

THE PRE-ENTRY COMPETENCIES OF FLORIDA EXTENSION AGENTS

By

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To my family

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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, training, and retention (Arnold, 2007; Harder, Place, & Sheer, 2009; Wanous, 1980). The Professional Development Model comprises three stages: Entry, Colleague, and Counselor and Advisor (Kutilek et al., 2002). Each stage possesses distinct motivators and organizational strategies which enable the employee and organization to maximize their full potential. However, The Professional Development Model solely focuses on the stages of extension agents currently in the Extension organization, disregarding the motivational factors and pre-entry competencies of agents entering Extension.

This study was an ex post facto design using survey methodology to examine the motivational factors and pre-entry competencies of Florida extension agents. Descriptive statistics including central tendencies and frequencies, *t*-tests, and analysis of variance were used to satisfy the objectives of this study.

A key finding from this study was the respondents' perceptions of necessary pre-entry competencies when beginning their career in Extension. The most necessary

competencies reported by respondents were: (a) self-management, (b) the program development process, (c) communication skills, (d) interpersonal skills, (e) technical/subject matter expertise, and (f) teaching skills. Another key finding was respondents' competencies when they first entered their career in Extension. The competencies agents were most competent in were interpersonal skills, self-management, professionalism, problem-solving, and communication skills. The competencies agents were least competent in were accountability, applied research skills, program planning, program implementation, and the ability to utilize technology for program delivery.

CHAPTER 1

INTRODUCTION AND PURPOSE

Background and Setting

The Cooperative Extension Service is an agency for change and problem solving. Its mission is stated as “the development of practical demonstrations of research knowledge and giving of instruction and practical demonstrations of existing or improved practices or technologies” (Seavers, Graham, Gamon, & Conklin, 1997, p. 7). Extension brings the rewards of higher education and turns them into educational programs for anyone wishing to participate. The educational programs of Extension are researched-based, teaching people to identify problems, analyze information, decide among alternative courses of action for dealing with those problems, and locate the resources to accomplish the preferred course of action (Rasmussen, 1989).

The Morrill Land-Grant Acts of 1862 and 1890 established land-grant universities “to educate citizens in agriculture, home economics, mechanical arts, and other practical professions” (United States Department of Agriculture, 2008, ¶ 7). The Smith-Lever Act of 1914 established the partnership between the agricultural colleges and the U.S. Department of Agriculture to provide for cooperative agricultural extension work, creating the Cooperative Extension Service (United States Department of Agriculture, 2008). Cooperative Extension includes three separate, yet interconnected partners: federal, state, and county. The federal partner is the Extension Service of the USDA, otherwise known as the National Institute of Food and Agriculture (NIFA). The state partner is the Cooperative Extension Service and land-grant university of each state. The county partner is the local government where the change implementation and educational programs take place (Seavers et al., 1997).

Extension agents carry out the work of the Cooperative Extension System at the county level. Florida extension agents are county faculty who implement the educational programs to 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). Cooperative Extension must strive to reduce these challenges and to retain their agents. Organizational efforts need to be directed at understanding recruitment and retention of extension agents (ECOP, 2005). “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” (Arnold, 2007, p. 18). Cooperative Extension must be able to recruit and retain qualified employees to maintain relevance and influence with the county clientele.

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 original model of career development for use in Extension. “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” (Rennekamp & Nall, 1993, ¶ 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).

The entry stage relates to when one first becomes an agent and enters Cooperative Extension. Competencies characterized by this stage include understanding the structure, function, and culture of Extension and establishing linkages with volunteers (Rennekamp & Nall, 1993). The second phase is the colleague stage. This career stage is characterized by a fast growth in professional knowledge. Agents have been received as part of the Extension community (Rennekamp & Nall, 1993).

The counselor stage is the third stage and is distinguished by an agent's responsibility for developing others in the organization. These agents manage leadership roles in professional organizations and they understand the need for interdependence to accomplish goals (Rennekamp & Nall, 1994). The advisor stage is the last stage. Agents have a key influence in the future direction of the organization. Motivators characterized in this career stage are achieving respect and position of influence (Rennekamp & Nall, 1994).

Kutilek, Gunderson, and Conklin (2002) further developed the Professional Development Model by creating the Career Stage Approach. Kutilek et al.'s (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 conceptual framework for this study will be the Professional Development Model by Kutilek et al. (2002).

According to Kutilek et al. (2002), the entry stage is marked by the beginning of the 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 et al. (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 Cooperative Extension and their peers. Agents increase their participation in the decision making, problem solving for Extension and develop other agents. Motivators characterizing this stage include acquiring a broad-based expertise, engaging in organizational problem solving, and counseling/coaching other professionals.

Problem Statement

Arnold (2007) explained recruitment and retention within Extension have become progressively more problematic. High quality agents are leaving the Extension system due to organizational, non-work related, and individual-related factors (Kutilek, et al., 2002). New experts must then be identified, recruited, and trained costing valuable time and financial resources. Once employed, the organization must strive to keep these agents (Ensle, 2005).

Past studies indicate conflicting evidence regarding the reasons agents enter into Extension. NASULGC (2007) found there were five motivational factors that lead agents to a career in Extension: (a) the opportunity to help people make a difference, (b) previous 4-H experience, (c) flexibility associated with the position, (d) a passion for the work, and (e) a connection with a university and opportunity to apply research. Arnold (2007) found there were six factors in agricultural agents' decisions to enter into Extension: (a) agent background, (b) career contacts, (c) service to the agricultural community, (d) nature of extension work, (e) position fit, and (f) university supported education. The reasons explained by NASULGC and Arnold do not coincide. Therefore, more research is needed to determine the true reasons agents enter into Extension.

It is important to focus attention on the pre-entry competencies of new organization members. 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 recruitment 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).

Identifying competencies needed by extension agents is a determining factor for adequate education curricula, training, and retention (Arnold, 2007; Harder, Place, & Sheer, 2009). Vakola, Soderquist, and Prastacos (2007) explained understanding and developing the competencies of the organization and its employees is 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 pre-entry stage is defined as the stage of one's career before entering the organization.

The issue of premature turnover, which affects recruitment and training, is pressing due to the high turnover rate of extension agents. The conflicting evidence regarding motivational factors of agents choosing a career in Extension does not suggest a solid foundation for future recruitment practices. The Professional Development Model solely focuses on the stages of extension agents currently in the Extension organization, disregarding the motivational factors and pre-entry competencies of agents entering Extension. Therefore, the issues of why agents choose a career in Extension and their pre-entry competencies need to be further examined.

Significance of the Study

The career decisions of current extension agents determine the future abilities, skills, and competence of Cooperative Extension (ECOP, 2002). Without understanding extension agents' motivation to choose a career in Extension there will continue to be low retention rates and poor recruiting practices. Additionally, the cost of premature turnover will continue to harm the clientele of Extension, the pool of Extension applicants, as well as Extension's financial hardship of replacing agents. Extension administrators must use the motivational factors influencing agents to enter Extension to improve their recruitment practices.

Pre-entry competencies should be a determining factor in hiring and training extension agents (Keita and Luft, 1987). Cooperative Extension should have an increased focus on the competencies of agents entering Extension. The ability to

increase focus on pre-entry competencies leans heavily on recognizing and understanding these competencies. Hiring agents with the necessary set of pre-entry competencies increases the chances of them being successful, and in return, increases the amount of agents moving from the entry stage to the counselor stage of the Career Stages Model.

The training and professional development of new extension agents should be derived from the competencies they currently possess. Therefore, this study will provide administrators in charge of training and professional development an understanding of the existing competencies of new extension agents. These pre-entry competencies should be the basis for training and professional development of new extension agents.

Definitions of Terms

- **Career Stages Model-** intended to address the organizational strategies, needs, and motivators that relate to multiple phases of career growth and development (Kutilek et al., 2002).
- **Colleague Stage-** the second stage of an employee's career which focuses on the growth of professional knowledge, independence, and autonomy in carrying out job duties (Kutilek et al., 2002).
- **Competency-** a set of observable performance dimensions, such as skills, attitudes, and behaviors that are linked to high performance (Athey & Orth, 1999).
- **Counselor/Advisor Stage-** Employees reaching the third and final career stage are characterized by moving from independent contribution to interdependence and being able to work through others (Kutilek et al., 2002).
- **Entry Stage-** the initial stage of one's career which focuses on new employees' understanding the organization, the organizational culture, and skills essential to perform the job (Kutilek et al., 2002).
- **Extension Agent-** an educator who cooperates with others in order to teach people to identify problems, analyze information, decide among alternative courses of action for dealing with those problems, and locate the resources to accomplish a preferred course of action (Rasmussen, 1989).
- **FCES-** Florida Cooperative Extension Service.

- **NIFA**- The National Institute of Food and Agriculture.
- **Pre-Entry Stage**- The stage of one's career before entering the organization.
- **Premature Turnover**- the cost of turnover when new employees are hired and then leave the organization before the employee is able to benefit the organization (Griffeth & Hom, 2001).
- **USDA**- United States Department of Agriculture.

Purpose and Objectives

The purpose of this study was to understand the pre-entry competencies and career decisions of Florida extension agents. The key objectives of this study included:

- Objective 1: To describe selected personal characteristics of extension agents;
- Objective 2: To describe the motivational factors that influence extension agents to enter the Florida Cooperative Extension Service;
- Objective 3: To describe agents' competencies when they first entered their career in Extension;
- Objective 4: To describe agents' perceptions of necessary pre-entry competencies, and;
- Objective 5: To determine if differences exist between agents' perceptions of their pre-entry competencies and selected personal characteristics of extension agents.

Limitations of Study

There were three limitations of this study. The first limitation was that the participants selected for this study were UF/IFAS extension agents and may not be representative of extension agents outside of Florida. The second limitation was the possibility that respondents may have misinterpreted the questions. If misinterpretation occurred, then the validity of this study would decrease. The third limitation was that the participants of the study were honest when reporting their answers.

CHAPTER 2

LITERATURE REVIEW

Theoretical Framework

The Professional Development Model by Kutilek et al. (2002) is a career stages model developed through a systems approach to career development. Systems approaches are distinguished by an “inter-relationship among parts, all of which are working together toward a defined goal” (Kutilek et al., 2002, ¶ 2). All parts of the system are contingent upon each other for information, development, and evaluation, and the entire system uses feedback to determine if desired goals have been reached.

Maximizing an individual’s career potential is essential in order for an organization to be successful. The Professional Development Model by Kutilek et al. (2002) was adapted from the work of Dalton, Thompson, and Price (1977) and Rennekamp and Nall (1993). Dalton et al. (1977) developed a model called The Four Stages of Professional Careers. This model proposed that each stage is distinguished from the other stages by the tasks (central activities), relationships, and psychological adjustments in which the employee is involved. Table 2.1 describes all four stages relating an employee’s central activities, primary relationships, and major psychological issues at each stage.

Table 2-1. Four Career Stages by Rennekamp and Nall (1993)

	Stage I	Stage II	Stage III	Stage IV
Central Activity	Helping, Learning, and Following directions	Independent contributor	Training Interfacing	Shaping the direction of the organization
Primary Relationship	Apprentice	Colleagues	Mentor	Sponsor
Major Psychological Issues	Dependence	Independence	Assuming responsibility for others	Exercising power

Building upon the work of Dalton et al. (1977), Rennekamp and Nall (1993) applied The Four Stages of Professional Careers model to Cooperative Extension. Agents move to a new career stage by attaining competencies in order to develop as a successful extension agent in that stage. The agent that does not gain or develop the appropriate competencies for their current career stage is not likely to advance to the next career stage or will move to a different job (Rennekamp & Nall).

The first stage is the entry stage which “corresponds to a time in one’s career where the individual first enters the profession” (Rennekamp & Nall, 1993, ¶ 12). During the second stage, the colleague stage, extension personnel have become accepted in the Extension community. This stage is characterized by a rapid growth in knowledge of the Extension organization, independence, and autonomy. The counselor stage is the third stage. Extension personnel who reach this stage develop expertise in other areas beyond what they already possess and become committee chairs. They also take on leadership roles in professional associations (Rennekamp & Nall). The last stage, the advisor stage, is characterized by extension personnel “playing a key role in shaping the future of the organization by ‘sponsoring’ promising people, programs and ideas” (Rennekamp & Nall, 1993, ¶ 17).

Kutilek et al. (2002) modified the career stage model of Rennekamp and Nall (1993) by combining the counselor and advisor stages. The Professional Development Model comprises three stages: Entry, Colleague, and Counselor/Advisor (Kutilek et al., 2002). Each stage possesses distinct motivators and organizational strategies which enable the employee and organization to maximize their full potential. For the purpose of this study, the term ‘motivator’ was operationally defined to include motivating factors

and competencies to more accurately describe the knowledge, skills, and abilities included in the model.

