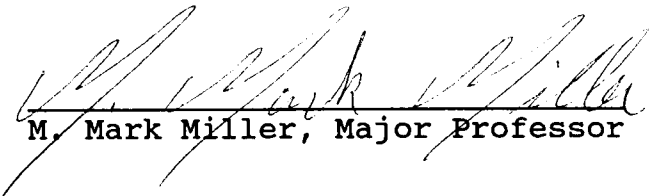
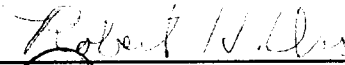


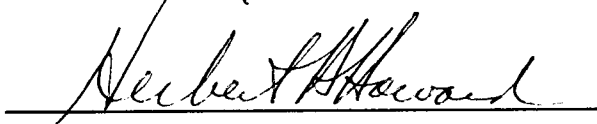
To the Graduate Council:

I am submitting herewith a dissertation written by Ned Erskine Browning entitled "Coorientation of a Government Agency with Its Public: Marketing the Alabama Cooperative Extension Service." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Communications.


M. Mark Miller, Major Professor

We have read this dissertation
and recommend its acceptance:





Accepted for the Council:


Vice Provost
and Dean of the Graduate School

COORIENTATION OF A GOVERNMENT AGENCY WITH ITS PUBLIC:
MARKETING THE ALABAMA COOPERATIVE EXTENSION SERVICE

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Ned Erskine Browning

June 1988

DEDICATION

This endeavor is dedicated to my long-suffering family. To Mary, my wife, I say thanks for patience fueled with love when the path seemed endless and not a little crazy. To my kids, Daniel, Janet and Stephen, thanks for helping me keep a perspective on life's important moments. To Mom and Dad, thanks for the lifelong nurture of mind and spirit. And, to my stand-in Tennessee family, Bill, Marlene, Grant, Hannah and Evan, thanks for the home-away-from-home.

ACKNOWLEDGMENTS

Dr. Mark Miller, my dissertation director, deserves much credit for encouraging me to delve into measurement methods and follow paths of thought I would not have dared otherwise. My committee, Drs. Paul Ashdown, Herb Howard, Bob Orr and Jim Crook, provided valuable insight, editing and encouragement in the development of the study.

A special thanks to Auburn University's Chuck Warlick, academic computing specialist, and Dr. John McQuire, head of Research Data Analysis, for their concise and understanding assistance in developing data analysis routines.

Alabama Cooperative Extension Service Directors Mike Sprott and Ann Thompson were most gracious in granting me study leave and allocating resources for conduct of the market surveys on which this study is based.

My colleagues in ACES Information Services went out of their way to help me maintain my job while completing my research.

Finally, without the encouragement and communication praxis of my professional mentor, Jack Smith, my experience would not have been nearly as meaningful and intellectually fulfilling as it was.

ABSTRACT

The communication process involved in a government educational agency's responsibility to inform and serve the public is addressed in this study. Difficulty of two-way information exchange between a bureaucracy and a non-organized group (the general public) is analyzed in light of the agency's attempt to become more responsive. A non-profit marketing approach is proposed as a framework in which the coorientation model of communication is used to monitor group information priorities and perceptions.

In the coorientation analysis, the agency is represented by Cooperative Extension Service agents in Houston County, Alabama. From a random sample of the county's households, the responses of adults who are aware of the agency are compared with agents' responses to determine coorientation variables of agreement, accuracy and congruency.

The concept of nonprofit marketing is demonstrated in a test of organizational public service programming. Information to improve the quality of local citizens' lives is identified as the market product. In the process, the organization confronted its market and faced

the policy decision of altering its product line (information delivery priorities).

The analysis assumes that the relationship between a public organization and its aware public is a function of the common images the two groups hold of each other. A typology of image states is offered to interpret coorientation findings. This typology provides a basis for developing and refining the agency's public relations.

The complexity of coorientation data analysis is addressed through reliability test methods. Intraclass correlation and analysis of variance are employed to define the coorientation variables and to determine if respondent groups are true entities. Cluster analysis is used to identify subgroups and to deal with the psuedo-data problem relative to homogeneity of group responses.

Findings show that an agency's effort to respond to the public results in organizational priority flux, but with movement toward to a more homogeneous view of public needs. On the other hand, the public is less likely to be affected by the process. Study results underscore the need for ongoing monitoring of the agency-public communication process.

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CHAPTER 1

INTRODUCTION

Public relations is more than the conveying of information about an organization's substance and intents to the public. It is the developing of a relationship that requires shared common meanings about given objects and topics. Edward Bernays (1952, p. 3) describes it as "efforts to integrate attitudes and actions of an institution with its publics and of publics with that institution." In order to share meaning, communicating parties must have reciprocal images on which to base their communication. The correctness of those images is crucial to successful public relations.

Government agencies in a democracy must keep their "bosses", the citizens, informed. The public information process requires a constant effort to maintain an agency's image in the public mind. But, attempts at public information often are viewed with partisan suspicion as evidenced by legislative action early in this century. In reaction to an Office of Public Roads (Department of Agriculture) advertisement for a publicist, Representative F.H. Gillette, Massachusetts Republican, added an amendment to the Deficiency Appropriation Act of 1913

prohibiting any executive agency's hiring of such persons without congressional authorization.

He was joined by Representative John J. Fitzgerald, New York Democrat, in arguing that news which was due the public was published without the need of a publicity agent and that no executive office should extol its own virtues or publicize its activities in the press. The debate was short; interest was apparently slight. The only suggestion of defense for publicity came when Representative Asbury F. Lever, South Carolina Democrat, asked if there would be objection to hiring editors to make farm bulletins more attractive and readable and when Representative Richard W. Austin, Tennessee Republican, suggested that, since all constituents were interested in good roads, perhaps Congress should ask the Office of Roads why it wanted the publicity expert. Mr. Gillette replied that his rider would not affect bulletins and that information on roads could still be given out and would be used by newspapers without a press agent to promote it and "to extol the virtues of this department (McCamy, 1939, p. 6)."

A distinct problem facing government agencies is that many taxpayers know little or nothing about (hold no image of) the existence of many services and thus cannot take advantage of them. Katz, Gutek, Kahn and Barton (1977, p. 60) report:

There is conspicuous underutilization of government services. On the average, about one-third of the people with problems for which government agencies provide help do not go to public offices....Lack of knowledge of the agency or the available program is the most important single reason for underutilization. For those who know of the existence of programs, the practical problems of getting to the office are more important than any negative feelings about public bureaucracy.

On the other hand, many agencies, represented by their employees, appear to hold inaccurate views of the public.

Katz, et al (1977) criticize public agencies for concentrating on broad strategies, immediate problems of the bureaucracy and/or delivery system technology. They charge that there is "a vast and profound neglect of the perceptions, experiences, and reactions of the people who themselves are supposedly being served (p. 1)."

Yates (1982, p. 173) explains that a bureaucracy can respond to its clients in four different ways:

In the procedural sense, responsiveness may be weakly defined to mean that bureaucrats will merely listen to citizens who try to press their claims, or it may be defined more strongly to require that bureaucrats restructure their administration so that they can act on citizen complaints more quickly. In the substantive sense, responsiveness may have the weak meaning that public officials will listen to what a citizen has to say and try to find answers that reflect the content of the citizen's concerns. In the stronger substantive sense, public officials may be required to do precisely what the citizen wishes; to respond directly, decisively, and quickly to the citizen's complaint.

A marketing strategy is one way for an agency to restructure and respond to public needs. Rathmell (1971) reports that the marketing of public services has become a significant approach to the government's dealings with its publics. As resources have become less plentiful, the legislative overseers of the government have begun to demand that agencies account more precisely for their dealings with clients.

One agency that operates under close internal and external scrutiny is the Cooperative Extension System of

the United States Department of Agriculture (USDA) nation's land grant universities. As Sawyer (1984) describes the situation, "It (is) no longer enough to report dollars spent, on what, and with what good intentions....(T)he Farm Bill of 1977...mandated large-scale evaluations of the social and economic consequences of Extension programs." Additionally, the Secretary of Agriculture called for systematic evaluation in 1972 (Gross, 1977).

The Alabama Cooperative Extension Service (ACES) is a public educational organization with agents in all 67 counties of the state. Continuous evaluation of the organization and the public's expression of needs relative to its services has long been part of the ACES function. In 1985, the organization adopted a statewide marketing program for its public services in agriculture, home economics, community resource development and youth development. A key element of the program is ongoing assessment of the agency's image in the state.

The ACES marketing response is based on Kotler's (1979) principles of social marketing. The approach is a total marketing process, not just the commonly perceived idea of marketing as selling. It involves: **discovering** what the public needs, **analyzing** what the organization can do to meet those needs, **developing** programs and services responsive to those needs, **delivering** the programs and

evaluating them. This process requires more systematic measurement of the public's needs and the corresponding development and presentation of programs to meet those needs.

Study Significance

This study seeks to contribute to the field of public relations and to the realm of communication measurement methods. It replicates techniques of the coorientation model of communication (McLeod and Chaffee, 1973) and applies it as a measure of organizational image. As a contribution to the literature of public relations, it seeks to demonstrate the importance of two-way communication and how to enhance it with the aid of market research (Broom and Dozier, 1983). A typology of different states of an organization's image is proposed to aid in organizational assessment.

The study proposes a model for assessing and communicating solutions to public needs that can be met by programs for which an organization is equipped (Grunig, 1983). Within the national Cooperative Extension System, the intent is to provide a tool to clarify policy and decision-making processes rather than to assess educational processes. Central to this endeavor is the principle of modifying the organization to meet the

expectations of the public (Yates, 1982) and of enabling agencies (Sawer, 1984).

In social marketing, the study may contribute to the debate as to whether there is such a thing as social, or nonprofit, marketing. Luck (1969) takes issue with the idea that one can market something for which there is no exchange of capital. By using the coorientation model in an applied marketing context, this cross-disciplinary test of methods may show how marketing principles can be applied to a public agency.

CHAPTER 2

THEORETIC PERSPECTIVE

Three strands of literature are woven into the fabric of this study. In the field of communication, the appeal is to the coorientation path and the sharing of images. Social marketing, or marketing of nonprofit organizations, provides another base. And, the field of Extension, or non-formal, education provides the setting. These fields hold similar functional concerns, and thus share interest in the implications for ways of applying audience research findings.

Coorientation

As a communication measurement strategy, McLeod and Chaffee's (1973) coorientation model (figure 1) deals with understanding and agreement between two communicating parties (A and B) about a given object (X). It measures congruency, or how each party perceives the comparability of his orientation to X with the other's orientation toward X. And, it measures the accuracy of one's perception of the other's assessment of X relative to the other's actual assessment.

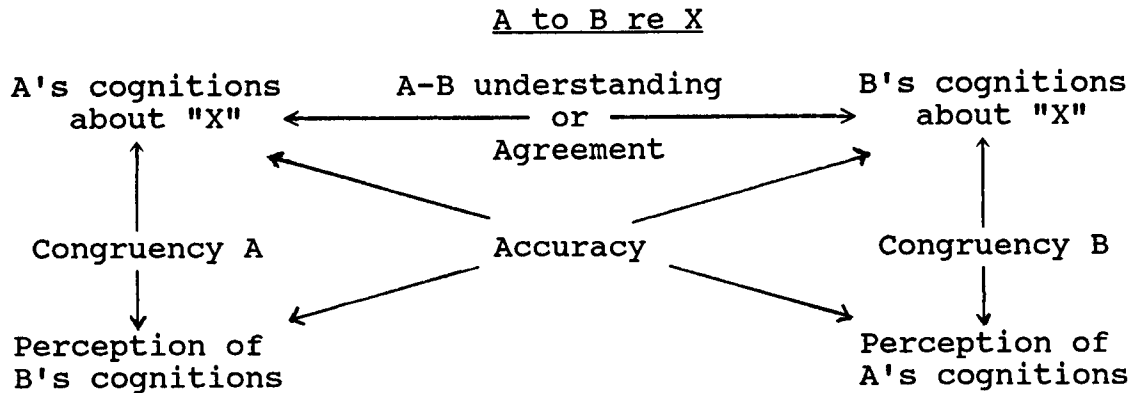


Figure 1

Coorientation Dyad
(McLeod & Chaffee, 1973)

The coorientation model for measuring communication is grounded in a synthesis of five schools of thought (McLeod and Chaffee, 1973, pp.470-471):

The first is the consensus approach of Wirth (1948). The second is the symbolic interactionist view associated with Cooley (1902), Burgess (1926), Thomas (1927), and especially Mead (1934). A third is the social concept of personality and psychotherapy advocated by Sullivan (1953). A fourth, which serves as the conceptual basis for much of the work here, is the coorientational model of Newcomb (1953). A fifth, a forerunner of the measurement model used here, is the "person perception" literature (e.g., Tagiuri et al., 1952) (sic); Kogan and Tagiuri, 1958 (sic)).

Most notable among these lines of thought are symbolic interaction and Newcomb's ABX coorientational model.

Symbolic interaction

Cooley first addressed the idea that, in communicating, persons modify their images of self and

others in order to move toward shared meaning. When applied to an organization, the concept can illuminate Bernays' assertion that public relations is a system in which the organization and its publics integrate purposes. In so doing, it requires a two-way activity on the part of both parties; not the one-way activity of the traditional publicist.

Cooley's (1902, pp. 183-185) concept of the "looking-glass self" holds that it is the interaction of our internal knowledge of self and our perceptions of what others think of us that forms our "real selves." That social self has three basic elements: 1) how we imagine our appearance to the person with whom we interact; 2) how we imagine his assessment of that appearance; and, 3) our self-feeling or awareness of the situation. As Cooley (1902, p.184) puts it, "The thing that moves us to pride or shame is not the mere mechanical reflection of ourselves, but an imputed sentiment, the imagined effect of this reflection upon another's mind.... We always imagine, and in imagination, share the judgments of the other mind."

Mead (1934) extended the views of Cooley in defining personality, or self, as a result of interaction between mind and society. Language, or symbol system, is central to this development. Shared meaning for a symbol leads to

its becoming a "significant symbol" that facilitates shared behavior.

In Mead's terms, the personality has two phases of activity: the "I," or intrapersonal aspect; and the "Me," or social self. He stresses that these are not states of being. These premises lead to an analysis of communication as the process in which the mind (internal symbolic communication), self (perceptual object) and society (continual transactions of adjustment between personalities) are developed.

In the continual adjustment that is society, individuals develop a "generalized other." This is a standardized perspective of the beings which interact in the given social system. It serves as a reference through which the system's members can take on and fulfill their social roles. It encodes individuals' expectations for self and others.

Within a symbolic interactionist perspective, analysis of organizational public relations requires changing points-of-view. Each party alternates between the roles of self and other as communication progresses. In the present study, the communicating parties are a public agency and the public it serves. Consequently, all analyses must account for the two perspectives.

Newcomb's co-orientation system

Chaffee and McLeod expanded on Newcomb's (1953) "ABX Model." This co-orientation system deals with persons' simultaneous orientation to a given object (figure 2).

...just as the observable forms of certain solids are macroscopic outcomes of molecular structure, so certain observable group properties are predetermined by the conditions and consequences of communicative acts.

The initial assumption is that communication among humans performs the essential function of enabling two or more individuals to maintain simultaneous orientation toward one another as communicators and toward objects of communication (p. 392).

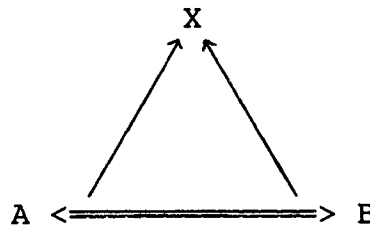


Figure 2

The Minimal A-B-X System
(Newcomb, 1953, p. 394)

This simultaneous orientation becomes a system in which the process of communication occurs. It consists of co-orienting parties (A and B) and their subject of common orientation (X). At any point, the elements of the system are A's and B's reciprocal perceptions of each other and their mutual perceptions of one another. Application of

stimuli to the system will trigger a strain toward symmetry in which the co-orienting parties attempt to coordinate their perceptions.

The system can be analyzed from the point-of-view of either of the co-orienting parties. However, the focus is usually only on one at a time (figure 3). It describes a communicator's field of knowledge of the given situation.

Newcomb explains the varied elements in the system:

...the A and B at either side represent persons as communicators; the A and B in the center represent the same persons as objects of co-orientation. The broken lines represent A's judgments of B's orientations (p. 401).

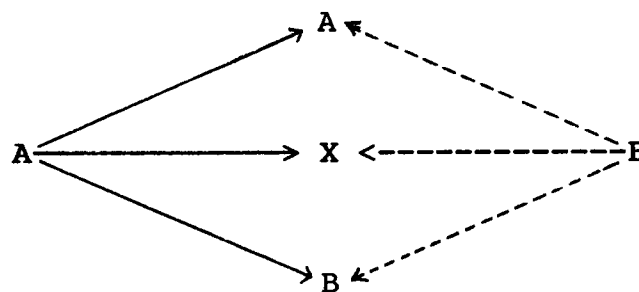


Figure 3

A's Phenomenal A-B-X System
(Newcomb, 1953, p.401)

Thus, there is more than a shared view of an object. There is the dynamic interaction of reciprocal perceptions of each communicating party. This results in a range of possible changes as a result of communication. "A" can:

1. achieve, or attempt to achieve, symmetry with regard to X

- a. by influencing B toward own orientation,
 - b. by changing own orientation toward B's,
 - c. by cognitively distorting B's orientation;
 2. introduce changes in other parts of the system
 - a. modify his attraction toward B,
 - b. modify his judgment of own attraction for B,
 - c. modify evaluation of (attraction toward) himself (A),
 - d. modify his judgment of B's evaluation of himself (B);
 3. tolerate the asymmetry, without change.
- (Newcomb, 1953, p. 401)

Newcomb reminds us that we must view the communication process from the perspective of both parties. In the context of this research, we attempted to apply Newcomb's principles for increasing symmetry by changing the perceptions of a government agency and the its client public.

Communication studies

In the mid-1960s, several different scholars developed coorientation-type models. Laing, Phillipson and Lee (1966), in psychology, proposed a "spiral of reciprocal perspectives." Scheff (1967), in sociology, focused on levels of consensus. And, Chaffee and McLeod (1968) introduced their interpersonal coorientation model to communication studies.

The Chaffee-McLeod model was soon applied beyond the interpersonal level to collectivities or groups. Grunig (1972) used it to measure community decision-making relative to low-cost housing programs.

Organizations were found to communicate mostly with those who perceive the problem in the same way and believe the same alternative solutions to the problem are feasible. Much of this communication was dysfunctional, forestalling a community decision and leading to a 'non-decision (p. 5).'

Stamm and Bowes (1972) studied the interaction of the public and the Corps of Engineers in a flood control project. Their inquiry only deals with the congruency dimension by comparing the public's views with its perception of Corps priorities mediated by the local press and social network. They show that the agency successfully conveys the beneficial effects of its projects, but that the public perceives it as not recognizing the disadvantages. The researchers diagnose the situation as one of uncertainty that could be dealt with through a more effective communication program.

Broom (1976) and Meiller (1977) studied community consensus building relative to local development problems. Interviews with citizens, community leaders, local elected officials and local newspaper editors reveal an initial perception of greater agreement than actually exists. As communication proceeds there is a greater move towards within group consensus among the officials and community leaders than within the general public. Meiller (p.109) says, "The findings lend credence to the argument that an intermediary is needed who can not only interpret public feeling and report those feelings to planners and back to

the public, but can also present the planner's view to the affected publics."

Karbon (1980) analyzed the coorientation of a resource management agency, the public it serves and local influentials relative to natural resource problems. Testing Scheff's (1967) theory of consensus, he identifies two most desirable states in community decision-making-- "consensus, in which the groups agree and are aware of the agreement, and dissensus, in which the groups accurately perceive disagreement (p. 134)." The first stage of study shows generally low accuracy. As communication proceeds, accuracy, but not necessarily agreement, improves. The agency, with its more formalized role, exhibits the greatest modification.

Grunig and Stamm (1973) point out that coorientation-type studies of organizational communication date to the 1950s. Odiorne's (1954) communications audit measures effectiveness of communication between management and employees. Kerr and Speroff's (in Van Zelst, 1952) empathy test is based on the idea that "individuals who are superior in empathic ability are persons who are above average in understanding and anticipating the reactions of other people." Janowitz and Delany (1957) measured "the accuracy of the bureaucrat's knowledge concerning the perspectives of clients and of the general citizenry

toward his agency" by asking subjects to predict their client public's responses to a set of questions.

Coorientation studies of organizations focus on the responsiveness of those groups to their client publics. The idea is to alter the self in order to improve symmetry with the other. In the present study the goal was to make the agency more empathetic with its public. This is accomplished by gaining feedback from clients and tailoring corresponding messages to help them better understand the agency.

Nonprofit Marketing

Another strand of scholarship to which this study appeals is "nonprofit marketing." In this usage, marketing does not simply mean sales. It does mean the total process of gauging consumer needs, designing products (programs or services in the public sector) to meet those needs, developing delivery strategies and evaluating ongoing activities for future product development and delivery. Chaffee and McLeod's coorientation model can be used as a basic market research tool. It can target agreement on needed services and the way product/program development and promotion strategies can be engineered.

Selling social causes

Wiebe (1952) first asked the question, "Why can't you sell brotherhood and rational thinking like you sell soap?" As the research psychologist for CBS, he addressed a concern that is still with us--how to muster the successful forces of mass media advertising for nonprofit, social causes.

He (pp. 681-682) proposed five audience factors that affected the degree of success of mass persuasion to motivate behavior:

- 1) The force of the motivation is "a combination of one's predisposition toward the goal prior to the radio or television program and the motivation provided by the communication (p. 681)."

- 2) "The direction of motivated persons to the mechanism consists of telling audience members specifically where or how they may easily consummate their motivation in interaction with a social mechanism (p. 681)."

- 3) The social mechanism is an organization or place to which the individual can go in response to motivation.

- 4) The social mechanism's willingness to meet its potential clients' goals is a necessary attribute marked by adequacy of product and compatibility with the market.

- 5) "The distance of the audience member from the mechanism...(is the) subjective estimate of the

intervening energy expenditure required, in comparison with the reward (p. 682)."

Expanding the marketing concept

Kotler and Zaltman (1971) opened the debate over whether social causes could be marketed as commercial products are. The following decade saw a wide range of studies and commentaries on the subject. In a review, Fox and Kotler (1980) stressed the point that terms had gotten confused. They made three divisions: 1) social marketing of ideas and causes; 2) societal marketing of social responsibilities; and, 3) nonprofit organization marketing. However, review of Kotler's work does not provide a clear delineation of these.

Essentially, the marketing process involves what McCarthy (1968) labels the four P's, product, promotion, place and price. Each of these relates to Wiebe's factors for mass persuasion.

A product in the commercial realm is a tangible object or measurable service offered for sale. In the social marketing realm, it is usually an intangible such as Wiebe's brotherhood. In both, the challenge is to discover consumers' needs and design the product to make the most of the motivational force to consume it.

Promotion is "the communication-persuasion strategy and tactics that will make the product familiar,

acceptable, and even desirable to the audience" (Kotler and Zaltman, 1971, p.7). For both profit and nonprofit, this aspect of marketing has received great attention in the form of advertising, personal selling, publicity, and sales promotion.

Place incorporates Wiebe's direction and adequacy/compatibility factors. Successful commercial ventures always have a location and mechanism for the customer to exchange resources for products. Nonprofit organizations often suffer in this respect due to the intangible nature of their products/services and their non-sales orientation.

Price, a natural consideration for profit, is often overlooked or misunderstood in nonprofit situations. Incorporating Wiebe's distance and some aspects of adequacy/compatibility, this addresses the amount of resources (time, capital, energy, etc.) the individual must expend to obtain the product.

