

COOPERATION BETWEEN FLORIDA COUNTY EXTENSION AGENTS AND FLORIDA
AGRICULTURAL EDUCATORS

By

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To my future husband and my family.

To Brandon because he was one of the main reasons I came to the University of Florida. He encouraged me the entire time I was thinking about life after graduation from Kansas State University. He has been there through thick and thin and has accepted and dealt with me living almost 1300 miles from him while he kept going in school in Kansas. He is my rock, the one person who can calm and de-stress me.

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Abstract of Thesis Presented to the Graduate School
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A strong foundation is the key for any structure to stand the test of time. This goes for any person as well. In the agriculture industry, many professionals had help building their foundations. Within the agriculture industry, extension agents, agricultural educators, 4-H and The National FFA organization have built the foundations for the next generation of agricultural professionals and workers. Agriculture educators and extension agents need to work closely with communities, business and industry, government agencies, and each other in order to remain on the cutting edge of the agricultural field. There should be more cooperation and collaboration between the 4-H and FFA programs to help the youth build strong foundations for the future (Dormody & Seevers, 1994).

The purpose of this study was to describe the level of cooperation between Florida county extension agents with a 20% or higher 4-H appointment and Florida agricultural educators who advise FFA programs. The objectives of this study were (a) to compare and contrast demographic variables among 4-H extension agents and agricultural educators, (b) to identify the self perceived level of cooperation between 4-H extension agents and agricultural educators, (c) to identify past and present cooperative activities between 4-H extension agents and agricultural educators, (d) to identify factors that are related to levels of cooperation among 4-H extension

agents and agricultural educators, and (e) to identify the knowledge and perceptions about the 4-H and FFA programs from the perspective of the 4-H extension agents and agricultural educators.

Deutsch's (1949) theory of cooperation and competition was used as the theoretical framework for this study. This theory was developed to show and explain how cooperation and competition affect small group functioning.

This was a descriptive study that used two Web-based questionnaires to conduct a census survey of Florida county extension agents with a 20% or higher 4-H appointment and school-based agricultural educators in Florida.

The key finding from this study was that both populations were looking for someone who can reciprocate and equally exchange time and resources with them. The respondents indicated they wanted to have a cooperative relationship but some did not know how to orchestrate the process. They were willing to put in the time to create the relationship in order to increase the value to youth and improve their professional relationships. This study found the two populations were similar in age, educational background, county populations, and opinions of encouragement in 4-H and FFA. The study found that physical distance between offices was not a very important factor in maintaining or forming a cooperative relationship. Although most cooperation can be found at county and state fairs, there is room to grow in community service activities and recruiting students. The findings have given a clearer picture of what is helping and what is hindering the cooperation relationship between extension agents and agricultural educators.

CHAPTER 1 INTRODUCTION AND PURPOSE OF STUDY

Introduction to the Study

A strong foundation is the key for any structure to stand the test of time. This goes for any person as well. In the agriculture industry, many professionals had help building their foundations. The stories about character building from years past can be heard by just asking many of the men and women who have been in the agriculture industry for many years. In the agriculture industry, numerous agencies and professionals have built the foundations for the next generation of agricultural professionals and workers (Astthroth & Haynes, 2002). The 4-H and FFA organizations are two of these agencies and they operate the national, state, and local levels. These agencies are led by extension agents and agricultural educators. The 4-H and FFA programs have focused on developing personal, leadership, and career skills for youth who were interested in agriculture (Etling, 1994).

4-H is the official youth organization of the United States Department of Agriculture whose mission is to create supportive environments outside the school system for diverse youth and adults to reach their fullest potential (Florida 4-H, 2007). The main objective of 4-H is the development of youth as individuals and as responsible and productive citizens. 4-H is traditionally club-based but is also conducted in tradition school setting. The newest tag line is “4-H is a community of young people across America who are learning leadership, citizenship, and life skills” (National 4-H Council, 2008, ¶1).

The National FFA Organization (FFA) is different from 4-H in that FFA is part of the agricultural education program in the public school system (National FFA Organization, 2006). The structure of agricultural education in schools consists of three parts: classroom/laboratory instruction, supervised agricultural experience programs, and the FFA student organization

(National FFA Organization, 2006). The agricultural education mission is to “prepare students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber, and natural resources systems” (National FFA Organization, 2006, p. 5). The mission of the National FFA Organization is to develop members’ potential for premier leadership, personal growth, and career success through agricultural education (National FFA Organization, 2006).

4-H is led by county extension agents, and FFA by the agricultural education teachers in the local school. These professionals have shared common goals and responsibilities, such as delivering effective educational programs to their learners by facilitating learning that has been intentional, organized, and goal oriented (Etling, 1994).

The responsibilities of 4-H extension agents are outlined in the Florida 4-H Program Handbook (2007, 3).

In a legal sense, the County 4-H Coordinator or the County 4-H Program Leader is responsible for all local 4-H units since they are instruments of the Extension Service. The agent assists with 4-H unit formation, often through others and recognizes their existence through approval for the use of the 4-H name and emblem, and through provision of training and educational materials. If the unit operates in a discriminatory manner, such services must be terminated after due notification.

The FFA advisor, also the agricultural education teacher, responsibilities were cited in The Official FFA Manual (2006, p. 17) as (a) supervise chapter activities year-round, (b) inform prospective students and parents about the FFA, (c) instruct students in leadership and personal development, (d) build school and community support for the program, (e) encourage involvement of all chapter members in activities, and (f) prepare students for involvement in career development events (CDEs) and leadership programs.

Because the responsibilities of extension agents and agricultural educators are similar and the 4-H and FFA programs are similar, these professional educators and participating youth can benefit from cooperation (Gamon, 1994). For example, Cooperative Extension has resources that

can be used by school-sponsored programs. Gamon (1994) stated, “State and field CES specialists can deliver the program content if teachers can deliver the audience and arrangements” (p. 4-5). As another example, teachers could follow the advice of extension agents for implementation of new, research-based activities. High school teachers may find that teaming up with extension agents results in up-to-date research information in publications, computer games, videos, and other materials useful for class projects (Gamon).

Dormody and Seevers (1994) agreed that collaboration should be practiced between the two organizations to develop 4-H and FFA members’ leadership skills. Dormody and Seevers stated that professionals and volunteers should be taught how to teach collaborative leadership. “Our youth won’t learn to collaborate just because they are put on committees. Our youth should participate in activities where they learn collaborative leadership skills” (Dormody & Seevers, 1994, p. 21).

Pirch (1993) stated that cooperation was a must for extension agents to keep current on the latest technologies and information. In a time of budget cuts and hiring freezes, “we’ll rely on co-workers for expertise and energy. The co-worker may no longer be in our office. He or she may be someone from a cluster, region, district, some other part of the state, multi-state region, or even the nation” (Pirch, 1993, ¶2). Pirch claimed that if the agents were proud of the work they had accomplished, they should feel proud to cooperate with other agents and share their work.

Problem Statement

The problem of minimal cooperation between extension agents and secondary agricultural educators has occurred in youth programming (Grage, Place, & Ricketts, 2004). Seevers (1994) stated that agriculture educators and extension agents need to work closely with communities,

business and industry, government agencies, and each other in order to remain on the cutting edge of the agricultural field.

Instead of cooperation, there often is competition, and instead of collaboration, there has been duplication. There should be more cooperation and collaboration between the 4-H and FFA programs to help youth build strong foundations for the future. Extension agents and agricultural educators are the key administrators of these programs. Their attitudes toward cooperation can affect the degree and nature of cooperation and collaboration between the two programs.

Purpose and Objectives

The purpose of this study was to describe the level of cooperation between Florida county extension agents with a 20% or higher 4-H appointment and Florida agricultural educators who advise FFA programs. The objectives of this study were

1. To compare and contrast demographic variables among 4-H extension agents and agricultural educators
2. To identify the self perceived level of cooperation between 4-H extension agents and agricultural educators
3. To identify past and present cooperative activities between 4-H extension agents and agricultural educators
4. To identify factors related to levels of cooperation among 4-H extension agents and agricultural educators
5. To identify the knowledge and perceptions about the 4-H and FFA programs from the perspective of the 4-H extension agents and agricultural educators

Significance of Study

There has been little research conducted to determine the cooperative relationship between Florida 4-H extension agents and Florida agricultural educators. The findings of this study can help educators and administrators who are preparing and advising future extension agents and agricultural educators. The educators can use the findings from this study to help train future

agents and agricultural educators how to cooperate and why cooperation is beneficial to the 4-H and FFA programs. The findings can help current extension agents and agricultural educators determine what is inhibiting or enhancing the cooperative relationship between themselves and the other professionals. The results of this study could lead to increased levels of cooperation and collaboration between future extension agents and agricultural educators.

Operational Definitions

- **4-H:** It is defined as a non-formal, practical educational program for youth that is the youth development program of Florida Cooperative Extension, a part of the University of Florida IFAS (Florida 4-H, 2007b).
- **4-H Extension Agent:** In this study, this is defined as anyone who is employed by Florida Cooperative Extension with a 20% or higher 4-H appointment.
- **Competition:** “The rivalry between two or more businesses” (Houghton Mifflin Company, 2000, p. 284). In this study, competition will be defined as county extension agents and agricultural educators not sharing resources, curricula and advice.
- **Cooperation:** “The association of persons or businesses for common, usually economic, benefit” (Houghton Mifflin Company, 2000, p. 306). In this study, cooperation is defined as county extension agents and agricultural educators integrating resources, curricula, and advice.
- **Florida Cooperative Extension Service (FCES):** A partnership between county, state, and federal governments that provide scientific knowledge and expertise to the public (UF/IFAS, 2007). FCES employs 4-H extension agents.
- **Agricultural Educator:** Teachers employed by a county in Florida who are certified to teach agriculture curriculum at a middle school, junior high school, high school, or agriculture academy.
- **The National FFA Organization (FFA):** The national agricultural youth organization for students enrolled in agriculture education in grades 6-12 (National FFA Organization, 2006).

Limitations

The use of self-perceptions in this study is a limitation because they are self-reported, not observed or documented by an external source (Ary, Jacobs, & Razavieh, 2002). The results will be impacted because they are personal opinions that can not be verified as fact. A second

limitation is that because only teachers and agents in the state of Florida are taking the survey, the results can not be generalized outside of this population or state. A third limitation is that the level of cooperation is limited to only those activities that are 4-H and/or FFA related. The fourth limitation is the use of distributing the survey electronically. Dillman (2007) suggested that this limitation can have a variety of technical issues that include (a) preventing the respondent from properly viewing the instrument, (b) Internet connection speed may affect how the respondent sees the instrument, and (c) the respondents' computer literacy may affect how they fill out the questionnaire.

Assumptions

- Respondents filled out the instrument truthfully.
- Respondents had the ability to retrieve the instrument online without complications.
- Respondents had the ability to understand the electronic format of the survey instrument.

Chapter Summary

This chapter introduced the importance and need for this study. This chapter addressed the purpose and objectives of this study. This chapter gave background knowledge of 4-H and the National FFA Organization. This chapter specified the operational definitions for many terms that will be used. The limitations and assumptions were also discussed.

CHAPTER 2 REVIEW OF LITERATURE

Theoretical Framework

Theory of Cooperation and Competition

The theory of cooperation and competition was developed by Morton Deutsch in 1949. He developed this theory to explain how cooperation and competition affect small group functioning. Before Deutsch, most work in the field of cooperation concerned an individual's motivation to achieve in a cooperative or competitive situation. Deutsch documented how small groups reacted in cooperative or competitive social situations. Deutsch used psychological implications and assumptions to hypothesize the effects of cooperation and competition on group processes.

Deutsch (1949b) tested his theory using an experimental design of 10 groups made up of five introductory psychology students. The groups were paired with one treated as a cooperative group and the other treated as a competitive group. The cooperative situation was created by giving the cooperative groups a set of instruction stating the group as a whole would be rated in comparison with the efforts of the four other cooperative groups. The reward, or grade, each person would receive would be the same as other group members. The grade would be determined after that group's relative position was compared to the other four groups (Deutsch, 1949b). The competitive situation was created by giving the competitive groups a set of instructions stating each member would be rated in comparison with the efforts of the other four members composing his group. The reward, or grade, would be different for each person in that group and the grade would be determined by the relative contributions of each person to the situation.

Deutsch found results on an individual level and at the group level. On an individual level, the cooperative groups perceived themselves agreeably more interdependent and the competitive groups thought themselves to be less interdependent (Deutsch, 1949b). The cooperative groups had a greater ability to sustain similar actions between group members than competitive groups. When working in cooperation, personal actions were conducted in a positive manner in order to reach the group goal. The opposite was found for competitive groups. Personal actions were meant to better the individual, not the group. The fourth result that Deutsch stated was that there was more positive peer pressure to accomplish the goal within the groups that cooperated than in those that competed. The final result Deutsch stated was that individual cooperation exhibited more helpfulness and individual competition would exhibit more obtrusiveness.

On a group level, Deutsch found cooperation allowed for more of the following than competition: (a)coordination of efforts; (b)diversity in amount of contributions per member; (c)sub-division of activity; (d)achievement pressure; (e)production of signs in the puzzle problem; (f)attentiveness to fellow members; (g)mutual comprehension of communication; (h)common appraisals of communication; (i)orientation and orderliness; (j)productivity per unit time; (k)quality of product and of discussions; (l)friendliness during discussions; (m)favorable evaluation of group and its products; (n)group functions; (o)perception of favorable effects of fellow members; and (p)incorporation of the attitude of the generalized other. There were no significant differences in the amount of interest in the situation, the amount of specialization with respect to function or the amount of learning.

Deutsch's practical implications stated "greater group or organization productivity will result when the members or sub-units are cooperative rather than competitive in their relationships" (p. 230). Intercommunication of ideas, coordination of efforts, friendliness, and

pride in one's group were basic to group harmony and led to more effectiveness when the group worked cooperatively rather than competitively. There were some indications that competitiveness produced greater personal insecurity than cooperation.

A study conducted by Crombag (1966) tested Deutsch's (1949a) hypotheses: (a) groups would be more satisfied with the task; (b) groups would experience more inducibility (mutual sensitivity for influence) in their group; (c) groups would be more attracted to the group (d) groups would evaluate the performance of their group and their own individual performance higher; and (e) groups would evaluate their fellow group members as more congenial. Crombag found all of the hypotheses were supported by the data collected during the study.

Smith, Madden, and Sobol (1957) conducted a study focused on cooperative and competitive group discussions. The researchers used 29 groups of five students each to study this phenomenon. All groups were given a case to read and discuss. Fourteen groups were instructed that they would be examined for individual intelligence scores based on their group discussion. The remaining 15 groups were told the groups should work cooperatively because they were being compared as a group to the other groups for intelligence scores. After six weeks, the researchers conducted a recall test to see what the participants remembered from their group discussions. Smith, Madden and Sobol found more ideas were introduced in the cooperative groups, as suggested by Deutsch's (1949) theory, but there was no significant difference between the amounts of information recalled from cooperative or competitive groups.

Thomas (1957) conducted a study to determine if working in cooperative groups would facilitate or hinder a group from reaching its goal. Thomas used 160 female volunteers and instructed them on how to assemble miniature houses in five steps. In groups of 5, the women worked to assemble as many of these houses as they could in 30 minutes. Thomas used a 2 X 2

X 2 factorial design with two treatment groups to test his ideas. Thomas found the groups perceives “very little hindrance, if any” while working in groups (p. 355). Thomas also found that if there was a division of labor, participants increased their chance of reaching their goal because they were cooperatively striving toward it.

In 1977, Slavin conducted an analysis of the research based on classroom reward structures to see if studies had shown if cooperative, competitive, or individual reward structures were the best way to reward students. Slavin found that unless subjects had important resources to share or withhold at their discretion, competitive and individual reward structures were more effective than cooperative ones for increasing performance. Slavin found consistently positive effects of cooperative reward structures could cause permanent changes in the climate of classrooms in a way that promotes mutual attraction and acceptance among students. Slavin’s final conclusion was that a mixture of cooperative and competitive or cooperative and individual reward structures was the most promising for producing positive effects on academic achievement and on social connectedness, which is consistent with Deutsch’s (1949) theory.

Johnson and Johnson (1972) conducted an experiment to see if race had any effect on cooperation between two individuals. They found that, regardless of race, individuals cooperated with their partners more when they had similar attitudes and beliefs, as seen in Deutsch’s (1949) study.

Sharan (1980) analyzed five studies that looked at cooperative small-group learning in the classroom. Sharan concluded competition did not hinder small-group learning. Sharan suggested there should be competition between cooperative groups to facilitate learning from a cooperative and competitive view point.