Table 2-2. The Professional Development Model by Kutilek, Gunderson, and Conklin (2002)

Career Stage	Motivators	Organizational Strategies
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; Expanding creativity and innovation, and; Moving from independence to interdependence.	In-service education; Specialization funds; Professional association involvement; Formal educational training, and; 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.

Entry Stage

The entry (or apprentice) stage is when an employee first enters the organization or a new job within the organization (Kutilek et al., 2002). New extension agents tend to feel overwhelmed due to the large amount of information concerning the organization, their job duties, and the operational policies and procedures. New agents specifically need to be educated to successfully transition into the organization and work responsibilities (Arnold, 2007; Kutilek et al., 2002). The motivators within the entry stage are: (a) understanding the organization, structure, and culture, (b) obtaining essential skills to perform the job, (c) establishing linkages with internal partners, (d) exercising creativity and initiative, and (e) moving from dependence to independence (Kutilek et al., 2002). The entry stage also provides four organizational strategies to assist the new employee and organization in supporting this significant transition: (a) peer mentoring program, (b) professional support teams, (c) leadership coaching, and (d) orientation/job training.

Colleague Stage

The colleague stage is characterized by growth in professional knowledge, independence, and autonomy. Employees within this stage have been accepted as members of the professional community and independently contribute their expertise to solving problems and carrying out programs (Rennekamp & Nall, 1993). Self-directed learning and maturity are common career growth attributes. The extent to which an agent remains in this stage depends on whether or not the assigned roles and responsibilities stay consistent. The motivators for this stage include: (a) developing areas of expertise, (b) professional development funding, (c) becoming an independent contributor in problem resolution, (d) gaining membership and identity in the

professional community, (e) expanding creativity and innovation, and (f) moving from independence to interdependence. Organizational strategies comprise in-service education, specialization funds, professional association involvement, formal educational training, and service on committees or special assignments (Kutilek et al., 2002).

Counselor and Advisor Stage

The final stage is characterized by the increase in additional responsibility for others in the organization and employees seeking to develop additional areas of expertise beyond what they currently possess. Employees move from “independent contribution to a focus on interdependence and the ability to work through others” (Kutilek et al., 2002, ¶ 32). Motivators of this stage include: (a) acquiring a broad-based expertise; (b) attaining leadership positions; (c) engaging in organizational problem solving; (d) counseling/coaching other professionals; (e) facilitating self renewal; and (f) a position of influence and stimulating thought in others. Organizational strategies comprise life and career renewal retreats, mentoring and trainer agent roles, assessment center for leadership, and organizational sounding boards (Kutilek et al., 2002).

Influences to Entry

In the qualitative study of the motivation of agricultural extension agents to enter the Florida Cooperative Extension Service, Arnold (2007) reported positive and negative influences on agricultural extension agents at the entry level stage. The positive influences on agents were personal skills and characteristics, knowledge bases, internal motivators, external motivators, support system, and informational support. The

negative influences on agents were initial mandated requirements, personal work management issues, lack of direction, and job pressures.

Positive Influences on Entry Stage Agents

Personal skills were described by Arnold (2007) as an agent's "ability to apply his/her individual talents, such as critical and creative thinking, problem solving, relationship building, public speaking, people skills, and communication and listening" (p. 110). The agent's ability to use his/her skills to help people was very influential to possessing a career in extension. Characteristics of the agents were a willingness to learn, humbleness, patience, comfort with people, organization, self-confidence, and a challenging and cooperative attitude.

Having a firm knowledge base in the areas of Extension, evaluation, programming, community development, change, and production agriculture were all influential in agents' decisions to enter the Extension organization (Arnold, 2007). The previous knowledge agents possessed allowed them to address clientele problems and build relationships immediately upon entering the organization. Additional areas of knowledge reported by participants were reporting and accountability measures, tenure and promotion requirements, computer programs and technologies, and diversity in agriculture.

Internal and external motivators were both positive influences on agents' decisions to enter or continue in the Extension organization. According to Arnold (2007), internal motivators "create positive reinforcement for entry level agents to gauge their success and provide direction for the future" (p. 116). Feedback, freedom, job variety and flexibility, goal setting, and reputation establishment were all considered by agents as positive influences. External motivators conveyed by agents included client

behavioral changes, program participation, teamwork efforts, recognition, peer encouragement, awards, scholarships, and grants.

Social and informational support was reported as being positively influential for entry stage agents (Arnold, 2007). Social support stemmed from peers, supervisors, mentors, colleagues, specialists, clients, and administrators. Informational support consisted of access to educational resources, in-service training, new agent orientation, professional development, specialists, and university resources.

Negative Influences on Entry Stage Agents

Initial mandated requirements such as meetings, reporting and accountability, tenure and promotion, completion of a master's degree, programming, and the hiring process were negative influences when deciding to enter the Extension organization (Arnold, 2007). Many of the agents had heard about negative experiences regarding the reporting process. Also, all participants conveyed displeasure with the hiring process, such as the length, inefficiency, and loss of qualified candidates.

Personal work management issues negatively influenced agents' decisions to become an extension agent (Arnold, 2007). Scheduling difficulties, poor time management, inadequate salaries, limited access to resources, long work hours, and out of pocket expenses were all negative work management influences reported by participants. Furthermore, many agents had troubles with the organization, planning, and efficiency in their work.

A lack of direction was indicated as a negative influence (Arnold, 2007). Unclear guidance and expectations, inadequate leadership, and the absence of a job description were examples of lack of direction revealed by agents (Arnold, 2007). These negative elements were conveyed by participants as problematic and extremely frustrating.

Job pressures was the last negative influence reported by Arnold (2007). Job pressures included the pressure for success, tenure and promotion requirements, building programs, and obtaining a master's degree. The participants communicated that these job pressures were difficult to handle, and caused them to contemplate leaving the extension system. Participants indicated that relieving some of these pressures would be beneficial in retaining new agents.

Motivation to Enter Extension

Arnold (2007) reported six categories identified by agricultural extension agents' regarding their motivation to enter into the Extension organization: (a) agent background, (b) career contacts, (c) service to agricultural community, (d) nature of extension work, (e) position fit, and (f) university supported education. Agent background, the first motivational category reported by Arnold (2007), included two factors, academic and work experiences and lack of knowledge. Agents had similar background experience in working within the agricultural industry, whether being raised on a family farm or working in the industry. Participants also held at least one academic degree in a technical agricultural area, such as animal science, horticulture, and general agriculture. Agents differed in their knowledge of Extension. Seven of the twelve participants lacked Extension education training before joining FCES.

Career contacts was the second motivational category Arnold (2007) reported. This category contained two factors: encouragement by others and influential relationships. Encouragement by others referred to the positive encouragement from peers, clientele, administrators, friends, and advisors, and was influential on each participant studied. Influential relationships, such as the interaction and exposure to extension agents, had a significant impact in agents' decision to enter Extension.

Service to the agricultural community was another motivational category accounted by Arnold (2007). Among the participants studied, a common theme that emerged was their interest in helping agricultural producers to solve problems.

The fourth motivational category reported by Arnold (2007) was the nature of extension work. The job expectations of the agents studied were centered on the organizational mission and goals of Extension. Examples of the nature of extension work that motivated agent to enter Extension were helping people, practical work, challenging situations, solving problems, and providing advice (Arnold, 2007).

Position fit was another motivational category found by Arnold (2007). The participants explained that salary, location, and duties played a major role in agents' decisions to enter into Extension. Other reasons included the advertised description, freedom and variety, the availability of the job, the right time at the right place, and job benefits.

Agent background, the last motivational category reported by Arnold (2007), included two factors, non-formal structure and university affiliation. The flexibility of the organization and the environment of Extension were cited by participants as incentives of the non-formal structure to enter the organization. Another incentive of the non-formal structure was that agents had the ability to take risks and try new things in programming without acceptance from others. University affiliation was appealing to agents' entry decision-making because it connected the extension system with the university. This connection, as described by participants, provided personnel and informational resources needed to support agents in their work.

The National Association of State Universities and Land-Grant Colleges (2007) gave the top five factors why agents enter a career in Extension. The five factors were: (a) the opportunity to help people make a difference, (b) previous 4-H experience, (c) flexibility associated with the position, (d) a passion for the work, and (e) a connection with a university and opportunity to apply research.

Pre-Service Competencies

Beeman, Cheek, McGhee, and Gregotis (1979) identified professional competencies needed by extension agents in Florida. The authors survey 254 extension agents and 15 state staff members of the Florida Cooperative Extension Service. Out of 154 competencies identified, state staff members rated all of the competencies higher than extension agents. State staff members determined the following competency categories as most important for extension in agent to possess: program planning, maintaining professionalism, understanding human behavior, communication, program execution, public relations, teaching, research, evaluation, administration, and 4-H. Extension agents determined the following competency categories for extension agents to possess: maintaining professionalism, public relations, program planning, communication, program execution, understanding human behavior, teaching, evaluation, administration, research, and 4-H (Beeman et al., 1979).

Keita and Luft (1987) stated that it is “important that agricultural agents develop the proper skills, knowledge, abilities, and attitudes necessary to effectively carry out their professional roles” (p. 40). The authors surveyed 78 extension agents from 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: (a) get along with people, (b) remain current through regular

reading, workshops, and conferences, (c) develop support of local people for extension programs, (d) assess county situations and needs, (e) identify priority programs, (f) public speaking ability, (g) understand principles of communication, (h) write effective reports and news articles, and (i) identify and select appropriate physical, material, and human resources to meet program needs (Keita and Luft, 1987).

Cooper and Graham (2001) identified the competencies needed to be a successful extension agent. Extension agents and supervisors from Arkansas in the program areas of agriculture, family and consumer sciences, 4-H, and community development were surveyed. Both agents and supervisors valued the four competencies of dependability, fairness, honesty, and trustworthiness most important for success. The other top-ranked competencies of extension agents were: (a) credible, respected, (b) responds promptly, (c) follows up with contacts, (d) teamwork skills, (e) people skills, (f) stays current, (g) programs meet needs, (h) committee to program, (i) positive attitude, and (j) accepted as trusted friend (Cooper & Graham, 2001).

Harder, Place, and Sheer (2009) 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: (a) able to utilize technology for program delivery, (b) accountability, (c) applied research skills, (d) communication skills including speaking and writing skills, (e) cultural sensitivity, (f) develop extramural funding, (g) interpersonal skills, (h) organizational leadership development, (i) personal leadership development, (j) problem-solving, (k) professionalism, (l) program evaluation, (m) program implementation, (n) program

planning, (o) relationship building, (p) self-management, (q) teaching skills, (r) technical/subject matter expertise, and (s) volunteer development (Harder et al., 2009).

Summary

Understanding the path that leads to a career in Extension is not only important for recruitment but is also important in the retention of agents (Arnold, 2007). Placing more attention on the entry of new agents will benefit not just recruitment and retention strategies, but also the financial burdens of replacing and training new agents (Wanous, 1980). Furthermore, identifying competencies needed by extension agents is a determining factor for adequate education curricula, training, and retention (Arnold, 2007; Harder, Place, & Sheer, 2009).

The Professional Development Model developed by Kutilek et al. (2002) describes the career path of the beginning extension agent to that of the seasoned extension agent. The Model also examines the motivators within each stage which allow the extension agent to gain more competence and move from one career stage to the next. However, the Model does not explain the career path the extension agent took nor the competencies the new agent possessed before joining Cooperative Extension. The competencies and career decisions identified by previous researchers (Arnold, 2007; Beeman et al., 1979; Cooper & Graham, 2001; Gonzalez, 1982; Harder et al., 2009; Keita & Luft, 1987) provide a solid foundation for investigating the addition of a Pre-entry stage to the Professional Development Model.

The Professional Development Model (Kutilek et al., 2002) overlooks whether or not a newly hired extension agent has the appropriate pre-entry competencies to begin a career in Extension. The motivational factors identified by Arnold (2007) do not reflect those identified by NASULGC (2007). The competencies needed by extension agents

as discussed by Harder et al. (2009) do not indicate the pre-entry competencies needed by new extension agents. Therefore, the five objectives of this study are to provide the missing variables to these studies.

The Professional Development Model should be modified to include a pre-entry stage. This new stage can be characterized as the phase of when new agents are entering the Extension organization. The motivators for this stage will include the motivational factors that influence agents to enter Extension and the pre-entry competencies needed by new extension agents. The organizational strategies for this stage will include an evaluation of the competencies applicants and new agents have before entering Extension.

CHAPTER 3 METHODOLOGY

Research Design

This study was an ex post facto design using survey methodology to study intangibles. Ary, Jacobs, Razavieh, and Sorensen (2006) defined survey research as the use of “instruments such as questionnaires and interviews to gather information from groups of subjects” (p. 31). A survey of intangibles refers to constructs such as attitudes, values, opinions and other personal characteristics that are difficult to measure (Ary et al., 2006). The researcher used a Web-based questionnaire to measure the reasons why Florida extension agents selected careers in Extension, perceptions of their pre-entry competencies, and the competencies needed by pre-entry agents.

