Gender roles in the home and the professional’s personal life may not allow for stress management, personal time, or coping skills.

A study based on women employed in the Cooperative Extension Service suggest workplace policies should reflect, and administrators and coworkers should recognize, the variation in women’s experiences when they are required to travel for their jobs. Some employers create a work culture that blames women’s family structures and parenting responsibilities as contributors to their stress at work; however, in this research, we found family factors were not significant challenges to work performance.

The next highest MWDS ranking across the discipline areas included:

a. 4-H:
   - Select and conduct the most appropriate needs assessment method (MWDS = 5.39)
   - Write Extension evaluation reports and share results and impacts (MWDS = 5.36)

b. Agriculture:
   - Proactively influence a wide range of diverse individuals and groups in a positive manner (MWDS = 4.78)
   - Design effective evaluation instruments (e.g., write clear questions, survey length, adapt to different reading/writing levels; MWDS = 4.28)
c. Family and Consumer Sciences:

- Select and conduct the most appropriate needs assessment method (MWDS = 6.89)

- Write Extension evaluation reports and share results and impacts (MWDS = 6.60)

d. Horticulture and Agronomy and e) Natural Resources had the same top competencies:

- Proactively influence a wide range of diverse individuals and groups in a positive manner (Horticulture and Agronomy—MWDS = 5.16; Natural Resources—MWDS = 5.44)

- Use time management to prioritize and organize effectively (Horticulture and Agronomy—MWDS = 5.16; Natural Resources—MWDS = 4.67).

Further Discussion

Based on a MWDS lower than 2.0, the core competency area of Extension Knowledge had one competency slightly over this threshold: be capable and excited to promote Extension (MWDS = 2.17). Extension Knowledge is the core competency area that has the lowest priority for professional development. This core competency area can be attained quickly over the first part of an Extension professional’s career.

Competencies ranked with a lesser need for professional development training and a MWDS lower than 2.0 were: (a) relate to people with a personable, friendly, outgoing, and positive attitude (MWDS = 1.95); (b) motivate and be able to discover one’s identity as a leader (MWDS = 1.93); (c) be receptive to suggestions and open minded (MWDS = 1.67); (d) promote and exhibit teamwork (MWDS = 1.66); (e) have confidence in writing skills (MWDS = 1.65); (f) show a strong work ethic (e.g., self-motivation, determination, dedication) (MWDS = 1.43); (g) represent Extension in a
professional manner including professional dress (MWDS = 1.37); (h) have a desire to make a difference (MWDS = 1.34); (i) identify and create a professional “flagship” (MWDS = 1.32); (j) have an understanding of 4-H and its mission (MWDS = 1.07); (k) give credit where credit is due (MWDS = 0.51); (l) show an interest in all program areas related to USU Extension (m) have a knowledge base and familiarity of the Land Grant System (MWDS = 0.33); (n) be able to distinguish Extension from Distance Education (MWDS = -0.47); (o) have experience in 4-H as a 4-H member or volunteer (MWDS = -1.02); (p) have past work or volunteer experience in Extension (MWDS = -1.41).

The competencies with a MWDS lower than 2.0 show that Extension professionals either rated the competencies as a high level of importance and a high level of ability or a low level of importance and a high level of ability. Competencies related to previous volunteer work: (a) have experience in 4-H as a 4-H member or volunteer (MWDS = -1.02) and; (b) have past work or volunteer experience in Extension (MWDS = -1.41), both have a negative discrepancy. This finding is similar to that which was discussed within both focus groups. From the administration focus group, a participant stated: “It is important to bring a diverse workforce into Extension and not restrict potential employees because of their lack of volunteerism within Extension.” Such as, any previous volunteer experience in Extension or 4-H was not a common competency multiple focus group members had.

Utilize and incorporate peer mentoring (MWDS = 2.41) ranked 39 overall. This ranking was different than anticipated, especially with the significance of this study. USU Extension will be losing 34% of its workforce over the next few years; therefore, peer
mentoring should be a priority. Mentoring can ensure that the expertise of established, soon-to-be retiring professionals is merged with the expertise of new Extension professionals (A. Christensen, Roberts, Jewkes, MacArthur, & Garcia, 2015). Effective peer mentoring can improve employee retention; reduce impact of job turnover; and increase knowledge and skills in both mentors and mentees, productivity, and civic engagement (A. Christensen et al., 2015).