A meta-analysis of 122 studies conducted by Johnson, Maruyama, Johnson, and Nelson (1981) helped summarize the results of studies that utilized Deutsch's (1949) theory. The authors used three methods of meta-analysis (the voting method, the effect-size method, and the z -score method) in their study. From the authors' analysis, four theoretical propositions were found. The first was that, "cooperation is superior to competition in promoting achievement and productivity" (p. 56). Johnson, et al. hypothesized that the superiority of cooperation increased the more the subjects were required to produce a group product. The second proposition was that cooperation was superior to individualistic efforts in promoting achievement and productivity. The third proposition was that cooperation without inter-group competition promoted higher achievement and productivity than cooperation with inter-group competition. The authors stated this finding had the weakest empirical evidence to support this conclusion. The final proposition was there was no significant difference between interpersonal competitive and individualistic goal structures on achievement and productivity.

Tjosvold (1984) conducted a historical analysis with Deutsch's (1949) theory of cooperation and competition to see how the classic theory had withstood the test of time. Tjosvold summarized the theory by examining Deutsch's results. Tjosvold stated Deutsch suggested four possible outcomes in a cooperative situation. The first outcome was that cooperative groups expected and actually assisted each other in order to reach their common goal. The second outcome was that communication was more accurate and group members would use positive peer influence to reach the group goal. The third outcome was that cooperative groups would divide tasks and encourage group members to complete their assigned tasks. The fourth outcome was that cooperative people would be more friendly and supportive of

each other. Tjosvold agreed with Deutsch's theory, but stated, "most situations will then have processes induced by cooperation, competition and individualization" (p. 746).

Slavin (1987) conducted a similar study that compared developmental and motivational perspectives in cooperative learning. Slavin defined motivational perspectives by stating that these researchers were more concerned with the reward or goal structure under which group members operated, unlike the developmental researchers who focused primarily on the quality of interaction among the students engaged in collaborative activities. For example, Deutsch (1949) has a motivational perspective while Piaget and Vygotsky had developmental perspectives. Slavin's study analyzed of 46 studies which all contained a cooperative learning method compared with a control group, took place in regular elementary or secondary school for at least two weeks, and had achievement measures that assessed individual learning of objectives taught equally in experimental and control classes. Slavin found that when studies did not grade or reward based on the produced group projects, there was little support for cooperative learning. He did find when there was a group grade or reward, cooperative learning worked well in classroom settings. Slavin concluded instead of the two perspectives working independently of each other, a blended (or cooperative) relationship would work best in the classroom.

Outside the classroom setting, Tjosvold (1988) carried out interviews with 39 employees at a public health agency to identify specific interactions they had with co-workers in their field. Tjosvold found that employees that thought their goals were the same as their co-workers had trusting expectations, exchanged information and resources, worked efficiently and productively, and developed confidence in future collaboration. Tjosvold found when employees had competitive goals, they treated each other with suspicion, had little exchange of information, had

low productivity, and low morale. Tjosvold concluded independent goals interfered more with interaction between groups than within them.

Alper, Tjosvold, and Law (1998) had similar findings as Tjosvold (1988) in their study of 60 self-managing teams. The authors found teams with highly cooperative goals were able to open-mindedly and constructively discuss opposing views. This helped develop confidence in team dynamics and contributed to effective team performance. Alper, Tjosvold, and Law found competitive goals interfered with constructive controversy, confidence and effectiveness. They suggested structuring cooperative goals and constructive controversy could help self-managing teams gain confidence and work more productively.

Beersma, Hollenbeck, Humphrey, Moon, Conlon, and Ilgen (2003) used Deutsch's (1949) theory to study the relationship between reward structures and team performance. Beersma, et al. concluded reward structures should be used based on the objective of the task being rewarded. For example, "Competitive structures should be used when people are working independently, whereas cooperative reward structures should be used when people are working interdependently" (p. 584).

Competition occurs when there is a limited supply of resources (Rocha & Rogers, 1971). In Rocha and Rogers' (1971) study, they demonstrated this concept by challenging children to build the tallest tower out of the blocks provided. Following Deutsch's (1949) theory, the competition allowed for only one child to receive a prize for the tallest tower. The children were observed showing three signs of aggression: verbal, interference, and overt physical attacks. Rocha and Rogers concluded that "the more competitive the situation, the more aggressively the children behaved" but this does not mean that competition always leads to aggression (p. 592).

The theory of cooperation and competition was used in Deutsch and Krauss' (1962) study of bargaining. The researchers stated that bargainers were more likely to reach an agreement if their cooperative interests were stronger in comparison to their competitive interests. Deutsch and Krauss conducted an experiment to test their hypotheses. The experiment allowed participants to make threats in order to strike a bargain. Deutsch and Krauss found threats hindered cooperation, and competition was the main focus during the bargaining process.

Deutsch's (1949) theory of cooperation and competition has been tested for almost 60 years. Many studies agree that working in cooperative groups that are competing as a group has the biggest positive effect on individual learning (Alper, Tjosvold, and Law, 1998; Beersma, et al., 2003; Deutsch, 1949b; Johnson, et al., 1981; Slavin, 1977, 1987; Smith, Madden & Sobol, 1957; Thomas, 1957; Tjosvold, 1988).

Cooperation among Extension Agents

All extension agents, not just 4-H, can benefit from cooperation. Many studies have been conducted to demonstrate how partnerships with Cooperative Extension Service/extension agents can benefit the agents, CES and other parties involved (Barnard, 1985; Kittredge, 1992; Scutchfield, Harris, Tanner & Murray, 2007)

Kittredge (1992) conducted a Delphi study of 12 northeastern state forestry extension agents to see how their cooperation in the Northeast Forest Resource Extension Committee (NEFREC) was helping reduce duplication efforts in producing educational materials. Kittredge found the committee was helping reduce the duplication of education materials. The committee had developed the bibliography of Cooperative Extension natural resource educational materials that had been distributed to each state (Kittredge, 1992). This partnership allowed for cooperation between multiple agents. This reduced their workload, used time and money more efficiently and helped create partnership that could be used in the future.

Scutchfield, Harris, Tanner and Murray (2007) developed a model of cooperation between universities which had a college of agriculture that housed CES and academic health centers. The model showed how CES worked with the health centers to provide up-to-date research information to the public. This model was developed from the University of Kentucky's CES working with its' academic health center. This model showed that CES can cooperate with outside academic resources and programs to create better, more in-depth materials.

Another example of CES and extension agents cooperating with other agencies came from Barnard's (1985) explanation of how CES was approached by the Farmers Home Administration in Indiana about training borrowers how to use the Coordinated Financial Statements of Agriculture. CES of Indiana worked with the Farmers Home Administration to train agents two months before conducting workshops on the financial statements. The partnership conducted workshops in all 45 counties in Indiana plus two at large workshops for a total of 47 workshops. This partnership and the workshops they conducted helped spread the word about what CES could do because, "more people were exposed to the Cooperative Extension Service, and county Extension agents were able to expand their mailing lists" (¶15).

Past studies have shown how cooperation between CES/extension agents and other agents, health centers and outside companies have created positive learning environments for everyone involved. Fetsch and Yang (2002) conducted a study of 4-H and non-4-H members to see how competition and cooperation affected the participants' self-perceptions of themselves. The authors found both participant groups scored similarly on the Cooperative Learning Orientation assessment but 4-H members scored lower on the Competitive Learning Orientation assessment than non-4-H members. Fetsch and Yang suggested that 4-H leaders be urged to provide a

system that rewards cooperation even more than individual competition at county, state, and national fairs, particularly for members in third through fifth grade.

Cooperation among Agricultural Educators

Agricultural educators have worked with a wide variety of people to form cooperative relationships. Dormody (1992) stated agriculture and science teachers were natural partners and that it would be logical for them to share resources for integrating the programs into both types of classrooms. A national study by Dormody found, “except for equipment and supplies, teachers in agriculture perceived that they had shared more resources with science departments than they had received” (p. 26). This showed that even natural partners must work at cooperation.

Dormody (1992) used the results to predict what factors were associated with present and future resource sharing between agriculture and science teachers in another study (Dormody, 1993). He developed a predictive profile of agriculture teachers who share resources with science departments. This profile included teachers who took in-service courses or workshops covering science-related teaching methods, taught non-agriculture science courses in the science department, had a positive attitude toward science, had knowledge and skill in science and worked in a school with a relatively large number of science teachers. Dormody developed a second profile for agriculture teachers who used science department resources. That profile included teachers that had a positive attitude toward science, had positive interpersonal relations with science department personnel, took in-service courses or workshops covering science-related teaching methods and taught non-agriculture courses in the science department. After developing these profiles, Dormody stated that “attitude toward science appears to be the best overall predictor of resource sharing between teachers of agriculture and science departments” (p. 58).

Agricultural educators tend to cooperate more with science teachers in a school setting (Whent, 2000). Whent conducted a panel longitudinal study to determine what factors influenced resource sharing between agricultural and science teachers. Participation in the Agriscience Institute and Outreach Program increased cooperation and resource sharing between the pairs of teachers. Whent found it was possible to increase the amount of cooperation and resource sharing between the teachers through information sharing, team building, and assigned tasks. The major factor inhibiting science teachers from utilizing agriculture department resources was a lack of awareness of both the resources available and similarities in curriculum.

A study by Ubadigbo and Gamon (1988) found little cooperation between Iowa agribusinesses and other groups. Ubadigbo and Gamon did find a high level of cooperation between agribusinesses and private individuals. They suggested that the low levels of cooperation may have been because agri-educators were not aggressive enough in promoting cooperation with agribusinesses, or that geographical locations made cooperation more difficult.

Eaton and Bruening (1996) studied Pennsylvania secondary agricultural educators to determine their perceptions regarding implementing recommendations from the National Research Council after the document “A Nation at Risk” was published. They found that teachers knew there was a gap in cooperation between agricultural education and other disciplines and the teachers supported developing partnerships to strengthen their agricultural programs. Eaton and Bruening stated that science departments should be the top priority when making these partnerships.

Cooperation between Agricultural Educators and Extension Agents

Numerous government acts have provided the foundations for the development of the Cooperative Extension Service, 4-H, agricultural education, and FFA in the United States. The problem with these government acts was that they did not specifically identify a line where

Cooperative Extension stops and school-based agricultural education began, or vice versa. “They have enough common goals that many officials were concerned that after passages of federal legislation for each, that there would be a lot of duplication between the two” (Hillison, 1996a, p. 9) in the early years of CES and school-based agriculture education.

In the early years of CES and school-based agricultural education, many problems came up.

When they were prepared, both vocational teaching and extension work were comparatively new. With the development of these two closely related and rapidly expanding lines of public service, problems have arisen which make desirable a re-statement of the respective fields of Smith-Hughes and Smith-Lever workers and of the relationships between the two groups (Memorandum of Understanding, 1928, ¶2).

Wessel and Wessel (1982) said “local extension agents prevented young people from joining vocational education programs and teachers in the schools kept youth from joining 4-H clubs” (p.11) in the early stages of the two organizations.

Because of the competition between the two groups over factors, such as resources and member participation, the Memorandum of Understanding Relative to the Smith-Hughes and Smith-Lever Relationships in Agriculture was written in 1928 (Memorandum of Understanding, 1928). This memorandum clearly stated where the line was drawn between agricultural education and the extension services.

There will be the co-operative agricultural extension system conducted by the State agricultural colleges in cooperation with the United States Department of Agriculture and the county under the provisions of the Smith-Lever Act and under other Federal and State legislation. There will also be vocational agricultural instruction carried on by the State board for vocational education in co-operation with the Federal Board for Vocational Education and the county or the local school district under the provisions of the Smith-Hughes Act. The extension service and the vocational service will deal with both adults and youth (Memorandum of Understanding, 1928, ¶11).

The memorandum clarified the focus of extension work and vocational agriculture in public schools by stating that vocational agriculture was, “courses of systematic instruction in

agriculture, carried on in schools or classes for those who entered upon or who are planning to enter upon the work of the farm or of the farm home” (Memorandum of Understanding, 1928, ¶28). The memorandum stated extension, “shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident at said colleges in the several communities and imparting to such person useful and practical information on said subjects through field demonstrations, publications, and otherwise, and to encourage the application of the same” (Memorandum of Understanding, 1928, ¶17).

After defining extension services and vocational agriculture, the memorandum stated:

Any work participated in by the teacher of vocational agriculture not included in all-day, day unit, evening or part-time instruction, should be done in accordance with the plans of the extension system for the state and in cooperation with the agent who is in charge of the extension work in the county. Teachers of vocational agriculture or representatives of vocational agriculture work should be invited to participate in all meetings conducted by the extension service for the formulation of county and state agricultural programs (Memorandum of Understanding, 1928, ¶13).

With clearly defined lines and cooperation stated, county extension agents and agricultural educators still had, “a problem of limited cooperation...particularly in youth programming” in 2004 (Grage, et al., 2004). Grage et al. conducted a qualitative study using secondary agricultural educators and livestock extension agents in Florida to determine what major themes restricted levels of cooperation between the two groups. The authors found, “the relationship between the agricultural educator and the extension agent, the awareness of the other profession, and the understanding and perceptions of cooperation and competition” were the most influential factors affecting levels of cooperation (¶11). The authors concluded, “aspects such as a lack of mutual respect, resource sharing, scheduling problems and currently held perceptions regarding the individuals involved contributed to the absence of cooperative relationships between the disciplines” (¶10).

A follow-up quantitative study was conducted by Ricketts and Place (2005). The purpose of this study was to “explore cooperation between agriculture teachers and extension agents in Florida and characterize the current environment surrounding cooperation between disciplines” (¶7). Ricketts and Place found conflicting results from the focus groups. The authors found that 72% of extension agents and 80% of agriculture teachers stated they had currently been cooperating with the other profession. Both disciplines agreed strongly that cooperation allows for added resource sharing, and they were more likely to cooperate with a committed and responsible party.

The teachers and agents agreed on the four best reasons for cooperation. The authors stated that the number one reason was the added value to the youth in the organizations. The following three reasons included benefit to participation programs, increased awareness of agriculture education/extension, and agriculture education/extension’s mission. On an individual level, both teachers and agents felt strongly that they had experienced successful results while cooperating.

Bruce and Ricketts (in press) conducted a similar study using Pennsylvania agriculture teachers (N=83) and extension agents (N=88) as their population. In their qualitative study, they found three themes for advantages to cooperation and four themes for barriers to cooperation. The first theme for advantages of cooperation was that cooperation improved programming offerings. It helped to increase participation, to improve communication and information flow, and to increase new idea formation. The second theme was that cooperation helped in sharing the workload for events. This helped reduce stress, made less work for one person, and the partnership shared successes and failures. The third item was that cooperation increased the amount and type of resources available to both groups that included personnel, expertise and materials.

The four themes for barriers of cooperation were time constraints, lack of knowledge or awareness of the other group, programmatic differences, and resources (Bruce and Ricketts, in press). The first theme of time constraints was the most common barriers described by participants. Respondents stated it took time to initiate contact, to formulate action plans or strategies, and to divide up the workload. The second theme was that a lack of awareness in reference to programming as well as on a personal level was a barrier to cooperation. The third theme was that programmatic differences emerged because diversity in the programs did not have the two professionals crossing paths. The final barrier to cooperation was inequitable resources. Each group described elements like contact hours, administrative pressures (both positive and negative), and peer influences as barriers to cooperation.

A similar study conducted by Diatta and Luft (1986) looked at the cooperation between North Dakota secondary agricultural teachers and county extension agents. They found cooperation occurred most often when working with crop production or crop enterprise activities. Cooperation between FFA and 4-H was found the most often in livestock and crop activities. Diatta and Luft stated in agricultural mechanics, 4-H and FFA were the benefactors of cooperation while agricultural educators reported adult classes and activities received the most cooperation. In youth activities, judging activities such as crops and livestock had the greatest amount of cooperation. The final result was that agents and educators had the most cooperation on activities that dealt with fairs and shows.

Diatta and Luft studied factors influencing cooperation. The top four factors that had a negative influence were: (a) difference in age; (b) long distance (greater than 20 miles) between schools and county extension offices; (c) time conflicts in getting together; and (d) the lack of

clarity of functions. The most positive influence was short distances (less than 20 miles) between extension offices and schools. Hillison (1996a) stated:

In many ways, a new era is about to begin in the working relationship between agricultural education and Cooperative Extension. Both organizations have suffered budget cuts, but still have a very large clientele to serve. Often times the motto for both has been 'Do more with less.' History indicated that it is possible for the agencies to cooperate (p. 13).