Cooperative Extension System

Yates (p. 134, 1982), differentiating between open and closed bureaucracies, describes the Department of Agriculture as a client agency that prides itself in openness to community concerns. He defines an open bureacracy as one that affords decisionmaking opportunities to many different interest groups at various

levels, thus reinforcing pluralist democratic values. Consequently, the Extension function of the USDA and state land grant universities, is one of the government's more information-oriented activities.

Extension enabling legislation, the Smith-Lever Act, 7 U.S.C. sec. 341 (1914), sets the agency's goal:

to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same.

Use of the coorientation model in a market study does not contribute so much to Extension education methods as it does to the policy-making processes that affect educational strategies. Market-oriented policies take account of the public's expressed needs in contrast to politically motivated or expert generated policies. The policy questions touch on the relevancy of the organization, its role in contemporary society, and the ways it can respond to its mandate in an ever-changing environment.

Extension education

The Extension educational system is based on the structure identified in the diffusion of innovation tradition (Rogers, 1983). It consists of the change agent, the opinion leader and the adopting public. Its

modes of instruction are non-formal and carried on outside of the traditional classroom.

Basic to the Extension educational philosophy is the grassroots input into program planning (Rogers, 1983). The ideal process involves 1) the local agent's consulting the public in a county, 2) that agent's reporting the local needs to the state land grant university, 3) the university's, often in concert with the USDA, conducting of problem-solving research related to the needs, and 4) resulting expert recommendations being reported back to the communities in need.

A key element in this process is the county Extension council, composed of local opinion leaders. However, as Rogers (1983) warns, those opinion leaders often become more like the change agents and lose understanding contact with the general public. Warner and Christenson (1983) recommend going beyond traditional contacts and decision-making processes to seek advice from potential users.

A critical concern for evaluation efforts is whether the public views the Extension organization the same way as do Extension personnel and people speaking on behalf of Extension. Misconceptions in the perception of reality lead to evaluation designs that serve to confirm inaccurate assumptions (pp. 27-28).

"Front-end" market research should alleviate this problem. Through direct contact with potential clients, it should circumvent ingrained organizational biases, and

provide local, district and state decision-makers with clearer assessments of local needs.

Evaluation and marketing

Two related concepts that are uppermost in the minds of Extension administrators nationwide are accountability and evaluation. Beeman (1982) stresses a distinction between the two. Evaluation is "a process of determining how well we do what we set out to do; or whether our programs achieved the specified goals and objectives." Accountability "connotes responding to the inquiries of critics and supporters.... With results clearly specified, the educational technician or agent becomes responsible for resources used and of results."

Accountability and evaluation are "after-the-fact." The goal of marketing is to implement a "before-the-fact" measurement of clientele needs, so that programs can be responsive to them. In Toffler's (1981) terms, it is a proactive instead of reactive strategy. It seeks to avoid what Boulding (1953) criticizes as the "blunderbuss" approach to government action.

The precision rifle rather than the blunderbuss is what is needed; nevertheless,...government's ...general response to trouble is to fire a monstrous charge of legislative or military shot and hope that at least something hits somebody (p. 71).

Fowler (1986) has synthesized marketing principles with the Cooperative Extension program development model.

The result is a five step process: 1)gaining knowledge of the target market; 2)product (program) development in response to the market's interest; 3)promotion of services in terms of the public's expressed needs; 4)delivering services in ways convenient to the users; and 5)exchanging results for future support (accountability and evaluation). It is step one, market research, which poses the greatest challenge for the Cooperative Extension System.

CHAPTER 3

METHODS

A starting point for critical image appraisal is in understanding how the public identifies the organization. For the present study, the premise is that the Federal Extension System and the Alabama Cooperative Extension System do not exist in the public mind separate from the personalities that make up the organization. Cooley (1909, pp. 121-122) defines public opinion as a stage in a process of the collective public mind. Furthermore, he (p.313) sees an institution as "a definite phase of the public mind," in which human thought or intent is organized around a certain task. This point-of-view stresses that, legal mandates, bureacracies, and physical facilities notwithstanding, an organization is only as real as the perceptions of its intended audience.

The reality of Cooperative Extension stems from its traditional strength of localism. The basic philosophy embodied in the Smith-Lever Act is one of a local change agent's bringing outside resources to a community with specific needs. Thus the true identity of the

organization is synonymous with the local change agent and his/her base of operation.

Since the Cooperative Extension Service is manifest in the public mind on a county-by-county basis, there is no true statewide entity to study. Therefore, a study of this sort must concentrate on individual counties. Three counties, representing ACES districts, chosen for pilot studies are Jackson (northeast Alabama, rural/suburban, population 51,000), Butler (south central Alabama, rural, population 17,000), and Houston (southeast Alabama, fast-growing urban with strong agricultural interests in the rural area, population 75,000). The goal for this study is to provide a model for ACES to use in other counties to gauge local markets.

Houston county was chosen as the focal point of the study reported here. It is the center of Alabama's peanut crop production with 55 percent of its land in farms, down from 65.5 percent in 1972 (Bureau of the Census, 1982). The number of farms has dropped 14 percent since 1978. In contrast, there is significant industrial growth around the county seat of Dothan. Its population density ranks 13th in the state (Center for Demographic and Cultural Research, 1987). The county has seen a 9.9 percent growth in population since 1980, a trend that is nearly double that of the whole state. Population median age of 31.4 years is identical to the state and national trend. The

county's racial mix is less diverse than the rest of the state with a non-white population of 21.8 percent versus a state figure of 25.6 and national figure of 15.2.

The coorientation model provides the measurement framework (figure 4). The approach is similar to that of Karbon (1980), who studied the relations between the Wisconsin Department of Natural Resources and its publics in two counties. Using Mead's concept of the generalized other, the coorienting parties are defined as the general public and the agency (county Extension agents). In this setting the "significant symbol" is the types of information needed to improve the individual's quality of life.

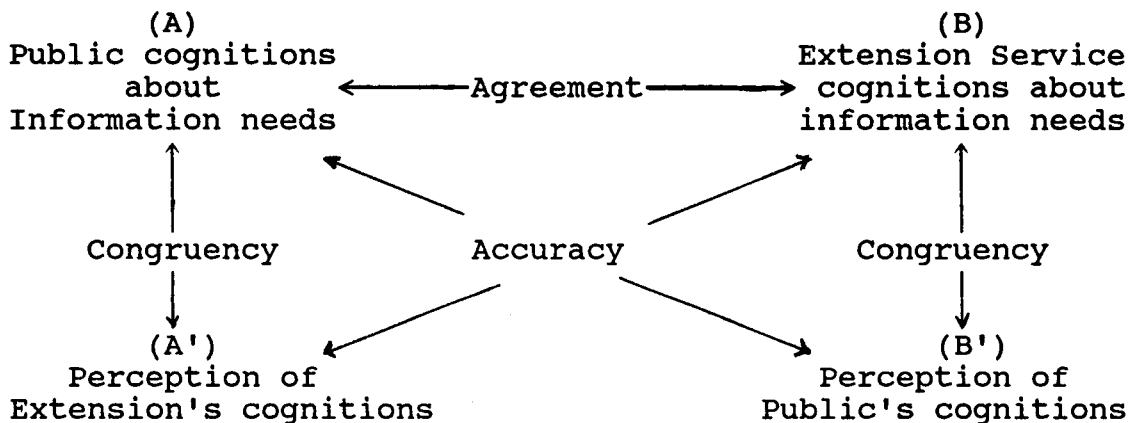


Figure 4

Coorientation Dyad
Public--Extension
re Quality of Life Information

Image

A major thesis of this study is that the images that communicating parties hold of each other are essential to the effectiveness of communication. Boulding (1956, p. 98) maintains that the "whole movement of society (is) a process of image-formation under the stimulus of messages transmitted by networks of communication." Meaning is defined as the change that an incoming message produces in the image. At the same time, the outgoing messages are affected by the image of the originating source. The sender-receiver-feedback loop is mediated by the communicators' images.

Image mediation occurs via value filters. Boulding (1956, p. 28) says, "There are no such things as 'facts'...only messages filtered through a changeable value system." However, since mankind is a social system there is a sharing of images. The degree to which private images are shared determines the degree to which fact, or perception of reality, exists. Shared images become the public image.

Mead (1934, pp. 337-346) conceives of image as an unconsumated act. He sees the whole social transaction as a series of acts in which constant system modifications are being made. Act begins with an impulse that disturbs balance within the system. Consumation is the point at which the disturbance is resolved. When an act is

interrupted, its actors carry with them perceptions of the situation. These perceptions are stored plans of action for completing a given transaction. Mind is the place where these images are encoded as symbols and rehearsed in anticipation of completing the act.

Image elements

Primary coorientation measures focus on the communicating parties' cognitions of an object or characteristics of one or both of the coorienting parties. In terms of an organization's relating to its publics, the initial variables (Newcomb's X) usually deal with aspects of the organization's mission.

Van Zelst's (1952, p. 293) Empathy Test called for rankings of types of music, types of magazines and annoying experiences. Janowitz and Delany (1957, pp. 147-150) dealt with employee benefits and social services administered by three Detroit-area agencies. Chaffee and McLeod (1968, p. 664) measured attitudes about the Selective Service. Grunig (1972, pp. 12-14) asked respondents to evaluate problems and solutions related to low-cost housing for the poor. Respondents were asked to classify the advantages or disadvantages of anticipated effects of a Corps of Engineers project by Stamm and Bowes (1972, p. 53). Meiller (1977, pp. 60-62) had local residents evaluate particular community development

problems. Karbon (1980, p. 67) used a similar focus by asking for respondents to list local natural resource concerns.

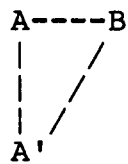
In the present study, the objects of orientation are types of information that can improve quality of individuals' lives (appendix A). Public respondents are asked to rate their needs for the information. Agency respondents are asked to rate the need for the agency to provide the information. Each group is then asked to predict the other's response.

McLeod and Chaffee (1973, p. 483) emphasize that the variables used in coorientational analysis are the relationships between, not the actual measures of, cognition and perception. This model deals with a communication system, not the individuals involved in it. Thus, as we look at the correlations of agreement, congruency and accuracy relationships, we are looking beyond the object of orientation (X) to the structure of the image-formation network.

Image components

Comparisons of congruency, accuracy and agreement measures indicate different states of an organization's image as held by its coorienting public and vice versa (figure 5). Congruency gives an indication of the valence of an image--is it a positive or a negative image?

Public's Image
of the Organization



Organization's Image
of the Public



Figure 5

Coorientation Model Components of Image

Accuracy measures the correctness of perception--does the image match the substance of what exists? Agreement acts as a parity checker--are the responses on which the image assessment is based really (non-)aligned?

A psuedo-data problem, in which coorienting groups may not in fact be true groups may occur. To avoid this, coorientation comparisons must be preceded by the determination of the degree to which each of the coorientating groups is in fact homogeneous. This is accomplished via intraclass correlation. Intraclass correlation was originally intended to estimate test reliability for complete or incomplete sets of ratings (Ebel, 1951, pp. 407-408).

This procedure, based upon analysis of variance, may be applied both in the special case where a complete set of ratings from each of k sources is available for each of n subjects, and in the general case where $k_1, k_2, \dots, k_n$ ratings are available for each of the n subjects. It may be used to obtain either a unique estimate or a confidence interval

for the reliability of either the component ratings or their averages (p. 407).

If intraclass correlation is weak, the assumption that there are discrepancies in intra-group opinion and possibly further sub-groups must be investigated.

Image states

A typology of image states is similar to Scheff's (1967) model of consensus. Building on Laing, et al (1966), he plots a profile of possible coorientations (figure 6).

There is monolithic consensus if the majority agrees and understands that there is agreement; there is pluralistic ignorance if the majority agrees but thinks that there is disagreement; there is dissensus if the majority does not agree and understands that they do not agree. And there is false consensus if the majority does not agree and thinks that they agree (p.39).

<u>Majority</u>	<u>Understands</u>	<u>Misunderstands</u>
	UA	MA
Agrees (with the <u>statement X</u>)	Monolithic Consensus	Pluralistic Ignorance
	UD	MD
<u>Does not agree</u>	Dissensus	False Consensus

Figure 6

A Model of Consensus
(Scheff, 1967, pp. 38-39)

Following Mead's concept of image as an unconsummated act, it can be assumed that one's stated opinion about his perception of another's opinion is evidence of the image he holds. Statements of those opinions are obtained through coorientation interviews. Image states can be determined through the resulting accuracy and congruency measures. As with Scheff's consensus model, this makes possible a four state typology (figure 7). Note that consensus/dissensus usually applies to political balance. Here it is modified to a cultural function.

Informed interest--There is a correct public perception and a positive disposition toward the organization's products or services. This is the most desired state for completing the organization's mission since the public is most amenable to it. In this state the public and organization agree, the public feels its

Group is:	(Accuracy)	
	Informed (Accurate)	Misinformed (Non-accurate)
(Congruency)		
<u>Interested</u> (Congruent)	Informed interest	Misinformed interest
<u>Disinterested</u> (Non-congruent)	Informed disinterest	Misinformed disinterest

Figure 7

Image States
Typology Based on Coorientation Variables

views are congruent with the organization's, and the public accurately assesses the organization's views.

An organization that adopts a marketing mindset in its communication process must equally scrutinize its perception of the public. From the organization's point of view, informed interest characterizes the most effective state for carrying out its business. It knows and identifies with its clientele.

Misinformed interest--The public wants services or products it thinks the organization can provide, but has a misconception about them. Interest in services is demonstrated by congruency between stated public needs (A) and public perception (A') of the organization. Misinformation is indicated by a misunderstanding of the organization revealed by difference in an accuracy measure between the public's perception (A') and the organization's priorities (B).

A mismatch in priorities is confirmed in a significant difference between public ratings (A) and the organization's ratings (B) of information needs. This disagreement indicates a false state of perceived consensus.

Viewed from the organization's perspective, misinformed interest represents a situation in which the organization fools itself. It (B) thinks that the public

(B') wants the products that it feels it should offer, yet the public demonstrates other priorities (A).

This state presents a serious quandary. If a concerted promotion effort is made to correct the image, the public will realize that it has no interest in the organization. To bring the coorienting parties into balance requires a change in organizational emphases.

Informed disinterest--The public understands the organization's products or services, but indicates interests opposite to those of the organization. The first indication of disinterest is non-congruency between public information needs (A) and public perception (A') of organizational priorities. An accurately informed state is shown by a non-significant difference between public perception (A') of organizational priorities and actual priorities (B). Non-agreement between information needs ratings (A-B) confirms differing priorities.

This state is least desirable and indicates a need for some sort of organizational modification to serve public interests. Dealing with this state can be helped by the fact that the public understands the organization and can be a possible partner.

An organizational viewpoint characterized by informed disinterest could be fatal in denying the market's influence in programming or product development. The implication is that the organization knows its audience,

but refuses to meet its expressed needs. The remedy is the same as when dealing with a similar public view: Change organization priorities.

Misinformed disinterest--The public's perception is wrong, but its interests agree with those of the organization. A measure of non-congruency, significant difference between the public's information needs (A) and its perception (A') of the organization's priorities, indicates disinterest. However, a significant difference between its perception (A') and the organization's actual priorities (B), shows an inaccurate understanding of the organization. Furthermore, a non-significant difference between public and organizational priorities (A-B) shows that, in fact, the coorienting parties do agree.

This state is the best to work with in the development of organizational promotion strategies. It is similar to the concept of pluralistic ignorance (Allport, 1924, p. 208; Schanck, 1932) in that there is uncertainty about the opinion distribution in a given reference group. A public or segment of the public whose image is in this state is a prime market for the organization to serve.

An organizational image of the public characterized by misinformed disinterest, indicates a sort of alienation from the public. Such a situation calls for efforts to learn more about the general public in the community that

the organization serves. It requires heightened contact with a broader range of persons.

Implementation

Stage one

To meet organizational deadlines, the first survey schedule (Appendix A) was administered, via telephone, to the public and the agency (county agents) in October and November, 1985 (figure 8). The results of the first survey serve as treatment for the agency as it develops a plan to meet needs identified. Treatment of the public is a resulting marketing promotional piece (Appendix B). Agency treatment consists of internal reports (Appendix C) and staff briefings and discussions. In addition, the public has opportunity for exposure to regular ongoing Extension publicity and the agents have opportunity for exposure to ongoing public needs.

A preliminary survey of the general public determined its needs for various services, categorized under the areas that the ACES is capable of serving. The results of that survey were used by the county agents to analyze their local programs and determine what sort of marketing plan (specific programs and attendant publicity) was appropriate.

In the general public sample, only those persons revealing an awareness of Extension were asked to respond

		t1	t2	t3
P1a	PI	M1	-	-
	<			
	PIIa	M2	-	M2
	<			
	PIIb	M2	T2	M2
P2		M2	T1	M2

- P1a = Random sample of the general public in Houston County, Alabama.
- PI = Persons from P1a who are not aware of the Extension Service.
- PIIa = Persons from P1a who are aware of the Extension Service (random assignment).
- PIIb = Persons from P1a who are aware of the Extension Service (random assignment).
- P2 = Cooperative Extension Service personnel in Houston County, Alabama.
- M1 = needs assessment
- M2 = needs assessment with coorientation questions added
- T1 = Internal organizational reports of findings
- T2 = Direct mail promotion
- t1 = October, November, 1985
- t2 = December, 1985 - December, 1986
- t3 = October - December, 1986

Figure 8

Notational Design
Coorientation of a Government Agency with Its Public

to coorientation ratings on the first interview. This procedure is based on the premise that lack of knowledge of Extension will preclude any possibility of coorientation. Chaffee addresses this in his psuedo-data paper (in Karbon 1980).

Stage two

This stage must be limited to Houston County, due to difficulties created by the complexity of the first questionnaire used in the other two counties. As the first surveys progressed, it became evident that the original instrument (71 information needs ratings and 71 corresponding perception ratings) was far too involved for repeated telephone administration. In an effort to deal with the problem, the Houston County questionnaire was simplified (17 information needs ratings and 17 perception ratings) before administration. The result was a greater coorientation component completion rate (table 1).

Chaffee (1986) asserts that a true coorientation study requires more than one measurement point. This follows the symbolic interactionist's concept of meaning's being inextricably involved in an always developing situation. So, following direct mail promotion of a portion of Extension programs and services (Appendix B), a second survey sought evidence of change in public and agency perceptions in Houston County (figure 8). The telephone

Table 1

Cooperation Rates for Coorientation Questions:
Differences Between Original and Modified Instrument

	<u>Aware respondents</u>		<u>Unaware</u>
	<u>Responses</u>	<u>Refusals</u>	
Houston Co. (modified)	122	23	120
Jackson Co. (original)	76	34	162

Chi square = 18.98, df = 2, alpha = .05, significant

Houston Co. (modified)	122	23	120
Butler Co. (original)	72	18	116

Chi square = 6.27, df = 2, alpha = .05, significant

Note: Houston Co. n = 265
 Jackson Co. n = 272
 Butler Co. n = 206

questionnaire was administered to both the public that is aware of Extension and to the agents. The goal was to see if coorientation changed over time and was affected by specific promotional material.

Since all respondents must be assumed to have similar opportunity for exposure to Extension messages in the mass media, the treatment situation must be controlled to account for any change. The respondents from the general public were randomized and assigned to a treatment group (receiving a direct mail promotional piece) or a control group (not receiving any special publicity). Randomization of the two groups ensures internal validity of the measure (Cook & Campbell, 1979, pp. 51-55).

One particular validity threat (diffusion or imitation of treatments) was dealt with by swift application of the measures soon after the direct mail treatment. Cook and Campbell (p. 54) warn, "When treatments involve informational programs and when the various experimental (and control) groups can communicate with each other, respondents in one treatment group may learn the information intended for others."

Sampling Procedure

Each county is viewed as a discrete entity, with no inferences made to the rest of the state from combinations of data. Thus, there must be a representative sample of

sufficient size to make inferences county by county. The unit of analysis is the aggregate public; however, the unit of observation is a household represented by an adult respondent. Respondents were selected with the "most recent birthday" technique in which the person answering the telephone was asked to identify the person more than 18 years old with the latest birthday in the household (Appendix A). This overcomes a sex bias in that one's gender is not related to the time of one's birth.

Due to organizational deadlines, complexity of the first instrument, and an unexpected resistance to interviews in Jackson County, a smaller than desired number of interviews was completed. The completion rate in each county makes possible a 95 percent confidence level with an error margin of plus or minus seven percent.

In the Houston County sample, the coorientation measures were administered to 122 aware members of the general public. That allows a 95 percent confidence level with plus or minus nine percent error for the final stage.

The sample was drawn by Survey Sampling, Inc. of Westport, Connecticut. Its data base is a compilation of all nationwide telephone listings (updated quarterly) and census information. The listings are cross-referenced by zip codes, census tracts, and telephone exchanges. The sample is drawn in "replicates," or representative subsamples.

Exhaustive effort was made to assure that each replicate was completed before the next one was started. When it became evident that there would not be enough time to reach the original goal, subsampling was adopted in order to maintain representativeness.

The Questionnaire

The questionnaire can best illustrate the operationalization of the study's assumptions and research questions (Appendix A).

Community satisfaction

An introductory question, asking the respondent to rate the quality of life in the county, gets the person accustomed to answering questions and somewhat oriented to the subject. It also cues the respondent to the process of using a rating scale. The result, though not used in this immediate analysis, can provide a community satisfaction index.

Audience information needs

The original intent was to have respondents indicate their salient needs through open-ended questions. Such an approach satisfies one of Chaffee's (in Karbon, 1980) warnings about psuedo-data, those answers that respondents give to questions that are not really relevant to their

particular situations. However, this approach made the interview too long to be managed by telephone. Previous studies, using open-ended questions, required personal interviews of at least an hour (i.e., Meiller, 1977). Telephone pre-test of such questions also revealed that respondents had trouble dealing with the concept without face-to-face contact and tired of the process.

The alternate strategy chosen is to ask questions relating to services that the Extension Service can offer. The questions deal with information that serves to improve the quality of life for the general public. One very noticable aspect that must be emphasized is that production agriculture, a primary Extension program area, was intentionally omitted. Since the marketing goal was to understand the agency's coorientation with the general public, the agricultural component was viewed as a distinct industry with commodities that require special attention in dimensions beyond a county-bounded study.

The questions were gleaned from Extension program development materials and from information gained in an open-ended pre-test. They were reviewed by program administrators responsible for the different areas covered. The option of answering "zero" allows respondents to express disinterest.

These questions serve as the basic needs determinants. In Newcomb's (1953) model the evaluated needs are the

objects of orientation (X). From the symbolic interactionist point-of-view, they are the significant symbol for which the parties share meaning. From them the agents and administration should be able to make programming decisions.

Agents responded to similar questions. The objects of common orientation (information about particular quality-of-life topics) were the same. However, the agents answered the basic question, "How great do you think the need is for the Extension Service to provide information in a given area?"

Awareness of Extension

Another of Chaffee's (in McLeod and Chaffee, 1973) warnings about psuedo-data concerns the necessity of the coorienting parties' (A, the public, and B, the agency) being simultaneously oriented toward one another. If the Cooperative Extension Service does not exist in the public's mind, the public cannot coorient with it. Thus, this question acts as a filter for the coorientation questions that follow.

Nationally, there has been a variety of attempts to understand the organization's public identity. Among the state extension services to study identity are Alabama (Mullins, 1982), Kentucky (Christenson & Warner, 1982), Missouri (Campbell, Hall, & Harrison, 1971), Oklahoma

(Cosner, 1980), and Wisconsin (Wisconsin Extension Staff, 1979). Two national studies (Warner & Christenson, 1983; Gallup, 1979) have addressed the concern.

