EXPLORING RURAL COMMUNITY READINESS FOR PARTICIPATION IN
COMMUNITY AND NATURAL RESOURCE DEVELOPMENT EXTENSION EDUCATION
PROGRAMS

A Thesis
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by
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1990
This thesis is fondly dedicated to my late father, Cyrus Christian Miller, who quietly taught me by example about patience, humility, hard work, simple pleasures, and constant concern for others.
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CHAPTER I

INTRODUCTION

Rural areas face problems that make them different than urban areas. Smaller revenue-generating capacities, less financial resources to draw upon, many small governments with overlapping jurisdictions, and geographic dispersion of residents are some of the obstacles that set them apart (Ayres, et al., 1989). More recently, there has been a 66% reduction in direct government spending to rural communities since 1980; 41% reduction in loan guarantees since 1980; 60% decline in agricultural land values and property values in smaller communities; and aging infrastructures (Ayres, et al., 1989). Elected and appointed local government officials are held responsible for finding solutions to more community problems of increasing complexity. These officials are often overworked and underpaid, frequently criticized but seldom praised: the forgotten people of government. In addition, sections of rural America have become increasingly dependent on Federal funding, which in turn highly influences local priorities and local service programs (Rainey and Rainey, 1978, as found in Ayres, et al., 1989).
In response to these and other concerns for rural America, the U.S. Department of Agriculture and the Cooperative Extension Service agreed upon community resource development (CRD) as one of the four main national program categories (Prawl, et al., 1984). In Ohio, this category is called CNRD, community and natural resource development (Ohio Cooperative Extension Service, 1987). Community development was not a defined area of Extension's efforts when it was established in 1914; however, by 1923 C.B. Smith reported over 21,000 communities with local committees or clubs working on local problems with Extension agents (Christenson and Robinson, 1980, p. 21). Realizing that local leader support was needed to develop programs with people, rather than for people, formal action was taken by the mid-1950's to institutionalize community development as a major program effort nationwide. Community and natural resource development (CNRD) was formally established as a major program area in the Ohio Cooperative Extension Service by the Title V Rural Development Act in 1972, as part of the national establishment of CRD (Prawl, et al., 1984). A significant amount of Extension's energies and resources have gone into educational programs for community development, with 600 full-time CRD positions nationwide in 1973. In 1974, the "Cooperative Extension Service devoted nearly 1,500 man[sic]-hours to CRD, an increase of one-third over 1971" (Prawl, et al., 1984, p. 202). In Ohio, community development efforts have included
economic development, emergency preparedness, leadership and organizational development, water quality, community finance, and sewage disposal, to name a few (Ohio Cooperative Extension Service, 1987).

"The main function of the Cooperative Extension Service in community development is to provide educational experiences, factual information, and data to help the people of a community make decisions that will result in achieving their goals" (Watkins, 1970, as found in Christenson and Robinson, 1980, p. 124). The community development program is the part of Extension that is dedicated to group problem-solving in a comprehensive manner, rather than promoting adoption of a particular solution. Extension workers encourage people from all segments of an area to get together, work on problems, identify choices, cooperate in a group setting, and determine what technical knowledge is needed and where to find it. The group receiving Extension's assistance is the entity that selects the problem to work on, makes the decisions, and takes action to reach objectives generated by the group (Wheaton, Tankersley, et al., 1979).
Need for Study

In an evaluation of the Cooperative Extension Service's community resource development projects nationwide, Charles Mulford, et al. (1980) acknowledged that the projects had identifiable impacts on the communities they served. Knowledgeable citizens gave strong support to CRD efforts, deeming the activities viable and necessary. The authors concluded that government should continue to seriously consider CRD's funding needs, especially in comparison to the financing of other Extension programs. The viability and necessity of community development efforts may be in evidence, but further research is needed in many areas of the field to ensure innovative, effective, and appropriate programs. Goudy and Ryan (1982), in a study of changing communities and related research needs, stated that renewed research is needed on the forces that effect community decision-making. In addition, they stated that "...research is required to answer questions about...variables leading to the success or failure of development programs..." (p. 260). Circumstances in which Extension operates are more complicated; the rising educational levels of clientele create demand and potential for more effective program planning; increased competition among various program efforts, the rising cost of programming, and the higher expectation of accountability are all factors that make it imperative for Extension program plans to be as effective as possible (Blackburn, 1984).
One area of research that Extension personnel, funding sources, and other community development practitioners should be concerned with is the readiness of a community for educational programs about community development. Specifically because the Cooperative Extension Service and other individuals have invested considerable resources in community development programs, the factors impacting a community's readiness for participation in an educational program should be studied and a definition of community readiness should be forwarded. Further research may yield a working model in which to judge a community's readiness for educational activity participation (Mancl, 1989).

When the literature was reviewed for community readiness as a stated construct, only one study was found using this terminology. The topic was community readiness for building school-community relationships in northern Alberta Province (Ingram and McIntosh, 1983). No studies were found linking readiness of a community to participation in other community development education programs.

This exploration of community readiness goes beyond needs assessments or listings of resources; this study researches human factors of community readiness such as individual learner readiness, group interaction, and the environmental context of a community, through both an extensive literature review and a naturalistic inquiry. Several definitions of community will be provided and compared later in this study,
but one generally agreed upon statement about community is that it is a collection of people within a loosely defined geographical context. Consequently, the study of human beings in their natural surroundings requires a qualitative approach, "...because phenomena of study...take their meaning as much from their contexts as they do from themselves" (Lincoln and Guba, 1985, p. 189).

Data sources for this study included participants in an Extension education program entitled "Wastewater Treatment Alternatives", as well as Ohio Cooperative Extension agents involved with the program, the program creator and facilitator, community development experts, and related documents. Data collection techniques varied from individual, group, and focus group interviews to written questionnaires, documentation, and some participant observation. As will be discussed in Chapter III, a variety of information sources and data collection methods was used because "multiple methods and triangulation of observations contributes to methodological rigor" (Patton, 1980, p. 18).

Community readiness entails many things, not least of which are human cognition, attitudes, and behavior. "Community development is extremely important in the 1980's precisely because it works with changes in people and not just with changes in programs and projects...We need to understand, evaluate, and document this humanistic aspect of development" (Christenson, 1982, p. 266).
Justification

Very little has been written about readiness of communities for participation in educational programs. The study of building school-community relationships in northern Alberta appears to be the first and only research in which the authors use the term community readiness (Ingram and McIntosh, 1983). The definition of community readiness, initially called 'maturity of followers' in the study, is given by Ingram and McIntosh as follows:

...the willingness and ability of community agencies and individual members to participate in education programs, the extent and level of skills existing in the community which would permit effective participation, and the overall readiness of the community to participate (educational levels, past experience, motivation, etc.) (p. 116).

No subsequent elaboration is given for any of the mentioned and unmentioned factors of readiness, but rather the construct is used as stated for inclusion in a model of external intervention styles for adult participation in education programs offered at local schools. The distinction should be made that this study dealt with readiness of communities to participate in formal education courses about recreational, historical, and vocational subjects, rather than informal education programs about specific community development issues such as wastewater treatment or attracting business to the community. The community development obtained from the school-community relationship was solely the increased
individual knowledge gained by course attenders. While some may argue that increased individual knowledge is all that is gained by participation in Extension education programs in community development, there is clearly a difference in the context, group interaction, level of experiences, and technicality of information provided by Extension. Additionally, the Extension programs are geared specifically towards attenders acquiring the skills of group decision-making to achieve their goals (Watkins, 1970, as found in Christenson and Robinson, 1980, p. 124).

Within the arena of educational programs about community development, Jane Schantz's *The Self-Help Handbook* (1985) addresses the issue of community readiness by determining whether a community is likely to be successful in a self-help program. Community readiness was described by the author as the interaction of the factors of potential and readiness. These two factors were respectively defined by the author as the capacity to make a self-help project work, and the willingness as well as current ability to make it work. The handbook was a synthesis of a great deal of experience and lessons learned in setting up self-help projects in New York state (Schautz, 1989), and was written as a guide for communities considering a self-help project. While this book was a valuable source for initiating identification of possible factors impacting community readiness, it did not attempt to define the construct.
This study explored community readiness within the context of Extension education program efforts in community development; specifically, one educational program concerning wastewater treatment alternatives for small rural communities in Ohio. Therefore, in order to understand what the Cooperative Extension Service has done in the past to determine the readiness of a community for its educational programs about community development, one must start with the mainstay of Extension programming: needs assessment (Prawl, et al., 1984; Sofranko and Khan, 1988).

Needs Assessment

Needs assessment, as part of Extension programming, identifies problems and justifies decisions about educational programs.

Formally, needs assessment involves a systematic approach to setting priorities and making decisions about programs and the allocation of resources. In practice it involves using people's perceptions of needs and problems, interests, and attitudes as criteria in the design of social and educational interventions (Sofranko and Khan, 1988, p. 14).

Many authors have pondered the perceived needs, problems, interests, and attitudes of adult learners with varying conclusions. The literature review of this study will go into further detail concerning the factors of felt need, demographics, group dynamics, and other factors that were initially conceived as impacting community readiness.
A variety of techniques can be used to collect and analyze the data, set priorities, formulate action plans, and decide whether or not to implement the educational program based on the collected data (Butler, 1980; Campbell, 1980; Caffarella, 1982). Within the area of community development, needs assessment can do much more than just determine the needs and interests of community members. The process of data collection can be as helpful as the data collected, by building communication, explaining the role and function of an educational program, providing opportunities for active participation, developing support, and serving as a positive public relations force (Stanley, 1984).

Regardless of the possible benefits of a needs assessment, "a listing of needs - even a rank-ordered listing of needs...serves little purpose" (Stanley, 1984, p. 5). In addition, simply asking people what their general or specific needs are is not likely to yield much fruitful information (Sofranko and Khan, 1988). Community education practitioners take needs assessment one step further by adding the interdependent component of community resources in what they call a community assessment (Stanley, 1984; Clark, 1986; Kowalski and Fallon, 1986). Similarly, "Love (1985) pointed out that despite the presence of felt needs, positive attitudes, and the knowledge or skills gained, without access to adequate financial resources an innovation cannot be put into practice" (Kitinoja, 1989b). Individual needs or
problems are seen within the community setting, taking into account the common needs or problems and the existing resources to meet them (Stanley, 1984).

Community readiness was viewed as much more than a needs assessment or a community assessment. Individual, group, and community needs were included in just one of the four categories created in this research study as a framework to explore the factors possibly influencing a community's readiness for participation in an Extension education program. The additional categories encompassing demographics and related factors, action orientation, and constraints or motivators related to community readiness allowed for the expression of many factors that would not be discovered in a needs assessment.

Educational Provider

The educational provider, or change agent, can also have an impact on community readiness in several ways. The approach used by a change agent can vary from emphasizing individual client-oriented problem-solving to facilitating the building of decision-making organizations (Sollie and Howell, 1981). Roles of the change agent can be as diverse as conveyor, consultant, defender, trainer, and practitioner (Havelock, 1971; Saskin, Morris, and Horst, 1973). A community's readiness could depend on how well the change agent identifies with the community, understands community
structures, or knows how to access local resources (Goodenough, 1963; Spiegel, 1971; Rothman, 1974).

Environmental Factors

Neither communities nor the Cooperative Extension Service exist within a vacuum, thus, environmental factors can be an important aspect of community readiness as well. Warner and Christenson (1984) state that the "interface of the organization and clientele must be related to the environment within which the organization operates" (p. 39). Extension verifies the importance of environmental factors by incorporating the recognition of social, economic, political, and educational forces as the base of its program planning model (Boyle, 1981; Prawl, et al., 1984; Boone, 1985).

While reviewing the literature, what became increasingly evident was the ever-widening scope required for identifying all the factors inherent within the construct of community readiness. Although the aforementioned factors were ascertained as impacting community readiness, it became equally clear that many other factors may do so also. The importance of each factor came into question as well. In order to provide for the expression of any factor that may be a part of community readiness, a naturalistic inquiry was adopted, because the naturalistic inquirer "...does not work with either a priori theory or variables; these are expected to emerge from the inquiry" (Lincoln and Guba, 1985, p. 203).
Attempting to explain the construct of community readiness and predict the success or failure of an educational effort based on specified, quantified variables without first exploring the construct in depth was obviously fruitless. As Patton (1980) stated, "qualitative data provide depth and detail" (p. 22). "Qualitative data...are a source of well-grounded, rich descriptions and explanations of processes occurring in local contexts" (Miles and Huberman, 1984, p. 15). Concurrent with the decision to pursue a naturalistic inquiry was the firmly held belief that data must come from several sources with a variety of instruments to achieve methodological rigor (Patton, 1980).

**Problem Statement**

In their discussion of adult and continuing education programs in the Cooperative Extension Service, Prawl, et al. (1984) explain the how, why, and what of adult learning, but not the when. Timing of programs, the when of adult learning, is handled under evaluation of already-implemented programs. The understanding of what factors impact a community's readiness for participation in educational programs can guide change agents in considering how, where, and particularly when they can initiate programs for effective community development (Kitinoja, 1989a; Mancl, 1989). The problem addressed by this study was: when is a rural community ready for participation in Extension education programs?
Purpose of the Research

The purpose of this research was to explore rural community readiness to participate in Extension education programs concerning community development. The construct of community readiness was studied relative to a specific community development education program, "Wastewater Treatment Alternatives", with a triangulation of qualitative and some quantitative data collection methods and data sources, after a comprehensive literature review was conducted as basis for structure of the study.

This research was meant to provide initial observations regarding readiness within a community for the stated activities, and to generate further discussion and evaluation about how this information can be used by Extension educators and other individuals involved in community development work. Using these initial observations as a framework, future qualitative and quantitative research can provide an assessment technique for determining community readiness, and a subsequent model of prediction for the success or failure of an educational program within a potential community context.
Focus of the Study

In deductive research, one would identify the variables being investigated and operationalize the meaning of each variable. Because this was a naturalistic inquiry, variables were not specified, nor operationalized. Instead, five main topics of importance were researched that appeared to be related to readiness of a community for participation in Extension education programs. The topics were: individual readiness, group readiness, readiness within a community context, educational provider, and environmental context. From each of these topics emerged interrelated factors that were identified as possibly impacting community readiness for the stated activities. The interrelated factors were then placed in four general categories created as a framework for exploring community readiness as a construct.

The related literature review of this research discusses the five main topics listed previously in a comprehensive manner, and explains the placement of the emergent factors in the four structural categories. Rather than elaborate on the discovery of emerging factors here, this discussion is devoted to briefly describing four categories that were the product of that discovery. The broad structural categories are: 1) demographics and related factors; 2) felt need; 3) action orientation; and 4) constraints or motivators.
The first category of factors was demographics and related factors. The demographic factors appeared primarily from individual readiness to learn, and the related factors emerged more from the other four topics. Age; gender; education level; occupation; income; elected status; proximity to the learning activity; pre-requisite learning of the individual; past participation of the individual in groups; community history; and environmental context factors were the factors identified as part of this category.

Felt need was a category created primarily from factors of individual readiness to learn; however, other topics provided factors as well. Under this umbrella fell the following factors: readiness impelled by felt need, social need, role expectation, or external forces; the inherent human capacity for growth; perception of the problem, dissatisfaction with the present situation; cultural momentum; and interest in and relevance of the subject matter.

The third category, action orientation, was created to provide a general framework for those factors inherent in readiness for action or inaction. This category included: ownership of the problem; willingness for responsibility; leadership, power structure, and community decision-making processes; feeling of power or powerlessness; confidence level; participation of stakeholders and/or key figures; communication systems within and between the group/community; and invitation for assistance.
Constraints or motivators was the fourth and last category for structuring the emergent factors. Perceived benefits and costs; attitude toward learning and change; attitude toward cooperative action/group setting; amount of local initiative or support; competing priorities; community pride; amount of conflict or consensus within the group/community; perception of the change agent/agency; and educational provider factors were all placed under this heading. Again, these factors emerged from all five of the main topics related to community readiness.

The qualitative nature of this inquiry necessitated a broad flexible framework for the expression of factors of community readiness. The four structural categories provided a base for the exploration of these factors in several instruments and from several data sources. Not all factors were explored in each separate instrument; however, all the factors gleaned from the literature review were included in at least one instrument, and generally more than one. Chapter III discusses the methodological advantages of exploring factors with a variety of instruments and data sources.
Objectives

The research objectives of this study were:

(1) to identify factors relating to rural community readiness for participation in CNRD Extension education programs.

(2) to define the construct of community readiness, as it exists within the stated context.

Limitations

The definition of community discussed later in this chapter stressed the fact that communities are dynamic, ever-changing (Warren, 1972; Chekki, 1986), and it logically followed that readiness within a community changes or alters as the community changes. Warren (1972) stated that the community (social system) consists of roles which individuals enact within an enduring pattern of interaction. It was not the intention of this research to present community readiness or any of its related factors as static entities. Rather, community readiness was explored as a construct with the knowledge that readiness is on a constant continuum. The readiness of a rural community to participate in Extension education programs was viewed as analogous to what Knowles (1980) and Darkenwald and Merriam (1982) described for individuals as the teachable moment; a window of time on the continuum of readiness allowing for participation.
In addition, it should be made clear from the outset that this study did not focus on participant implementation of knowledge or skills gained in the educational program. Community readiness to participate was operationalized as just that, readiness to participate, and not dependent upon continued levels of participation or subsequent implementation. This research study did touch upon participant changes, known as KASA change in Bennett's hierarchy (knowledge, attitudes, skills, and aspirations), as indicative of the intention to implement knowledge gained in the program, but stopped short of Bennett's sixth level of practice change in the hierarchy (Bennett, 1976).

Definition of Terms

The definitions of community, community development, needs assessment, and participation were determined to be essential to this research. These terms are discussed and defined below:

Community

To discuss as broad a construct as community readiness, one must have a specific definition under which to operate. This was not so easily arrived at, for sociologists, anthropologists, psychologists, and other social scientists have wrestled with what a community is and what its components are for over 100 years (Thullen, 1978). "Effrat (1973)
describes the attempt to define community as 'like trying to
coop up jello with your fingers. You can get hold of some
but there's always more slipping away from you" (Goudy and
Ryan, 1982, p. 260). Community can certainly mean one thing
to a mayor speaking about her city, and another thing to a
professor speaking about his colleagues in the same subject
matter area. Community means different things to different
people.

Let us begin by examining the traditional definitions of
community. Most lay people and agency workers in the
literature generally agreed upon a community as having the
following characteristics:
1) a group of people;
2) shared identity, interest, attitude, and activities among
these people;
3) continuous and frequent interaction among these people;
4) an identifiable geographic area within which these people
lived, worked, played, and interacted (Thullen, 1978, p.5).

This definition may be slightly elaborated upon by
mentioning common or psychological ties between community
members and the place they live, thus bringing Gottschalk
(1975), Poplin (1979), Gibson (1980), and a synthesis of many
authors by Christenson and Robinson (1980) into a basic
consensus.

Kimball (1975) has taken the previous definition, which
he used to define a general community, a step further by
recognizing other kinds of communities that are more narrow in scope with respect to the functions they serve, calling them functional sub-communities. He viewed general communities as being made up of an array of functional sub-communities, each with its own boundaries, function, changing membership, and endurance. This has important implications for community development workers in understanding the complex social systems inherent within one community (Thullen, 1978). The community as a social system is a theory that attempts to define community in all its complexity (Loomis, 1960; Parsons, 1960; Sanders, 1966; Warren, 1972). Beal (1967, as found in Thullen, 1978) adapted Loomis' model of social systems to characterize the nine structural elements of all social systems, describing member interaction structure within a social system. On a higher plane, hierarchically, are six master processes which integrate, stabilize, and alter the relationships between elements through time: communications, boundary maintenance, systemic linkage, socialization, social control, and institutionalization. Still further up in the hierarchy are three attributes, which consist of territoriality, size, and time of the social system.

A similar, but even more complex, perspective is that of Warren (1972). He defined community as "that combination of five major functions relevant to a locality... production/distribution/consumption; socialization; social control; social participation; and mutual support" (p. 9). Warren's
use of the terms social units and systems in his definition denote a greater complexity because the community is viewed not just as a single social system, but a system of social systems (Thullen 1978, p. 12).

Thus, the social system analysis applied to the community must take into account not only the interrelation among subsystems making up the community social system, but the more direct, rational, and ascertainable relationship of the various subsystems functioning on the local level to social systems beyond the community (Warren, 1972, p. 50).

For the purposes of this study, a synthesis developed by Chekki (1986) of the concepts of community offered by Parsons (1960), Sanders (1966), Warren (1972), and others was used as a definition of community. Community was viewed as "...a social system composed of people living in some spatial relationship to one another, who share common facilities and services, develop a common psychological identification with the locality symbol, and together frame a common communication network" (Chekki, 1986, p. 5). A significant addition to this definition is what Chekki and Warren (1972) called the dynamic nature of community: the continuous process of alteration, adjustment, adaption, and reorganization. "As in all systems, change - whether natural or planned - is essential to the community if it is to endure and develop" (Chekki, p. 6).
Community Development

Warren (1972) stated that "...there has been considerable ambiguity in the use of the term 'community development'" (p. 324). Sanders (1958) analyzed the term as denoting a process, a method, a program, and a social movement. Other sources of ambiguity lie in the term's relation to community organization and planning; the idea that community development has to do with rapid, controlled industrialization of pre-industrial communities; and whether the goals of community development are specific task objectives or the change in interrelationships among local people (Warren, 1972, p. 324). Building on Sanders' systems analysis, Warren (1972) defined community development as "...a deliberate and sustained attempt to strengthen the horizontal pattern of a community. This definition conceives community development as a process" (p. 324). Chekki (1986) elaborated on Sanders' theoretical approaches to community development as process, method, program, and social movement, and concluded that it is a composite of process and program. This holistic process-program perspective consisted of six important elements: community as a unit of action; the significance of local initiative and leadership; heedful use of local and outside resources; open-ended participation; and an organized, comprehensive approach, with democratic, rational task accomplishment. Chekki asserted that this perspective held the potential of becoming a powerful force in effecting
psychological and socio-economic change (p. 24).

The origins of community development as a construct appear to have been a synthesis of economic development, social development, and community organization (Chekki, 1986). The origins of community development as a discipline involved a number of concepts and factors in question within the theoretical framework. An early definition by Biddle and Biddle (1965) describe community development as a social process by which human beings can become more competent to live with and gain some control over local aspects of a frustrating and changing world. Christenson and Robinson (1980), in meshing the writings of 25 authors, listed the components of community development as:

1) a group of people
2) in a community
3) reaching a decision
4) to initiate a social action process (i.e., planned intervention)
5) to change
6) their economic, social, cultural, or environmental situation (p. 12).

Christenson and Robinson further pared these components down into an operational definition of community development as "...the purposive efforts of a group of people in a community to improve their social, economic, or cultural situation" (p. 26). This definition is in nearly verbatim
agreement with Goudy and Ryan (1982). Prawl, et al. (1984) stated that the terms rural development, community development, community improvement, and community resource development (CRD) could for all practical purposes be used interchangeably, and went on to define CRD as "...a process whereby those in a community arrive at decisions as a group and take action to enhance the social and economic well-being of the community" (p. 199).