Chapter Summary

This chapter introduced the theory of cooperation and competition by Deutsch (1949) and examples were given that used the theory. This was followed by empirical evidence about the cooperative relationships between agricultural educators, between extension agents, and between agricultural educators and extension agents.

CHAPTER 3 METHODOLOGY

Introduction

This chapter identifies the type of research used in this study along with the two populations surveyed. This chapter introduces the procedures that were used to develop the questionnaire instruments used in this study. Chapter three discusses the type of questions in both instruments along with a detailed description of the data analysis process.

Research Design

This was a descriptive study that took the form of a single-method research design as defined by Ary, Jacobs, and Razavieh (2002). The researcher used two Web-based questionnaires to conduct census survey of all Florida extension agents with a 20% or higher 4-H appointment and of all agricultural educators who advise an FFA program in Florida.

Populations

The study's population consisted of all Florida extension agents with a 20% or higher 4-H appointment and all Florida agricultural educators who advise an FFA program. The researcher obtained the list of current extension personnel along with their percentages of appointments from the County Operations Office at the University of Florida. There were 106 extension agents in the population. The agents were chosen based on their percentage of 4-H. In Florida, every extension agent is assigned at least a five percent 4-H appointment (M. N. Norman, personal communication, July 20, 2007). Norman felt that a 20% 4-H appointment would serve as a good cut-off point for extension agents because these agents have dedicated substantial time to youth development and youth programs.

The researcher obtained the list of current agricultural educators ($N=333$) from the 2006 Florida Agricultural Education Directory. The 2006 Florida Agricultural Education Directory

was chosen as the source for the population frame because it served as the only current, comprehensive list of Florida agricultural educators in the state.

Instrumentation

The researcher developed two questionnaires in Zoomerang© modified from instruments that Ricketts and Place (2005) and Bruce and Ricketts (in press) used in previous studies.

Slightly different versions of the base questionnaire were developed for each of the two study populations. The first questionnaire was developed for the extension agents and contained four sections (Appendix B). The first section asked questions regarding the knowledge and perceptions of extension agents about school-based agricultural education and the FFA program. This second section addressed the attitudes of extension agents toward cooperation in general. The third section asked about personal opinions and experiences related to cooperative activities with agricultural educators. The final section contained nine demographic questions about the agent, his/her current position, and extension program. The independent variables for this study were gender, age, county population, educational background, encouraging children to be involved in 4-H, encouraging children to be involved in FFA, if they had ever worked as an agricultural educator before, their primary program area, and their percentage 4-H appointment. The dependent variables were self perceptions of the level of cooperation between agents and educators, attitudes toward cooperation, knowledge and perceptions of 4-H and FFA programs, and knowledge and perceptions of other profession.

The second questionnaire was developed for the agricultural educators and it also contained four sections (Appendix C). The first section asked questions regarding the knowledge and perceptions of the agricultural educators about the Cooperative Extension Service and the 4-H program. This second section addressed the attitudes of agricultural educators toward cooperation in general. The third section asked about personal opinions and experiences with

cooperative activities with extension agents. The final section contained nine demographic questions about the educator, his/her current position, and his/her school-based program. The independent variables for this study were gender, age, county population, educational background, encouraging children to be involved in 4-H, encouraging children to be involved in FFA, if they had worked as an extension agent prior to working as an agricultural educator, the primary focus area of their program, and the type of program conducted (high school, middle school, or blended).

The original questionnaires were developed from focus group results obtained by Grage, Place, and Ricketts (2004) from Florida livestock extension agents and Florida secondary agricultural educators. Ricketts and Place (2005) developed the two questionnaires and conducted a study using a stratified random sample of Florida extension agents and a random sample of secondary agricultural educators. Ricketts and Bruce (in press) conducted a similar study using the same instruments on extension agents and secondary agricultural educators in Pennsylvania. Ricketts and Bruce (in press) gave the researcher permission to modify the original instruments.

Internal validity is defined as “the extent to which the changes in a dependent variable are, in fact, caused by the independent variable in a particular experimental situations rather than by some extraneous factors” (Ary, et al., 2002, p. 281). History, maturation, testing, instrumentation, statistical regression, differential selection, mortality and the interaction of these threats could pose a threat to the internal validity of this study and research design (Campbell & Stanley, 1966). Because the instruments used in this study were modified by the researcher, the largest threat to internal validity was instrumentation. The threats of history, maturation, testing, and mortality were controlled by utilizing two census questionnaires that included the entire

population of extension agents and agricultural educators in Florida. These threats were also controlled by administering the questionnaires only one time. By including all of the individuals in the population, it ensured that participants were selected based on the definition of the study parameters and not characteristics determined by the researcher.

Since the instruments were modified by the researcher, validity was addressed in more depth. According to Ary et al. (2002), internal validity based upon the instrument can be separated into four categories: face validity, content validity, construct validity, and criterion-related validity. For the purpose of this study, a panel of experts reviewed the instruments to ensure these types of validity. The panel members were five Agricultural Education and Communication Department faculty from the University of Florida (Appendix A). Each of these panel members had previous experience with either the Cooperative Extension Service or the job responsibilities of an extension agent or teaching agriculture in a secondary school as well as advising an FFA program.

Face validity is concerned with whether or not an instrument appears valid for the intended purpose (Ary et al., 2002). Content validity, or the degree to which the data from an instrument are representative of some defined domain, was also addressed (Ary et al. 2002). Threats to content validity were reduced by a careful examination by the expert panels and through a review of the pilot study questionnaires completed prior to the questionnaire distribution. The pilot study consisted of 40 extension agents from the State of Kansas and 40 agricultural educators also from the State of Kansas. The pilot study individuals were approved by the panels of experts as an appropriate representation of the population studied.

Dillman (2007) described nonresponse error as the possibility that those who do not respond to a questionnaire or do not provide usable responses differ from those who do respond

and provide usable responses. Lindner, Murphy and Briers (2001) cited four generally accepted procedures for addressing nonresponse error. They include ignoring nonrespondents, comparing early respondents to late respondents, comparing respondents to the population, and comparing respondents to nonrespondents. For the purpose of this study, the research decided to compare respondents to nonrespondents.

Procedure

A pilot test was conducted before the questionnaires were distributed. The original instruments were developed from focus-group results and were pilot tested before their first use by Ricketts and Place (2005). The pilot test conducted by the current researcher was necessary to reestablish reliability and validity for the researcher-modified instrument.

Prior to collection of data, a proposal to conduct the study was submitted to the University of Florida Institutional Review Board (IRB-02). The proposal was approved (IRB #2007-U-0671) (Appendix D). The informed consent form described the study, voluntary nature of participation, and informed participants of any potential risk and/or benefits associated with participating in the study.

After approval was granted by the IRB, the questionnaires were administered to the pilot study participants in September, 2008, and the data were collected and analyzed by the researcher and panel of experts. The pilot test participants consisted of 40 extension agents from Kansas and 40 agricultural educators from Kansas. The response rate was 37.5% ($N=15$) for extension agents and 47.5% ($N=19$) for agricultural educators. Cronbach's alpha was extracted using Statistical Package for the Social Sciences (SPSS®) 14.0 for Windows on the first and third sections of the questionnaires from the pilot test results. Cronbach's alpha was 0.866 and this was determined acceptable by the researcher.

For the main study, the researcher used the Web-based program Zoomerang© to distribute the questionnaires to the respondents. The researcher chose this method because the cost was minimal, distribution was simple and exact, E-mail addresses were available, and submission of completed questionnaires was easy and had minimal errors. These aspects outweighed the limitations that were discussed by Dillman (2007). These limitations were that respondents may not have a computer, respondents may not have Internet access, and respondents may not feel confident enough in their abilities to work on a computer to take an Internet questionnaire. However, because all extension agents and agricultural educators had assigned work E-mail addresses, they would have access to a computer with Internet access and had the computer skills required to complete an online questionnaire.

The researcher followed the Tailored Design Method for survey collection by Dillman (2007). The initial contact was a brief pre-notice E-mail that was sent September 24, 2007 (Appendix E). The pre-notice E-mail explained to the respondents that the questionnaire would be sent out and that responses were greatly appreciated. This E-mail was sent to 109 Florida extension agents and 407 Florida agricultural educators. Because of invalid E-mail addresses, five people were removed from the extension population frame and 76 people were removed from the agricultural educators' list.

A hyperlink to the questionnaire was sent out via E-mail on October 3, 2007 through the Zoomerang© software. The E-mail contained a detailed cover letter along with a Zoomerang© hyperlink to the questionnaire. The E-mails for extension agents contained a link to the questionnaire for extension agents and the E-mail for agricultural educators contained a link to the agricultural educator questionnaire. A total of 331 agricultural educator and 104 extension agent E-mails went out. This round of E-mails resulted in four invalid E-mail addresses from the

agricultural educators' list and one invalid E-mail address from the extension list. These names were removed before the first reminder was sent out.

A week after the first contact was sent out, a reminder was E-mailed via the Zoomerang© software. From this round of contact, there was one invalid E-mail address removed from the extension population frame and two E-mail addresses were removed from the agricultural educators' population frame.

On October 31, 2007, three weeks after the first reminder was E-mailed out, a second reminder letter and another hyperlink to the questionnaire were E-mailed to 60 extension agents and 213 agricultural educators. The final contact was made on November 7, 2007, by sending a third E-mail reminder and hyperlink to the questionnaire to 53 extension agents and 191 agricultural educators.

Data Analysis

The researcher used Statistical Package for the Social Sciences (SPSS®) 14.0 for Windows for the analysis. Descriptive statistics including central tendencies and frequencies along with *t*-tests were used to analyze the data describing the level of cooperation between Florida extension agents and Florida agricultural educators in. Inferential statistics were used in this study because the populations were treated as a sample from a snapshot in time.

The researcher analyzed the questions relating to the first objective by comparing and contrasting demographic differences between the extension agents and agricultural educators. There were eight demographic questions asked to each one of the responders with three specific questions asked to the extension agents and three specific questions asked to the agricultural educators. The eight questions were related to: gender, age, encouragement of 4-H, encouragement of FFA, degrees held (bachelor's, master's, and doctorate) and county population. The specific questions asked of the extension agents included prior job experience

as an agricultural educator, primary program area, and 4-H percentage appointment. The agricultural educators were asked if they had prior job experience as an extension agent, primary focus area of the program they conducted, and the type of program (high school, middle school, or blended, [both high school and middle school]) conducted.

The researcher used questions about attitudes toward general cooperation and a rating scale of zero to ten to satisfy the second objective that stated: To identify the self perceptions of the level of cooperation between 4-H extension agents and agricultural educators. Questions were used to complete the third objective of identifying past and present cooperative activities between 4-H extension agents and agricultural educators that asked responders to rate how often cooperation occurred on certain activities. To fulfill the fourth objective to identify factors related to levels of cooperation among 4-H extension agents and agricultural educators, the researcher used questions that had respondents rate the importance of different variables on the cooperation relationship. If the respondents did not currently cooperate, they were asked to rate what factors would have a positive influence on the relationship and to rate why they did not currently cooperate. The fifth objective, to identify the knowledge and perceptions about the 4-H and FFA programs from the perspective of the 4-H extension agents and agricultural educators, the researcher used questions one and two.

Chapter Summary

This chapter described the methods used to study the specific objectives identified in Chapter One. The research design, population, instrumentation, procedures and data analysis were discussed. This descriptive study consisted of two census surveys, one for extension agents and one for agricultural educators. The researcher used two modified versions of a questionnaire to gather data. A summary and description of the pilot test analysis was addressed.

CHAPTER 4 RESULTS

There were a total of 435 questionnaires were sent via E-mail to extension agents and agricultural educators around in Florida. Two hundred and three questionnaires were returned for a 46.7% ($N=203$) overall response rate. There were 104 questionnaires sent via E-mail to extension agents and 55 were completed for a response rate of 52.8% ($N=55$). There were 331 questionnaires e-mailed to agricultural educators and 148 were completed for a response rate of 44.7% ($N=148$).

Based on Dillman's (2007) recommendation to always address nonresponse error, a comparison of respondents and nonrespondents was conducted. Respondents were all of the respondents who answered the questionnaire via the Internet while nonrespondents were those who were contacted by telephone and asked thirteen questions by the researcher. The 10% of the nonrespondents called were chosen at random from the list of nonrespondents of the initial questionnaire. There were five extension agents and 18 agricultural educators contacted. Independent samples *t*-tests were conducted on the questions answered by the nonrespondents to compare to the respondents. The results, as shown in Table 4.1, indicate that three of the questions had a significant difference. Therefore, results cannot be generalized to the entire population (Lindner, Murphy, & Briers, 2001). The three statements were "I feel like the agricultural educators/extension agents in my county are too busy to cooperate with me," "Students should not be allowed to participate in both 4-H and FFA," and "I have previously tried to cooperate and it is not worth the time required."

Table 4.1 Comparison of early and late respondents.

Questions	Respondents		Nonrespondents		<i>t</i>	<i>p</i>
	M	SD	M	SD		
I work best with those I have a history with.	3.40	0.99	3.43	1.16	-0.13	0.89
I feel that many youth make a choice between participating in either 4-H or FFA.	3.60	1.20	3.52	1.34	0.29	0.76
My decision to cooperate is based upon what I hear from other in my field.	2.44	0.99	2.57	1.03	-0.57	0.56
I feel like I'm competing with (FFA/4-H) for participants.	2.58	1.26	2.35	1.22	0.84	0.40
I seek the advice of the (agricultural educators/extension agents) in my county more than they seek my advice.	2.95	1.12	2.74	1.21	0.84	0.39
My supervisor encourages cooperation between myself and the (extension agents/agricultural educators) in my county.	3.16	1.13	3.39	1.30	-0.90	0.36
4-H and FFA share the same general goals for youth development.	3.76	0.99	4.00	0.95	-1.08	0.28
Full participation by all parties is necessary for cooperation to occur between agricultural educators and extension agents	3.91	0.91	4.13	0.92	-1.09	0.27
My decision to cooperate is dependent upon the other parties' characteristics such as responsibility, personality, and respect.	3.58	0.94	3.91	0.94	-1.61	0.10
I feel like I don't have anything to reciprocate to the (agricultural educators/extension agents) in my county.	2.39	1.05	2.00	1.12	1.66	0.09
Students should not be allowed to participate in both 4-H and FFA.	1.65	1.14	1.13	0.34	2.16	0.03*
I feel like the (agricultural educators/extension agents) in my county are too busy to cooperate with me.	2.57	1.19	1.96	0.92	2.38	0.01*
I have previously tried to cooperate and it is not worth the time required.	2.23	1.08	1.57	0.78	2.86	<0.01*

Note. M=mean; SD=standard deviation

* $p < .05$.

Results by Objective

Objective 1

Objective: To compare and contrast demographic variables among 4-H extension agents and agricultural educators.

There were eight demographic questions included in the questionnaires with three questions specific to the extension agents and three questions specific to the agricultural educators.

Gender

Of the 203 respondents, 57.1% ($N=116$) were female and 42.9% ($N=87$) were male. Of the 55 extension agents who responded, 80% ($N=44$) were female and 20% ($N=11$) were male. There was a more even split in the agricultural educators with 51.4% ($N=76$) male and 48.6% ($N=72$) female respondents.

Age

The ages of the respondents were found by giving each one a choice of 25 or under, 26-35, 36-45, 46-55, or 56 and older. Figure 4-1 shows the extension agent age group break down and Figure 4-2 shows the agricultural educator age group break down. The largest group overall was the 46-55 year olds (30.7%, $N=62$) followed closely by the 26-35 year old group (28.7%, $N=58$). The 36-45 year old group was the third highest with 17.3% ($N=35$) with 56 years old and older (15.8%, $N=32$) in fourth and 25 years old or under (7.4%, $N=15$) with the smallest response. Within the extension agents, the 26-35 and 46-55 age groups were tied for the highest percent (30.9%, $N=17$), followed by 36-45 with 23.6% ($N=13$), 56 and older (9.1%, $N=5$) and 25 or under (5.5%, $N=3$). The agricultural educators followed a similar pattern as the overall breakdown by age. The highest group was 46-55 with 30.7% ($N=62$), followed by 26-35 with 28.7% ($N=58$). The agricultural educators deviated from the overall trend because the 56 or

above group had the third highest percent with 18.4% ($N=27$), pushing the 36-45 group to fourth with 15% ($N=22$) and 25 or under at 8.2% ($N=12$).