**Recommendations**

**For USU Extension**

The competency ranked highest priority by USU Extension professionals is maintain life and work balance; and should be addressed through professional development trainings and policy changes. Kutilek, Conklin, and Gunderson (2002), reported that Extension employees identified the most critical work/life challenges as: (a) a heavy work load, (b) evening and weekend time commitments, and (c) lack of control or job autonomy. Strong and Harder (2009) conducted a study on maintenance and motivation factors on Extension professional turnover and also found balancing work and family was an organizational concern for Extension administration.

Working in Extension does have pros and cons. The job offers a flexible work schedule and Extension professionals derive much satisfaction from educating their communities (Ensle, 2005). However, working in Extension requires many to work nights and weekends. Expectations for Extension professionals are high from both the university stance as well as stakeholders (e.g., County Commissioners, community
members). Within the Extension professional focus group discussion, work expectations were noted repeatedly with one member stating: “I do a 4-H program series Saturday mornings for 12 weeks. I may be inputting 4-6 hours of my time, but it is expected that I continue working Monday-Friday, 8:00 am to 5:00 p.m.”

According to Ensle, (2005), the enjoyment of teaching and working with the public often gets sidelined by endless reporting. Ensle continued to state that large amounts of required paperwork for both the university and county, along with increased service demands from the public and these systems create a double workload. Many feel that it is impossible to get the job done because there are too many requests and not enough staff to meet all the required work (Ensle, 2005). A member of the Extension professional focus group stated: “Now that I have tenure, I can focus on the actually needs of my county and work towards programs that I enjoy. I can now do what I got in Extension to do. “

Generational values should also be taken into consideration. Extension professionals employed at USU span across three generations: Baby Boomers, Generation X, and Millennials. The newer generation of Extension professionals may have an increased need for flexible work schedules and child care. Current generational values mirror those of the past 10 years. Younger Extension professionals with children are more willing to make sacrifices in their education, career, and their job in exchange for more time with their family or more personal time (Ensle, 2005.) Ensle continued to report that Generation X professionals are willing to sacrifice salary increases and P&T; these professionals also value fitness time with their family and the institution of
marriage.

From these findings, it should be noted that Extension administrators should reduce the workload and time requirements of county-based professionals and policies need to be consistent within the national Extension system (Kutilek et al., 2002). It is also recommended to reduce the stress for Extension professionals by: (a) modifying organizational policies and practices that cause stress and; (b) implementing effective balancing work and family programs (Ensle, 2005).

It is also recommended that a life and work balance strategic plan is implemented. Maintain life and work balance must be a priority for administration and Extension professionals. To accomplish this goal, administrators should communicate to professionals about employee benefits, encourage time away from regular work (Ensle, 2005), and also become advocates and role models for living a balanced work life. Life balance ambassadors should be identified to help promote stress management, coping skills, and burnout prevention. A better work and life balance might also be achieved if agents planned personal time before scheduling work events (Strong & Harder, 2009). All recommendations will help strengthen USU Extension workforce and prevent a heavy turnover.

Skilled in using transparency within leadership roles was also a high priority for the USU Extension professionals in this study. Similar to previous findings to which Extension employees suggested developing mutual expectations between employee and supervisor (Kutilek et al., 2002), USU Extension can work towards more transparency and relationship building between different leadership roles. A study in Idaho also had
similar reporting, with administrators and coworkers who encourage innovation and creativity as a high motivator to working in Extension (Kroth & Peutz, 2010). Extension professionals ranked showing an interest in all program areas related to USU Extension (MWDS = 0.46) as very low. If their perception or attitude were to change and made this competency a higher priority, this may help with gaining more transparency within leadership roles.