Christenson and Warner's (1982) notation of the problem of comparing differing studies bears repeating:

[There is a problem] because of (1) variation in wording and questions, (2) variation in time period examined, (3) non-association of service and/or contact with Extension's name, (4) non-recognition of Extension as a source of information conveyed through mass media methods, and (5) recognition of program area such as 4-H without association with CES.

Nationally, Warner and Christenson (1983, p. 29) found a composite awareness rating of 87.4 percent. However, their inquiry dealt with "the existence of a public agency like Extension." Program areas were dealt with in generalized terms. There is a distinct difference between "likeness" and specificity.

In Alabama, nearly 80 percent of telephone survey respondents reported awareness of Extension by expressing an opinion of its effectiveness. No effort was made to measure specific identity. In all instances in this study, when the term "Auburn University" was linked with Extension, the audience ratings were higher than when the term "County Agent" was used alone. It is questionable whether this expresses real awareness of Extension, interest in Auburn University, or respondents' attempts to appear knowledgeable.

The Oklahoma study shows 78.4 percent awareness of Extension. As with other studies, this finding comes from a general question about the presence of a local Extension office. Cosner (1980, pp. 56 & 116) does move toward a more precise measure by asking respondents about specific local agents. However, there remains the potential bias of persons' wanting to sound knowledgeable by responding affirmatively.

These and other studies lead to an impression that a significant majority of people recognize the Cooperative Extension System. However, we must ask if the basic questions from which these data and resulting conclusions are drawn are rigorous enough.

These figures are suspect (i.e., persons were asked to rate the effectiveness of the local Extension Service without determining whether they knew the meaning of the term "Cooperative Extension Service"). It is probable that many respondents blissfully rated something about which they knew nothing. The premise that the organization exists in the public mind personified by the local staff requires a stricter measure to draw a more accurate picture. This question's subparts can be used to determine which agents account for the public's awareness of the local office.

Coorientation

These questions are identical in content and format to the needs questions; however, they require the respondents to reify the Extension Service. They ask the respondents to "put themselves in the agents' shoes" and answer the questions as they perceive the Extension Service would answer. The agents also were asked to reify the public and respond to like questions.

Media use

In order to gauge the effectiveness of Extension mass media efforts, the agents need to know which channels are used by which segments of the public. Additionally, it is important for them to know if the level of one's media use has any relation to types of information needed. These data were not analyzed in the present study.

Demographic variables

In a marketing approach to public-agency communication, audience demographics are used to identify types and groups of persons to be served. Characteristics of individuals in the public can be expected to correlate with the needs and awareness variables since they relate to experience and attitude formation. Knowledge of these characteristics can aid the ACES administration in forming its marketing strategies, and can aid specific state staff groups and

county staffs in developing educational and promotional programs. They include age, sex, education, race, home ownership, occupation, family status, and income.

CHAPTER 4

ANALYSIS AND FINDINGS

Analysis Method

This study requires a tool to gauge the degree to which opinion groupings are alike or divergent. Such a tool follows the principles of determining interobserver reliability relative to the given objects of orientation. Following Miller's (1987) technique for assessing the dependability of direct magnitude separation estimates, this study "seeks to detect systematic differences among stimuli rather than among individuals (p. 11)." In this manner, each response becomes a separate case to be analyzed. The information needs items are the stimuli and the raters evaluate the magnitude of need for the specific types of information.

A two-way analysis of variance can serve this end by comparing factors of group and rating item, and their interaction effects. While the dependent variable is continuous, the independent variables are class variables. If group membership (public or agency, other- or self-assessment, respondent ID, or measurement time) accounts for most of the variance and the intraclass correlation

coefficient is low, there is disagreement. The converse indicates agreement. Significant main effect for interaction indicates differential priorities. The item factor should show significant main effect if there is a prioritizing of information needs.

Analyses are based on a data array procedure in which individual responses are assigned a class variable representing the respondent (ID number), group (1 or 2) or time (1 or 2) from which the assessment was gotten and one representing the information needs item (1-17) which was assessed (see Appendix D). Typical coding for one respondent consists of 51 pieces of information (table 2).

Table 2
Typical Data Array
for Analysis of Individual Stimuli

Observation	ID	Item	Response
2041	231	1	5
2042	231	2	0
2043	231	3	6
2044	231	4	0
2045	231	5	7
2046	231	6	2
2047	231	7	0
1048	231	8	7
2049	231	9	0
2050	231	10	5
2051	231	11	7
2052	231	12	5
2053	231	13	0
2054	231	14	5
2055	231	15	7
2056	231	16	7
2057	231	17	7

Although this array and assignment of codes is systematic, the numbers, other than the response, only bear nominal properties. These coding procedures are outlined in some detail in Cohen and Cohen (1975). The array is produced by a SAS "ARRAY" statement (Appendix D) and converted into dummy codes by the general linear model routine. Cohen and Cohen (1975, pp. 207-210) explain:

Imagine a set of interview data from a survey (for example, market research, public opinion poll) in which the responses to some question are to be studied in regard to their relationship to one or more dependent variables by means of multiple regression/correlation analysis. Now assume that these responses have been "coded" (with each response) classified as falling into one of a set of mutually exclusive and exhaustive categories that is, a nominal scale. . . . (S)uch a coding scheme partitions the total group of interview respondents into a set of g categories, to each of which a unique number has been assigned.

Intraclass correlation, based on analysis of variance results, indicates the reliability or homogeneity of ratings within a given group or set of groups (Hays, 1981, pp. 382-383). Ebel (1951, p. 407) recommends it as a test for reliability for incomplete sets of ratings, such as one would have in a study comparing different groups of respondents of differing sizes. Within the coorientation model, this coefficient serves as an indicator of the similarity or dissimilarity of opinion element rating; the higher the correlation, the greater the homogeneity or consistency of ratings between parties. Ebel (1951,

p. 410) gives the intraclass correlation formula for the reliability of average ratings as

$$r = \frac{\text{Mean square within groups} - \text{Mean square error}}{\text{Mean square within groups}} .$$

A finding of low homogeneity raises the question of whether there are distinct subgroups within the coorienting entities. If there are differing subgroups, the analyst is faced with a probable psuedo-data problem. This can be answered with cluster analysis (Anderberg, 1973). A disjoint cluster analysis sorts responses into groups based on their Euclidean distances from other variables. Thus, this procedure identifies differing groups within a set of respondents.

The value of exploratory cluster analysis is primarily in the tendency for new arrangements of data units or variables to suggest relationships and principles previously unnoticed. The substantive results are not the output of the computer but the new ideas prompted in the analyst's mind. These results may take the form of hypotheses to be suitably tested or they may be so selfevident as to be adopted immediately without further ado. The clustering that suggests such ideas may itself prove to be only weakly consistent with the notions it prompts. The clustering obtained by heuristically and intuitively reorganizing according to the new ideas may be far more appealing than anything obtainable by a systematic clustering procedure. Cluster analysis is a tool for suggestion and discovery. It is not in itself a wellspring of either truth or falsehood. A consequence of these views is that the mechanical result of a clustering procedure is itself empty of all meaning.

The use of exploratory cluster analysis is conditioned by (at least) three essential elements: (1) the context of the problem, (2) the analyst's knowledge of the context, and (3) the analyst's research objective (Anderberg, 1973, pp. 19-20).

Valid Communicants?

Pseudo-data concerns

Awareness. Before coorientation analysis begins, there must be evidence that the two parties do, in fact, exist in one another's cognitive domain. For the agency, an assumption was made that the agents, by virtue of their roles as public employees, had an image of the public with which they work. For the public, a set of identity questions filtered out those respondents who could not demonstrate knowledge of Extension (Appendix A). The result was an awareness level of 55 percent ($\pm$ seven percent error margin).

The public must be viewed in three categories relative to its knowledge of Extension. There is the unaware group that cannot identify characteristics of the local service. In contrast, there is the aware group that can make specific identifications based on the agents' profile as local public figures. Then, from within the aware group, there is a client group that makes specific use of the agency. In the present study, the overall aware group is the segment of interest.

Homogeneity. Each coorienting party has two sets of measures, a self-assessment (information needs/priorities), represented by "A" and "B" in the model, and an other-assessment (prediction of the generalized other's

responses), represented by "A'" and "B'"(figure 9). The actual coorientation variables are derived from comparisons of these aspects (McLeod and Chaffee, 1973, p.483). To deal with a potential psuedo-data situation when the parties are groups, an initial question must be asked, "Are the coorienting entities, in fact 'of one mind?'" The agreement of the assessment of the subject "X" (information needs) within groups needs to be scrutinized. If the groups cannot be shown to agree internally, or have intra-agreement, then their corporate opinion must be questioned.

Within the model, this raises the first four research questions:

1. To what degree is there homogeneity of opinion within the public as to its information needs?
2. To what degree is there homogeneity of opinion within the public as to its perception of agents' information delivery priorities?

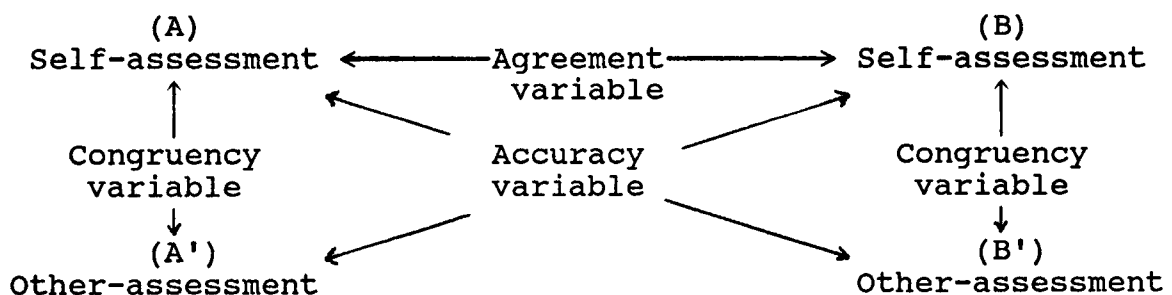


Figure 9

Coorientation Measures

3. To what degree is there homogeneity of opinion within the agents as to their priorities for information delivery?
4. To what degree is there homogeneity of opinion within the agents as to their perceptions of public information needs?

The first series of intraclass correlations is drawn from the following general linear model:

$$\text{response (X)} = \text{respondent id} + \text{information item.}$$

Public information needs

An intraclass correlation of .89 indicates homogeneity of public opinion relative to its information needs. However, a significant F-ratio for respondents indicates some sort of difference (table 3). A cluster analysis divides the public into two groups: persons with high information needs (46%) and those with low needs (54%).

These findings are not contradictory. The correlation coefficient indicates that, although respondents tend to

Table 3
Intra-agreement - Public Needs Assessment

SOURCE	DF	SS	MS	F VALUE
Respondent ID	121	5955.33	49.22	12.97*
Item	16	554.34	34.65	9.13*
Error	1934	7340.98	3.80	
Corrected total	2071	13857.59		

*p<.05

Intraclass correlation = .89

report high or low needs, their relative priority ratings for the series of items are consistent (table 4). As an example, note that "health and fitness" and "home grounds care" were at or near the top of both groups' needs priorities, whereas "canning and freezing foods" and "raising livestock" held consistently low priorities. And, "housing and home furnishings" anchored the center position for both groups.

Public groups

As has been noted, the public respondents fell into a bi-modal distribution of expressed information needs. Despite the option to rate their needs on a semi-continuous scale (0 to 7), they tended to respond in terms of high information need (grand mean = 4.68) or low information needs (grand mean = 1.91). This finding raises the question as to whether the clusters differ significantly on some demographic dimension.

According to chi-square tests for significance of difference between the clusters, they do not differ (table 5). Given this finding, the analysis can proceed under the assumption that the Houston County respondents represent a single public entity that can coorient with the entity that is defined as the Houston County Cooperative Extension Service. However, since there are

Table 4
Public and Extension
Information Needs Assessments Compared

	Group rating	(A) Public		(B) Extension
		High rating	Low rating	rating
"Quality-of-life" Information needed				
Health and fitness	3.93	5.46	2.60	6.29
Home grounds care	3.80	5.46	2.35	6.71
Improving local jobs	3.79	5.68	2.12	3.86
Managing personal resources	3.71	5.46	2.18	5.71
Youth development	3.68	5.18	2.34	6.71
Improving human relationships	3.47	4.95	2.17	5.29
Taking advantage of community services	3.43	4.60	2.42	4.57
Stress management	3.43	5.33	1.77	5.00
Housing and home furnishings	3.31	4.88	1.94	5.57
Drug and alcohol abuse	3.20	5.40	1.26	6.00
Public services	3.16	4.79	1.72	4.29
Raising fruits and vegetables	2.99	4.05	2.06	6.57
Foods and nutrition	2.80	4.23	1.55	6.57
Clothing	2.76	3.67	1.97	6.00
Teen pregnancy	2.48	4.23	.94	5.71
Canning and freezing foods	2.46	3.67	1.40	6.43
Raising livestock	2.10	2.59	1.68	5.29

Note: Public (A) n = 122

Agents (B) N = 7

Table entries are group mean responses.

Table 5
Difference Between High/low Information Needs Groups
Relative to Demographic Characteristics

Characteristic	df	Chi-square
Awareness (High, Medium, Low)		
of Houston Co. Extension	2	1.77
Family size (0, 1, 2, 3+ children)	3	6.40
Education (no high school diploma, diploma, study beyond high school, Bachelor's degree, or graduate/professional degree)	4	1.84
Sex	1	.67
Age (18-39, 40-61, 62+)	2	3.09
Marital status (married or not)	1	.81
Race (Black or White)	1	.91
Home ownership (yes or no)	1	.70
Income (<\$10,000, \$10,000-20,000, >\$20,000)	2	.86

*p<.05

two distinct levels of expressed information needs,
separate analyses of each cluster should be instructive.

Public perceptions

An intraclass correlation of .93 indicates that the public agrees within itself in its perception of the relative information priorities of the agents (table 6). Again, a significant F-ratio for respondent ID indicates some sort of difference in mean ratings. As with the public's information needs, respondents tend to cluster into two groups of high (44%) and low (56%) ratings. However, the cluster means (high = 5.84 and low = 3.28)

Table 6
Intra-agreement - Public Perception of Agents

SOURCE	DF	SS	MS	F VALUE
Respondent ID	121	4782.15	39.52	19.80*
Item	16	481.70	30.11	15.08*
Error	1935	3862.27	1.997	
Corrected total	2072	9128.23		

*p<.05

Intraclass correlation = .93

are not as divergent as they are in the information needs ratings.

Again, note that although the public divided into high and low response patterns, their ratings reflected the same relative priorities (table 7). For instance, both groups predicted that agents would rate "foods and nutrition" and "raising fruits and vegetables" as having the highest information delivery priorities. And, both predicted that the agents would put least emphasis on "stress management."

Agents' information delivery priorities

In evaluating the types of information needed to be delivered to the public, a significant difference among agents indicates internal disagreement (table 8). In addition, the agents only achieved an intraclass correlation of .73. This points to an ordering of priorities that is weak in homogeneity.

Table 7
Public Perception of Agents' Priorities
Contrasted with Agents' Actual Priorities

	(A') Public prediction			(B) Extension
	Group rating	High rating	Low rating	rating
"Quality-of-life" Information needed				
Home grounds care	4.87	5.78	4.15	6.71
Youth development	4.42	6.06	3.12	6.71
Raising fruits and vegetables	5.07	6.11	4.24	6.57
Foods and nutrition	5.41	6.33	4.68	6.57
Canning and freezing foods	5.05	6.09	4.23	6.43
Health and fitness	4.56	6.09	3.34	6.29
Drug and alcohol abuse	4.23	6.07	2.76	6.00
Clothing	4.36	5.61	3.38	6.00
Teen pregnancy	3.91	5.66	2.55	5.71
Managing personal resources	4.14	5.75	2.86	5.71
Housing and home furnishings	4.01	5.24	3.04	5.57
Raising livestock	4.80	5.82	3.99	5.29
Improving human relationships	3.98	5.78	2.55	5.29
Stress management	3.70	5.52	2.26	5.00
Taking advantage of community services	4.66	5.94	3.63	4.57
Public services	4.08	5.81	2.71	4.29
Improving local jobs	3.81	5.69	2.32	3.86

Note: Public (A) n = 122

Agents (B) N = 7

Table entries are group mean responses.

Table 8
Intra-agreement - Agents' Information Delivery Priorities

SOURCE	DF	SS	MS	F VALUE
Agent ID	6	37.28	6.21	4.40*
Item	16	85.01	5.31	3.76*
Error	96	135.58	1.41	
Corrected total	118	257.87		

*p<.05

Intraclass correlation = .73

One might think this finding reflects the divergent programming emphases of the organization. Agents are trained in agriculture or home economics. Their job responsibilities in teaching the public techniques to improve lives range from crop and livestock production to household maintenance to community facilities development, just to name a few. However, cluster analysis does not give a clear indication. Only one of the seven agents interviewed at the first point gave responses consistently different than the others. He tended to rate traditional information programs highly and to drastically downplay non-traditional ones.

Agents' perceptions of public information needs

At the first stage of measurement, there was no coherent organizational view of the public's information needs. A significant main effect attributable to different agents responding and an intraclass correlation

of .40 indicate strong internal disagreement (table 9). Additionally, a non-significant main effect within items indicates a lack of any specific ordering of perceived needs.

Cluster analysis further confirms non-order within responses with the staff dividing into two groups. The first group of four agents can be labeled "optimistic" due to its consistently reporting that the public has high needs (grand mean = 5.72) for almost all information provided by the agency. The other group is more realistic, rating (grand mean = 3.92) all but one subject as having a lower public demand. That subject was livestock production. Furthermore, the groups also divided along a programmatic dimension with all but one agricultural agent in the "low rating" group. The one agricultural agent who went against the trend had three decades service and was involved in a broad range of community development activities.

Table 9
Intra-agreement - Agent Perception of Public

SOURCE	DF	SS	MS	F VALUE
Agent ID	6	103.63	17.27	8.36*
Item	16	55.28	3.45	1.67
Error	96	198.37	2.07	
Corrected total	118	357.28		

*p<.05

Intraclass correlation = .40

Real Public Information Needs?

What are the real information needs of (products for) the public in the given Alabama county? Ideally, those needs are expressed in each county by an Extension council of local citizens. However, this process can benefit from validation by an independent study of the general public. If there is disagreement between the organization and the public, the marketing philosophy stresses the need for the organization to reconsider its priorities. This raises the next research question.

5. Do the agents' information delivery priorities agree with the public's stated information needs?

The intraclass correlation also can be applied to test this and other questions. The general linear model is:

$$\text{response (X)} = \text{group membership} + \text{information item} \\ + (\text{group membership} \times \text{information item}).$$

Information needs agreement

A significant main effect due to group (public or agents), at the beginning of the marketing communications process, indicates some form of disagreement between the public and agents as to the information needed for improving the quality of life in the county (table 10). On the other hand, a moderate intraclass correlation ($r=.81$) and non-significant interaction, indicates consistency in ordering of priorities.

Table 10
AB - Agreement

SOURCE	DF	SS	MS	F VALUE
Group (A or B)	1	688.86	688.86	110.32*
Item	16	524.89	32.81	5.25*
Group by Item	16	121.39	7.59	1.22
Error	2157	13469.17	6.24	
Corrected total	2190	14804.32		

*p<.05

Intraclass correlation = .81

Upon closer examination, it can be shown that the agents consistently rated all items higher than did the public (table 4, p. 57). The agents' gross mean rating for information priorities is 5.68 whereas, overall public mean rating of information needed is 3.21. This "rating inflation" on the part of the agents can be explained by the fact that these objects of orientation (information to improve quality of life) are "products" which they are hired to provide to the public. Consequently, throughout the whole study, there is a significant difference between agents and public.

High ratings cluster. The segment of the public that expressed high information needs did not agree with the agents' information delivery priorities. When agents' information needs assessment responses and those of the high ratings group are compared, overall disagreement is found (table 11). Group main effect can still be

Table 11
AB - Agreement
High Ratings Cluster Compared with Agents

SOURCE	DF	SS	MS	F VALUE
Group (A or B)	1	105.53	105.53	25.32*
Item	16	125.88	7.87	1.89*
Group by Item	16	167.17	10.45	2.51*
Error	1053	4388.20	4.17	
Corrected total	1086	5221.84		

*p<.05

Intraclass correlation = .47

attributed to the agents' rating inflation tendency. Item main effect indicates that the coorienting parties were, in fact, differentiating among information needs priorities. Most significantly, the interaction main effect, supported by a low intraclass correlation of .47, indicates that the two parties ordered those priorities differently. The most notable difference is in the priority that the parties placed on "improving local jobs" (top for public, bottom for agents) (table 4, p. 57). However, the remaining information assessments are randomly paired with no linear relationship.

Low ratings cluster. The segment of the public that expressed low information needs agreed with the agents' information delivery priorities to some degree (table 12). Group main effect is due to the agents' consistently high ratings. Item main effect indicates that the coorienting

Table 12
AB - Agreement
Low Ratings Cluster Compared with Agents

SOURCE	DF	SS	MS	F VALUE
Group (A or B)	1	1527.05	1527.05	363.59*
Item	16	194.69	12.70	2.90*
Group by Item	16	97.63	6.10	1.45
Error	1189	4993.66	4.20	
Corrected total	1222	6813.03		

*p<.05

Intraclass correlation = .67

parties differentiated among information needs priorities. And, non-significant main effect for interaction indicates that the two parties ordered priorities similarly. However, that ordering coordination is weak as indicated by an intraclass correlation of only .67.

Marketing challenge. The agency finds itself in agreement with persons who have low information needs and consequently will probably have little need to avail themselves of the agency's services. On the other hand, the agency is not in agreement with persons needing higher levels of information. A marketing approach to public service suggests a re-ordering of agency priorities.

Perceived Agreement

A coorientation congruency variable indicates the respondent's perception of whether or not he/she agrees with the other party. It matches the self-assessment with

the other-assessment. In the understanding of an organization's image, congruency's role is to show the positive or negative characteristic of the image. The questions are:

6. Does the public consider its views to be congruent with those of the organization (ACES)?

7. Do the agents consider their views to be congruent with those of the public?

If the interaction between congruency factor and item factor shows significant main effect, views are non-congruent. The converse indicates congruence, or compatible attitude. The general linear model is:

$$\text{response (X)} = \text{information needs (self-assessment or other-assessment)} + \text{information item} + (\text{information item} \times \text{information needs}).$$

Public congruency

At the first stage of the marketing communication process, the public perceived that its priorities for information to improve the quality of life were non-congruent with the priorities of the Cooperative Extension Service. A moderate intraclass correlation of .76 indicates some tendency to consistency in rating patterns (table 13). However, a significant main effect for interaction between congruency comparison and item signifies a differential rating system between the self-

Table 13
AA' Public Congruency

SOURCE	DF	SS	MS	F VALUE
Congruency comparison (self-assessment v. other-assessment)	1	1516.68	1516.67	284.18*
Item	16	350.29	21.89	4.10*
Congruency comparison by Item	16	695.29	43.46	8.14*
Error	4111	21940.74	5.34	
Corrected total	4144	24502.34		

*p<.05

Intraclass correlation = .76

assessment and the other-assessment. And, the public predicted agents' consistently higher ratings levels.

Apparently, the respondents somewhat consistently rated information items in reverse order for self- and other-assessments (table 14). For example, the public felt that its top priority, "health and fitness" would rate toward the middle of the agents' assessments. On the other hand, the public gave low needs priority to five traditionally strong Extension programming areas (foods and nutrition, raising fruits and vegetables, canning and freezing foods, raising livestock, and clothing) while predicting agents would rate them near the top. Furthermore, the public predicted that five of its top nine priorities would be rated as low agent priorities.

When the high/low information needs clusters are analyzed separately, the main effect for interaction remains constant for both clusters (tables 15 and 16).