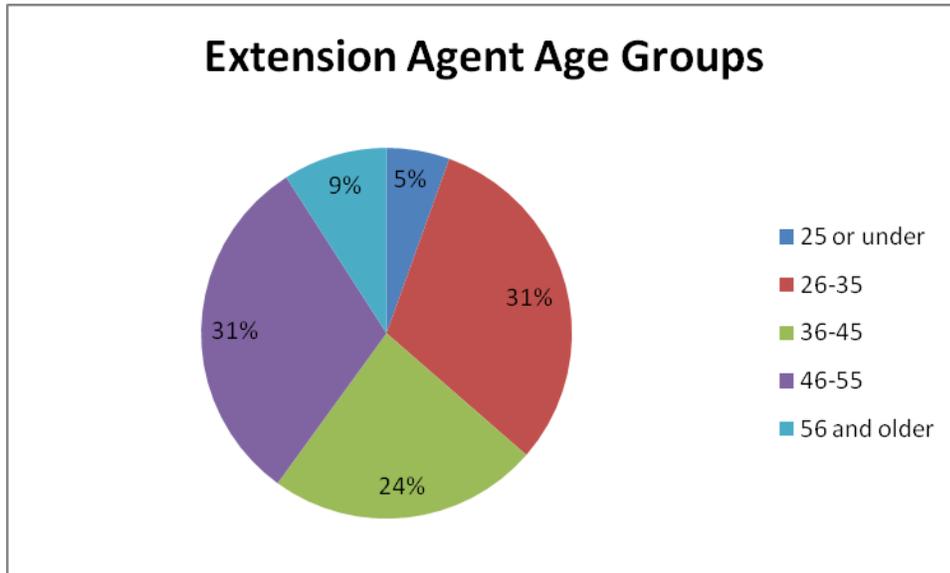


Figure 4-1. Extension agent age groups

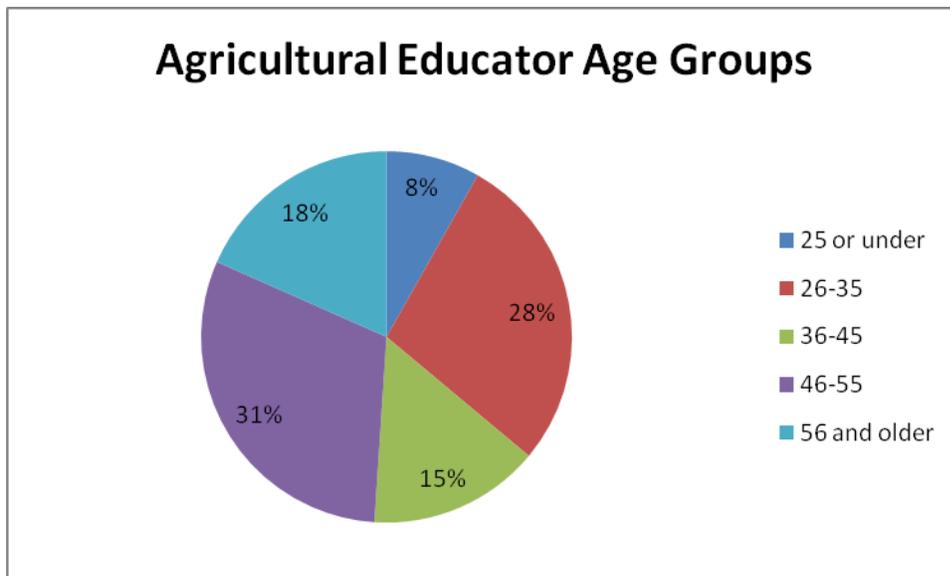


Figure 4-2. Agricultural educator age groups

Educational background

Overall, 95.5% ($N=194$) of respondents listed that they held a bachelor's degree and 4.4% ($N=9$) did not list a bachelor's degree. Of those that did not list a bachelor's degree, four were extension agents and five were agricultural educators. In Florida, a new hire must have at least a bachelor's degree to be hired as an agricultural educator or extension agent. It is therefore believed that this data is missing. There were 53.2% ($N=108$) of respondents who listed a master's degree and 46.8% ($N=95$) of respondents who did not. Of the respondents who listed a master's degree, 35.2% ($N=38$) were extension agents and 64.8% ($N=70$) were agricultural educators. There were on six respondents who reported they held a doctorate degree: two extension agents and four agricultural educators.

County population

Figure 4-3 shows extension agent county population break down and Figure 4-4 shows agricultural educator county population break down. Overall, the largest group of respondents (39.7%, $N=79$) were from counties with more than 250,000 people, followed by counties with 90,001-250,000 (26.6%, $N=53$) and counties with 25,001-90,000 (26.1%, $N=52$) and counties under 25,000 with only 7.5% ($N=15$). The agricultural educators followed the overall trend but the extension agents did not follow the overall trend. The extension agents had more respondents from counties with 25,001-90,000 than from counties with 90,001-250,000.

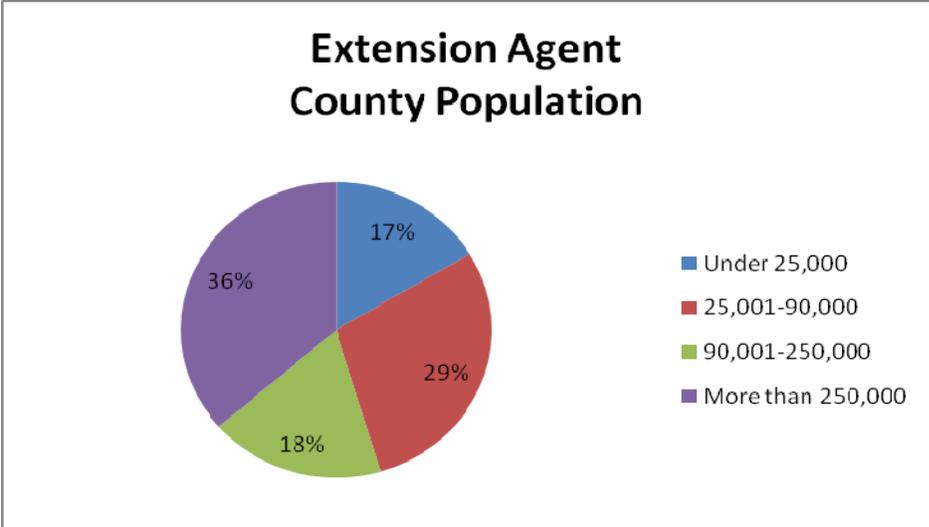


Figure 4-3. Extension agent county populations.

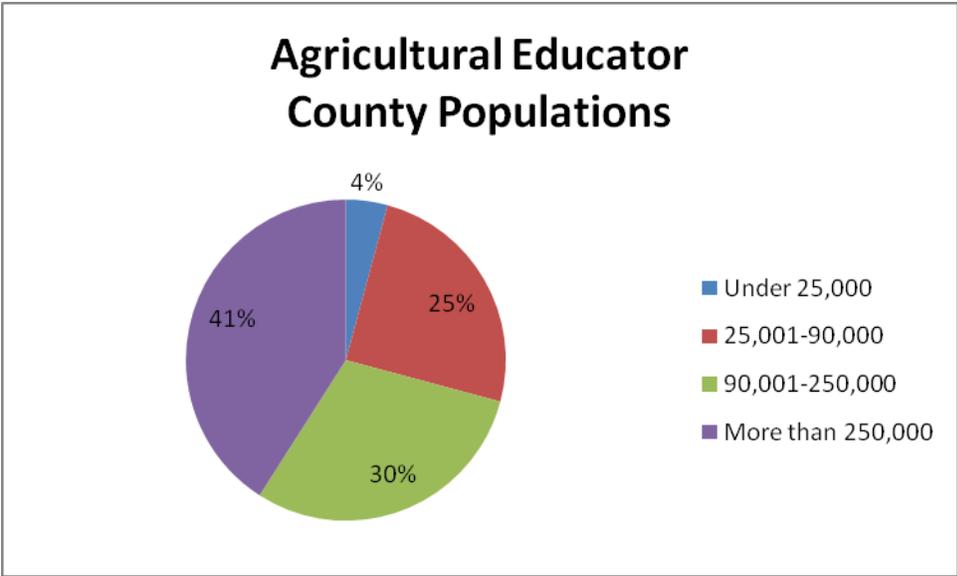


Figure 4-4. Agricultural educator county populations.

Encouragement of 4-H and the National FFA Association

The questions asked respondents if they would/do encourage their children to be involved in 4-H and FFA. For each question, respondents were given the choices of Yes, No or N/A. Of 203 respondents, 163 (80.3%) encouraged their children to be involved in 4-H while 15 (7.4%) did not and 25 (12.3%) choose N/A. Of the 55 extension agents, 52 (94.5%) encouraged involvement, one (1.8%) that did not and two (3.6%) that reported N/A. Of the 148 agricultural educators, 75% ($N=111$) encouraged involvement, 9.5% ($N=14$) did not encourage involvement and 15.5% ($N=23$) reported N/A. When asked about encouraging their children to be involved in FFA, 87.2% ($N=177$) encouraged involvement, 2% ($N=4$) did not encourage involvement and 10.8% ($N=22$) reported N/A. Of the 55 extension agents, 39 (70.9%) encouraged involvement, three (5.5%) did not encourage involvement, and 13 (23.6%) reported N/A. Of the 148 agricultural educators, 93.2% ($N=138$) encouraged involvement, 0.7% ($N=1$) did not encourage involvement, and 6.1% ($N=9$) reported N/A.

Extension specific questions: prior job experience, primary program area, percentage 4-H

There were five (5.4%) respondents who reported they had worked as an agricultural educator before and the time ranged from two to 13 years.

For the primary program area, extension agents were given the choices of agriculture/natural resources, commercial horticulture, family and consumer sciences, environmental horticulture, general agriculture, livestock, sea grant/aquatics, 4-H/youth development, and other. Table 4-2 identifies the respondents by primary program area. The majority of respondents (85.5%, $N=47$) were 4-H/youth development agents with only two agriculture/natural resources agents, four family and consumer sciences agents, one general agriculture agent and one sea grant/aquatics agent.

Table 4-2. Agent primary program area.

Primary Program Area	<i>f</i>	%
4-H/Youth Development	47	85.50
Family and Consumer Sciences	4	7.30
Agriculture/Natural Resources	2	3.60
General Agriculture	1	1.80
Sea Grant/Aquatics	1	1.80
Commercial Horticulture	0	0.00
Environmental Horticulture	0	0.00
Livestock	0	0.00
Other	0	0.00

Note. *f*=frequency.

The percentage 4-H appointment of the agents ranged from 10%-100%. Even though one of the parameters for being included in the extension agent population was at least a 20% or higher 4-H appointment, there were four agents who were below 20%. This could be due to updated 4-H appointments from the time the population frame was gathered and the questionnaire was returned, or human error. A majority (68.5%, *N*=37) of extension agents had a 100% 4-H appointment. Table 4-3 identifies extension agents by their percentage 4-H appointment.

Table 4-3. Agent 4-H appointment.

Percent 4-H appointment	<i>f</i>	%
10	3	5.60
15	1	1.90
25	2	3.70
40	2	3.70
50	4	7.40
60	2	3.70
80	2	3.70
90	1	1.90
100	37	68.50

Note. *f*=frequency.

Agricultural educator specific questions: prior job experience, primary focus area of program and type of program conducted

There were eight (5.4%) agricultural educators who reported they had worked as an extension agent prior to becoming a teacher and the time ranged from a three month internship to 20 years.

To find the primary focus area of the programs conducted, the agricultural educators were given the choices of agribusiness, agricultural mechanics, agritechnology, animal sciences, horticulture, natural resources, veterinary assistance, and other with a place to specify what it was. Table 4-4 identifies the respondents by their primary focus area. The largest group was “other” with 25.7% ($N=38$) of respondents, followed by agritechnology with 20.9% ($N=31$), horticulture with 19.6% ($N=29$), and animal sciences with 15.5% ($N=23$).

Table 4-4. Teacher primary focus area.

Primary focus area	<i>f</i>	%
Other	38	25.70
Agritechnology	31	20.90
Horticulture	29	19.60
Animal sciences	23	15.50
Veterinary assistance	10	6.80
Agribusiness	8	5.40
Natural Resources	5	3.40
Agricultural mechanics	4	2.70

Note. *f*=frequency.

Within the “other” category, the answers included agricultural biotechnology ($n=1$), aquaculture and marine science ($n=1$), district supervisor ($n=2$), some combination of the categories ($n=3$), general agriculture ($n=12$), and agriscience ($n=19$).

The final demographic was the type of program each agricultural educator conducted. There were three choices, high school, middle school, or a blended program (both high school and middle school). Respondents reported working primarily in 57.2% ($N=83$) high school programs, 32.4% ($N=47$) middle school programs, and 6.6% ($N=15$) blended.

Objective 2

Objective: To identify the self perceived level of cooperation between 4-H extension agents and agricultural educators.

To satisfy the second objective, the researcher included a section on the questionnaire that asked questions about general attitudes toward cooperation. Every respondent answered the same questions, regardless of job title, on the same Likert-like scale where 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly Agree. Table 4-5 identifies the percentage of extension agents and agricultural educators who rated all of the statements.

Table 4-5. Percent rating of general cooperation statements.

Statement	Likert-like scale rating (%)									
	SD		D		N		A		SA	
	Ext	Ed	Ext	Ed	Ext	Ed	Ext	Ed	Ext	Ed
I work best with those I have a history with.	3.60	3.40	14.50	16.20	38.20	25.00	36.40	43.20	7.30	12.20
Full participation by all parties is necessary for cooperation to occur between agricultural teachers and extension agents.	0.00	1.40	18.20	6.80	12.70	10.10	49.10	55.40	20.00	26.40
My decision to cooperate is dependent upon the other parties' characteristics such as responsibilities, personality and respect.	0.00	0.70	21.80	17.60	9.10	18.20	52.70	52.70	16.40	10.80
My decision to cooperate is based upon what I hear from others in my field.	20.00	14.90	45.50	40.50	25.50	26.40	7.30	15.50	1.80	2.70
I have previously tried to cooperate and it is not worth the time required.	23.60	31.10	47.30	27.90	21.80	30.60	5.50	3.40	1.80	6.80

Note. SD=strongly disagree; D=disagree; N=neutral; A=agree; SA=strongly agree; Ext=Extension agents; Ed=Agricultural educators.

The first statement was “I work best with those I have a history with.” Overall, 62.2% ($N=106$) agreed or strongly agreed with this statement, while 28.6% ($N=58$) were neutral and 19.2% ($N=39$) disagreed or strongly disagreed with this statement. The overall mean was 3.41 (neutral) with a standard deviation of 1.00. Of the extension agents, 43.7% ($N=24$) agreed or strongly agreed with this statement while 38.2% ($N=21$) were neutral and 18.1% ($N=10$) disagreed or strongly disagreed. More than half (55.4%, $N=82$) of the agricultural educators strongly agreed or agreed with the statement while a quarter (25%) were neutral and 19.6% ($N=29$) disagreed or strongly disagreed.

With the second statement, “Full participation by all parties is necessary for cooperation to occur between agriculture teachers and extension agents,” more than three quarters of the respondents (78.3%, $N=159$) agreed or strongly agreed. There was 10.8% ($N=22$) that reported neutral and 10.9% ($N=22$) disagreed or strongly disagreed with the statement. The overall mean was 3.93 (neutral) with a standard deviation of 0.91. From the extension agents, 69.1% ($N=38$) agreed or strongly agreed with the statement. There were 12.7% ($N=7$) who were neutral and 18.2% ($N=10$) who disagreed. There were no extension agents who strongly disagreed with this statement. Of the agricultural educators, 81.8% ($N=121$) agreed or strongly agreed with this statement while 10.1% ($N=15$) were neutral and only 8.2% ($N=12$) disagreed or strongly disagreed.

The third statement said “My decision to cooperate is dependent upon the other parties’ characteristics such as responsibilities, personality, and respect.” Overall, the respondents agreed with this statement (52.7%, $N=107$). There was only one respondent (0.7%) who strongly disagreed with this statement while 18.7% ($N=38$) disagreed, 15.8% ($N=32$) were neutral and 12.3% ($N=25$) strongly agreed. The overall mean was 3.61 (neutral) with a standard deviation of

0.95. Out of the 55 extension agents who responded, no one strongly disagreed with this statement while 21.8% ($N=12$) disagreed, 9.1% ($N=5$) were neutral, 52.7% ($N=29$) agreed, and 16.4% ($N=9$) strongly agreed. More than half (52.7%, $N=78$) of the agricultural educators agreed with the statement while 10.8% ($N=16$) strongly agreed, 18.2% ($N=27$) were neutral, and 17.6% ($N=26$) disagreed. The only person who strongly disagreed with this statement was an agricultural educator.