Education, according to Bennett (1969), increased the effectiveness of organized action to bring about social and economic change. Authors emphasizing the educational aspects of community development saw it as a process of people identifying commonly felt problems and needs, seeking solutions among themselves, mobilizing necessary resources, and executing a plan of action or learning or both (Compton and McClusky, 1980; Four Worlds Development Project, 1984). This educational emphasis of community development is not the same as community education as a discipline; however, the two fields have a significant number of features in common (Compton and McClusky, 1980). "...Community development adds an outcome of action to a process of learning... it is at this stage that the emphasis changes from that of education to community development" (Roberts, 1979, p. 37). Darkenwald and Merriam (1982) similarly stated that community development is characterized by more action-oriented community problem-solving and has greater ties with adult education than
community education. In addition, Four Worlds Development Project (1984) stated that "learning is the main goal of community development because it generates new human potential" (p. 7).

For the purposes of this research, the definition of community development was a synthesis of aspects of the preceding definitions, concluding in: a process-program approach by a community to identify problems and needs, seek solutions, mobilize necessary resources, and decide to improve their environment by action, learning, or both.

Needs Assessment

The justification section of this chapter gave a brief description of needs assessment as a systematic approach to setting priorities, program decision-making, and resource allocation. Because Extension relies heavily on needs assessments in making decisions about educational programs (Caffarella, 1982; Sofranko and Khan, 1988), discussion of needs assessment in further detail was deemed advantageous.

Theoretically, many classifications of need can be found in psychology, sociology, and education literature (Prawl, et al., 1984). The Cooperative Extension System refers to the hierarchy of needs developed by Maslow (1954) as a foundation for understanding needs. This reasoning states that once an individual satisfies a basic need, he or she will begin to seek to satisfy a higher level need. Extension recognizes a
distinction between a necessity and a desire, and endeavors to include both individual and group needs. A thorough knowledge of the needs concept is seen as fundamental for Extension educators understanding behavior within conducting needs assessments and making decisions about developing suitable programs (Prawl, et al., 1984).

Historically, needs assessment was as casual as a 'windshield survey' or as systematic as careful consultation with identified community leaders (Beal and Hobbs, 1964), and was generally satisfactory. However, beginning in the 1960's, many legislative and regulatory statutes in transportation, health, and land use planning, as well as in Extension programs, required that the needs of the client or community be determined. The requirement for systematic public input provided the impetus for social scientists and managers of public programs to modify and adapt the methods of survey research to needs assessment surveys (Burdge, 1982).

Some basic assumptions of needs assessment research were that "...people can verbalize their problems or preferences on a given issue, that they can respond to a questionnaire, and that programs based on citizen input will be better received by the public" (Burdge, 1982, p. 274). Sofranko and Khan (1988) described three basic assumptions underlying needs assessments by Extension personnel as: the primacy of the individual; individual's assessments of problems, needs, and acceptable solutions as paramount; and fulfilling expressed needs as the equivalent of success, i.e., delivering what people articulate for their needs as being synonymous with rectifying a problem. Sofranko and Khan proceeded to explain
why the assumptions were realistic, but also why there existed a basis for expressing reservations about them. The authors therefore recommended a triangulation of needs assessment through multiple information sources and angles, one of which was the individual. Warren (1972) noted that community change efforts were historically tied to community needs and interests rather than individual needs and interests, with an assumption that there was no conflict between the two. He asserted that there has been a decline in the single public interest notion, and suggested alternative models.

Donald Campbell (1980) saw needs assessment as more of a process for making six basic decisions:

1) defining type of program (self-improvement, career growth, community programs);
2) selecting information sources (potential students, professionals, literature);
3) selecting data collection methods;
4) using the information collected;
5) analyzing data;
6) deciding whether to pursue implementation of a program or not, based on the preceding.

Relating education to Maslow's hierarchy of needs, Ruddock (1972) saw education as providing the satisfaction of physical and security needs by providing training in skills, for relationship and expressive needs by training in language, then in self-needs by providing access to the cultural capital
and mediating some components of it. As far as assessing needs, Caffarella (1982) viewed educational needs as those being determined by a needs assessment. She further stated that needs assessment focused on identification of major educational problem areas of Extension staff, volunteer leaders, and Extension clientele by considering both individual (motivational) and organizational (prescriptive) needs.

Within the field of community development (CD), Christenson and Robinson (1980) defined needs assessment as the first step in any CD activity; the critical step of knowing where one is before initiating action for change. The authors broke needs assessment down into three approaches: 1) action preferences -- action assessed; ultimate goal of action; 2) respondent's concerns and perceptions of issues confronting the community -- quality of life; quality of services/program; and 3) availability-utilization of services/programs -- convenient to use; satisfied with it.

Stanley (1984) also noted the timing aspect of needs assessment and program planning. The author felt that program planning should be initiated as swiftly after needs assessment as possible to pique interest, keep interest high, and ensure the program being developed is timely. Further research into needs assessment within the community context was called for
by Garkovich and Stam as found in Christenson and Robinson (1980):

...sweeping generalizations about community needs have not always translated into community support for proposals to answer these needs. It is critical that more attention be given to the process by which perceived needs are transformed into demands, and ultimately, community programs (p. 177).

By combining learning needs of individuals and the developmental needs of the community, one gets a better idea of what needs assessments are in the context of community development education programs (Clark, 1986). Therefore, needs assessment was defined in this study as: a systematic process by which individual and community needs are determined from multiple sources for the purpose of setting priorities, making decisions, and allocating resources for educational program development in a timely manner.

Participation

The fact that this research explored community readiness implied an object of readiness, i.e., readiness to do something. As described in the introduction, the object of readiness specified was the act of participating in an Extension education program. Providing a distinct written definition for participation was a difficult task, in part due to the reluctance of experts to give one. Rather, a collection of concepts or factors relating to participation were offered by a few authors.
Participation was regarded by Bloom (1976) as a catch-all variable indicating aspects of learner motivation within the contexts of changing instructions and instructors. A factor of participation noted by many adult educators was the voluntary, versus the involuntary, nature of participation for adult learning to occur (Brookfield, 1986). The Cooperative Extension Service went a step further by stating that participation should not only be voluntary, but also democratic: open to anyone who desires to have a part in group activities, and group actions reflect the preferences of those who choose to participate (Thullen, 1978).

In discussing readiness of a community to participate in Extension education programs, one may ask to what extent an entire community can participate. Taking a bi-polar view, Carl Rogers (1977) described the nature of the individual as not trustworthy, needing in guidance, instruction, reward, punishment, and control by those who are wiser or higher in status. The other pole constituted those who advocated a return to popular democracy wherein all community members are involved in all decisions. In between these extreme poles were myriad positions on the continuum. As stated by Thullen (1978), "it is, therefore, no wonder that many agency and CD workers become somewhat confused as to what citizen participation is..." (p. 44).
Extension publications referred to Bennett's hierarchy as a model for measuring change of participants in education programs, and consequently participation in general. According to Bennett (1979), the third step on the hierarchy is called the people involvement level. Change in this level is judged by the number of participants attending and characteristics of participants, such as socio-economic status or age, as well as type of participation, such as how they were involved and whether they fully participated. Participation was, thus, defined by attendance and participant characteristics for the purposes of this study. The diversity of participants noted as important in the determination of participation in the "Wastewater Treatment Alternatives" program studied for this research included: diversity of occupation or elected status (a mix of local elected officials, county agency officials, those employed in the subject matter field, and interested homeowners), as well as diversity of demographic characteristics (age, gender, income, and education level).

A higher level of participation for this research was whether learners in the program participated in the program's community needs assessment survey to determine needs, attitudes, and behaviors of community members. Chekki (1986) believed that the act of becoming involved in community research was a powerful influence on development of the community and active participation by residents.
In this study, participation was defined as: 1) attendance of learners in the education program, and diversity of those participating as specified; and 2) participation of learners in a community needs assessment survey described in the program, as evidence of a higher level of participation.
CHAPTER II

REVIEW OF LITERATURE

Many fields of literature were reviewed to provide a structure for exploring community readiness. In the research of literature, five main topics related to readiness became apparent. These five topics were: individual readiness, group readiness, readiness within a community context, educational provider, and environmental context.

Factors relating to community readiness for participation in Extension education programs are underlined wherever they appear in the remainder of the text.

Topic Areas

Individual Readiness

A goodly amount of research has been focused on individual readiness for participation in education programs, or as many have called it, readiness to learn (Knowles, 1980). The intention of this section of the literature review was to broadly recognize the factors provided by many authors as impacting an individual's readiness to learn.
Most of the literature review was focused on adult learning (androgogy) rather than children (pedagogy), but there was a distinct overlap between the two. Because extension education programs, particularly CNRD, serve mainly adults, androgogy was stressed (Warner and Christenson, 1984; Prawl, et al., 1984).

Scholars have debated adult readiness to learn within broad theoretical boundaries. Taking a step back to the large context of adult behavior in general, there were several theories concerned with the reasons for initiation of behavior. In an overview of these theories, Robinson (1979) listed three distinct behavior patterns put forth by well known individuals: behavior is impelled by inner - urges (Freud); behavior is impelled by outer situational forces (Pavlov, Skinner); and behavior is impelled by the inherent capacity for growth (Carl Rogers). Looking at these theories individually, many of the factors of readiness to learn offered by adult educators can be traced back to each theory, such as felt need related to learner's inner urges (Freud); dissatisfaction with the present situation and external forces attributed to Skinner and the behaviorists; and the innate fascination with learning was a result of educators agreement with Carl Rogers and other 'third force' psychologists. Building on these behavior theories, and in some cases synthesizing them, adult educators have developed their own bases for the more specific behavior of learning. Lewin
(1947) saw an individual's participation in educational activities as dependent upon personal need within the context of positive and negative external forces affecting the individual. Knowles (1978) described adult readiness to learn as social role needs based on developmental phases of the person, ever-changing on the continuum of life. Situational characteristics under which learning takes place and personal characteristics such as physical, sociocultural (equated with the life phases models of Levinson, Neugarten, Sheehy, Lowenthal), and psychological (equated with life stages theories of Erikson, Loeuinger, Kohlberg) characteristics were asserted as essential to an individual's readiness to learn by Cross (1981). Similarly, Aslanian and Brickell (1980) discussed adult learning in the context of the unstable transition between the life stages rooted in biological, psychological and social nature of being an adult. Cyril Houle (1964) identified three motivational orientations of learners: goal-directed learners, activity-oriented learners, and learners that are learning-oriented.

In a synthesis of the principles of learning specified by Gibb, Miller, Kidd, Knox, Brundage and Mackeracher, Smith, and Darkenwald and Merriam, Stephen Brookfield (1986) summarized these authors as follows:
Adults learn throughout their lives, with the negotiations of the transitional stages in the life-span being the immediate causes and motives for much of this learning. They exhibit diverse learning styles... As a rule, however, they like their learning activities to be problem centered and to be meaningful to their life situation, and they want the learning outcomes to have some immediacy of application. The past experiences of adults affect their current learning... Effective learning is also linked to the adult's subscription to a self-concept of himself or herself as a learner. Finally, adults exhibit a tendency towards self-directedness in their learning (p. 31).

To better address the factors related to readiness of learning discussed by these and other authors within the literature review, the individual factors were dissected from general theories and synthesized.

Demographic factors were both supported and dismissed by authors as impacting the readiness to learn of an individual. Cross (1979) cited age, educational level, and region of residence, as well as proximity to the learning activity. Rothman (1974) and Klevins (1978) both discussed income as influencing adult readiness to learn, and Rothman tied in feeling of power or powerlessness to level of participation by learners. In a study of municipal officials in Florida, Long (1967) listed distance, sponsor, method, and topic as important for the participation of officials in the educational activities. Those authors dismissing demographic variables as influencing the choice to learn included Darkenwald (1977) and, in particular, Tough (1979).
The concept of felt need as a prerequisite for learning was noted by many authors. Learner needs, as described by Kidd (1973) are a lack of some information or skill the learner assumes he [sic] should have, or is enjoyed by most members of society; and a tension/disequilibrium from a lack of affection or philosophy of life, etc. Bloom (1976) classified felt need as one of the cognitive or affective entry behaviors of learning. Felt need was dealt with extensively by Rogers (1983) and Love (1985) as a prerequisite for learning. Other authors that mentioned felt need as a factor of individual readiness to learn included Bergevin (1963), Goodenough (1963), Havelock (1969), Robinson (1979), and Knowles (1980).

Related to the factor of felt need was the factor of social need, need impelled by social interaction or the roles in which adults find themselves needing learning. Combining needs for esteem, love, approval, and response and needs to realize functional pre-requisites of a system, Parsons and Shils (1951) discussed role expectation needs. Darkenwald (1977) asserted the importance of social need through research studies by Boshier, Morstain and Smart, and others. Another synthesis of studies by Burgess (1971), Eggert (1974), Dickenson and Clark (1975) and Morstain and Smart (1977) was forwarded by Cross (1979) in discussing the desire/need to socialize with others as a motivational factor in learning. This was similar to Houle's activity-oriented learner. Others

One factor suggested as essential for readiness to learn was an individual's self-directedness towards learning. Carl Rogers (1969) called self-initiated learning the most lasting and pervasive. Brookfield (1986) also stressed self-directed learning in his description of adult learning processes, as did Tough (1979). Individuals' inherent capacity for growth was a closely related factor to self-directed learning. Rogers' (1969) behavioral theory was based on humans' innate capacity for growth. Theil (1984), and Davis and Tremblay (1985), as found in Brookfield (1986), all wrote about characteristics of successful self-directed learners, showing that some important adult learning is a free flowing exploration of a subject for the innate fascination of that activity. Houle (1964), Cross (1979), Tough (1979), and Knott (1987) also depicted some readiness to learn as simply the desire to learn for its own sake.

In direct contrast to the idea of learning for its own sake was the assertion that adult learning is problem-centered. Gibb (1960) stated that learning must be problem-centered, as did Bergevin (1963), Robinson (1979), and Knowles (1980). Similarly, Lippitt, et al. (1958) discussed the initial forces toward change, and subsequently a readiness for learning, were a dissatisfaction associated with the present
situation and a perception of the problem, among others.

Past experience of learners has been noted by several authors as important for an individual's readiness to learn, including Gibb (1960), Miller (1964), Havelock (1969), Kidd (1973), and Knowles (1980). Taking this a step further, past experience could include past learning or pre-requisite learning. Pre-requisite learning means the knowledge base required for a higher stage of learning to occur (Bloom, 1976), which could include basic information about a subject area, reading skills, or familiarity with similar topics or the adult education process in general (Franks, et al., 1982; Clark, 1985; Dillon et al., 1986, as found in Kitinoja, 1989b).

Attitude toward learning/change was revealed by many authors to be important in readiness to learn. Parsons and Shils (1951) discussed the relevance of individual's attitudes toward social action to their readiness for participation in it. Bloom (1976) included attitude toward learning as an effective entry behavior. In his discussion of innovation adoption, Rogers (1983) discussed individual degree of innovativeness through affective characteristics and societal norms. Cross (1979) cited attitude about learning and oneself as impacting learning readiness, such as feeling too old to learn. In addition, the individual's attitude about cooperative action for initiating change was mentioned by Rothman (1974), as was the individual's attitude toward the
change agent/agency (Goodenough, 1963; Rogers, 1983; Love, 1985).

A cost/benefit analysis was employed by potential learners in their decision to engage in educational activities or not, according to Robinson (1979), Tough (1979), Christenson (1982), and Rogers, (1983), thus affecting readiness to learn [perceived benefits and costs].

Interest in the subject matter or relevance of the subject to the potential learner was stated by several authors as important in connection with learning readiness. Kidd (1973) said that learning depended on the relevance of the material to the learner. Knowles (1984) wrote of the adult learner as a unique individual who must be able to see the relevance of the information offered in order to benefit from instruction. Others mentioning interest level or relevance of the material in the context of adult learning included Long (1967), Rogers (1969), Darkenwald (1977), Klevins (1978), and Love (1985).

Group Readiness

The second main topic area explored as it related to community readiness was group readiness. Remembering that Extension activities in community development have as their primary focus the providing of educational assistance to clientele involved in group decision-making (Thullen, 1978), the importance of group activity and the interaction of
individuals within the group setting could not be underestimated.

Examining the similarities and differences between individual and group readiness to learn was initiated prior to elaborating on group factors of readiness. Reeves (1970) reported several similarities between individuals and groups, including personality, mode of response to a threat, recognizable life cycles, work habits, and the possibility of becoming neurotic/psychotic. Furthermore, several factors related to readiness discussed in the section about individuals appeared for group readiness as well. For example, social need, as detailed by Houle (1964), existed in a group setting. Schein and Bennis (1965) proposed that group readiness to learn was dependent upon pre-requisite learning of individuals within the group, along with past experience of learners. Mills (1964) described individual participation in group activities as a continuum of weighing the perceived benefits and costs. In addition, the combination of individual felt needs, social needs, and universally shared needs led to group needs, according to Lippitt (1978).

More important were the factors that arose from the differences between individual readiness and group readiness. Reeves (1970) related the differences as: the whole (group) is greater than the sum of its parts (individuals), greater time needed for a group to respond to stimulus, repeated similar stimuli elicit more uniform responses from a group
than individuals, the group has greater sensitivity to various elements of its environment than individuals, the group differs in perception to a threat, the group is more vulnerable to changes in direction (leadership), and group direction is more external than an individual's inner direction. Reeves' first contended difference was supported by Bonner (1959), who felt that problem-solving was superior in groups to individuals in most cases. Group leadership was pointed out by many authors as significantly impacting change or direction. Bonner (1959) defined leadership as "... the effect which an individual has upon group behavior..." (p. 172). Leader commitment to group decision-making was suggested by Lippitt (1978) as essential to readiness for group action. Cattell (1951) spoke of group direction as syntality: every member of the group is a leader in that each member affects the total result; therefore, everyone has their share or percentage of leadership.

Factors related to group readiness for learning were mainly affective in nature. Loomis (1960) listed many points of agreement necessary for group decision-making to occur. Commitment to shared attitudes and procedures was paramount for action to take place. Shared attitudes, values, and norms were recognized as significant to group readiness (Parsons and shils, 1951; Bonner, 1959; Loomis, 1960; Bennett, 1979), as well as shared goals (Loomis, 1960; Bion, 1961, Roberts, 1979) and boundaries (Loomis, 1960; Bion, 1961). Lippitt (1978)
offered shared attitude toward the methods and procedures of group action as important. Bonner (1959) suggested morale—esprit de corps and self-involvement within the group setting, combined with cooperation or competition among group members, were vital to cohesiveness in the group and readiness for group action. Similarly, the reactions of participant involvement in Extension programs were in part due to social interrelationships of participants, according to Bennett (1979). In addition, group attitude toward learning/change was discussed by Rogers (1983) in terms of societal norms and individual readiness to adopt an innovation within that context.

All of the aforementioned aspects of the complex and interrelated nature of group action were filtered down into three factors for the purposes of this study: perception of the problem, amount of conflict or consensus [within the group], and attitude toward cooperative action/group setting.

Perception of the problem was the factor incorporating what Lippitt (1978) called the need for a clear group definition of a problem in order for decision-making to occur. Clientele perceptions of the problem and probable efficacy of efforts to alleviate it were seen as commanding readiness for action in Extension programs (Thullen, 1978). In addition, competing priorities impacted perception of the problem by diluting the group's perceived level of urgency associated with the problem (Thullen, 1978). Conflict in perceptions of
a problem and its urgency would obviously have a great influence on shared goals of a group, which would in turn have an effect on group readiness (Loomis, 1960; Roberts, 1979).

**Amount of conflict or consensus** within the group was the factor that incorporated all the previously examined shared aspects of a group needed for group learning and action to occur. The **amount of conflict or consensus** within a group was viewed as a possible result of individual's **attitude toward cooperative action and group setting**. Certainly, **attitude toward learning/change** was one factor very closely aligned with this. Another factor was an individual's past experience or **past participation in groups**. Schein and Bennis (1965), talked about a learner's attitude toward learning in groups as dependent upon his or her prior experience with groups and the need to know how to learn in a group setting. Knowledge of group behavior, interpretation of others behavior, and recognition of self behavior in a group setting were all noted by Fanslow (1982) and Heimlich and Van Tilburg (1987) as skills needed for participation in groups. Similarly, previously-acquired skills, techniques, and linkages of individuals in groups were proposed as necessary for effective group action in Extension programs (Thullen, 1978). On a broader scale, one might consider this pre-requisite learning for participation in groups.

Several more factors related to **attitude toward cooperative action and group setting** were discovered in
exploring group readiness for participation in educational programs. *Role expectation* of individuals within the group setting was mentioned by Parsons and Shils (1951), Loomis (1960), and Fanslow (1982), along with *willingness for responsibility* or lack of responsibility in the role (Parsons and Shils, 1951; Lippitt, 1978; Fanslow, 1982). *Leadership, power structure,* and *decision-making processes* within the group setting were factors synthesized from several authors. Bennett (1979) mentioned that participant reactions to inclusion in Extension programs was dependent upon their acceptance or lack of acceptance of the group *leadership.* Tied to that factor was an individual's *feeling of power or powerlessness* within their group role (Loomis, 1960; Bion, 1961), as well as their understanding of the *power structure* (Fanslow, 1982). Also, a participant's *confidence level* was reported by Parsons and Shils (1951) and Fanslow (1982) as effecting readiness to participate in cooperative action or a group setting.

Another broad factor apparently impacting group readiness for participation in educational activities was *communication systems.* Loomis (1960), Lippitt (1978), and Roberts (1979) called for effective communication in order for group action and decision-making to take place. Bion (1961) and Fanslow (1982) discussed the need for communication of thoughts or positions of all individuals within a group to promote learning and participation. Communication outside of the
group was also revealed by authors as important for group action and problem-solving, particularly the acquisition of pertinent information about local conditions, available resources, and alternatives (Thullen, 1978; Fanslow, 1982).

One last factor that was discovered while researching group readiness for participation in educational programs was participation of stakeholders. Stakeholders were defined by Gold (1981, 1983) as "... people whose lives are affected by the program and people whose decisions can affect the future of the program." Meaningful stakeholder participation was defined as shared decision-making by Greene (1988). In recounting participatory experiences, stakeholders highlighted the cognitive, affective, and political dimensions of the process.

... the three experiential dimensions of the participatory evaluation process, filtered through the conceptual uses made of the process as appropriate, generated a set of conditions conducive to subsequent utilization of results. These conditions all relate to perceptions and attitudes among stakeholders themselves that reflect their own readiness, perhaps even eagerness in some cases, to follow through and make use of the fruits of their efforts... Readiness-for-use conditions further included a greater acceptance and ownership of the results..., as well as a greater sense of responsibility and obligation for following through...; and heightened perceptions of the results as valid, credible, legitimate, and persuasive (Alkin et al., 1985; Chelimsky, 1987; Cousins and Leithwood, 1986; Patton, 1986). These perceptions can be linked most directly to the political dimension of the evaluation process and thus the inclusion of a diverse stakeholder group" (Greene, 1988, p. 112).
Greene's research clearly showed that stakeholder participation in program activities and decision-making enhanced utilization and implementation of information gained. This suggested that stakeholder participation would also affect group readiness for participation in educational programs. In assessing who should be involved in Extension programs of community development, Yoder (1981) listed those who will be affected, who have an interest in the program, and those who may be opposed to the program, among others.

**Community Readiness**

Readiness within the community context was a topic area targeted to discuss those factors of readiness indicative of a broader community scope. While the factors detailed in individual and group readiness to participate in Extension education programs were integral parts of community readiness, they were nevertheless viewed as parts of the broader community scope and not the complete picture. Grantham and Dyer (1981) described community development as organized actions of groups of individuals to bring about social and economic change within a community. It was this community context and the factors related to community readiness that was explored within this topic area.

