Necessary Pre-Entry Competencies as Perceived by Florida Extension Agents

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Abstract: It is important to focus attention on the pre-entry competencies of new organization members and to identify the competencies needed by Extension agents to determine adequate education curricula and training, and to improve retention. Current professional development models disregard the competencies needed by agents entering Extension. This article describes Florida Extension agents' perceptions of necessary pre-entry competencies. The most necessary competencies reported by respondents were: self-management, program development process, communication skills, interpersonal skills, technical/subject matter expertise, and teaching skills. UF/IFAS Extension administrators and personnel should build upon the competencies new Extension agents possess when entering Extension.

Introduction

Extension agents carry out the work of the Cooperative Extension System at the county level. Florida Extension agents are county faculty who implement educational programs for the public. Although agents provide invaluable knowledge and skills to clientele, they face numerous challenges such as stress, burnout, long hours, and turnover (Ensle, 2005). Extension must strive to reduce these challenges and to retain their agents. Organizational efforts need to be directed at understanding the recruitment and retention of Extension agents (ECOP, 2005). According to Arnold (2007), "The ability to retain long-term, high quality professionals is a direct reflection of a successful organization and must be a priority for Extension to remain a viable educational outreach system" (p. 18).

Wanous (1980) explained it is important to place significant attention on the entry of new organization members due to the high cost of premature turnover. The cost for recruiting and training new employees due to premature turnover significantly increases the financial burden of the organization. Chandler (2005) explained that replacing Extension agents could cost Extension from $7,185 to $30,000 per agent. The cost of turnover can be extremely high, and the highest turnover rates within an organization are found among the newly hired employees (Wanous, 1980).

Identifying competencies needed by Extension agents is a determining factor for adequate education curricula, training, and retention (Arnold, 2007; Harder, Place, & Sheer, 2010). Vakola, Soderquist, and Prastacos (2007) explained understanding and developing the competencies of the organization and its employees are essential to having and maintaining a competitive advantage. Previous research regarding competencies of Extension agents has failed to recognize those of the pre-entry stage. The researchers of the study reported here operationally defined the pre-entry stage as the stage of one's career immediately prior to entering Extension. Individuals in the pre-entry stage are those actively seeking employment in Extension, such as students searching for jobs after graduation or individuals changing careers and moving to Extension.

Theoretical Framework

The Four Stages of Professional Careers Model describes how each one of four career stages involves different tasks, relationships, and psychological adjustments (Dalton, Thompson, & Price, 1977). These four stages are apprentice, colleague, mentor, and sponsor. This original model for professional career advancement explains "high performance is performing well within the appropriate role" (Dalton et al., 1977, p. 19).

Building upon the work of Dalton et al. (1977), Rennekamp and Nall (1993) adapted and modified the Four Stages of Professional Careers Model for use in Extension. According to Rennekamp and Nall (1993), "Movement from career stage to career stage is the essence of career development. We move to a new career stage by meeting developmental needs characteristic of our current career stage" (¶ 5). The Professional Development Model outlines four distinct stages in Extension: entry, colleague, counselor, and advisor (Rennekamp & Nall, 1993). Each stage is characterized by distinct competencies, also known as motivators, which drive agents through professional development (Rennekamp & Nall, 1993).

Kutilek, Gunderson, and Conklin (2002) further developed the Professional Development Model for use in Extension by creating the Career Stage Approach. Their (2002) model is divided into three stages: entry, colleague, and counselor/advisor. The Career Stage Approach provides organizational strategies that benefit the career growth of an Extension agent. The theoretical framework for this article was the Professional Development Model by Kutilek, Gunderson, and Conklin (2002).

According to Kutilek, Gunderson, and Conklin (2002), the entry stage is marked by the beginning of an agent's career. The agent should be focused on learning the essential skills to complete jobs and learn policies and procedures. Motivators for this stage include understanding the organization, establishing linkages, and obtaining skills to perform the job (Kutilek et al., 2002).

The colleague stage is characterized by the agent moving from dependence to independence. Kutilek, Gunderson, and Conklin (2002) explained many agents remain in this career stage rather than moving to the final stage. Motivators found in this career stage are professional development funding, expanding creativity and innovation, and developing an area of expertise.

The final stage, the counselor/advisor stage, is marked by agents assuming responsibility for Extension and their peers. Agents increase their participation in the decision-making process, problem solving for

Extension, and developing other agents. Motivators characterizing this stage include acquiring a broad-based expertise, engaging in organizational problem solving, and counseling/coaching other professionals.

