

The Role of the Cooperative Extension Service as Perceived by North Carolina Cooperative Extension Service Administrators

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Abstract

The purpose of this study was to ascertain the attitudes and perceptions of North Carolina Cooperative Extension administrators about the role, function, and current issues of Cooperative Extension. This research was a descriptive study using a modified Delphi technique. The population for this study consisted of 23 administrators' positions in North Carolina's Cooperative Extension that included all current North Carolina Extension administrators (state specialists and district directors). Each administrator was mailed and emailed a letter explaining the purpose and the process of the study as well as an invitation to participate. Shortly afterwards an email containing a hypertext link to a website where the instrument was located was sent to each individual. Only 11 administrators participated in the study.

This study used a HTML questionnaire. Dillman (2000) suggested that University faculty, government employees, and other professionals who use email regularly are good candidates for email surveys. The open-ended questions used in Round I were pilot tested by a panel of Cooperative Extension Administrators of the University of Missouri-Columbia.

Findings of the study revealed that administrators in North Carolina believe in the Cooperative Extension mission; however, they believe that it should reflect more than it does. They believe that community development, leadership development, and environmental education are or should be a part of the overall extension mission. They predict that funding will be affected due to competition and poor political support. Also they believe that extension has to work hard to develop linkages within the community to help with marketing.

Introduction

The Cooperative Extension Service (CES) is the largest educational system of its kind in the world and operates as the outreach arm of land grant colleges. Cooperative Extension is comprised of a Federal office in the Cooperative State, Research, Education, and Extension Service (CSREES) of the United States Department of Agriculture and State Extension Services situated within the land grant college complex (Hightower, 1973; Report to Congress, 1981). The original mandate of the extension service was to assist people of rural America in identifying and solving their farm, home, and community problems. The mandate remains, however, the nature of Cooperative Extension has changed in order to meet the demands of a changing society. As a result, extension has undergone organizational changes and program improvements, such as revising its mission and organizational culture. In addition to internal changes, extension has focused on other improvements such as changing its image, revising program curricula, and updating delivery methods. Such changes are the responsibility of the organization's leaders and administrators. An organization's activities and direction are related to the attitudes of its administration (Yukl, 1998). This study examined the perceptions of North Carolina state extension administrators who are responsible for allocating funds, providing organizational support, and implementing policy.

Conceptual Framework

Based on both the literature review and the theoretical framework presented earlier in this study, a conceptual model is presented Figure 1, illustrating administrative influence on the direction of change in an organization. In the case of Cooperative Extension, where policy makers and administrators may or may not be one in the same; this means that the administration must support new directives for major changes to successfully occur.

The model illustrates the team approach practiced by CES. Where state administrations, state personnel, and federal administration, elect representatives to serve on the ECOP thereby giving each group equal voice in policy decisions. However, once policy has been implemented the balance of power changes. For instance at the state level local agents enjoy great freedom to plan, implement, and evaluate programs. However Land-grant administrators, state specialist and directors are responsible for implementing policies and initiatives, determining statewide issues, developing training programs, evaluating programs and conducting research. From a theoretical perspective this implies that the perception's of the administration influences the type of programs state's implement.

The intent of this study is to determine the perception of state administrators regarding policy and issues of the Cooperative Extension system using the assumption illustrated by this conceptual model as a base for discussion.