“My decision to cooperate is based upon what I hear from others in my field,” was the fourth statement in this section. Overall, 41.9% ($N=85$) disagreed and 16.3% ($N=33$) strongly disagreed with this statement. There were 26.1% ($N=53$) of the respondents who were neutral but only 13.3% ($N=27$) who agreed and 2.5% ($N=5$) who strongly agreed with the statement. The overall mean was 2.45 (disagree) with a standard deviation of 0.99. When broken down by job title, there were 45.5% ($N=25$) of the extension agents who disagreed and 20% ($N=11$) who strongly disagreed. Of the remaining agents, 25.5% ($N=14$) were neutral, 7.3% ($N=4$) agreed and only 1.8% ($N=1$) strongly agreed. Within the agricultural educators, 40.5% ($N=60$) disagreed and 14.9% ($N=22$) strongly disagreed with the statement. Of the remaining agricultural educator respondents, 26.4% ($N=39$) were neutral, 15.5% ($N=23$) agreed and only 2.7% ($N=4$) strongly agreed.

The final statement was “I have previously tried to cooperate and it is not with the time required.” Almost two-thirds of the respondents (33.2%, $N=67$) disagreed or strongly disagreed (29.2%, $N=59$) with this statement. Of the remaining respondents, 28.2% ($N=57$) were neutral while only 4% ($N=8$) agreed and 5.4% ($N=11$) strongly agreed with this statement. The overall mean was 2.16 (disagree) with a standard deviation of 1.07. Of the 11 respondents who strongly agreed, 10 of them were agricultural educators and only one was an extension agent.

Independent samples *t*-test were conducted on all of these questions to compare the means of extension agents and agricultural educators. The results, as shown in Table 4-6, indicate that two of the questions had a significant difference and do not fall in the same confidence intervals. The two statements with significant differences were, “My decision to cooperate is based upon what I hear from others in my field,” and “Full participation by all parties is necessary for cooperation to occur between agricultural teachers and extension agents.”

Table 4-6. Comparison of opinions of general cooperation.

Statement	Extension Agent		Agricultural Educator		<i>t</i>	<i>p</i>
	M	SD	M	SD		
I have previously tried to cooperate and it is not worth the time required.	2.12	0.90	2.18	1.13	-0.40	0.68
I work best with those I have a history with.	3.33	0.91	3.43	1.04	-0.66	0.51
My decision to cooperate is dependent upon the other parties’ characteristics such as responsibilities, personality and respect.	3.68	1.00	3.58	0.93	0.69	0.49
My decision to cooperate is based upon what I hear from others in my field.	2.23	0.90	2.53	1.01	-1.98	0.04*
Full participation by all parties is necessary for cooperation to occur between agricultural teachers and extension agents.	3.72	0.95	4.01	0.88	-2.16	0.03*

Note. M=mean; SD=standard deviation.

**p*<.05

A different type of question was asked of the respondents to get an understanding of what each person thought was the proper degree to which extension agents and agricultural educators should cooperate. Each respondent was asked to answer this question on a one to 10 scale where one was no cooperation, two was low cooperation, five was medium cooperation and 10 was high cooperation. The average was 8.22 with a standard deviation of 1.68. The scores ranged from four to 10 with a mode of eight. The average rating for extension agents was 8.25 with a standard deviation of 1.60. The average rating for agricultural educators was slightly lower at 8.21 and a standard deviation of 1.71. An independent sample *t*-test revealed no significant difference between the two groups as shown in Table 4-7.

Table 4-7. Comparison of ratings of cooperation.

Key Variable	Extension Agents		Agricultural Educators		<i>t</i>	<i>p</i>
	M	SD	M	SD		
Cooperation Rating	8.25	1.60	8.21	1.71	0.13	0.89

Note. M=mean; SD=standard deviation.

* $p < .05$

Objective 3

Objective: To identify past and present cooperative activities between 4-H extension agents and agricultural educators.

To satisfy the third objective, the questionnaire asked each responder if they participated in cooperative activities with the other profession. If the respondents answered “Yes,” the questionnaire asked questions pertaining to their previous activities. If the respondents answered “No,” the questionnaire asked questions pertaining to what would help inspire/encourage cooperation with the other profession. There were 66.5% ($N=135$) respondents who had participated in cooperative activities and 33.5% ($N=68$) who had not. Of the extension agents, 80% ($N=44$) answered “yes” and 61.5% ($N=91$) of the agricultural educators answered “yes.”

The respondents who answered Yes were asked to rate how often (1=never, 2=sometimes, 3=often, and 4=always) they cooperated with the other profession on different activities. Table 4-8 identifies the frequency of each answer by job title.

Table 4-8. Percentage of cooperation by activity and job title.

Activities	How often cooperation occurred (%)							
	Never		Sometimes		Often		Always	
	Ext	Ed	Ext	Ed	Ext	Ed	Ext	Ex
County/State Fair	4.70	2.20	20.90	20.90	30.20	27.50	44.20	49.50
Educational programs	18.20	21.10	40.90	46.70	27.30	17.80	13.60	14.40
Judging contests	11.40	8.90	36.40	25.60	34.10	32.20	18.20	33.30
Share resources	6.80	15.60	38.60	46.70	25.00	18.90	29.50	18.90
Community Service	44.20	42.20	37.20	28.90	11.60	16.70	7.00	12.20
Recruiting students/members	43.30	55.70	34.10	25.00	15.90	11.40	6.80	8.00

Note. Ext=Extension agents; Ed=Agricultural educators.

The respondents were first asked about their cooperation at the county/state fairs. Almost half of the respondents answered “always” (47.8%, $N=64$), as 28.4% ($N=38$) of respondents answered “often,” 20.9% ($N=28$) reported “sometimes,” and 3% ($N=4$) reported “never”. The overall mean was 3.21 (often) with a standard deviation of 0.87. Both groups followed the same trend as the overall respondents did. Extension agents and agricultural educators answered “always” 44.2% ($N=19$) and 45.5% ($N=45$) of the time.

When asked about their cooperation when conducting educational programs, almost half (44.8%, $N=60$) of the respondents reported “sometimes” while 20.9% ($N=28$) reported “often,” 20.1% ($N=27$) reported “never” and only 14.2% ($N=19$) reported “always.” The overall mean was 2.29 (sometimes) with a standard deviation of 0.94. When broken down by job title, the extension agents rated “sometimes” the most often (40.9%, $N=18$), followed by “often” (27.3%, $N=12$), “never” (18.2%, $N=8$) and finally “always” (13.6%, $N=6$). The agricultural educators had the same highest rating of “sometimes” with 46.7% ($N=42$) followed by “never” with 21.1% ($N=19$), “often” (17.8%, $N=16$), and always (14.4%, $N=13$).

Judging contests were rated the highest as “often” (32.8%, $N=44$) while “sometimes” (29.1%, $N=39$) and “always” (28.4%, $N=38$) came in second and third place followed by “never” with 9.7% ($N=13$). The overall mean was 2.80 (sometimes) with a standard deviation of 0.96. The extension agents did not follow the overall trend because “sometimes” had the highest percent of responses (36.4%, $N=16$) followed by “often” (34.1%, $N=15$), “always” (18.2%, $N=8$), and “never” with 11.4% ($N=5$). The agricultural educators did not follow either trend but rated “always” first with 33.3% ($N=30$), “often” second with 32.2% ($N=29$), “sometimes” third with 25.6% ($N=23$), and “never” with 8.9% ($N=8$).

When asked if the respondents shared resources with the other profession, “sometimes” (44%, $N=59$) was the option chosen the most by respondents, followed by “always” (22.4%, $N=30$), “often” (20.9%, $N=28$) and “never” (12.7%, $N=17$). The overall mean was 2.53 (often) with a standard deviation of 0.97. Both extension agents and agricultural educators followed the same trend as the overall respondents. The extension agents rated “sometimes” the most with 38.6% ($N=17$), followed by “always” with 29.5% ($N=13$), “often” 25% ($N=11$), and “never” with 6.8% ($N=3$). Agricultural educators rated “sometimes” highest with 46.7% ($N=42$), “often” and “always” tied for second with 18.9% ($N=17$), and never with 15.6% ($N=14$).

Almost half (42.9%, $N=57$) of the yes respondents answered “never” when asked about cooperating during community service projects. “Sometimes” came in at 31.6% ($N=42$), “often” was 15% ($N=14$) and “always” was the lowest with 10.5% ($N=14$). The overall mean was 1.93 (sometimes) with a standard deviation of 1.00. The breakdown of extension agents and agricultural educators was the same as the overall trend.

The activity that was rated as having the least amount of cooperation was the recruitment of new students/members into 4-H and FFA. More than half (51.5%, $N=68$) of the respondents reported they “never” cooperated on these activities while 28% ($N=37$) answered “sometimes.” There were 12.9% ($N=17$) of the respondents that answered “often” and only 7.6% ($N=10$) reported “always.” The overall mean was 1.77 (never) with a standard deviation of 0.94. The extension agents and agricultural educators followed the overall trend of rating cooperation as “never” the most often. Extension agents had “never” as 43.2% ($N=19$), “sometimes” as 34.1% ($N=15$), “often” as 15.9% ($N=7$) and “always” as 6.8% ($N=3$). Agricultural educators had “never” at 55.7% ($N=49$), “sometimes” as 28% ($N=37$), “often” as 12.9% ($N=17$) and “always” as 7.6% ($N=10$).

After looking at all of the activities that respondents were asked to rank, county/state fairs had the highest mean of cooperation rate with 3.21 (often) followed by sharing resources with 2.80 (sometimes). Educational programs came in at third with a mean of 2.53 (sometimes) while the judging contests mean was 2.29 (sometimes), community service had a mean of 1.93 (never) and recruitment of new students/members had a mean of 1.77 (never). Table 4-9 shows the mean ratings by activity.

Table 4-9. Overall mean rating by activity.

Activity	M	SD
County/State Fair	3.21	0.87
Sharing resources	2.80	0.96
Educational programs	2.53	0.97
Judging contests	2.29	0.94
Community service projects	1.93	1.00
Recruitment of new students/members	1.77	0.94

Note. M=mean; SD=standard deviation.

Objective 4

Objective: To identify factors related to levels of cooperation among 4-H extension agents and agricultural educators.

To satisfy this objective, questions were asked relating to the importance of certain factors in the cooperation relationship between extension agents and agricultural educators. When respondents answered the question “Do you participate in cooperative activities with extension agents/agricultural educators?” as yes or no, the questionnaire switched into a swip pattern. The respondents who answered yes were asked questions about their current and past cooperative relationship while the others who answered no were asked questions pertaining to why they did not current cooperate and what factors would be important for cooperation to occur.

The respondents who reported yes to participating in cooperate activities were given seven items to rank the importance (1=Not very important, 2=Not important, 3=Neutral, 4=Important,

and 5=Very important) of in their cooperative relationship. The seven factors were: (a) increased value to youth; (b) personal satisfaction; (c) improved professional relationships; (d) greater ability to specialize in area(s) of interest; (e) to make activities more enjoyable; (f) satisfy my supervisor(s); and (g) physical distance between offices. Table 4-10 shows the ratings of all the factors. The factors with the highest means were increased value to youth ($M=4.34$, $SD=0.80$), improved professional relationship ($M=4.18$, $SD=0.73$), and to make activities more enjoyable ($M=4.03$, $SD=0.76$). The factors that had the lowest means were physical distance between offices ($M=2.99$, $SD=1.17$) and to satisfy my supervisor(s) ($M=2.40$, $SD=1.13$).

Table 4-10. Importance rating and mean for those currently cooperate.

Factors	Likert-like Scale of Agreement						
	NVI	NI	N	I	VI	M	SD
Increased value to youth	1.50	2.20	5.20	43.00	48.10	4.34	0.80
Improved professional relationships	0.70	1.50	10.40	53.70	33.60	4.18	0.73
To make activities more enjoyable	1.50	2.20	11.90	60.40	23.90	4.03	0.76
Greater ability to specialize in area(s) of interest	1.50	2.20	19.40	50.00	26.90	3.99	0.83
Personal satisfaction	5.20	3.70	34.10	37.80	19.30	3.62	1.00
Physical distance between offices	14.90	14.90	35.10	26.00	9.00	2.99	1.17
Satisfy my supervisor(s)	29.10	19.40	38.80	7.50	5.20	2.40	1.13

Note.; NVI=not very important; NI=not important; N=neutral; I=important; VI=very important M=mean; SD=standard deviation.

The respondents who answered no to participating in cooperative activities were asked what factors would positively influence their cooperative relationship. The factors were: (a) greater professional recognition; (b) increased value to youth; (c) more effective time usage; (d) personal satisfaction; (e) enhancing subject area; (f) improved professional relationships; (g) greater ability to specialize in area(s) of interest; (h) to make activities more enjoyable; (i) satisfy my supervisor(s); and (j) physical distance between offices. Table 4-11 shows the ratings of agreement and mean for all factors. The factors with the highest mean were enhancing subject area ($M=4.21$, $SD=0.61$), increased value to youth ($M=4.19$, $SD=0.67$), and to make activities

more enjoyable $M= (4.12, SD=0.68)$. The factor with the lowest mean was to satisfy my supervisor(s) ($M=2.74, SD=0.94$).

Table 4-11. Agreement scale and mean for those not currently cooperating.

Factors	Likert-like Scale of Agreement						
	SD	D	N	A	SA	M	SD
Enhancing subject area	0.00	0.00	10.30	58.80	30.90	4.21	0.61
Increased value to youth	0.00	1.50	10.30	55.90	32.40	4.19	0.67
To make activities more enjoyable	0.00	0.00	17.60	52.90	29.40	4.12	0.68
Greater ability to specialize in area(s) of interest	0.00	0.00	19.10	54.40	26.50	4.07	0.67
More effective time usage	0.00	0.00	20.60	52.90	26.50	4.06	0.68
Improved professional relationships	0.00	1.50	19.10	58.80	20.60	3.99	0.68
Personal satisfaction	1.00	1.50	41.20	48.50	7.40	3.59	0.71
Physical distance between offices	5.90	7.40	45.60	27.90	13.20	3.35	1.00
Greater professional recognition	4.50	10.40	41.80	32.80	10.40	3.34	0.96
Satisfy my supervisor(s)	14.70	14.70	54.40	14.70	1.50	2.74	0.94

Note. SD=strongly disagree; D=disagree; N=neutral; A=agree; SA=strongly agree

The final question for the respondents who answered no to participating in cooperative activities asked what factors had affected their decision not to cooperate. Table 4-12 shows the ratings of agreement and means for all the factors. The statements with the highest means were “I do not have time to work with the extension agent/agricultural educator in my county” ($M=3.02, SD=1.18$) and “I am too busy to work with the extension agent/agricultural educator in my county” ($M=3.01, SD=1.09$). The statement that had the lowest mean was “I am not aware of any extension agents/agricultural educators in my county” ($M=2.28, SD=1.30$).

Table 4-12. Reasons for not cooperating.

Factors	Likert-like Scale of Agreement (%)						
	SD	D	N	A	SA	M	SD
I do not have time to work with the extension agent/agricultural educator in my county.	10.60	25.80	25.80	27.30	10.60	3.02	1.18
I am too busy to work with the extension agent/agricultural educator in my county.	10.40	20.90	31.30	31.30	6.00	3.01	1.09
The extension agent/agricultural educator in my county are not responsive to change.	7.60	13.60	62.10	7.60	9.10	2.97	0.94
The extension agent/ agricultural educator in my county do not want to cooperate on activities.	12.10	21.20	48.50	7.60	10.60	2.83	1.00
I have never considered cooperating with the extension agent/ agricultural educator in my county.	25.00	32.40	17.60	22.10	2.90	2.46	1.10
The extension agents/agricultural educators in my county and I do not work well together	27.50	25.00	38.20	2.90	5.90	2.34	1.10
I am not aware of any extension agents/ agricultural educators in my county.	37.30	28.40	14.90	7.50	11.90	2.28	1.30

Note. SD=strongly disagree; D=disagree; N=neutral; A=agree; SA=strongly agree; M=mean; SD=standard deviation.

Objective 5

Objective: To identify the knowledge and perceptions about the 4-H and FFA programs from the perspective of the 4-H extension agents and agricultural educators.

The researcher had two sections on the questionnaire to satisfy this objective. The first section contained questions that tried to find each respondent’s perceptions about the 4-H and FFA organizations. The second section asked specific knowledge questions about the 4-H and FFA programs.