Any competency with an MWDS of 3.0 or higher should be a priority for USU Extension in professional development training as well as competencies for new faculty hires. The competencies with high priority are:

1. **Communications**
   - Communicate clearly and professionally using Social Media Networks
   - Utilize visual and audio platforms to reach targeted audiences and programs

2. **Diversity and Pluralism**
   - Recognize the needs of diverse ethnic, religious, and cultural groups
   - Address issues of socioeconomic status in Extension programming
   - Be aware of and offer resources associated with generational differences
   - Understand different learning styles and create resources to fit those needs

3. **Education and Information Technology**
   - Administer and integrate Social Media Networks into programing
   - Discover and experiment with new technology
   - Design and maintain website
   - Innovative use of technology in program development and design
• Design educational materials using marketing software to meet the needs of varied clients and contexts

4. Leadership and Organizational Management

• Skilled in using transparency within leadership roles
• Proactively influence a wide range of diverse individuals and groups in a positive manner
• Be able to make decisions quickly and competently
• Have an understanding of volunteer development (develop, educate, and sustain volunteer leaders)
• Able to de-escalate and overcome different forms of conflict

5. Program Evaluation and Applied Research

• Select and conduct the most appropriate needs assessment method
• Write Extension evaluation reports and share results and impacts
• Develop and professionally write a grant proposal
• Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)
• Identify and engage stakeholders in Extension programming
• Develop a program design based on needs assessment findings
• Design effective evaluation instruments (e.g.: write clear questions, survey length, adapt to different reading/writing levels)
• Analyze evaluation data and report findings in clear concise manner
• Conduct community forums/expansion and review committees
• Acquire and allocate resources
• Separate wants and needs and prioritize needs to address problems

6. Work Ethic and Professionalism

• Maintain life and work balance
• Use time management to prioritize and organize effectively

• Commitment to self-assessment and continuous self-improvement after promotion and tenure by continuing to meet the mission, vision, and goals of Extension

It is also recommended that Utah-based professional associations take into consideration the different Extension roles and how the competencies are ranked in each. For example, Utah 4-H can direct its annual inservice training to the highest priorities: select and conduct the most appropriate needs assessment method, and write Extension evaluation reports and share results and impacts. Utah Extension Association of Family and Consumer Sciences (UEAFCS) can also address the highest MWDS, which was maintain life and work balance (MWDS = 10.83) by Family and Consumer Science professionals.

Though utilize and incorporate peer mentoring (MWDS = 2.41) was ranked in the middle, recommendations to address this issue should be taken into consideration. To utilize and incorporate peer mentoring more, A. Christensen et al. (2015) suggests mentoring potential employees such as interns or volunteers, mentoring new employees, working with administration to support mentoring opportunities, and incorporating expertise of new professionals into Extension programs. A. Christensen et al. continues to state that mentoring needs to take place prior to being hired in Extension in the form of internships and Extension professionals should be highly encouraged to implement successful mentoring strategies while working with interns and new hires (A. Christensen et al., 2015). Administrators should also be encouraged to support new hires by assigning formal mentor-mentee relationships since these relationships are the keys to keeping Extension thriving and relevant (A. Christensen et al., 2015). More research also
recommends Extension professionals shadow or be mentees of high-quality county Extension directors and/or district Extension directors (Strong & Harder, 2009).

**Further Research**

Findings from this study are meant to address the current issues USU Extension is facing with a large number of Extension professionals nearing retirement age and the selection and placement of new Extension professionals. If USU Extension improves or changes professional development training and/or new faculty onboarding, it is suggested to conduct a follow-up needs assessment to determine new priorities in professional development training.

The results from this study identified the professional development needs of Extension professionals and assessed USU Extension by evaluating competencies needed to be a successful Extension professional. These findings can serve as a hiring tool for future employees based upon the core competencies essential for Extension professionals. It is recommended that additional research be conducted on professional development curriculum or master-level coursework to see the relationship between education and practical work force competencies.