Conceptual Framework
Administrative Guidance of Organizational Change

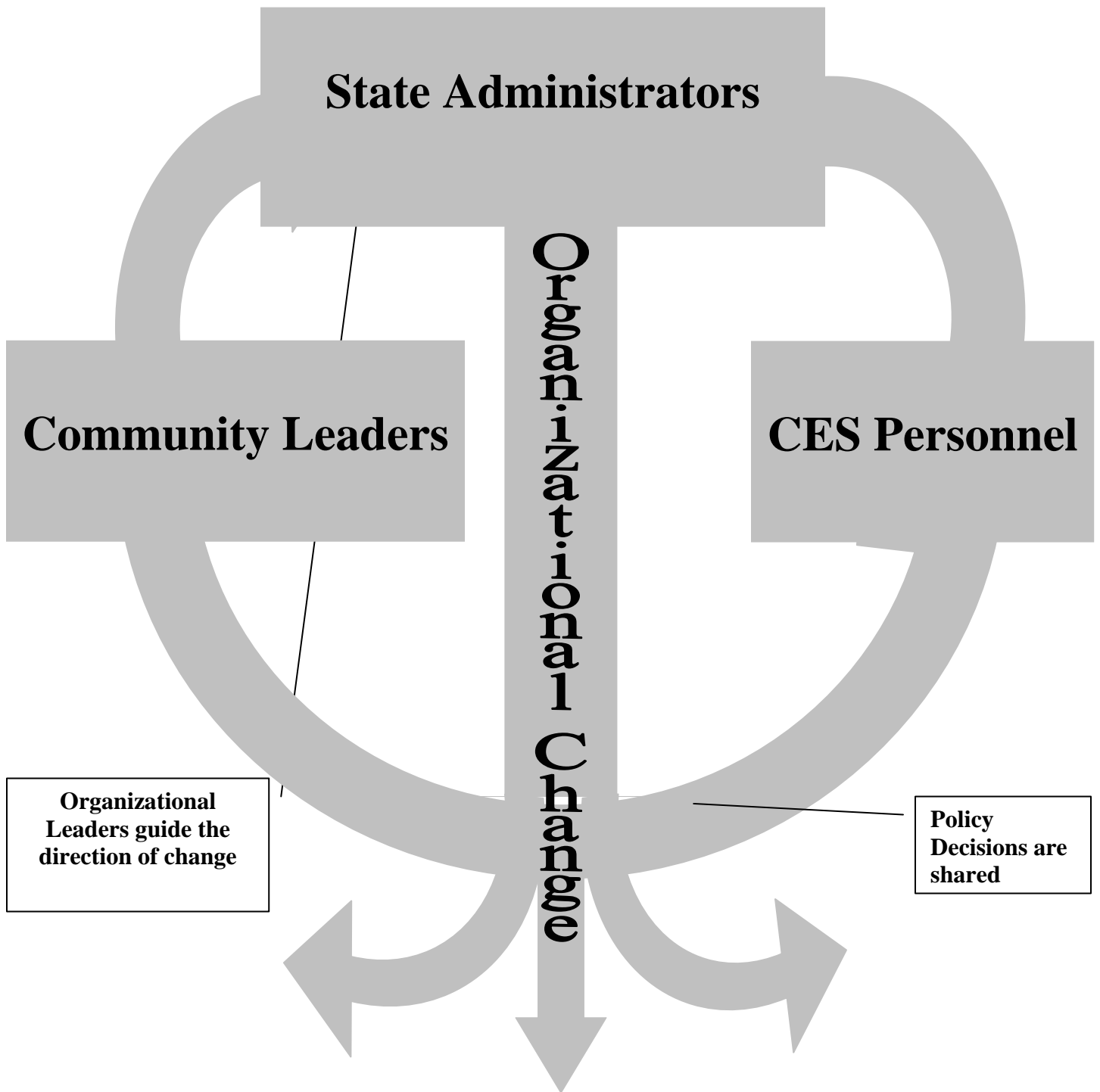


Figure 1. Administrative Guidance of Organizational Change.

Purpose and Objectives

The purpose of this study was to ascertain the attitudes and perceptions of North Carolina Cooperative Extension administrators about the role, function, and current issues of Cooperative Extension. This research was a descriptive study using a modified Delphi technique to answer the following questions:

1. What is or should be the primary mission of the Cooperative Extension Service in the next 3-5 years?
2. What are the major funding issues faced by the Cooperative Extension System in the next 3-5 years?
3. What are the major societal issues facing the organizational structure of the Cooperative Extension System in the next 3-5 years?
4. What are the major political issues faced by the Cooperative Extension System in the next 3-5 years?
5. What future issues do administrators predict for the Cooperative Extension System in the next 3-5 years?

Methodology

This study was conducted using a modified Delphi procedure. The traditional Delphi procedure is a method of obtaining consensus among a group of experts (Linstone & Turoff, 1975). The major modification to the Delphi for this study was the use of a computer mediated process. Conducting a Delphi through computer mediation allows for a more stringent anonymity process (Turoff & Hiltz, 1998). A traditional Delphi uses a somewhat quasi- anonymity process; generally pen names or some other form of tracking in order to personalize the instrument after the second round so that participants can see how they answered in the previous round. This study provided group ratings but did not track individual participant responses. The advantage of this modification to the Delphi is that it prevents individuals from influencing the views of others, and improves the quality of responses by removing the pressure of forced consensus.