Keita and Luft (1987) explained that Extension agents should develop the proper skills, abilities, and attitudes to be successful. The authors surveyed 78 agents in Minnesota, North Dakota, and South Dakota. The following competencies were ranked as the most important for agricultural Extension agents to possess before entering a career in Extension:

- Get along with people

- Remain current through regular reading, workshops, and conferences

- Develop support of local people for Extension programs

- Assess county situations and needs

- Identify priority programs

- Public speaking ability

- Understand principles of communication

- Write effective reports and news articles

- Identify and select appropriate physical, material, and human resources

Harder, Place, and Sheer (2010) identified the competencies entry-level Extension agents will need for the future. The Delphi technique was used to gain insight into the competencies Extension experts thought would be necessary for Extension agents to possess by 2015. Nineteen core competencies were identified by the expert panel:

- Able to utilize technology for program delivery

- Accountability

- Applied research skills

- Communication skills including speaking and writing skills

- Cultural sensitivity

- Develop extramural funding

- Interpersonal skills

- Organizational leadership development

- Personal leadership development

- Problem-solving

- Professionalism

- Program evaluation

- Program implementation

- Program planning

- Relationship building

- Self-management

- Teaching skills

- Technical/subject matter expertise

- Volunteer development

Objective

The objective was to describe agents' perceptions of necessary pre-entry competencies. The objective presented was part of a larger study that also described Florida Extension agents' competencies when they first entered Extension and the motivational factors that influenced agents' decisions to become an Extension

agents.

Methods

An ex post facto design using survey methodology to study intangibles was used to fulfill the objective. The researchers used a Web-based questionnaire to measure the pre-entry competencies needed by agents entering Extension. The population of interest was Florida Extension agents. A list of current Florida Extension agents ($N = 334$) was obtained from the Florida Extension County Operations office, which served as the population frame. Cochran's sample size formula for continuous data and the corresponding correction formula (as cited in Bartlett, Kotrlik, & Higgins, 2001) were used to calculate the random sample size ($n = 224$) for the study.

An online questionnaire was used to collect data. The researchers found no existing instrument that measured the pre-entry competencies; therefore, the researchers created the Web-based questionnaire. The researchers obtained some questions for the questionnaire from similar research studies conducted by Harder et al. (2010) and NASULGC (2007). A panel of experts reviewed the instrument used to make certain threats to face and construct validity were minimized. The panel of experts modified two competencies from Harder et al. (2010).

The survey respondents were asked what they perceived were the five most necessary pre-entry competencies an Extension agent should possess. Respondents were able to use the 19 competencies identified by Harder et al. (2010) or write-in competencies they felt were necessary to have. The Tailored Design Method for Internet questionnaires by Dillman, Smyth, and Christian (2009) for Internet questionnaires was used to collect the data. A total of 224 online questionnaires were emailed to the population via a Web link. Four emails bounced back due to incorrect email addresses. One hundred fifty-two questionnaires were completed, for an overall response rate of 69.09% ($n = 152$). Two reminders were sent in an effort to increase the response rate (Dillman et al., 2009).

Early and late respondents were compared to control for non-response error. Significant differences existed between early and late respondents and the pre-entry competencies of Program Evaluation, $t(144) = 4.03$, $p < 0.05$, and Relationship Building, $t(144) = 4.27$, $p < 0.05$. Therefore, results for the program evaluation and relationship building variables cannot be generalized to the entire population (Linder, Murphy, & Briers, 2001).

Findings

A total of 24 unique competencies were identified by respondents. Similar competencies were combined and redefined as explained in the following text. The competencies of program planning, program evaluation, program implementation, and program development were categorized into a competency defined as program development process. Organizational leadership development, personal leadership development, and other leadership development were categorized into a competency defined as leadership development. The interpersonal skills competency was expanded to cover relationship building, cultural sensitivity, conflict resolution, and foreign language.

The most important pre-entry competency reported was self-management, at the rate of 71.71% ($n = 109$). Other pre-entry competencies perceived by respondents as being important to have were program development process (69.74%, $n = 106$), communication skills (56.58%, $n = 86$), interpersonal skills (53.95%, $n = 82$), technical/subject matter expertise (48.03%, $n = 73$), and teaching skills (36.18%, $n = 55$). Table 1 identifies the respondents' perceptions of necessary pre-entry competencies.

Table 1.
Agents' Perception of Necessary Pre-Entry Competencies

Competency	*f*	*%*
Self-management	109	71.71%
Program Development Process	106	69.74%
Communication Skills	86	56.58%
Interpersonal Skills	82	53.95%
Technical/Subject Matter Expertise	73	48.03%
Teaching Skills	55	36.18%
Problem-solving	29	19.08%
Professionalism	29	19.08%
Leadership Development	27	17.77%
Accountability	18	11.84%
Ability to Utilize Technology for Program Delivery	16	10.53%
Volunteer Development	14	9.21%
Teamwork Skills	9	5.92%
Develop Extramural Funding	5	3.29%
Applied Research Skills	4	2.63%
Note. Thirty responses were not reported because they did not fit the definition of a competency.		

Conclusions

The objective was to describe agents' perceptions of necessary pre-entry competencies. Harder et al. (2010) indicated there were 19 competencies necessary for entry-level Extension agents to possess by 2015. However, cultural sensitivity, developing extramural funding, applied research skills, and leadership development were not currently perceived as necessary pre-entry competencies. This may be due to how respondents interpreted the meaning of "pre-entry" versus "entry-level." Also, Harder et al. (2010) surveyed Extension administrators, specialists, and agents, whereas the study reported here surveyed only Extension agents. These reasons may account for the differences in perceived competencies needed by Extension agents.