Based on the findings, maintain life and work balance was ranked the highest priority for USU Extension professionals, by a large margin. It is recommended that further research be conducted to determine what USU Extension professionals need in terms of personal life and work balance and if University policies should be changed for Extension professionals.
Final Statement

The results of this professional development needs assessment study indicate that Extension professionals need certain competencies to be successful. USU Extension can direct more beneficial professional development trainings by using the identified high-priority competencies. USU Extension can also improve the onboarding process for new Extension professionals. With improvements as suggested, the effectiveness of professional development could be enhanced to produce Extension professionals who could work more efficiently and be more committed to the success of USU Extension.
REFERENCES


Appendix A

Focus Group Recruitment Email
Focus Group Recruitment Email

Hello Utah State University Extension Administration and Professionals,

My name is Callie Ward, Family and Consumer Sciences Education and Extension Master of Science student, in the School of Applied Sciences, Technology, and Education at Utah State University. With the assistance of Dr. Windi D. Turner, I am seeking participants to form two focus groups, one consisting of Extension professionals and one consisting of administrators, to assist with the construction of a survey instrument to be used in my graduate study.

The purpose of this study is to identify the professional development needs of Extension professionals and assess the Utah State University Extension System by evaluating competencies essential to be a successful Extension professional. Currently, Utah State University Extension is facing demands including Extension professionals that are nearing retirement age and the selection and placement of new Extension professionals across the state of Utah. Through this study, the professional development needs of Extension professionals will be identified and the Utah State University Extension System will be assessed by evaluating competencies needed to be a successful Extension professional.

Your participation is entirely voluntary and you can discontinue your participation at any time. No compensation for your participation is scheduled for this study.

If you would be interested in participating in this focus group, please respond within seven business days and I will send more information on scheduling. Your commitment will entail that you meet with myself and the other members of the focus group via Zoom for approximately one hour. Your focus group Zoom meeting will be scheduled at a time that is convenient for all participants during the summer 2017 months.

This research has been approved by the Utah State University Office of Research and Graduate Studies Institutional Review Board, IRB #8621. Dr. Windi D. Turner, Assistant Professor of Family and Consumer Sciences Education, is the principal investigator and can be reached at windi.turner@usu.edu or (435) 797-4476. I will be working as the co-principal investigator and can be reached at callie.ward@usu.edu or (435) 770-8561.

I look forward to your quick response and the prospect of working with you on my study.

Kind Regards,

Callie K. Ward
Graduate Researcher
(435) 770-8561
callie.ward@usu.edu

Windi D. Turner, Ph.D.
Principal Investigator
(435) 797-4476
windi.turner@usu.edu
Appendix B

Recruitment Email
Dear Utah State University Extension Professionals,

My name is Callie Ward, Family and Consumer Sciences Education and Extension Master of Science student, in the School of Applied Sciences, Technology, and Education at Utah State University. With the assistance of Dr. Windi D. Turner, I am seeking respondents for a graduate study. The purpose of this study is to identify the professional development needs of Extension professionals and assess the Utah State University Extension System by evaluating competencies essential to be a successful Extension professional.

Currently, Utah State University Extension is facing demands including Extension professionals that are nearing retirement age and the selection and placement of new Extension professionals across the state of Utah. This study will identify the professional development needs of Extension professionals and assess the Utah State University Extension System by evaluating competencies needed to be a successful Extension professional. Additionally, findings from this study can serve as a hiring tool for future employees based upon the core competencies essential for Extension professionals.

Your participation is entirely voluntary and you can discontinue your participation at any time. No compensation for your participation is scheduled for this study.

Please complete this survey which is anticipated to take 20-30 minutes to complete and asks that you rate competencies needed to be a successful Extension professional. The link to the survey is listed below.

This research has been approved by the Utah State University Office of Research and Graduate Studies Institutional Review Board, IRB #8621. Dr. Windi D. Turner, Assistant Professor of Family and Consumer Sciences Education, is the principal investigator and can be reached at windi.turner@usu.edu or (435) 797-4476. I will be working as the co-principal investigator and can be reached at callie.ward@usu.edu or (435) 770-8561.

Thank you in advance for your time and cooperation.