Once again, there were factors discovered in this topic area common to individuals and groups, as well as within the community. Felt need was forwarded by several authors as
impacting community readiness for participation in educational activities (Bonner, 1959; Sanders, 1966; Long, 1973). Blackburn (1984) broke need down into expressed felt needs, unexpressed felt needs, unfelt needs, and ascribed needs while discussing community readiness for Extension programs and its interrelationship with the Extension educator. Perception of the problem, dissatisfaction with the present situation was another aspect of community readiness mentioned by several authors (Lewin, 1947; Long, 1973; Poplin, 1979; Roberts, 1979). Blank, et al. (1983) further discussed this factor in terms of community tolerance of a problem as an expression of lack of readiness. Another lack of readiness aspect of this factor was what Hildebrandt and Edeburn (1988) called the NIMBY (Not in My Backyard) syndrome, where public opinion either denies the existence of a problem or opposes any action to reckon with it. A strong local perception of the problem was the first factor of readiness for a self-help program listed by Schautz (1985), and she went on to combine this factor with willingness for responsibility, resulting in ownership of the problem. Use of phrases such as "our problem" or "we need to address this" denoted problem ownership and a readiness for acting upon it (Schautz, 1985; Mancl, 1989). Lastly, attitude toward learning and change was examined by Ayres and Potter (1989). The authors stated that "attitudes of leaders and citizens toward community change may ... play an important role in determining whether
local action is undertaken and, ultimately, the degree of success realized" (p. 2). They further listed several factors believed to affect citizen's attitudes toward community change, including an individual's involvement in local clubs and organizations [past participation of the individual in various groups], demographic factors (age, gender, income, education level), felt need of leaders versus residents, and resident dissatisfaction with local attributes [dissatisfaction with the present situation].

Two major factors of readiness within a community for participation in Extension education programs were discovered in this literature review as apparently working in tandem while strongly affecting numerous smaller factors. They were the factor of amount of local initiative or support and the synthesized factor of leadership, power structure, and community decision-making processes.

The first major factor, amount of local initiative or support, was basically a compilation of many factors related to initiative and support. Dean and Dowling (1987) included the overall factor in a model of adult education for community development. The support of local government was a part of the factor listed by Schautz (1985) related to community readiness, as was enthusiastic, capable support by the field office of the regulatory agency. One factor viewed as impacting community initiative or support for participation in education programs was a community's history with similar
activities (Biddle and Biddle, 1965; Warren, 1972; Ingram and McIntosh, 1983; Schautz, 1985). Two more factors related to the amount of initiative or support in a community were the confidence level of the community (Schautz, 1985), and the level of community pride evident (Ingram and McIntosh, 1983). The existence of competing priorities was also given credence to affecting the amount of local support for any action to alleviate a problem (Schautz, 1985; Chekki, 1986; Dean and Dowling, 1987). Cultural momentum was a term coined by Krietlow, Aiton, and Torrence (1965) to describe a community's development initiative based on keeping up with an esteemed neighboring community or other desirable entity. Although this factor was closely related to a community's felt need, it was included in this section due to the suggested impact on the amount of local initiative.

An important factor that was a part of both the major factors of amount of local initiative or support and leadership, power structure, community decision-making processes pertains to the amount of conflict or consensus within a community. Because "... any substantive decision in a community or project usually involves strong proponents and opponents... agency workers and CD practitioners are constantly - if they are halfway effective - running into conflict situations" (Thullen, 1978, p. 52). Conflict was not viewed as necessarily bad, and consensus as necessarily good by Thullen (1978); however, despite the contention that
conflict was a natural component of any change, the author did note that it could have negative consequences for a community and should be contained when out of hand. Thullen also mentioned that conflict is often introduced by outside groups, external forces on the community. Kreithlow, Aiton, and Torrence (1965) touted conflict and controversy to be a stimulant for community development. Consensus was discussed by Thullen (1978) as a state of community being historically sought by most CD workers. A community solidarity index was developed by Fessler (1952) for measuring the amount of consensus among members of primary rural communities, which examined eight major areas of community behavior: community spirit, interpersonal relations, family responsibility toward the community, schools, churches, economic behavior, local government, and tension areas. Warren (1972) split consensus into two community consensus levels: 1) consensus around a specific issue, and 2) consensus among community decision organizations about the manner in which an issue is to be resolved, the way in which the contest is to be conducted, and the legitimacy of the final outcome. These community consensus levels correlated with 1) the hoped-for outcome, and 2) the distribution of power, allocation of domains, and acceptable procedures for decision-making within a community. Schautz (1985) described consensus in terms of the non-existence of two or more camps within a community that distrust each other and have caused division in the past.
The second major factor related to community readiness for participation in educational programs, leadership, power structure, and community decision-making processes, was, again, a compilation of several smaller factors. Leadership was defined by Poplin (1979) as tending "... to become diffused throughout the community, with one person or group exercising leadership in one situation and another person or group leadership in another situation" (p. 215). He went on to describe three types of leaders: 1) institutional, grass-roots, and behind-the-scenes (Dahl, 1961); local and cosmopolitan influential (Merton, 1957); or whether a person has appropriate resources and if other decision-making participants believe he/she possesses appropriate resources (Nuttall, Scheuch, Gordon, 1968). Bonner (1959) discussed community leadership in terms of the "... capacity of some of its citizens to sense the needs of the entire community, to reflect them back to men in the group, and to enlist their aid in carrying out a proposed action" (p. 323). Other authors mentioning leadership related to community readiness included Kreitlow, Aiton, and Torrence (1965), Warren (1972), and Long (1973).

Community power structure pertaining to decision-making was initially examined by Hunter (1953) and later dissected by Rossi (1966) into four distinct structures. The pyramidal structure was defined as centralized with one man/small number of men [sic]; caucus rule was a reactively large group of men
[sic] making decisions through consensus; polythith was explained to be separate power structures definable for major spheres of community activity; and amorphous structure showed no discernible enduring pattern of power. Aiken and Alford (1970) considered centralization as key to a community's innovativeness; the greater the degree of power concentration, the greater the degree of innovation.

Parallel to this power structure analysis was Thullen's (1978) six perspectives on community decision-making processes as impacting Extension CD efforts. Decision-making was defined by the author as a group making a choice between two or more alternatives, including the choice of not making a choice. The first of his six perspectives was the power actor or power structure perspective, where a small number of power actors dominate community decision-making. Research on power actors, particularly in smaller, more rural and stable communities, showed them to have certain characteristics:

1) They are usually males [gender].
2) They are generally older than the average adult; over 40 [age].
3) They have above average income [income].
4) They are above average in levels of formal education [education level].
5) They are in higher status occupations [occupation].
6) They are long-time residents of their communities.
7) They have control or access to resources such as jobs, credit, money, land, mass media, etc. (p. 20).
Previous research by several authors supported the majority of these demographic factors, finding community leaders to be predominantly male, better educated, more affluent, and generally older compared with other residents (Jackson and Shade, 1973; Nix et al., 1974; Molnar and Smith, 1982; Allen and Gibson, 1987 as found in Ayres and Potter, 1989). In addition, the positional approach for identifying power actors called for "... an inventory of people occupying visible positions of leadership in the community, particularly elective and governmental positions" [elected status] (Thullen, 1978, p. 22). Closely related to the power actor perspective was what Schautz (1985) described as the presence of spark plugs or participation of key figures both within local government and technical employees (entrepreneurs).

Thullen's second perspective on community decision-making processes was the differential participation perspective, in which there is a wider group of community residents who tend to be actively involved in community decision-making than a few power actors. Hahn (1973) pointed out that studies of decision-making showed:

1) less than 5 percent (probably only about 1 percent) of the population participated actively and continuously in community decision-making.

2) nearly half of the population has no involvement - not even by voting.
3) about a quarter of the population becomes involved only by voting.
4) the remainder become involved by voting and other forms of decision-making activities." (Thullen, 1978, p. 29)

This perspective implies that CD practitioners should seek out those who are already highly involved and who are predisposed to becoming involved when working with any community (Thullen, 1978). These statistics seemed to corroborate the apathy that many community leaders decry exists in their communities (Compton and McClusky, 1980; Blank, et al., 1983) Thullen's third perspective looked upon decision-making as a process, episodic in nature, dependent upon a group of people with an interest in some issue, concern, or problem implementing a decision that causes interest recognition by the same or another group of persons. Interest in and relevance of the subject matter was viewed as a significant indicator of this perspective. Fourth was the holistic perspective: community decision-making was a process involving all aspects of the community, limitedly related to participation of stakeholders. The fifth perspective was a cost analysis of community decision-making. The sixth perspective of community decision-making was individual-centered and loosely connected with many of the factors discussed in the main topic area of individual readiness, particularly the inherent human capacity for growth.
Other factors that were assessed as possibly impacting readiness within a community for participation in educational activities included additional demographics, the communication systems within and between the community, and invitation for assistance. Klevins (1978) suggested population size, age distribution, educational levels, places of employment [occupation], income levels, and development trends were important characteristics to consider in designing educational programs. Ayres, et al. (1989) emphasized occupation within the community, particularly as it pertained to jobs enabling money to roll-over within the community or jobs basically exporting money from the community to elsewhere: an economic interpretation on Warren's (1972) horizontal or vertical community linkages. On an international level, Peace Corps (1987) listed family structure or kinship, living arrangements, economic activities, agriculture, education, recreation, communication, religion, sexuality, health and nutrition, politics, and associations as possibly having effects on the readiness of communities for development. The communication systems within and between the community were examined in depth by Roberts (1979), and were broken down into systemic linkage between groups in the community and systems within and between communities. The state of entropy, or closed communication system, was viewed by the author as a result of communication atrophy and seen as a negative influence on community development. Long (1973) also noted
communication structure as impacting community readiness for development activities. Lastly, Biddle and Biddle (1965) ascribed a higher degree of readiness within the community for participation in development activities to its invitation for assistance of a change agent.

Educational Provider

Community readiness for participation in Extension education programs was also explored through the literature concerning the educational provider. What became apparent from this topic area was that the educational provider, the change agent and/or change agency, affected community readiness to participate through individual, group, and community perception of the change agent/agency as well as related educational provider factors. Many of the educational provider factors were suggested by authors as impacting the continued participation of learners and the implementation of knowledge gained; however, these factors were also viewed as related to the readiness of the community for educational activities to start.

Understanding of the educational provider or change agent factors was facilitated by several brief definitions of what a change agent is. The use of the term educational provider was deemed more appropriate for this research, due in course to its narrower connotation and reference to education provision rather than change, which implies action and
implementation. Change agent was defined by Warren (1972) as a party or actor who want(s) to bring about a change in a community. Rogers (1983) saw a change agent as "... an individual who influences clients' innovation decisions in a direction deemed desirable by a change agency" (p. 312). Boggs (1986) emphasized the educational nature of the change agent involved in community development, as did Christenson and Robinson (1980) and Sollie and Howell (1981).

After conducting an extensive literature review, Love (1985) included the role of the change agent as an important factor impacting an individual's readiness to learn. Rogers (1983) similarly addressed the role of the change agent in the successful adoption by clientele of an innovation. Perceptions of the change agent/agency was stated as crucial for an individual's readiness to participate in educational activities by Goodenough (1963). In a model of knowledge transfer and utilization in adult agricultural education, Kitinoja (1989b) placed teacher characteristics immediately after three variables existing prior to instruction. Reeves (1970) discussed group readiness for learning or action as being affected by outside variables, such as the change agent working with the group for example. In this sense, Reeves viewed the change agent in a group leadership role. Change agent perception as representative of a particular agency was identified by Biddle and Biddle (1965) as impacting community development activities. Many authors, both inside and outside
the Cooperative Extension Service, have examined the role of the change agent in the community development process and his or her affect upon it (Goodenough, 1963; Sanders, 1966; Rothman, 1974; Poplin, 1979; Roberts, 1979; Christenson and Robinson, 1980; Blackburn, 1984).

To better understand educational provider factors as they related to community readiness for educational program participation, the change agent/agency's approach to community development education, roles of the change agent, educational provider characteristics, and perception of the change agency itself were examined in further detail.

Prior to change agents initiating a specific community development approach, Spiegel (1971) posed the question of whether to treat a community as a conglomeration of groups and emphasize development through multiple planning units within the heterogeneous community or treat a community as a unitary single living organism. The author further queried whether a geographical neighborhood is the most functional unit for a decentralized approach, whether division should be along socioeconomic or racial lines, and whether decentralized development encourages group Apartheid. Thullen (1978) described some of the approaches used by change agents since the 1950's, when there was a break away from the traditional community consensus, collaboration, cooperation approach to community development. He listed the community approach; the education approach; the human resource development approach;
the planning, design and architectural approach; the community facilities improvement and physical development approach; the economic development approach, the regional development approach, the power structure approach, the helping the disadvantaged approach; the conflict approach, the radical change or reform approach; and the revolution or total change approach (Thullen, 1978). Warren (1971, 1972) discussed a broader framework in which communities find themselves in situations and the subsequent approach to community development activities are based on those situations. Warren proposed a collaboration approach for communities with an issues consensus situation, a campaign approach for an issues difference situation, and a contest approach for communities in an issues descensus situation. Within the Cooperative Extension Service, Christenson and Robinson (1980) offered three themes or approaches to community development: self-help, conflict, and technical assistance. Self-help was described as non-directive/cooperative with more process knowledge than product and concerned with long-range decision-making skills. Conflict was an approach of organizing people and developing leadership as polar groups, and goal-oriented. The technical assistance approach emphasized working for people rather than with them, with a specific project goal in mind. In the field of education, Sollie and Howell (1981) provided several examples of change agent approaches to community development: client oriented problem-solving,
change agent provision of problem-solving with or without resources, change agent emphasis of development of decision-making abilities of clients, the facilitation of decision-making organization development, and the small town action team (S.T.A.T.) approach. Brookfield (1983) distinguished among three dimensions of adult education within the community context by describing adult education for the community, in the community, and of the community. Litteral (1977) stated some assumptions guiding educators in the community development process, for example, people have the right to participate in decisions that have an effect upon their well-being, which is related to the participation of stakeholders.

Many authors closely tied change agent roles to the approaches with which they initiated community development activities. In Warren's (1971, 1972) framework for approaches based on community situations, he suggested the roles of facilitator, stimulator, catalyst, and communicator in the collaboration approach; persuader, campaigner, and convincer in the campaign approach; and a contestant role in the contest approach. The three themes of community development activities within Extension offered by Christenson and Robinson (1980) stressed change agent roles as educator and facilitator for the self-help approach; organizer, cheerleader, and motivator for the conflict approach; and consultant for the technical assistance approach. Sollie and Howell (1981) suggested that the knowledge transfer process
used by an educational provider impacted community readiness for learning. Knowledge linking roles of the change agent were listed as conveyor, consultant, trainer, leader, innovator, defender, knowledge-builder, practitioner, user, and researcher (Havelock, 1971; Saskin, Morris, and Horst, 1973, as found in Sollie and Howell, 1981). Within the Cooperative Extension Service, Christenson and Robinson (1980) stated that the role of the community development professional is highly influenced by the philosophy of the organization, placing emphasis on providing educational programs based on clientele need and employing various approaches. Rogers (1983) described change agent action toward clientele adoption of an innovation, prior to implementation, as: developing need for change, establishing an information exchange relationship, diagnosing clientele problems, and creating clientele intent to change. Rothman (1974) noted community structure, cultural norms, and felt needs or responses of clients as affecting the style and character of change agent roles.

Educational provider characteristics were examined by many authors as related to community readiness for participation in educational activities. Goodenough (1963) discussed several requirements of a change agent, which included a clear idea of clients' perceptions of the change agent/agency, clients' felt needs, and the communication system within the community, among others. The author further
noted that field agents identified with the community to a much greater extent than specialists. Rogers (1983) similarly discussed change agent awareness of clients' *felt needs* as positively related to success of innovation adoption, in addition to homophily with clients and change agent credibility [*perception of the change agent/agency*]. Roberts (1979) noted that the process of community development would be helped by a balance of change agent emphasis or awareness of client knowledge and attitudes. Heimlich and Van Tilburg (1987) discussed five issues to be addressed by the educational provider prior to implementation of any program for a subculture group or disadvantaged population: 1) appreciation of differing clientele beliefs, 2) understanding and respecting clientele values, 3) learning styles of the clientele - what and who they will accept, 4) clientele beliefs about the major culture or educational provider [*perception of change agent/agency*], and 5) past history of clientele involvement with the topic or related topics [*community history, interest in and relevance of the subject matter*]. Stakeholder perceptions of a program evaluator's or educator's characteristics were purported to be important for program effectiveness by Greene (1988). On the other side of the coin, Rogers (1983) proposed several clientele factors positively related to change agent contact: social status [*elected status, income*], social participation [*past participation in groups*], and higher education [*education*]
levels], among others.

Lastly, perception of the change agency was considered as much a part of clientele attitudes as their perception of the change agent. Warner and Christenson (1984) discussed in detail what Extension clientele and the public in general perceived to be true about the Cooperative Extension Service, if they were aware of Extension at all. Christenson and Robinson (1980), as related earlier, stressed the influence of the philosophy of the change agency on the role of the agent. Clientele perception of the change agency philosophy could have an impact on their readiness to work with a change agent or participate in the agency's education program. Bennett (1990) said that "Extension has high standing as a neutral source of knowledge that users can turn to when in doubt about the validity of information and advertisements from ... magazines, other mass media, and commercial firms" (p. 102). Therefore, perceptions of community members about Extension's philosophy, policies, and neutrality could conceivably affect their readiness to participate in an education program offered by the organization.

Environmental Context

The final major topic area examined for factors related to community readiness for participation in community and natural resource development Extension education programs was the environmental context. In defining what a community is,
Warren (1972) questioned to what extent the community as a social system could be distinguished from the surrounding environment. Environmental context was a term used in this research study to denote more than its spacial relationship, it also denoted the context of the community along a time continuum; i.e., place and time. Moos (1974) saw environment as virtually everything outside a program or organization, including contemporary technology, products, consumers, competitors, geographical setting, and economic and political conditions of the time period, all of which impacted program implementation and its determined success or failure. Warren (1972) detailed the great change in community living during the 20th Century in America. Thus, environmental context was topic area devoted to interrelated factors of both time and place, and their apparent effect upon community readiness.

Several authors have mentioned the importance of environment or environmental context to learning and behavior. Moos stated that "human behavior cannot be understood apart from the environmental context in which it occurs" (1974, p. 21). Bloom (1964) and others made a strong case for environmental research in education:

Reviewing and consolidating work on growth rates and environmental effects, Bloom pointed to the development of measures of environment as crucial for accurate predication and effective manipulation of learning. The work of Dave (1963) and Wolf (1964) on home environments and Pace and Stern (1958) and others on college environments have confirmed the powerful effects of contextual variable on learning... (Marjoribanks, 1974, p. 20).
Love (1985) reported outside influences could positively or negatively affect participation in educational activities and level of use of educational information. These influences included encouragement of a peer or relative (positive) and political, social, economic, personal, or legal factors (negative). Influencing strategies were included as a variable of external force upon the increase of learner motivation or felt need, leading him or her to participate in an education program (Kitinoja, 1989b). The relationship between influencing strategies and level of use of educational information was also discussed by both Love (1985) and Rogers (1983), as found in Kitinoja (1989b).

Within community development, Warren (1972) examined the great change of communities fully, concluding that the orientation of local community units toward extracommunity systems of which they are a part corresponded with a decrease in community cohesion and autonomy. As community units strengthened their relationships to state and national systems, the locus of community decision-making often shifted outside the community. The author later stated that external forces, both negative and positive, had great influence on communities and community decision-making (Warren, 1975). He further discussed the aspects of community control or lack of control over external forces through several means. Warren (1975) saw external forces as embodied in extracommunity system linkages: structural-local unit linked to larger
organization, association, or government unit; transactional-
interaction or exchange patterns between local units and
various extracommunity units; and diffusion-local level causal
sequence of events that are throughout the national scene.
Vertical and horizontal linkages and a vertical and horizontal
pattern of linkages was stressed by Warren (1972) as
critically affecting community development and how it is
approached by CD practitioners. The horizontal pattern of
linkages was explained as those links established among units
within the community that help perform its major functions,
whereas vertical pattern of linkages was defined as those
links from different community sub-systems to systems outside
the community (Beal, 1967, and Warren, 1972, as found in
Thullen, 1978). The implication of this analysis was that
knowledge of linkage patterns would assist agency and CD
workers in their approach to community development within a
broader environmental context that is greatly interrelated
with, and has external influence upon, communities and
community sub-systems. In terms of community development with
the Cooperative Extension Service:

Christenson and Taylor (1982) concluded that people's
perceptions are associated more with the situation in
which the service is provided than with either the level
of expenditures on inputs or performance measures of
staff... Much more attention needs to be given to the
identification of relevant environmental factors and
their relationship to such things as use, satisfaction,
and support (Warner and Christenson, 1984, p. 39).
Summary

The factors related to community readiness for participation in community and natural resource development Extension education programs that were discovered in the review of literature arose out of the topic areas of individual readiness, group readiness, community readiness, educational provider, and environmental factors. The discovered factors were filtered down into four structural categories for further examination.

The first category of factors was a broad framework for the expression of demographic and related factors affecting community readiness. Demographic factors discovered in the literature review, such as age, gender, education level, occupation, income, elected status, and proximity to the learning activity, were included. Related factors placed in this category were: pre-requisite learning of the individual, past participation in groups, community history, and environmental factors. In essence, this was a broad category made up of factors that possibly influence the other three categories and their respective factors.

The second category of felt need was a very strong category in that several of its inclusive factors were found in all five of the main topic areas explored. Readiness impelled by felt need, social need, role expectation, external forces, or the inherent human capacity for growth was a synthesis of individual, group and community motivation.
Other factors included within this category were perception of the problem and dissatisfaction with the present situation; cultural momentum, an aspect of community motivation; and interest in the subject matter and relevance of the subject matter. This part of the research study was later based on verbalized needs — whether from clientele, Extension agents, or community development experts; thus, the category was entitled felt need rather than assessed need or another designation.

The third category of action orientation was a general framework for those factors inherent within individual, group, and community attitudes or behaviors related to their readiness to act upon felt needs. Ownership of the problem, and willingness for responsibility were included, as well as perceptions of and attitudes about leadership, power structure, and community decision-making processes, which were associated with feeling of power or powerlessness, confidence level, participation of stakeholders, participation of key figures, and communication systems within and between the group or community. An indicator of readiness for action toward solving a problem was viewed as the invitation for assistance. Another way of understanding this category was to view these factors as representative of what the individual, group, and community thought or felt about their needs/problems within the established decision-making context in the community, how they perceived their responsive action,
and any steps toward readiness for proposed action, all impacted by communication systems and relative participation.

**Constraints or motivators** was the category created for structuring factors affecting the continuation of previously mentioned factors inherent in motivation and action orientation. **Perceived benefits and costs, attitude toward learning and change, attitude toward cooperative action/group setting, amount of local initiative or support, competing priorities, community pride, amount of conflict or consensus within the group or community, perception of the change agent/agency, and educational provider factors** were all viewed as possibly providing a pull or push for proposed action, and consequently affecting readiness for that action.