Table 14
Public Perception of Agents' Priorities
Contrasted with Public's Actual Information Priorities

	(A) Public rating	(A') Public prediction of agents' rating
"Quality-of-life" Information needed		
Health and fitness	3.93	4.56
Home grounds care	3.80	4.87
Improving local jobs	3.79	3.81
Managing personal resources	3.71	4.14
Youth development	3.68	4.42
Improving human relationships	3.47	3.98
Taking advantage of community services	3.43	4.66
Stress management	3.43	3.70
Housing and home furnishings	3.31	4.01
Drug and alcohol abuse	3.20	4.23
Public services	3.16	4.08
Raising fruits and vegetables	2.99	5.07
Foods and nutrition	2.80	5.41
Clothing	2.76	4.36
Teen pregnancy	2.48	3.91
Canning and freezing foods	2.46	5.05
Raising livestock	2.10	4.80

Note: Table entries are group mean responses.

Table 15
AA' Public Congruency
High Information Needs Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Congruency comparison (self-assessment v. other-assessment)	1	144.37	144.37	32.89*
Item	16	295.40	18.46	4.21*
Congruency comparison by Item	16	712.48	44.53	10.14*
Error	1903	8354.24	4.39	
Corrected total	1936	9505.55		

*p<.05

Intraclass correlation = .76

Table 16
AA' Public Congruency
Low Information Needs Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Congruency comparison (self-assessment v. other-assessment)	1	4176.40	4176.40	993.11*
Item	16	184.87	11.55	2.75*
Congruency comparison by Item	16	185.37	11.59	2.75*
Error	2174	9142.45	4.21	
Corrected total	2207	13691.64		

*p<.05

Intraclass correlation = .64

Public respondents, whether expressing great or little need for information, said their priorities differed from those of the agents at the time of the first needs assessment.

Agent congruency

At the first measurement, agents felt that their assessments of needs were in line with those of the public as indicated by a non-significant main effect for interaction of congruency comparison and item (table 17). However, they recognized that their level of rating differed from the public's as evidenced by a significant main effect for congruency comparison and grand mean rating difference (self-assessment = 5.68, and other-assessment = 4.85). The weak intraclass correlation indicates low consistency in ordering.

Table 17
BB' Agents' Congruency

SOURCE	DF	SS	MS	F VALUE
Congruency comparison (self-assessment v. other-assessment)	1	41.18	41.18	17.69*
Item	16	115.25	7.20	3.09*
Congruency comparison by Item	16	25.03	1.56	0.67
Error	204	474.86	2.33	
Corrected total	237	656.32		

*p<.05

Intraclass correlation = .68

Accurate Perception?

Is the public perception of the Alabama Cooperative Extension Service accurate relative to the actual substance of the organization? It is quite probable that the public operates on a different understanding of the

role and service offerings of the Extension Service given the agency's traditional programs and the changes in public characteristics (rural to urban) over time. Here Wiebe's (1952) motivational forces of adequacy and compatibility come into play as the public acts on its perceptions. A coorientation accuracy measure, or correlation of the public's assessment of Extension agents' information ratings relative to the actual responses given by the Extension agents, will test the question:

8. Is the public's assessment of the agents' information delivery priorities accurate?

By the same process, the organization's perception of its public is gauged. Ideally, the agents' assessment of the public should be accurate since the success of their work depends on knowledge of the audience. This raises the question:

9. Is the Extension Service's assessment of the public's actual public information needs accurate?

For both accuracy questions the general linear model is:

$$\text{response (X)} = \text{group membership} + \text{information item} + (\text{group membership} \times \text{information item}).$$

If group membership (public or agency) and item factor interact significantly, views are inaccurate. The converse indicates accuracy.

Public accuracy

It appears, as evidenced by the non-significant group by item interaction (table 18), that the public had an accurate perception of the Extension Service at the first point of measurement. This finding is bolstered by a substantial intraclass correlation of .87. However, the significant main effect for group recurs, apparently due to the different rating levels.

Table 18
A'B Public Accuracy

SOURCE	DF	SS	MS	F VALUE
Group	1	179.91	179.91	44.03*
Item	16	518.53	32.41	7.93*
Group by Item	16	50.29	3.14	0.77
Error	2158	8817.28	4.09	
Corrected total	2191	9566.00		

*p<.05

Intraclass correlation = .87

Analysis of the high and low information needs groups confirms the pattern (tables 19 and 20). Given the intraclass correlation coefficients, the high information needs group tends toward greater accuracy ($r=.84$) than does the low information needs group ($r=.70$).

As an example of accuracy, four of the agents' top five information delivery priorities (home grounds, fruits and vegetables, foods and nutrition, and canning and freezing foods) were accurately predicted by the public as

Table 19
A'B Public Accuracy
High Information Needs Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Group	1	252.64	252.64	61.76*
Item	16	397.39	24.84	6.07*
Group by Item	16	49.86	3.12	0.76
Error	1054	4311.75	4.09	
Corrected total	1087	5011.64		

*p<.05

Intraclass correlation = .84

Table 20
A'B Public Accuracy
Low Information Needs Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Group	1	111.54	111.54	29.51*
Item	16	198.44	12.40	3.28*
Group by Item	16	49.82	3.11	0.82
Error	1189	4494.50	3.78	
Corrected total	1222	4854.29		

*p<.05

Intraclass correlation = .70

being near the top (table 7, p. 60). On the other end of the spectrum, the public accurately predicted that three of the agents' five lowest priorities (human relationships, stress management, and local jobs) would, in fact, be low.

Agent accuracy

The agents had an accurate perception of the overall public information needs as indicated by a non-significant group by item interaction (tables 21, 22 and 23).

However, the continued significant main effect for group is further evidence of the rating level differential (table 21). In fact, the agents held a very accurate view of the high information needs group as evidenced by the non-significant main effect for the group factor and a strong intraclass correlation coefficient (table 22). Conversely, their understanding of the low information needs group, though accurate, was weak (table 23).

Information Exchange as a Factor

Chaffee (1986) says that since a coorientation analysis deals with a dynamic system it must be viewed over time. In the present study, a moderate intervention with the agents and the public was attempted to stimulate activity within the communication system. With the public, a promotional letter explained local Cooperative Extension programming emphases which already were available to meet the public's stated interests (Appendix B). The results of the public's information needs assessments were reported to the agents for their consideration in determining their programming priorities (Appendix C).

Table 21
B'A Agent Accuracy

SOURCE	DF	SS	MS	F VALUE
Group	1	303.48	303.48	48.14*
Item	16	547.74	34.23	5.43*
Group by Item	16	68.82	4.30	0.68
Error	2157	13598.31	6.30	
Corrected total	2190	14518.35		

*p<.05

Intraclass correlation = .82

Table 22
B'A Agent Accuracy
High Information Needs Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Group	1	2.84	2.84	0.66
Item	16	610.65	38.17	8.90*
Group by Item	16	88.19	5.51	1.28
Error	1053	4517.34	4.29	
Corrected total	1086	5219.02		

*p<.05

Intraclass correlation = .89

Table 23
B'A Agent Accuracy
Low Information Needs Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Group	1	927.50	927.50	215.27*
Item	16	189.07	11.82	2.74*
Group by Item	16	73.52	4.59	1.07
Error	1189	5122.81	4.31	
Corrected total	1222	6312.90		

*p<.05

Intraclass correlation = .64

Assessment changes over time

The first series of questions, dealing with communication dynamics, looks at the respondents' assessment of "X" at times one and two:

10. Do the public's information needs change over time?
11. Do the agents' information delivery priorities change over time?
12. Does the public's assessment of Extension information delivery priorities change over time?
13. Do the agents' assessments of public information needs change over time?

If the interaction of time (first or second measure) and information needs items is significant and the intraclass correlation coefficient is low, there has been a change in assessments over time. The converse indicates no change. For these questions the general linear model is:

$$\text{response (X)} = \text{time} + \text{information item} + (\text{time X information item}).$$

Public information needs over time. Public priorities for stated information needs did not change over time as indicated by a non-significant interaction term and high intraclass correlation (table 24). For example, four of the public's top five time one information needs

Table 24
Public Needs (A1A2) - Times 1 and 2

SOURCE	DF	SS	MS	F VALUE
Time	1	55.63	55.63	9.66*
Item	16	969.33	969.33	10.52*
Time*Item	16	54.98	3.44	0.60
Error	3730	21470.86	5.76	
Corrected total	3763	22550.80		

*p<.05

Intraclass correlation = .91

priorities (health and fitness, home grounds care, improving local jobs, and youth development) remained in the top five at time two (table 25). And, four of the lowest five priorities (raising livestock, canning and freezing food, clothing, and foods and nutrition) remained low. In addition, expressed magnitude of need declined as shown by a significant main effect for time and drop in grand mean rating from 3.21 to 2.91 (figure 10).

Public perception of agents over time. The public's assessment of agents' information delivery priorities remained constant over time to the extent that there was no differential ordering between the two measures. This is demonstrated by non-significant effect for time and item interaction and a strong intraclass correlation coefficient (table 26). However, a significant main effect for time is probably due to an increase in the overall magnitude of public assessment of agents' priorities (figure 11).

Table 25
Public Information Needs Compared
Times One and Two

	(A) Time 1 public rating	(A2) Time 2 public rating
"Quality-of-life" Information needed		
Health and fitness	3.93	3.42
Home grounds care	3.80	3.53
Improving local jobs	3.79	3.68
Managing personal resources	3.71	3.19
Youth development	3.68	3.67
Improving human relationships	3.47	3.21
Taking advantage of community services	3.43	3.47
Stress management	3.43	3.12
Housing and home furnishings	3.31	2.91
Drug and alcohol abuse	3.20	3.23
Public services	3.16	2.74
Raising fruits and vegetables	2.99	2.59
Foods and nutrition	2.80	2.50
Clothing	2.76	2.15
Teen pregnancy	2.48	2.77
Canning and freezing foods	2.46	2.04
Raising livestock	2.10	2.14

Note: Table entries are group mean responses.

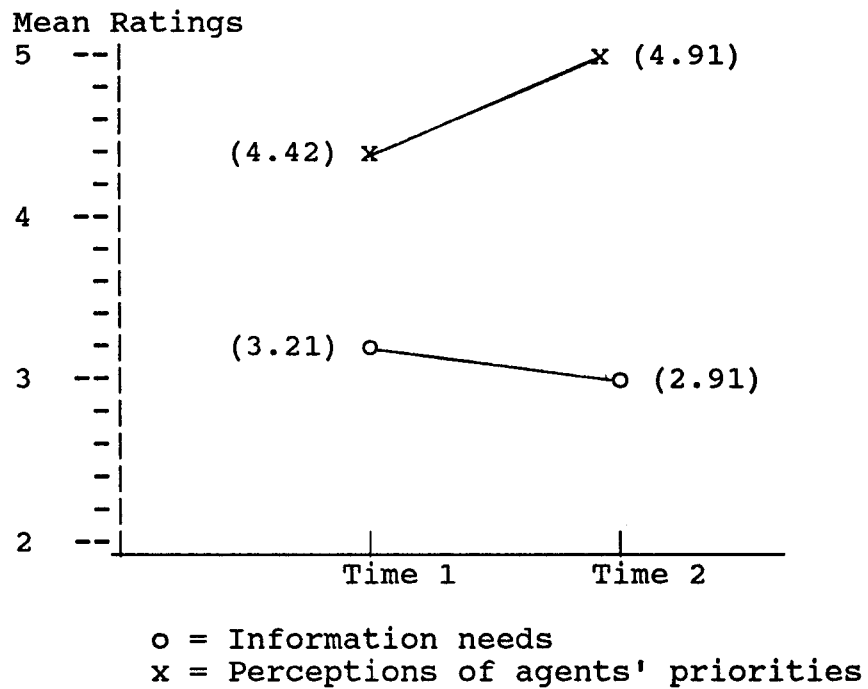


Figure 10

Shift in Grand Mean Ratings
of Stated Public Information Needs and Perceptions
From the First to the Second Measures

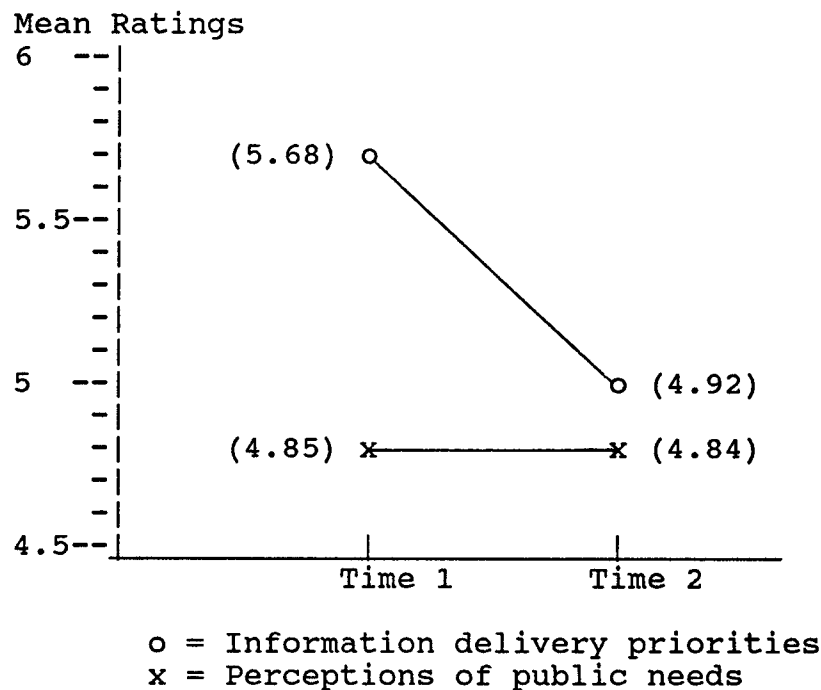


Figure 11

Shift in Grand Mean Ratings
of Agents' Information Delivery Priorities and Perceptions
From the First to the Second Measures

Table 26
Public Perception - Times 1 and 2

SOURCE	DF	SS	MS	F VALUE
Time	1	225.95	225.95	57.91*
Item	16	695.13	43.45	11.14*
Time*Item	16	40.04	2.50	0.64
Error	3703	14447.40	3.90	
Corrected total	3736	15408.51		

*p<.05

Intraclass correlation = .91

Agents' information delivery priorities over time.

The level of agents' information delivery priority ratings changed appreciably over time (figure 11). However, their priority ordering did not change as shown by a non-significant interaction term (table 27). A weak intraclass correlation hints at a borderline situation in which a re-ordering might occur. This change can be attributed to the agents' exposure to the results of the first measure and organizational discussion of sensitivity to market wants and needs.

Table 27
Agent Priorities - Times 1 and 2

SOURCE	DF	SS	MS	F VALUE
Time	1	31.65	31.65	15.64*
Item	16	104.89	6.55	3.24*
Time*Item	16	37.83	2.36	1.17
Error	187	378.52	2.02	
Corrected total	220	552.89		

*p<.05

Intraclass correlation = .69

Agents' perceptions of public over time. The agents' perceptions of the public's information needs assessments did not change over time. In fact, a non-significant main effect for time (table 28) backed by a negligible shift in grand mean (figure 11) indicates that there was no change in level of ratings.

Table 28
Agent Perceptions - Times 1 and 2

SOURCE	DF	SS	MS	F VALUE
Time	1	0.002	0.002	0.00
Item	16	125.08	7.82	3.66*
Time*Item	16	54.70	3.42	1.60
Error	187	399.00	2.13	
Corrected total	220	578.77		

*p<.05

Intraclass correlation = .73

Treatment effect

A quasi-experimental intervention is necessary to stimulate information exchange, since the coorientation model monitors dynamic communication processes over time (Chaffee, 1986). So, the segment of the public that was aware of the Houston County Extension Service was randomized into control (no promotion) and treatment groups (promotion) to see if a promotional letter had any effect in changing public perception of the agents' information delivery priorities (Appendix B). This procedure satisfies the question of whether or not the

different groups are drawn from the same population as explained by Cook and Campbell (1979, p. 341):

...Randomization serves two principal functions in the social sciences. The first is to draw samples that are representative of a known population within limits of sampling error; the second is to draw samples that are comparable to each other within known limits of sampling error. This latter function...helps facilitate causal inference.

Eight questions deal with this issue. For the first four, the general linear model is:

response (X) = treatment + information item +
(treatment X information item).

The first two questions determine whether the randomized treatment and control groups were truly equivalent before the letter was sent.

14. Is there significant difference between the control and treatment groups' assessments of information needs at the time of the first measurement?
15. Is there significant difference between the control and treatment groups' assessments of agents' information delivery priorities at the time of the first measurement?

Effective randomization. The treatment and control groups did not differ in information needs priorities at time one as indicated by a non-significant interaction term (table 29). In addition, non-significant main effect for group assignment indicates that the respondents in

Table 29
Treatment and Control Groups Time 1 Information Needs

SOURCE	DF	SS	MS	F VALUE
(Non-)Treatment	1	1.02	1.02	0.16
Item	16	561.35	35.08	5.43*
Treatment by Item	16	124.00	7.75	1.20
Error	2038	13171.22	6.46	
Corrected total	2071	13857.59		

*p<.05

Intraclass correlation = .81

both groups tend to use similar magnitudes of ratings. This test satisfies the question of randomization and confirms that the treatment and control groups are from the same population with respect to their needs for information.

In the matter of the public's perceptions of agents' information delivery priorities, the situation is not as clear-cut. The non-significant interaction effect indicates no systematic difference in the way the treatment and control groups rate the information needs items (table 30). However, there was significant main effect for assignment to (non-) treatment group. Further analysis shows that the treatment group consistently predicted higher ratings (mean = 4.65) than did the control group (mean = 4.18) (figure 12). Since the groups responded in similar patterns, it can be assumed that they were equivalent.

Table 30
Treatment and Control Groups Time 1 Perceptions

SOURCE	DF	SS	MS	F VALUE
(Non-)Treatment	1	112.81	112.81	27.04*
Item	16	484.04	30.25	7.25*
Treatment by Item	16	23.43	1.46	0.35
Error	2039	8507.95	4.17	
Corrected total	2072	9128.23		

*p<.05

Intraclass correlation = .86

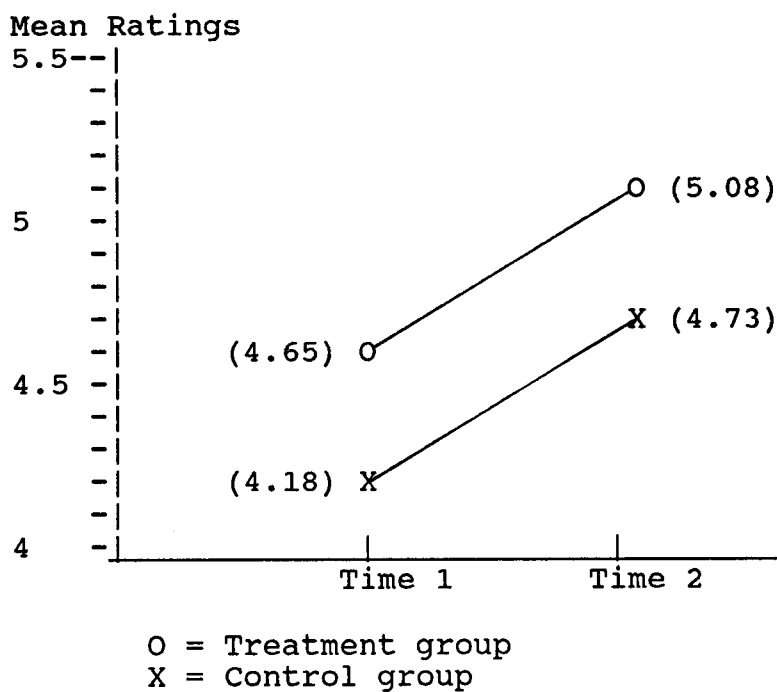


Figure 12
Shift in Grand Mean Ratings
of Public Control and Treatment Groups' Perceptions
of Agents' Priority Ratings
From the First to the Second Measures

Post treatment. If the treatment and control groups are equivalent, it can be assumed that, with the exception of the treatment, each had like opportunity for exposure to stimuli that could affect opinions. If a change in perceptions can be shown from time one to time two, it can be shown that the treatment (direct mail promotion) had an effect. Two questions deal with this situation.

16. Is there significant difference between the control and treatment groups' assessments of information needs at the time of the second measurement?

17. Is there significant difference between the control and treatment groups' assessments of agents' information delivery priorities at the time of the second measurement?

Further confirming the likeness of groups, the information needs of each group differed in no way at time two. Both group assignment factor and interaction effect were non-significant (table 31). They remained randomized sub-sets of the same population.

The ambiguity in differences between treatment and control groups continued at time two. The groups did not differ in item ordering as shown by non-significance of the interaction term (table 32). However, there was significant main effect for assignment to (non-) treatment group. As before, further analysis shows that the

Table 31
Treatment and Control Groups Time 2 Information Needs

SOURCE	DF	SS	MS	F VALUE
(Non-)Treatment	1	0.008	.008	0.00
Item	16	463.04	28.94	5.90*
Treatment by Item	16	36.79	2.30	0.47
Error	1658	8137.74	4.91	
Corrected total	1691	8637.58		

*p<.05

Intraclass correlation = .83

Table 32
Treatment and Control Groups Time 2 Perceptions

SOURCE	DF	SS	MS	F VALUE
(Non-)Treatment	1	50.16	50.16	14.26*
Item	16	251.36	15.71	4.47*
Treatment by Item	16	19.91	1.24	0.35
Error	1630	5732.91	3.52	
Corrected total	1663	6054.34		

*p<.05

Intraclass correlation = .78

treatment group had a higher mean rating (5.08) than did the control group (4.73) (figure 12). Since the groups continued to respond in similar patterns, it can be assumed that they remained equivalent and thus the treatment had no effect.

Treatment and control group changes over time. The inquiry into treatment effect can be viewed from another perspective, that of each group's change over time. If the treatment group varies and the control group does not, it

can be inferred that the treatment had some effect. Four questions address this situation:

18. Is there significant difference between the treatment group's assessments of information needs from time one to time two?
19. Is there significant difference between the control group's assessments of information needs from time one to time two?
20. Is there significant difference between the treatment group's perceptions of the agents' information delivery priorities from time one to time two?
21. Is there significant difference between the control group's perceptions of the agents' information delivery priorities from time one to time two?

For the four questions, the model is:

$$\text{response (X)} = \text{time} + \text{information item} + (\text{time} \times \text{information item}).$$

Comparison of information needs assessments from time one to time two has more value as a monitor of the respondents' ratings tendencies than as an indicator of their needs. Non-significant interaction effect for both indicates that their priorities remained consistent over time (tables 33 and 34). Significant main effect for time factor is attributable to a decrease in stated needs

Table 33
Treatment Group Information Needs Times 1 and 2

SOURCE	DF	SS	MS	F VALUE
Time	1	23.50	23.50	4.02*
Item	16	391.24	24.45	4.18*
Time by Item	16	65.89	4.12	0.70
Error	1852	10839.30	5.85	
Corrected total	1885	11319.93		

*p<.05

Intraclass correlation = .76

Table 34
Control Group Information Needs Times 1 and 2

SOURCE	DF	SS	MS	F VALUE
Time	1	32.47	32.47	5.72*
Item	16	685.56	42.81	7.55*
Time by Item	16	42.49	2.66	0.47
Error	1844	10469.66	5.68	
Corrected total	1877	11230.18		

*p<.05

Intraclass correlation = .87

magnitudes for both. Evidently, both the control and treatment groups demonstrated like rating tendencies.