Panel Selection

There were 23 administrators in North Carolina's Cooperative Extension. Seventeen were affiliated with the state's 1862 institution while the rest were affiliated with the 1890 institution. Each administrator was sent a letter explaining the purpose and the process of the study and shortly afterwards an email containing a hypertext link to a website where the instrument was located. Only 11 of the 23 administrators decided to participate in the study.

Instrumentation

The purpose of the instrument was to develop questions that would elicit responses regarding the role, function, and current issues of Cooperative Extension. The instrument

was designed using the following procedures of a typical Delphi. The instrument developed contained open-ended questions. The three questions included were as follows:

1. What are the major funding, social, and political issues faced by the Federal systems of the Cooperative Extension Service in the next 3-5 years?
2. What is, or should be, the primary mission of state and local extension programs in the next 3-5 years?
3. What future issues would you predict for the Cooperative Extension System in the next 3-5 years?

Reliability and Validity

There was a question of reliability and validity of the Delphi process. Careful administration of the Delphi procedure will strengthen the reliability of the method. According to Hill and Fowles (1975) validity of the Delphi method may be examined in two ways. First, ask the question: are the forecasts accurate predictions of the future? The second question refers to the potential validity of the method rather than just the data that is derived from the process. In other words does the instrument actually retrieve useful information (i.e., is this instrument accurately measuring what it was intended to measure?) Weatherman and Swenson (1974) suggested that the selection of panel members, clarity of the instrument, and independence of responses are critical to the validity and reliability of the study when using the Delphi method.

To address these issues the open-ended questions used for the instrument in Round I were tested and validated by a panel of Cooperative Extension Administrators of the University of Missouri-Columbia. The group was instructed to examine the questions and to identify other questions that might be needed, as well as make suggestions for improving clarity.

Delphi Rounds

Round One

The process began with three open-ended questions on a one-page web-instrument that asked participants to provide in writing, insights about issues that Extension will face in the next 3-5 years. The pre invited participants in this research study included all ($N=23$) current North Carolina Extension administrators (state specialist and district directors). An email was sent with an URL to a website containing the instrument as a web instrument on 2/24/2002, resulting in 11 responses (47% response rate). One week later 3/3/2002, in an attempt to improve the response rate another email was sent. Table 1 presents categories that emerged from an examination of the most common themes in the first round.

Table 1.
Key Themes Supported by First Round Responses

Issues	
Inadequate funding	Re-designing the infrastructure and marketing of educational programs
Community development	Program relevance
Interdisciplinary	Focus on leadership development
Focus on serving a more diversified population	Environmental issues
	Urbanization

Round Two

The resulting series of statements that emerged in round one were sent to 11 participants in an email on April 1, 2002, along with an URL to a web instrument containing the issues identified in round one in statement format to be rated on a 5-point Likert-type scale, where 1 represented “Strongly Agree”, 2 “Agree”, 3 “Disagree”, 4 “Strongly Disagree”, and 5 represented, “Not applicable” (1 = SA, 2 = A, 3 = D, 4 = SD, 5 = NA). Each of the participants was encouraged to provide any additional comments and/or questions as related to any of the statements from round one. The responses from the second round of surveys were collected and analyzed by calculating the mean, median, mode and interquartile range in order to identify both the range of consensus and the areas of conflicting views using the Statistical Package for Social Sciences (SPSS), version 10.0. A follow-up email was sent on April 5, 2002. Responses were received from 11 panel members. One week later 4/12/2002, in an attempt to improve the response rate another follow-up email was sent. The results of round two are presented in Table 2. Interquartile range (IQR) scores indicate consensus on every item with the exception of 4 and 9. Consensus was considered to have been achieved when interquartile scores were equal to or above the 50th percentile. Statements falling below the 50th percentile were considered to have conflicting views.