These were the categories and their factors used in the instrumentation and data collection process of this research study. The comprehensive nature of the literature review alluded to the support of the discovered factors across disciplinary lines, with different populations and various programs. In addition, the effort to allow for the expression of factors related to community readiness not found in this literature review was in the forefront of the development of instrumentation and emergent sources of information.
CHAPTER III

METHODOLOGY

This research study was initiated to explore rural community readiness to participate in community and natural resource development Extension education programs about community development, and define community readiness within the stated context. The study was conducted within the qualitative research paradigm, with supporting quantitative data and analysis. Patton (1980) called this a holistic-inductive design and noted the movement back and forth between inductive, open-ended, and phenomenological encounters to more hypothetico-deductive verification/solidification attempts with emergent data.

In the justification section of Chapter I it was stated that a naturalistic inquiry was adopted in this study to allow for the discovery or expression of any factor that may be a part of community readiness, rather than identifying specific variables a priori. The qualitative inquirer expects theory and variables to emerge from the inquiry (Lincoln and Guba, 1985). Exploratory research serves to identify important and often unanticipated factors/variables for subsequent explanatory or predictive research and demands qualitative
methods (Marshall and Rossman, 1989). In addition, data must come from several sources with a variety of instruments to achieve methodological rigor (Patton, 1980).

A discussion of qualitative research, and its assumptions was warranted before delving into the specific methodology of this research study.

Qualitative Paradigm

Lincoln and Guba (1985) contrasted the basic axioms of the naturalist and positivist paradigms. In the naturalist paradigm, realities are multiple, constructed, and holistic; the relationship between knower and the known is interactive and inseparable; only time- and context-bound working hypotheses (idiographic statements) are possible; all entities are in a state of mutual simultaneous shaping, so that it is impossible to distinguish causes from effects; and inquiry is value-bound. The basic axioms of the naturalist paradigm are virtually the reverse of those of the positivist paradigm.

Lincoln and Guba (1985) further operationalized naturalistic inquiry by detailing fourteen characteristics dependent upon the axioms of the paradigm:

1) Natural setting - "the naturalist elects to carry out research in the natural setting or context of the entity for which study is proposed." (p. 39). Many reasons for this were elaborated upon, but in essence, "...phenomena of study...take their meaning as much from their contexts
as they do from themselves" (p. 198). Others noting the importance of the natural setting included Patton (1980), Bogdan and Biklen (1982), Van Maanen (1983), Miles and Huberman (1984), and Marshall and Rossman (1989).

2) Human instrument - "the naturalist elects to use him-or herself as well as other humans as the primary data-gathering instruments..." (p. 39). Besides several stated reasons by the authors, the human as instrument of choice for naturalistic inquiry is augmented by his or her ability to respond, adapt, emphasize holistic interpretation, expand the knowledge base, process data immediately, clarify and summarize data, and explore atypical or idiosyncratic responses (p. 194).

3) Utilization of tacit knowledge - "the naturalist argues for the legitimation of tacit (intuitive, felt) knowledge in addition to propositional knowledge (knowledge expressible in language form)..." (p. 40). Tacit knowledge is defined by Lincoln and Guba as a set of understandings not defined or put into words, something experienced to be understood, not 'known'; which correlates to what Glaser and Strauss (1967) call anecdotal comparison.

4) Qualitative methods - "the naturalist elects qualitative methods over quantitative (although not exclusively)..." (p. 40). Because qualitative methods come more easily to the human-as-instrument they are stressed within the
naturalistic paradigm, not because the paradigm is antiquantitative (Lincoln & Guba, 1985). Many authors have advocated the appropriateness and usefulness of qualitative methods, including the two major spokesmen for the dominant paradigm in the past: Donald Campbell and Lee Cronbach (Patton, 1980).

5) Purposive sampling - "the naturalist is likely to eschew random or representative sampling in favor of purposive or theoretical sampling..." (p. 40). Particular characteristics of purposive sampling include emergent sampling design, serial selection of sample units, continuous adjustment or focusing of the sample, and selection to the point of redundancy or saturation (Lincoln & Guba, 1985). Glaser and Strauss (1976) strongly emphasized the benefits of theoretical sampling for saturation. Miles and Huberman (1984) noted the crucial advantage of purposive sampling was that it can change over the course of data collection.

6) Inductive data analysis - "the naturalist prefers inductive (to deductive) data analysis..." (p. 40). In qualitative research, the investigator again serves as an instrument in the analysis of data (Schwartz and Schwartz, 1955, Cassell, 1977, Sanday, 1979, and Guba and Lincoln, 1981, as found in Lincoln and Guba, 1985; and McCracken, 1988).
7) Grounded theory - "the naturalist prefers to have the guiding substantive theory emerge from (be grounded in) the data..." (p. 41). "...Theory that follows from data rather than preceding them (as in conventional inquiry) is a necessary consequence of the naturalistic paradigm that posits multiple realities and makes transferability dependent on local contextual factors" (p. 204). Grounded theory is well suited as a qualitative exploratory methodology to investigate problems for which little theory has been developed (Merriam and Simpson, 1984). Darkenwald, in Long, et al. (1980), pointed out that qualitative researchers may use grounded theory techniques for analytical description or to combine grounded theory with survey research, rather than generating fully developed grounded theory.

8) Emergent design - "the naturalist elects to allow the research design to emerge (flow, cascade, unfold) rather than to construct it preordinately (a priori)..." (p. 41). Qualitative design "...must be emergent rather than preordinate: because meaning is determined by context to such a great extent; because the existence of multiple realities constrains the development of a design based on only one (the investigator's) construction; because what will be learned at a site is always dependent on the interaction between investigator and context, and the interaction is not fully predictable; and because the
nature of mutual shapings cannot be known until they are witnessed" (p. 208).

9) Negotiated outcomes - "the naturalist prefers to negotiate meanings and interpretations with the human sources from which the data have chiefly been drawn..." (p. 41).

10) Case study reporting mode - "the naturalist is likely to prefer the case study reporting mode (over the scientific or technical report)..." (p. 41). The case report provides the inquirer a vehicle for thick description, responsiveness to the axioms of the naturalistic paradigm, and ease of communicating with the consumer (Lincoln & Guba, 1985).

11) Idiographic interpretation - "the naturalist is inclined to interpret data (including the drawing of conclusions) idiographically (in terms of the particulars of the case) rather than nomothetically (in terms of lawlike generalization)..." (p. 42).

12) Tentative application - "the naturalist is likely to be tentative (hesitant) about making broad application of the findings..." (p. 42).

13) Focus-determined boundaries - "the naturalist is likely to set boundaries to the inquiry on the basis of the emergent focus (problems for research, evaluands for evaluation, and policy options for policy analysis)..." (p. 42).
14) Special criteria for trustworthiness - "the naturalist is likely to find the conventional trustworthiness criteria (internal and external validity, reliability, and objectivity) inconsistent with the axioms and procedures of naturalistic inquiry... There exist substitute criteria (called credibility, transferability, dependability, and confirmability) together with corresponding empirical procedures that adequately (if not absolutely) affirm the trustworthiness of naturalistic approaches" (p. 42).

These axioms and characteristics of the qualitative paradigm were the guiding assumptions under which this research was conducted. Justification for the data sources, instrumentation, data collection, and analysis employed in this study was detailed in the remaining segment of Chapter III; however, it should be noted by the reader that this research was initiated and completed with the firm assertion that working within the naturalist paradigm was not only valid, but preferable to the positivist paradigm for the fulfillment of the research objectives:

(1) to identify factors relating to rural community readiness for participation in community and natural resource development Extension education programs.

(2) to define the construct of community readiness, as it exists within the stated context.
Context of the Study

This research focused on one educational program about community development offered by the Ohio Cooperative Extension Service, and consequently included the communities slated to participate in this program between September, 1989, and January, 1990. "Wastewater Treatment Alternatives" is a five-session workshop targeted for small rural communities faced with making expensive decisions about sewage treatment. Because Federal funding for wastewater projects is dwindling (Goldstein, 1986) and because over 14,000 small communities with wastewater facilities are experiencing significant problems (U.S. E.P.A., 1987), this educational program was considered both timely and worthwhile.

The workshop was designed to provide specific technical and broad decision-making information for members of small rural communities and the surrounding areas, such as elected officials (mayors, township trustees, county commissioners), local agency officials (health department personnel, county engineer), and interested citizens (septic tank pumpers, developers, and others). Wastewater treatment is an issue that cuts across socio-economic and racial lines, effecting virtually every member of a community. Additionally, decisions about sewage treatment are often the most costly decisions a small community can make (U.S. E.P.A., 1987). In most cases, community decision-makers have had little or no experience with the subject matter (Mancl, 1989). For all
these reasons, "Wastewater Treatment Alternatives" was determined to be an appropriate case study for examining rural community readiness for participation in an educational program of community and natural resource development.

Research Design

Although naturalistic inquiry necessitates an emergent design, there are issues the naturalist must address, at least provisionally, from the earliest stages of conception and planning: specifying a research problem, determining the fit between inquiry paradigms and the research problem, determining the fit between the selected paradigm and substantive theory to be employed, data sources, scope, instrumentation, data analysis, logistics, and planning for trustworthiness (Lincoln and Guba, 1985). Miles and Huberman (1984) discussed building a conceptual framework, formulating research questions, and data collection and analysis procedures under the umbrella of focusing and bounding the collection of data.

Research Focus

The focus of this research study enfolded from the experience of the researcher with the "Wastewater Treatment Alternatives" educational program, dialogue with the program creator and facilitator, subsequent discussion with community development practitioners, and contact with other community
development programs implemented by the Cooperative Extension
Service. An extensive literature search into community
readiness for educational programs of any kind yielded the two
related sources that were mentioned in Chapter I (Ingram and
McIntosh, 1983; and Schautz, 1985). Narrowing the focus to
Extension programs yielded no existing research. This lack
of available data, coupled with a belief in the potential
usefulness of subsequent data from this research, confirmed
the focus of this study and supported the choice of paradigm.

Conceptual Framework

"A conceptual framework explains, either graphically or
in narrative form, the main dimensions to be studied - the
key factors, or variables - and the presumed relationships
among them" (Miles and Huberman, 1984, p. 28). While some
qualitative researchers may call for highly inductive and
loosely designed studies, others make a case for tight,
prestructured designs. The bulk of qualitative research lies
between these two extremes. In addition, "as qualitative
researchers collect data, they revise their frameworks - make
them more precise..." (Miles and Huberman, 1984, p. 29).

An initial conceptual framework was created for this
research identifying not the key factors influencing community
readiness (since that was subsequently one of the objectives
of the study), but the exploration of key actors or forces
posited as influencing community readiness. As the literature
review progressed, this framework was revised to break down readiness into individual readiness, group readiness, and readiness within communities, and to emphasize the influence of the educational provider and the environmental context (time and place). This conceptual framework was both the source for and result of the five main topic areas of the literature review.

Miles and Huberman (1984) described the formulation of research objectives and related questions as a direct step from the elaboration of the conceptual framework. The framework for exploration of community readiness required a narrowing of the research objectives to the identification of factors relating to rural community readiness for participation in Extension education programs and the subsequent definition of the construct of community readiness, as it exists within the stated context. It may be argued that the construct must be defined before any related factors can be identified; however, this author related that idea to putting the cart before the horses, so to speak.

Prior Ethnography

"Direct, personal contact with and observations of a program have several advantages... by directly observing program operations and activities the evaluator is better able to understand the context within which the program operates. Understanding the program context is essential to a holistic
perspective" (Patton, 1980, p. 124). Lincoln and Guba (1985) strongly suggested prior ethnography to provide both a springboard and benchmark for formal study to follow.

Prior ethnography was viewed by this author as a vehicle for developing greater tacit knowledge on the part of the human-as-instrument. Naturalistic inquiry acts on insight to make it legitimate; tacit knowledge becomes a base for developing hypotheses and is an indispensable part of the research process (Lincoln and Guba, 1985).

Prior ethnography was accomplished in this research through nine months of direct and intimate involvement with the program under study prior to initiation of formal data collection. This inquirer accompanied the program creator and facilitator, Dr. Mancl, to educational meetings in rural communities, acted as assistant, prepared educational materials prior to meetings, and interacted with county agents, program participants, and four state specialists promoting the same program in different states, along with county agents involved with the program in two of the other four states.

Qualitative and Quantitative Methods

"The label qualitative methods has no precise meaning in any of the social sciences. It is at best an umbrella term covering an array of interpretive techniques which seek to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally-occurring phenomena in the social world... (Van Maanen, 1983, p. 9).
The need for concentrated, open-ended exploration and analysis of a bounded phenomenon necessitated an emphasis on the case study method for this research (Guba and Lincoln, 1981; Merriam, 1988; Marshall and Rossman, 1989). Beside providing large amounts of rich, detailed information, the case study approach is very useful as "...supporting information for planning major investigations in that it often reveals important variables or hypotheses that help structure further research..." (Merriam and Simpson, 1984, p. 98), which was the long-term goal of this study. In addition, the case study can provide a unified interpretation from many diverse pieces of information (Bennett, 1979). Marshall and Rossman (1989) highly recommended case study and field study for exploratory research, and went on to suggest several data collection techniques which this researcher used.

Working in tandem with the case study approach was the triangulation of data sources, instruments, data collection techniques, and data analysis procedures, including quantitative data collection and analysis. With the inclusion of documentation, there were no fewer than four types of data sources (including documentation, Ohio Cooperative Extension agents, potential program participants, and community development experts from all over Ohio), five instruments, six data collection techniques, and two data analysis procedures within this research study. "The effectiveness of triangulation rests on the premise that the weaknesses in each
single method will be compensated by the counter-balancing strengths of another" (Jick, as found in Van Maanen, 1983, p. 138). The use of qualitative methods in triangulation also allows the researcher to sustain a profitable closeness to the situation and, consequently, great sensitivity to the multiple sources of data (Van Maanen, 1983).

Data Sources

The initial data source for this research study was the extensive literature review, which yielded many possible factors of influence on community readiness for participation in CNRD Extension education programs. Documentary materials were considered as potentially valuable for data as observations and interviews (Glaser and Strauss, 1967).

Further data sources for this research were chosen purposely, with no intent upon random sampling. The demand for emergent design in the naturalistic paradigm had a direct effect upon the unfolding selection of data sources throughout the data collection process (Bogdan and Biklen, 1982; Miles and Huberman, 1984; Lincoln and Guba, 1985; Marshall and Rossman, 1989). Research objectives guided data source selection, with theoretical or data saturation as the criterion for judging when to stop collecting data from a particular source (Glaser and Strauss, 1967; Morgan, 1988). "As a qualitative researcher...the direction you will travel comes after you have been collecting the data, after you have
spent time with your subjects" (Bogdan and Biklen, 1982, p. 29).

Another data source throughout the data collection process was the key informant of Dr. Karen Mancl. Although Dr. Mancl was formally face-to-face interviewed with the same instrument used with community development experts, the vast amount of time spent informally discussing the research study provided an important source of rudimentary information for the researcher-as-instrument. In addition, the assistant moderator for all group interviews, Dr. Lisa Kitinoja, was an invaluable source of informal observation, guidance, and co-analysis.

Remaining data sources for this research study were, in more or less chronological order, as follows:

1) Ohio Cooperative Extension Service county agents who had previously worked with Dr. Mancl on a "Wastewater Treatment Alternatives" program workshop. Out of a population of ten, nine were accessed.

2) Potential program participants attending the promotional meetings in Logan, Pike, and Miami counties, and all program participants attending the subsequent workshop meetings in all three counties between September and December, 1989.

3) Four community development experts: a CNRD state specialist for the Ohio Cooperative Extension Service, the Acting Director of The Ohio Farmer's Home
Administration, a private engineering consultant with significant rural community experience, and, as previously mentioned, Dr. Mancl.

4) The Holmes County Extension agent who cancelled a proposed promotional meeting.

5) Various documentation generated by or associated with the "Wastewater Treatment Alternatives" workshop.

It should be duly noted that each data source was either contacted directly or through the Ohio Cooperative Extension Service for informed consent before inclusion in the research study.

Instrumentation

There was a continual tension throughout this research study between the need for little front-end instrumentation to allow for the naturalistic exploration of the research objectives and the need for considerable prior instrumentation to facilitate timely, generalizable data collection with validated instruments. Miles and Huberman (1984) portrayed the former as an exploratory study and the latter as a confirmatory study, but subjugated that by saying "...within a given study, there can be exploratory and confirmatory aspects...or there can be exploratory and confirmatory times..." (p. 43).
It was the decision of this researcher to straddle this methodological fence by conducting research that was exploratory in nature with confirmatory aspects in regard to those factors identified within the literature review. Because a large number of people were being interviewed in this research, it was determined to use a structured format to increase consistency from one interview to the next (Merriam and Simpson, 1984). This would indicate a leaning toward confirmatory aspects of instrumentation within the exploratory study as a whole.

The initial basis for the development of instrumentation was, again, the extensive literature review conducted for this research study. The factors related to community readiness for participation in Extension education programs that were discovered in the review and synthesized into the four categories outlined previously provided a framework for the development of research instrumentation. At all times, however, there was a distinct effort to allow for the opportunity of other factors rising to the surface, principally from open-ended questions and solicitation of additional commentary.

Each category of factors was analyzed and further synthesized so that the minimum number of questions could potentially elicit all the factors heretofore unidentified. For example, the first question in the participant group interview was directed at the expression of felt or unfelt
need (see Appendix A). It was determined by the researcher that the question was sufficiently broad enough to elicit all the identified responses (factors) associated with the question and open enough to elicit responses not identified (emergent factors). Similar open-ended questions were developed for all the identified factors in each of the four categories.

The resulting questions and their antecedent factors were further analyzed in accordance with what was to be asked of each data source. The questions were revised to reflect the information desired of each data source.

The revised questions were further assessed to determine the most appropriate means of data collection from each source. For example, questions concerning individual readiness, demographic questions, and questions determined to be most threatening that were all sought from program participants were placed in a theoretical pile for an individual (versus group) non-verbal means of data collection. This pile of questions evolved into the written questionnaire given to program participants (see Appendix A). Where group interaction was deemed essential for proper response, the question was placed on the group interview schedule. Texts by Patton (1980), Sudman and Bradburn (1982), Lincoln and Guba (1985), and Mueller (1986) served as guides to proper question development and data collection methods.
Five instruments were subsequently developed: a group interview schedule for potential program participants, a written questionnaire for potential program participants, a focus group interview schedule for county agents, a face-to-face interview schedule for community development experts, and a face-to-face interview schedule for the Holmes County agent (Appendix A). The first four instruments were given to a panel of experts to determine construct validity, content validity, face validity, item clarity, wording, format, threatening questions, and overall appearance. Minor revisions were then made, mainly in format and question sequencing. The face-to-face interview schedule with the Holmes County agent was not given to the panel of experts due to the need for its development toward the end of data collection; however, it borrowed liberally from the face-to-face interview schedule and focus group interview schedule that were reviewed by the panel of experts.

Pilot testing was conducted for all the instruments, except the focus group interview schedule and Holmes County agent interview schedule since both were one-time interviews with the total population.

Data Collection

The data collection in this research study emphasized triangulation of methods with an emergent design. Data collection methods employed by this inquiry included: focus
group interview, face-to-face interview, written questionnaire, and documentation. The following discussion of data collection procedures was in, more or less, chronological order.

**Group Interview and Written Questionnaire**

The first data collected after the completion of the majority of the literature review were the data collected during the pilot testing of the group interview and written questionnaire. Because rural community readiness, and consequently the readiness of community members, to participate in Extension education programs was the focus of this research, it was determined to collect data from potential program participants before the program began. This ensured an emphasis on readiness for participation rather than participation itself, and eliminated the possible impacts to readiness from the program presenters, the subject matter presented, and prolonged group interaction. To enable data collection prior to program implementation, data were collected at the program's promotional meetings scheduled approximately one to two months before program implementation. County agents were previously given a suggested list of groups or individuals to contact about the promotional meeting, such as township trustees, Health Department personnel, and interested citizens, and tips on how to contact them (news releases, addressing local meetings, etc.). Dr. Mancl
typically held an in-service training session for all county agents preparing to assist her in implementing this educational program in their counties. County agents in Logan, Miami, Pike, and Holmes Counties informed those community members contacted about the promotional meeting that data would be collected from them immediately prior to Dr. Mancl's presentation.

The group interview and written questionnaire developed to collect data from potential program participants were designed to allow for forty-five minutes of group interview time and fifteen minutes to complete the individual written questionnaires. One hour of data collection was considered by Dr. Mancl, the county agent, and myself to be the maximum respondents would tolerate prior to the anticipated promotional presentation.

The standardized open-ended interview approach detailed by Patton (1980) was adopted for conducting the group interview, with exact wording and sequencing of questions determined in advance of the interview. Other authors consulted about interviews and interviewing approaches included Dexter, 1970; Guba and Lincoln, 1981; Bernard, 1988; and Marshall and Rossman, 1989.

The first data collection with these two instruments was considered a pilot test. The promotional meeting in Logan County was chosen by nature of convenience: it was the next scheduled meeting after the completion of instrument
development. The evening meeting was held in the Ohio Cooperative Extension Service office in Bellefontaine on August 29, 1989. The county agent introduced Dr. Kitinoja and me at the beginning of the meeting, then excused himself until all the data were collected. Dr. Mancl was not present until after completion of data collection. This researcher served as interview moderator with Dr. Kitinoja as assistant moderator.

The participants were given a brief explanation of the research and how data collection would proceed. Participant confidentiality was assured, and the future use of the collected data was outlined. All of those present agreed to participate. Proceedings were tape recorded and Dr. Kitinoja took notes throughout the interview. The interview lasted the allotted forty-five minutes and written questionnaires were returned in slightly less than fifteen minutes.

Debriefing between the interview moderator and assistant moderator immediately followed the data collection. It was the general consensus that the data collected tended to confirm many of the factors identified in the literature review, while several unforeseen factors also surfaced. The issue of whether the instrument was biased by the researcher was raised. After some discussion, the instrument was affirmed to be trustworthy (due to implemented credibility and dependability procedures discussed later in this chapter), but the interview approach was deemed inappropriate. This concern
was related to the unwanted formality felt during the group interview, along with the occasional answering of a yet-to-be-asked question by respondents. It was deemed advantageous to allow for investigator responsiveness by assuming an intermediate stance between what Patton (1980) called the interview guide approach and the standardized open-ended interview approach. The opportunity for the interviewer to decide sequencing and working of the questions during the interview was retained from the interview guide approach in combination with the approximate wording and basic sequencing of the interview schedule in advance retained from the standardized open-ended interview approach. The goal was to obtain a more conversational feel typical of the interview guide approach, while minimizing the possible researcher loss of credibility from asking questions that have already been addressed by respondents (Patton, 1980). This modified interview approach was maintained for all the subsequent group interviews with potential program participants.

Because only minor changes were made to the two instruments employed in data collection from this source, the data collected during this pilot test were included in the findings. Data were collected in this fashion at two more promotional meetings held in Miami County on the evening of October 4, 1989, and in Pike County on the evening of October 5, 1989. The promotional meeting scheduled for Holmes County was cancelled before data collection could take place (see
Appendix B). Procedures were handled in exactly the same manner as those detailed above. The assistance of Dr. Kitinoja during these additional data collections provided continuity to the process.

Due to the emergent nature of the naturalistic inquiry, formative data analysis was ever-present as a catalyst to further data collection. During the collection of data from potential program participants and subsequent formative analysis, the issue was raised as to the representativeness of community members, mainly leaders, present at the promotional meetings in comparison with the community in general. This issue had a direct impact upon the perceived need to collect data from community members not at the promotional meetings or other members of the community. An article by Ayres and Potter (1989) comparing attitudes of rural leaders and attitudes of residents toward community change, along with data saturation from respondents interviewed, prompted this researcher to refrain from collecting further data from this particular source. Discussion of this issue was elaborated upon in the conclusions in Chapter V.