Population

The population of interest for this study was Florida extension agents. A list of current Florida extension agents ($N = 334$) was obtained from UF/IFAS Extension County Operations office which served as the population frame for this study. The list was chosen as the population frame because: (a) it provided the most up-to-date list of current Florida extension agents, (b) all program areas of Florida Cooperative Extension were included, and (c) the entry, colleague, and counselor/advisor stages of current extension agents were represented. It was important to include extension agents whose program areas represent Florida Cooperative Extension due to the different competencies each program area may require.

Collecting data representative of a population is a difficult task (Bartlett, Kotrlik, & Higgins, 2001). Ary et al. (2006) defined a sample as “a group selected from a

population for observation" (p. 638). Determining the correct sample size is one of the most frequently asked questions concerning sampling (Bartlett et al.). The power of sampling is "its ability to estimate closely the distribution of a characteristic in a population by obtaining information from relatively few elements of that population" (Dillman, Smyth, & Christian, 2009, p. 54). Cochran's sample size formula for continuous data and the corresponding correction formula (as cited in Bartlett et al., 2001) were used to calculate the random sample size ($n = 224$) for this study.

Instrumentation

The researcher found no existing instrument that measured the pre-entry competencies or career decisions of extension agents; therefore, the researcher created the Web-based questionnaire (Appendix C). The researcher obtained some questions for the questionnaire from similar research studies conducted by Arnold (2006), Harder et al. (2009), and NASULGC (2007).

The first section of the questionnaire required the respondents to answer questions regarding the reasons why current Florida extension agents entered Extension. This section contained six yes/no questions. The next section of the questionnaire required respondents to answer questions regarding their experiences of new agent professional development. This section comprised four yes/no questions, and two of these questions offered respondents an opportunity to briefly explain their answers. This section was not examined for this study.

The third section of the questionnaire required respondents to answer two subsections. The first subsection was comprised of 19 questions, where respondents were asked to rate their level of knowledge/skill concerning 19 competencies before entering Cooperative Extension. These 19 questions regarding agents' competencies

were drawn from Harder et al. (2009). Respondents indicated their responses on a Likert-type scale of one to five (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*). The second subsection asked respondents to list the five most important competencies an agent should possess when he/she is hired into Extension. Respondents were able to use the competencies from the previous question and/or list competencies they believed were not included.

The final section of the questionnaire contained eight demographic questions about the respondents. The first three demographic variables regarded the respondents' previous experience in Extension, if they had worked in Extension in another state besides Florida, and if they had previous knowledge of Extension before becoming an agent. The response options for these questions were yes/no. Next, the respondents' number of years they have worked in Extension and their age were asked. Respondents were asked to type their answers in the space provided. The next question asked respondents which program area was their major Extension appointment. Respondents were given the list of major program areas in Florida Extension with an additional option for 'Other' where they could briefly write their answer. The next question asked respondents their highest degree received. Options to answer this question included: associate's, bachelor's, master's, Ph.D./Ed.D., or other. The final question of the survey asked respondents the field(s) in which they hold their degree(s). The answer option was open-ended.

Validity, Reliability, and Sources of Error

Validity, reliability, and sources of error were issues the researcher addressed to make certain the questionnaire measured the construct properly. Ary et al. (2006)

defined validity as “the extent to which an instrument measured what it claimed to measure” (p. 243). Ary et al. (2006) identified four types of validity: internal validity, external validity, statistical validity, and construct validity.

Internal validity “is the extent to which observed differences on the dependent variable in an experiment are the result of the independent variable” (Ary et al., 2006, p. 634). Internal validity is a matter of controlling the effects that if produced through research could falsely mistake the effect of the study. Ary et al. (2006) provided eleven potential threats to internal validity. Instrumentation, history, maturation, mortality, testing, and selection were potential threats to this study. The researcher attempted to minimize these potential threats through random selection and keeping the instrument unchanged. Statistical regression, experimenter effect, subject effects, diffusion, and selection-maturation interaction were not threats to the study.

External validity is defined as “the extent to which the findings of a particular study can be generalized to other subjects” (Ary et al., 2006, p. 632). Therefore, the function of external validity is for the results of the study to reflect the target population, and similar populations in other settings, as accurately as possible. Ary et al. (2006) identified six potential threats to external validity: selection-treatment interaction, setting-treatment interaction, pretest-treatment interaction, subject effects, experimenter effects, and the novelty effect. Threats to external validity were diminished by random selection and by comparing early and late respondents to determine if any differences could be identified between these two groups.

Statistical validity is “concerned with errors in statistical interpretations” (Ary et al., 2006, p. 311). Potential threats are due to the wrongful analysis of data (Ary et al.,

2006). Statistical validity was controlled through an up-to-date statistical analysis package and expert opinion.

Construct validity is defined as “the extent to which a test or other instrument measures what the researcher claims it does” (Ary et al., 2006, p. 313). The first method to minimize construct validity was related measure studies. Related measure studies are studies that have previously measured the construct in question and can increase the validity of the instrument (Ary, et al., 2006). Therefore, the previous studies of Arnold (2006) and Harder et al. (2009) were used as the foundation on which the instrument was built. A panel of experts was the second method for minimizing construct validity in this study.

Face validity is concerned with whether or not the instrument appears valid for its intended purpose (Ary et al., 2006). A panel of experts reviewed the instrument used for this study to make certain threats to face validity, as well as construct validity, were minimized. The panel of experts modified two competencies from Harder et al. (2009).

Nonresponse error occurs in “a situation in which people receive a survey but fail to return the completed instrument” (Ary et al., 2006, p. 636). Nonrespondents differ from respondents in many ways, such as education and motivation. Ary et al. (2006) suggested three approaches to minimize nonresponse: (a) compare respondents to population, (b) compare early to late respondents, and (c) compare respondents and nonrespondents. The researcher utilized the second approach. A detailed explanation can be found in the ‘Procedure’ section of this chapter.

Procedure

The study’s procedure proceeded by acquiring approval from the University of Florida Institutional Review Board (IRB-02). A proposal to conduct this study was

presented to the IRB on July 24, 2009. A copy of this proposal and the IRB approval letter can be found in Appendix B. IRB approval for the study was granted on July 29, 2009.

Survey Monkey was the mode of delivery chosen for this questionnaire. Ary et al. (2006) and Dillman et al. (2009) identified limitations/disadvantages to Web-based surveys: (a) respondents' restrictive access to technology, (b) respondents' restrictive access to the Internet, (c) potential lower response rates, (d) difficult to identify respondents, and (e) difficulty in obtaining correct and up-to-date email addresses. However, Florida extension agents use work-assigned email addresses, computers, and the Internet daily to do their jobs. The benefits/advantages to using the Web-based survey for this study were low cost, anonymity, quick response time, and ease of submission and distribution (Ary et al., 2006; Dillman et al., 2009).

The researcher followed the Tailored Design Method by Dillman et al. (2009). Tailored Design is defined as:

The development of survey procedures that work together to form the survey request and motivate various types of people to respond to the survey by establishing trust and increasing the perceived benefits of completing the survey while decreasing the expected costs of participation. (Dillman et al., 2009, p. 43)

This method allowed the researcher to follow survey procedures that are scientifically founded. The Tailored Design Method yields high response rates, reduces sampling error, and develops trust with respondents (Dillman et al., 2009).

Initial contact was made on September 17 2009, with participants of the study. The E-Mail (Appendix D) explained: (a) the confidentiality and anonymity of their responses, (b) what the study was, (c) the significance of the study, (d) the need for

their participation, (e) appreciation for their participation, (f) hyperlink to the study, and (e) a password to complete the survey.

On September 23 2009, one week after contact was made, a reminder E-Mail (Appendix E) was sent only to those extension agents who had not yet completed the questionnaire. The final contact (Appendix F) for agents' participation and informing them of the upcoming deadline to participate in the study was sent on September 29 2009, only to agents who had not yet completed the questionnaire. The hyperlink was closed on October 5 2009. The researcher compared early respondents to late respondents to account for nonresponse error as identified by Ary et al. (2006).

Data Analysis

The researcher used the Statistical Package for the Social Sciences (SPSS) 17.0 for Windows for analysis. Descriptive statistics including central tendencies and frequencies were used to analyze the data describing the pre-entry competencies and motivational factors of agents entering their career in Extension. Inferential statistics were used in this study because the population was treated as a sample from a snapshot in time.

The first objective, to describe selected personal characteristics of extension agents, was analyzed by using descriptive statistics. Selected personal characteristics included: (a) gender, (b) previous work experience in Extension, (c) previous knowledge of Extension, (d) number of years worked as an agent, (e) age, (f) major program area, (g) highest degree earned, and (h) field where degrees were held.

To describe the motivational factors that influence extension agents to enter the Florida Cooperative Extension Service was the second objective of this study. Descriptive statistics were used to analyze the questions framing this objective.

Motivational factors included: (a) looking for an opportunity to help others, (b) looking to make a difference, (c) flexibility with the position, (d) staying connected to a university, (e) looking for an opportunity to apply research, and (f) have previous 4-H experience.

The third objective, to describe agents' competencies when they first entered their career in Extension, was analyzed using descriptive statistics. The researcher asked respondents to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (*1 = Not at all competent, 2 = Slightly competent, 3 = Somewhat competent, 4 = Very competent, and 5 = Not applicable*).

To describe agents' perceptions of necessary pre-entry competencies was the fourth objective of this study. For this objective, the researcher asked respondents to list the top five most important competencies a new agent should possess when he/she is hired into Extension. The respondents could use either the 19 competencies listed from the previous question or contribute other competencies they felt were the most important. Frequencies were reported for this objective. The researcher used analysis of variance (ANOVA) and *t*-tests to analyze data from the fifth objective, to determine if differences existed between agents' perceptions of their pre-entry competencies and selected personal characteristics of extension agents.

Response Rate and Nonrespondents

Response Rate

A total of 224 online questionnaires were sent to the population via a Web link sent in an E-mail to Florida extension agents, and four bounced back due to incorrect E-mail addresses. One hundred fifty-two questionnaires were completed for an overall response rate of 69.09% ($n = 152$).

Nonresponse

Ary et al. (2006) explained that one way to reduce nonresponse error was to compare early to late respondents. Early respondents were identified as those who completed the survey before September 23, 2009. Early and late respondents were analyzed using *t*-tests. Table 3-1 identifies the age, gender, and major program area of Extension appointment of early and late respondents.

Table 3-1. Crosstabs of Selected Personal Characteristics of Early and Late Respondents

	Early Respondents	Late Respondents	
		f	f
Gender			
Male	24	27	
Female	41	54	
Age			
24-35	10	16	
36-45	11	13	
46-55	19	28	
56 or older	19	20	
Major Program Area			
4-H	10	24	
Agriculture	14	16	
ENFEP	3	1	
Family and Consumer Sciences	14	14	
Horticulture	17	14	
Livestock	1	7	
Natural Resources	1	2	
Sea Grant	0	3	

Table 3-2 identifies the mean and standard deviation of early and late respondents, as well as any differences between respondents' pre-entry competences before entering Cooperative Extension and early and late respondents. Significant differences existed between early and late respondents and the pre entry competencies of Program Evaluation, $t(144) = 4.028$, $p < 0.05$, and Relationship Building, $t(144) = 4.274$, $p < 0.05$. Therefore, results for the program evaluation and relationships building

variables cannot be generalized to the entire population (Linder, Murphy, & Briers, 2001).

Table 3-2. Significant Differences Between Competencies and Early and Late Respondents

	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
<i>Ability to Utilize Technology</i>					
Early Respondents	65	3.06	1.10	2.46	0.12
Late Respondents	81	3.20	0.90		
<i>Accountability</i>					
Early Respondents	65	2.74	0.94	0.70	0.41
Late Respondents	81	2.91	0.90		
<i>Applied Research Skills</i>					
Early Respondents	65	2.83	0.93	0.87	0.35
Late Respondents	81	3.01	1.11		
<i>Communication Skills</i>					
Early Respondents	65	3.63	0.74	3.72	0.06
Late Respondents	81	3.72	0.62		
<i>Cultural Sensitivity</i>					
Early Respondents	65	3.20	1.05	2.25	0.14
Late Respondents	81	3.40	0.85		
<i>Develop Extramural Funding</i>					
Early Respondents	65	1.92	1.04	0.07	0.80
Late Respondents	80	2.39	0.97		
<i>Interpersonal Skills</i>					
Early Respondents	65	3.92	0.59	1.96	0.16
Late Respondents	81	3.98	0.52		
<i>Organizational Leadership Development</i>					
Early Respondents	65	3.02	0.86	0.02	0.90
Late Respondents	81	3.28	0.71		
<i>Personal Leadership Development</i>					
Early Respondents	65	3.28	0.88	0.40	0.53
Late Respondents	81	3.37	0.78		
<i>Problem-Solving</i>					
Early Respondents	65	3.74	0.62	0.07	0.80
Late Respondents	81	3.73	0.65		
<i>Professionalism</i>					
Early Respondents	65	3.77	0.72	1.49	0.22
Late Respondents	81	3.75	0.58		
<i>Program Evaluation</i>					
Early Respondents	65	2.46	1.00	4.03*	0.05
Late Respondents	81	2.56	0.84		

Table 3-2. Continued

<i>Relationship Building</i>						
	Early Respondents	65	3.52	0.90	4.27*	0.04
	Late Respondents	81	3.64	0.73		
<i>Self-management</i>						
	Early Respondents	65	3.83	0.63	0.13	0.72
	Late Respondents	81	3.74	0.63		
<i>Teaching Skills</i>						
	Early Respondents	65	3.38	0.88	0.26	0.61
	Late Respondents	81	3.46	0.82		
<i>Technical/Subject Matter Expertise</i>						
	Early Respondents	65	3.43	0.95	2.58	0.11
	Late Respondents	81	3.53	0.81		
<i>Volunteer Development</i>						
	Early Respondents	65	2.38	1.06	0.49	0.48
	Late Respondents	81	2.60	0.97		

Note. Respondents were asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*).