Apparently, there was no significant effect on the public's perception of agents attributable to the direct mail promotional letter. Neither interaction term for the treatment nor the control group was significant (tables 35 and 36). Although the treatment group's stated perception of agents changed, as indicated by significant main effect for time, so did the control group's perception. The

Table 35
Treatment Group Times 1 and 2 Perceptions

SOURCE	DF	SS	MS	F VALUE
Time	1	87.02	87.02	22.91*
Item	16	276.03	16.69	4.54*
Time*Item	16	17.13	1.07	0.28
Error	1851	7031.05	3.80	
Corrected total	1884	7411.24		

*p<.05

Intraclass correlation = .77

Table 36
Control Group Times 1 and 2 Perceptions

SOURCE	DF	SS	MS	F VALUE
Time	1	138.66	138.66	34.96*
Item	16	445.00	27.81	7.01*
Time by Item	16	40.58	2.54	0.64
Error	1818	7209.80	3.97	
Corrected total	1851	7834.04		

*p<.05

Intraclass correlation = .86

grand means of each group changed in an almost identical manner (figure 12).

The finding that the treatment apparently had no effect allows the analysis to proceed by considering the public as one group without regard to the quasi-experimental treatment. Had there been an effect, the analysis would have had to be conducted for each the control and the treatment groups.

Valid Groups After Communication?

The coorienting parties must continue to be monitored for homogeneity of opinion as the communication process occurs. With the second measure we repeat the question, "Are the coorienting entities, in fact 'of one mind'?" If the groups cannot be proven to have intra-agreement, then their corporate opinion must be viewed cautiously. Consequently, the first four research questions should be repeated:

22. Is there homogeneity of opinion within the public as to its information needs following a marketing emphasis?
23. Is there homogeneity of opinion within the public as to its perception of agents' information delivery priorities following a marketing emphasis?
24. Is there homogeneity of opinion within the agents as to their priorities for information delivery following a marketing emphasis?
25. Is there homogeneity of opinion within the agents as to their perceptions of public information needs following a marketing emphasis?

We repeat the model used in questions one through four:

response (X) = respondent id + information item.

Public information needs

The public continued to demonstrate homogeneity of opinion about its information needs in achieving an intraclass correlation of .90 (table 37). The high/low information needs trend continues and results in significant main effect for respondent. It should be noted that the grand mean for expressed information needs decreased from time one (3.21) to time two (2.91) (figure 10, p. 78). The apparent reason is a shift to a larger low needs cluster (37% high, 63% low).

Table 37
Intra-agreement Time 2
Public Needs Assessment

SOURCE	DF	SS	MS	F VALUE
ID	99	3587.20	36.23	12.44*
Item	16	461.08	28.82	9.90*
Error	1576	4589.30	2.91	
Corrected total	1691	8637.58		

*p<.05

Intraclass correlation = .90

Public perceptions

Achieving an intraclass correlation of .91, the public continues to agree in its assessment of agents' information delivery priorities (table 38). Unlike the information needs ratings, these ratings made a notable upward shift (figure 10, p. 80). The bi-modal distribution of rating magnitudes (68% high, 32% low)

Table 38
Intra-agreement - Public Perception of Agents Time 2

SOURCE	DF	SS	MS	F VALUE
ID	97	3491.99	36.00	24.14*
Item	16	251.27	15.70	10.53*
Error	1550	2311.08	1.49	
Corrected total	1663	6054.34		

*p<.05

Intraclass correlation = .91

again results in significant main effect for respondent factor.

Agents' information delivery priorities

At the second measurement point, agents still disagreed among themselves as evidenced by a significant main effect for respondent factor (table 39). Consistency of ratings was quite low with an intraclass correlation of .57. The one agent who stood separately from the others at time one did so again. However, at the second measure, his difference was accounted for by the fact that he rated all information delivery priorities lower.

Introduction of market study results apparently created uncertainty among agents as to priorities. Although priority ordering remained significantly similar over time (table 27, p. 82), relative emphasis on certain priorities changed (table 40). Most priorities varied only slightly over time; however, four made distinct changes. Priority information about housing and home

Table 39
Intra-agreement Time 2
Agents' Information Delivery Priorities

SOURCE	DF	SS	MS	F VALUE
ID	5	80.20	16.04	10.23*
Item	16	57.71	3.61	2.30*
Error	80	125.47	1.57	
Corrected total	101	263.37		

*p<.05

Intraclass correlation = .57

Table 40
Agents' Information Delivery Priorities Over Time

	(B1) <u>Time 1</u>	(B2) <u>Time 2</u>
"Quality-of-life"		
<u>Information needed</u>	<u>rating</u>	<u>rating</u>
Home grounds care	6.71	5.83
Youth development	6.71	6.17
Raising fruits		
and vegetables	6.57	5.83
Foods and nutrition	6.57	5.33
Canning		
and freezing foods	6.43	5.50
Health and fitness	6.29	5.33
Drug and alcohol abuse	6.00	4.67
Clothing	6.00	4.50
Teen pregnancy	5.71	4.00
Managing personal		
resources	5.71	5.00
Housing and home		
furnishings	5.57	3.50
Raising livestock	5.29	4.50
Improving		
human relationships	5.29	4.17
Stress management	5.00	4.33
Taking advantage of		
community services	4.57	6.00
Public services	4.29	4.50
Improving local jobs	3.86	4.50

Note: N = 7

Table entries are group mean responses.

furnishings, and preventing unwanted teen pregnancy dropped from mid-range to last. Conversely, agents' priority for delivering information to improve local jobs moved from last place to mid-range. The most drastic change occurred as agents' priority for information about taking advantage of community services moved from near the lowest to near the highest.

Agents' perceptions of public information needs

In contrast to the finding that the promotional letter had no effect on public perceptions, the organization moved toward intra-agreement about its market's needs following treatment. The most notable change in the coorienting process occurred in the agents' perceptions of the public. Homogeneity of opinion grew significantly as the intraclass correlation moved from .40 at time one to .86 at time two. This move is corroborated by the finding that agent perceptions differed significantly over time (table 28, p. 83) To further underscore intra-agreement, the respondent factor, representing the different agents, did not show significant main effect (table 41). That the organizational treatment (analysis and discussion of time one survey results) had an effect, when the public treatment did not, confirms Chaffee's (1986) assertion that a bureaucratic organization is more easily modified in a coorienting situation.

Table 41
Intra-agreement - Agent Perception of Public Time 2

SOURCE	DF	SS	MS	F VALUE
ID	5	8.67	1.78	1.57
Item	16	124.49	7.81	7.05*
Error	80	88.33	1.10	
Corrected total	101	221.49		

*p<.05

Intraclass correlation = .86

Improving Agreement?

Will a targeted marketing effort (audience analysis and organizational promotion) improve public-Extension agreement about needs? This coorientation variable relates to Wiebe's (1952, pp. 681-682) compatibility factor for marketing of non-profit causes. Compatibility of audience goals and agency response is the responsibility of the agency. Measurement of agreement at different stages in a marketing process can show if the parties' opinions are moving into line with each other.

Agreement after communication

This poses a basic research question parallel to one asked at the first stage of measurement.

26. Do the agents' information delivery priorities agree with the public's stated information needs after implementation of a marketing emphasis?

The corresponding model is:

$$\text{response (X)} = \text{group membership} + \text{information item} \\ + (\text{group membership} \times \text{information item}).$$

After intervention in the marketing communication process, the parties appear to agree. Significant main effect for group membership continues and can be attributed to the agents' rating inflation tendency (table 42). Group-by-item interaction is non-significant, so there appears to be priority agreement between the parties. Intraclass correlation at .83 verifies consistently similar rating tendencies. Analysis of the high and low information needs public clusters shows no difference (tables 43 and 44). In fact, the agents improved their agreement with the public's high ratings cluster (table 11, pp. 65).

Agreement over time

It is not sufficient only to measure agreement at different time intervals. A tracking of the trend toward any change in agreement is more valuable for an organizational marketing policy. Wiebe's (1952) force and adequacy/compatibility and McCarthy's (1968) promotion are operative here. A comparison of ratings before and after specific market analysis and promotion can chart any change. The agreement variable, over time, can be interpreted in nine different ways (figure 13). As can be

Table 42
AB - Agreement Time 2

SOURCE	DF	SS	MS	F VALUE
Group (A or B)	1	369.34	369.34	77.57*
Item	16	456.78	28.55	6.00*
Group-by-item	16	63.96	4.00	0.84
Error	1760	8380.21	4.76	
Corrected total	1793	9270.29		

*p<.05

Intraclass correlation = .83

Table 43
AB - Agreement Time 2
High Ratings Cluster Compared with Agents

SOURCE	DF	SS	MS	F VALUE
Group (A or B)	1	168.98	168.98	38.26*
Item	16	252.65	15.79	3.58*
Group-by-item	16	73.88	4.62	1.05
Error	884	3904.25	4.42	
Corrected total	917	4399.76		

*p<.05

Intraclass correlation = .72

Table 44
AB - Agreement Time 2
Low Ratings Cluster Compared With Agents

SOURCE	DF	SS	MS	F VALUE
Group (A or B)	1	576.92	576.92	133.57*
Item	16	247.08	15.44	3.58*
Group-by-item	16	52.77	3.30	0.76
Error	944	4077.22	4.32	
Corrected total	977	4953.98		

*p<.05

Intraclass correlation = .72

Source of change	A1B1	B1B2	A1A2	A2B2
	agree*	time**	time**	agree*
Agent +	s	s	ns	ns
Public +	s	ns	s	ns
Both +	s	s	s	ns
Reverse +	ns	s	s	ns
Agent -	ns	s	ns	s
Public -	ns	ns	s	s
Both -	ns	s	s	s
No change -	s	s	s	s
No change +	ns	ns	ns	ns

*cell entries represent (non-)significance of the group-by-item interaction term.

**cell entries represent (non-)significance of the time-by-item interaction term.

A1 = public information needs priorities, time 1

B1 = agents' information priorities, time 1

A2 = public information needs priorities, time 2

B2 = agents' information priorities, time 2

Figure 13

Possible Changes in Agreement
Using Analysis of Variance

seen, each coorienting party can change or not change its opinion. The combination of responses determines whether the parties move into or out of, or do not change their state of agreement about the information needs.

It should be noted that Chaffee (1986) maintains that the greatest change will be within the organization's assessment of the public information needs. Thus develops the second research question related to the agreement variable over time.

27. How does agent-public agreement about information priorities change over time?

It appears there is little or no change in agreement about information priorities between agents and the public over time. Both time one and time two agreement-related-factor interaction terms are non-significant (table 10, p. 64 and table 42). However, there appears to be a move to greater homogeneity as the overall group intraclass correlation improves from .81 at time one (table 10, p. 64) to .83 at time two (table 42).

This move toward homogeneity is seen more dramatically when the high and low information needs clusters are compared with agents' ratings. The high needs cluster moves from a significant group-by-item interaction to a non-significant one and from an intraclass correlation of .47 to .72 (table 11, p. 65 and table 43). The low needs cluster maintains a non-significant group-by-item

interaction and its intraclass correlation moves from .67 to .72 (table 12, p. 66 and table 44). Apparently the organization, represented by the agents, met the marketing challenge and moved toward an information delivery priority more in line with the public.

Improving Congruency?

Will a targeted marketing effort improve the congruency of the public's and the agents' perceptions of each other? As with agreement and accuracy, congruency is crucial to the total image each party holds of the other. This measure shows the particular communicator's perception of its relationship with the other.

Two research questions must be asked of each party.

28. Does the public consider its views to be congruent with those of the organization (ACES) at the second point of measurement?
29. How does the public's perception of its agreement with agents' information priorities change over time?
30. Do the agents consider the organization's views to be congruent with those of the public at the second point of measurement?
31. How do the agents' perceptions of the organization's understanding of the public's information needs change over time?

The linear model for questions 28 and 30 is:

response (X) = congruency comparison (self-assessment or other-assessment) + information item + (information item X information needs).

Public congruency at time two

There was no improvement in public congruency over time. At both times, there was significant main effect for all factors (tables 13, 15, 16, pp. 68-70; and tables 45, 46, and 47). However, congruency seems to have worsened in that it became less homogeneous. The intraclass correlation coefficient for overall group congruency dropped marginally, from .76 to .74. For the high needs group, it dropped drastically from .76 to .48. and, for the low needs group it dropped slightly, from .64 to .63.

Table 45
AA' Public Congruency Time 2

SOURCE	DF	SS	MS	F VALUE
Congruency comparison (self-assessment v. other-assessment)	1	3184.62	3184.62	756.88*
Item	16	262.98	16.44	3.91*
Congruency comparison by Item	16	449.39	28.06	6.68*
Error	3322	13977.52	4.21	
Corrected total	3355	17878.34		

*p<.05

Intraclass correlation = .74

Table 46
AA' Public Congruency Time 2
High Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Congruency comparison (self-assessment v. other-assessment)	1	515.12	515.12	123.27*
Item	16	129.57	8.10	1.94*
Congruency comparison by Item	16	361.70	22.61	5.41*
Error	1596	6669.60	4.18	
Corrected total	1629	7676.38		

*p<.05

Intraclass correlation = .48

Table 47
AA' Public Congruency Time 2
Low Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Congruency comparison (self-assessment v. other-assessment)	1	3196.43	3196.43	824.44*
Item	16	164.83	10.30	2.66*
Congruency comparison by Item	16	162.04	10.13	2.61*
Error	1692	6560.08	3.88	
Corrected total	1725	10088.38		

*p<.05

Intraclass correlation = .63

Agent congruency at time two

Agents moved from a perception that they agreed with the public's needs at time one to a perception of non-agreement at the second measurement. Significant main effect for the interaction term indicates that they predicted different priorities for the public than they

expressed for themselves (table 48). Non-significant main effect for the self- versus other-assessment is attributable to the fact that the agents responded to the ratings inflation issue by lowering their rating responses for information delivery priorities (figure 11, p. 81).

Table 48
BB' Agents' Congruency Time 2

SOURCE	DF	SS	MS	F VALUE
Congruency comparison (self-assessment v. other-assessment)	1	0.31	0.31	0.18
Item	16	108.68	6.79	3.82*
Congruency comparison by Item	16	73.52	4.59	2.58*
Error	170	302.67	1.78	
Corrected total	203	485.18		

*p<.05

Intraclass correlation = .74

The attention to the findings of the first market survey apparently served more to confuse than to improve the situation. In addition, anecdotal information from the agents shows a determination to hold to priorities they feel the community needs. This is a "needs vs. wants" philosophy often expressed by Extension agents.

Improving Accuracy?

Will a targeted marketing effort improve the accuracy of the public's and the agents' perceptions of each other? In one dimension, this component of image can be

manipulated by the organization's promoting itself to the public. In another dimension, by the organization's seeking to understand better the public it should improve the accuracy of its perception.

As with the congruency measure, two research questions must be asked of each party:

32. Is the public's assessment of the agents' information delivery priorities accurate at the second point of measurement in the communication process?
33. How does the accuracy of the public's perception of the agents' information priorities change over time?
34. Is the Extension Service's assessment of the public's actual public information needs accurate?
35. How do the agents' perceptions of the organization's understanding of the public's information needs change over time?

The model is:

response (X) = group membership (A'or B, or B'or A)
 + information item
 + (group membership X information item).

Public accuracy

The public exhibited an accurate view of the agency's information delivery priorities as shown by a non-significant group-by-item interaction (tables 49-51). The

Table 49
A'B Public Accuracy Time 2

SOURCE	DF	SS	MS	F VALUE
Group (A' or B)	1	0.01	0.01	0.00
Item	16	281.14	17.57	5.06*
Group-by-item	16	27.93	1.75	0.50
Error	1732	6008.64	3.47	
Corrected total	1765	6317.72		

*p<.05

Intraclass correlation = .80

Table 50
A'B Public Accuracy Time 2
High Ratings Cluster Compared with Agents

SOURCE	DF	SS	MS	F VALUE
Group (A' or B)	1	5.26	5.26	1.46
Item	16	251.63	15.73	4.37*
Group-by-item	16	29.01	1.81	0.50
Error	882	3176.69	3.60	
Corrected total	915	3462.59		

*p<.05

Intraclass correlation = .77

Table 51
A'B Public Accuracy Time 2
Low Ratings Cluster Compared with Agents

SOURCE	DF	SS	MS	F VALUE
Group (A' or B)	1	4.02	4.02	1.28
Item	16	114.71	7.17	2.27*
Group-by-item	16	30.22	1.89	0.60
Error	918	2894.18	3.15	
Corrected total	951	3043.14		

*p<.05

Intraclass correlation = .56

absence of main effect for group indicates that the public predicted ratings of similar magnitude to the agents'. This is underscored by the facts that the public's mean response for predicted agents' ratings rose (figure 10, p. 80) and the agents' mean priority ratings declined (figure 11, p. 81) at the second measurement. Neither the high nor the low information needs clusters behaved differently than the overall group.

Agent accuracy

A non-significant group-by-item interaction indicates that agent predictions of the public's information needs were accurate relative to its stated priorities (table 52). However, the significant main effect for group, whether it be overall, or high or low needs, is evidence that the rating inflation still lingers (tables 52-54). Overall consistency of rating prediction improved from time one to time two as seen in an intraclass correlation coefficient of .86 as compared with one of .82 at time one (table 21, p. 76). Unfortunately, the agents' predictions of the high needs group's information needs decreased from .89 to .80 (table 22, p. 76).

Table 52
B'A Agent Accuracy Time 2

SOURCE	DF	SS	MS	F VALUE
Group (B' or A)	1	340.36	340.36	72.42*
Item	16	530.76	33.17	7.06*
Group-by-item	16	56.77	3.55	0.75
Error	1760	8271.54	4.70	
Corrected total	1793	9199.43		

*p<.05

Intraclass correlation = .86

Table 53
B'A Agent Accuracy Time 2
Agents Compared with High Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Group (B' or A)	1	150.12	150.12	34.96*
Item	16	349.17	21.82	5.08*
Group-by-item	16	44.15	2.76	0.64
Error	884	3795.58	4.29	
Corrected total	917	4339.02		

*p<.05

Intraclass correlation = .80

Table 54
B'A Agent Accuracy Time 2
Agents Compared with Low Ratings Cluster

SOURCE	DF	SS	MS	F VALUE
Group (B' or A)	1	541.47	541.47	128.80*
Item	16	298.61	18.66	4.44*
Group-by-item	16	68.07	4.25	1.01
Error	944	3968.56	4.20	
Corrected total	977	4876.65		

*p<.05

Intraclass correlation = .77

CHAPTER 5

SUMMARY AND CONCLUSIONS

This study applied the coorientation model of communication as a tool in market research to analyze the relationship of a government agency and its public. The agency was represented by the field agents of the Cooperative Extension Service in Houston County, Alabama. The public was represented by a random sample of local citizens, categorized as being unaware or aware of the agency. Responses of the aware group were compared with the agents' responses to determine the coorientation variables of agreement, accuracy and congruency.

The concept of nonprofit marketing was tested in the setting of organizational public service programming. Delivery of information to improve the quality of local citizens' lives was identified as the product to be marketed. The organization tested its market and was faced with the policy decision of altering its product line (information delivery priorities).

The analysis was based on the assumption that the relationship between a public organization and its client publics is a function of the common images the two groups

hold of each other. A typology of image states was offered for interpretation of coorientation findings. This typology provides a basis for action to facilitate the development of the agency's public relations.

The complexity of coorientation data analysis was addressed in the use of reliability test methods. Intraclass correlation and analysis of variance were employed to define the coorientation variables and to determine if respondent groups were true entities. Cluster analysis was used to deal with the psuedo-data problem relative to homogeneity of group responses.

Findings

Psuedo-data issue

A basic concern in coorientation analysis is that the data are not what Chaffee terms "psuedo-data," information that may not really reflect the actual opinions or facts about the subject under study. When the analysis is applied to groups, there are two crucial concerns: 1) that the respondents in one group do, in fact, know the other group, and 2) that the groups are, in fact, true entities.

Mutual knowledge. Before entities can truly coorient on given objects they must have knowledge of the other party that they are expected to reify. They must have a concept of what Mead (1934) labeled the "significant

other." This first psuedo-data concern, group awareness, was dealt with by employing a set of filter questions with the public respondents. Before the public was asked to reify the agency, respondents had to demonstrate knowledge by describing the organization in terms of its agents, location or specific contacts. This is in keeping with Cooley's (1909, p. 313) assertion that an institution is "a definite phase of the public mind," in which human thought or intent is organized around a certain task.

The resulting public awareness rating was 55 percent ($\pm$ seven percent error margin). Agency awareness was assumed by virtue of its staff's being public employees. This process allowed the study to move from initial needs assessment to coorientation analysis using only responses from the aware public.

True groups. The second concern centered on the question of group homogeneity. This study demonstrated that group structure can be verified by use of intraclass correlation and cluster analysis. Although the public was relatively homogeneous in its establishing of information needs priorities, there was a distinct bi-modal distribution of responses into high and low expression of needs (tables 3-5, pp. 55-58). Despite having opportunity to report degrees of information needs, respondents apparently tended to answer "yes" or "no" by choosing one

end of the rating scale. It was found that the two clusters set priorities in like manner, thus functioning as a single entity.

There was more of a problem in determining if the agency functioned as a single entity. At the first measurement point, the agents displayed moderate consistency in setting information delivery priorities (table 8, p. 61), but that homogeneity collapsed at the second point (table 39, p. 95). On the other hand, they were highly inconsistent in predicting public information needs priorities at time one (table 9, p. 62), but improved markedly to a strong homogeneity of opinion at time two (table 41, p. 97).

A combination of factors can explain the agency's homogeneity problem. First, the measurement tool, intraclass correlation, is more severe when working with such small groups of judges. It is harder to reach a generalized consensus about a wide range of topics in a small group. Secondly, members of the group under study are employed specifically because they have expertise in a very divergent range of topics (from families to farms). Thus, there is a natural tendency to favor the topics dearer to one's heart, not to mention pocketbook. Operating on the assumption that, despite intra-agency disagreement about priorities, the agency does in fact

coorient with the general public, the coorientation analysis was carried out.

Public needs assessment

The quest to improve two-way communication between an organization and its clients (Broom and Dozier, 1983) and to gain knowledge of products needed by a target market (Fowler, 1986) is key in a public agency's adoption of social marketing principles. This study proposed that the coorientation model could be used to gauge public information needs and to track a public agency's response to those needs over time. The coorientation agreement variable showed how Cooperative Extension agents aligned their priorities with the public's.

At both points of measurement, the agency and public demonstrated moderate agreement about the priorities for information needed to improve the quality of life in the county (table 10, p. 64 and table 42, p. 99). There was no significant change in overall agreement over the time of study. However, there was significant movement toward agreement between agents and the respondents expressing high information needs (table 11, p. 65 and table 43, p. 99). This indicates an improved position for the agency relative to a key market segment.

Public image state

Following Mead's (1934, pp. 337-346) concept of image as the perception of an unconsumated social act, the proposed image typology seeks to mark a given point in a social transaction moving towards balance between parties. In this instance, that transaction is the provision of public services. The premise is that a public's more accurate and favorable image of a public agency will enhance delivery of those services.

Based on the proposed typology (figure 14), the Houston County public's image of the Cooperative Extension Service was found to be in a state of informed disinterest throughout the whole study. Accurate perception of the priorities of the agency (table 18, p. 73 and table 49, p. 107) and a view that audience priorities were non-congruent with the agency's (table 13, pp. 68 and table 45, p. 103) combine to indicate the state of the aware public's image of the agency.

This is the least desirable image for a client public to hold of an organization. In essence, it says, "We know what we need, we know what the agency offers, and we don't think those priorities match." The prescribed strategy for dealing with such a public image is for the agency to be sure its priorities are aligned with the public's. According to Newcomb (1953, p. 401), this means that the agency should "attempt to achieve symmetry with regard to

Group assessment is: _____	Informed (Accurate)	Misinformed (Non-accurate)
<u>Interested</u> (Congruent)	Informed interest	Misinformed interest
<u>Disinterested</u> (Non-congruent)	Informed disinterest	Misinformed disinterest

Figure 14

Image States
Typology Based on Coorientation Variables

X...by changing own orientation toward (public's)." In marketing terms, the agency must refine its product to fit the customers' needs.

