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## Perceptions of the Training Needs of the Newest Members of the Extension Family

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**Abstract:** *The study reported here investigated the perceived importance and proficiency of leadership skills to new North Carolina Cooperative Extension agents. The researchers utilized a Web-based survey questionnaire that incorporated Leadership Skills Inventory (LSI) developed by Jones (2006). According to Moore (2003), the leadership skills are developed into six categories: human skills, emotional intelligence skills, conceptual skills, technical skills, communication skills, and industry knowledge skills. Overall, new Extension agents felt that communication and industry knowledge skills were ranked as the least important and least proficient skills.*

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### Introduction & Conceptual Framework

An Extension educator plays many different roles and must be able to demonstrate his or her competence in diverse areas (Moore & Rudd, 2004). In order for an Extension educator to be as effective and successful as possible, leadership skills are an important asset. In fact, the Extension Committee on Organization and Policy

(ECOP) states that Extension needs to do a better job of preparing and developing individuals to be future leaders within the organization (ECOP LAC, 2005).

Because of significant changes to society, the leadership philosophies taught in the programs of the past no longer address the complex problems found in the communities and organizations of today (Sandman & Vandenberg, 1995). In 2004, Moore and Rudd took on the task of determining the major leadership skill areas, and specific leadership competencies within each skill, needed by Extension leaders. The researchers found that Extension educators identified six leadership skill areas needed by Extension leaders: human skills, conceptual skills, technical skills, communication skills, emotional intelligence skills, and industry knowledge skills (Moore & Rudd, 2004). This skill set serves as a standard by which training needs can be assessed.

North Carolina Cooperative Extension (NCCE) employs over 600 educational program professional working in the 100 counties of the state. Of those, more than 20% have 5 years or less experience within NCCE. In Extension, staff development is essential because the success of educational programs depends heavily upon the abilities of individual professionals (Prawl, Medlin, & Gross, 1984). The study reported here aimed to determine the potential leadership training needs of new North Carolina Extension agents through an examination of the perceptions of importance and proficiency of the six leadership competencies as outlined by Moore and Rudd (2004).

## **Purpose & Objectives**

The primary purpose of the study was to determine what value new Extension agents place on leadership skills deemed necessary for success in their positions. A secondary purpose was to understand new agents' perceived proficiency for the same leadership skill set. The following objectives were established:

1. Describe the level of importance that agents place on each of the six skill set areas, and
2. Determine the perceived proficiency of new agents at each of the six skill areas.

## **Methods**

### **Research Design**

Based on the purpose of the study, descriptive survey research was the most appropriate method to employ. Descriptive research describes a circumstance, but does not explore the connections between or among the variables (Fraenkel & Wallen, 2009). More specifically, survey research is gathering data from the population (or sample) to examine existing elements of the population via the variables involved (Fraenkel & Wallen, 2009).

### **Instrumentation**

The level of leadership skills new agents believe to be important for success and current perceived proficiency levels of those skills were measured with the 44-question Leadership Skills Inventory (LSI) Instrument (Jones, 2006). The LSI instrument (Moore, 2003) is divided into six categories: human skills, conceptual skills, technical skills, communication skills, emotional intelligence skills, and industry knowledge skills.

To measure the perceived importance of each leadership skill, each new agent was asked to rate the leadership skill on a Likert scale ranging from 1 (Not Important) to 5 (Very Important). Cronbach's alpha determines internal consistency or reliability with items on the instrument (Fraenkel & Wallen, 2009). Jones (2006) reported a Cronbach's alpha reliability coefficient of 0.87; however, for the study reported here, the alpha was 0.95. Participants were also asked to measure their self-perceived proficiency in each leadership skill area. The Likert scale used to record the agents' responses ranging from 1 (Not Proficient) to 5 (Very Proficient). Here, Jones (2006) reported a Cronbach's alpha reliability coefficient of 0.89; however, for the study, the alpha was once again 0.95.

### **Limitations**

The data obtained consist of perceptions from the respondents. It is possible that sources of variability inherent to self-reporting may reduce the validity of the data.