Note. *p<.05.

CHAPTER 4 RESULTS

Results by Objective

Objective 1

The first objective was to describe selected personal characteristics of extension agents. The Florida extension agents were analyzed by the following demographics: (a) gender, (b) previous work experience in Extension, (c) previous knowledge of Extension, (d) number of years worked as an agent, (e) age, (f) major program area, (g) highest degree earned, and (h) field where degrees were held.

Of the respondents, 33.55% ($n = 51$) were male, 62.50% ($n = 95$) were female, and 3.90% ($n = 6$) did not respond. Regarding age, 17.11% ($n = 26$) reported being 24-35 years old, 15.79% ($n = 24$) reported being 36-45 years old, 29.61% ($n = 45$) reported being 46-55 years old, 25.66% ($n = 39$) reported being 56 years or older, and 11.84% ($n = 18$) did not respond.

Of the respondents, 75.66% ($n = 115$) reported never having worked in Extension in another state besides Florida, 20.39% ($n = 31$) reported working in Extension in another state besides Florida, and 3.90% ($n = 6$) did not respond. Regarding respondents' previous knowledge of Extension before becoming an agent, 73.68% ($n = 112$) reported having previous knowledge of Extension and 22.37% ($n = 34$) reported no prior knowledge of Extension before becoming an extension agent. Of the respondents reporting their number of years worked as an extension agent, 30.92% ($n = 47$) reported having worked between 0 to 5 years, 17.11% ($n = 26$) reported having worked 26 or more years, 16.45% ($n = 25$) reported having worked 6 to 10 years, 13.16% ($n = 20$)

having worked 11 to 15 years, 11.18% ($n = 17$) reported having worked 21 to 25 years, and 5.92% ($n = 9$) reported having worked 16 to 20 years.

Of the respondents reporting their major program area of Extension appointment, 22.37% ($n = 34$) reported 4-H, 20.39% ($n = 31$) reported Horticulture, 19.74% ($n = 30$) reported Agriculture, 18.42% ($n = 28$) reported Family and Consumer Sciences, 5.26% ($n = 8$) reported Livestock, 2.63% ($n = 4$) reported EFNEP, 1.97% ($n = 3$) reported Natural Resources, and 1.97% reported ($n = 3$) Sea Grant.

In regard to respondents' highest degree earned, 17.76% ($n = 27$) reported having earned a bachelor's degree, 69.08% ($n = 105$) reported having earned a master's degree, and 7.24% ($n = 11$) reported having earned a Ph.D. or Ed.D. Of respondents reporting the fields(s) of their degree(s), 86.84% ($n = 132$) were in the Agricultural and Life Sciences field, 14.47% ($n = 22$) were in Liberal Arts, 6.58% ($n = 10$) were in Education, 2.63% ($n = 4$) were in Business, and 1.97% ($n = 3$) were in other fields. Table 4-1 identifies extension agents by their selected personal characteristics.

Table 4-1. Frequencies and Percentages of Selected Personal Characteristics

	f	%	N
Gender			
Male	51	33.55%	146
Female	95	62.50%	(96.05%)
Age			
24-35	26	17.11%	134
36-45	24	15.79%	(88.16%)
46-55	45	29.61%	
56 or older	39	25.66%	
Previous Work in Extension in another state			
Yes	31	20.39%	146
No	115	75.66%	(96.05%)

Table 4-1. Continued

Previous Knowledge of Extension before becoming an agent			
Yes	112	73.68%	146
No	34	22.37%	(96.05%)
Number of Years Worked as an agent			
0-5	47	30.92%	144
6-10	25	16.45%	(94.74%)
11-15	20	13.16%	
16-20	9	5.92%	
21-25	17	11.18%	
26 or more	26	17.11%	
Major Program Area of Extension Appointment			
4-H	34	22.37%	141
Horticulture	31	20.39%	(92.76%)
Agriculture	30	19.74%	
Family and Consumer Sciences	28	18.42%	
Livestock	8	5.26%	
EFNEP	4	2.63%	
Natural Resources	3	1.97%	
Sea Grant	3	1.97%	
Highest Degree Received			
Bachelor's	27	17.76%	143
Master's	105	69.08%	(94.08%)
Ph.D./Ed.D.	11	7.24%	
Fields of Degrees Held			
Agricultural & Life Sciences	132	86.84%	138
Liberal Arts	22	14.47%	(90.08%)
Education	10	6.58%	
Business	4	2.63%	
Other	3	1.97%	

Note. The frequencies of "Fields of Degrees Held" refers to the total number of degrees held by respondents.

Objective 2

The second objective was to describe the motivational factors that influence extension agents to enter the Florida Cooperative Extension Service (FCES). The survey respondents were asked which motivational factors influenced their decision to

become an agent in the FCES. Over 87% ($n = 133$) of respondents reported they entered the FCES for the opportunity to help others. Eighty-four percent ($n = 128$) reported being influenced to enter the FCES by looking to make a difference and because there was flexibility with the position. Over sixty-six percent ($n = 101$) of respondents reported they were influenced to enter Cooperative Extension due to a connection with a university. The opportunity to apply research was reported by 47.37% ($n = 72$) of respondents as being influential to enter the FCES. Having previous 4-H experience was reported by 38.16% ($n = 58$) of respondents as influential. Table 4-2 identifies the motivational factors of extension agents.

Table 4-2. Motivational Factors of Extension Agents

	<i>f</i>	%	<i>N</i>
Opportunity to Help Others			
Yes	133	87.50%	149
No	16	10.53%	
Looking to Make a Difference			
Yes	128	84.21%	149
No	21	13.82%	
Flexibility with Position			
Yes	128	84.21%	148
No	20	13.16%	
Stay Connected with University			
Yes	101	66.45%	149
No	48	31.58%	
Opportunity to Apply Research			
Yes	72	47.37%	149
No	77	50.66%	
Previous 4-H Experience			
Yes	58	38.16%	148
No	90	59.21%	

Objective 3

The third objective was to describe agents' competencies when they first entered their career in Extension. Nineteen competencies were used in order to describe extension agents' competencies when they first entered their career in Extension. There were five competencies that did not receive a response of "Not at all competent" and retained the highest means of the competencies: interpersonal skills ($M = 3.95$, $SD = 0.55$), self-management ($M = 3.78$, $SD = 0.62$), professionalism ($M = 3.76$, $SD = 0.64$), problem-solving ($M = 3.73$, $SD = 0.63$), and communication skills ($M = 3.68$, $SD = 0.67$). The lowest competencies rated by extension agents were: develop extramural funding ($M = 2.18$, $SD = 1.02$), program evaluation ($M = 2.51$, $SD = 0.91$), and volunteer development ($M = 2.51$, $SD = 1.01$). Table 4-3 identifies the extension agents' competencies when they first entered their Extension career.

Table 4-3. Agents' Competencies when They First Entered Their Career in Extension

	<i>M</i>	<i>SD</i>	Min	Max
Interpersonal Skills	3.95	0.55	2	5
Self-management	3.78	0.62	2	5
Professionalism	3.76	0.64	2	5
Problem-solving	3.73	0.63	2	5
Communication Skills (speaking and writing)	3.68	0.67	2	5
Relationship Building	3.59	0.81	1	5
Technical/Subject Matter Expertise	3.49	0.87	1	5
Teaching Skills	3.42	0.84	1	5
Personal Leadership Development	3.33	0.82	1	5
Cultural Sensitivity	3.31	0.99	1	5
Organizational Leadership Development	3.16	0.79	1	5
Ability to Utilize Technology for Program Delivery	3.14	0.99	1	5
Program Implementation	3.09	0.99	1	5
Program Planning	3.04	1.01	1	5
Applied Research Skills	2.93	1.03	1	5
Accountability (reporting)	2.84	0.91	1	4

Table 4-3. Continued

Volunteer Development	2.51	1.01	1	5
Program Evaluation	2.51	0.91	1	4
Develop Extramural Funding	2.18	1.02	1	5

Note. Respondents were asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*).

Objective 4

The fourth objective was to describe agents' perceptions of necessary pre-entry competencies. The survey respondents were asked what were the five most necessary pre-entry competencies an extension agent should possess. 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%, $n = 55$).

The competencies program planning, program evaluation, program implementation, and program development were categorized into the competency program development process. Organizational leadership development, personal leadership development, and other leadership development were categorized into the competency leadership development. Interpersonal skills was expanded to cover relationship building, cultural sensitivity, conflict resolution, and foreign language. Table 4-4 identifies the extension agents' perception of necessary pre-entry competencies.

Table 4-4. Agents' Perception of Necessary Pre-Entry Competencies

	f	%
Self-management	109	71.71%
Program Development Process	106	69.74%

Table 4-4. Agents' Perception of Necessary Pre-Entry Competencies

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.

Note. Competencies that were similar were combined.

Objective 5

The fifth objective was to determine if differences existed between agents' pre-entry competencies before entering Cooperative Extension and selected personal characteristics of extension agents. To satisfy the fifth objective, the researcher used the statistical analyses of *t*-tests and analysis of variance to report significant differences. *t*-tests were used to determine if significant differences existed between respondents' pre-entry competencies and their gender, previous Extension career outside the state of Florida, previous knowledge of Extension, and highest degree held. Analysis of variance was used to determine if significant differences existed between respondent's pre-entry competencies and their age, number of years they have worked in Cooperative Extension, and program area. Each respondent answered the same questions on the same Likert-like scale where 1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent* and 5 = *Not applicable*.

Table 4-5 identifies the mean and standard deviation of respondents' gender, as well as any differences between respondents' pre-entry competencies before entering

Cooperative Extension and gender. Both male ($M = 4.08$, $SD = 0.52$) and female ($M = 3.88$, $SD = 0.56$) respondents rated Interpersonal Skills as the pre-entry competency in which they were most competent. No significant differences existed between pre-entry competencies before entering Cooperative Extension and gender.

Table 4-5. Significant Differences between Pre-entry Competencies Before Entering Cooperative Extension and Respondents' Gender

	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
<i>Ability to Utilize Technology</i>					
Male	51	3.31	1.01	0.62	0.43
Female	95	3.04	0.97		
<i>Accountability</i>					
Male	51	2.90	0.92	0.15	0.70
Female	95	2.80	0.92		
<i>Applied Research Skills</i>					
Male	51	3.31	0.88	1.71	0.19
Female	95	2.73	1.06		
<i>Communication Skills</i>					
Male	51	3.65	0.77	3.99	0.48
Female	95	3.69	0.62		
<i>Cultural Sensitivity</i>					
Male	51	3.31	0.95	0.01	0.91
Female	95	3.31	0.95		
<i>Develop Extramural Funding</i>					
Male	51	2.29	1.06	1.17	0.28
Female	94	2.12	1.00		
<i>Interpersonal Skills</i>					
Male	51	4.08	0.52	0.21	0.65
Female	95	3.88	0.56		
<i>Organizational Leadership Development</i>					
Male	51	3.12	0.79	0.21	0.65
Female	95	3.19	0.80		
<i>Personal Leadership Development</i>					
Male	51	3.33	0.84	0.06	0.81
Female	95	3.33	0.82		
<i>Problem-Solving</i>					
Male	51	3.82	0.62	0.53	0.47
	95	3.68	0.64		

Table 4-5. Continued

<i>Professionalism</i>					
Male	51	3.82	0.62	0.30	0.59
Female	95	3.73	0.64		
<i>Program Evaluation</i>					
Male	51	2.53	0.90	0.09	0.76
Female	95	2.51	0.92		
<i>Program Implementation</i>					
Male	51	3.04	1.02	0.79	0.78
Female	95	3.12	0.99		
<i>Program Planning</i>					
Male	50	2.96	1.03	0.43	0.51
Female	95	3.08	1.01		
<i>Relationship Building</i>					
Male	51	3.65	1.03	0.37	0.55
Female	95	3.56	1.01		
<i>Self-management</i>					
Male	51	3.71	0.67	2.33	0.13
Female	94	3.82	0.60		
<i>Teaching Skills</i>					
Male	51	3.31	0.86	0.00	0.97
Female	94	3.48	0.84		
<i>Technical/Subject Matter Expertise</i>					
Male	51	3.65	0.84	0.35	0.56
Female	95	3.40	0.88		
<i>Volunteer Development</i>					
Male	51	2.71	1.03	0.03	0.87
Female	95	2.40	0.99		

Note. Respondents were asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*).

