Investing in Extension's Workforce: Assessing and Developing Critical Competencies of New Agents

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Abstract

This article describes Tennessee Extension's creation and implementation of a competency assessment and development program for new Extension agents. The program is based on results of a Delphi study that identified critical soft skill competencies new Extension agents need to be successful in building partnerships and delivering Extension programming in their communities. The program consists of online assessments, interactive feedback with regional program leaders, and identification of targeted online professional development courses. Expected results include targeted professional development, increased competency of agents, greater job satisfaction, increased retention, and increased public value for Extension.

Keywords: soft skills competency, professional development for Extension agents, online training, workforce competency, noncognitive skills

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Introduction

Over the last 100 years, Tennessee Extension has helped Tennesseans solve problems and implement changing technologies to improve quality of life throughout the state. As the landscape for Extension in Tennessee and across the nation continues to evolve, programming has become more complex, with a broadened emphasis on meeting emerging needs that challenge communities. This evolution is further complicated by the accelerated rate of change in and adaptation to advancing technology. These changes necessitate the need to hire, train, and retain a workforce that successfully meets these challenges. Going forward, Extension professionals need to examine critical questions facing Extension: How can Extension as an organization ensure that educators are equipped to meet the challenges they face daily? What educational background will future Extension educators need to be successful? Answers to these questions may be determined by a backward glance from the future. However, to foster success, Tennessee Extension decided to invest in developing a process to help prepare current and future Extension educators to be successful as they work in communities with clients and partners to develop problem-solving curricula and communicate effectively.

In 2010, Tennessee Extension launched a strategic planning process that honored the past and looked into the future. The strategic plan provided a road map to guide Tennessee Extension to achieve excellence and focus attention on what matters most: advancing Extension in Tennessee. The plan resulted in five

overarching goals along with strategies and action steps for achieving each. One strategy was to develop a world-class Extension team of staff and volunteers by establishing a competency-based system to guide professional development and provide a framework for other personnel actions.

The core competency approach supports the foundational subject matter areas of positive youth development (4-H PYD), agriculture and natural resources (ANR), and family and consumer sciences (FCS). During the strategic planning process, it became apparent that a process for identifying the professional development needs of Extension educators was necessary because they must have a broad base of knowledge to comprehensively address complex issues facing communities today. Internal data from the environmental scan for the development of the strategic plan indicated that new employees often had specialized coursework or degrees, standing in sharp contrast to the wide-ranging educational background required to address the diverse needs of their clientele. One reason for this result may be a recent shift in undergraduate programs, which have changed to meet competing demands of timely graduation rates, accreditation criteria, and general education core requirements. This shift often leaves little room for coursework related to developing and delivering educational programs, activities that are at the very core of an Extension educator's success. Thus, it was determined that building competencies via professional development, rather than attempting to hire employees already having the required competencies, was the preferred approach and that a measurable way to assess competencies in new agents was needed.

Although identification and assessment of subject matter competencies is important to the professional development of new agents, it became clear that there also was a need to assess noncognitive skills, or soft skills, in order to provide new agents with assistance in developing skills they may not have learned or developed in their undergraduate programs. To address this need, Tennessee Extension launched an initiative to (a) identify agent soft skill competencies that aligned with the strategic goals of the organization and then (b) develop a system for assessing new agents' soft skill competencies and guiding these agents and their supervisors in creating professional development plans tailored to meet each employee's specific needs. These soft skills are the essential professional skills that allow Extension educators to be successful in planning programs, developing and delivering curricula, communicating effectively, and working with others.

The implementation team for the initiative was diverse, representing all program areas and including Extension agents, county Extension directors, Extension specialists, and regional leadership. As members of the implementation team, we describe herein the research basis underlying competency assessment and development and use of online training formats for professional development and the processes used by Tennessee Extension to identify soft skill competencies needed by agents and develop a system for assessing and developing those competencies in new agents.

Literature Review

A competent workforce is critical for organizational success as research has shown that higher levels of competency are associated with lower turnover rates, stronger retention, and higher job satisfaction for employees (Brodeur, Higgins, Galindo-Gonzalez, Craig, & Haile, 2011).