### **Population**

The target population for the study included new Extension agents with 3 years of experience or less within the organization. A census was taken of all early career agents in North Carolina. Forty-nine agents were identified using a database provided by the NC Cooperative Extension Administrative office.

### **Data Collection**

In order to accomplish the research objectives, Dillman's (2000) Mail and Internet Survey methodology was followed. The target audience was confidentially emailed a survey link to the online instrument builder, eSurveysPro.com (Outside Software, Inc., 2010). Of 49 possible participants, 27 usable surveys were returned, for a 55% response rate. According to Fraze, Hardin, Brashears, Smith, and Lockaby (2002), 45% is a typical response rate utilizing Web surveys. Given these results, it was necessary to address nonresponse error (Lindner & Wingenbach, 2002). Early and late responses were compared as a method to control for nonresponse error; no differences were found between the responses of the two groups.

## Analysis

The answers to the Leadership Life Skills Inventory were entered into the Statistical Package for the Social Sciences 17.0 software for statistical analysis. The Cronbach's alpha and mean scores were generated for both the participants' perceived importance and perceived proficiency levels under each of the six categories.

## Findings

To measure the perceived importance (Table 1) of each leadership skill area, each agent was asked to rate the skill on a Likert scale ranging from 1 (Not Important) to 5 (Very Important). Human skills were ranked as most important of the leadership skills ( $M=4.29$ ), while Industry knowledge skills received the lowest ranking ( $M=3.77$ ).

**Table 1.**

Levels of Perceived Importance of Leadership Skills

<b>Variable</b>	<b><i>M</i></b>	<b><i>α</i></b>	<b><i>SD</i></b>
Human skills	4.29	0.84	0.40
Emotional intelligence skills	4.14	0.85	0.41
Technical skills	4.10	0.78	0.46
Conceptual skills	4.05	0.74	0.38
Communication skills	4.00	0.85	0.47
Industry knowledge skills	3.77	0.87	0.55
<i>Note.</i> <sup>a</sup> $n=19$ ; <sup>b</sup> $n=19$ ; <i>M</i> =mean; <i>α</i> =Cronbach's alpha; <i>SD</i> =Standard Deviation			

To measure the perceived proficiency at each leadership skill area (Table 2), each agent was asked to rate the skill on a Likert scale ranging from 1 (Not Proficient) to 5 (Very Proficient). Human skills were ranked as agents believing they had the most proficiency at skills within this area, ( $M=4.27$ ), while Industry knowledge skills received the lowest ranking ( $M=3.65$ ).

**Table 2.**

Levels of Perceived Proficiency of Leadership Skills

<b>Variable</b>	<b><i>M</i></b>	<b><i>α</i></b>	<b><i>SD</i></b>
Human skills	4.27	0.87	0.42
Emotional intelligence skills	4.11	0.85	0.41
Conceptual skills	4.01	0.80	0.43
Technical skills	4.01	0.78	0.47
Communication skills	3.91	0.85	0.48
Industry knowledge skills	3.65	0.87	0.56
<i>Note.</i> <sup>a</sup> $n=19$ ; <sup>b</sup> $n=19$ ; <i>M</i> =mean; $\alpha$ =Cronbach's alpha; <i>SD</i> =Standard Deviation			

Finally, in order to capture a snapshot of both the perceived importance and proficiency of the skill sets, a mean score was tabulated combining each of the constructs for a single mean score. The overall Perceived Importance of Leadership Skills had a  $M=4.06$ , and the Perceived Proficiency of Leadership Skills had a  $M=3.99$ .

## Conclusions and Implications

The results of the study reported here can provide North Carolina Cooperative Extension with a guide, rooted in research, for new agent training and development programs for the leadership development skill set. The variety of skills developed by Moore & Rudd (2004) reflects the variety of competencies necessary for new agents to possess and develop for success.

New agents felt that the identified leadership skills (human skills, conceptual skills, technical skills, communication skills, emotional intelligence skills, and industry

knowledge skills) were important (M=4.06) to their success as agents. The overall proficiency rating (M=3.99) is less than the importance rating. Each construct within Importance was rated higher than the same construct with Proficiency. These differences (even though each is slight) potentially identify a gap and need for training. Being a member of the Extension Service is about human capacity, constantly engaging in human interaction as agents work to address challenges and issues within their home communities. The desire to work with people to solve problems may lead an individual to choose a career within Extension, and so the identifying of the skills measured within the study as important would not be considered out of the ordinary.