Justification for the interview method of data collection was best summed up by Guba and Lincoln (1981), who stated:

The ability to tap into the experience of others in their own natural language, while utilizing their value and belief frameworks, is virtually impossible without face-to-face and verbal interaction with them (p. 155).
In addition, the interview process allows for a wide variety of information from a large number of subjects with immediate follow-up questions (Marshall and Rossman, 1989).

Focus Group Interview

The next data collected after the pilot test in Logan County were in the form of a focus group interview with county agents of the Ohio Cooperative Extension Service who had previously worked with Dr. Mancl on a "Wastewater Treatment Alternatives" workshop. All ten agents were contacted by telephone approximately six weeks prior to the interview, and were given mailed reminder notices one week prior to the interview. Agents were then called one or two days before the interview for confirmation. All ten agreed to participate. It was determined to interview the agents following a complimentary luncheon at the Red Brick Tavern near London, Ohio on September 20, 1989. This date coincided with the nearby Farm Science Review activities and proved to be a convenient time and place to gather the busy agents. An additional incentive was offered: two Cross pens with Ohio State University insignia on them distributed by mail one week following the interview.

Nine of the ten agents attended. This researcher served as interview moderator, with Dr. Kitinoja as assistant moderator. Dr. Kitinoja took notes throughout the interview. The focus group interview was started in the same manner as
the group interview/written questionnaire data collection methods. All nine agents agreed to participate. Proceedings were tape recorded. The interview lasted approximately one hour and forty minutes. The moderator exercised qualitative responsiveness by adopting the modified interview approach used after the group interview/written questionnaire pilot test.

Debriefing between moderator and assistant moderator immediately followed the data collection with informal data analysis again generally confirming the influence of factors identified in the literature review and verbalized during the pilot testing of the potential program participant instruments. These two instruments were again examined in comparison with data gathered from the Extension agents during the focus group interview, with particular scrutiny as to comprehensiveness and trustworthiness. Two revisions were made to the group interview/written questionnaire instruments by adding a question and changing question sequencing on both.

The focus group interview method was chosen for the county agents due to its procedural and substantive strengths in exploring topics, generating hypotheses, and observing a large amount of group interaction on a topic in a limited period of time. The focus group interview method was viewed as an intermediately-controlled means of data collection, i.e., more controlled than participant observation but less controlled than individual interviewing (Morgan, 1988).
In combination with other methods, focus groups can be used either as preliminary research to prepare for specific issues in a larger project, or as follow-up research to clarify findings in the other data (Morgan, 1988, p. 24).

This study used the focus group interview in both ways: as follow-up research to clarify the data obtained in the literature review and to analyze in comparison with the pilot test data, and as preliminary research to prepare for further data collection from potential program participants and other data sources.

Face-to-Face Interview

The face-to-face interview method was used to collect information from community development experts both inside and outside the Ohio Cooperative Extension Service, and the agent serving in Holmes County. As discussed in the instrumentation section, these were structured face-to-face interviews with an established interview schedule. The purpose of these interviews was as an exploratory devise to help identify factors possibly influencing rural community readiness for participation in Extension education programs, and as a supplement to the other data collection methods for confirmation of identified factors (Kerlinger, 1986).

The face-to-face interview instrument was pilot tested with Dr. Mancl. As with the group interview, the standardized open-ended interview approach was used (Patton, 1980). Dr.
Mancl and this researcher were the only ones present during the interview, which was tape recorded. The interview took place in the interviewee's office. No incentive was used. A brief discussion of the research preceded the interview.

Subsequent face-to-face interviews were conducted in the same manner except that an intermediate stance between the standardized open-ended interview approach and the interview guide approach was adopted, just as had been adopted with the group interview after pilot testing. Subsequent interviewees included an Ohio C.E.S. state specialist in Community & Natural Resource Development, the Acting Director of the Ohio Farmer's Home Administration, and a consulting engineer for a private firm with considerable rural community experience who had been identified by the previous interviewee. All interviews were conducted between September and December, 1989.

One final face-to-face interview was conducted with the Holmes County Extension agent slated to work with Dr. Mancl on a "Wastewater Treatment Alternatives" workshop. A proposed promotional meeting was cancelled by the agent, who cited lack of interested persons as the reason. It was deemed quite advantageous to collect data from the Holmes County agent, particularly in addressing the issue of community readiness and whether the promotional meeting was cancelled due to a lack of readiness within the community. The interview was conducted in the same manner as those previously mentioned,
except with an even greater leaning toward the interview guide approach. A less-structured, more open approach was concluded to be most appropriate for the exploratory nature of the interview (Patton, 1980).

Participant Observation

"Scientific inquiry using observational methods requires disciplined training and rigorous preparation" (Patton, 1980, p. 122). "Training researchers to become astute and skilled observers is particularly difficult..." (Patton, 1990, p. 201). Due to the lack of experience by this researcher in conducting valid, reliable participant observation, no formal data collection was attempted with this method. However, this inquirer did observe the majority of the "Wastewater Treatment Alternatives" program meetings in Logan, Pike, and Miami counties for informal exploration of rural community readiness and community member participation in an Extension education program about community and natural resource development.

Documents and Records

Documents and records related to the "Wastewater Treatment Alternatives" educational program were collected from participants in each of the three counties measured. Attendance sheets, pretests and post-tests, educator evaluations, news releases, and data from the community survey conducted by program participants in Miami County were all
amassed and analyzed as to their relation to rural community readiness for the aforementioned activities.

Documents and records were considered to be non-reactive, stable, rich sources of information about program participants and, hopefully, the community's readiness to participate (Lincoln and Guba, 1985).

Establishing Trustworthiness

The qualitative paradigm requires the establishment of trustworthiness through credibility, transferability, dependability, and confirmability as appropriate alternatives to the positivist's internal and external validity, reliability, and objectivity. These qualitative criteria, together with corresponding empirical procedures, affirm the trustworthiness of a naturalistic approach (Lincoln and Guba, 1985).

Credibility

The credibility criterion is the naturalist's substitute for the conventionalist's internal validity. For the purposes of this study, the following techniques were used to establish credibility:

1) Prolonged Engagement - "...prolonged engagement is the investment of sufficient time to achieve certain purposes: learning the 'culture', testing for
misinformation introduced by distortions either of the self or of the respondents, and building trust" (Lincoln and Guba, 1985, p. 301).

A criticism leveled at qualitative (and quantitative) researchers has been that some inquirers spent little time learning the overall aspects of a research subject before focusing intensely on narrower details. The prior ethnography by the researcher's association with the Extension education program studied, along with other Extension CNRD programs, accorded the investigator ample opportunity to detect and take account of distortions that might otherwise creep into the data. Multiple data sources from varying areas of the state were used as a hedge against respondent distortions. In addition, the extensive literature review was viewed as a means of providing excellent scope and boundaries for the study.

...qualitative studies are not impressionistic essays made after a quick visit to a setting or after some conversations with a few subjects. The researcher spends a considerable time in the empirical world laboriously collecting reviewer piles of data. The data must bear the weight of any interpretation, so the researcher must constantly confront his or her own opinions and prejudices with the data (Bogdan and Biklen, 1982, p. 42).

2) Persistent Observation - "...the purpose of persistent observation is to identify those characteristics and elements in the situation that are most relevant to the
problem or issue being pursued and focusing on them in
detail...persistent observation provides depth" (Lincoln
and Guba, 1985, p. 304). Detailed and consistent
recordings of the multiple data sources along with
continuous participant observation provided the depth
recommended.

3) Triangulation - two appropriate modes of triangulation
for the naturalistic inquirer are the use of multiple
and different sources and methods. This research study
used six data sources with six data collection methods.
"When a hypothesis can survive the confrontation of a
series of complementary methods of testing, it contains
a degree of validity unattainable by one tested within
the more constricted framework of a single method" (Webb,
et al., 1966, as found in Kirk and Miller, 1986, p. 30).

4) Peer Debriefing - two peers were briefed throughout the
research process to keep the researcher honest. One peer
had not been exposed to the research objectives and the
other peer was directly involved. Both peer's comments
were compared and contrasted in probing inquirer biases,
exploring meanings, and clarifying interpretations.
Emergent design was similarly discussed.
5) Negative Case Analysis - is the process of continuously refining a hypothesis until it accounts for all known cases without exception (Lincoln and Guba, 1985). The exploratory nature of this inquiry provided for the expression of any factors influencing rural community readiness for participation in Extension education programs and, therefore, had few barriers against any data 'fitting' into the objectives of the research. However, the cancellation of the Holmes county promotional meeting (and subsequently, the cancellation of corresponding data collection) provided for inclusion of additional investigation into data that seemingly did not fit into the case study's established pattern.

6) Member Checks - consist of testing data, analytic categories, interpretations, and conclusions with members of those stakeholding groups from whom the data were originally collected (Lincoln and Guba, 1985). For this research study, conclusions were checked by research advisors because the majority of the multiple data sources could not be consulted to confirm the findings. Dr. Mancl served as one member check since she was interviewed as a community development expert.
Transferability

"The establishment of transferability by the naturalist is very different from the establishment of external validity by the conventionalist" (Lincoln and Guba, 1985, p. 316). The qualitative researcher cannot specify the external validity of an inquiry; however, he or she can provide the thick description necessary for a data base that makes transferability judgments possible on the part of potential appliers.

What becomes useful understanding is a full and thorough knowledge of the particular, recognizing it also in new and foreign contexts. That knowledge is a form of generalization too, not scientific induction but naturalistic generalization, arrived at by sensing the natural covariations of happenings. To generalize this way is to be both intuitive and empirical, and not idiotic (Stake, 1978, p. 6).

The intention of this research was to provide a data base regarding readiness within a rural community for participation in CNRD Extension education programs with data wide enough in scope and detailed enough to be considered valuable by Extension educators and community development practitioners. Future qualitative and quantitative research on the same topic would support the credibility of the observations.

Triangulation of multiple data sources, a cornerstone of this research, enhanced the study's transferability. "Designing a study in which multiple cases are used, multiple informants or more than one data gathering technique can
greatly strengthen the study's usefulness for other settings" (Marshall and Rossman, 1989, p. 146).

**Dependability and Confirmability**

Just as there can be no validity without reliability in a quantitative study, there can be no credibility without dependability in a qualitative study. If a demonstration of the former is sufficient to establish the latter, one would return to those measures detailed in establishing credibility. Nevertheless, several authors suggested methods applied in the study to directly strengthen the overall dependability of the research.

1) **Overlap methods** - are represented by the triangulation procedures of this study detailed previously, including the collection of both qualitative and quantitative data (Lincoln and Guba, 1985).

2) **Constant search for negative instances** (Glaser and Strauss, 1967). The continual redefinition of factors and restructuring of categories in this study relied upon the search and discovery of negative instances.

3) **Audit trail** - is the examination of the research inquiry process by an auditor to reduce the possibility of fraud and error; and examination of the data, findings, interpretations, and recommendations to establish confirmability of the inquiry (Lincoln and Guba, 1985). For the purposes of this research, the auditors were
research advisors and the assistant interview moderator, Dr. Kitinoja, who determined the acceptability of the inquiry process, and reviewed raw data, data reconstruction, and analysis processes in order to establish dependability and confirmability.

**Data Analysis**

"...Many qualitative researchers still consider analysis an art and stress intuitive approaches to it" (Miles and Huberman, 1984 b., p. 22).

A thorough investigation into past and present literature revealed a considerable lack of formal approaches to qualitative data analysis; nevertheless, several authors offered their own suggestions for conducting analysis in a reasonable, mainly intuitive manner (Glaser and Strauss, 1967; McCall and Simmons, 1969; Van Maanen, 1983; Miles and Huberman, 1984; Lincoln and Guba, 1985; Strauss, 1987; Marshall and Rossman, 1989; and Patton, 1990). The overriding consideration of the analysis was an attempt to be reflective of the entire research process, starting with the structural categories formed from the literature review. Relying substantially on analytic induction, emergent factors were analyzed in light of the categories to isolate necessary and sufficient characteristics for the phenomenon to occur while
searching for negative cases to bring about a reformulation or redefinition. There was an aspect of constant comparison in the latter stage of analysis, both in the negative case search and the saturation of data within a category. Data reduction entailed not only the recognition of specified factors from the literature review and a constant search for new or differing factors, but also the representation of each factor in the form of quotes and the identification of themes or sub-categories arising within the structural categories.

All of the data deemed qualitative in nature that were obtained from the written questionnaires were combined with other qualitative data and analyzed in the manner stated previously. Quantitative data from the written questionnaires were analyzed with SPSSx-PC (Statistical Package for Social Sciences). The instrumentation for collection of quantitative data was designed to yield factors of community readiness that were then tabulated for frequency, represented by percentage or mean. Data from the three counties (Logan, Miami, and Pike) were analyzed separately and as a collective whole.

Related documentation from the "Wastewater Treatment Alternatives" workshops was compiled and tabulated. Analyzed data were expressed in numerical form, percentage, and by the mean (see Appendices C, D, and E).
The forwarding of a definition of community readiness within the stated context (research objective #2) was based upon the holistic evaluation of the literature review as it was impacted by the identified and emergent factors relating to rural community readiness for participation in Extension education programs (research objective #1).
CHAPTER IV

REPORT OF FINDINGS

The qualitative and quantitative data collected during this research study were the end products of exploring rural community readiness for participation in community and natural resource development Extension education programs. Although the Cooperative Extension Service and numerous other organizations have been providing educational programs for community development for many years, relatively no research has been conducted to examine the construct of community readiness for participation in those programs. The purpose of the research was to provide initial observations regarding readiness within a community for the stated activities, and to generate further discussion and evaluation concerning the construct as it pertains to implementation of educational efforts by the Extension Service and other community development practitioners. Research objectives of this research were: 1) to identify factors relating to rural community readiness for participation in CNRD Extension education programs, and 2) to define the construct of community readiness, as it exists within the stated context.
A naturalistic inquiry was adopted to allow for the emergence of any factor relating to community readiness, with a triangulation of several data sources, instruments, and methods. Data were analyzed and reported through the four structural categories: demographics and related factors, felt need, action orientation, and constraints or motivators formed from the extensive literature review. Each emergent factor was examined, in turn, within their respective categories throughout Chapter IV and V, but also appeared whenever they were suggested as possibly related to another factor being discussed. Factors were underlined within the text, but not within quotes.

Designation of data sources for the purposes of quotation was accomplished in the following fashion: (PPP) denoted potential program participants, including all community residents attending the promotional meetings; (OCEA) denoted Ohio Cooperative Extension agents; and (CDE) denoted community development experts. One of these designations was assigned to every representative quote. Data collected from potential program participants at each of the three promotional meetings were separated and signified by the county in which the meetings were held - Logan County, Miami County, and Pike County - accompanied by the county in which the promotional meeting was cancelled - Holmes County (see Appendix B).

Additional data were collected after the promotional meeting using interviews/questionnaires in each county in an
effort to understand rural community readiness based in part upon the subsequent participation of community residents in the "Wastewater Treatment Alternatives" program. As stated in the definition of terms, participation was defined as 1) attendance of learners in the educational program, and diversity of those attending based on demographic characteristics, and 2) participation of learners in a face-to-face community needs assessment survey described in the program, as evidence of a higher level of participation. Based on this definition, this researcher concluded that varying levels of participation, and therefore varying levels of community readiness to participate, were evident among the four counties of the study. Although this conclusion was discussed more fully in Chapter V, it was deemed advantageous to offer readers the concluded levels of community readiness to participate in an Extension education program prior to presentation of the findings.

The communities in the four counties varied in their participation levels in the following manner:

1) The Holmes County agent cancelled the promotional meeting. No participation was observed.

2) The Pike County community's village council sent a letter after the promotional meeting expressing their thanks and lack of interest in participating in the program at that
time (see Appendix E). Nevertheless, the program was started and two persons attended the first workshop session. The program was consequently cancelled.

3) Logan County community residents participated in all five of the workshop sessions (see Appendix C).

4) Miami County community residents participated in all five of the workshop sessions, and several participants spearheaded a face-to-face community needs assessment survey in their township (see Appendix D).

The conclusion was thus drawn that Holmes County exhibited the lowest level of community readiness to participate in an Extension education program, Pike County exhibited slightly more readiness than Holmes County, and Logan and Miami Counties exhibited the highest levels of community readiness for the stated activities. Miami County was considered slightly more ready than Logan County by virtue of the fact the participants conducted the community needs assessment survey.

The ultimate participation, of course, is if they do the face-to-face interview and they collect information in a formal way (CDE).
Demographics and Related Factors

The demographic factors that emerged in data collection and analysis were gleaned primarily from the written questionnaire given to potential program participants, while the related factors of community history and environmental factors surfaced from multiple data collection sources and instruments.

The age of potential program participants surveyed had an overall mean of 53-years-old. The age range of potential participants varied from 28 to 87 and 28 to 77 in Pike and Miami Counties, respectively, to a shorter range of 33 to 64 in Logan County. Age was mentioned as a contributing factor to attitude toward learning and change, in that younger people were purported as possessing a more positive attitude within communities.

A lot of younger people are coming in. And these younger people are taking an interest in the small community because they want to live in the small community. The older people are pretty well set in their ways and they want to, it's always been that way and that's the way it's going to be. But the younger ones are more willing to change (PPP).

At the same time, the Holmes County agent stated that age was not a factor in Amish members of the community complaining about changes, while becoming increasingly dependent upon those changes and growth for the employment of the Amish youth. Age of the community itself was also noted as a possible influence.
A brand new community that's just built, they don't have any...problems yet... So, a community has to be, the sewage systems in that community have to be mature. They're beginning to fail (CDE).

The gender of potential program participants was 76% male overall. Pike County promotional meeting attendees were 56% male, Logan County attenders were 92% male, and Miami County attenders were 91% male. Gender never emerged in any of the remaining data.

Education level of all potential program participants was represented on the following table (Table 1).

<table>
<thead>
<tr>
<th></th>
<th>Pike</th>
<th>Logan</th>
<th>Miami</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some High School</td>
<td>12%</td>
<td>-</td>
<td>-</td>
<td>6%</td>
</tr>
<tr>
<td>High School Diploma</td>
<td>44%</td>
<td>23%</td>
<td>27%</td>
<td>35%</td>
</tr>
<tr>
<td>Some College</td>
<td>16%</td>
<td>31%</td>
<td>64%</td>
<td>31%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>2%</td>
<td>15%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>2%</td>
<td>15%</td>
<td>-</td>
<td>6%</td>
</tr>
<tr>
<td>Doctorate Degree</td>
<td>2%</td>
<td>15%</td>
<td>-</td>
<td>6%</td>
</tr>
</tbody>
</table>

\[
\text{n = 21} \quad \text{n = 13} \quad \text{n = 11} \quad \text{n = 45}
\]

Education level was suggested as an influence upon community readiness by a potential program participant.

Level of education makes a difference too, I think. There's some people that are knowledgeable, or know how to find knowledge. They know how to use the system (PPP).
Income of all potential program participants was represented on the following table (Table 2).

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Pike</th>
<th>Logan</th>
<th>Miami</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $15,000/yr.</td>
<td>36%</td>
<td>-</td>
<td>9%</td>
<td>20%</td>
</tr>
<tr>
<td>$15,000 - $24,999/yr.</td>
<td>20%</td>
<td>15%</td>
<td>28%</td>
<td>23%</td>
</tr>
<tr>
<td>$25,000 - $34,999/yr.</td>
<td>12%</td>
<td>31%</td>
<td>27%</td>
<td>21%</td>
</tr>
<tr>
<td>$35,000 or above</td>
<td>16%</td>
<td>54%</td>
<td>36%</td>
<td>36%</td>
</tr>
</tbody>
</table>

n = 22  n = 12  n = 10  n = 44

This factor emerged together with education level, but was most often linked with environmental factors, such as location.

Where you really see a lot of interest [for an educational program] is in the rather affluent communities... Also, those types of people tend to be much more educated anyway (CDE).

Something that's related to attitudes that would have an affect [on community readiness] too might be the level of income in various communities, due to various resources (PPP).

Most of our people around the village and in the village here are usually, most of them are living on fixed incomes. And a lot of them are elderly. It's not like you're getting around Columbus or Waverly where all the plants are and everything. The bring-home money is a lot more [there] than what it is around here (PPP).
The Appalachian region was noted as being poorer and thus containing communities that would be less ready.

I just think about Appalachia. There are 29 Appalachian counties here in Ohio, in southeast. We just certainly don't have the road system that we do in northwest Ohio. We don't have the growth in those communities. We don't have the lending institutions down there that we do in other parts of the state. Part of [the lack of readiness] is attitudinal, I think, and part of it is, uh, some limitations on resources... (CDE).

**Occupations** of potential program participants were divided into degrees of involvement with the education program's subject matter (wastewater treatment) as primary, secondary, and not involved. For example, a sewage plant operator was denoted as primary, a Health Department employee as secondary, and a postal worker as not involved. Overall percentages generally reflected an occupational non-involvement with the subject matter of the Extension program (8% primary, 6% secondary, and 86% not involved). The qualitative data that surfaced about occupation was one reference to a wide variety of occupations as being necessary for community action to occur.

I guess having the right mix of people that are willing to work together to try to address particular concerns and needs within a community [increases readiness]... I'm thinking of people that are in different locations and different occupations... So, I think it's good to have that input from a good mix of different vocations, occupations, what-have-you, within the community (CDE).
The elected status of potential program participants emerged from several data sources. The percentage of PPP that were elected officials varied from 40% in Pike County to 38% in Logan County to 73% in Miami County. More often than not, elected status was closely associated with decision-making processes and role expectation:

[Citizens of rural communities] elect people to make their decisions. That's why we're elected to office (PPP).

Similarly, a workshop participant who lost her elected status while attending the sessions ceased participating after the election. Elected officials were also listed as necessary for community decision-making or action to occur.

In one county there was an election in the middle of the workshop, and some people didn't get re-elected... They were no longer an elected decision-maker so they didn't come anymore (CDE).

...I'm thinking of people that are in different locations and different occupations, such as school teacher, the High School principal, the owner of one of the larger businesses within the community, representation of the governing board in the community, whether it be mayor or whether it be council..., representation from quote, so-called noted leaders within the community, representation from Extension service..., and maybe representation from, maybe, certain active groups, such as chamber, or Lion's Club, or so forth... I think that does a lot to help have a greater drawing power, so to speak... And I think where it is pulled together, you'll tend to see more things happening in those communities (CDE).
Proximity of potential program participants to the learning activity was judged by their distances from the meeting site for the Extension program. The mean miles from the meeting site for county community members was less than 2 miles in Pike, 9 miles in Logan, and 7.4 miles in Miami. This factor was not expressed in any qualitative data.

A surfacing idea that could possibly be a new factor was community density. One community development expert offered an explanation about community density affecting readiness.

Community density. The closer the people live to each other, the more likely they are to work on a community decision because they really affect each other more (CDE).

Pre-requisite learning of potential program participants was quantitatively measured in this study by their past experience with the subject matter (wastewater treatment) and categorized as 'not at all experienced', 'somewhat experienced', or 'very experienced'. The following table (Table 3) represented the findings:

<table>
<thead>
<tr>
<th></th>
<th>Pike</th>
<th>Logan</th>
<th>Miami</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all experienced</td>
<td>68%</td>
<td>38%</td>
<td>55%</td>
<td>57%</td>
</tr>
<tr>
<td>Somewhat experienced</td>
<td>20%</td>
<td>38%</td>
<td>27%</td>
<td>26%</td>
</tr>
<tr>
<td>Very experienced</td>
<td>4%</td>
<td>24%</td>
<td>18%</td>
<td>12%</td>
</tr>
</tbody>
</table>

n = 23  n = 13  n = 11  n = 47
This form of the factor was mentioned in the qualitative data as well.