Several Extension systems have undertaken a process to identify competencies for Extension agents. Many of these processes have identified subject matter competencies and competencies specific to Extension, such as understanding Extension's organizational structure and history (Brodeur et al., 2011). Stone and

Bieber (1997) explained that development of competencies is a highly participatory process: Extension employees must be part of the process of identifying necessary competencies for their positions. Additionally, Stone and Bieber (1997) suggested that for competencies to be effective, they must have strong ties to strategic issues of Extension.

As Extension evolves to meet the needs of changing clientele, there is an increasing need to examine competencies of Extension educators. Extension has moved from the role of simply transferring knowledge to that of using a more cooperative, participatory approach to increasing knowledge (Karbasioun, Mulder, & Biemans, 2007). Extension educators must possess certain subject matter competencies, and most often, they acquire these competencies through their undergraduate and graduate education and then expand their knowledge through subject matter in-service training. However, Lakai, Jayaratne, Moore, and Kistler (2014) suggested that competency in subject matter by itself "will not produce desired Extension outcomes" ("Recommendations," para. 2). Cooper and Graham (2001) and Lakai et al. (2014) emphasized the need for competency in interpersonal skills, including developing social skills, gaining credibility and respect, and demonstrating flexibility. In a study conducted with Arkansas Extension agents to identify the most important competencies for an agent throughout his or her career, the researchers found that agents considered character traits to be among the most valued competencies (Brodeur et al., 2011). Additionally, Russell (1995) argued that Extension needs to adapt to a service-oriented population and strengthen teaching competencies if it is to adapt to societal changes. Whereas new agents entering the workforce often learn subject matter competencies in the university classroom, they must develop interpersonal skills and professionalism through experience and professional development training. Critical interpersonal skills and teaching skills are important areas in which Extension can equip its educators to serve modern clientele and should be a focus of professional development.

Identifying and assessing competencies can lead to providing targeted professional development for employees. Competency-based training strengthens and develops skills, thereby increasing Extension's public value by increasing agents' competency levels (Stone & Bieber, 1997). Although face-to-face in-service training has been the preference for many years, online learning has risen in popularity to fill a need for Extension educators who are geographically dispersed. Lakai, Jayaratne, Moore, and Kistler (2012) identified barriers that can prevent Extension educators from acquiring competencies, with some major barriers being lack of time, increased workload, and personal costs associated with attending face-to-face training, such as those associated with obtaining childcare for overnight and multiday trips. Baker and Hadley (2014) posited that the desire to spend less time out of the office has led to a desire for more training provided via an online format, especially among newer, younger agents.

Identifying Competencies

Method

To assess and develop competencies, the first step is identifying what competencies are needed. In 2015, to identify core competencies for Tennessee Extension agents, our implementation team conducted a modified Delphi study with nominated Tennessee Extension county directors and county agents representing different program areas and regions across the state. The Delphi technique is a method for soliciting ideas from a nominated group of experts using rounds of questionnaires (Hsu & Sandford, 2007; Ludwig, 1997). This technique is a cost-effective method for collecting information from a diverse group of participants who

cover a wide geographical area (Mayfield, Wingenbach, & Chalmers, 2005). Furthermore, the process allows participants to identify key ideas and themes without influence from other participants (Lorenzo, Blanche, & Henson, 2003).

Tennessee Extension consists of three regions (Central, Eastern, and Western), each overseen by a regional director. Each regional director nominated 12 employees in his or her region, making sure to select four nominees from each of the program areas, 4-H PYD, ANR, and FCS, and nominees with varying years of service, ranging from less than 5 years to more than 15 years.

In all, the regional directors nominated 36 employees. Out of the 36 nominees, 19 employees (five county directors and 14 agents) consented to participate in the project (53% response rate).

For the Delphi study, participants completed three rounds of surveys. For each round, nominees received a link to an online survey and had 2 weeks to respond. A reminder email was sent to nonrespondents after the first week.

Prior to the Round 1 survey, an expert panel consisting of Tennessee Extension administrators and faculty identified competency areas (themes) and associated competencies agents need to be successful. The panel identified seven major themes and 101 competencies (Table 1).

Table 1.