For this same reason, it is not surprising that new agents ranked "human skills" as both the most important skill and the skill with which they had the most proficiency. Conversely, "industry knowledge skills" ranked lowest in both proficiency and importance. This may also have something to do with Extension's emphasis on the development of human capacity. However, this provides a wakeup call for those disciplines preparing future Extension educators, to examine more deeply the preparation provided to ensure that not only are students receiving the necessary human skills, but are also leaving programs well prepared to take on the challenges of changing industries.

As these are fairly new agents, the mean proficiency score indicates comfort with the basic leadership development skill set, but also reveals an area for improvement. Scores most likely will be expected to increase over time. As any professional works to establish a footing in a new career, there is a substantial learning curve under which to operate and many opportunities for both personal and professional growth as agents move forward in their career tenure. Additionally, however, this score identifies a training need.

Despite the high ranking of human skills, communication skills were ranked near the bottom in both importance and proficiency. Given the strong connection between working with people and communicating, this score is somewhat surprising. While human skills and communication skills are on many levels interrelated, agents may associate communication skills solely with "public speaking," which is very different from typical day-to-day interactions with clientele or even program presentation, thusly accounting for its low perceived importance and proficiency scores.

## **Recommendations**

Targeted in-service and professional development programs should be conducted

within the "least proficient" content areas identified by agents. Because agents were the ones who determined which constructs were most important, offering training according to those rankings demonstrates the input agents have in determining professional development. Subject matter experts (those within and external to land-grant university systems) could certainly be utilized to provide industry knowledge sessions around the latest trends within each content area. This would establish a firm commitment by agents to be learns even while "in the field," ensuring that clientele receive relevant, up-to-date information. However, professional development programs shouldn't only target the areas that received lower ranking. Even though the agents perceive themselves as proficient in certain areas, further skill development goes to ensure future successes as a quality North Carolina Extension agent.

Further, for those institutions with degree plans designed to prepare young people to be agents (or to further develop skills within graduate degree programs), consideration should be given to relevant skills, especially the industry knowledge skills, and to aligning them with appropriate coursework.

## References

Dillman, D. (2000). *Mail and Internet surveys: The tailored design method* (2nd ed.). New York: John Wiley and Sons.

Extension Committee on Organizational and Policy's Leadership Advisory Council. (2005). *2005 Report*. Washington, D.C.: National Association of State Universities and Land-Grant Colleges.

Fraenkel, J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education* (7th ed). Boston: McGraw Hill Higher Education.

Fraze, S., Hardin, K., Brashears, T., Smith, J., & Lockaby, J. (2002). *The effects of delivery mode upon survey response rate perceived attitudes of Texas agri-science teachers*. Paper presented at the 53rd Annual Southern Agricultural Education Research Conference (SAERC), Orlando, FL.

Jones, D. W. W. (2006). *Leadership in colleges of agriculture and life sciences: An examination of leadership skills, leadership styles, and problem-solving styles of academic program leaders*. Unpublished doctoral dissertation, University of Florida, Gainesville.

Lidner, J. R., & Wingenbach, G. L. (2002). Communicating the handling of non-

response error in *Journal of Extension* research in brief articles. *Journal of Extension*. [On-line], 40(6) Article 6RIB1. Available at:  
<http://www.joe.org/joe/2002december/rb1.php>

Moore, L. L., & Rudd, R. D. (2004). Leadership skills and competencies for Extension directors and administrators. *Journal of Agricultural Education*, 45(3), 22-33.

Prawl, W., Medlin, R., & Gross, J. (1984). *Adult and continuing education through the Cooperative Extension Service*. Extension Division, University of Missouri, Columbia.

Sandmann, L. R., & Vandenberg, L. (1995). A framework for 21st century leadership. *Journal of Extension* [On-line], 33(6) Article 6FEA1. Available at:  
<http://www.joe.org/joe/1995december/a1.php>

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