You have a real, real diversity of readiness from just the education standpoint of: they may or may not be familiar with the [subject matter] (CDE).

Experience with the subject matter was viewed as merely a part of pre-requisite learning, not as the whole, and was grouped with other factors such as education level and past participation in groups to yield a more complete picture of the factor. Another part of pre-requisite learning that arose in the data was the knowledge of available resources and sources of further information.

If [the community] is ideally ready, they are familiar with the, generally, the type of system that they're going to be getting. They will be familiar with financing alternatives and they will be familiar with the agencies that are involved in developing the project (CDE).

Level of education makes a difference too, I think. There's some people that are knowledgeable, or know how to find knowledge. They know how to use the system (PPP).

Pre-requisite learning was proported to be an advantage in readiness to participate, either as helping the group or community perception of the problem, or as tipping the scales in favor of one individual being ready to participate over another individual.
[Readiness is greater] when they start getting educated to the point that they recognize health problems and they recognize personal problems, and a whole gammit of things... (CDE).

If the person knows all the steps he has to do to get something done, he may be more ready than the other guy that doesn't know (CDE).

Going hand in hand with pre-requisite learning was the learner's past participation in groups. The promotional meeting attenders listed their past participation in groups in the following manner: 60% were, or had been, involved in groups in Pike County, 85% in Logan County, and 91% in Miami County. The most prevalent group memberships were in local government groups (village council, planning boards) and public service organizations (Lions, Rotary). Other groups mentioned, in order of frequency, were church groups, professional associations, social clubs, political organizations, and subject-specific or national groups (Sierra Club).

Community history, the collective past experiences of a community, was expressed as a factor of community readiness by every type of data source accessed. Aspects of community history that were perceived as positively relating to community readiness took on three separate themes: a positive past experience with community development, a positive response to a negative past experience with community
development, and the vicarious experiences of the community.

Positive past experiences most commonly mentioned were the formation of fire and ambulance services with volunteer efforts. The factors of amount of local initiative or support and attitude toward cooperative action/group setting were viewed as related to the positive past experiences of the community.

We formed a fire district - first one around here. As a small community and township we didn't have any way to finance the fire department. So, we started digging...and found out the information and went through all the paperwork that we had to go through and got it done...We stuck at it and we got something that is very good today and a lot of people ask us how we did it...Everybody worked together (PPP).

In nineteen hundred and seven, my father was mayor of (town) and they bought a fire engine from a company up in Delaware...and that fire engine is still here and it was pulled by hand. And then we've been putting in cisterns around over town and had water, and we'd fight fires when the bell would ring at night. Everybody was out with a bucket and ready to help (PPP).

As far as any changes, we have had a change, improvement in the last ten years when we had the emergency squad separated from the fire department and now they have their own building now and the ambulance is there. And trained crews available twenty-four hours a day (PPP).

But they financed that by private contributions (PPP).

The second theme, a positive response to a negative past experience with community development, was expressed in both present and past tense.
Sometimes it's a situation where something negative is happening...As a result of something negative happening, there's a lot of positive people coming out and saying 'let's be positive'...Community involvement (OCEA).

There had been some people that had tried to establish a fire department for the rural area and they had been unsuccessful in their attempts to approach the [township] trustees to get it organized. And, uh, the catalyst that started the whole ball rolling was that there was a tragic loss of life in a fire in the township. At that time, the people mobilized and established a private fire company. It was entirely supported by volunteer effort and fundraisers (PPP).

Usually we're proactive after, after an original negative situation, either in our own community or someone else's, forced us to be proactive (CDE).

Lastly, community history was stated as a reinforcement to community readiness through watching the experiences of nearby communities, which is closely associated with cultural momentum. Both positive and negative examples were given.

I think we have the unique opportunity of, uh, not making the blunders we've seen in other communities (PPP).

If a neighboring community is going, is facing a same or similar issue, and they're watching how that particular community is approaching it...the good decisions and the bad decisions that [the other community] is making effects their readiness to tackle the problem (CDE).

So, whether or not the community has had a previous experience or has had a vicarious experience [effects readiness] (CDE).
A negative aspect of community history for community readiness was the example of a community handing over their problem to the county, related to a negative ownership of the problem.

They would put in a development, businessmen or a group would put it in, put in a waste system that was approved for the facilities..., and then when they got the thing going they would just make a gift to the county. And the county would be responsible for managing it and operating it. And these son of a guns did that...That was their system (OCEA).

As stated in Chapter II, environmental factors were those factors inherent within the environmental context of a community, the overall influences of time and place, that may affect other factors related to community readiness to participate in CNRD Extension education programs. Every type of data source that was tapped cited environmental factors as impacting community readiness. Both time and place influences were observed by data sources in substantially predisposing a community toward or away from readiness.

Time influences were as specific as a community's situation along a time continuum of decision-making processes, and as broad as the social, political, economic, and cultural trends that are continually impacting a community.

Their time in their decision-making process is important. If they've made too many decisions already, they're almost past being ready. If they haven't made some initial decisions, it's almost too early (CDE).
So, there seems to be a window in their decision-making process where they need information (CDE).

One of the other things I see is that there's...a cycle. They'll make a bunch of decisions and they find out that they can't, there's no feasible way to act on those decisions that they've made. And then they kind of let it lay limbo for a while... Then they come back at it again (CDE).

Unfortunately, I think [community development action] takes a situation that you just ran out of alternatives...You don't put traffic lights out until you have, probably, a wreck or an unbelievable amount of cars. We don't proact, we react in a lot of community development situations (CDE).

I'd agree that, uh, your place in history makes a tremendous difference [to readiness] (OCEA).

I think we can see some of...conflicts now between what might be called so-called industrialists or chemical people and environmentalists, you know. Two groups that are kind of at loggerheads now that probably weren't in the fifties when all this was being developed. Different attitudes (OCEA).

Larger trends such as the decline of the steel belt, baby-boomer demographics, the aging population on fixed incomes, changes in the labor force, disparities between rural and urban living standards, pollution or environmental awareness, and growth trends were all noted by respondents as affecting community readiness (PPP, OCEA, CDE). Many of these environmental factors were discussed as demographics within
the bigger picture. Both time and place influences were expressed simultaneously:

I think [environmental factors] are terribly significant. And I base that on, as an example, ten years ago I worked as Extension agent in Youngstown, Ohio, when the mills shut down. That's an environmental factor that you deal with. All of a sudden, some attitudes changed. Attitudes change, based on the make-up of the individuals in there over a span of time...I think [environmental factors] have a dramatic effect, pro and con (CDE).

...there's a lot of concerns now that perhaps didn't bother people earlier. I'm in an agricultural community, a lot of farms, water's readily available. Was not a concern until probably the last five or eight years, when the water's so readily available and so close to the surface, and the environmental concerns now have a lot of people raising questions about stuff going through the soil and ending up in the water from the farms, from the landfills. You know, those kinds of concerns that nobody thought about when I was a kid in the same community; 'Oh, we've got the best water in the world' and never thought a thing about it (OCEA).

In our area, I think we see a strong example of the influence of environmental [factors] with the strip mine. Unemployment. This is all related to the sulphur emissions laws that have been passed, and the concerns with those. Sulphur content of coal's the highest in that area of any place in the world... ________ County led the state in unemployment two weeks ago... That's directly environmentally related... somebody put a sign up on the 250 overpass that said 'Will the last person to leave ________ County please turn out the lights?' (OCEA).

Specific place, or location, influences offered by respondents varied from local or regional location to nearby geographic features.
The smaller the community and the further they are away from the metropolitan areas, it's, change doesn't, of course, happen as rapid and a lot of times they don't want it to happen very rapidly (CDE).

Well, I think a lot has to do with that community's... distance from a larger community. Often times, the closer you are to a larger metropolitan area...for example, a community that's fifteen miles away from the metropolitan area..., versus a community that may be twenty-five or thirty miles away from that larger community, there's going to be more pressures on that community that's closer to the metropolitan area...(CDE).

I have seen that in parts of the state that are more in the Appalachian regions of the state, they're not nearly as interested [in the educational program] (CDE).

Potential program participants pointed out local geographic conditions as an influence on growth and action within a community. The most common remarks involved a nearby water resource - a lake or stream or underground aquifer - that residents wanted to protect while not discouraging growth.

It's something we should all keep as close to what it is today as is humanly possible. It's the only natural trout stream in the state of Ohio...I'm sure God isn't going to make any more (PPP).

Another example of place influences concerned a community's location in an Amish area frequented by tourists. The majority of the Amish population was perceived as hostile
to tourist encroachment, while local businessmen depended on greater numbers of visitors for their livelihood. The disparity between these perceptions and attitudes was viewed as a roadblock to community readiness.

The businesses...would very much like to increase the number of [tourists] and the farm community around the would say 'Hey, you're causing it to make it more difficult to get through town, or risk to life and limb, just to exist and do my thing' (OCEA).

[The businessmen] are exploiting an Amish community...If you take the Amish out of that community, there'd be no reason for thousands of people to be in that town on a daily basis all Fall...So, if you really want to be honest, yeah - it's exploitation (OCEA).

It was cold and rainy that day. And this Amishman, well, he's middle-aged or so, came up with me and he says 'Boy, if we'd had this kind of weather last weekend it would've taken a lot of tourists out of here, wouldn't it?!' That was the attitude. This stuff is a pain to them (OCEA).

This example of environmental factors was seen as an umbrella over the interwoven factors of amount of conflict or consensus and attitude toward cooperative action/group setting for that community.

Felt Need

The factors affecting rural community readiness for participation in Extension education programs that filtered down into the category of felt need from the literature review
were vital parts of exploring individual, group, and community motivation to learn. Factors within this category were voiced in various forms by all types of this study's data sources.

The initial factor of felt need was a broad factor of expressed felt need that was not based on the aspects of felt need covered by the subsequent factors of social need, role expectation, or imposed need (external forces). Felt need was mentioned as an individual need, a group need, and a community need pertaining to community readiness for educational activities.

If [a community resident] has an individual need that he can't solve by himself and the only way he can solve it is through the community, then he's going to be interested in participating in a community program that will solve his individual need...They have an individual need that can be solved through a community effort (CDE).

I guess community readiness would be somewhat of a consensus by opinion leaders or elected officials that there is a perceived need for some type of community development (OCEA).

If there's enough people in the community that see a particular need that needs to be addressed, whether it be water, sewer, storm sewer, police protection, health care, education, or what-have-you, but, probably nothing's going to happen until there's a number of people that say 'Hey, we have a definite need...' (CDE).

Felt need within a community context was often observed in conjunction with consensus about the community problem or
proposed action, related to amount of conflict or consensus and perception of the problem. Felt need on an individual level was noted by county agents as associated with an interest in the subject matter in some cases.

Social need, need impelled by social interaction, was not expressed in any data collection. The factor of role expectation, however, was prevalent throughout the data. The distinction between these two factors was the feeling or duty to learn impelled by an individual's role within a group or community inherent in role expectation, but not in social need.

I feel we need all the information we can get, either as an interested citizen or a member of [village] council or a combination of the two (PPP).

When potential program participants were asked on the written questionnaire what their role was in their community's development efforts, the responses varied by reason of leadership. Those perceiving themselves in a non-leadership role offered their participation as follows:

Voice my opinion.
Paying my taxes.
Small.
Resource person.
Do my part. Be willing to help when needed.
Other PPP perceived themselves in a role of leadership, particularly if they had elected status, and expressed need in light of that perception:

My main reason to be here is to enlighten myself and be more informed and more educated in my responsibilities as a commissioner.

As a councilman and businessman, my concern is for growth and welfare of my community and I feel it is my responsibility to help see that our community gets all that we can for our young people, etc.

As a political official I feel I have to act as a leader.

To seek information from citizens, county and state leaders and apply in a leadership role.

This aspect of role expectation seemed to include a willingness for responsibility based on leadership.

Examination of the literature review revealed the factor of external forces to embody the perception of imposed need upon an individual, group, or community. Identification of this factor was mainly with an imposed need upon the community, rather than an individual or group. One could argue that imposed need upon the individual would arise from the placement of that person in a leadership role, as described earlier.
By far, the greatest number of examples of external forces upon communities was the Ohio Environmental Protection Agency, due in large part to the wastewater subject matter of the educational program. External forces was viewed mainly as a motivator toward community readiness, but also as a constraint by creating hostility and resentment.

It seems to me, like, that there's another source of impetus to those... kind of community projects, besides felt need, and that's when the state mandates something whether the community feels like they need it or not (OCEA).

The village that we had that participated in ["Wastewater Treatment Alternatives" workshop] and has really benefitted from it; they had been faced with no land sales, no house sales in that village for some time and it didn't encourage them one bit. But when they were threatened themselves with having to do something and make a decision, then they acted (OCEA).

We can be thankful that the E.P.A. seems to be locked behind their desks. If they ever get loose from their desks, they're going to padlock ________ County (PPP).

They may not do anything as far as developing, say, a central sewer system until somebody forces them to, such as the E.P.A... And if they're forced to, then that's not a good situation because it often times can cause a lot of animosity and bad feeling about the government: 'Why should they force us to, you know, do something? We didn't ask them to come in...' (CDE).
Outside pressures enter into community readiness: whether or not they're under a cease and desist order [from the E.P.A.]. Sometimes that can be negative, though. Sometimes the surest way to get people not to do something is to tell them that they have to do it (CDE).

The inherent capacity for growth factor was detailed in the literature review as basically an individual motivation to learn grounded in the self-directed exploration of a subject for the innate fascination of learning. This factor never arose in any of the data collection process.

A possible new factor surfaced in the data that this researcher has called vision. Vision was a factor pertaining to future felt need, a forward-looking stance toward community needs. The data sources expressing this factor were mainly community residents, particularly elected officials; however, other data sources observed the factor as well.

We have developers coming in and approaching our zoning inspector concerning development to take place. We have no sewer or water in the township. We have a proximity to sewer and water on several different edges of the township. We just, uh, and nobody realizes, I think, from the county level how, how great a problem we're going to have here... (PPP).

I think we're still fairly pristine, and uh, the decisions we make in the, probably, five to twenty years will be crucial (PPP).

We're in the growth phase and I think it's critical right now what decisions we make so we don't have to go back a lot to correct a lot of errors (PPP).
[Ready community members] are very forward-looking. They're looking towards the future (CDE).

Cultural momentum, a community need based upon keeping up with an esteemed neighboring town, surfaced in a reverse fashion, i.e., basing community development activities upon avoidance of what a nearby community has done.

I think we have the unique opportunity of, uh, not making the blunders we've seen in other communities (PPP).

The positive aspect of cultural momentum did not show up in any of the remaining data.

Perception of the problem established itself as an important factor relating to community readiness for participation in community and natural resource development Extension education programs. Every type of data source tendered an example of perception of the problem. The associated factor of dissatisfaction with the present situation asserted itself as the next step beyond the problem perception, and was inseparable from the preceding factor.

Submissions of these two factors were synthesized and necessitated the structuring of them in a progressive hierarchy. The initial step was composed of problem recognition or lack of it.

Problem identification is a part of community readiness. They recognize that they have a problem (CDE).
We have an atrocious system. We have septic tanks, such as they are. I'm sure they're way below standard (PPP).

We know, everybody knows, even the E.P.A., the Health Board, they all know we got a problem (PPP).

We've got certain small areas of our township that have dense population that are on old septic systems that are failing (PPP).

I don't think the public's going... to have the perception of their problem...'You say I got a problem but every time I flip the handle, it disappears' (OCEA).

An aspect of problem recognition had to do with the scope of the problem, whether the problem was perceived as an individual, group, or community problem.

[Ready communities] recognize that it's a community problem, not an individual problem (CDE).

Our worst problem - that all the villagers in (town) face - is the sewage situation (PPP).

Another aspect of problem recognition was the amount of conflict or consensus about the problem between community residents and between residents and community leaders.

I guess community readiness would be somewhat of a consensus by opinion leaders or elected officials that there is a perceived need for some type of community development (OCEA).
I think for a lot of us [leaders] the view is, might be different than when you go to somebody on the street because we find out what's going on so that when it comes time to make a decision, we can make an intelligent decision (PPP).

I think the concern the businessmen have expressed more than once is that if this came to a vote where a tax levy or something, they're absolutely certain, and I tend to think they're legitimate, that nothing would pass (OCEA).

The next step on the hierarchy was conceptualized as dissatisfaction with the present situation, or a dissatisfaction with the identified problem.

If you stop and think about it, they're filtering the stuff right into the crick (PPP - respondent gave a corresponding negative facial expression).

Septic tanks are terrible in ____(town)__. The gray matter bothers me no end...We got sewage going into the main line...it all goes to the crick together (PPP).

We're starting to see nitrates show up in water wells and that tells you there's sewage breaking down, getting in the water. And that's scary (PPP).

We have no sewer or water in the township...We have a real dilemma (PPP).

And right below that guy's house right there, he'll tell you, there's a big pipe running out there with sewage running out of it. And it even bubbles up in his land (PPP).
Corresponding aspects of dissatisfaction with the present situation mirrored those included in the perception of the problem step. Was the dissatisfaction perceived as an individual, group, or community dissatisfaction? Was there consensus or conflict between community residents and between residents and community leaders about the dissatisfaction?

The final step in the hierarchy was conceptualized as the amount of conflict or consensus within the community toward action orientation, which was discussed within the next structural category.

Similar to the preceding two factors, interest in the subject matter and relevance of the subject matter were determined to have been so interconnected as to be inseparable. These factors were encountered as mainly individual motivations to learn in the literature review, but emerged as both individual and community motivations in the collected data. When questioned about why the program information was or was not important to them, potential program participants gave individual interest responses based on their occupation. A community development expert noted this association as well.

Is my job.

I'm a country developer - residential, commercial.

I'm in the process of starting a wastewater testing laboratory. "I need to keep abreast of changes in the industry."
Some of them participate because they're in the business, like the septic tank pumpers, and the sanitarians, the soil and water conservation district persons sometimes. They come just because there's, there's this person that's coming to their county that cares about the same thing they care about, and they just want to go to a meeting where they can talk about...their business. And it happens so infrequently in their communities (CDE).

Potential program participant responses were also based on community interest in or relevance of the subject matter.

For the elimination of a public health hazard and allow for continued expansion and growth.

I am a resident and part of a village that needs this service.

Wastewater effects everyone and its treatment correctly or adversely will effect the progressiveness or lack of in the community.

Health.

A county agent and a community development expert mentioned interest or relevance influences within the community context as well.

The interest level was high and people's attitudes were 'let's resolve this situation' (OCEA).

The material has to be relevant to their community. And that's one of the things I see in, in some of the more successful workshops, I mean in terms of high participation both in numbers and in people really actively being involved, is that they really can relate to the information. Or they can relate to the stories. So, the information has to be enjoyable and it has to be relevant for them to want to continue to be in it (CDE).
An inconsistency between the educational program's subject matter and what potential program participants in Pike County thought was the program's subject matter arose.

My understanding on this meeting that we was supposed to have tonight was try to explain some ways to us that we could possibly get some grant money (PPP).

That's what we're after. We want to find out if there's money available, where we get it, and how we go about getting it (PPP).

This was concluded to be a negative influence upon interest in/relevance of the subject matter.

**Action Orientation**

Action orientation was the category formed as a framework for those factors related to an individual's, group's, or community's orientation toward acting on a perceived community development issue.

The factor of **willingness for responsibility** was expressed as an individual motivation for learning or action by potential program participants. The majority of instances when this factor arose, it was as a part of **role expectation** discussed earlier in the chapter. However, promotional meeting attenders in Logan and Pike Counties generated different ideas about who was responsible for making decisions about wastewater treatment in their communities, displaying
both conflict and consensus about willingness for responsibility. Logan County:

The Health Department (PPP1).

Who created the waste? We all create the waste. Let's face up to it. I think we all have that responsibility (PPP2).

It would seem to me that it should be beyond the county responsibility (PPP3).

Every member of the community is responsible (PPP2).

Certainly it should be someone who is knowledgeable about the problem (PPP4).

Pike County:

The city council, I would say (PPP1).

We have a planning board also. Between your fathers of your village and your planning board...takes care of that (PPP2).

And everybody who lives here (PPP3).

After analysis of the collected data, ownership of the problem was viewed as a corresponding factor to willingness for responsibility, but on a group or community level rather than an individual level. Negative and positive responses were found.

Problem ownership is a part of community readiness, They've recognized that it's their problem, it's not somebody else's problem (CDE).
I'm certain that we've made mistakes in the past. I think there's probably areas that have been developed that shouldn't have been developed (PPP).

It's got to be, what we need is a county-wide sewage system and nobody except the county can do it (PPP).

[Interviewer] How strong do you think the ownership of the problem is?

Right now, I don't think it's very strong (OCEA).

As with other factors, the aspect of conflict or consensus came into play concerning ownership of the problem.

As long as people expect the government, and the county, and the state, and the Federal group to furnish money...well, we've got to do something about it (PPP1).

[Interviewer] Does everyone feel like you?

No! (PPP1).

[Laughter] You're right there (PPP2).

It's coming to the place where we just can't expect the government to do everything for us (PPP1).

The literature review examined leadership, power structure, and decision-making processes as a synthesized factor within the group setting or community context. The terms 'leader' and 'leadership' were used by respondents in the majority of the data, even when describing a clear example of the decision-making process or referring to the power structure.
If the community doesn't have a leader, they're not going to be acting on this problem that they've identified (CDE).

I have yet to find a group, in seventeen years, that is absolutely democratic across the board. There's always some leaders, there's always some opinionated people who will tend to sway some of the group...And those individuals can sway a total group (CDE).

Try to tell somebody around (town) that they don't [have a voice in decision-making] (PPP1).

I think we'll voice [our opinions] if we have to (PPP2).

Some of the other aspects of community readiness would be in terms of the decision-making structure of the community itself. That there are leaders in the community. These leaders don't necessarily have to be elected. It's handy if they are...(CDE).

You've got certain key leaders in the county, especially in community development projects, that may never attend a meeting. But yet they're very actively involved with programs...legitimizers (OCEA).

I'm thinking about the people that call me, who try to get things started...A lot of times they're pretty powerful people, not just within the community but in other ways too. They have their own businesses. They're successful people...They're very busy people (CDE).

This is an unincorporated village. The decision-making, if you will, the public decision-making is being done by the township trustees (OCEA).
In terms of that community making changes and doing anything, there's no question in my mind it's the way they're governed that's the problem...They're hampered in making decisions for themselves (OCEA).

Conflict or consensus again surfaced within the factor that was explored.

Whether you're thinking of the community as a whole or, let's say, the leaders in the community, these could be totally two different attitudes in [decision-making] (CDE).

Potential program participants were asked on the questionnaire whether they felt their community was adequately represented or not at the promotional meetings for proper decision-making to occur. Of those attending, 96% rated representation as adequate in Pike County, 38% in Logan County, and 45% in Miami County. The individuals who should have been at the promotional meetings were listed by attenders as well: concerned citizens, elected officials, business people, and church leaders.