Description of Competency Themes and Example Competencies

Theme	Number of competencies	Example
Communication skills	15	Encourages audience feedback
Educational design skills	17	Creates a welcoming environment conducive to learning
Leadership skills	16	Recognizes achievement of others
Knowledge of organizational systems	10	Understands Extension's vision, mission, and purpose
Partnership development skills	8	Welcomes and invites participation of partners
Professionalism skills	19	Exhibits business etiquette
Volunteer management skills	16	Develops volunteer staffing plan that provides meaningful volunteer roles

For Round 1 of the Delphi study, participants rated each competency on a scale of importance from 1 to 10, with 1 being *very unimportant* to 10 being *very important*. Results from Round 1 were used to inform later aspects of the initiative but were not used in Round 2 or Round 3 of the Delphi study. In Round 2, participants responded to an open-ended question by identifying and describing the top five competencies they believed agents need to be successful. The purpose of this round was to ensure that the final list of competencies would be comprehensive and that no major competencies would be omitted. From the Round 2 responses, we developed a list of the five competencies identified most often. In Round 3, participants received the list of the top five competencies identified in Round 2. From those five competencies,

participants chose the two they considered most critical to an agent's success.

Results

For Round 1, mean importance scores were calculated for each of the 101 competencies. We did this to gain feedback about any competencies agents perceived to be less important than others. As indicated in Table 2, mean importance scores ranged from a low of 6.61 for a communication skills competency (demonstrates mastery of specialized technology and software when needed) to a high of 9.22 for a partnership development skills competency (interacts with partners in a respectful and tactful manner).

Table 2.

Mean Competency Importance Scores by Theme

Theme	Lowest mean score	Highest mean score
Communication skills	6.61	8.89
Educational design skills	7.61	8.82
Leadership skills	7.72	9.12
Knowledge of organizational systems	7.53	8.68
Partnership development skills	8.06	9.22
Professionalism skills	7.44	9.21
Volunteer management skills	6.94	8.71

For Round 2, we reviewed participants' responses to the open-ended question asking them to identify and describe the five most important competencies county agents need to be successful. We categorized the responses by theme. Most of the identified competencies related to the seven previously identified themes. In addition, many respondents noted the need for competencies related specifically to subject matter knowledge. From these responses, we identified five critical competencies: communication, educational design, leadership, professionalism, and subject matter knowledge.

For Round 3, participants received the list of five critical competencies identified from the Round 2 responses and, from that list, identified the two they considered most critical to an agent's success. From the Round 3 responses, we determined that the top three most important competencies county agents need to be successful are (a) professionalism, (b) communication, and (c) subject matter knowledge.

We reviewed the results from the three Delphi rounds. Based on scores from Round 1, we retained the seven originally identified themes but reduced the number of individual competencies from 101 to 72 (Table 3). We eliminated competencies on the basis of low scores (i.e., more than one agent rated the competency as very unimportant) or redundancy with other competencies.

Table 3.

Original Number of Competencies and Final Number of Competencies by Theme

Theme	Original number of competencies	Final number of competencies
Communication skills	15	9
Educational design skills	17	10
Leadership skills	16	12
Knowledge of organizational systems	10	8
Partnership development skills	8	7
Professionalism skills	19	13
Volunteer management skills	16	13

From the results of the Delphi study, we were able to identify soft skills such as communication, interpersonal skills, and teaching skills that should be the focus of professional development. However, we also recognized the importance of subject matter competency, as identified by the agents during Round 2. On the basis of these results, we encouraged leaders in the three program areas (4-H PYD, ANR, and FCS) to develop specific subject matter competencies by providing subject matter competency training for new agents in addition to the soft skills training that would be the focus of the next phases of the initiative.

Development of Competency Assessments

After the competency themes and related competencies were identified, the next step was to develop a process for assessing the competencies within agents. Interpersonal and teaching skills can be difficult to assess with traditional tests and self-assessments because these skills tend to be complex and based on different situations (Kruger & Dunning, 1999; Spitzberg, 2003). Research has shown that observational assessment can be effective for assessing interpersonal skills or teaching (Spitzberg, 2003). However, conducting observations is resource intensive in terms of money and people. Scenario-based assessments can be a cost-effective alternative and/or supplement to observational assessment (McDaniel, Morgeson, Finnegan, Campion, & Braverman, 2001; Whetzel & McDaniel, 2009). Tennessee Extension contracted with an online learning assessment company with experience developing scenario-based online learning modules and assessments for professionals in various occupations and businesses. With input from an expert panel that included administrators and members from our implementation team, this company developed seven separate assessments—one assessment for each of the identified competency themes. After development of each assessment, the company and the expert panel reviewed the questions and answers to ensure that they accurately reflected the competencies and were relevant for Extension professionals.