Perceptions

The first section contained four statements that discussed various aspects of the 4-H and FFA programs. Each respondent was asked to answer each statement on a Likert-like scale (1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree). Table 4-13 identifies the frequencies of the ratings for each of the statements.

Table 4-13. Ratings for each perception statement by job title.

Statement	Likert-like scale rating (%)									
	SD		D		N		A		SA	
	Ext	Ed	Ext	Ed	Ext	Ed	Ext	Ed	Ext	Ed
4-H and FFA share the same general goals for youth development.	3.60	0.70	21.80	9.50	16.40	16.90	40.00	48.00	18.20	25.00
I feel that many youth make a choice between participating in either 4-H or FFA.	9.10	6.80	9.10	15.50	12.70	14.90	30.90	43.90	38.20	18.90
I feel like I'm competing with 4-H/FFA for participants.	18.20	26.70	20.00	32.20	18.20	18.50	34.50	15.80	9.10	6.80
Students should not be allowed to participate in both 4-H and FFA.	76.40	64.20	12.70	16.90	5.50	6.80	1.80	6.10	3.60	6.10

Note. SD=strongly disagree; D=disagree; N=neutral; A=agree; SA=strongly agree; Ext=Extension agent; Ed=Agricultural educator.

The first statement, “4-H and FFA share the same general goals for youth development,” had almost half of all the respondents (45.8%, $N=93$) agreeing while 23.2% ($N=47$) strongly agreed. Thirty-four (16.7%) were neutral while 12.8% ($N=26$) disagreed and 1.5% ($N=3$) strongly disagreed. The extension agents and agricultural educators followed the same trend as the overall respondents.

The next question “I feel that many youth make a choice between participating in either 4-H or FFA” had 40.4% ($N=82$) respondents agreeing and 24.1% ($N=49$) strongly agreeing. There were 14.3% ($N=29$) that were neutral and 13.8% ($N=28$) that disagreed and only 7.4% ($N=15$) that strongly disagreed. When looking at the results of this question by job title, there were 38.2% ($N=21$) of extension agents that strongly agreed, 30.9% ($N=17$) who agreed while 12.75% ($N=7$) were neutral and 18.2% ($N=10$) disagree or strongly disagreed. More agricultural educators agreed (43.9%, $N=65$) than strongly agreed (18.9%, $N=28$), while 14.9% ($N=22$) were neutral and 22.4% ($N=33$) disagreed or strongly disagreed.

The third statement was “I feel like I’m competing with 4-H/FFA for participants.” The extension agent question said FFA and the agricultural educator question said 4-H. This statement had over half of the respondents disagreeing (28.9%, $N=58$) or strongly disagreeing (24.4%, $N=49$). There were 18.4% ($N=37$) who were neutral and only 28.4% ($N=57$) who agreed or strongly agreed. The extension agents agreed with this statement (34.5%, $N=19$) more than the agricultural educators did (15.8%, $N=23$). The agricultural educators disagreed (32.2%, $N=47$) and strongly disagreed (26.7%, $N=39$) more than the extension agents (20%, $N=11$ and 18.2%, $N=10$).

The final question on the first part of this objective stated: “Students should not be allowed to participate in both 4-H and FFA.” Even though some of the respondents thought they were

competing with the other organization for participants, more than two-thirds of the respondents strongly disagreed with this statement. There were 15.8% ($N=32$) who disagreed while only 6.4% ($N=13$) were neutral and 10.3% ($N=22$) agreed or strongly agreed. The extension agents followed the same overall general trend. The agricultural educators had high strongly disagree and disagree numbers but had 6.8% ($N=10$) neutral and 6.1% ($N=9$) agree and strongly agree for this statement.

Independent samples *t*-test were conducted on these four questions to compare the means of extension agents and agricultural educators. The results, as shown in Table 4-14 indicate that two of the questions had a significant difference so the means do not fall in the same confidence interval. The two statements were “4-H and FFA share the same general goals for youth development,” and “I feel like I’m competing with 4-H/FFA for participants.”

Table 4-14. Comparison by job title for objective five.

Statement	Extension Agent		Agricultural Educator		<i>t</i>	<i>p</i>
	M	SD	M	SD		
I feel that many youth make a choice between participating in either 4-H or FFA.	3.77	1.28	3.53	1.18	1.29	0.19
Students should not be allowed to participate in both 4-H and FFA.	1.42	0.92	1.66	1.15	-1.48	0.13
4-H and FFA share the same general goals for youth development.	3.45	1.11	3.91	0.92	-3.13	<0.01*
I feel like I’m competing with 4-H/FFA for participants.	2.92	1.27	2.43	1.23	2.60	0.01*

Note. M=mean; SD=standard deviation.

* $p < .05$.

Knowledge

For the second section, extension agents were asked three true/false questions about the FFA organization. The first question was “The goal of FFA is to prepare students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber, and natural

resources systems.” This statement is true and 94.5% ($N=52$) of the extension agents answered correctly. There were three (5.5%) respondents that answered false.

The second statement was “FFA has a national, state, and local level of operation.” This statement is also true and 96.4% ($N=53$) answered correctly while 3.6% ($N=2$) answered false. The final statement said “Youth can join FFA starting at the age of nine.” This statement is false because youth can not join FFA until they are in 6th grade. Forty-five of the extension agents (81.8%) were able to correctly answer false to this statement while 18.2% ($N=10$) answered true.

The agricultural educators had a similar second section with three true/false questions. The first statement, “The goal of 4-H is to create supportive environments outside the school system for diverse youth and adults to reach their fullest potential,” was a true statement. There were 93.8% ($N=137$) agricultural educators who answered correctly while only 6.2% ($N=9$) answered false. The second statement said “4-H has a national, state, and county level of operation.” This statement is also true and 93.8% ($N=136$) answered correctly while 6.2% ($N=9$) reported false. The final statement said “Youth can join 4-H as early as the age of seven in Florida.” This statement is true because youth may join 4-H at the age of seven in Florida. There were 81.1% ($N=116$) agricultural educators who answered this statement correctly while 18.9% ($N=27$) answered false.

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter summarizes the study and discusses the conclusions, implications and recommendations that have been drawn from the study. The first section of this chapter will offer a brief overview of the purpose, objectives, and methodology for this study. The following section will discuss and draw conclusions for each objective. The final section will include implications for practice and suggestions for future research.

Purpose and Objectives of the Study

The purpose of this study was to describe the level of cooperation between Florida county extension agents with a 20% or higher 4-H appointment and Florida agricultural educators who advise FFA programs.

The objectives of this study were:

1. To compare and contrast demographic variables among 4-H extension agents and agricultural educators
2. To identify the self perceptions of the level of cooperation between 4-H extension agents and agricultural educators
3. To identify past and present cooperative activities between 4-H extension agents and agricultural educators
4. To identify factors related to levels of cooperation among 4-H extension agents and agricultural educators
5. To identify the knowledge and perceptions about the 4-H and FFA programs from the perspective of the 4-H extension agents and agricultural educators

Methodology

The study was a descriptive study that took the form of a single-method research design as defined by Ary, Jacobs, and Razavieh (2002). The researcher used two Web-based

questionnaires to conduct a census survey of all Florida extension agents with a 20% or higher 4-H appointment and of all school-based agricultural educators in Florida.

The researcher obtained the list of current extension personnel along with their percentages of appointments from the County Operations Office at the University of Florida. The population of extension agents was 106. The researcher obtained the list of current agricultural educators from the 2006 Florida Agricultural Education Directory ($N=333$).

The researcher developed two questionnaires in Zoomerang© modified from instruments that Ricketts and Place (2005) and Bruce and Ricketts (in press) used in previous studies. Slightly different versions of the base questionnaire were developed for each of the two study populations.

The researcher used Statistical Package for the Social Sciences (SPSS®) 14.0 for Windows for the analysis. Descriptive statistics including central tendencies and frequencies along with *t*-tests were used to analyze the data describing the level of cooperation between Florida extension agents and Florida agricultural educators.

General Discussion and Conclusions

Objective 1

Objective: To compare and contrast demographic variables among 4-H extension agents and agricultural educators.

The demographics observed in this study, gender, age, encouragement of 4-H, encouragement of FFA, degrees held (bachelor's, master's, and doctorate), county population, prior job experience, primary program area, 4-H percentage appointment, and type of program conducted were chosen to see how similar or different the two populations were in Florida. With regards to gender, there were significantly more female extension agents (80%) than male

extension agents (20%) but a more even split in the agricultural educators (51.4% males and 48.6% females).

When looking at age ranges, both groups had the highest percent of responders in the 46-55 years old range with 26-35 years old age range with the second highest percent. There were few respondents who were under 25 in both groups. The biggest difference in the age ranges was in the 56 and older category. There were only five (9.1%) extension agents in that age range but there were 27 (18.4%) agricultural educators in that age range.

Education background revealed that 95.5% of the respondents held at least a bachelor's degree. There were 53.2% ($N=108$) who listed a master's degree and only six who reported holding a doctorate degree. Of the 108 respondents who held a master's degree, 38 were extension agents and 70 were agricultural educators. Of the six respondents who reported holding a doctorate degree, two were extension agents and four were agricultural educators.

The county population demographic question found that more than one-third (36.4%) of the extension agents and 41% of the agricultural educators worked in a county with more than 250,000 people. This could be because of the higher the county population, the more positions and funding there are available for agents and educators within those counties.

The final two demographic questions asked if the respondents would/do encourage their children to be involved in 4-H and FFA. Of 203 respondents, 163 (80.3%) answered yes to encouraging their children to be involved in 4-H. One extension agent said no to encouraging his/her children to be involved in 4-H. Of the agricultural educators, 75% ($N=111$) reported yes to encouraging participation in 4-H.

When asked about encouraging their children to be involved in FFA, 87.2% ($n=177$) of the respondents reported yes. Of the 55 extension agents, 39 (70.9%) reported yes and of the 148

agricultural educators, 93.2% ($N=138$) reported yes. One agricultural educator reported no to encouraging his/her children to participate in FFA.

It can be concluded that there are differences in the two respondent populations but many similarities can be found in age, educational background, county population, and encouragement of 4-H and FFA participation. Although Diatta and Luft (1986) found that age difference had a slight negative effect in their study, the ages of both populations are similar. There does seem to be a large gender difference in the populations but that could be due to nonresponse error. Because of these similarities, it is plausible to conclude that cooperation could be increased (Diatta & Luft, 1986; Ricketts & Place, 2005).

This study did not ask the race or ethnicity of the respondents because Johnson and Johnson's (1972) study found that race did not have an effect on cooperation between two individuals. However, Johnson and Johnson did find that partners who had similar attitudes and beliefs worked more cooperatively together.

Objective 2

Objective: To identify the self perceived level of cooperation between 4-H extension agents and agricultural educators.

For the second objective, the same questions were asked to each respondent regarding their general attitude toward cooperation. Respondents rated the five statements on a Likert-like scale. The statements "I have previously tried to cooperate and it is not worth the time required (Statement 5)," and "My decision to cooperate is based upon what I hear from other in my field (Statement 4)," had means in the disagree category ($M=2.12$ and $M=2.23$). The other three statements' means were in the neutral category. Those statements were, "I work best with those I have a history with (Statement 1)," "My decision to cooperate is dependent upon the other parties' characteristics such as responsibility, personality, and respect (Statement 3)," and "Full

participation by all parties is necessary for cooperation to occur between agricultural teachers and extension agents (Statement 2).”

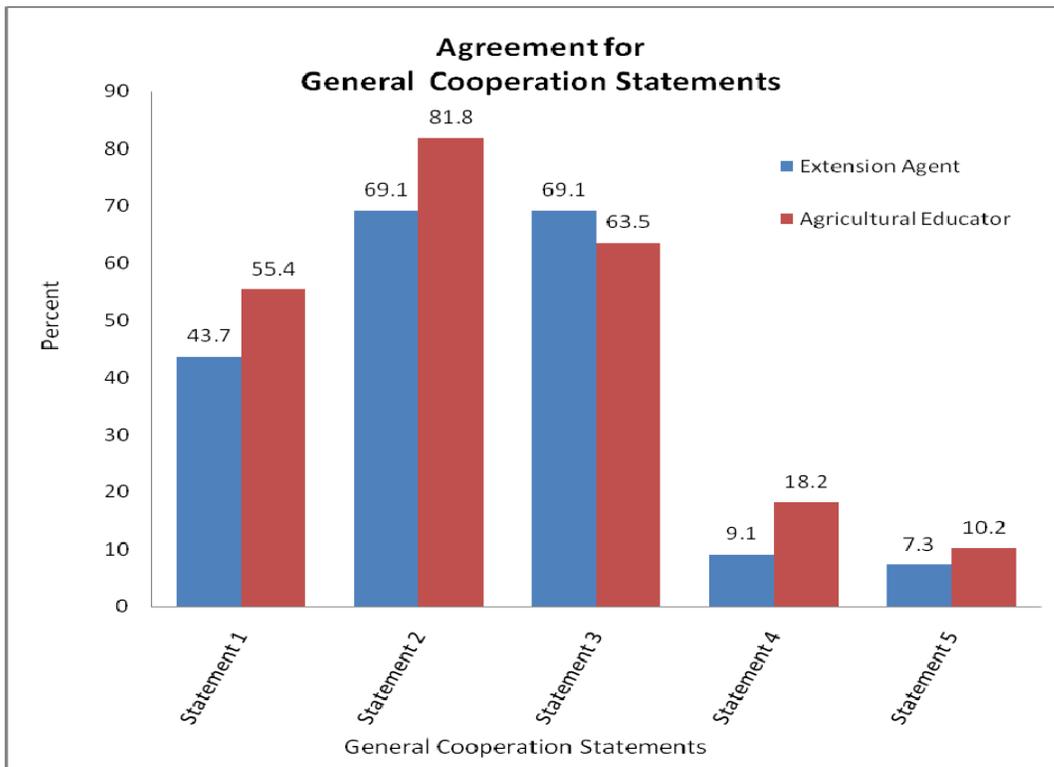


Figure 5-1. Percentage of “Agree” for general cooperation statements by job title.

From the ratings of these statements, it is concluded that the respondents are not sure what exactly causes cooperation, but they do know what influences cooperation. The two statements with the highest means, “Full participation by all parties is necessary for cooperation to occur between agricultural teachers and extension agents,” ($M=3.72$) and “My decision to cooperate is dependent upon the other parties’ characteristics such as responsibility, personality, and respect,” ($M=3.68$) demonstrate the type of relationship the respondents want to have in a cooperative relationship.

The final question asked to respondents for this objective was to rank on a scale of 1 to 10, where 1 was no cooperation, 2 was low cooperation, 5 was medium cooperation, and 10 was high cooperation, the degree that extension agents and agricultural educators should cooperate.

The overall mean was 8.22 with a standard deviation of 1.68. It is concluded that the respondents think that a cooperative relationship should be in place between extension agents and agricultural educators.

An independent sample *t*-test was conducted to compare the means of extension agents and agricultural educators for this question. The extension agent mean was 8.25 with a standard deviation of 1.60 and the agricultural educator mean was 8.21 with a standard deviation is 1.71. The *t*-test *p*-value showed no significant difference ($\alpha=0.89$) in the means. From this test, it is concluded that the two respondent populations share similar ideas when it comes to determining the degree to which cooperation should occur between the two groups. The findings of this study are similar to those of Ricketts and Place (2005).

Objective 3

Objective: To identify past and present cooperative activities between 4-H extension agents and agricultural educators.

One of the most important questions used to satisfy this objective was asking each respondent if they cooperated with extension agents/agricultural educators in their counties. Two-thirds of the respondents said that they did participate in cooperative activities with the other profession. When broken down by job title, 80% of the extension agents and 61.5% of the agricultural educators said they cooperated. This corresponds closely with the numbers Ricketts and Place (2005) found but in their study, 72% of their sample extension agents and 80% of their sample agriculture teachers stated they cooperated.

After finding how many of the responders participated in cooperative activities, they were asked to rate how often they cooperated with the other profession for six different activities. As shown by the previous research, cooperation was highest at the county and state fairs but was the lowest in recruiting students (Ricketts & Place, 2005). Other similar findings to their study were

the high rating of sharing resources and the low rating of cooperative community service programs. One of the main differences found in this study compared to the study done by Ricketts and Place (2005) was that educational programs had the third highest mean of how often cooperation occurred but had minimal cooperation in their study.

Diatta and Luft (1986) had similar findings in their study although their study looked at a more defined type of cooperation between agents and educators for specific areas (crops, livestock, agricultural mechanics, etc). They found that cooperation occurred most often when working with FFA or 4-H activities. Diatta and Luft (1986) and Ricketts and Place (2005) had similar findings in that judging contests were rated high for cooperation but in this study, judging contests were not rated very high in cooperation.