At this point, a problem arises with the findings. The data indicate that the public and agency do, in fact, agree on public information needs (table 10, p. 64 and table 42, p. 99). This produces what appears to be the logical impossibility that the public agrees with and understands the agency, but it does not think it agrees with the agency (figure 15).

Since the explanation is built on a probabilistic model, there is room for ambiguity in the findings. The measurement problem apparently lies in the public's reification of the agency within the congruency variable (table 13, p. 68 and table 45, p. 103). The variability of responses is greater in this area than within others. It appears that there is less consistency of ratings in which

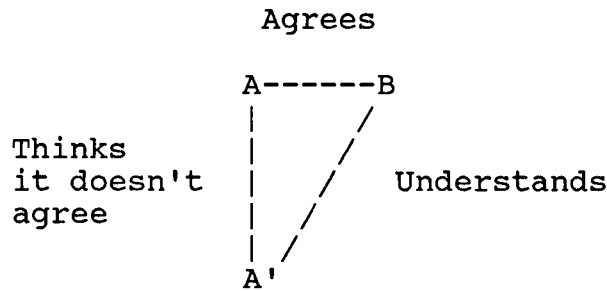


Figure 15

**Informed Disinterest:
Public's Image
of the Houston County Extension Service**

high marks for one item of orientation (information need) may cancel low marks for another.

One public relations strategy is to induce more logical assessment in the public. This requires a promotional emphasis in which the public is informed that it, in fact, does understand the agency and the agency does have information compatible with its needs. Newcomb's (1953, p. 401) suggestion that symmetry can be achieved by "cognitively distorting (the other's) orientation" can come into play here. In essence, the audience needs to be convinced that its attitudes are congruent with the agency's.

Agents' image state

The agents' image of the public moved to a less desirable state over the course of the study. At the

beginning, their views resulted in an image state of informed interest as evidenced by an accurate assessment of audience priorities (table 21, p. 76) and congruency between self- and other-assessments (table 17, p. 71). However, at time two, they expressed an image state of informed disinterest marked by accurate assessment of audience priorities (table 52, p. 109) and non-congruency (table 48, p. 105). Organizational attention to the marketing process, in general, and to the findings of the first study, in particular, apparently served to shake the agents' confidence in their perception that they agreed with the public. In Newcomb's (1953, p. 401) terms, the agents were attempting to modify their judgment of the public's evaluation of itself.

The agents' second measure suffers from the same problem that the public measure does. The agreement variable (table 42, p. 99) is positive, leading to the impression that the agency agrees with and understands the public, but it does not think it agrees with the public (figure 15). As with the public, variability within the agents' congruency factor widened (table 48, p. 105)

Implications

Communication process

Confirming previous coorientation findings, this study showed that communication intervention has greater effect

on a formalized organization than on a non-formal group such as the general public. The single direct-mail market promotional piece appeared to have no effect on the audience. One probably would need much more involved intervention to affect the public's responses. However, the focus of attention on market research results has an effect, albeit one of confusion, within the organization. This finding indicates the need for a longer panel study with a number of measurement points in order to plot the dynamics of coorientation.

It is this process of intervention, measurement and response to the measure's findings that can be applied to any organization. For instance, a business could analyze characteristics of its product line or its customer services in relation to a public of interest. Other public service organizations could gauge public needs and the perceptions of their services.

Nonprofit marketing

This study showed that marketing can be applied in a nonprofit setting. The marketing principles of greatest salience here are not the ones oriented to gaining a return, but those that position the organization for best effect in a given market. The coorientation model can show the organization's adequacy and compatibility with its clients and potential clients. That understanding can

then be used to develop or modify products (information programs), determine the best place and price for delivering the product, and develop promotional strategies.

Cooperative Extension policy

The use of this market measurement process underlines the basic Cooperative Extension principle of locally-inspired programs versus nationally- or state-mandated ones. In Bernays' (1952, p.3) terms it is the "efforts to integrate...with its publics." In its assumption that the organization owes its continued existence to the perception and evaluation of the end-user, it shows the importance of the organization's local branch's public relations. Under this reasoning, it should be emphasized that such a study must stand alone and not be used to generalize to other counties. By applying the image typology based on the coorientation model, the organization can gain an understanding of its standing in the community and can develop strategies to enhance its service offerings and image.

Study Limitations

Time

Lack of time is a characteristic problem of most coorientation studies. Since the model deals with

communication dynamics, it requires a longitudinal study of different points in the communication process. The present study, like most of its predecessors, only samples two points in time. The result is that the findings are frozen at a point where there are some evident problems in congruency. The agents exhibit confusion and the public exhibits ambiguity. Resolution of this limitation requires a more involved panel study and thus greater investment of resources.

Sample size

A problem specific to this study, but related to the time element in all coorientation studies, is that of reduced sample size. The overall sample was limited due to organizational time constraints for internal reports and decision-making. For coorientation analysis the sample issue is compounded by the necessity for eliminating those respondents who have no awareness of the organization and thus cannot reify it. In addition, there is the problem of loss of subjects over time in a panel study.

The remedy for this is to estimate the public awareness level and oversample to account for it. Of course this will significantly increase the resource outlay for a study. For example, if the process had been followed in the present study, to reach the standard

confidence level of .95 with plus or minus five percent error margin would have required an original sample nearly triple the size of the one actually used. In the first stage, approximately 620 randomly selected Houston County residents would have had to be contacted.

Beyond the public sample considerations, there is the matter of the small frame of agency respondents. In essence the analysis deals with a very small population. One suggestion is to group counties by like demographic, industrial or agricultural characteristics and increase the number of agency respondents to more nearly approach a normal distribution of responses.

Rating inflation issue

In the attempt to use the power of analysis of variance procedures in contrast to non-parametric ranking procedures, the problem of differential rating magnitudes arose. The organization representatives consistently rated all elements higher than did the public respondents. This rating inflation situation reflects the salience of the study to the interview subjects. Various attempts to standardize responses were discarded in favor of admitting that the responses reflected a fact that the issues were more meaningful to the agents.

Data richness

The idea that one may have too much data may seem strange in context of most social science research. Yet, coorientation studies are reputed to be difficult for that very reason. This study proved to be no exception. The myriad comparisons that constitute the agreement, congruency and accuracy variables, compounded by time and treatment elements, result in sometimes Byzantine paths of analysis. It further appears that high ratings for one item of orientation (information need) may cancel low marks for another in some portions of the analysis of variance model.

Suggestions for Further Study

Longer panel study

The questions of changes over time warrant closer attention. If the coorientation model were applied to a market study in which a product is developed, promoted, delivered and evaluated through its maturity, the characteristics of system dynamics should more clearly emerge. This would require a greater number of repeated measures over time.

More concise quantitative models

Related to the mass of data generated by a coorientation study is the complexity of the mathematical

models required for analysis. For instance, the present study required more than 40 analyses of variance. A concise model that incorporates more elements at once would make analysis more parsimonious and more easily interpretable. One possibility is to use step-wise regression models.

Audience-oriented instrument development

Although the questionnaire for this study incorporated results of a public pre-test and was consequently re-tested on another segment of the public, there remained a need for further client input. Karbon (1980) dealt with this issue by post-coding open-ended questions from personal interviews. However, this approach is impossible via telephone. A possible approach is to develop the questionnaire through a limited sample of open-ended telephone interviews followed by more in-depth discussion in focus groups.

In addition, the questionnaire could be tailored to specific organizational subject matter, or information products. For instance, within the Extension frame of reference, instruments could be developed to deal strictly with certain agricultural commodities. This would provide more specific information and deal with a market beyond a geographic or political boundaries.

REFERENCES

REFERENCES

- Allport, F.H. (1924). Social Psychology. Boston: Houghton Mifflin.
- Anderberg, M.R. (1973), Cluster Analysis for Applications. New York: Academic Press.
- Beeman, Carl. (1982). Evaluation and accountability: An overview. Third Annual Winter Institute on Evaluating Cooperative Extension Programs, Orlando, Florida.
- Bernays, Edward. (1952). Public Relations. Norman: University of Oklahoma Press.
- Boulding, K. (1953). The organizational revolution: A study in the ethics of economic organization. New York: Harper and Brothers.
- Boulding, K. (1956). The image: Knowledge in life and society. Ann Arbor: The University of Michigan Press.
- Broom, Glen. (1976). Community consensus-building: A communication experiment in two rural Wisconsin communities, unpublished Ph.D dissertation, University of Wisconsin, Madison, Wisconsin.
- Broom, Glen, and Dozier, David. (1983). An overview: Evaluation research in public relations. Public Relations Quarterly, (Fall), pp. 5-8.
- Bureau of the Census. (1982). Census of Agriculture. Washington, D.C.: United States Department of Commerce.
- ★ Burgess, E.W. (1926). The family as a unit of interacting personalities. Family, 7, pp. 3-9.
- Campbell, C.L., Hall, and B.W. Harrison. (1971). "A study of Extension program planning as perceived by off-campus faculty lay leaders and the general public in the Show-me Area." Columbia: University of Missouri.
- Center for Demographic and Cultural Research. (1987). "Alabama Population Data Sheet." Auburn University at Montgomery.
- ★ Chaffee, S.H. (1986). Personal conversation.
- ★ Chaffee, S.H., and J.M. McLeod. (1968). Sensitization in panel design: A coorientational experiment. Journalism Quarterly, 45, pp. 661-669.

- Christenson, J.A., and P.D. Warner. (1982). An assessment model for the Cooperative Extension Service. Rural Sociology, 47 (2).
- Cohen, Jacob, and Patricia Cohen. (1975). Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- Cook, T.D., and Campbell, D.T. (1979). Quasi-experimentation: Design and analysis issues for field settings. Boston: Houghton Mifflin Company.
- Cooley, C.H. (1902). Human nature and the social order. New York: Charles Scribner.
- Cooley, C.H. (1909). Social organization: A study of the larger mind. New York: Charles Scribner.
- Cosner, B.L. (1980). Perceptions of Oklahoma residents toward the Cooperative Extension function of the Oklahoma State University Division of Agriculture. Dissertation Abstracts International, 8103290, (University Microfilms).
- Ebel, Robert L. (1951). Estimation of the reliability of ratings. Psychometrika, 16, 4, pp. 407-424.
- Fowler, S.R. (1986). Marketing the Alabama Cooperative Extension Service: A new concept within program development, (circular EX-11). Auburn University: The Alabama Cooperative Extension Service.
- Fox, K.F.A., and P. Kotler. (1980). The marketing of social causes: The first 10 years. Journal of Marketing, 44, pp. 24-33.
- Gallup, George. (1979). "The Gallup study of participation and awareness of the Agricultural Wxtension Service." Princeton: The Gallup Organization, GO 78186.
- Gross, J.G. (1977). Evaluation planner for Extension. Washington, D.C.: U.S. Department of Agriculture.
- Grunig, James. (1972). Communication in community decisions on the problems of the poor. The Journal of Communication, 22, pp. 5-25.
- Grunig, James. (1983). Basic research provides knowledge that makes evaluation possible. Public Relations Quarterly, (Fall), pp. 28-32.

✓ Grunig, James, and Stamm, Keith. (1973). Communication and
coorientation of collectivities. American Behavioral
Scientist, 16, 4, pp. 567-592.

Helms, L.M., Hiebert, R.E., Naver, M.R., and Rabin, K.
(1981). Informing the People. New York: Longman.

Hennessey, B. (1981). Public Opinion. Monterey, CA:
Brooks/Cole Publishing Company.

Janowitz, Morris, and William Delany. (1957). The bureaucrat
and the public: A study of informational perspectives.
Administrative Science Quarterly, 2 (September),
pp.141-162.

★ Karbon, Jerome. (1980). Coorientation in resource
management: A strategy for assessing communication and
consensus between a complex organization and its
clientele, unpublished Ph.D dissertation, University of
Wisconsin, Madison.

Katz, D., B.A. Gutek, R.L. Kahn, and E. Barton (1977).
Bureaucratic encounters: A pilot study in the evaluation of
government services. Ann Arbor: University of Michigan,
Institute for Social Research.

★ Kogan, N., and R. Tagiuri. (1958). Interpersonal preference
and cognitive organization. Journal of Abnormal
Psychology, 56, pp. 113-116.

Kotler, Philip. (1979). Strategies for introducing marketing
into nonprofit organizations. Journal of Marketing, 35
(January), pp. 37-44.

Kotler, P., and G. Zaltman. (1971). Social marketing: An
approach to planned social change. Journal of Marketing,
35, pp. 3-12.

★ Laing, R.D., H. Phillipson, and A.R. Lee. (1966).
Interpersonal perception: A theory and a method of
research. New York: Springer.

Luck, David. (1969). Broadening the concept of marketing--
Too far. Journal of Marketing, 33 (July), pp. 53-63.

McCamy, J.L. (1939). Government publicity: Its practice in
federal administration. Chicago: The University of Chicago
Press.

McCarthy, E.J. (1968). Basic marketing: A managerial
approach. Homewood, IL.: Richard D. Irwin, Inc.

McLeod, Jack, and Chaffee, Steven. (1973). Interpersonal approaches to communication research. American Behavioral Scientist, 16, 4, pp. 469-499.

Mead, G.H. (1934). Mind, self, and society. Chicago: University of Chicago Press.

Meiller, Larry. (1977). A coorientation approach to consensus-building in two Wisconsin communities, unpublished Ph.D dissertation, University of Wisconsin, Madison.

Miller, M.M. (1987). Using generalizability theory to assess the dependability of direct magnitude separation estimates (Galileo data).

Mullins, E. (1982). Bringing Extension services to Alabamians: A statewide survey of information needs and awareness. A Capstone Poll project commissioned by the Alabama Cooperative Extension Service, Auburn University, Alabama.

Newcomb, T.M. (1953). An approach to the study of communicative acts. Psychological Review, 60, pp. 393-404.

Odiorne, G.S. (1954). An application of the communication audit. Personal Psychology, 7, pp. 235-243.

Rathmell, J.M. (1971). Marketing by the federal government. In R.M. Gaedke (ed.), Marketing in private and public nonprofit organizations: Perspectives and illustrations. Santa Monica, CA: Goodyear Publishing Company.

Rogers, E.M. (1983). Diffusion of innovations. New York: Free Press.

Sawyer, Barbara. (1984). Evaluating for accountability: A practical guide for the inexperienced evaluator. Corvallis, OR: Oregon State University Extension Service.

Schank, R.L. (1932). A study of a community and its groups and institutions conceived of as behaviors of individuals. Psychological Monographs, 43, 2.

Scheff, T.J. (1967). Toward a sociological model of consensus. American Sociological Review, 32, pp. 32-46.

- Stamm, Keith, and John Bowes. (1972). Communication during an environmental decision. The Journal of Environmental Education, 3, pp. 49-55.
- Sullivan, H.S. (1953). The interpersonal theory of psychiatry. New York: W.W. Norton.
- Tagiuri, R., J.S. Bruner, and R.R. Blake. (1958). On the relation between feelings and perception of feelings among members of small groups. pp. 110-116 in E. Maccoby et al. (eds.) Readings in social psychology. New York: Henry Holt.
- Thomas, W.I. (1927). The behavior pattern and the situation. Publications of the American Sociological Society, 22, pp. 1-13.
- Toffler, A. (1981). The third wave. New York: Bantam Books.
- Van Zelst, R.H. (1952). Empathy test scores of union leaders. Journal of Applied Psychology, 36, pp. 293-295.
- Warner, P.D. and J.A. Christenson. (1983). Looking beyond Extension stereotypes. Journal of Extension, 21, pp.
- Wiebe, G.D. (1952). Merchandising commodities and citizenship on television. Public Opinion Quarterly, 15, pp. 679-691.
- Wirth, L. (1948). Consensus and mass communication. American Sociological Review, 13, pp. 1-15.
- Wisconsin Extension Staff. (1979). "How many Wisconsin adults use Extension?" Madison: Unpublished report, University of Wisconsin-Extension, Division of Program and Staff Development.
- Yates, Douglas. (1982). Bureaucratic democracy: The search for democracy and efficiency in American government. Cambridge: Harvard University Press.

APPENDIXES

APPENDIX A

SURVEY INSTRUMENT

[My name is (INTERVIEWER'S NAME) . I'm with
the Auburn University extension evaluation team.]

(OR: Can I call you back when it's more convenient? When would that be? Okay, I'll do that. Thank you very much.)

1. To begin, we'd like to get your ideas about the quality of life in your county.

2. One of the top concerns is the food that we eat. So I'd like to know how adequate is the information about food and nutrition that's available to you and your family. For example, I mean such things as preparing healthy meals, the best buy for your food dollar, storing your food, and so forth.

I'll ask you to rate your need for information on a scale of zero to seven. "Zero" means that you don't need any further information in that area. "One" means you have only a slight need for information in the area. And, "seven" means you need a lot of information.

You can give any number between zero and seven. And, of course, you can give the same number to more than one problem.

Now...

How great is your need for information about foods and proper nutrition?.....|____|

3. How great is your need for information about canning and freezing foods?.....|____|

4. How great is your need for information about raising your own fruits and vegetables?.....|____|

5. How great is your need for information about raising your own livestock for food?.....|____|

6. Another important factor affecting the quality of our lives is the management of our personal resources. For instance, there are decisions about borrowing and saving money, keeping household records, dealing with taxes, buying insurance, and so forth.

Using the same zero to seven scale, please tell me how great is your need for information about managing your personal resources.....|____|

7. Our homes and the way they're kept determine a lot of the quality of our lives. Some areas of concern are energy costs, improving your home's value, selecting appliances, furnishing and decorating your home, and so forth.

Please tell me how great is your need for information about housing and home furnishings....|____|

8. The way our young people turn out determines the future quality of life in Houston County. Some things that help them develop include learning to work with others, coping with social pressure, and developing life skills.

Please tell me how great is your need for information about youth development.....| |

-----INTERVIEW FORM PAGE 3-----

9. The surroundings in which we live also affect the quality of our lives. To improve those surroundings, we must work with the lawns and gardens around our homes, and deal with a variety of pests.

Using our zero to seven scale, please tell me how great is your need for information about caring for your home's grounds.....| |

10. The way we get along with others is crucial to the quality of our lives. By this I mean communicating with family and friends, dealing with family members' problems, and so forth.

Please tell me how great is your need for information about improving human relationships...| |

11. The quality of our lives is greatly affected by day-to-day stress. For example job changes, marriage and divorce, illnesses and other events affect us.

Please tell me how great is your need for information to help you deal with such pressures.....| |

12. The comfort and usefulness of what we wear has a bearing on the quality of our lives.

Using the zero to seven scale, please tell me how great is your need for information about buying, caring for or making your own clothes.....| |

13. Most people agree that a good life depends on good health.

Again, using our zero to seven scale, please tell me how great is your need for information to maintain your family's health and fitness.....| |

14. Unwanted teenage pregnancy is a serious problem facing society. How great is your need for information about preventing it?.....|_____|

15. Drug and alcohol abuse are also serious. How great is your need for information about preventing these problems?.....|_____|

16. The economic well-being and living conditions in our community are crucial to the quality of individual's and families' lives.

Please tell me how much you need to know about taking advantage of community programs, services and activities.....|_____|

17. How great is your need for information about public services such as fire and police protection, water, garbage disposal, and recreation?.....|_____|

18. How great is your need for information about improving local job opportunities?.....|_____|

19. This next question doesn't need a rating. Instead, I'd like for you to tell me the single most important thing about which you need information to improve the quality of your life.

(CAN BE ONE OF THE TOPICS ALREADY DISCUSSED, OR SOMETHING THEY MENTION.)

-----INTERVIEW FORM PAGE 4-----

20. Every county in Alabama is supposed to have a Cooperative Extension Service office with agents trained to help people with household needs, agricultural production, community improvement, and 4-H, youth development.

Cooperative Extension Service offices are often called by different names, such as county agent's office, home agent's office, farm agent's office, and so forth.

Are you aware of such an office in Houston County?

IF NO-->.....0
(go to 20c)

IF YES--> 20a. What do you call that office in Houston
County?

20b. Could you tell me where the (USE
NAME GIVEN IN A) office
might be located in your county?
RIGHT.....1
WRONG.....2

NOTE ANSWER ACTUALLY GIVEN:
(FARM CENTER BUILDING, ROSS CLARK CIRCLE)

20c. The cooperative extension service is responsible
for aiding farmers and homeowners with agricultural
needs. Could you tell me the name of at least
one of your county agricultural agents?
RIGHT.....1
WRONG.....2
DON'T KNOW...0

NOTE ANSWER ACTUALLY GIVEN:
(ALLEN MATTHEWS, RICHARD MURPHY,
LAMAR NICHOLS, REAFIELD VESTER)

20d. Each county extension office is supposed to have an
agent to assist people with food and nutrition, and
care of their homes. Could you tell me the name of
at least one of your county home economics agents?
RIGHT.....1
WRONG.....2
DON'T KNOW...0

20e. Each county extension office is supposed to have an agent responsible for youth development, or 4-H. Could you tell me the name of at least one of your county 4-H agents?

RIGHT.....1

NOTE ANSWER ACTUALLY GIVEN:
(CLAUDIA MEADOWS, LAMAR NICHOLS,
RICHARD MURPHY)

WRONG.....2

DON'T KNOW...0

20f. Have you or any member of your family ever made a call to or had other direct contact with the Cooperative Extension Service in your county?

NO.....00

DON'T KNOW..99

|-----YES

|
About how many times have you or members of your family consulted a county agent within the last two years?.....

(TWO DIGITS)

IF YOU GET NO CORRECT ANSWERS TO QUESTIONS 20A THROUGH F, GO TO PAGE 7, THE BLUE PAGES.

IF YOU GET AT LEAST ONE CORRECT ANSWER TO QUESTIONS 20B THROUGH 20F ABOVE, GO TO THE NEXT PAGE.

-----INTERVIEW FORM PAGE 5-----

I'd like to go through our list one more time. This time I'd like to get your ideas on how you think the Houston County Cooperative Extension Service views the needs and concerns we discussed.

Use the same zero to seven scale to rate the concerns as you think most of your local extension agents would rate them.

In this case, a zero would mean that you feel the extension agents don't think they need to pay any attention to the problem. "One" means they think the problem or concern only requires a little attention. And, "seven" means you think they consider it a very important matter to deal with. Remember, you can give any number between zero and seven, and you can again give the same number to more than one problem.

(READ THE ENTIRE LIST OF PROBLEMS TO RESPONDENT AGAIN ALLOWING ENOUGH TIME TO RATE EACH ONE. RECORD EACH RATING IN THE APPROPRIATE COLUMN NEXT TO THE PROBLEM.)

-
21. How would the agents rate the need for information about foods and proper nutrition?.....|_|
 22. How would the agents rate the need for information about canning and freezing foods?.....|_|
 23. How would the agents rate the need for information about raising your own fruits and vegetables?....|_|
 24. How would the agents rate the need for information about raising your own livestock for food?.....|_|
 25. Using the same zero to seven scale, please tell me would the agents rate the need for information about managing your personal resources.....|_|
 26. How would the agents rate the need for information about housing and home furnishings.....|_|
 27. How would the agents rate the need for information about youth development.....|_|
 28. Using our zero to seven scale, please tell me how the agents would rate the need for information about caring for your home's grounds.....|_|
 29. How would the agents rate the need for information about improving human relationships.....|_|

-----INTERVIEW FORM PAGE 6-----

Let me remind you that zero means you feel the extension agents don't think they need to pay any attention to the problem. And, "seven" means you think they consider it a very important matter to deal with. Remember, you can give any number between zero and seven.