Table 2.
Means, Standard Deviation and Frequency of Responses for Round Two (N=11)

	Statements	Frequency	M	SD	IQR	
Q1	Inadequate funding due to political support is an issue that will be faced by both the state and Federal systems of the Cooperative Extension Service in the next 3-5 years.	SA	7	1.09	.30	1
		A	4			
		D	-			
		SD	-			
		NA	-			
Q2	Inadequate funding due to program relevance is an issue that will be faced by both the state and Federal systems of the Cooperative Extension Service in the next 3-5 years.	SA	2	2.09	.70	2
		A	7			
		D	1			
		SD	1			
		NA	-			
Q3	Inadequate funding due to increased competition is an issue that will be faced by both the state and Federal	SA	2	1.90	.30	2
		A	6			

	systems of the Cooperative Extension Service in the next 3-5 years.	D	3			
		SD	-			
		NA	-			
Q4	Inadequate funding due to interdisciplinary conflicts is an issue that will be faced by both the state and Federal systems of the Cooperative Extension Service in the next 3-5 years.	SA	2	2.09	.70	3
		A	1			
		D	8			
		SD	-			
		NA	-			
Q5	Community development is or should be a part of the primary mission of state and local Extension programs in the next 3-5 years.	SA	5	2.09	.70	2
		A	6			
		D	-			
		SD	-			
		NA	-			
Q6	Focusing on leadership development is or should be a part of the primary mission of state and local Extension programs in the next 3-5 years.	SA	4	2.09	.53	2
		A	6			
		D	1			
		SD	-			
		NA	-			
Q7	Focusing on environmental issues is or should be a part of the primary mission of state and local Extension programs in the next 3-5 years.	SA	2	1.90	.53	2
		A	7			
		D	1			
		SD	1			
		NA	-			
Q8	Utilizing interdisciplinary resources is or should be a part of the primary mission of state and local Extension programs in the next 3-5 years.	SA	2	1.72	.46	2
		A	8			
		D	-			
		SD	-			
		NA	1			
Q9	Urbanization issues will negatively affect the Cooperative Extension System in the next 3-5 years.	SA	1	1.90	.83	3
		A	2			
		D	5			
		SD	3			
		NA	-			
Q10	Urbanization issues will positively affect the Cooperative Extension System in the next 3-5 years.	SA	8	2.18	.60	2
		A	-			
		D	3			
		SD	-			
		NA	-			
Q11	Multicultural concerns will greatly affect the Cooperative Extension System in the next 3-5 years.	SA	2	3.0	.77	2
		A	7			
		D	2			
		SD	-			
		NA	-			
Q12	Re-designing the infrastructure and marketing of	SA	3	1.81	.60	2

educational programs will be important to the Cooperative Extension system in the next 3-5 years.	A	6
	D	1
	SD	1
	NA	-

Round Three

The resulting series of statements that emerged in round two were sent to participants in an email on April 19, 2002, along with an URL to a web instrument containing the statements from round two to be rated on a 5-point Likert type scale, where 1 represented, “Strongly Agree”, 2 “Agree”, 3 “Disagree”, 4 “Strongly Disagree”, and 5, “Not applicable” (1 = SA, 2 = A, 3 = D, 4 = SD, 5 = NA). Participants were also encouraged to take the round two survey if they had not done so already. A follow-up email was sent on May 3, 2002. Eleven persons responded. The results of round three are presented in Table 3. Interquartile range scores indicated consensus on every item with the exception of statement 11. Note that six of the items (denoted by an asterisk *) for this round were modified slightly in order to better determine the group’s position on particular issues. This modification was based on percentile rankings and additional comments.

Table 3.

Means, Standard Deviation and Frequency of Responses of Round Three (N=11)

	Statements	Frequency	M	SD	IQR	
Q1	Inadequate funding due to political support is an issue that will be faced by both the state and Federal systems of the Cooperative Extension Service in the next 3-5 years?	SA	9	1.36	.50	1
		A	1			
		D	1			
		SD	-			
		NA	-			
Q2	Inadequate funding due to program relevance is an issue that will be faced by both the state and Federal systems of the Cooperative Extension Service in the next 3-5 years?	SA	2	2.18	1.0	2
		A	6			
		D	3			
		SD	-			
		NA	-			
Q3	Inadequate funding due to increased competition is an issue that will be faced by both the state and Federal systems of the Cooperative Extension Service in the next 3-5 years?	SA	1	2.09	.70	2
		A	10			
		D	-			
		SD	-			
		NA	-			
*Q4	Extension is successfully competing with the private sector to meet the social and economic needs of society.	SA	2	2.54	.82	2
		A	6			
		D	3			
		SD	-			
		NA	-			
*Q5	Community Development is the primary mission of state and local Extension programs?	SA	2	1.54	.52	2
		A	6			
		D	3			