Objective 4

Objective: To identify the factors that explains the level of cooperation among 4-H extension agents and agricultural educators.

For this objective, respondents were first asked if they participated in cooperative activities. The respondents who answered “yes” were then asked to rate the importance of seven factors in their cooperative relationship on a Likert-like scale. The factors that were rated the most important were increased value to youth ($M=4.34$), improved professional relationship ($M=4.18$) and to make activities more enjoyable ($M=4.03$). The factors that had the lowest means, therefore the least important of the seven factors, were physical distance between offices ($M=2.99$) and to satisfy my supervisor ($M=2.40$). For the respondents who answered “no” to participating in cooperative activities, they were asked to rate ten factors that would have the most influence if they were to develop a cooperative relationship. The factors with the highest means were enhancing subject area ($M=4.21$), increased value to youth ($M=4.19$) and to make activities more enjoyable ($M=4.12$). The factors with the lowest means were to satisfy my

supervisor ($M=2.74$), greater professional recognition ($M=3.34$) and physical distance between offices ($M=3.35$).

When comparing the most important factors for those who do and not participate in cooperative activities, the findings are similar. Table 5.1 shows the breakdown by those who participate and those who do not participate in cooperative activities. The ratings for both groups show the most important factors for cooperation were focused on youth and improving their professional relationship with the other party.

Table 5.1. Mean ratings for important factors by those who already participate in cooperative activities and those who do not currently participate in cooperative activities.

Factors	Yes M	No M
Increased value to youth	4.34	4.19
Improved professional relationships	4.18	3.99
To make activities more enjoyable	4.03	4.12
Greater ability to specialize in area(s) of interest	3.99	4.07
Personal satisfaction	3.62	3.59
Physical distances between offices	2.99	3.35
Satisfy my supervisor(s)	2.40	2.74
Enhancing subject area	-	4.21
More effective time usage	-	4.06
Greater Professional recognition	-	3.34

Note. M=mean.

One of the results that does not match the previous literature is the physical distance between offices. Diatta and Luft's (1986) study found that the shorter the distance between offices (less than 20 miles), the more positive this factor was rated. They also found that the longer the distance between offices (more than 20 miles), the more negatively this factor was rated for a cooperative relationship. This study did not specify a specific distance but neither group rated physical distance between offices as very important.

The final section of this objective was satisfied by asking those respondents who did not participate in cooperative activities what factors kept them from choosing to cooperate. None of

the statements had a mean rating of agree or strongly agree which lead the research to conclude that the respondents either did not know or could not pinpoint why they do not cooperate or they have other reasons than the ones given. Another conclusion that can be drawn from this section is that most of the respondents had knowledge and had thought about cooperating with the professionals in their county, but a relationship had never been formed for other reasons than those listed. The two statements that dealt with time had the highest means of the section but were rated as neutral on the Likert-like scale (3.02 and 3.01).

Objective 5

Objective: To identify the knowledge and perceptions about the 4-H and FFA programs from the perspectives of the 4-H extension agent and agricultural educators.

To find the perceptions that extension agents and agricultural educators held about the 4-H and FFA programs, each respondent was asked to rate, on a Likert-like scale, how much they agreed or disagreed with four statements that discussed various aspects of the two programs. Both populations agreed or strongly agreed that 4-H and FFA share the same general goals for youth development. This finding coincides with Tjosvold's (1988) finding that stated if employees thought their goals were similar to their coworkers, they were more trusting, exchanged information and resources, worked efficiently and productively and developed confidence in future collaboration.

When asked if they thought youth made a decision to be involved in 4-H or FFA, almost half of the respondents reported that they agreed and another quarter of the respondents strongly agreed with this statement. Even though almost half of the respondents reported they felt youth made a decision between the two organizations, when asked if they thought they were competing for participants, over half of the respondents reported disagree or strongly disagree. This disagreement in the two statements could be due to respondents thinking that the age ranges for

the two organizations are extremely different. Youth can join 4-H at the age of seven but can not join FFA until sixth grade (around 12-years-old).

The final statement, “Students should not be allowed to participate in both 4-H and FFA,” had more than 2/3 of the respondents strongly disagreeing. This shows that a majority of respondents believe that youth should be given the choice to join one or both of the organizations.

It is concluded that agents and educators in this study perceive both programs as valuable to youth. Even though many respondents feel that youth do make a choice in their participation, the respondents do not want to force this choice or deny the youth the opportunity of either program.

The other part of this objective was to find the knowledge that extension agents had about the FFA organization and to find the knowledge that agricultural educators had about the 4-H organization. For the extension agents, three true/false questions were asked. The first statement gave the goal of FFA and 94.5% of the agents answered correctly. The second statement said FFA had national, state and local levels of operation. More agents (96.4%) answered this question correctly. The final statement asked about the age in which youth could join FFA. The statement said nine, which is false and a slightly lower, but still a majority (81.8%), of agents gave the correct answer.

The knowledge of the agricultural educators was derived by the same general questions about the 4-H program. The goal of 4-H was given and 93.8% of the educators got the question correct. The second statement said 4-H had national, state and county levels of operation (true) and 93.8% got this questions correct. The final question, that asked about the joining age of 4-H, had a slightly lower (81.1%) percent of correct responses.

It is concluded that most of the extension agents and agricultural educators have the basic knowledge of the 4-H and FFA programs. Although fine details are not as widely known, the general idea of both organizations is known by the two professions.

Implications and Recommendations

There has been little research conducted to determine the cooperative relationship between Florida 4-H extension agents and Florida agricultural educators. Because the responsibilities of extension agents and agricultural educators are similar and the 4-H and FFA programs are similar, these professional educators and participating youth can benefit from cooperation (Gamon, 1994).

The problem of minimal cooperation between the two professions has occurred in youth programming for many years (Grage, Place, & Ricketts, 2004). Seevers (1994) stated that agriculture teachers and extension agents need to work closely with communities, business and industry, government agencies, and each other in order to remain on the cutting edge of the agricultural field.

The findings of this study can help educators and administrators prepare and advise future extension agents and agricultural educators on how to successfully integrate cooperation into the extension/4-H and school-based agriculture education/FFA programs. By instructing future agents and educators on the benefits of cooperation, they can choose to increase the level of cooperation and collaboration which would benefit the youth and communities they serve and their professional relationships. This would help extension agents and agricultural educators remain on the cutting edge of the agricultural field.

The key finding from this study were that both populations were looking for someone who can reciprocate and equally exchange time and resources with them. The respondents on this questionnaire were able to point out that they wanted to have a cooperative relationship but some

did not know how to orchestrate the process. This study found the two populations were similar in age, educational background, county populations, and opinions of encouragement in 4-H and FFA. The study found that physical distance between offices was not a very important factor in maintaining or forming a cooperative relationship. Although most cooperation can be found at county and state fairs, there is room to grow in community service activities and recruiting students. The findings have given a clearer picture of what is helping the cooperation relationship between extension agents and agricultural educators.

The findings of this study correspond to Deutsch's (1949) theory of cooperation and competition. When groups are able to work cooperatively, there is more coordination of efforts, division of labor, attentiveness to fellow members, common appraisals of communications, productivity, quality of product and discussion, and friendliness. All of these factors were wanted in a cooperative relationship by the extension agents and agricultural educators. Not only do these characteristics influence the agent and educator but they will influence the youth involved in both programs. A finding from Thomas' (1957) study concluded that if groups worked cooperatively together with a division of labor, the chances of reaching the goal increased.

A final implication from this study was that cooperation was being pushed on 4-H agents and agricultural educators when these two groups might not be where the most effective cooperation could occur. If an agricultural educator has a question regarding livestock for his/her judging team, that educator would probably ask the livestock agent, not the 4-H agent, for help or information. This study is a good example of how this is happening. The natural relationship that could/is be developed between 4-H agents and agricultural educators is possible and does

happen, but it should not be forced on every aspect of both programs. It should be up to the agents and educators which aspects of their programs they choose to cooperate on.

Recommendation for Practioners

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

- Encourage cooperation on activities at more than just the county/state fairs and judging contests. Focusing on community service projects and educational programming can have a huge effect for both organizations.
- Focus on developing the relationship with new agents/educators when brought into the county or school district. When a new person is brought into a position, being greeted and welcomed to the community helps create a positive relationship. This foundation is essential to developing a cooperative relationship.
- Put aside past bad experiences with cooperation. One of the most important factors pointed out by respondents of this study on choosing to cooperate is the value it brings to youth. It is essential to keep an open mind and to put personal issues aside to help the youth of these programs.

Recommendations for Future Research

- Because this study was a census of extension agents with a 20% or higher 4-H appointment, many agents were excluded. Every extension agent in Florida has at least a five percent 4-H appointment but cooperation can be found in other areas, not related to 4-H. Another census study or a random sampling study could be conducted to include all extension agents.
- In order to address the nonresponse error in this study, it is recommended that the same study be conducted using a mail in method. Since some of the e-mail addresses that were collected were invalid, some of the respondents were excluded from the start.
- This study focused on the cooperation relationship between 4-H and FFA activities. Another study could be conducted that included, but did not focus on 4-H and FFA activities.
- A study could be conducted within individual counties to determine if cooperation is occurring and how to improve the relationship between agents and educators.
- The researcher wanted to compare the cooperation relationship of extension agents and agricultural educators in counties with small and large populations. A study could be conducted to see how cooperation varies within counties by county population. This could be done as a qualitative or quantitative study.

- A qualitative study could be conducted in order to find out the specific reasons hindering the cooperative relationship between extension agents and agricultural educators.
- A qualitative or quantitative study could be conducted to see how cooperation is occurring between extension agents and agricultural educators.
- A study could be conducted that focused on adult services performed by extension agents and agricultural educators to see what kind of cooperation is found there.

APPENDIX A
EXPERT PANEL MEMBERS

- Dr. Anna Ball
 - Assistant Professor
 - Agricultural Education and Communications Department
- Dr. Hannah Carter
 - Lecturer and Director (Wedgworth Leadership Institute)
 - Agricultural Education and Communications Department
- Dr. Brian Myers
 - Assistant Professor
 - Agricultural Education and Communications Department
- Dr. Nick Place
 - Assistant Professor
 - Agricultural Education and Communications Department
- Dr. Shannon Washburn
 - Associate Professor
 - Agricultural Education and Communications Department

APPENDIX B
EXTENSION AGENT QUESTIONNAIRE

Extension Agent's Cooperation Survey

Thank you for taking time to complete this survey. Please remember that your responses will be kept anonymous and that your answers are greatly appreciated.

The purpose of this study is to determine the cooperative relationship between Florida county extension agents and agricultural educators.

There are four sections to this survey: I. Knowledge and perceptions of school-based agricultural education and the National FFA Organization; II. Attitudes toward Cooperation; III. Personal opinions and experiences with cooperative activities with agricultural educators; IV. Demographic questions.

In this study, cooperation is defined as county extension agents and agricultural educators integrating resources, curricula, and advice.

Section I. Knowledge and Perception Section

This section of the questionnaire asks you to answer questions regarding the knowledge and perceptions you have about school-based agricultural education and The National FFA Organization.

- 1 Please answer the following questions using the Likert-like scale.
1=strongly disagree
2=disagree
3=neutral
4=agree
5=strongly agree.

	1	2	3	4	5
<hr/>					
4-H and FFA share the same general goals for youth development	<input type="radio"/>				
<hr/>					
My supervisor encourages cooperation between myself and the agriculture teacher(s) in my county.	<input type="radio"/>				
<hr/>					
I feel that many youth make a choice between participating in either 4-H or FFA.	<input type="radio"/>				
<hr/>					
I feel like I'm competing with FFA for participants.	<input type="radio"/>				

I seek the advice of the agriculture teacher(s) in my county more than they seek my advice.

1 2 3 4 5

I feel like I don't have anything to reciprocate to the agriculture teacher(s) in my county.

1 2 3 4 5

I feel like the agriculture teacher(s) in my county is/are too busy to cooperate with me.

1 2 3 4 5

Students should not be allowed to participate in both 4-H and FFA.

1 2 3 4 5

2 Please answer the following questions.

1=True
2=False.

1
True

2
False

The goal of FFA is to prepare students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber, and natural resources systems.

1

2

FFA has a national, state and local level of operation.

1

2

Youth can join FFA starting at the age of nine.

1

2



Extension Agent's Cooperation Survey

Section II. Attitudes toward general cooperation

This section of the questionnaire addresses your personal opinions about cooperation in general.

- 3 Please answer the following questions using the Likert-like scale.
1=strongly disagree
2=disagree
3=neutral
4=agree
5=strongly agree.

1 2 3 4 5

I work best with those I have a history with.

1 2 3 4 5

Full participation by all parties is necessary for cooperation to occur between agriculture teachers and extension agents.

1 2 3 4 5

My decision to cooperate is dependent upon the other parties' characteristics such as responsibility, personality, and respect.

1 2 3 4 5

My decision to cooperate is based upon what I hear from others in my field.

1 2 3 4 5

I have previously tried to cooperate and it is not worth the time required.

1 2 3 4 5



Extension Agent's Cooperation Survey

Section III. Personal opinions and experiences in cooperative activities with secondary agricultural educators.

This section addresses questions regarding your personal opinions about cooperation with secondary agricultural educators. This section also addresses past and current experiences you have had with secondary agricultural educators.

- 4 To what degree do you think extension agents and agriculture teachers should cooperate?
Please answer this question on a 1 to 10 scale.
1=No cooperation
2=Low cooperation
5=Medium cooperation
10=High cooperation

1 2 3 4 5 6 7 8 9 10

- 5 Do you participate in cooperative activities with agricultural educator(s)?

YES NO

 SUBMIT

Extension Agent's Cooperation Survey

Section III continued.

Personal opinions and experiences in cooperative activities with secondary agricultural educators.

- 6 Please rate how often you cooperate with agricultural educator(s).
1=Never
2=Sometimes
3=Often
4=Always

	1	2	3	4
I cooperate with agricultural educator(s) at the county/state fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I conduct educational programs with the agricultural educator(s) in my county.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in combined 4-H/FFA judging contests.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I share resources with the agricultural educator(s) in my county.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I cooperate with the local FFA chapters through community service projects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have experienced successful results when I have cooperated with agricultural educator(s).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The agricultural educator(s) in my county and I assist each other in recruiting students/members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 7 What kind of benefits/successes have you encountered when cooperating with agricultural educator(s)?

8 What type of barriers did you overcome in order to have a cooperative relationship with agricultural educator(s)?

9 How important/not important are these factors in your cooperation with agricultural educator(s)?

Please indicate using the Likert-like scale.

1=Not very important

2=Not important

3=Neutral

4=Important

5=Very important.

	1	2	3	4	5
Increased value to youth	<input type="radio"/>				
Personal satisfaction	<input type="radio"/>				
Improved professional relationships	<input type="radio"/>				
Greater ability to specialize in area(s) of interest	<input type="radio"/>				
To make activities more enjoyable	<input type="radio"/>				
Satisfy my supervisor(s)	<input type="radio"/>				
Physical distance between offices	<input type="radio"/>				



Extension Agent's Cooperation Survey

Section III continued.

Personal opinions and experiences in cooperative activities with secondary agricultural educator(s).

- 10 What factors have affected your decision to not cooperate in activities with agricultural educator(s)?
Please answer using the Likert-like scale.
1=Strongly Disagree
2=Disagree
3=Neutral
4=Agree
5=Strongly Agree

1	2	3	4	5
The agricultural educator(s) in my county and I do not work well together.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have never considered cooperating with the agricultural educator(s) in my county.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not have time to work with the agricultural educator(s) in my county.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am too busy to work with the agricultural educator(s) in my county.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The agricultural educator(s) in my county do not want to cooperate on activities.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The agricultural educator(s) in my county are not responsive to change.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am not aware of any agricultural educator(s) in my county.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 11 What are the specific barriers/problems in the cooperation process between yourself and agricultural educator(s)?

12 Please indicate if the following factors would positively influence you to cooperate with secondary agricultural educator(s). Please answer using the Likert-like scale.

- 1=Strongly Disagree
- 2=Disagree
- 3=Neutral
- 4=Agree
- 5=Strongly Agree

	1	2	3	4	5
Greater professional recognition	<input type="radio"/>				
Increased value to youth	<input type="radio"/>				
More effective time usage	<input type="radio"/>				
Personal satisfaction	<input type="radio"/>				
Enhancing subject area	<input type="radio"/>				
Improved professional relationships	<input type="radio"/>				
Greater ability to specialize in area(s) of interest	<input type="radio"/>				
To make activities more enjoyable	<input type="radio"/>				
Satisfy my supervisor(s)	<input type="radio"/>				
Physical distance between offices	<input type="radio"/>				



Extension Agent's Cooperation Survey

Section IV. Demographic Questions

This section asked questions about yourself and the program(s) you conduct.