30. How would the agents rate the need for information to help you deal with day-to-day stress.....|_____|
31. How would the agents rate the need for information about buying, caring for or making your own clothes.....|_____|
32. How would the agents rate the need for information to maintain your family's health and fitness.....|_____|
33. How would the agents rate the need for information about preventing unwanted teenage pregnancy?.....|_____|
34. How would the agents rate the need for information about preventing drug and alcohol abuse?.....|_____|
35. How would the agents rate the need to know about taking advantage of community programs and activities.....|_____|
36. How would the agents rate the need for information about public services such as fire and police protection, water, garbage disposal, and recreation?.....|_____|
37. How would the agents rate the need for information about improving local job opportunities?.....|_____|

-----INTERVIEW FORM PAGE 7-----

Now I'd like to ask you a few questions about the way you get your information about Houston County activities.

38. How many days, during an average week,
do you read a daily newspaper?.....

--IF NONE

38a. Which daily newspaper do you most often read?

THE DOTHAN EAGLE.....	1
MONTGOMERY ADVERTISER/JOURNAL.....	2
BIRMINGHAM NEWS.....	3
USA TODAY.....	4
OTHER	

39. How many days, during an average week,
do you read a community newspaper? By
that we mean a paper published less than
5 times weekly for a particular community.....

--IF NONE

39a. Which community newspaper do you most often read?

HEADLAND OBSERVER.....	1
HARTFORD NEWS-HERALD.....	2
DOTHAN PROGRESS.....	3
OTHER	

40. How many days, during an average week,
do you listen to a local radio station
for news about Houston County?.....

--IF NONE

40a. To which Houston County radio station do you
listen for local news?

WDBM-AM, 1320 (DOTHAN).....	1
WOOF-AM, 560 (DOTHAN).....	2
WOOF-FM, 99.7 (DOTHAN).....	3
WTVY-FM, 95.5 (DOTHAN).....	4
WWNT-AM, 1450 (DOTHAN).....	5

41. Of all the radio stations available,
to which one do you listen most often?

42. How many days, during an average week,
would you say you watch...

42a) the local TV news at six o'clock?.....

42b) the national network news at 5:30?.....

42c) the local TV news at 10 o'clock?.....

42d) news on cable TV?.....

43. What television channel do you watch most frequently?

WTVY, 4, CBS, DOTHAN.....	01
WDHN, 18, ABC, DOTHAN.....	02
WPFP, 60, IND, DOTHAN.....	03
WSFA, 12, NBC, MONTGOMERY.....	04
WDIQ, 2, ETV, PBS, DOZIER.....	05
WJHG, 7, NBC, PANAMA CITY.....	06
WMBB, 13, ABC, PANAMA CITY.....	07
WALB, 10, NBC, ALBANY.....	06
OTHER	

44. What is your principle source of news about activities
in Houston County?

(MASS MEDIA, OTHER PEOPLE, OR GROUPS ARE ACCEPTABLE)

-----INTERVIEW FORM PAGE 8-----

The answers you've given will be combined with those of the
other participants in this survey. In order to help us
better understand the results, we need a bit of information
about you. And, let me remind you that the information is
strictly confidential.

45. How many children do you have?.....

46. Could you tell me your	NO FORMAL SCHOOLING....00
highest level of education?	GRADE: (1 THROUGH 12).__
	ATTENDED COLLEGE13
	BACHELOR'S DEGREE.....14
	MASTER'S DEGREE.....15
	DOCTORATE.....16
	PROFESSIONAL DEGREE....17
	TECHNICAL SCHOOL.....18

47. NOTE RESPONDENT'S SEX.....	MALE 1
	FEMALE 2

48. Could you tell me what kind of work you do?
a. Main job _____
b. Second job _____
How about your husband/wife?
c. Main job _____
d. Second job _____
49. And, in what year were you born?_____
50. Are you.....married 1
divorced 2
widowed 3
never married 4
51. Could you tell me your race?.....WHITE/CAUCASIAN 1
BLACK/NEGRO 2
(PLEASE NOTE) _____ OTHER 5
52. Do you own your own home?.....YES 1
(MOBILE HOMES/TRAILERS COUNT) NO 0
53. Now, I would like you to think about your total household income before taxes. Please tell me which of the following categories best fits your household.
- Less than \$10,000 a year.....1
Between \$10,000 and \$20,000.....2
More than \$20,000.....3
54. Could you please tell me your first name?
- _____
(SO WE CAN CALL BACK IF THERE ARE ANY PROBLEMS.)

APPENDIX B

PUBLIC TREATMENT:

DIRECT MAIL PROMOTIONAL PIECE

October 10, 1986

About a year ago, we undertook a project to find out what type information the people of Houston County need to improve the quality of their lives. We also wanted to learn how you view the Cooperative Extension Service.

The results of the survey, which you helped us with, show that Houston Countians have eight top concerns:

- Local jobs
- Health care
- Support for our youth
- Caring for home grounds
- Managing personal resources
- Coping with personal stress
- Community services
- Improving human relationships

Although we're involved with all these concerns in Houston County, the survey reveals that the public doesn't know just how we help.

I'd like to take a moment of your reading time and report how we're responding. The attached sheet and brochure explain how we meet community needs through some of our many programs.

Thanks for your assistance in this study. If we can help you at any time just give us a call.

Sincerely,

Reafield Vester
County Agent-Coordinator

You told us what your concerns are. We want you to know how we can help.

Public Concerns

Extension Response

Local jobs	Through our Community Resource Development programs, our agents assist in industrial site location.
Health care	Our Home Economics agents lead educational programs related to cancer, hypertension, arthritis, food and drug interactions, teen pregnancy, diabetes, and weight control and wellness.
Support for our youth	The 4-H Clubs of Houston County provide experiences in decision-making, leadership, wise use of natural resources, public speaking, and skills training.
Caring for home grounds	The local Garden-A-Rama (mall show), on-site demonstrations, and a newsletter are available to aid homeowners. In addition, agents are available for consultation.
Managing personal resources	From the home to the farm to the home-based business, our educational programs aid in goal-setting, budgeting, wise credit use, record keeping, savings and investments, and insurance and tax management.
Coping with personal stress and Improving human relationships	Family decision-making advice, stress management workshops, and help for coping with divorce are among the programs available.
Community services	Our Community Resource Development efforts extend into rural services development, watershed projects, and recreational development.

We are here to serve you. If you need assistance in any of these areas, give us a call at 794-4108, or come by our office at the Farm Center on Ross Clark Circle. We have a wide variety of publications and educational materials available.

APPENDIX C

AGENT TREATMENT:

PRELIMINARY AND FINAL SURVEY RESULT REPORTS

This is the first report given to the Houston County agents in late November, 1985. At this point, the data entry was not complete; however, the pressure of the upcoming State Conference necessitated a partial analysis.

HOUSTON COUNTY

To give you some sense of the data we gathered, here is a breakdown of the various questions.

We completed 212 interviews for analysis for your report at the state conference. This allows us to make inferences from our sample to the total Houston County population (26,183 households) at a 95 confidence level with an error margin of ± 7 percent.

This means that the true answer to any of the questions can vary by seven percent on either side of the ones obtained in the survey. In addition, we can be confident that if we tried this survey 100 times, we would get the same range of answers 95 out of the 100 times. You should realize that no survey gives the exact, accurate answer. We must allow for error and bias. As they say, "You pays your money and takes your chances."

To demonstrate the confidence level and error margin, let's use the respondents' rating of satisfaction with life in Houston County. On a scale of zero to ten (low to high) the respondents rated life in Houston County at 7.7. That means that the population's true rating actually falls somewhere between 7.17 and 8.24 ($\pm 7\%$). Looks like a good level of satisfaction.

We asked the respondents to rate their needs for information in 17 different areas on a 0 to 7 scale. Responses to the questions show a ranking of public information needs. The following table shows which topics hold similar ranks. They are grouped by responses that aren't significantly different. That means that for all practical purposes, those items hold similar ranks in the public's estimation of information needed.

<u>Rank</u>	<u>Topic (rating)</u>	<u>Non-significant differences</u>
1	jobs (3.83960)	
2	health (3.8255)	1
3	youth (3.5896)	1 2
4	home grounds (3.4811)	1 2 3
5	managing personal resources (3.3868)	1 2 3 4
6	handling stress (3.3821)	1 2 3 4 5
7	community well -being (3.3679)	1 3 4 5 6
8	human relationships (3.2264)	3 4 5 6 7
9	preventing drug & alcohol abuse (3.1137)	3 4 5 6 7 8
10	community services (3.1038)	4 5 6 7 8 9
11	housing and home furnishings (3.0991)	4 5 6 7 8 9 10
12	growing fruits and vegetables (2.9242)	5 6 7 8 9 10 11
13	food and nutrition (2.8443)	8 9 10 11 12
14	clothing (2.7642)	9 10 11 12 13
15	raising your own livestock (2.7095)	9 10 11 12 13 14
16	canning and freezing food (2.5613)	12 13 14 15
17	preventing teen pregnancy (2.4717)	12 13 14 15 16

The suggestion is for you to look at the related groupings and select one area in which you could develop a marketing strategy. The strategy might call for programming changes. It might call for a more concerted promotion of a particular aspect of your current programming. Or, it might serve to underline activity already underway.

When we come to Dothan on Tuesday, we'll bring further breakdowns of the data and will be able to more fully explain it.

In mid-1987, the Houston County agents were provided with this more detailed analysis of the findings from both stages of public interviews. From it, they formulated their marketing response. This information and subsequent discussions served as the communication intervention in the coorientation process.

May 19, 1987

To: Raefield Vester
County Agent-Coordinator
Houston County

From: Ned Browning
Communications Specialist

Subject: Further analysis of Houston County market survey

Here are the findings of the two surveys conducted in 1985 and 1986.

The 1986 followup survey was conducted with 122 persons who showed an awareness of your office and were willing to respond during the first series of interviews.

What can we say we've learned from this project? Details are spelled out on the attached sheets. However, I have some summary thoughts that may help explain the findings and point in a direction for continued marketing emphases.

First, your office has an excellent awareness rating.

The findings indicate one major problem (see page 3) which can be dealt with to your benefit. Your staff has a misperception of the public's priorities for information needed to improve the quality of life in Houston County. There are three possible strategies which could be followed to deal with this:

- 1) Change the audience's priorities--This is not feasible and not in the spirit of responding to a given market.
- 2) Change program emphases--In the long-run this is probable. However, it will depend on overall ACES policy and staff considerations.
- 3) Modify staff expectations about the audience--In the immediate future, this is the most feasible market-minded approach. The survey provides a base for a better understanding with which to approach the people with whom you work. As you go about your day-to-day activities, program planning and

evaluation, sensitivity to the identified priorities can help you better understand the audience.

I've enclosed copies of the analysis for each agent in your office. If I can be of further help in explaining the results, let me know.

I need to set up a time with you to interview your staff one more time for a final follow-up to the project. I'll call you this week.

Public awareness of ACES

Of 265 persons interviewed, 144 are aware of the Houston County Extension Service. This means that we can be 95 percent confident that between 51 and 59 percent of the county's population has firsthand knowledge of ACES. By inference to the total population that means between 14,679 and 16,981 households (out of 28,873) are aware of ACES.

Information needs

When priorities of aware respondents are compared with those of non-aware respondents no significant difference was found. However, there were hints of differences in the types of information needed by these different market segments (table 1).

In addition, there is no significant difference between priorities expressed in the 1985 and 1986 surveys. The only notable shift is in respondents' ratings for information needs in the areas of preventing teenage pregnancy (an increase in priority from 17 to 11), drug and alcohol abuse (a drop in priority from 6 to 10) and health and fitness (a drop in priority from 2 to 5).

Those people who are aware of ACES (call you by name, know the office location, report contacts) appear to be more interested in personal improvement information. Note that their top five information needs are health and fitness, home grounds, improving jobs, personal resource management, and youth development.

Non-aware persons have slightly different priorities with jobs as their top concern. Rounding out their top five are health and fitness, community programs, youth development and dealing with stress. Most notable in priority shifts is the non-aware audience's lower ranking of needs for personal resource management information.

TABLE 1

Type of information needed	Aware Public		All Public		Non-aware Public	
	Rank	Rating	Rank	Rating	Rank	Rating
Improving jobs	3	3.79	1	3.86	1	3.93
Health & fitness	1	3.93	2	3.83	2	3.73
Youth development	5	3.68	3	3.57	4	3.45
Home grounds	2	3.80	4	3.54	6	3.26
Community programs	7.5	3.43	5	3.47	3	3.50
Personal resource management	4	3.71	6	3.45	8	3.16
Dealing with stress	7.5	3.43	7	3.41	5	3.38
Human relationships	6	3.47	8	3.29	10	3.10
Community services	11	3.16	9	3.19	7	3.22
Preventing drug & alcohol abuse	10	3.20	10	3.17	9	3.13
Housing & home furnishings	9	3.31	11	3.11	12	2.89
Raising fruits & vegetables	12	2.99	12	2.94	13	2.88
Food & nutrition	13	2.80	13	2.83	14	2.85
Clothing	14	2.76	14	2.80	15	2.83
Raising livestock	17	2.11	15	2.55	11	3.04
Canning & freezing	16	2.46	16	2.54	16	2.64
Preventing teen pregnancy	15	2.48	17	2.47	17	2.46

ACES-Public agreement

ACES and the aware members of the public have absolute non-agreement about priorities (table 2).

ACES and the general public are in non-agreement, bordering on disagreement.

These findings should be understood in light of the organization's traditional program emphases. Additionally, as was emphasized from the beginning of this project, this study seeks information about a general, non-specialized audience.

From a marketing viewpoint, this suggests a change in emphasis for the organization. Such a change is no simple matter and would require major policy considerations.

TABLE 2

Type of information needed	Agents		Aware Public		All Public	
	Rank	Rating	Rank	Rating	Rank	Rating
Improving jobs	17	3.86	3	3.79	1	3.86
Health & fitness	6	6.29	1	3.93	2	3.83
Youth development	1.5	6.71	5	3.68	3	3.57
Home grounds	1.5	6.71	2	3.80	4	3.54
Community programs	15	4.57	7.5	3.43	5	3.47
Personal resource management	9.5	5.71	4	3.71	6	3.45
Dealing with stress	14	5.00	7.5	3.43	7	3.41
Human relationships	12.5	5.29	6	3.47	8	3.30
Community services	16	4.29	11	3.16	9	3.19
Preventing drug & alcohol abuse	7.5	6.00	10	3.20	10	3.17
Housing & home furnishings	11	5.57	9	3.31	11	3.11
Raising fruits & vegetables	3.5	6.57	12	2.99	12	2.94
Food & nutrition	3.5	6.57	13	2.80	13	2.83
Clothing	7.5	6.00	14	2.76	14	2.80
Raising livestock	12.5	5.29	17	2.11	15	2.55
Canning & freezing	5	6.43	16	2.46	16	2.54
Preventing teen pregnancy	9.5	5.71	15	2.48	17	2.47

Agents' perceptions

ACES thinks it is in agreement with the public yet it isn't.

As has already been shown (table 2) the agents' priorities for delivering information and the public's priorities for information needs do not agree. This can be somewhat expected due to the specialized nature of our organization. However, a problem lies in the fact that the agents think they understand the public's priorities. In fact, that perception is unfounded (table 3).

Note that of the top five types of information which the agents think the public wants, three (food & nutrition, raising fruits & vegetables, canning & freezing) are low priorities for the public. Conversely, of the public's top five priorities, at least one (community programs) is perceived by the agents as having low interest in the public.

Besides the priority rankings, attention needs to be paid to the levels of the needs rankings. Note that the agents consistently rate all information needs higher than do the public respondents. This is attributable to the fact that information delivery is the prime activity of Extension and these subjects are part of the agents' jobs. What must be recognized is that members of the public simply do not place as much weight on their needs for information as ACES thinks they do.

TABLE 3

TABLE 3

<u>Type of information needed</u>	<u>Agents' Perception of Public</u>				
	<u>Public</u>	<u>Rank</u>	<u>Rating</u>	<u>Rank</u>	<u>Rating</u>
Improving jobs	1	3.86	10.5	4.86	
Health & fitness	2	3.83	10.5	4.86	
Youth development	3	3.57	6.5	5.14	
Home grounds	4	3.54	2.5	5.71	
Community programs	5	3.47	14.5	4.00	
Personal resource management	6	3.45	5	5.29	
Dealing with stress	7	3.41	8.5	5.00	
Human relationships	8	3.30	12	4.71	
Community services	9	3.19	17	3.43	
Preventing drug & alcohol abuse	10	3.17	6.5	5.14	
Housing & home furnishings	11	3.11	13	4.43	
Raising fruits & vegetables	12	2.94	2.5	5.71	
Food & nutrition	13	2.83	1	5.86	
Clothing	14	2.80	14.5	4.00	
Raising livestock	15	2.55	16	3.86	
Canning & freezing	16	2.54	4	5.43	
Preventing teen pregnancy	17	2.47	8.5	5.00	

Public's perceptions

The aware public does understand ACES priorities. In other words, it knows what the organization emphasizes (table 4). This should be expected since an "aware" respondent is one who specifically identifies components of the organization.

Of the types of information on which the public thinks ACES places top ten priority, only "raising livestock" and "community programs" are misperceived.

TABLE 4

<u>Type of information needed</u>	<u>Agents</u>		<u>Public's Perception of Agents</u>	
	<u>Rank</u>	<u>Rating</u>	<u>Rank</u>	<u>Rating</u>
Food & nutrition	3.5	6.57	1	5.41
Raising fruits & vegetables	3.5	6.57	2	5.07
Canning & freezing	5	6.43	3	5.05
Home grounds	1.5	6.71	4	4.87
Raising livestock	12.5	5.29	5	4.80
Community programs	15	4.57	6	4.66
Health & fitness	6	6.29	7	4.56
Youth development	1.5	6.71	8	4.42
Clothing	7.5	6.00	9	4.37
Preventing drug & alcohol abuse	7.5	6.00	10	4.23
Personal resource management	9.5	5.71	11	4.14
Community services	16	4.29	12	4.08
Housing & home furnishings	11	5.57	13	4.01
Human relationships	12.5	5.29	14	3.98
Preventing teen pregnancy	9.5	5.71	15	3.91
Improving jobs	17	3.86	16	3.81
Dealing with stress	14	5.00	17	3.70

APPENDIX D

SAS DATA ANALYSIS ROUTINES

```

TITLE 'INTRA-AGREEMENT - PUBLIC NEEDS ASSESSMENT';
DATA DISSDATA;
  MISSING M;
  INFILE IN1;
  INPUT ID GRP TRT AREA V1 V2 V3 V4 V5 V6 V7 V8 V9 V10 V11 V12
  V13 V14 V15 V16 V17 V18 V20 V20C V20D V20E V20F CON AL V21
  V22 V23 V24 V25 V26 V27 V28 V29 V30 V31 V32 V33 V34 V35 V36
  V37 V38 V38A V39 V39A V40 V40A V41 V42A V42B V42C V42D V43
  V44 V45 V46 V47 V48A V48B V48C V48D V49 V50 V51 V52 V53 V201
  V202 V203 V204 V205 V206 V207 V208 V209 V210 V211 V212 V213
  V214 V215 V216 V217 V218 V221 V222 V223 V224 V225 V226 V227
  V228 V229 V230 V231 V232 V233 V234 V235 V236 V237;
  IF ID<300;
ARRAY Q {17} V2--V18;
  DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
KEEP X I ID;
PROC MEANS;
PROC GLM;
  CLASS ID I;
  MODEL X=ID I;

```

```

TITLE 'INTRA-AGREEMENT - PUBLIC PERCEPTION OF AGENTS';
:
:
  IF ID<300;
ARRAY Q {17} V21--V37;
  DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
KEEP X I ID;
PROC MEANS;
PROC GLM;
  CLASS ID I;
  MODEL X=ID I;

```

```

TITLE 'INTRA-AGREEMENT - AGENTS' ' INFO DELIVERY PRIORITIES';
:
:
  IF ID>300;
ARRAY Q {17} V2--V18;
  DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
KEEP X I ID;
PROC MEANS;
PROC GLM;
  CLASS ID I;
  MODEL X=ID I;

```

```

TITLE 'INTRA-AGREEMENT - AGENT PERCEPTION OF PUBLIC';
:
:
  IF ID>300;
ARRAY Q {17} V21--V37;
  DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
KEEP X I ID;
PROC MEANS;
PROC GLM;
  CLASS ID I;
  MODEL X=ID I;

```

```

TITLE 'CLUSTER ANALYSIS - PUBLIC INFO NEEDS';
:
:
IF ID<300;
PROC FASTCLUS MAXC=2 MAXITER=10 OUT=CLUS;
  VAR V2--V18;
PROC FREQ;
  TABLES CLUSTER*V45;
  TABLES CLUSTER*V46;
  TABLES CLUSTER*V47;
  TABLES CLUSTER*V49;
  TABLES CLUSTER*V50;
  TABLES CLUSTER*V51;
  TABLES CLUSTER*V52;
  TABLES CLUSTER*V53;

```

```

TITLE 'CLUSTER ANALYSIS - PUBLIC INFO PERCEPTIONS';
:
:
IF ID<300; PROC FASTCLUS MAXC=2 MAXITER=10 OUT=CLUS;
    VAR V21--V37;
PROC FREQ;
    TABLES CLUSTER*V45;
    TABLES CLUSTER*V46;
    TABLES CLUSTER*V49;
    TABLES CLUSTER*V50;
    TABLES CLUSTER*V51;
    TABLES CLUSTER*V52;
    TABLES CLUSTER*V53;

```

```

TITLE 'CLUSTER ANALYSIS - AGENT INFO DELIVERY PRIORITIES';
:
:
IF ID>300;
PROC FASTCLUS MAXC=2 MAXITER=10 OUT=CLUS;
    VAR V2--V18;
PROC FREQ;
    TABLES CLUSTER*ID;

```

```

TITLE 'CLUSTER ANALYSIS - AGENT PERCEPTIONS';
:
:
IF ID>300;
PROC FASTCLUS MAXC=2 MAXITER=10 OUT=CLUS;
    VAR V21--V37;
PROC FREQ;
    TABLES CLUSTER*ID;

```

```

TITLE 'AB - AGREEMENT';
:
:
ARRAY Q {17} V2--V18;
    IF ID>300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V2--V18;
    IF ID<300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
PROC PRINT;
PROC MEANS;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;

```

```

TITLE 'AB - AGREEMENT BY CLUSTERS';
:
:
IF ID<300 THEN OUTPUT OUT1;
ELSE OUTPUT OUT2;
PROC FASTCLUS DATA=OUT1 MAXC=2 MAXITER=10 OUT=CLUS;
  VAR V2--V18;
DATA NEW1;
  SET CLUS OUT2;
  IF CLUSTER=2 THEN DELETE;
ARRAY Q {17} V2--V18;
  IF ID>300 THEN DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
ARRAY R {17} V2--V18;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    OUTPUT;
  END;
KEEP X I GRP;
PROC PRINT;
PROC MEANS;
PROC GLM;
  CLASS GRP I;
  MODEL X=GRP I GRP*I;
DATA NEW2;
  SET CLUS OUT2;
  IF CLUSTER=1 THEN DELETE;
ARRAY Q {17} V2--V18;
  IF ID>300 THEN DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
ARRAY R {17} V2--V18;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    OUTPUT;
  END;
KEEP X I GRP;
TITLE 'SECOND RUN';
PROC PRINT;
PROC MEANS;
PROC GLM;
  CLASS GRP I;
  MODEL X=GRP I GRP*I;

```

```

TITLE 'AA' PUBLIC CONGRUENCY';
:
:
ARRAY Q {17} V2--V18;
  IF ID<300 THEN DO I=1 TO 17;
  X=Q{I};
  CONG=1;
  OUTPUT;
  END;
ARRAY R {17} V21--V37;
  IF ID<300 THEN DO I=1 TO 17;
  X=R{I};
  CONG=2;
  OUTPUT;
  END;
KEEP X I CONG;
PROC MEANS;
PROC VARCOMP;
  CLASS CONG I;
  MODEL X=CONG|I;
PROC GLM;
  CLASS CONG I;
  MODEL X=CONG I CONG*I;