More often than not, meeting attenders in elected positions suggested that there were far too few citizens present who should have been in attendance out of a concern or perception of the problem. Particularly in Miami County, where 73% of attenders were elected officials, and to a lesser extent in Logan County, this possible new factor arose and became prominent: leaders' perceptions of community decision-
making. Repeatedly, respondents in an elected position endeavored to explain the characteristics of decision-making in their communities, especially the lack of citizen participation. All responses were from PPP:

They never show up, so you got to make your own decisions.

We meet in the evening and we're lonely at our meetings. And the meetings there, it's open to the public for them to come.

For an example, last Thursday night, (name) and I happen to be up for reelection this year. We dressed up and we put on our white shirts and our ties and our sport jackets and we went to a candidates's night - for all of ten people. Ten people show up for a candidate's night. Now it can't be that the people are very important on how the decisions are going to be made if they're not interested enough to come out and see who's going to be making the decisions...

Our council meets, you know, at seven o'clock first and third Mondays. We're lucky to have two or three people there.

It's hard to get a quorum at the meetings. It's sad.

The longer you're in office, the more cynical you become about the populace.

A similar response about the lack of citizen participation came from a community development expert.
You may get 15% of the people to show up for one meeting on [community development], and other than that there's not much community involvement. You have involvement from the leaders: the council or the board of directors... (CDE).

One example of a positive perception of citizen participation was when a community resident in Pike County asserted that all citizens would voice their opinions if they wanted to, and the village council members nodded their heads. It should also be reiterated that 96% of promotional meeting attenders in that county rated the community representation as adequate. Another example came from a community leader:

The majority of [community residents] will take part if you ask them (PPP).

Obviously, community leaders expressed a predominantly negative perception of citizen participation in decision-making. Some of them noted a positive ability to focus or direct the citizen concern that did exist through leadership, while others thought that was not possible.

I honestly feel that there's, that people out there are concerned...It's how your elected official, it's how your leaders of your community market it. Nowadays we have to fight to get something accomplished...You have to sell it. I mean you, people just don't do it because it's good for them...You have to lead for something like that (PPP).
We have been able to generate support from a nucleus of people, we formed a land use planning task force committee, and we formed a nucleus of support there. But general groundswell of public opinion doesn't necessarily follow that, because it's not something that they can see, that's tangible, really put their finger on, like you can a fire truck sitting there ready to respond or something like that (PPP).

The only way you ever mobilize the masses is for a negative reaction. They never mobilize for a positive situation. They'll mobilize for a negative reaction (PPP).

A community development expert showed confidence in community leaders adequately perceiving citizen wants or needs, and an elected official talked about his mode of representing citizen concerns.

[Leaders] often times have a pretty good handle on communication with, you know, the populace there (CDE).

You hear things out on the street. You kind of, kind of bring those ideas in... (PPP).

Scattered throughout leaders' perceptions of community decision-making were references to the participation of those residents most directly affected by, or having the most invested in, the decision-making activities concerning a specific problem or issue. These references equated with the factor of participation of stakeholders. The factor surfaced most often in a negative context, participation of community
residents only if it directly affects them and not otherwise.

People normally do not get involved unless it directly affects them (PPP).

Unless it affects them, directly, they don't come to the meetings (PPP).

If it affects them personally, then they'll come. Otherwise, they're just an innocent bystander (PPP).

Participation of stakeholders was also mentioned as a positive result of solving an individual's felt need through the community decision-making forum, bolstering participation (CDE).

If [a community resident] has an individual need that he can't solve by himself and the only way he can solve it is through the community, then he's going to be interested in participating in a community program that will solve his individual need...They have an individual need that can be solved through a community effort (CDE).

A closely associated factor to leadership was the participation of key figures. The influence of leadership emerged within the group or community setting in a plural manner, whereas participation of key figures surfaced as an individual influence on a community's action orientation; the one or two individuals necessary to initiate action.
Probably one or two people have been the spark plug to get the whole thing going (CDE).

The individual is a real key in order for something to happen in that community, and if you don't have that one or two persons...people will vacillate and fall and stumble and...nothing happens (CDE).

Usually it's, maybe, one person that if they're convinced that this is something that needs to be done and they're willing to devote their energies for it, it'll normally happen (CDE).

It takes a few determined individuals to head a project. They may then form a group that will persist until they succeed (PPP).

I think that readiness is expressed first on an individual level. Community leaders, more active people in the community usually express a readiness to deal with a problem first, and then more wide-spread interest later follows that (OCEA).

I think it starts with an individual, too, and then there gets to be a consensus, just like on various adoption of technology. You have your early adapters [sic], and then there are people that see the value then start going along with it. Pretty soon you have a collective group (OCEA).

Participation of key figures was found in the data collected from almost every type of data source. County Extension agents also noted that it is usually a key figure who initially contacts them for information or assistance [invitation for assistance].
The readiness of community members to participate in a community and natural resource development Extension education program was suggested in the literature review as affected by the potential participant's feeling of power or powerlessness within group or community decision-making. In other words, whether an individual or a group felt they had input into the group/community or not impacted their potential participation. Very few comments were made concerning this factor, beyond the Pike County citizen's observation that everyone had a voice in decision-making in the community. This researcher perceived a feeling of powerlessness when one respondent described the group dynamics in her community:

I feel this group should be changing members, one each year. So many times, committees are formed and members are the same for too many years (PPP).

Despite the lack of sufficient data to assert the importance of the previous factor, a closely related factor embodying a group or community feeling of power or powerlessness supported its existence. The confidence level of groups and communities was brought forward by community development experts and potential program participants. Referring to the confidence the community felt after a previous successful venture [community history], community residents stated:
We have our own zoning in __________ Township. Um, we actually had zoning before the county had zoning and after the county established zoning, it was put to a referendum vote as to whether or not we would join under the county umbrella or whether we would retain our own zoning. And it was practically unanimous that the electorate spoke that they wanted to remain with their own local zoning (PPP).

Negative action orientation due to a low level of confidence was observed.

There are times that a community recognizes a problem, they recognize that it's their problem, but they don't see that they can affect it, that they can do anything about it (CDE).

[Large communities in the county] have the availability of money...We're down here and we don't have that ability. We don't have those funds (PPP).

I don't believe a 500-person village can afford to set a sewage system (PPP).

A broad factor relating to a community's action orientation was the communication systems within and between the community. This factor was cited by every type of data source. Respondents recognized whether the communication systems were open or closed in their communities, as well as where citizen input was coming from. Once again, the leaders' perceptions of community decision-making was observed as many of the elected officials at the promotional meetings talked
about the perceived patterns of communication within their communities.

I think communications is a big factor. Have your open meetings even if they don't come. At least you have made your effort and keep talking about it. Keep it in the public limelight (PPP).

One of the things I guess you'll see is that there are some group dynamics in a community that's ready. They're talking to each other (CDE).

We don't have no closed meetings (PPP).

This is the first that I have heard of the problem (PPP1).

And that's unbelievable...You read about it every day in the newspapers about everybody, even these little farm villages out here, about the pollution of their water and the sewage pollution... (PPP2).

We meet Monday, Wednesday, Friday from nine to noon. Not a lot of people can meet from nine to noon. Most people work (PPP).

[Interviewer] Do you feel a lot of people outside of the businessmen's group knew much about this program?

No. Not at all. And the way it currently sits, never will (OCEA).

In all honesty, we all have our meetings open to the public, but you'll find out more at the filling station or the post office or someplace else what the, their complaints and gripes are (PPP).
Letters to the editor (PPP1).

Letters to the editor are the most powerful...and also letting the elected official know what your feelings are... (PPP2).

Two other things I think that indicate, maybe not readiness to deal with it, but letters to the editor and if you would have a radio talk show in the community. You can usually pick up there the problems people have...(OCEA).

We might get a feeling for the [community's] problems through mass media. Mass media reporting on people's opinions rather than just direct contact (OCEA).

I'm talking about any community - if you have a problem, that needs to be publicized (PPP).

Media coverage of a community problem or proposed action was viewed as possibly affecting community readiness positively or negatively. In the case of a media source outside the community, this aspect of the communication systems equated with an external force.

I'm sure that the news media would have loved to have seen the situation at (town). I imagine that a [county newspaper] reporter, particularly two or three of those guys that are real energetic to begin with, would've really gone berserk writing about that. And, uh, maybe we would've been more effective. I'm sure it would've stirred up a lot more interest (OCEA).
[Interviewer] What kind of publicity has there been, if any?

Really none (OCEA).

[Interviewer] Do you think that would be an advantage, if there was a little more in the paper and people became more aware of the problem?

Yeah. The answer's yes (OCEA).

You have to evaluate the potential liabilities [of involving the media], and I guess anything that would've brought the attention of more people, in this case, might've been beneficial (OCEA).

[Sometimes] there's been so much upset and excitement about the sewage facilities decision that the press end up going to every meeting that has anything to do with sewage. So they come to the first workshop session and there isn't any upset or excitement, so they stop coming. It's difficult to get positive press on this particular workshop (CDE).

Examples of the media publicity for the "Wastewater Treatment Alternatives" workshops in Logan and Miami Counties were collected (see Appendices C and D). No examples of publicity were available from Pike and Holmes Counties.

Another aspect of the community's communication systems indicating that the community was ready for participation in an Extension education program was the invitation for assistance to the educational provider.

The ideal community situation is that somebody from the community called me...The community came to us, we didn't go to them or E.P.A. didn't call us and say 'this community's in trouble' (CDE).
That's a simple measure, I suppose, that's got me involved in several things. Someone contacting us, or someone else referring them to us, saying 'We've got a problem' of a certain nature... and they say 'You've got something to offer.' Well, obviously somebody's ready for something (OCEA).

'Here's a program and, uh, in talking to the right people we want you to explore that and see whether, you know, we can take advantage of, uh, have the opportunity of having that program here in our community.' So the attitude through verbal expression of, I guess, to the appropriate people (CDE).

What became apparent in the analysis of data was the restrictive scope originally assigned to this factor. A restructuring of the factor followed to allow for the expression of additional characteristics of community outreach beyond the invitation for assistance. The name of the factor was subsequently changed to community outreach due to the active searching for more information or alternatives noted by several data sources.

[Ready communities] are actively searching out information, more than just from Extension. They're actively looking for information. They want to start collecting data. They want to keep busy. 'What can I do?' are the kinds of things they're asking me. They might have taken some field trips on their own...(CDE).

Being ready to at least look at the alternatives, consider the alternatives, and try to find out what's best (OCEA).
One of the things I run into, I don't know whether it's a behavior or whether it's knowledge or lack of knowledge, but it's a question that comes up is 'What can we do?' It's the kind of behavior of saying 'Hey, I don't know enough' or 'We don't know enough. There's a bunch of unanswered questions and what can we do about it?' (OCEA).

The negative side to community outreach was perceived to be the search for an instant solution or a larger entity assuming ownership of the problem.

Could we expect any help from the state or the Federal government? (PPP).

That's what we're after. We want to find out if there's money available, where we get it, and how we go about getting it... (PPP).

Constraints or Motivators

The final category, constraints or motivators, was a framework for those factors acting as a push or a pull to the felt needs and action orientations of individuals, groups, and the community in general.

How community residents perceived the relative advantages or disadvantages of their participation in a community action was proorted in the literature review to affect community readiness. The perceived benefits and costs of participation surfaced in the data as a constraint or motivator to individual readiness, as a constraint or motivator for
activity in a group setting, but mainly as a constraint or motivator towards community action.

Individual benefits or costs of participation arose mainly as a possible, or at least a perceived, gain or loss of status in the community, particularly with a controversial issue.

Sometimes, as far as affecting participation positive or negative, it could be either positive or negative if you've got a [sic] extreme controversial subject, there are some people that are going to drop out because what they might feel will hurt their business or their prestige in the community. They'll back out (OCEA1).

Other ones will hop in because they feel it's a hot issue. That's what they want, they have a gun... Could be positive or negative, depending (OCEA2).

Another [factor affecting participation] can be, this is from a negative standpoint, some talk in the community, or perceived talk in the community. People see them going to the sewage meeting and they get the wrong impression, and they don't want to give these people the wrong impression, so they stop coming to them... There's so much social unrest about this sewage decision in their community that they don't want to be associated with it (CDE).

That's pretty well my best friend, sounds like he just described him... I don't think he's ever been to a meeting in his life. Goes to church regularly...but, boy, as far as participation in the community, he just sees no purpose in it. Absolutely none (OCEA).

A few written comments about perceived benefits and costs of participation in a group arose among potential program
participants, closely associated with attitude toward cooperative action/group setting.

A group working together can accomplish more than an individual.

Groups have more power.


The importance of a perception of benefit from community action on a problem was noted, as well as the weighing of costs and benefits of participating in an educational program by community leaders.

I think...those [busy leaders] type of people can see that something's going to happen as a result of this, I think you're going to be able retain their interest in this. Whereas, if we're just meeting to have a meeting, I think you're soon going to lose, lose the key leaders in this... And I think that's affected by how long, you know, that we're expecting them to participate, as far as the total program and each session, as far as that goes (CDE).

They have to have, or perceive, that...they have enough information to at least weigh it in an elementary form that there is something to be gained by this action (CDE).

Having somebody else do the program for you at no cost -you know, this doesn't take any meetings, this doesn't take any door knocking, you don't have to convince anybody - that really did sound good to them...So they hired a consultant (OCEA).
The financial cost as a roadblock to community action, rather than the cost of participation, was most evident in the data.

I think cost is what stops every community. Cost is usually, becomes so primary, you don't consider other roadblocks (PPP).

Money! (PPP).

I think [money] is the only real roadblock that anybody has in a situation like this (PPP).

Anything you're talking about costs money and we're all paying enough taxes now (PPP).

Small villages have a very difficult time getting the money required for a most expensive job (PPP).

One elected official recognized that perceived benefits and costs were dependent upon the ownership of the problem, while another felt the perception of a benefit or a cost depended on the tangible nature of results.

I think that if each community can feel that this is their project, the cost factor will go over a lot better than saying 'Well, they made me do this', but they can like say 'This is something we're doing.' The cost will be accepted then (PPP).

They see the problem [fire and ambulance] and it's something that they feel they can address and do something about... But general groundswell of public opinion doesn't necessarily follow that because it's not something that they can see, that's tangible, that they can put their finger on, like you can a fire truck sitting there ready to respond or something like that (PPP).
The factor of attitude toward cooperative action/group setting emerged from several data sources. Community readiness for participation in development activities was suggested as being affected by this attitude.

Part of community readiness, I think, is the cooperative effort that can be generated. We have a county community development agent and a city community development agent. They're responsible to their specific entities and those entities are in conflict. And so, the development agents are in conflict. And the, the chamber of commerce is the third entity that's still got a different point of view. It seems like in our area they're just at each other's throats all the time...And even if they do see a need to be able to put together a group to do something about it, it's almost impossible (OCEA).

It does become a part of readiness if they won't sit down in the same room together (OCEA).

Whenever you have, whenever a problem is wide-spread, universal, there's no one small group going to be able to be responsible for it. It has to be a correlated effort (PPP).

As far as behaviors, sometimes you see ad hoc groups forming or coalition groups forming of some type for a particular issue (OCEA).

Some community residents exhibited a positive attitude toward cooperative action/group setting.

We've got a fire department, an ambulance service, civic clubs, Lion's clubs, churches that's all seem to be cooperating with one another (PPP).
Everybody here tries to help everybody (PPP).

Potential program participants were asked on the written questionnaire whether individuals or groups were more effective in making changes in their communities. Responses were positive toward group action: 76% in Pike County, 92% in Logan County, and 73% in Miami County, with 80% overall. Written responses supported both individuals and groups as more effective in community action and changes.

Individuals who become pressure groups.

Individuals start the job.

It takes a few determined individuals to head a project. They may then form a group that will resist until they succeed.

These responses were viewed as supportive of the factor of participation of key figures. Examples of group support from potential program participants included:

I find groups are best. Individuals do not work out.

You need a diversity of opinion in order to accomplish goals common to the most people.

There is more power and opinions in groups to realize all the possibilities or problems.

It takes numbers to get things done.
The attitude toward learning and change harbored by potential learners was reported to have an important effect upon participation in educational activities. Most data sources observed this factor within the community context, rather than in individuals.

I guess maybe the readiness reflects the attitude of the community itself. Some communities, their attitude is progressive in thinking and so those are the communities that are working to get the new shopping centers. They're working to get the new industry in, and things of that nature...On the other end of the scale is the community that 'Well, we like it the way it's been for the last hundred years. We don't want anything to change' and they're not going to be ready for anything, regardless of what it is (CDE).

Cooperative Extension agents and elected officials at the promotional meetings gave their perceptions of community residents' attitudes toward learning and change.

A lot of the county would like to think they're still rural and has a lot of old, older families that have been there and established for a while. And when you get a lot of the new ones in there, then you very quickly get some differing of opinions. For one thing, some of them aren't ready for growth. They don't want to have to gear up and be ready for that increase. They'd rather they just move back out of there if they don't like it. So I think that has a tremendous effect - at least in our county (OCEA).

The problem with most people is they want progress, but they don't want any change (PPP).
A lot of younger people are coming in. And these younger people are taking an interest in the small community because they want to live in a small community. The older people are pretty well set in their ways and they want to:'It's always been that way and that's the way it's going to be.' But the younger ones are more willing to change (PPP).

These responses were seen as related to the leaders' perceptions of community decision-making and age of potential learners. In addition, the perception of the problem was offered as a mitigating character upon learner attitudes toward a change or community action.

Very often [perceived need] is precipitated or caused by a crisis situation: 'They closed the landfill last week' (OCEA1).

When the landfill closed, something needed to be done. At that point, people may have the attitude that they're ready for a recycling program... (OCEA2).

If it's a desirable utility, uh, they will be in favor of it in wanting to have it. For instance, water supply...If we're going after wastewater...their attitudes probably differ. It's something that they really don't want to do, but they know that they have to (CDE).

This may have been more an effect of perceived costs being too high for a proposed change, and therefore attitudes were negative toward that particular change.

The amount of local initiative or support was a factor found exclusively within the community context in the
literature review, as it pertained to community readiness for participation in community and natural resource development Extension education programs. Collected data basically upheld the existence of this factor within the community context, while showing its relation to other factors of individual and community motivation to participate. One particular theme that was evident in the collected data was the anxious nature of community residents to do something about a problem right away if the amount of local initiative or support was high. Positive representations of the factor follow:

We've got a fire department, ambulance, and everyone's willing to help do their part (PPP).

Some of the ideal communities, they want to get the problem solved right now... 'We recognize this problem. We want to do something about it. Let's get going. Let's get going' (CDE).

In a community that's ripe, they don't want to put it off any more. They want to move. They want to make a decision now... So, in some of the ideal communities, they want to get the problem solved right now (CDE).

If we could get the money and the go-ahead on the waste treatment plant, I'd say there'd be no problem. In fact, we'd start in the middle of the night if they wanted us to (PPP).

There's a lot of Miami County I think, entire Miami County, has got a lot of volunteerism. Much more so than you'd find in an urban county (PPP).
The truth of it is: look in the next room. There's two fire engines that's been put in there in the last two years. Cost over two hundred thousand dollars, not a penny of it from taxes (PPP).

Examples of other aspects of the amount of local initiative or support possibly impacting the community's readiness, positive or negative, included: 1) the financial support of the local banker; 2) the perception of the problem as being severe or not, with the more severe problem having greater support, and 3) the impact of television on resident initiative or support of community development efforts, which was related to environmental factors.

There's a big difference between a community where the local bankers [sic] very conservative and take a very conservative approach to lending, and uh, versus [the bankers in] a similar size community that are out-going (CDE).

[Interviewer] What kind of local support is there for following through with changes?

Mixed... Depends on the severity of the problem, and where it is (PPP).

Well, the impact of television on people's habits, I think that's one of [the factors affecting local initiative or support]. It's easier to stay home and be entertained by T.V. than it is to go out and do something (OCEA1).

That's a good comment relative to participation, really (OCEA2).

It sure is (OCEA3).
Elected officials in Logan County offered a measure of local support as the voting outcome on a levy. They went on to suggest that voter age might have been a pivotal influence, particularly since higher numbers of older citizens were perceived as actively voting in their communities.

I would say the ayes and nays on the levy that costs money would be a good measure of support (PPP1).

Well, age was mentioned...Isn't it generally true that older people do the voting, percentage-wise? So I think that would indicate that the older people are supporting it, if that premise is correct (PPP2).

It would be interesting to analyze the age factor (PPP3).

The literature review revealed a factor relating to a community's amount of local initiative or support: whether or not the community had competing priorities.

[Community leaders] were afraid that people complain, you know, the little towns that needed sidewalks and so forth, would feel [leaders] used their money for something that really wasn't necessary (OCEA).

Where is this particular problem on the agenda? Is it on the front page? Is it the first thing on the agenda? So where [the community development activity] stands on the agenda for the community is pretty important. It's got to be up there, towards the beginning (CDE).

The situation with the problems with the fire department came along, and suddenly, as important as this sewage program was and as interested as they were, this other problem became more important. So they just couldn't continue to participate (CDE).
What did surface often in the data was the factor associated with an individual, group, or community level of initiative or support for participation in community activities based on community pride.

Personally, I'm proud of my community and want my children to be able to grow up here with safe conditions (PPP).

In the individuals you see a lot of wanting to make their community a better place to live...They really really care about their community (CDE).

This is a good community. You'll never find a better one (PPP).

[Community residents] just, basically, have an interest in the community itself and seeing it progress, or remain at least, at a good level of livability (CDE).

The things that I see in attitudes is that that community has a great deal of community pride (CDE).

One of the most pervasive factors throughout the data collected in this research study was the amount of conflict or consensus within a group or community. All types of data sources reported that this factor affected community readiness, either as a single entity or through affecting many of the other factors in all the structural categories. Consensus or conflict within decision-making processes, about
the perception of the problem, about ownership of the problem, and about perceived benefits and costs were some of the instances noted by various sources as indicative of the influence of this factor. The most commonly identified theme of the amount of conflict or consensus was the need for community-wide consensus on the problem (perception of the problem) in order for the community to be ready to participate or act.

I guess community readiness would be somewhat of a consensus by opinion leaders or elected officials that there is a perceived need for some type of community development (CDE).

Everybody wants [sewage treatment] and everybody needs it. I don't believe anyone's against it (PPP).

An Ohio Cooperative Extension agent noted that education should sometimes precede consensus.

Sometimes the education needs to come before the consensus is formed, because the consensus gets formed on misinformation rather than correct knowledge (OCEA).

A significant part of community-wide consensus was whether community leaders and other residents agreed on action orientation.
I think for a lot of us [leaders] the view is, might be different than when you go to somebody on the street... (FPP).

The businessmen clearly perceive a problem... I think the concern the businessmen have expressed more than once is that if this came to a vote where a tax levy or something, they're absolutely certain, and I tend to think they're legitimate, that nothing would pass (OCEA).

The people that are on the village council may want to do something and be knowledgeable on it; the community as a whole may, even if they're knowledgeable, say 'No, there's no way we're going to do that' (CDE).

Community development experts and elected officials offered several ways of determining the amount of conflict or consensus on an issue and did not necessarily view it as an easy task.

One can always use questionnaires, um, to residents within the community... and maybe in addition to that a contact with so-called, quote 'key leader, leaders' in that community to get their thinking as to whether they think, you know, this is truly something that needs to be addressed, and why, and how many people in the community feel that. Whether it's a high percentage or whether it's just a handful of people (CDE).

I really don't how you get a consensus of the community, whether they're supporting something or not. You could even, I suppose, if you had a ballot you might think you got a consensus (CDE).
Cooperative Extension agents saw conflict on an issue as a possible indicator of public interest to act on the problem.