13 Gender:

- Male
- Female

14 I would(do) encourage my children to be involved in 4-H.

- Yes
- No
- N/A

15 I would(do) encourage my children to be involved in FFA.

- Yes
- No
- N/A

16 How old are you?

- 25 or under
- 26-35
- 36-45
- 46-55
- 56 or above

17 Prior to your current position, have you worked as an agricultural educator?

- Yes
- No
- If yes, how long?

18 Your primary program area is:

- Agriculture/Natural Resources
- Commercial Horticulture
- Family and Consumer Sciences
- Environmental Horticulture
- General Agriculture
- Livestock
- Sea Grant/Aquatics
- 4-H/Youth Development
- Other, please specify

19 Please indicate what percentage of your appointment is 4-H/Youth Development.

20 Please indicate any degrees you have earned in the following areas.

Bachelors Degree	<input type="text"/>
Masters Degree	<input type="text"/>
Specialist Degree	<input type="text"/>
Doctorate Degree	<input type="text"/>

21 What best describes the population in your county?

- Under 25,000
- 25,001 - 90,000
- 90,001 - 250,000
- More than 250,000



APPENDIX C
AGRICULTURAL EDUCATORS QUESTIONNAIRE

Agricultural Educator's Cooperation Survey

Thank you for taking time to complete this survey. Please remember that your responses will be kept anonymous and that your answers are greatly appreciated.

The purpose of this study is to determine the cooperative relationship between Florida county extension agents and agricultural educators.

There are four sections to this survey: I. Knowledge and perceptions of the Cooperative Extension Service and the 4-H program; II. Attitudes toward Cooperation; III. Personal opinions and experiences with cooperative activities with extension agents; IV. Demographic questions.

In this study, cooperation is defined as county extension agents and agricultural educators integrating resources, curricula, and advice.

Section I. Knowledge and Perception Section

This section of the questionnaire asks you to answer questions regarding the knowledge and perceptions you have about the Cooperative Extension Service and the 4-H program.

- 1 Please answer the following questions using the Likert-like scale.
1=Strongly Disagree
2=Disagree
3=Neutral
4=Agree
5=Strongly Agree

	1	2	3	4	5
4-H and FFA share the same general goals for youth development	<input type="radio"/>				
My building level administrator(s) encourages cooperation between myself and the extension agent(s) in my county.	<input type="radio"/>				
I feel that many youth make a choice between participating in either 4-H or FFA.	<input type="radio"/>				

I feel like I'm competing with 4-H for participants.

1 2 3 4 5

I seek the advice of the extension agent(s) in my county more than they seek my advice.

1 2 3 4 5

I feel like I don't have anything to reciprocate to the extension agent(s) in my county.

1 2 3 4 5

I feel like the extension agent(s) in my county is/are too busy to cooperate with me.

1 2 3 4 5

Students should not be allowed to participate in both 4-H and FFA.

1 2 3 4 5

2 Please answer the following questions.

1=True

2=False

1
True

2
False

The goal of 4-H is to create supportive environments outside the school system for diverse youth and adults to reach their fullest potential.

1

2

4-H has a national, state and county level of operation.

1

2

Youth can join 4-H as early as the age of seven in Florida.

1

2



Agricultural Educator's Cooperation Survey

Section II. Attitudes toward general cooperation

This section of the questionnaire addresses your personal opinions about cooperation in general.

- 3 Please answer the following questions using the Likert-like scale.
1=Strongly Disagree
2=Disagree
3=Neutral
4=Agree
5=Strongly Agree

1 2 3 4 5

I work best with those I have a history with.

1 2 3 4 5

Full participation by all parties is necessary for cooperation to occur between agriculture teachers and extension agents.

1 2 3 4 5

My decision to cooperate is dependent upon the other parties' characteristics such as responsibility, personality, and respect.

1 2 3 4 5

My decision to cooperate is based upon what I hear from others in my field.

1 2 3 4 5

I have previously tried to cooperate and it is not worth the time required.

1 2 3 4 5

SUBMIT

Agricultural Educator's Cooperation Survey

Section III. Personal opinions and experiences in cooperative activities with county extension agents.

This section addresses questions regarding your personal opinions about cooperation with county extension agents. This section also addresses past and current experiences you have had with county extension agents.

- 4 To what degree do you think extension agents and agriculture teachers should cooperate?

Please answer this question on a 1 to 10 scale.

1=No cooperation

2=Low cooperation

5=Medium cooperation

10=High cooperation

1 2 3 4 5 6 7 8 9 10

- 5 Do you participate in cooperative activities with extension agent(s)?

YES NO

SUBMIT

Agricultural Educator's Cooperation Survey

Section III continued.

Personal opinions and experiences in cooperative activities with county extension agents.

- 6 Please rate how often you cooperate with extension agent(s).
1=Never
2=Sometimes
3=Often
4=Always

	1	2	3	4
I cooperate with extension agent(s) at the county/state fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I conduct educational programs with the extension agent(s) in my county.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in combined 4-H/FFA judging contests.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I share resources with the extension agent(s) in my county.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I cooperate with the local 4-H clubs through community service projects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have experienced successful results when I have cooperated with extension agent(s).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The extension agent(s) in my county and I assist each other in recruiting students/members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 7 What kind of benefits/successes have you encountered when cooperating with extension agent(s)?

- 8 What type of barriers did you overcome in order to have a cooperative relationship with extension agent(s)?

- 9 How important/not important are these factors in your cooperation with county extension agent(s)?

Please indicate using the Likert-like scale.

1=Not very important

2=Not important

3=Neutral

4=Important

5=Very important

	1	2	3	4	5
Increased value to youth	<input type="radio"/>				
Personal satisfaction	<input type="radio"/>				
Improved professional relationships	<input type="radio"/>				
Greater ability to specialize in area(s) of interest	<input type="radio"/>				
To make activities more enjoyable	<input type="radio"/>				
Satisfy my supervisor(s)	<input type="radio"/>				
Physical distance between offices	<input type="radio"/>				



Agricultural Educator's Cooperation Survey

Section III continued.

Personal opinions and experiences in cooperative activities with county extension agents.

- 10 What factors have affected your decision to not cooperate in activities with extension agent(s)?

Please answer using the Likert-like scale:

1=Strongly Disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly Agree

1	2	3	4	5
The extension agent(s) in my county and I do not work well together.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have never considered cooperating with the extension agent(s) in my county.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not have time to work with the extension agent(s) in my county.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am too busy to work with the extension agent(s) in my county.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The extension agent(s) in my county do not want to cooperate on activities.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The extension agent(s) in my county are not responsive to change.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am not aware of any extension agent(s) in my county.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 11 What are the specific barriers/problems in the cooperation process between yourself and extension agent(s)?

12 Please indicate if the following factors would positively influence you to cooperate with your county extension agent(s).

Please answer using the Likert-like scale.

1=Strongly Disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly Agree

	1	2	3	4	5
Greater professional recognition	<input type="radio"/>				
Increased value to youth	<input type="radio"/>				
More effective time usage	<input type="radio"/>				
Personal satisfaction	<input type="radio"/>				
Enhancing subject area	<input type="radio"/>				
Improved professional relationships	<input type="radio"/>				
Greater ability to specialize in area(s) of interest	<input type="radio"/>				
To make activities more enjoyable	<input type="radio"/>				
Satisfy my supervisor(s)	<input type="radio"/>				
Physical distance between offices	<input type="radio"/>				



Agricultural Educator's Cooperation Survey

Section IV. Demographic Questions

This section asked questions about yourself and the program(s) you conduct.

13 Gender:

- Male
- Female

14 I would(do) encourage my children to be involved in 4-H.

- Yes
- No
- N/A

15 I would(do) encourage my children to be involved in FFA.

- Yes
- No
- N/A

16 How old are you?

- 25 or under
- 26-35
- 36-45
- 46-55
- 56 or above

17 Prior to your current position, have you worked as an extension agent?

- Yes
- No
- If yes, how long?

18 The primary focus area of my program is:

- Agribusiness
- Agricultural mechanics
- Agritechnology
- Animal sciences
- Horticulture
- Natural resources
- Veterinary assistance
- Other, please specify

19 Type of program conducted:

- High School
- Middle School
- Blended Program (Middle and High school)

20 What degree(s) do you hold and in what area/major?

Bachelors Degree

Masters Degree

Doctorate Degree

21 What best describes the population in your COUNTY?

- Under 25,000
- 25,001 - 90,000
- 90,001 - 250,000
- More than 250,000



APPENDIX D
IRB FORM & INFORMED CONSENT



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

DATE: July 31, 2007

TO: Audrey Vail
PO Box 110540
Campus

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

SUBJECT: **Approval of Protocol #2007-U-0671**

TITLE: Cooperation between 4-H extension agents and secondary agricultural educators in Florida

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, and based on 45 CFR 46.117(c), authorizes you to administer the informed consent process as specified in the protocol.

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.

If you have not completed this protocol by **July 27, 2008**, 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

Informed Consent:

Please take a few moments to complete this survey about the cooperation relationship between Florida 4-H extension agents and secondary agricultural educators. Your participation is completely voluntary. There is no penalty for not participating. You can stop at any time without penalty and you do not have to answer any question you do not wish to answer. Your participation in this study will help describe the relationship between extension agents and secondary agricultural educators.

All answers are confidential to the extent provided by law. There are no known risks associated with this study and there is no compensation or other direct benefit to you for participation. By hitting the submit button, you agree that you have read this statement and are aware of your rights.

If you have any questions about this research, please contact the study supervisor, Dr. Brian Myers, Department of Agricultural Education and Communication, University of Florida, 308B Rolfs Hall/PO Box 110540, Gainesville, FL 32611-0540, (352)392-0502 ext 236, or myself, Audrey Vail, Graduate Student, Agricultural Education and Communication, University of Florida, 408 Rolfs Hall/PO Box 110540, Gainesville, FL 32611, (352)392-0502, ext 244. For questions regarding your rights as a research participant, please contact the UFIRB at (352)392-0433. IRB # _____.

Approved by
University of Florida
Institutional Review Board 02
Protocol # 2007-U-671
Use Through 07/27/2008

APPENDIX E
CONTACT LETTERS

Extension Agents

Initial Contact Letter

Dear (insert name),

My name is Audrey Vail and I am a Masters student in the Agricultural Education and Communication Department at the University of Florida. I am requesting your help in collecting data for my thesis study regarding the knowledge, perceptions and attitudes about cooperation between Florida county extension agents and Florida agricultural educators.

As county extension agent in the state of Florida with a 20% or higher 4-H appointment, your input to this research is essential. Because of your influence with youth interested in agriculture, you have the ability to enhance students' future experiences in cooperative and competitive situations. The results of this study can help you as a current agent by determining what is enhancing or inhibiting the cooperative relationship between yourself and other agricultural educators. With this knowledge, you will be able to demonstrate to the youth involved in your programs the importance of learning cooperation and competition on a professional and personal level.

You will be receiving a questionnaire from me within the week that contains a link to the Zoomerang© questionnaire for my study. If you choose not to participate in this study for whatever reason, please send me an e-mail by September 26th so I can remove you from my list.

Please keep an eye out for the next e-mail that contains the link to the Zoomerang© questionnaire. Thank you in advance for your participation in my study.

Sincerely,

Audrey Vail
Graduate student
University of Florida

Second Contact Letter

Dear (insert name),

My name is Audrey Vail and I am a Masters student in the Agricultural Education and Communication Department at the University of Florida.

I sent you an e-mail last week about this questionnaire coming. I am requesting your help in collecting data for my thesis study regarding the knowledge, perceptions and attitudes about cooperation between Florida county extension agents and Florida agricultural educators.

As county extension agent in the state of Florida with a 20% or higher 4-H appointment, your input to this research is essential. Because of your influence with youth interested in agriculture, you have the ability to enhance students' future experiences in cooperative and competitive situations. The results of this study can help you as a current agent by determining what is enhancing or inhibiting the cooperative relationship between yourself and other agricultural educators. With this knowledge, you will be able to demonstrate to the youth involved in your programs the importance of learning cooperation and competition on a professional and personal level.

Sincerely,

Audrey Vail
Graduate student
University of Florida

Third Contact Letter

Dear (insert name),

Last week, I sent out an e-mail asking for your help for my Master's thesis study. This e-mail is simply a reminder about filling out this questionnaire. If you have already completed the questionnaire, Thank you! If not, please take a few minutes to complete the survey regarding the cooperation relationship between agricultural educators and county extension agents.

I would appreciate it if you could return this survey by October 31st. Again, thank you for your time, help, and participation.

Sincerely,

Audrey Vail
Graduate student
University of Florida

Final Contact Letter

October 3rd, I sent out an e-mail asking for your help for my Master's thesis study. This e-mail is simply a reminder about filling out this questionnaire. If you have already completed the questionnaire, Thank you! If not, please take a few minutes to complete the survey regarding the cooperation relationship between agricultural educators and county extension agents.

I would appreciate it if you could return this survey by November 9th. Again, thank you for your time, help, and participation.

Sincerely,

Audrey Vail
Graduate student
University of Florida

Agricultural Educators

Initial Contact Letter

Dear (insert name),

My name is Audrey Vail and I am a Masters student in the Agricultural Education and Communication Department at the University of Florida. I am requesting your help in collecting data for my thesis study regarding the knowledge, perceptions and attitudes about cooperation between Florida county extension agents and Florida agricultural educators.

As an agricultural educator in the state of Florida, your input to this research is essential. Because of your influence with youth interested in agriculture, you have the ability to enhance students' future experiences in cooperative and competitive situations. The results of this study can help you as a current educator by determining what is enhancing or inhibiting the cooperative relationship between yourself and the county extension agents. With this knowledge, you will be able to demonstrate to students the importance of learning cooperation and competition on a professional and personal level.

You will be receiving a questionnaire from me within the week that contains a link to the Zoomerang© questionnaire for my study. If you choose not to participate in this study for whatever reason, please send me an e-mail by September 26th so I can remove you from my list.

Please keep an eye out for the next e-mail that contains the link to the Zoomerang© questionnaire. Thank you in advance for your participation in my study.

Sincerely,

Audrey Vail
Graduate student
University of Florida

Second Contact Letter

Dear (insert name)

My name is Audrey Vail and I am a Masters student in the Agricultural Education and Communication Department at the University of Florida.

I sent you an e-mail last week about this questionnaire. I am requesting your help in collecting data for my thesis study regarding the knowledge, perceptions and attitudes about cooperation between Florida county extension agents and Florida agricultural educators.

As an agricultural educator in the state of Florida, your input to this research is essential. Because of your influence with youth interested in agriculture, you have the ability to enhance students' future experiences in cooperative and competitive situations. The results of this study can help you as a current educator by determining what is enhancing or inhibiting the cooperative relationship between yourself and the county extension agents. With this knowledge, you will be able to demonstrate to students the importance of learning cooperation and competition on a professional and personal level.

Sincerely,

Audrey Vail
Graduate student
University of Florida

Third Contact Letter

Dear (inset name)

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Sincerely,

Audrey Vail
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Sincerely,

Audrey Vail
Graduate student
University of Florida

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BIOGRAPHICAL SKETCH

Audrey Lynn Vail was born and raised in Neodesha, Kansas. She participated in 4-H at early age (five) but joined when she was seven. While she was in 4-H, she held every officer position at the club and county council level. She earned her Key Award in 2001. She joined the agriculture education program and FFA in high school where she learned the basics about agriculture. Throughout her FFA career, she served on many officer teams including holding chapter president for two years and serving as the Southeast District vice president for a year. She earned her state degree in 2001 and her American degree in 2004.

After high school graduation, she attended Kansas State University majoring in Agricultural Communications and Journalism. During her four years at K-State, Audrey was an ambassador for the College of Agriculture for four years and she served on the Agricultural Communicators of Tomorrow officer team as secretary and president. Audrey was invited to join Alpha Zeta Honors Fraternity her junior year and became an active member. While in Alpha Zeta, she traveled to Louisiana after Hurricane Katrina and Hurricane Rita hit to help local farmers repair the damage done to their farms and she was given the opportunity to present a workshop at the national level for the National Agricultural Leadership Conference in San Luis Obispo, California.

After graduating K-State, she moved to Gainesville to pursue her master's degree at the University of Florida. After graduation, she plans to move back to Kansas to get married (she got engaged in December 2007) and work in the extension field.