Perceptions of necessary pre-entry competencies needed by new Extension agents vary among states and among Extension agents and Extension administration, as evidenced by the differences between the competencies described in this article and the one described by Harder et al. (2010). This discrepancy indicates the need for increased communication between Extension agents and Extension administration. Instructors and professors in the fields of agricultural and Extension education should focus their attention on

the necessary pre-entry competencies as well. Individuals who do not have an educational background in Agricultural and Extension Education upon entering Extension may benefit from increased formal education in the competency areas identified as important in our study.

Implications for the Professional Development Model

The Professional Development Model outlined the three career stages of an Extension agent (Kutilek et al., 2002). Rennekamp and Nall (1994) explained that for an agent to move to the next career stage it is essential the agent attains and develops the necessary competencies to do so. The agent who does not gain or develop the appropriate competencies for his or her current career stage is likely to not advance to the next career stage or will move to a different job (Rennekamp & Nall). This is a serious concern for Extension, which already struggles with employee turnover. However, the Professional Development Model overlooks whether or not a newly hired Extension agent has the appropriate pre-entry competencies to begin a career in Extension.

Kutilek et al. (2002) stated "Extension wants new employees to develop skills quickly to a level at which they can perform their work efficiently and effectively" (Â¶ 5). Possessing the appropriate competencies to begin a career is just as important to developing the appropriate competencies to continue a career. Extension agents should have an appropriate skill set before entering their careers in order to progress to the Entry Stage of the Professional Development Model. Based upon this conclusion and the results from the study reported here, the researchers determined adding a new stage to the Professional Development Model would be appropriate in Florida. Table 2 identifies the Professional Development Model modified to reflect the Pre-Entry stage.

Table 2.
Professional Development Model Modified to Reflect the Pre-Entry Stage

Career Stage	Motivators	Organizational Strategies
Pre-entry Stage*	Pre-entry competencies needed: Self-management, program development process, communication skills, interpersonal skills, technical/subject matter expertise, and teaching skills.	Pre-service examination of competencies before entering the Extension organization, and; Pre-service training before starting the job.
Entry Stage	Understanding the organization, structure, and culture; Obtaining essential skills to perform job; Establishing linkages with internal partners; Exercising creativity and initiative, and; Moving from dependence to independence.	Peer mentoring program; Professional support teams; Leadership coaching, and; Orientation/job training.
Colleague Stage	Developing area of expertise; Professional development funding; Becoming an independent contributor in problem resolution; Gaining membership and identity in professional community;	In-service education; Specialization funds; Professional association involvement; Formal educational training, and;

	Expanding creativity and innovation, and; Moving from independence to interdependence.	Service on committees or special assignments.
Counselor and Advisor Stages	Acquiring a broad-based expertise; Attaining leadership positions; Engaging in organizational problem solving; Counseling/coaching other professionals; Facilitating self renewal, and; Achieving a position of influence and stimulating thought in others.	Life and career renewal retreats; Mentoring and trainer agent roles; Assessment center for leadership, and; Organizational sounding boards.
Note. *Reflects the new stage to be included in the Professional Development Model.		

The motivators for the Pre-entry Stage are the Pre-entry competencies necessary for new Extension agents. The pre-entry competencies are self-management, program development process, communication skills, interpersonal skills, technical/subject matter expertise, and teaching skills. These competencies directly reflect the perceived competencies needed for new agents by current Extension agents. Florida Extension administrators and Extension personnel responsible for hiring and training new Extension agents should use these competencies as a foundation for hiring and training practices.

The organizational strategies for the Pre-entry Stage are a pre-service examination of competencies before entering the Extension organization and pre-service training before starting the job. A pre-service examination of competencies provides Extension administration insight into the knowledge and skill set of potential job candidates. Extension should hire candidates with the most complete set of competencies prior to entering the organization. Pre-service training is necessary to ensure that agents are capable of doing their job before entering the organization.

Recommendations

Based on these findings, the following are recommendations for practitioners. Florida Extension administrators and Extension personnel should build upon the competencies that new Extension agents possess when entering the Extension organization. Extension has an obligation to help those currently in the organization to build the skills and competencies they might be lacking. Florida Cooperative Extension should develop a pre-entry examination of skills and competencies of entry-level Extension agents.

Extension should also focus on new agent training. The results from the pre-entry examination can be used as a guide for new agent trainings. New agent training should begin soon after the first day of employment before the agent is expected to start delivering county programs. Developing a pre-entry training can be a useful tool in determining the amount of training each new agent might need to become a successful Extension agent.

Future studies are recommended to determine the specific reasons why certain pre-entry competencies were identified as necessary by Florida Extension agents. Research should be conducted in other states to identify the pre-entry competencies of Extension agents in their state's Extension organization in order to further develop and confirm the pre-entry stage of the Professional Development Model, as outlined by the researchers. Finally, it would be useful to determine the effect of hiring Extension agents who possess the necessary pre-entry competencies on employee turnover.

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