		SD	-			
		NA	-			
*Q6	Providing leadership training is a part of the primary mission of state and local Extension programs?	SA	1	1.72	.64	2
		A	8			
		D	2			
		SD	-			
		NA	-			
*Q7	Educating the community about environmental issues is a part of the primary mission of state and local Extension programs?	SA	2	2.18	1.0	2
		A	8			
		D	1			
		SD	-			
		NA	-			
*Q8	Focusing on interdisciplinary research and collaboration with other disciplines will affect the success of Extension in the next 3-5 years?	SA	3	2.09	1.0	2
		A	8			
		D	-			
		SD	-			
		NA	-			
*Q9	Focusing on increasing the percentage of persons served in urban communities will affect the success of Extension in the next 3-5 years?	SA	4	2.90	.94	2
		A	4			
		D	3			
		SD	-			
		NA	-			
Q10	Urbanization issues will positively affect the Cooperative Extension System in the next 3-5 years?	SA	-	2.27	.46	2
		A	5			
		D	3			
		SD	2			
		NA	1			
Q11	Multicultural and diversity concerns will have a negative affect on the effectiveness of the Cooperative Extension System in the next 3-5 years?	SA	-	2.0	.63	3
		A	3			
		D	5			
		SD	3			
		NA	-			
Q12	Re-designing the infrastructure of the Cooperative Extension System will become an important issue in the next 3-5 years.	SA	3	2.0	.89	2
		A	7			
		D	1			
		SD	-			
		NA	-			

* detonates modified questions

Data from rounds one and two were analyzed using four measures of central tendency: mean, median, mode, and interquartile range. This statistical information on how the group as a whole rated various statements was summarized and sent electronically to the participants in round three, where they were given one final opportunity to rate each of the

items based on the new information, along with any additional comments made during round two.

Conclusions

Based on the findings of this study, the following conclusions were drawn.

1. The mission of extension in North Carolina is to help people put research-based knowledge to work to improve the quality of life. This is similar to the original mandate set forth in the Smith-Lever Act. Administrators in North Carolina believe in the mission; however, they feel that it should reflect more than it does. They feel that community development, leadership development, and environmental education are or should be a part of the overall extension mission. Perhaps with the creation of national goals for the overall extension system this mission will change and include these elements.
2. The prediction is that funding will be affected by competition from the private sector and poor political support. Large corporations spend millions of dollars to convince people that their product/service is the best. This often results in consumers believing that “the more you pay the better it is”, in other words when you pay for information/services you get better quality and more reliable services, thus the ole saying “you get what you pay for”. Extension offers it services for free, unless the consumer is familiar with extension, they may hesitate to participate (Deyoung, B., 1988; Maddy, D., and Kealy, L., 1998; Hogan, M., 1994; Frederick, A.L., 1998).
3. Political support is also affected by competition from the private sector, in the form of advertising. The affects of corporate marketing and advertising on an individual that already has a poor perception about agriculture is detrimental to extension. Along with that formula, we live in an age where “Big Government” is seen negatively. Some perceive government sponsored programs, like extension, are in the same category as social welfare programs and are usually the first to be cut in regards to funding.
4. The rapid growth rate of the urban sector is another problem that will affect extension. Currently 48% of North Carolina is urban while the remainder (52%) resides in rural districts (Matthews, 1999). Farms in North Carolina are disappearing at a rate of more than one a day and are being replaced by buildings and parking lots. This means that extension will have to change its target audience. It also means that extension has to work hard to develop linkages within the community to help with marketing.

Recommendations for Further Research

The following recommendations are made for future research studies:

1. Further research should be conducted to examine the differences in extension mission statements and visions from state to state to determine what each state believes to be the mission. This would serve as an important step toward developing a national mission statement.

2. Further research should be conducted in North Carolina to determine diversity related issues such as the level of knowledge and perceptions of extension personnel.
3. Further research should be conducted to examine the effectiveness of web surveys versus email or paper surveys among extension personnel. Using the internet to deliver surveys is more economical than using paper. As researchers move toward using this medium more, it will be important to understand how it changes the effectiveness.
4. Further research needs to be conducted with extension administrators in other states to determine if the results of the current study are unique to one state. Such research is needed in order to develop a standard mission statement that every state can use. In order to compete with corporations, extension must begin to view itself as a business rather than a government agency. The ECOP has taken the first step by establishing national goals for the extension system.
5. Research should be conducted to examine the effectiveness of using mass media marketing plans to promote Extension.

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