```

```

TITLE 'CLUSTER ONE CONGRUENCY';
:
:
IF ID<300 THEN OUTPUT
OUT1;
ELSE OUTPUT OUT2;
PROC FASTCLUS DATA=OUT1 MAXC=2 MAXITER=10 OUT=CLUS;
  VAR V2--V18;
DATA NEW1;
  SET CLUS OUT2;
  IF CLUSTER=2 THEN DELETE;
ARRAY Q {17} V2--V18;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    CONG=1;
    OUTPUT;
  END;
ARRAY R {17} V21--V37;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    CONG=2;
    OUTPUT;
  END;
KEEP X I CONG;
PROC MEANS;
PROC GLM;
  CLASS CONG I;
  MODEL X=CONG I CONG*I;
DATA NEW2;
  SET CLUS OUT2;
  IF CLUSTER=1 THEN DELETE;
ARRAY Q {17} V2--V18;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    CONG=1;
    OUTPUT;
  END;
ARRAY R {17} V21--V37;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    CONG=2;
    OUTPUT;
  END;
KEEP X I CONG;
TITLE 'CLUSTER TWO CONGRUENCY';
PROC MEANS;
PROC GLM;
  CLASS CONG I;
  MODEL X=CONG I CONG*I;

```

```

TITLE 'BB'' AGENTS'' CONGRUENCY';
:
:
ARRAY Q {17} V2--V18;
  IF ID>300 THEN DO I=1 TO 17;
  X=Q{I};
  CONG=1;
  OUTPUT;
  END;
ARRAY R {17} V21--V37;
  IF ID>300 THEN DO I=1 TO 17;
  X=R{I};
  CONG=2;
  OUTPUT;
  END;
KEEP X I CONG;
PROC MEANS;
PROC VARCOMP;
  CLASS CONG I;
  MODEL X=CONG|I;
PROC GLM;
  CLASS CONG I;
  MODEL X=CONG I CONG*I;
PROC MEANS;
PROC GLM;
  CLASS CONG I;
  MODEL X=CONG I CONG*I;

```

```

TITLE 'A''B PUBLIC ACCURACY';
:
:
ARRAY Q {17} V2--V18;
  IF ID>300 THEN DO I=1 TO 17;
  X=Q{I};
  OUTPUT;
  END;
ARRAY R {17} V21--V37;
  IF ID<300 THEN DO I=1 TO 17;
  X=R{I};
  OUTPUT;
  END;
KEEP X I GRP;
PROC MEANS;
PROC VARCOMP;
  CLASS GRP I;
  MODEL X=GRP|I;
PROC GLM;
  CLASS GRP I;
  MODEL X=GRP I GRP*I;

```

```

TITLE 'CLUSTER ONE ACCURACY';
:
:
IF ID<300 THEN OUTPUT OUT1;
ELSE OUTPUT OUT2;
PROC FASTCLUS DATA=OUT1 MAXC=2 MAXITER=10 OUT=CLUS;
    VAR V2--V18;
DATA NEW1;
    SET CLUS OUT2;
    IF CLUSTER=2 THEN DELETE;
ARRAY Q {17} V2--V18;
    IF ID>300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V21--V37;
    IF ID<300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
PROC PRINT;
PROC MEANS;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;
DATA NEW2;
    SET CLUS OUT2;
    IF CLUSTER=1 THEN DELETE;
ARRAY Q {17} V2--V18;
    IF ID>300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V21--V37;
    IF ID<300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
TITLE 'CLUSTER TWO ACCURACY';
PROC PRINT;
PROC MEANS;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;

```

```

TITLE 'B' 'A AGENT ACCURACY';
:
:
ARRAY Q {17} V2--V18;
    IF ID<300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V21--V37;
    IF ID>300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
PROC MEANS;
PROC VARCOMP;
    CLASS GRP I;
    MODEL X=GRP|I;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;

```

```

TITLE 'AGENT-CLUSTER ONE ACCURACY';
:
:
IF ID<300 THEN OUTPUT OUT1;
ELSE OUTPUT OUT2;
PROC FASTCLUS DATA=OUT1 MAXC=2 MAXITER=10 OUT=CLUS;
  VAR V2--V18;
DATA NEW1;
  SET CLUS OUT2;
  IF CLUSTER=2 THEN DELETE;
ARRAY Q {17} V2--V18;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
ARRAY R {17} V21--V37;
  IF ID>300 THEN DO I=1 TO 17;
    X=R{I};
    OUTPUT;
  END;
KEEP X I GRP;
PROC PRINT;
PROC MEANS;
PROC GLM;
  CLASS GRP I;
  MODEL X=GRP I GRP*I;
DATA NEW2;
  SET CLUS OUT2;
  IF CLUSTER=1 THEN DELETE;
ARRAY Q {17} V2--V18;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
ARRAY R {17} V21--V37;
  IF ID>300 THEN DO I=1 TO 17;
    X=R{I};
    OUTPUT;
  END;
KEEP X I GRP;
TITLE 'AGENT-CLUSTER TWO ACCURACY';
PROC PRINT;
PROC MEANS;
PROC GLM;
  CLASS GRP I;
  MODEL X=GRP I GRP*I;

```

```

TITLE 'PUBLIC NEEDS - TIMES 1 AND 2';
:
:
ARRAY Q {17} V2--V18;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    TIME=1;
    OUTPUT;
  END;
ARRAY R {17} V202--V218;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    TIME=2;
    OUTPUT;
  END;
KEEP X I TIME;
PROC MEANS;
PROC VARCOMP;
  CLASS TIME I;
  MODEL X=TIME|I;
PROC GLM;
  CLASS TIME I;
  MODEL X=TIME I TIME*I;

TITLE 'PUBLIC PERCEPTION - TIMES 1 AND 2';
:
:
ARRAY Q {17} V21--V37;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    TIME=1;
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    TIME=2;
    OUTPUT;
  END;
KEEP X I TIME;
PROC MEANS;
PROC VARCOMP;
  CLASS TIME I;
  MODEL X=TIME|I;
PROC GLM;
  CLASS TIME I;
  MODEL X=TIME I TIME*I;

```

```

TITLE 'AGENT PRIORITIES - TIMES 1 AND 2';
:
:
ARRAY Q {17} V2--V18;
  IF ID>300 THEN DO I=1 TO 17;
  X=Q{I};
  TIME=1;
  OUTPUT;
  END;
ARRAY R {17} V202--V218;
  IF ID>300 THEN DO I=1 TO 17;
  X=R{I};
  TIME=2;
  OUTPUT;
  END;
KEEP X I TIME;
PROC PRINT;
PROC MEANS;
PROC VARCOMP;
  CLASS TIME I;
  MODEL X=TIME|I;
PROC GLM;
  CLASS TIME I;
  MODEL X=TIME I TIME*I;

```

```

TITLE 'AGENT PERCEPTIONS - TIMES 1 AND 2';
:
:
ARRAY Q {17} V21--V37;
  IF ID>300 THEN DO I=1 TO 17;
  X=Q{I};
  TIME=1;
  OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF ID>300 THEN DO I=1 TO 17;
  X=R{I};
  TIME=2;
  OUTPUT;
  END;
KEEP X I TIME;
PROC MEANS;
PROC VARCOMP;
  CLASS TIME I;
  MODEL X=TIME|I;
PROC GLM;
  CLASS TIME I;
  MODEL X=TIME I TIME*I;

```

```

TITLE 'COMPARE TREATMENT AND CONTROL GROUPS TIME 1 INFO NEEDS';
:
:
ARRAY Q {17} V2--V18;
    IF TRT=1 THEN DO I=1 TO 17;
        X=Q{I};
        TRT=1;
        OUTPUT;
    END;
ARRAY R {17} V2--V18;
    IF TRT=2 THEN DO I=1 TO 17;
        X=R{I};
        TRT=2;
        OUTPUT;
    END;
KEEP X I TRT;
PROC MEANS;
PROC VARCOMP;
    CLASS TRT I;
    MODEL X=TRT|I;
PROC GLM;
    CLASS TRT I;
    MODEL X=TRT I TRT*I;

```

```

TITLE 'COMPARE TREATMENT AND CONTROL GROUPS TIME 1 PERCEPTIONS';
:
:
ARRAY Q {17} V21--V37;
    IF TRT=1 THEN DO I=1 TO 17;
        X=Q{I};
        TRT=1;
        OUTPUT;
    END;
ARRAY R {17} V21--V37;
    IF TRT=2 THEN DO I=1 TO 17;
        X=R{I};
        TRT=2;
        OUTPUT;
    END;
KEEP X I TRT;
PROC MEANS;
PROC VARCOMP;
    CLASS TRT I;
    MODEL X=TRT|I;
PROC GLM;
    CLASS TRT I;
    MODEL X=TRT I TRT*I;

```

```

TITLE 'COMPARE TREATMENT AND CONTROL GROUPS TIME 2 INFO NEEDS';
:
:
ARRAY Q {17} V202--V218;
  IF TRT=1 THEN DO I=1 TO 17;
    X=Q{I};
    TRT=1;
    OUTPUT;
  END;
ARRAY R {17} V202--V218;
  IF TRT=2 THEN DO I=1 TO 17;
    X=R{I};
    TRT=2;
    OUTPUT;
  END;
KEEP X I TRT;
PROC MEANS;
PROC VARCOMP;
  CLASS TRT I;
  MODEL X=TRT|I;
PROC GLM;
  CLASS TRT I;
  MODEL X=TRT I TRT*I;

```

```

TITLE 'COMPARE TREATMENT AND CONTROL GROUPS TIME 2 PERCEPTIONS';
:
:
ARRAY Q {17} V221--V237;
  IF TRT=1 THEN DO I=1 TO 17;
    X=Q{I};
    TRT=1;
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF TRT=2 THEN DO I=1 TO 17;
    X=R{I};
    TRT=2;
    OUTPUT;
  END;
KEEP X I TRT;
PROC MEANS;
PROC VARCOMP;
  CLASS TRT I;
  MODEL X=TRT|I;
PROC GLM;
  CLASS TRT I;
  MODEL X=TRT I TRT*I;

```

```

TITLE 'COMPARE TREATMENT GROUP TIME 1/2 INFO NEEDS';
:
:
ARRAY Q {17} V2--V18;
  IF TRT=2 THEN DO I=1 TO 17;
    X=Q{I};
    TIME=1;
    OUTPUT;
  END;
ARRAY R {17} V202--V218;
  IF TRT=2 THEN DO I=1 TO 17;
    X=R{I};
    TIME=2;
    OUTPUT;
  END;
KEEP X I TIME;
PROC MEANS;
PROC VARCOMP;
  CLASS TIME I;
  MODEL X=TIME|I;
PROC GLM;
  CLASS TIME I;
  MODEL X=TIME I TIME*I;

```

```

TITLE 'COMPARE CONTROL GROUP TIME 1/2 INFO NEEDS';
:
:
ARRAY Q {17} V2--V18;
  IF TRT=1 THEN DO I=1 TO 17;
    X=Q{I};
    TIME=1;
    OUTPUT;
  END;
ARRAY R {17} V202--V218;
  IF TRT=1 THEN DO I=1 TO 17;
    X=R{I};
    TIME=2;
    OUTPUT;
  END;
KEEP X I TIME;
PROC MEANS;
PROC VARCOMP;
  CLASS TIME I;
  MODEL X=TIME|I;
PROC GLM;
  CLASS TIME I;
  MODEL X=TIME I TIME*I;

```

```

TITLE 'COMPARE TREATMENT GROUP TIME 1/2 PERCEPTIONS';
:
:
ARRAY Q {17} V21--V37;
  IF TRT=2 THEN DO I=1 TO 17;
    X=Q{I};
    TIME=1;
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF TRT=2 THEN DO I=1 TO 17;
    X=R{I};
    TIME=2;
    OUTPUT;
  END;
KEEP X I TIME;
PROC MEANS;
PROC VARCOMP;
  CLASS TIME I;
  MODEL X=TIME|I;
PROC GLM;
  CLASS TIME I;
  MODEL X=TIME I TIME*I;

```

```

TITLE 'COMPARE CONTROL GROUP TIME 1/2 PERCEPTIONS';
:
:
ARRAY Q {17} V21--V37;
  IF TRT=1 THEN DO I=1 TO 17;
    X=Q{I};
    TIME=1;
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF TRT=1 THEN DO I=1 TO 17;
    X=R{I};
    TIME=2;
    OUTPUT;
  END;
KEEP X I TIME;
PROC MEANS;
PROC VARCOMP;
  CLASS TIME I;
  MODEL X=TIME|I;
PROC GLM;
  CLASS TIME I;
  MODEL X=TIME I TIME*I;

```

```

TITLE 'INTRA-AGREEMENT - PUBLIC NEEDS ASSESSMENT  TIME 2';
:
:
  IF ID<300;
ARRAY Q {17} V202--V218;
  DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
KEEP X I ID;
PROC MEANS;
PROC GLM;
  CLASS ID I;
  MODEL X=ID I ID*I;

```

```

TITLE 'CLUSTER ANALYSIS - PUBLIC INFO NEEDS  TIME 2';
:
:
  IF ID<300;
PROC FASTCLUS MAXC=2 MAXITER=10 OUT=CLUS;
  VAR V202--V218;
PROC FREQ;
  TABLES CLUSTER*V45;
  TABLES CLUSTER*V46;
  TABLES CLUSTER*V47;
  TABLES CLUSTER*V49;
  TABLES CLUSTER*V50;
  TABLES CLUSTER*V51;
  TABLES CLUSTER*V52;
  TABLES CLUSTER*V53;

```

```

TITLE 'INTRA-AGREEMENT - PUBLIC PERCEPTION OF AGENTS  TIME 2';
:
:
  IF ID<300;
ARRAY Q {17} V221--V237;
  DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
KEEP X I ID;
PROC PRINT;
PROC MEANS;
PROC GLM;
  CLASS ID I;
  MODEL X=ID I ID*I;

```

```

TITLE 'CLUSTER ANALYSIS - PUBLIC INFO PERCEPTIONS  TIME 2';
:
:
IF ID<300;
PROC FASTCLUS MAXC=2 MAXITER=10 OUT=CLUS;
  VAR V221--V237;
PROC FREQ;
  TABLES CLUSTER*V45;
  TABLES CLUSTER*V46;
  TABLES CLUSTER*V47;
  TABLES CLUSTER*V49;
  TABLES CLUSTER*V50;
  TABLES CLUSTER*V51;
  TABLES CLUSTER*V52;
  TABLES CLUSTER*V53;

```

```

TITLE 'INTRA-AGREEMENT - AGENTS'' INFO DELIVERY PRIORITIES
TIME 2';
:
:
  IF ID>300;
ARRAY Q {17} V202--V218;
  DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
KEEP X I ID;
PROC PRINT;
PROC MEANS;
PROC GLM;
  CLASS ID I;
  MODEL X=ID I ID*I;

```

```

TITLE 'CLUSTER ANALYSIS - AGENT INFO DELIVERY PRIORITIES
TIME 2';
:
:
IF ID>300;
PROC FASTCLUS MAXC=2 MAXITER=10 OUT=CLUS;
  VAR V202--V218;
PROC FREQ;
  TABLES CLUSTER*ID;

```

```

TITLE 'INTRA-AGREEMENT - AGENT PERCEPTION OF PUBLIC TIME 2';
:
:
  IF ID>300;
ARRAY Q {17} V221--V237;
  DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
KEEP X I ID;
PROC PRINT;
PROC MEANS;
PROC GLM;
  CLASS ID I;
  MODEL X=ID I ID*I;

```

```

TITLE 'CLUSTER ANALYSIS - AGENT PERCEPTIONS TIME 2';
:
:
  IF ID>300;
PROC FASTCLUS MAXC=2 MAXITER=10 OUT=CLUS;
  VAR V221--V237;
PROC FREQ;
  TABLES CLUSTER*ID;

```

```

TITLE 'AB - AGREEMENT TIME 2';
:
:
ARRAY Q {17} V202--V218;
  IF ID>300 THEN DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
ARRAY R {17} V202--V218;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    OUTPUT;
  END;
KEEP X I GRP;
PROC MEANS;
PROC VARCOMP;
  CLASS GRP I;
  MODEL X=GRP|I;
PROC GLM;
  CLASS GRP I;
  MODEL X=GRP I GRP*I;

```

```

TITLE 'CLUSTER 1 AB - AGREEMENT - TIME 2';
DATA OUT1 OUT2;
:
:
IF ID<300 THEN OUTPUT OUT1;
ELSE OUTPUT OUT2;
PROC FASTCLUS DATA=OUT1 MAXC=2 MAXITER=10 OUT=CLUS;
    VAR V2--V18;
DATA NEW1;
    SET CLUS OUT2;
    IF CLUSTER=2 THEN DELETE;
ARRAY Q {17} V202--V218;
    IF ID>300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V202--V218;
    IF ID<300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
PROC PRINT;
PROC MEANS;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;
DATA NEW2;
    SET CLUS OUT2;
    IF CLUSTER=1 THEN DELETE;
ARRAY Q {17} V202--V218;
    IF ID>300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V202--V218;
    IF ID<300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
TITLE 'CLUSTER 2 AB - AGREEMENT - TIME 2';
PROC PRINT;
PROC MEANS;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;

```

```

TITLE 'AA'' PUBLIC CONGRUENCY  TIME 2';
:
:
ARRAY Q {17} V202--V218;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    CONG=1;
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    CONG=2;
    OUTPUT;
  END;
KEEP X I CONG;
PROC PRINT;
PROC MEANS;
PROC VARCOMP;
  CLASS CONG I;
  MODEL X=CONG|I;
PROC GLM;
  CLASS CONG I;
  MODEL X=CONG I CONG*I;

```

```

TITLE 'CLUSTER ONE CONGRUENCY - TIME 2';
:
:
IF ID<300 THEN OUTPUT OUT1;
ELSE OUTPUT OUT2;
PROC FASTCLUS DATA=OUT1 MAXC=2 MAXITER=10 OUT=CLUS;
  VAR V2--V18;
DATA NEW1;
  SET CLUS OUT2;
  IF CLUSTER=2 THEN DELETE;
ARRAY Q {17} V202--V218;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    CONG=1;
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    CONG=2;
    OUTPUT;
  END;
KEEP X I CONG;
PROC MEANS;
PROC GLM;
  CLASS CONG I;
  MODEL X=CONG I CONG*I;
DATA NEW2;
  SET CLUS OUT2;
  IF CLUSTER=1 THEN DELETE;
ARRAY Q {17} V202--V218;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    CONG=1;
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    CONG=2;
    OUTPUT;
  END;
KEEP X I CONG;
TITLE 'CLUSTER TWO CONGRUENCY - TIME 2';
PROC MEANS;
PROC GLM;
  CLASS CONG I;
  MODEL X=CONG I CONG*I;

```

TITLE 'BB'' AGENTS'' CONGRUENCY TIME 2';

:
:

```
ARRAY Q {17} V202--V218;
  IF ID>300 THEN DO I=1 TO 17;
    X=Q{I};
    CONG=1;
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF ID>300 THEN DO I=1 TO 17;
    X=R{I};
    CONG=2;
    OUTPUT;
  END;
KEEP X I CONG;
PROC PRINT;
PROC MEANS;
PROC VARCOMP;
  CLASS CONG I;
  MODEL X=CONG|I;
PROC GLM;
  CLASS CONG I;
  MODEL X=CONG I CONG*I;
```

TITLE 'A''B PUBLIC ACCURACY TIME 2';

:
:

```
ARRAY Q {17} V202--V218;
  IF ID>300 THEN DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF ID<300 THEN DO I=1 TO 17;
    X=R{I};
    OUTPUT;
  END;
KEEP X I GRP;
PROC PRINT;
PROC MEANS;
PROC VARCOMP;
  CLASS GRP I;
  MODEL X=GRP|I;
PROC GLM;
  CLASS GRP I;
  MODEL X=GRP I GRP*I;
```

```

TITLE 'CLUSTER ONE ACCURACY - TIME 2';
DATA OUT1 OUT2;
:
:
IF ID<300 THEN OUTPUT OUT1;
ELSE OUTPUT OUT2;
PROC FASTCLUS DATA=OUT1 MAXC=2 MAXITER=10 OUT=CLUS;
    VAR V2--V18;
DATA NEW1;
    SET CLUS OUT2;
    IF CLUSTER=2 THEN DELETE;
ARRAY Q {17} V202--V218;
    IF ID>300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V221--V237;
    IF ID<300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
PROC PRINT;
PROC MEANS;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;
DATA NEW2;
    SET CLUS OUT2;
    IF CLUSTER=1 THEN DELETE;
ARRAY Q {17} V202--V218;
    IF ID>300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V221--V237;
    IF ID<300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
TITLE 'CLUSTER TWO ACCURACY - TIME 2';
PROC PRINT;
PROC MEANS;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;

```

```

TITLE 'B''A AGENT ACCURACY  TIME 2';
:
:
ARRAY Q {17} V202--V218;
  IF ID<300 THEN DO I=1 TO 17;
    X=Q{I};
    OUTPUT;
  END;
ARRAY R {17} V221--V237;
  IF ID>300 THEN DO I=1 TO 17;
    X=R{I};
    OUTPUT;
  END;
KEEP X I GRP;
PROC MEANS;
PROC VARCOMP;
  CLASS GRP I;
  MODEL X=GRP|I;
PROC GLM;
  CLASS GRP I;
  MODEL X=GRP I GRP*I;

```

```

TITLE 'AGENT-CLUSTER ONE ACCURACY - TIME 2';
DATA OUT1 OUT2;
:
:
IF ID<300 THEN OUTPUT OUT1;
ELSE OUTPUT OUT2;
PROC FASTCLUS DATA=OUT1 MAXC=2 MAXITER=10 OUT=CLUS;
    VAR V2--V18;
DATA NEW1;
    SET CLUS OUT2;
    IF CLUSTER=2 THEN DELETE;
ARRAY Q {17} V202--V218;
    IF ID<300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V221--V237;
    IF ID>300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
PROC PRINT;
PROC MEANS;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;
DATA NEW2;
    SET CLUS OUT2;
    IF CLUSTER=1 THEN DELETE;
ARRAY Q {17} V202--V218;
    IF ID<300 THEN DO I=1 TO 17;
        X=Q{I};
        OUTPUT;
    END;
ARRAY R {17} V221--V237;
    IF ID>300 THEN DO I=1 TO 17;
        X=R{I};
        OUTPUT;
    END;
KEEP X I GRP;
TITLE 'AGENT-CLUSTER TWO ACCURACY - TIME 2';
PROC PRINT;
PROC MEANS;
PROC GLM;
    CLASS GRP I;
    MODEL X=GRP I GRP*I;

```

VITA

Ned Erskine Browning was born in Ashland, Alabama on October 18, 1952. He graduated from Clay County High School in 1971. He received his Bachelor of Arts degree, with a major in Speech Communication and minor in Journalism, from Auburn University in 1975. His Master of Speech Communication degree, with emphases in Mass Communication and Educational Media, was conferred by Auburn University in 1977.

From 1973 to 1976, Browning served as assistant news director, news director and manager of Auburn University's radio station, WEGL-FM. He was audio operator and production crew chief with the Alabama Public Television Network's Auburn studio from 1976 to 1978. In 1978, he became Information Specialist-Radio with the Alabama Cooperative Extension Service. In 1987 his job responsibilities changed to provide leadership in market research, developing communication technologies, and instructional video production.

The author is a member of Kappa Tau Alpha, Alpha Epsilon Rho, and Epsilon Sigma Phi, national broadcasting, journalism, and Cooperative Extension honoraries. His professional memberships include the International Communication Association, Agricultural Communicators in Education, and the Rural Sociological Society.