Kind Regards,

Callie K. Ward
Graduate Researcher
(435) 770-8561
callie.ward@usu.edu

Windi D. Turner, Ph.D.
Principal Investigator
(435) 797-4476
windi.turner@usu.edu
Appendix C

Follow-Up Email
Hello Extension Professionals,

Recently, I contacted you to participate in a survey to rate competency needs to be a successful Extension professional. If you have already completed the survey, thank you. Your input will assist in identifying competencies needed to be successful as an Extension professional and to help determine competencies that should be part of the professional development training program for Utah State University Extension professionals.

If you have not yet responded, please do so today. In approximately 20-30 minutes you can help make a needed change in Extension professional development and address competencies needed to be successful in Extension.

The link to the survey is listed below.

Your participation is entirely voluntary and you can discontinue your participation at any time. No compensation for your participation is scheduled for this study.

This research has been approved by the Utah State University Office of Research and Graduate Studies Institutional Review Board, IRB #8621. Dr. Windi D. Turner, Assistant Professor of Family and Consumer Sciences Education, is the principal investigator and can be reached at windi.turner@usu.edu or (435) 797-4476. I will be working as the co-principal investigator and can be reached at callie.ward@usu.edu or (435) 770-8561.

Thank you for your willingness to share your expertise.

**Callie K. Ward**
Graduate Researcher  
(435) 770-8561  
callie.ward@usu.edu

**Windi D. Turner, Ph.D.**  
Principal Investigator  
(435) 797-4476  
windi.turner@usu.edu
Appendix D

Informed Consent—Focus Group
Professional Development Needs of Extension Professionals: An Assessment of the Utah State University Cooperative Extension System

Purpose
You are invited to participate in a research study conducted by Dr. Windi D. Turner, Assistant Professor in the School of Applied Sciences, Technology, and Education at Utah State University with Callie Ward, graduate student, as Co-PI. The purpose of this study is to identify the professional development needs of Extension professionals and assess the Utah State University Cooperative Extension System by evaluating competencies necessary to be a successful Extension Agent. This form includes detailed information on the research to help you decide whether to participate in this study. Please read it carefully and ask any questions you have before you agree to participate.

Procedures
Your voluntary participation will involve participation in a focus group. You will meet approximately one hour via Zoom. You may discontinue your participation at any time. Your responses will remain strictly confidential, your name will never be associated with either the responses or the results. Approximately 8 participants are anticipated for this focus group.

Risks & Benefits
There is minimal risk to this research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities with the exception of the possible inconvenience of taking the time to complete the survey and a possible loss of confidentiality.

There is no direct benefit to you for participating in this research study. More broadly, this study will help the researchers learn more about core competencies and needs of future Extension professionals.

Confidentiality
The researcher will make every effort to ensure that the information you provide as part of this study remains confidential. Your identity will not be revealed in any publications, presentations, or reports resulting from this research study. Focus group discussion will be recorded and housed in a restricted-access folder on Box.com, an encrypted, cloud-based storage system and will be destroyed June, 2020 or prior.

Voluntary Participation & Withdrawal
Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time by stating as such to the researcher. If you choose to withdraw after we have already collected information about you, that information will be deleted from the data set of the study.

IRB Review
The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact the Principal Investigator at 435-797-4476 or windi.turner@usu.edu. If you have questions about your rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu.

Windi D. Turner, Ph.D. 
Principal Investigator 
(435) 797-4476; windi.turner@usu.edu.

Callie K. Ward 
Student Investigator 
(435) 770-8561; callie.ward@usu.edu
Informed Consent

By signing below, you agree to participate in this study. You indicate that you understand the risks and benefits of participation, and that you know what you will be asked to do. You also agree that you have asked any questions you might have, and are clear on how to stop your participation in the study if you choose to do so.

Please sign, scan, and return this form by e-mail to callie.ward@usu.edu. Please be sure to retain a copy of this form for your records.

Participant’s Signature  
Participant’s Name, Printed  
Date
Appendix E

Informed Consent—Survey Respondents
Professional Development Needs of Extension Professionals

Purpose
You are invited to participate in a research study conducted by Dr. Windi D. Turner, Assistant Professor in the School of Applied Sciences, Technology, and Education at Utah State University with Callie Ward, ASTE graduate student. The purpose of this study is to identify the professional development needs of Extension professionals and assess the Utah State University Cooperative Extension System by evaluating competencies necessary to be a successful Extension Agent. This form includes detailed information on the research to help you decide whether to participate in this study. Please read it carefully and ask any questions you have before you participate.