Pilot Testing and Resource Development

Pilot Testing

Once the assessments were developed, we conducted pilot testing. Regional directors nominated agents employed fewer than 5 years to participate in the pilot testing. Twenty-one agents received invitations to participate, and all nominees completed an assessment. The purpose of pilot testing was to identify any issues with test questions and readability as well as with the online assessment process.

Each participant completed one assessment and provided feedback, including feedback about the time taken to complete the assessment, the quality of the scenarios, and the perceived value to new agents. Sixteen participants provided feedback; 100% of those participants found the scenarios to be realistic, and 94% thought new Extension agents would be able to identify with them. The average perceived value of the assessments on a scale of 1 to 10, with 1 indicating lowest level of value and 10 indicating highest level of value, was 6.1. The pilot testing results led to minor clarification-related changes and informed the development of supporting materials and resources.

Materials and Resources

The new system for assessing and developing competencies was named EXCELS (Extension Competency E-Learning for Success), and our implementation team generated several resources to introduce the new system and the competency assessment and development process. A handbook for agents includes an introduction to the competency themes, a list of the individual competencies, a description of the assessment process, and a timeline detailing when agents are to take each assessment. A handbook for regional program leaders includes an assessment timeline, expectations for agents for completing the assessments, and a list of recommended e-courses that correspond to the assessed competencies.

Using the university's online learning management system, we developed a collection of e-courses and online resources. E-courses, some internally developed and most contracted from outside vendors such as Skillsoft and LinkedIn Learning, range in length from 30 min to 3 hr, and completion of an e-course results in professional development credit. Examples of e-course topics include business writing, business etiquette, conflict resolution, and presentation skills. Supplemental resources include journal articles, recorded webinars, and recommended reading.

Implementation

At New Agent Orientation in fall of 2017, the EXCELS program was launched with 23 agents who had been in their positions for fewer than 6 months. Beginning with this group, EXCELS is a requirement for all newly hired Extension agents. Agents take the assessments on a staggered timeline over the 6 months following their attendance at orientation. The assessments identify the competency areas in which agents need additional training, and the applicable regional program leader works with each individual to determine which specific competencies are most relevant for the employee's professional development. This interactive process serves as a way to validate each individual's assessment results. The regional program leader, in coordination with the agent's county director, assigns e-courses and provides additional suggestions for appropriate professional development that the agent will complete over a period of 6 months to increase competency in deficient areas.

Summary and Implications

What skills are important and will be important to the current and next generation of Extension educators? How will Extension ensure that educators are competent in the skills and knowledge they need to be effective in an evolving landscape? Tennessee Extension's investment in the EXCELS system has helped address these questions by identifying the soft skill competencies agents need to be successful and establishing opportunities for professional growth at the beginning of their careers. When planning for the

initiative began, the expected benefit was a more targeted approach to professional development that would provide new employees with professional development suggestions to increase the overall competency of Tennessee Extension's workforce. Involving scenario-based online assessments and e-courses and other resources, the EXCELS system provides a process for identifying and addressing professional development needs of new agents.

Being proficient in soft skills is critical for career success today as Extension agents are expected not only to deliver innovative and engaging educational programs but also to work collaboratively in communities by building partnerships, working with coalitions, cooperating with other agencies, and managing volunteers. Agents who are proficient in soft skills and can meet these expectations increase the visibility and public value of Extension in their communities. Extension systems nationwide could benefit from identifying soft skills critical for successful job performance in their particular organizational cultures, thereby establishing a baseline level for expected conduct. Assessing soft skill competencies of a new employee and using the results to develop a customized professional development plan has the potential to lead to better job performance, increased confidence, and greater job satisfaction, which may lead to increased retention rates among Extension educators. Looking back from the third year since the implementation of EXCELS, we believe that the process of identifying and assessing competencies has been beneficial to individuals and the organization, ensuring that Extension educators are equipped for success in meeting the relevant needs of communities more effectively.

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