Table 4-6 identifies the mean and standard deviation of respondents' previous Extension work in another state besides Florida, as well any relationship between respondents' pre-entry competences before entering Cooperative Extension and their previous Extension career. Interpersonal Skills was reported as the pre-entry competency respondents were most competent in regardless of experience working in other states. No significant differences existed between respondents' pre-entry competencies and their previous Extension work in other states.

Table 4-6. Significant Differences between Pre-entry Competencies and Respondents' Having Worked in Extension in Another State Besides Florida

	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
<i>Ability to Utilize Technology</i>					
Yes	31	2.06	1.06	0.32	0.57
No	115	3.16	0.98		
<i>Accountability</i>					
Yes	31	2.84	0.82	1.11	0.29
No	115	2.83	0.95		
<i>Applied Research Skills</i>					
Yes	31	3.06	1.12	0.61	0.44
No	115	2.90	1.01		
<i>Communication Skills</i>					
Yes	31	3.48	0.68	0.88	0.35
No	115	3.73	0.67		
<i>Cultural Sensitivity</i>					
Yes	31	3.35	0.95	0.10	0.76
No	115	3.30	0.95		
<i>Develop Extramural Funding</i>					
Yes	31	2.10	0.94	1.35	0.25
No	114	2.20	1.05		
<i>Interpersonal Skills</i>					
Yes	31	3.90	0.47	0.10	0.76
No	115	3.97	0.58		
<i>Organizational Leadership Development</i>					
Yes	31	3.03	0.86	0.18	0.67
No	115	3.20	0.78		
<i>Personal Leadership Development</i>					
Yes	31	2.23	0.96	1.32	0.25
No	115	3.36	0.79		
<i>Problem-Solving</i>					
Yes	31	3.65	0.71	1.52	0.22
No	115	3.76	0.62		
<i>Professionalism</i>					
Yes	31	3.55	0.68	3.27	0.07
No	115	3.82	0.63		
<i>Program Evaluation</i>					
Yes	31	2.61	0.88	2.8	0.60
No	115	2.49	0.92		
<i>Program Implementation</i>					
Yes	31	2.13	0.92	0.23	0.63
No	115	3.08	1.02		
<i>Program Planning</i>					
Yes	31	2.94	0.96	1.23	0.27
No	114	3.07	1.03		

Table 4-6. Continued

		<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
<i>Relationship Building</i>						
Yes		31	3.48	0.81	0.08	0.78
No		115	3.62	0.81		
<i>Self-management</i>						
Yes		31	3.65	0.66	1.02	0.32
No		114	3.82	0.62		
<i>Teaching Skills</i>						
Yes		30	3.30	0.95	0.72	0.40
No		115	3.45	0.82		
<i>Technical/Subject Matter Expertise</i>						
Yes		31	3.52	0.93	0.01	0.96
No		115	3.48	0.86		
<i>Volunteer Development</i>						
Yes		31	2.61	1.12	0.29	0.59
No		115	2.48	0.99		

Note. Respondents were asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*).

Table 4-7 identifies the mean and standard deviation of respondents' previous knowledge of Extension, as well any relationship between respondents' pre-entry competences before entering Cooperative Extension and their previous knowledge of Extension. Interpersonal Skills was reported as the pre-entry competency respondents were most competent in regardless of previous knowledge of Extension. No significant differences existed between respondent's pre-entry competencies and their previous knowledge of Extension.

Table 4-7. Significant Differences between Pre-entry Competencies and Respondents' Previous Knowledge of Extension Before Entering Cooperative Extension

		<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
<i>Ability to Utilize Technology</i>						
Yes		112	3.17	0.96	0.65	0.42
No		34	3.03	1.11		
<i>Accountability</i>						
Yes		112	2.77	0.90	0.12	0.73
No		34	3.06	0.95		

Table 4-7. Continued

<i>Applied Research Skills</i>					
Yes	112	2.93	1.05	0.00	0.99
No	34	2.94	1.01		
<i>Communication Skills</i>					
Yes	112	3.68	0.66	0.49	0.49
No	34	3.68	0.73		
<i>Cultural Sensitivity</i>					
Yes	112	3.32	0.92	0.26	0.61
No	34	3.26	1.02		
<i>Develop Extramural Funding</i>					
Yes	112	2.22	1.03	0.01	0.92
No	34	2.06	1.01		
<i>Interpersonal Skills</i>					
Yes	112	3.96	0.54	0.95	0.33
No	34	3.91	0.62		
<i>Organizational Leadership Development</i>					
Yes	112	3.13	0.77	1.29	0.26
No	34	3.26	0.90		
<i>Personal Leadership Development</i>					
Yes	112	3.28	0.81	0.91	0.34
No	34	3.50	0.86		
<i>Problem-Solving</i>					
Yes	112	3.72	0.62	0.02	0.90
No	34	3.76	0.70		
<i>Professionalism</i>					
Yes	112	3.74	0.60	0.47	0.49
No	34	3.82	0.80		
<i>Program Evaluation</i>					
Yes	112	2.46	0.89	0.51	0.48
No	34	2.68	0.98		
<i>Program Implementation</i>					
Yes	112	3.04	1.00	0.01	0.95
No	34	3.24	0.99		
<i>Program Planning</i>					
Yes	111	3.01	1.02	0.04	0.85
No	34	3.15	0.99		
<i>Relationship Building</i>					
Yes	112	3.60	0.79	1.31	0.25
No	34	3.56	0.89		
<i>Self-management</i>					
Yes	111	3.78	0.59	1.92	0.17
No	34	3.76	0.74		

Table 4-7. Continued

<i>Teaching Skills</i>		<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Yes		111	3.45	0.82	0.58	0.45
No		34	3.32	0.95		
<i>Technical/Subject Matter Expertise</i>						
Yes		112	3.57	0.78	3.72	0.06
No		34	3.21	1.10		
<i>Volunteer Development</i>						
Yes		112	2.50	0.97	3.62	0.06
No		34	2.53	1.61		

Note. Respondents were asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*).

Table 4-8 identifies the mean and standard deviation of respondents' highest degree held, as well any relationship between respondents' pre-entry competences before entering Cooperative Extension and their highest degree held. Respondents who reported bachelor's degree as their highest degree received rated Self-management ($M = 4.74$) as the pre-entry competency in which they were most competent. Respondents who reported post-graduate degree as their highest degree received rated Interpersonal Skills ($M = 3.97$) as the pre-entry competency they were most competent in. Significant differences existed between respondents' highest degree held and the pre-entry competencies of Interpersonal Skills, $t(141) = 4.78$, $p < 0.05$; Self-management, $t(140) = 7.63$, $p < 0.05$; and Teaching Skills, $t(140) = 3.89$, $p < 0.05$.

Table 4-8. Significant Differences between Pre-entry Competencies and Respondents' Highest Degree Received

	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
<i>Ability to Utilize Technology</i>					
Bachelor's	27	3.11	0.93	0.49	0.49
Post-graduate	116	3.14	1.02		
<i>Accountability</i>					
Bachelor's	27	2.67	0.96	0.21	0.65
Post-graduate	116	2.87	0.91		

Table 4-8. Continued

<i>Applied Research Skills</i>					
	Bachelor's	27	2.74	1.02	0.07
	Post-graduate	116	2.95	1.03	0.79
<i>Communication Skills</i>					
	Bachelor's	27	3.70	0.67	0.26
	Post-graduate	116	3.69	0.68	0.61
<i>Cultural Sensitivity</i>					
	Bachelor's	27	3.19	1.15	2.31
	Post-graduate	116	3.34	0.90	0.13
<i>Develop Extramural Funding</i>					
	Bachelor's	27	2.19	1.10	0.13
	Post-graduate	116	2.16	1.01	0.72
<i>Interpersonal Skills</i>					
	Bachelor's	27	3.93	0.68	4.78*
	Post-graduate	116	3.97	0.53	0.03
<i>Organizational Leadership Development</i>					
	Bachelor's	27	3.19	0.79	0.18
	Post-graduate	116	3.16	0.81	0.67
<i>Personal Leadership Development</i>					
	Bachelor's	27	3.30	0.91	0.21
	Post-graduate	116	3.34	0.81	0.64
<i>Problem-Solving</i>					
	Bachelor's	27	3.81	0.68	0.22
	Post-graduate	116	3.72	0.63	0.64
<i>Professionalism</i>					
	Bachelor's	27	3.81	0.56	2.09
	Post-graduate	116	3.75	0.67	0.15
<i>Program Evaluation</i>					
	Bachelor's	27	2.41	1.01	1.41
	Post-graduate	116	2.52	0.89	0.24
<i>Program Implementation</i>					
	Bachelor's	27	3.07	1.04	0.12
	Post-graduate	116	3.09	1.00	0.74
<i>Program Planning</i>					
	Bachelor's	27	3.19	1.02	0.02
	Post-graduate	116	3.01	1.03	0.88
<i>Relationship Building</i>					
	Bachelor's	27	3.70	0.82	0.04
	Post-graduate	116	3.55	0.82	0.84
<i>Self-management</i>					
	Bachelor's	27	4.04	0.52	7.63*
	Post-graduate	115	3.73	0.64	0.01

Table 4-8. Continued

<i>Teaching Skills</i>		<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Bachelor's		27	3.52	1.09	3.89*	0.05
Post-graduate		115	3.40	0.79		
<i>Technical/Subject Matter Expertise</i>						
Bachelor's		27	3.44	0.89	0.01	0.94
Post-graduate		116	3.50	0.88		
<i>Volunteer Development</i>						
Bachelor's		27	2.59	1.01	0.13	0.72
Post-graduate		116	2.49	1.03		

Note. Respondents were asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*).

Note. * $p < .05$.

Table 4-9 identifies any significant differences between respondents' pre-entry competencies before entering Cooperative Extension and their age. There was a significant difference between the age of respondents and the pre-entry competencies of Ability to Utilize Technology, $F(3, 132) = 4.52$, $p < 0.05$, and Technical/Subject Matter Expertise, $F(3, 132) = 2.97$, $p < 0.05$.

Table 4-9. Significant Differences between Competencies and Respondents' Age

	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
<i>Ability to Utilize Technology</i>					
24-35	26	3.69	0.55	4.52*	0.05
36-45	24	3.13	0.80		
46-55	47	3.11	1.03		
56 or older	39	2.79	1.17		
<i>Accountability</i>					
24-35	26	2.62	0.90	0.58	0.63
36-45	24	2.79	0.78		
46-55	47	2.87	0.95		
56 or older	39	2.90	0.97		
<i>Applied Research Skills</i>					
24-35	26	3.00	1.02	0.23	0.86
36-45	24	2.79	1.02		
46-55	47	2.96	1.16		
56 or older	39	3.00	0.95		

Table 4-9. Continued

	<i>Communication Skills</i>					
24-35		26	3.73	0.60	0.86	0.47
36-45		24	3.67	0.64		
46-55		47	3.72	0.74		
56 or older		39	3.51	0.64		
	<i>Cultural Sensitivity</i>					
24-35		26	3.23	0.82	0.48	0.70
36-45		24	3.38	0.86		
46-55		47	3.34	0.96		
56 or older		39	3.13	1.08		
	<i>Develop Extramural Funding</i>					
24-35		25	2.36	1.19	2.14	0.10
36-45		24	2.13	1.04		
46-55		47	2.30	0.95		
56 or older		39	1.82	0.89		
	<i>Interpersonal Skills</i>					
24-35		26	3.85	0.54	1.02	0.39
36-45		24	4.08	0.41		
46-55		47	3.96	0.59		
56 or older		39	3.87	0.57		
	<i>Organizational Leadership Development</i>					
24-35		26	3.19	0.57	0.84	0.48
36-45		24	3.29	0.91		
46-55		47	3.21	0.72		
56 or older		39	3.00	0.92		
	<i>Personal Leadership Development</i>					
24-35		26	3.35	0.85	0.31	0.82
36-45		24	3.46	0.72		
46-55		47	3.28	0.80		
56 or older		39	3.32	0.89		
	<i>Problem-Solving</i>					
24-35		26	3.62	0.64	0.94	0.42
36-45		24	3.75	0.68		
46-55		47	3.83	0.64		
56 or older		39	3.64	0.58		
	<i>Professionalism</i>					
24-35		26	3.58	0.64	0.83	0.48
36-45		24	3.83	0.64		
46-55		47	3.79	0.69		
56 or older		39	3.74	0.55		