Procedures
Your voluntary participation will involve completion of an online survey that includes demographic and professional development questions, which will take approximately 20-30 minutes to complete. You may discontinue your participation at any time. Your responses will remain strictly confidential, your name will never be associated with either the responses or the results.

Risks & Benefits
There is minimal risk to this research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities. Loss of confidentiality is a possibility in any research study. If you have a bad research-related experience or are injured in any way during your participation, please contact the principal investigator of this study right away at (435) 797-4476 or windi.turner@usu.edu.

There is no direct benefit to you for participating in this research study. More broadly, this study will help the researchers learn more about core competencies and needs of future Extension professionals.

Confidentiality
The researcher will make every effort to ensure that the information you provide as part of this study remains confidential. Your information will be collected through the Qualtrics online survey software system, and responses will be kept indefinitely. Responses will also be securely stored in a restricted-access folder on Box.com, an encrypted, cloud-based storage system.

Voluntary Participation & Withdrawal
Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time by stating as such to the researcher. If you choose to withdraw after we have already collected information about you, that information will be deleted from the data set of the study.

IRB Review
The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact the research team. If you have questions about your rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu.

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Appendix F

Focus Group Discussion
Focus Group Discussion

Thank you for participating in this focus group. Within this focus group, you will determine competencies needed for successful Extension professionals. From the competency statements you derive, a Needs Assessment Model (Borich, 1980) will be created to evaluate each competency by: (a) the relevance of each competency to their current job function (or perceived future job function) and (b) their current level of attainment of each competency. Discrepancies with the greatest positive rank difference will have the highest priority for revising Utah State University Extension professional development training.

As we progress through the following list of Core Competency Areas, we will start the discussion of each line item by addressing this question: What competencies are needed to be a successful Extension professional in [insert Core Competency Area]?

Core Competency Areas

1. Extension knowledge (Cooper & Graham, 2001; Gibson & Hillison, 1994; Harder, Place, and Scheer, 2010; Scheer et al., 2006);
2. Leadership and Management (Cooper & Graham, 2001; Gibson & Hillison, 1994; Harder et al., 2010; Peterson et al., 2017; Scheer et al., 2006);
3. Technology (Cooper & Graham, 2001; Harder et al., 2010; Peterson et al., 2017; Scheer et al., 2006);
4. Communications (Cooper & Graham, 2001; Harder et al., 2010; Lindner, 2001; Peterson et al., 2017; Scheer et al., 2006);
5. Program planning, implementation, and evaluation (Cooper & Graham, 2001; Harder et al., 2010; Peterson et al., 2017; Scheer et al., 2006; Wilken et al., 2008);
6. Applied research (Cooper & Graham, 2001; Gibson & Hillison, 1994; Hamilton et al., 2013; Peterson et al., 2017; Scheer et al., 2006);
7. Diversity and pluralism (Cooper & Graham, 2001; Peterson et al., 2017; Scheer et al., 2006);
8. Marketing and public relations (Cooper & Graham, 2001; Peterson et al., 2017; Scheer et al., 2006; Wilken et al., 2008);
9. Theories of human development and learning (Cooper & Graham, 2001; Gibson & Hillison, 1994; Peterson et al., 2017; Scheer et al., 2006);
10. Risk management (Cooper & Graham, 2001; Peterson et al., 2017);
11. Community development process and diffusion (Cooper & Graham, 2001; Gibson & Hillison, 1994; Harder et al., 2010; Peterson et al., 2017; Scheer et al., 2006);
and
12. Work Ethic and personal skills (Cooper & Graham, 2001; Gibson & Hillison, 1994; Harder et al., 2010; Peterson et al., 2017; Scheer et al., 2006).
Appendix G

Core Competency List
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**Extension Knowledge**—An understanding of the history, philosophy, and contemporary nature of Extension.