Table 4-9. Continued

<i>Program Evaluation</i>						
24-35	26	2.35	0.98	1.08	0.36	
36-45	24	2.38	0.97			
46-55	47	2.66	0.94			
56 or older	39	2.38	0.71			
<i>Program Implementation</i>						
24-35	26	2.65	0.94	2.01	0.12	
36-45	24	3.04	1.04			
46-55	47	3.19	0.88			
56 or older	39	3.18	1.05			
<i>Program Planning</i>						
24-35	26	2.65	1.02	1.51	0.22	
36-45	24	3.04	0.96			
46-55	46	3.13	0.91			
56 or older	39	3.02	1.11			
<i>Relationship Building</i>						
24-35	26	3.62	0.68	0.09	0.97	
36-45	24	3.50	0.83			
46-55	47	3.55	0.86			
56 or older	39	3.54	0.79			
<i>Self-management</i>						
24-35	26	3.88	0.52	0.69	0.56	
36-45	24	3.83	0.76			
46-55	47	3.72	0.62			
56 or older	39	3.68	0.62			
<i>Teaching Skills</i>						
24-35	26	3.12	0.95	2.15	0.10	
36-45	24	3.38	0.88			
46-55	47	3.62	0.74			
56 or older	38	3.32	0.87			
<i>Technical/Subject Matter Expertise</i>						
24-35	26	3.12	0.86	2.97*	0.03	
36-45	24	3.29	0.99			
46-55	47	3.60	0.95			
56 or older	39	3.69	0.66			
<i>Volunteer Development</i>						
24-35	26	2.50	1.14	0.01	0.99	
36-45	24	2.54	1.06			
46-55	47	2.51	0.88			
56 or older	39	2.54	1.07			

Note. Respondents were asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*).

Note. *p<.05.

Table 4-10 identifies the differences between respondents' pre-entry competencies before entering Cooperative Extension and the number of years they have worked as an extension agent. There was a significant difference in competence between the number of years worked as an extension agent and the pre-entry competencies of Ability to Utilize Technology, $F(2,141) = 8.96, p < 0.05$; Applied Research Skills, $F(2,141) = 5.30, p < 0.05$; Communication Skills, $F(2,141) = 4.50, p < 0.05$; Develop Extramural Funding, $F(1,141) = 3.15, p < 0.05$; Organization Leadership Development, $F(1,141) = 4.37, p < 0.05$; Personal Leadership Development, $F(1,141) = 5.24, p < 0.05$, and; Problem-solving, $F(1,141) = 3.59, p < 0.05$.

Table 4-10. Significant Differences between Competencies and Respondents' Number of Years Worked as an Extension Agent

	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
<i>Ability to Utilize Technology</i>					
0-5	48	3.60	0.71	8.96**	0.01
6-15	44	2.91	0.96		
16 or more	52	2.88	1.11		
<i>Accountability</i>					
0-5	48	2.96	0.85	0.78	0.46
6-15	44	2.91	1.04		
16 or more	52	2.88	0.87		
<i>Applied Research Skills</i>					
0-5	48	3.31	0.97	5.30*	0.01
6-15	44	2.66	0.96		
16 or more	52	2.85	1.06		
<i>Communication Skills</i>					
0-5	48	3.79	0.68	4.50*	0.01
6-15	44	3.82	0.54		
16 or more	52	3.46	0.73		
<i>Cultural Sensitivity</i>					
0-5	48	3.50	0.74	2.09	0.13
6-15	44	3.32	1.01		
16 or more	52	3.12	1.04		
<i>Develop Extramural Funding</i>					
0-5	47	2.47	1.12	3.15*	0.05
6-15	44	2.09	1.01		
16 or more	52	1.98	0.87		

Table 4-10. Continued

<i>Interpersonal Skills</i>						
0-5	48	3.96	0.62	0.54	0.58	
6-15	44	4.00	0.43			
16 or more	52	2.88	0.58			
<i>Organizational Leadership Development</i>						
0-5	48	3.31	0.69	4.37*	0.01	
6-15	44	3.30	0.82			
16 or more	52	2.90	0.82			
<i>Personal Leadership Development</i>						
0-5	48	3.50	0.72	5.24*	0.01	
6-15	44	3.48	0.82			
16 or more	52	3.04	0.86			
<i>Problem-Solving</i>						
0-5	48	3.83	0.60	3.59*	0.03	
6-15	44	3.82	0.62			
16 or more	52	3.54	0.64			
<i>Professionalism</i>						
0-5	48	3.88	0.57	2.63	0.08	
6-15	44	3.82	0.58			
16 or more	52	3.60	0.75			
<i>Program Evaluation</i>						
0-5	48	2.54	0.94	0.02	0.98	
6-15	44	2.50	0.90			
16 or more	52	2.52	0.90			
<i>Program Implementation</i>						
0-5	48	3.00	0.99	2.01	0.13	
6-15	44	3.34	0.94			
16 or more	52	2.96	1.03			
<i>Program Planning</i>						
0-5	47	2.96	1.00	1.91	0.15	
6-15	44	3.30	0.95			
16 or more	52	2.92	1.06			
<i>Relationship Building</i>						
0-5	48	3.77	0.63	2.95	0.06	
6-15	44	3.59	0.82			
16 or more	52	3.38	0.91			
<i>Self-management</i>						
0-5	48	3.85	0.54	2.16	0.12	
6-15	43	3.86	0.60			
16 or more	52	3.63	0.69			
<i>Teaching Skills</i>						
0-5	48	3.40	0.87	0.50	0.61	
6-15	44	3.52	0.76			
16 or more	51	3.35	0.91			

Table 4-10. Continued

<i>Technical/Subject Matter Expertise</i>		<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
0-5		48	3.48	0.85	0.04	0.97
6-15		44	3.48	0.95		
16 or more		52	3.52	0.85		
<i>Volunteer Development</i>						
0-5		48	2.60	0.98	1.23	0.30
6-15		44	2.64	1.12		
16 or more		52	2.35	0.93		

Note. Respondents were asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*).

Note. * $p < .05$.

Note. ** $p < .01$.

Table 4-11 identifies the differences between respondents' pre-entry competencies before entering Cooperative Extension and their major program Area. There was a significant difference between the major program area of respondents and the pre-entry competencies of: Ability to Utilize Technology, $F(3,134) = 3.20$, $p < 0.05$; Applied Research Skills, $F(3,134) = 6.01$, $p < 0.05$; Communication Skills, $F(3,134) = 3.71$, $p < 0.05$; Professionalism, $F(3,134) = 3.14$, $p < 0.05$; and Teaching Skills, $F(3,133) = 3.64$, $p < 0.05$.

Table 4-11. Significant Differences between Pre-entry Competencies and Respondents' Major Program Area

	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
<i>Ability to Utilize Technology</i>					
4-H	34	3.21	0.77	3.25*	0.02
FCS/EFNEP	32	2.69	1.09		
Horticulture	31	3.10	1.08		
Agriculture/Natural Resources/Livestock	41	3.39	0.95		
<i>Accountability</i>					
4-H	34	2.91	0.87	0.66	0.58
FCS/EFNEP	32	2.97	0.74		
Horticulture	31	2.81	1.08		
Agriculture/Natural Resources/Livestock	41	2.68	1.01		

Table 4-11. Continued

<i>Applied Research Skills</i>						
4-H	34	2.47	1.02	6.10**	0.01	
FCS/EFNEP	32	2.69	1.00			
Horticulture	31	3.19	0.98			
Agriculture/Natural Resources/Livestock	41	3.32	0.91			
<i>Communication Skills</i>						
4-H	34	3.91	0.51	3.41*	0.02	
FCS/EFNEP	32	3.72	0.58			
Horticulture	31	3.74	0.68			
Agriculture/Natural Resources/Livestock	41	3.44	0.78			
<i>Cultural Sensitivity</i>						
4-H	34	3.65	0.58	2.69*	0.05	
FCS/EFNEP	32	3.41	0.91			
Horticulture	31	3.06	1.09			
Agriculture/Natural Resources/Livestock	41	3.17	1.00			
<i>Develop Extramural Funding</i>						
4-H	34	2.41	0.96	2.74*	0.05	
FCS/EFNEP	32	1.84	1.02			
Horticulture	30	1.93	1.02			
Agriculture/Natural Resources/Livestock	41	2.34	1.02			
<i>Interpersonal Skills</i>						
4-H	34	3.91	0.62	0.19	0.90	
FCS/EFNEP	32	4.00	0.44			
Horticulture	31	4.00	0.58			
Agriculture/Natural Resources/Livestock	41	3.95	0.59			
<i>Organizational Leadership Development</i>						
4-H	34	3.29	0.76	0.83	0.48	
FCS/EFNEP	32	3.31	0.78			
Horticulture	31	3.06	0.77			
Agriculture/Natural Resources/Livestock	41	3.12	0.81			
<i>Personal Leadership Development</i>						
4-H	34	3.53	0.83	0.99	0.40	
FCS/EFNEP	32	3.41	0.84			
Horticulture	31	3.23	0.72			
Agriculture/Natural Resources/Livestock	41	3.27	0.84			
<i>Problem-Solving</i>						
4-H	34	3.71	0.63	0.97	0.41	
FCS/EFNEP	32	3.56	0.76			
Horticulture	31	3.77	0.62			
Agriculture/Natural Resources/Livestock	41	3.80	0.56			

Table 4-11. Continued

<i>Professionalism</i>						
4-H	34	3.56	0.75	2.72*	0.05	
FCS/EFNEP	32	3.88	0.49			
Horticulture	31	3.97	0.55			
Agriculture/Natural Resources/Livestock	41	3.71	0.68			
<i>Program Evaluation</i>						
4-H	34	2.62	1.05	0.32	0.81	
FCS/EFNEP	32	2.59	0.76			
Horticulture	31	2.42	1.12			
Agriculture/Natural Resources/Livestock	41	2.49	0.81			
<i>Program Implementation</i>						
4-H	34	3.18	1.00	0.14	0.94	
FCS/EFNEP	32	3.16	0.85			
Horticulture	31	3.06	1.15			
Agriculture/Natural Resources/Livestock	41	3.05	1.05			
<i>Program Planning</i>						
4-H	34	3.24	0.99	0.87	0.46	
FCS/EFNEP	32	3.13	0.94			
Horticulture	31	2.84	1.13			
Agriculture/Natural Resources/Livestock	40	3.03	1.05			
<i>Relationship Building</i>						
4-H	34	3.71	0.76	0.39	0.76	
FCS/EFNEP	32	3.50	0.84			
Horticulture	31	3.58	0.85			
Agriculture/Natural Resources/Livestock	41	3.63	0.77			
<i>Self-management</i>						
4-H	33	3.85	0.67	0.41	0.75	
FCS/EFNEP	32	3.78	0.66			
Horticulture	31	3.77	0.67			
Agriculture/Natural Resources/Livestock	41	3.68	0.61			
<i>Teaching Skills</i>						
4-H	34	3.44	0.86	3.50*	0.02	
FCS/EFNEP	31	3.74	0.63			
Horticulture	31	3.52	0.81			
Agriculture/Natural Resources/Livestock	41	3.12	0.93			
<i>Technical/Subject Matter Expertise</i>						
4-H	34	3.32	0.91	0.62	0.61	
FCS/EFNEP	32	3.53	0.72			
Horticulture	31	3.58	1.03			
Agriculture/Natural Resources/Livestock	41	3.54	0.75			

Table 4-11. Continued

Volunteer Development

4-H	34	2.56	0.93	0.46	0.71
FCS/EFNEP	32	2.47	1.19		
Horticulture	31	2.39	0.99		
Agriculture/Natural Resources/Livestock	41	2.66	0.99		

Note. Respondents were asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*).

Note. * $p<.05$.

Note. ** $p<.01$.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Summary

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, training, and retention (Arnold, 2007; Harder, Place, & Sheer, 2009; Wanous, 1980). The Professional Development Model comprises three stages: Entry, Colleague, and Counselor and Advisor (Kutilek et al., 2002). Each stage possesses distinct motivators and organizational strategies which enable the employee and organization to maximize their full potential. However, The Professional Development Model solely focuses on the stages of extension agents currently in the Extension organization, disregarding the motivational factors and pre-entry competencies of agents entering Extension. This study was an ex post facto design using survey methodology to examine the motivational factors and pre-entry competencies of Florida extension agents. Descriptive statistics including central tendencies and frequencies, *t*-tests, and analysis of variance were used to satisfy the objectives of this study.

Conclusions and Implications

Objective 1

The first objective was to describe selected personal characteristics of Florida extension agents. The selected personal characteristics observed in this study were: (a) gender, (b) age, (c) previous work in Extension outside the state of Florida, (d) previous knowledge of Extension, (e) number of years worked as an agent, (f) major program area of Extension appointment, (g) highest degree received, and (h) fields of degrees

held by agents. Selected personal characteristics were analyzed by descriptive statistics. The majority of respondents were female and over the age of 35. Most respondents have worked in Extension for less than 10 years and more than 15 years.

Florida extension agents' major program area of Extension appointment revealed that the majority of agents worked in 4-H, horticulture, agriculture, and family and consumer sciences. The majority of respondents held a graduate degree. Respondents held degrees in the fields of agricultural and life sciences, liberal arts, education, health/foods, and business.

The findings of this study suggest there are many differences and concerns regarding the selected personal characteristics of Florida extension agents. One concern is that there is almost double the number of female extension agents than male extension agents. Research is needed to make certain that this disparity is not having a negative effect in Extension.

Another concern is the disparity regarding the number of years agents have worked in Extension. Over 30 percent of extension agents have worked for five years or less. Furthermore, less than six percent of extension agents have worked in Extension between 16-20 years. Arnold (2007) explained that for Extension to continue to play a vital role in our society it must be able to retain long-term agents. Therefore, Florida Cooperative Extension must find methods to retain agents for longer periods of time.

Objective 2

The second objective was to describe the motivational factors that influence Florida extension agents to enter the Florida Cooperative Extension Service (FCES). The motivational factors observed in this study were: (a) looking for an opportunity to help others, (b) looking to make a difference, (c) flexibility with the position, (d) staying

connected to a university, (e) looking for an opportunity to apply research, and (f) have previous 4-H experience. Motivational factors were analyzed using descriptive statistics.

Each motivational factor was identified by respondents as being motivational to enter into a career in Extension. The motivational factors of looking to make a difference and flexibility with the position were the most motivational. Having previous 4-H experience was motivational even though respondents indicated it to be the least motivational factor. The findings of this study are similar to those of Arnold (2006) and NASULGC (2007).

The implication for this objective is that Extension administration should increase their attention on the recruiting practices of extension agents. The majority of Florida extension agents are motivated to enter Extension by many factors. However, there is a high turnover rate among extension agents. These factors should be examined more in depth to make certain that agents entering Extension are going to stay for a longer term of employment.

Objective 3

The third objective was to describe agents' competencies when they first entered their career in Extension. The competencies observed in this study were: (a) able to utilize technology for program delivery, (b) accountability, (c) applied research skills, (d) communication skills including speaking and writing skills, (e) cultural sensitivity, (f) develop extramural funding, (g) interpersonal skills, (h) organizational leadership development, (i) personal leadership development, (j) problem-solving, (k) professionalism, (l) program evaluation, (m) program implementation, (n) program planning, (o) relationship building, (p) self-management, (q) teaching skills, (r) technical/subject matter expertise, and (s) volunteer development. Respondents were

asked to rate their level of knowledge/skill before entering Cooperative Extension on a Likert-type scale (1 = *Not at all competent*, 2 = *Slightly competent*, 3 = *Somewhat competent*, 4 = *Very competent*, and 5 = *Not applicable*). Competencies were analyzed using descriptive statistics.

The competences with the largest mean score were interpersonal skills, self-management, professionalism, problem-solving, and communication skills. Developing extramural funding, program evaluation, and volunteer development were the competencies with the lowest mean scores.

The competencies needed by extension agents identified by Beeman et al. (1979), Cooper and Graham (2001), Gonzalez (1982), and Keita and Luft (1987) were: (a) program planning, (b) research skills, (c) professionalism, (d) staying up to date with information, (e) interpersonal skills, (f) program implementation, (g) program evaluation, (h) communication skills, and (i) teaching skills. Compared to the respondents' mean scores of pre-entry competencies, Florida extension agents entering the Extension profession are lacking the competencies of research skills and program evaluation. Additional competencies reported by Harder et al. (2009) that current Florida extension agents are lacking when entering their Extension career are accountability, volunteer development, and developing extramural funding.

The implication for this objective is that Extension administration in charge of training new extension agents should focus training on the competencies needed by new extension agents. New employees cannot be successful in their job if they are not given the tools to be successful.

Objective 4

The fourth objective was to describe agents' perceptions of necessary pre-entry competencies. Agents' perceptions of necessary pre-entry competencies were analyzed using frequencies. Respondents identified five competencies not mentioned from the third objective: (a) teamwork skills, (b) program development, (c) conflict resolution, (d) other leadership development, and (e) foreign language. The competency that was reported the most amount of times was self-management. Other competencies reported as necessary for extension agents to possess were: communication skills, technical/subject matter expertise, and teaching skills. Competencies least reported as necessary for extension agents to possess were: developing extramural funding, applied research skills, and personal leadership development.

Program planning, research skills, professionalism, staying up to date with information, interpersonal skills, program implementation, program evaluation, communication skills, and teaching skills were competencies needed by extension agents to be successful (Beeman, et al., 1979; Cooper & Graham, 2001; Gonzalez, 1982; Keita & Luft, 1987). Compared to the respondents' perception of necessary pre-entry competencies, only research skills were not cited by respondents as necessary. Furthermore, the pre-entry competency listed by respondents as most necessary was self-management. Self-management was identified as necessary by Herder et al., but not by Beeman et al. (1979), Gonzalez (1982), Keita and Luft (1987), and Cooper and Graham (2001).

Harder et al. (2009) indicated that all nineteen pre-entry competencies were necessary for new extension agents to possess. Respondents did not deem cultural sensitivity, developing extramural funding, applied research skills, and leadership

development as necessary for new agents to possess. In addition, respondents identified four competencies that Harder et al. (2009) did not identify as necessary: teamwork skills, conflict resolution, leadership development, and foreign language.

The implication for Extension is that the perception of necessary pre-entry competencies needed by new extension agents vary among extension agents and Extension administration. This discrepancy indicates the need for increased collaboration between county faculty and administration. Also, instructors and professors in the fields of agricultural and extension education should focus their attention on the necessary pre-entry competencies as well. Although not all extension agents have an educational background in agricultural and extension education, those who do would benefit from increased formal education in these competency areas.

Objective 5

The fifth objective was to determine if differences existed between agents' pre-entry competencies before entering Cooperative Extension and selected personal characteristics. Determining if differences existed between agents' pre-entry competencies and selected personal characteristics were analyzed by *t*-tests and analysis of variance. There were no significant relationships between pre-entry competencies and the selected personal characteristics of gender, previous work experience in Extension outside the state of Florida, and previous knowledge of Extension.

Regarding respondents' highest degree received, there were significant differences between pre-entry competencies and interpersonal skills, self-management, and teaching skills. The age of respondents revealed significant differences with the pre-entry competencies of the ability to utilize technology and technical/subject matter

expertise. The number of years respondents have worked as an extension agent revealed significant differences with pre-entry competencies of the ability to utilize technology, applied research skills, communication skills, develop extramural funding, organizational leadership development, personal leadership development, and problem-solving. The major program area of Extension appointment revealed significant differences with the ability to utilize technology, applied research skills, communication skills, cultural sensitivity, developing extramural funding, professionalism, and teaching skills.

The findings of this objective provide insight into the varying needs of Florida extension agents across most of the selected personal characteristics. The number of years worked in Extension and major program area represent the personal characteristics that need the most attention. Pre-entry trainings and in-service trainings should be focused on the specific needs of extension agents by these characteristics. There are many competencies that are needed by new extension agents. Instructors, professors, and personnel in charge of agent training should increase their attention on the lack of pre-entry competencies. Recruiters and personnel involved in the hiring process need to increase their awareness regarding applicants' pre-entry competencies.

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 that does not gain or develop the appropriate competencies for their current career stage is likely to not advance to the

next career stage or will move to a different job (Rennekamp & Nall). 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” (¶ 5). Possessing the appropriate competencies to begin a career is just as important to developing the appropriate competencies to continue a career. To progress to the Entry Stage of the Professional Development Model extension agents should have an appropriate skill set before entering their career. Based upon this conclusion and the results from this study, a new stage should be added to the Professional Development Model

Table 5-1. Professional Development Model Modified to Reflect the Pre-Entry Stage

Career Stage	Motivators	Organizational Strategies
Pre-entry Stage*	Motivational factors: Agent background, career contacts, service to agricultural community, nature of extension work, position fit, connection to university, opportunity to apply research, previous 4-H experience, and; 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.

Table 5-1. Continued

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; Expanding creativity and innovation, and; Moving from independence to interdependence.	In-service education; Specialization funds; Professional association involvement; Formal educational training, and; 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 motivational factors of agents to enter Extension and the Pre-entry competencies necessary for new extension agents. The motivational factors include agent background, career contacts, service to the agricultural community, nature of extension work, position fit, connection to a university, opportunity to apply research, previous 4-H experience. Arnold (2007), NASULGC (2007), and the results from this study suggest these eight factors are influential for agents to enter Extension. Administrators and Extension personnel responsible for

recruiting extension agents should use these motivational factors as tools to recruit new 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 from the competencies identified by Harder et al. (2009). Administrators and Extension personnel responsible for hiring and training new extension agents should used 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 candidates. Extension should hire candidates with the most complete set of competencies entering the organization. Pre-service training is necessary to ensure that agents are capable of doing their job before entering the organization.

Recommendations for Future Research

- A study should be conducted to determine what effect, if any, of the gender discrepancy of Florida extension agents.
- In order to address the discrepancies of age and the long-term retention of Florida extension agents, an in-depth analysis is needed to understand why agents leave the Extension organization within their first ten years in the profession.
- This study focused on the pre-entry competencies of Florida extension agents. Another study should be conducted on whether or not the competencies Florida extension agents are not competent in are being taught in new agent and in-service trainings.

- A qualitative study should be conducted in order to find out 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.
- A study should be conducted on the competencies that extension agents have in relation to their specific career stage.
- Research should be conducted on the advantages of using the Professional Development Model for recruiting, hiring, and training new extension agents

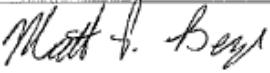
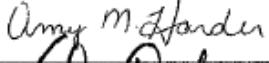
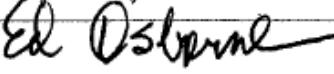
Recommendations for Practitioners

Based on the findings of this study, the recommendations for practitioners include:

- Build upon the competencies that new extension agents possess when entering the Extension organization. New agent and in-service trainings should focus on the developing the competencies new agents are not competent in identified by respondents in this study.
- In-service trainings are needed amongst many of the pre-entry competencies examined in the study. Florida extension agents, with their respective age, number of years worked in Extension, highest degree received, and major program area require training concentrating on the competencies lacking by these groups.
- Focus on the recruiting and hiring practices of Florida extension agents. The motivational factors and pre-entry competencies identified in study by current Florida extension agents should be instrumental in these practices. Implementing these new practices are essential for the long-term retention of new agents.
- Practitioners should utilize the modified Professional Development Model when recruiting and training new agents.
- Applicants pursuing a career in Cooperative Extension should be aware of the necessary pre-entry competencies a new agent should possess. Having the competencies necessary when beginning a career will help a new extension agent be successful.
- Instructors, professors, and others who teach extension education should be aware of the necessary pre-entry competencies identified by this study. Classes should be developed around the competencies needed by new extension agents to be successful.