1. Have a knowledge base and familiarity of the Land Grant System
2. Show an interest in all program areas related to Utah State University Extension
3. Have past work or volunteer experience in Extension
4. Be able to distinguish Extension from Distance Education
5. Be capable and excited to promote Extension
6. Have an understanding of 4-H and its mission
7. Have experience in 4-H as a 4-H member or volunteer

**Leadership and Organizational Management**—Proactively influence a wide range of diverse individuals and groups in a positive manner.

1. Skilled in using transparency within leadership roles
2. Proactively influence a wide range of diverse individuals and groups in a positive manner
3. Be able to make decisions quickly and competently
4. Receptive to suggestions and open minded
5. Be able to identify resources and others’ talents
6. Promote and exhibit teamwork
7. Have an understanding of volunteer development (develop, educate, and sustain volunteer leaders)
8. Provide leadership and resources for individuals with different types of needs
9. Apply and learn diverse leadership styles
10. Utilize and incorporate peer mentoring
11. Motivated and able to discover one’s identity as a leader

12. Have ability to delegate and avoid micromanaging

13. Be able to de-escalate and overcome different forms of conflict

**Education and Information Technology**—Application of technology and delivery methods that support educational programs and guide behavior change.

1. Discover and experiment with new technology

2. Administer and integrate Social Media Networks into programing

3. Use of technology for word processing, information access, data storage and data analysis

4. Design educational materials using marketing software to meet the needs of varied clients and contexts

5. Innovative use of technology in program development and design

6. Demonstrate proper video production equipment and software use

7. Design and maintain website

**Communications**—Communicate effectively both orally and in writing with clients and stakeholders.

1. Communicate clearly and professionally using Social Media Networks

2. Utilize visual and audio platforms to reach targeted audiences and programs

3. Communicate using proper scholarly writing and research based information

4. Confidence in writing skills

5. Desire and willingness to contribute to writing projects

**Program Evaluation and Applied Research**—Plan, design, implement, evaluate, and account for significant Extension education programs.

1. Identify and engage stakeholders in Extension programming
2. Select and conduct the most appropriate needs assessment method

3. Separate wants and needs and prioritize needs to address problems

4. Develop clear learning objectives

5. Develop a program design based on needs assessment findings

6. Conduct community forums/expansion and review committees

7. Obtain Institutional Review Board (IRB) approval for research projects

8. Design effective evaluation instruments (e.g., write clear questions, survey length, adapt to different reading/writing levels)

9. Conduct surveys, personal interviews, participant observations, and focus groups

10. Participate in community site visits (e.g., farm, home, garden, 4-H club) and provide research based information to attendees

11. Write field reports based on community site visits

12. Analyze evaluation data and report findings in clear concise manner

13. Acquire and allocate resources

14. Develop and professionally write a grant proposal

15. Write Extension evaluation reports and share results and impacts

16. Make effective presentations based upon research findings

17. Publish research findings for public use (e.g., journal articles, fact sheets, reports, newspapers, mass media)

18. Differentiate between outputs and outcomes

**Diversity and Pluralism**—Awareness and commitment to include cultural perspectives, norms, beliefs and values.

1. Recognize the needs of diverse ethnic, religious, and cultural groups

2. Address issues of socioeconomic status in Extension programming
3. Be aware of and offer resources associated with generational differences
4. Understand different learning styles and create resources to fit those needs

**Work Ethic and Professionalism**—Demonstration of behaviors that reflect high levels of performance, a strong work ethic, and a commitment to self-assessment and continuing education.

1. Commitment to self-assessment and continuous self-improvement after promotion and tenure by continuing to meet the mission, vision, and goals of Extension
2. Identify and create a professional “flagship”
3. Maintain life and work balance
4. Demonstrate public speaking skills
5. Relate to people with a personable, friendly, outgoing, and positive attitude
6. Use time management to prioritize and organize effectively
7. Represent Extension in a professional manner including professional dress
8. Show a strong work ethic (e.g., self—motivated, determined, dedicated)
9. Desire to make a difference
10. Give credit where credit is due