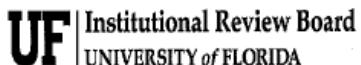
APPENDIX A
IRB APPLICATION

UFIRB 02 – Social & Behavioral Research			
Protocol Submission Form			
<p><i>This form must be typed. Send this form and the supporting documents to IRB02, PO Box 112250, Gainesville, FL 32611. Should you have questions about completing this form, call 352-392-0433.</i></p>			
Title of Protocol:	Pre-Entry Competencies of Florida Extension Agents		
Principal Investigator:	Matt Benge		UFID #: 59196920
Degree / Title:	Graduate Student	Mailing Address: (If on campus include PO Box address): 2800 NE 39 th Blvd Gainesville, FL 32609	Email: mbenge@alachuanacounty.us
Department:	Agricultural Education and Communication		Telephone #: (352) 955-2402
Co-Investigator(s):		UFID#:	Email:
Supervisor (if PI is student):	Amy Harder	UFID#: 9599-4159	
Degree / Title:	Assistant Professor	Mailing Address: (If on campus include PO Box address): Dept. of Agricultural Education and Communication University of Florida 307C Rolfs Hall, P.O. Box 110540 Gainesville, FL 32611-0540	Email : amharder@ufl.edu
Department:			Telephone #: 352-392-0502 ext. 230
Date of Proposed Research:	August 2009		
Source of Funding (A copy of the grant proposal must be submitted with this protocol if funding is involved):	N/A		

Scientific Purpose of the Study: The purpose of this study is to understand the pre-entry competencies of Florida extension agents.					
Describe the Research Methodology in Non-Technical Language: (<i>Explain what will be done with or to the research participant.</i>) The participants will be asked to complete an online, password-protected survey containing twelve yes-no questions, three open-ended questions, one Likert-type question, and one force-answer question. Data will be collected from August-September 2009. There is no pilot test. The questionnaire is researcher-developed.					
Describe Potential Benefits: There are no known benefits awarded to the participants upon completion of this study.					
Describe Potential Risks: (<i>If risk of physical, psychological or economic harm may be involved, describe the steps taken to protect participant.</i>) There are no known anticipated risks placed on the participants upon completion of this study.					
Describe How Participant(s) Will Be Recruited: Participants will be recruited from UF/IFAS Extension.					
Maximum Number of Participants (to be approached with consent)	300	Age Range of Participants:	18+	Amount of Compensation/ course credit:	N/A
Describe the Informed Consent Process. (<i>Attach a Copy of the Informed Consent Document. See http://irb.ufl.edu/irb02/samples.html for examples of consent.</i>) Participants will receive the informed consent document and two unique hyperlinks via e-mail. Participants can select to participate in the study by selecting the first hyperlink, which will take them to the questionnaire. Those who want to decline can select the second hyperlink which removes their names from the list of potential participants. By choosing to follow the first hyperlink to access the questionnaire, and then selecting "yes" on the electronic informed consent form, participants are acknowledging that they have consented to participate in the study.					
Principal Investigator(s) Signature:				Date: 7/23/09	
Supervisor's Signature (if PI is a student):				Date: 7/22/09	
Department Chair Signature:				Date: 7/24/09	

APPENDIX B

IRB APPROVAL AND INFORMED CONSENT



PO Box 112250
Gainesville, FL 32611-2250
352-392-0433 (Phone)
352-392-9234 (Fax)
irb2@ufl.edu

DATE: August 11, 2009

TO: Matt Benge
2800 NE 39th Blvd.
Gainesville, FL 32609

FROM: Ira S. Fischler, PhD; Chair, *ISF:dl*
University of Florida
Institutional Review Board 02

SUBJECT: Approval of Protocol #2009-U-773
Pre-Entry Competencies of Florida Extension Agents

SPONSOR: None

I am pleased to advise you that the University of Florida Institutional Review Board has recommended approval of this protocol. Based on its review, the UFIRB determined that this research presents no more than minimal risk to participants. Your protocol was approved as an expedited study under category 7: *Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.*

Given this status, it is essential that you obtain signed documentation of informed consent from each participant. Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for the research. If you wish to make any changes to this protocol, *including the need to increase the number of participants authorized*, you must disclose your plans before you implement them so that the Board can assess their impact on your protocol. In addition, you must report to the Board any unexpected complications that affect your participants.

It is essential that each of your participants sign a copy of your approved informed consent that bears the IRB approval stamp and expiration date.

Your approval is valid through July 27, 2010. If you have not completed the protocol by this date, please telephone our office (392-0433), and we will discuss the renewal process with you. It is important that you keep your Department Chair informed about the status of this research protocol.

ISF:dl

An Equal Opportunity Institution

Informed Consent

Protocol Title: Pre-Entry Competencies of Florida Extension Agents

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:

The purpose of this study is to understand the pre-entry competencies of Florida extension agents.

What you will be asked to do in the study:

You will be asked to follow a hyperlink to complete an online questionnaire. Please answer every question to the best of your ability. After you have completed the questionnaire you may exit the webpage.

Time required:

10 minutes

Approved by
University of Florida
Institutional Review Board 02
Protocol # 2009-U-0773
For Use Through 07-27-2010

Risks and Benefits:

There are no known benefits or anticipated risks awarded to you with your completion of this study.

Compensation:

There is no compensation for participation in this study.

Confidentiality:

Your identity will be kept confidential to the extent provided by law. Your information will be assigned a code number. Your name will not be used in any report.

Voluntary participation:

Your participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study:

You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study:

Matt Benge, Graduate Student, Department of Agricultural Education and Communication, 2800 NE 39th Avenue, Gainesville, FL 32609

Dr. Amy Harder, Assistant Professor, Department of Agricultural Education and Communication, University of Florida, 308C Rolfs Hall, P.O. Box 110540, Gainesville, FL 32611-0540

Whom to contact about your rights as a research participant in the study:

IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 392-0433.

Agreement:

I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Participant: _____ Date: _____

Principal Investigator: _____ Date: _____

Approved by
University of Florida
Institutional Review Board 02
Protocol # 2009-U-0773
For Use Through 07-27-2010

APPENDIX C QUESTIONNAIRE

1. Informed Consent

*** 1. Protocol Title: Pre-Entry Competencies of Florida Extension Agents**

Purpose of the research study:

The purpose of this study is to understand the pre-entry competencies of Florida extension agents.

What you will be asked to do in the study:

You will be asked to follow a hyperlink to complete an online questionnaire. Please answer every question to the best of your ability. After you have completed the questionnaire you may exit the Web page.

Time required:

10-15 minutes

Risks and Benefits:

There are no known benefits or anticipated risks awarded to you with your completion of this study.

Confidentiality:

Your identity will be kept confidential to the extent provided by law. Your information will be assigned a code number. Your name will not be used in any report.

Voluntary participation:

Your participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study:

You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study:

Matt Benge, Graduate Student, Department of Agricultural Education and Communication, 2800 NE 39th Ave., Gainesville, FL 32609

Dr. Amy Harder, Assistant Professor, Department of Agricultural Education and Communication, University of Florida, 307C Rolfs Hall, P.O. Box 110540, Gainesville, FL 32611-0540

Whom to contact about your rights as a research participant in the study:

IRB02 Office, Box 112250, University of Florida, Gainesville, 32611-2250; phone 392-0433

I have read the procedure described above. I voluntarily agree to participate in the procedure and I acknowledge that I may use my browser to print a copy of this description.

I agree

2. Reasons for Entering Extension

Please use the provided response options to indicate if you agree with the following statements about possible reasons you may have had for selecting a career as an extension agent.

2. Were you looking for an opportunity to help others?

- Yes
 No

3. Were you looking to make a difference in your community?

- Yes
 No

4. Did you think there was flexibility with the position?

- Yes
 No

5. Did you want to stay connected to a university?

- Yes
 No

6. Were you looking for an opportunity to apply research?

- Yes
 No

7. Did you have previous 4-H experience?

- Yes
 No

3. New Agent Professional Development

Please use the provided response options to indicate if you agree with the following statements related to professional development experiences you may or may not have had as a new agent.

8. Were you assigned a mentor?

- Yes
 No

9. Did you participate in New Agent Orientation?

- Yes
 No

10. Did you receive job training beyond New Agent Orientation?

- Yes
 No

If so, please describe:

11. Did you feel you had a sufficient amount of training to prepare you to be an extension agent?

- Yes
 No

Please explain your answer:

4. Job Competencies

Please use the provided response options to indicate the level of competence you had immediately BEFORE entering Cooperative Extension for each of the following statements. Response options are as follows: 1 = Not at all competent, 2 = Slightly competent, 3 = Somewhat competent, 4 = Very competent, 5 = Not applicable.

*** 12. Please indicate your level of knowledge/skill before entering Cooperative Extension in the following categories**

	1	2	3	4	5
Ability to utilize technology for program delivery	<input type="radio"/>				
Accountability (reporting)	<input type="radio"/>				
Applied research skills	<input type="radio"/>				
Communication skills including speaking and writing skills	<input type="radio"/>				
Cultural sensitivity	<input type="radio"/>				
Develop extramural funding	<input type="radio"/>				
Interpersonal skills (ability to work one-on-one with others)	<input type="radio"/>				
Organizational leadership development	<input type="radio"/>				
Personal leadership development	<input type="radio"/>				
Problem-solving	<input type="radio"/>				
Professionalism	<input type="radio"/>				
Program evaluation	<input type="radio"/>				
Program implementation	<input type="radio"/>				
Program planning	<input type="radio"/>				
Relationship building	<input type="radio"/>				
Self-management	<input type="radio"/>				
Teaching skills	<input type="radio"/>				
Technical/subject matter expertise	<input type="radio"/>				
Volunteer development	<input type="radio"/>				

13. Please list, in order from most to least important, the five most important competencies an agent should possess when he/she is hired into Extension. A competency is defined as specific knowledge, skills, or abilities (not personality traits). You may repeat a competency listed above or add your own.

Competency 1: _____

Competency 2: _____

Competency 3: _____

Competency 4: _____

Competency 5: _____

5. Demographics

Please use the provided response options to answer the following questions.

14. Are you:

- Female
- Male

15. Have you worked in Extension in another state besides Florida?

- Yes
- No

16. Did you have previous knowledge of Extension before becoming an agent?

- Yes
- No

17. Number of years worked as an agent (If worked less than 1 year, please enter 0):

18. How old are you?

19. In which program area is the majority of your Extension appointment?

- 4-H
- Agriculture
- EFNEP
- Family and Consumer Sciences
- Horticulture
- Livestock
- Natural Resources
- Sea Grant

Other (please specify)

20. What is the highest degree you have received?

- Associate's
- Bachelor's
- Master's
- Ph.D./Ed.D.

Other (please specify)

21. In which fields do you hold degrees? (Renaming degree level is unnecessary)

APPENDIX D
INITIAL CONTACT E-MAIL

Dear Florida Extension Agent,

I am researching the pre-entry competencies and career decisions of Florida extension agents. Below you will find a **link** for the questionnaire, along with a **password** you will need to access the questionnaire. The survey should take approximately 15 minutes to complete. Please feel free to contact me if you have any questions regarding the survey.

Once again, your participation in completing the assessment is greatly appreciated. You are helping to develop a better understanding of the pre-entry competencies and career decisions of Florida extension agents.

Link:

http://www.surveymonkey.com/s.aspx?sm=yKI5CHsb2o_2fI_2b6Oosd872w_3d_3d

Password: floridaagents

Sincerely,

Matt Benge
Graduate Student, Alachua County 4-H Youth Development Agent

APPENDIX E
REMINDER E-MAIL

Dear Florida Extension Agent,

I wanted to take this opportunity to thank you for participating in my research and encourage you to complete the questionnaire if you have not already done so. To the best of my knowledge, it has not been completed. Your participation in the study is very important to the success of this study.

As mentioned previously, the questions should only take 10-15 minutes to complete. Below you will find the link for the pre-entry competencies survey. In addition I have included the password you will need to access the survey. Please feel free to contact me at mbenge@alachuacounty.us if you have any questions regarding the survey.

Link: http://www.surveymonkey.com/s.aspx?sm=DPZ4u5ACKT44N2CQdZyYXA_3d_3d

Password: floridaagents

Once again, your participation in completing the assessment is greatly appreciated. You are helping to develop a better understanding of the pre-entry competencies and career decisions of
Florida extension agents.

Sincerely,

Matt Benge
Graduate Student, Alachua County 4-H Youth Development Agent

APPENDIX F
FINAL CONTACT E-MAIL

Dear Florida Extension Agent,

Recently you should have received a link to my Web-based survey. I am trying to assess pre-entry competencies and career decisions of Florida extension agents. Your participation in this survey is vital for the success of this study.

If you have not had a chance to complete the survey I would ask you to please take time to do so.

Below you will find the link for the pre-entry competencies survey. In addition, I have included the password you will need to access the survey. Please feel free to contact me if you have any questions regarding the survey.

Link:

http://www.surveymonkey.com/s.aspx?sm=djLbA08A5Y_2bG8UAt_2ft_2fupA_3d_3d

Password: floridaagents

Once again, your participation in completing the assessment is greatly appreciated. You are helping to develop a better understanding of the pre-entry competencies and career decisions of
Florida extension agents.

Sincerely,

Matt Benge
Graduate Student, Alachua County 4-H Youth Development Agent

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BIOGRAPHICAL SKETCH

Matt Benge was raised in the small town of Yulee, FL. He graduated from Fernandina Beach High School in May of 2003. Following high school graduation, Matt quickly jumped into his new role as college student. He didn't know what path to follow for a career, but he knew he wanted to work with children and youth. He eventually found the perfect major, Family, Youth, and Community Sciences, and graduated in May of 2007 with a Bachelor of Science degree from the University of Florida. Matt was the first member of the Benge family to graduate from college.

During his junior year Dr. Nick Place approached Matt about a career in Extension. Matt had no idea what Extension was, but Dr. Place told him it was a perfect match. Eventually Matt gave in and received an internship with the University of Florida/IFAS and the Nassau County Extension Service, acceptance into the Department of Agricultural Education and Communication, and an assistantship with the Department of Agricultural Education and Communication. Within this department, Matt served as a teaching assistant in many classes and a graduate assistant to Dr. Amy Harder. Before graduating from graduate school, Matt was hired as the 4-H agent in Alachua County, FL. Matt's plans for the future are simple: continue to challenge and develop our country's youth to the best of their ability.