There may be some varying opinions coming out of different ways to, that something should be done, and that may indicate a, at least enough concern for some interest (OCEA).

They also noted an increased fragmentation within society in general than in years gone by, brought about in many cases by outside entities (external forces).

There's a big attitude difference, I think, too between now and thirty, forty years ago. There's a lot more adversarial approach to things...I think a lot of that change took place in the sixties when there were a lot of demonstrations and that sort of thing. But there are a whole lot of activist groups around now that are looking after various kinds of environmental concerns and that sort of thing, locally, as well as, as on a state or national basis. That's something I think we deal with in terms of readiness...(OCEA).

Part of community readiness, I think, is the cooperative effort that can be generated. We have a county community development agent and a city community development agent. They're responsible to their specific entities and those entities are in conflict. And so, the development agents are in conflict. And the, the chamber of commerce is the third entity that's still got a different point of view. It seems like in our area they're just at each other's throats all the time...And even if they do see a need to be able to put together a group to do something about it, it's almost impossible (OCEA).
The rural community's perception of the change agent/agency was listed as a factor of community readiness for participation in educational activities in the literature review. Data sources other than potential program participants recognized that a positive perception of the change agent/agency was important for community residents to participate.

[The community] has to believe that this project and whomever they're working with is worth their time and effort (CDE).

The fact that you're bringing out a specialist from Ohio State University - 'My, God, this person knows about this' (OCEA).

Due to the fact that potential program participants were interviewed prior to meeting Dr. Mancl, their perceptions of the change agent/agency were restricted to their perceptions of the Cooperative Extension Service and any of its personnel that they might have come in contact with at a previous date. The written questionnaire asked promotional meeting attenders in Pike and Miami Counties whether they felt the Cooperative Extension Service was a help or a hindrance to community development within their communities. In Pike County, fourteen attenders felt the agency was a help to community development in their community, three felt it was a hindrance, and seven did not answer. In Miami County, six out of eleven
attenders left the question blank, suggesting no prior experience with Extension, and five answered that they felt the Cooperative Extension Service was a help to community development efforts. Overall, the perception of the change agency was positive, with a number of potential program participants not responding. A substantial lack of awareness about the agency's activities was evident in the written questionnaire, and was noted by an Extension agent as well. Potential program participant responses were as follows:

Don't know.

I can't answer because I have had no particular information.

Not aware of its value since I do not know what its service is.

To be honest, all I thought you did was help farmers with planting depths.

Their programs are for the youth, adults, and community.

It brings people together.

Whenever an agency has an interest in your problems the end results usually are in a helpful way.

The Extension agent:

There are a lot of cases people aren't aware of the resources that [Extension] has. They don't realize, you know, how we can be of help, help facilitate this process... (OCEA).
Lastly, the factors related to the educational provider were reported in the literature review as mainly impacting the continued participation of learners and the implementation of knowledge gained. This factor was explored within the context of what an educational provider could do to bolster community readiness to participate in education programs, the ability of the educational provider to determine community readiness, as well as how the educational provider could affect continued participation of community residents.

Community development experts and Cooperative Extension agents listed several techniques that the educational provider could use to encourage community readiness to participate in a CNRD Extension education program. Many of these techniques were closely associated with previously explored factors.

Techniques for the encouragement of community readiness by the educational provider included mainly personal interaction with county Extension agents and identified supporters of educational activities in the community.

A good community development practitioner/educator will recognize, know those spark plugs or key people and movers and shakers, whatever phrases you want to do, and work with them (CDE).

A lay of the land upon community-wide support and individuals who are willing to charge into this and roll up their sleeves for whatever reason [needed by educational provider] (CDE).
So you have a whole host of types of individuals and part of a good community developer is looking at that and seeing where everyone can best fit, where they want to fit, into all the jobs that have to be done. And you have to play the role of making that all work (CDE).

It would be nice to have more specialists like [Dr. Mancl] that think of the importance of the county agent out in that community. And it forces the other local leaders to go through us as the educational agency and say 'Hey, I hear you have somebody that can help us, but we need to talk to you about it (OCEA).

[The educational provider] will continually, what I'll call, plant seeds, raise questions... (CDE).

These suggested techniques for the educational provider to encourage community readiness were considered strongly related to participation of key figures, amount of local initiative or support, role expectation, communication systems, and community outreach.

In addition, the feeling of confidence or lack of it by county agents in assisting the program facilitator in teaching activities was indirectly perceived as another item to consider.

On a subject matter like this, I'm not necessarily feeling real confident in my expertise, and I'm not sure the people in the audience will feel real confident about my expertise. Parts of it I could do, but parts of it I'd have to [interrupted] (OCEA).
Part of what we're saying here is most of us teach a lot and most of us like to teach and so we don't have any problem doing that, as long as we've got some expertise and feel comfortable (OCEA).

Measurement of readiness within the community was seen by county Extension agents and community development experts as dependent upon the recognition of the following items:

1) communication with local officials,
2) community-wide perception of the problem,
3) perceived severity of the problem,
4) absence of competing priorities, and
5) the right mix of residents interested in an educational program (diversity of participants).

A local input from, say, the leaders or a survey or something of that nature would be, to me, the way [for the educational provider] to find out something (CDE).

Why wouldn't the Department of Health and, and whoever's associated with wastewater treatment be a good source of information as to whether that community's ready? (OCEA1).

Sometimes the community doesn't always know they're ready, but the Department of Health and the E.P.A. and everybody else does (OCEA2).

Ultimately, what the Extension agents were suggesting as a measurement tool was the ability of the educational provider to recognize the community's level of readiness for participation in an educational program.
[Interviewer] What could the program facilitator, like Dr. Mancl, do to determine if a community is ready?

Obviously, she's worked with a number of communities here. If somehow she can summarize some of the information from the evaluations...that were done at those meetings, and maybe look for those key comments about, you know, related to that, whether or not they'd be interested... I would think there were some kind of questions that might clue us in to what made a community ready (OCEA).

The continued participation of community residents in a CNRD educational activity was viewed by data sources as possibly affected by the educational provider. Introducing the educational program in a timely manner, while the subject is in the forefront of the community's attention, was mentioned by the county agents, in addition to providing feedback to participants during participation.

People just lose their fire. You can't sustain the pitch forever (OCEA1).

Well, I think that plays right into what we're looking at nationally right now with issue-based programming. You handle an issue; when the issue is met or accommodated you go on to another issue (OCEA2).

Strike while the iron's hot. And it gets cold after a while. Sometimes it's barriers and sometimes it's just a job or a goal that's hard to achieve (OCEA3).

Feedback. That's the key thing. If you can provide some feedback where they can see by participating they or the project their working on is benefitting, they'll continue to participate (OCEA).
One county Extension agent noted that the lack of continued participation on the part of community residents was a possible clue to the educational provider that this particular community might not have been ready after all.

You know what non-participation teaches you, though, as a person working in community development? It teaches you that you may not have a ready, community that's ready (OCEA).

Dr. Mancl noted the importance of making the time frame convenient to potential participants for continued participation to occur.

Most of these people are very busy people, so you can't take too much of their time... That's one of the reasons why I won't even schedule the [workshop] meetings until the promotional meeting, because I want them to tell me when's the best time for them: what's the best day of the week, what's the best time of the day, whether or not there's a bad week in there. They know about the events and constraints in their community, where I have no ideas about that (CDE).

Due to the fact that educational provider factors were reported as impacting continued participation of learners, this study collected participation data beyond the readiness to participate threshold. Attendance lists were maintained for program participants at all of the sessions in Logan and Miami Counties (see Appendices C, and D). The additional meetings attended by Dr. Mancl in Miami County for community
needs assessment survey preparation were chronicled, and a participant publicity leaflet used in the community survey was included (see Appendix D). Three Miami County program participants conducted the community needs assessment survey with the help of 12 additional interviewers. The survey collected data from approximately 107 homes. All program participants in Miami County used the collected survey data in session 5 to learn the process for analysis of survey data. Analyzed data were represented in a graph format by Dr. Mancl and were returned to the program participants for use in their communities (see Appendix D for examples of analyzed data).

Dr. Mancl distributed evaluation forms to program participants in Logan and Miami Counties. The results were tabulated and an average was calculated for each evaluation criterion (see Appendices C and D). Evaluation scores from program participants revealed overwhelming satisfaction with Dr. Mancl's presentation, as well as the value of the educational activity.

**Construct Definition**

The second objective of this research study was to define the construct of community readiness as it exists within the stated context. Based upon the extensive literature review and the identified factors relating to community readiness that emerged in the data, a definition is forwarded.
Community Readiness:

The window of time in a community's existence when sufficient, key factors exist to manifest significant participation in a community development educational program. These key factors include: 1) demographic and environmental factors, 2) felt needs, 3) action orientations, and 4) motivators.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The U.S. Cooperative Extension Service, as well as many governmental and non-governmental organizations, have committed significant resources to providing educational programs for community and natural resource development. The determination by educational providers and community development practitioners of whether a community is ready for participation in this type of an educational activity or not was deemed essential for timely and cost-effective efforts. This research explored rural community readiness for participation in Extension education programs. The research objectives were:

1) to identify factors relating to rural community readiness for participation in community and natural resource development (CNRD) Extension education programs.

2) to define the construct of community readiness, as it exists within the stated context.
Accessed literature revealed only two references that were peripherally related to the research topic. An extensive literature review was conducted across disciplinary lines to uncover factors within individual readiness, group readiness and dynamics, readiness within the community context, the educational provider, and environmental context. Factors were subsequently filtered into structural categories to explore rural community readiness, while continually searching for new factors or alternative perspectives. The four categories formed at the end of the literature review were: demographics and related factors, felt need, action orientation, and constraints or motivators.

One educational program offered by the Ohio Cooperative Extension Service, "Wastewater Treatment Alternatives," was the focus of the research study. A naturalistic inquiry was adopted to allow for the discovery or expression of any factor in the data that may be a part of community readiness, rather than specifying variables a priori. Data sources included Ohio Cooperative Extension agents who had previously assisted the educational program facilitator in implementing the program; potential program participants attending promotional meetings in communities in three separate counties; four community development experts, including the program facilitator; an Extension county agent who cancelled a promotional meeting in a fourth county; and various documentation generated by the educational program.
Instrumentation and data collection emphasized triangulation by employing several data collection methods to acquire both qualitative and quantitative data: group interview, written questionnaire, focus group interview, face-to-face interview, participant observation, and documentation. A panel of experts reviewed the research instrumentation, while established techniques for substantiating trustworthiness within the qualitative paradigm were used in data collection and analysis.

Emergent factors were analyzed within the framework of the structural categories formed from the literature review. Those factors surfacing in the data that were supported in the literature review included: 1) age, gender, education level, income, elected status, pre-requisite learning, past participation in groups, community history, and environmental factors; 2) felt need, role-expectation, external forces, cultural momentum, perception of the problem, and interest in/relevance of the subject matter; 3) willingness for responsibility, ownership of the problem, decision-making processes, power structure, leadership, participation of stakeholders, participation of key figures, confidence level, communication systems, and the redefined factor of community outreach; and 4) perceived benefits and costs, attitude toward cooperative action/group setting, attitude toward learning and change, amount of local initiative or support, competing priorities, community pride, amount of conflict or consensus,
perception of the change agent/agency, and educational provider factors. Factors found in the literature review that did not arise in the data to any recognizable extent were occupation, proximity to the learning activity, social need, the inherent capacity for growth, and feeling of power or powerlessness. Possible new factors surfacing in the data included community density, vision and leaders' perceptions of community decision-making.

Conclusions and Recommendations

The collection and analysis of research data did not necessitate a restructuring of the four categories formed from the literature review. Factors filtered into the categories readily and the tone of analysis never took on an aspect of forcing the data. Rather, the data supported the initial structuring of categories and allowed for easy placement of possible new factors that surfaced into those categories. The factors themselves were redefined or reordered within the categories when deemed appropriate. Subsequent conclusions and recommendations of this research study were discussed within the previously designated categories.

Demographics and Related Factors

The factors related to community readiness for participation in CNRD Extension education programs arising from the data that were supported by the literature review
included age, gender, education level, income, elected status, pre-requisite learning, past participation in groups, community history, and environmental factors. All of these demographic factors appeared to have a definite relationship with greater community readiness, except possibly age.

Viewing the communities of this study relative to one another, the community participants exhibiting higher levels of readiness (Logan and Miami Counties) contained potential program participants that were predominantly male, had above-average income, and had higher levels of formal education. The least ready community (Pike County) had potential program participants that were lower in education level and income than the residents of both of the other two communities, and exhibited a nearly 50:50 ratio between males and females. This would indicate that gender, income, and education level noted by several authors in the literature review were significant. The mean age of promotional meeting attenders in all three counties was above fifty-years-of-age. Although this would indicate that potential participants of educational programs tend to be older (over forty-years-of-age in the literature), it does not necessarily indicate that they were more ready to actually participate, based upon the collected data that showed Pike County residents having the highest mean age of attenders.

Three demographic factors that were concluded to reveal the strongest relationship to community readiness in this
study were **elected status**, **pre-requisite learning**, and **past participation in groups**. Miami County had the highest percentage of elected officials, and Logan and Miami County participants had higher amounts of **pre-requisite learning** and greater **past participation in groups** than Pike County participants. If **elected status** is equated with community leadership, all of the demographic factors discussed so far directly correspond with many of the factors mentioned by Ayres and Potter (1989) concerning the demographic characteristics of community leaders, and uphold the first of Thullen's (1978) six power structure perspectives. The strongest implications from these demographic factors are that the promotional meeting attenders in Miami County were primarily community leaders. Since they also exhibited the highest level of readiness, this would indicate that community leaders possess more readiness for participation in educational activities than other community residents. Although Logan and Pike Counties had nearly equal percentages of elected officials attending the promotional meetings, the other factors of **income**, **education level**, **gender**, **pre-requisite learning**, and **past participation in groups** would suggest that there were more community leaders in attendance at the Logan County meeting, and that the Pike County meeting was comprised of a larger cross-section of community residents. Due to the low level of community readiness in Pike County, the implication is that community residents
possess less readiness to participate in educational activities than community leaders.

The prevalence of data concerning community history and environmental factors asserted the importance of these two factors relating to rural community readiness for participation in a CNRD Extension education program. The themes that comprised environmental factors arising in the data were readily incorporated into the factors of time, place, and community uniqueness. The unusual personality of a community was termed community uniqueness, and was noted as important in possibly intervening in or significantly affecting community readiness on a case specific basis.

Factors from the literature review that were apparently unrelated to community readiness included proximity to the learning activity, occupation, and the new factor of community density. The proximity of the learner to the learning activity suggested by Cross (1979) emerged as weakly negative to readiness, in that the least ready community (Pike County) had residents in far closer proximity to the activity than the other two communities. The possible new factor of community density was not repeated in the data after the initial identification; however, none of the three communities were measured for density.

Reordering of the factors within the category of demographics and related factors was visually presented in the following table (Table 4):
### Table 4

**Demographics and Related Factors**

**A. Demographics**

<table>
<thead>
<tr>
<th>(individual)</th>
<th>(group)</th>
<th>(community)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. age (possible)</td>
<td>1. age (possible)</td>
<td>1. age (possible)</td>
</tr>
<tr>
<td>2. gender</td>
<td>2. gender</td>
<td></td>
</tr>
<tr>
<td>3. education level</td>
<td>3. education level</td>
<td></td>
</tr>
<tr>
<td>4. income</td>
<td>4. income</td>
<td></td>
</tr>
<tr>
<td>5. elected status</td>
<td>5. elected status</td>
<td></td>
</tr>
<tr>
<td>6. occupation (possible)</td>
<td>6. occupation (possible)</td>
<td>7. density (possible)</td>
</tr>
</tbody>
</table>

**B. History**

<table>
<thead>
<tr>
<th>(individual)</th>
<th>(group)</th>
<th>(community)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. pre-requisite learning</td>
<td>1. pre-requisite learning</td>
<td></td>
</tr>
<tr>
<td>2. past participation in groups</td>
<td></td>
<td>3. community history</td>
</tr>
</tbody>
</table>

**C. Environmental Factors**

<table>
<thead>
<tr>
<th>(individual)</th>
<th>(group)</th>
<th>(community)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. group uniqueness (possible)</td>
<td>3. community uniqueness</td>
<td></td>
</tr>
</tbody>
</table>
The category was reorganized such that three broad factors were emphasized with sub-factors, or factors inherent within the broader factors, placed below them. The context in which each factor emerged was signified by its relation to individual, group, or community readiness to participate in Extension education programs. For example, pre-requisite learning surfaced as mainly an individual factor related to readiness; however, the pre-requisite learning of a group emerged as well. Past participation in groups was an individual factor, while community history arose within the community context. All three factors were viewed as existing under the broad umbrella of history, be it individual, group, or community.

Recommendations for further research involving demographic and related factors should include replication of the study in divergent environments with varying demographics. Age of residents and the age of the community itself should be studied, as well as citizen length of residence in the community. Further studies into occupational status of community leaders and residents and occupational linkages outside the community may prove aspects of occupation to be related to community readiness. Density of the community should be investigated to yield a relation to community readiness or not. Finally, proximity of learners to the educational activity may be revealed as a related factor to readiness for participation if examined in an environment with
a scarcity of transportation or resources.

Felt Need

The category of felt need encompassed many factors related to individual, group, and community motivation to participate and learn. Those factors discovered in the literature review that arose in the data were felt need, role expectation, external forces, cultural momentum, perception of the problem, dissatisfaction with the present situation, and interest in/relevance of the subject matter. Social need and the inherent capacity for growth did not emerge in data collection. A possible new factor that did surface was the future felt need of community leaders or residents, entitled vision.

Elaboration of conclusions and implications based upon the factors within the felt need category precipitated the visual presentation of the reorganized category in Table 5.
Table 5

Felt Need

A. Inherent Capacity for Growth (possible) (individual)

B. Perception of the Problem

C. Felt Need

D. Interest In/Relevance of the Subject Matter
   (individual)   (group)   (community)

1. dissatisfaction with the present situation 1. dissatisfaction with the present situation 1. dissatisfaction with the present situation
2. felt need                                     2. felt need                                     2. felt need
3. role expectation                              3. role expectation                              4. external forces
4. external forces                               4. external forces                               4. external forces
5. vision                                       6. cultural momentum                            6. cultural momentum
Although the inherent capacity for growth, described as the exploration of a subject for the innate fascination of learning by Rogers (1969), Brookfield (1980), and others, did not surface in this research, the conclusion was drawn that its possible appearance as a factor of individual readiness to participate in an education program would be independent of any of the other motivations to learn based on felt need. Furthermore, the lack of evidence concerning this factor in the collected data implied that any individuals participating in an education program for the sheer pleasure of learning would be very much out of the norm of participants in the context of this study.

The initial motivation for individuals, a group, or a community to participate in a CNRD Extension education program was perceived as based upon perception of the problem, felt need, or interest in/relevance of the subject matter, all of which were impacted later by the same compounding factors. For example, if the motivation to learn or act was based upon a perception of the problem, it was concluded that readiness to participate would increase with greater dissatisfaction with the present situation, and possibly increase even more by external forces. If the motivation to learn was based upon a felt need for information/skills, the compounding factor of role expectation was concluded to be a boost to readiness to participate. The combination of related factors are numerous and complicated within this general scheme, but are based upon
the three broader factors governing initial motivation.

As was mentioned in Chapter IV, the collected data concerning motivation to participate in an educational activity was very supportive of what Parsons and Shils (1951), Loomis (1960), Fanslow (1982) called role expectation, and was not supportive of social need as motivation. Readiness to participate from a role expectation was closely tied to willingness for responsibility (discussed in a later category) based upon the learner's perception of herself or himself as a community leader. The responses from potential program participants in Pike County were almost entirely non-leadership perceptions when asked what their roles in their community's development efforts were; whereas, in Logan and Miami Counties participants responded with perceptions of having leadership roles. The implication being that the more community residents that perceive themselves in a leadership role and willing for responsibility, the greater the level of community readiness for participation in an educational activity.

The newly-emergent factor called vision was most often expressed by elected officials among the promotional meeting attenders, once again implying that community leaders are more ready to participate or act than other community residents. Another implication is that leaders are more forward-looking about their communities than other residents.
The factors of interest in the subject matter and relevance of the subject matter were synthesized into one factor due to the difficulty of distinguishing one from the other in this study. It should be noted, however, that the relevance of the subject mentioned by Kidd (1973) and Knowles (1984) was perceived as the stronger aspect of motivation to learn. In particular, relevance of the subject matter to the participant's occupation or relevance to the participant's perception of the problem was strongly expressed.

Recommendations for future research of factors within the felt need category should incorporate replication of the study based on readiness to participate in personal-growth types of educational programs to see if alternative motivations to learn surface and to discover if motivation to learn based upon role expectation or perception of the problem, which were prevalent in the community development type of education program, would diminish. Future felt need, coined vision in this study, should be investigated to validate or dismiss the importance of the factor within other studies. Finally, the relationship between the factors designated as initiating motivation to learn and those designated as compounding it should be examined for both primacy and interrelatedness.

Action Orientation

The factors within the structural category of action orientation that surfaced in the research data were
willingness for responsibility, ownership of the problem, decision-making processes, leadership, power structure, participation of stakeholders, participation of key figures, confidence level, communication systems, and the redefined factor of community outreach. Feeling of power or powerless did not arise in this research study to a significant degree, but was a slightly discernable factor. A strong presence in the data was formulated into the possible new factor of leaders' perceptions of community decision-making.

Once again, the elaboration of conclusions and recommendations about factors within the category necessitated the visual reorganization of the action orientation category prior to discussion (see Table 6).
### Table 6

**Action Orientation**

<table>
<thead>
<tr>
<th>A. Decision-making processes</th>
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</tr>
</thead>
<tbody>
<tr>
<td>(individual)</td>
<td>(group)</td>
<td>(community)</td>
</tr>
<tr>
<td>1. willingness for responsibility</td>
<td>1. willingness for responsibility</td>
<td></td>
</tr>
<tr>
<td>2. ownership of the problem</td>
<td>2. ownership of the problem</td>
<td></td>
</tr>
<tr>
<td>3. participation of key figures</td>
<td>4. leadership</td>
<td>4. leadership</td>
</tr>
<tr>
<td>5. leaders' perceptions of community decision-making</td>
<td>5. leaders' perceptions of community decision-making</td>
<td></td>
</tr>
<tr>
<td>6. participation of stakeholders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. feeling of power/powerlessness (possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. confidence level</td>
<td>8. confidence level</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>B. Power structure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(individual)</td>
<td>(group)</td>
</tr>
<tr>
<td>1. willingness for responsibility</td>
<td>1. willingness for responsibility</td>
</tr>
<tr>
<td>2. ownership of the problem</td>
<td>2. ownership of the problem</td>
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<tr>
<td>3. participation of key figures</td>
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<tr>
<td>5. leaders' perceptions of community decision-making</td>
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<td>6. participation of stakeholders</td>
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<td>7. feeling of power/powerlessness (possible)</td>
<td></td>
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<tr>
<td>8. confidence level</td>
<td>8. confidence level</td>
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</table>

<table>
<thead>
<tr>
<th>C. Communication systems</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(individual)</td>
<td>(group)</td>
</tr>
<tr>
<td>1. community outreach</td>
<td>1. community outreach</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
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</tbody>
</table>
The decision-making processes and power structure of a community were revealed by the research to be broader umbrella factors under which many compounding factors or sub-factors fall. The orientation of the community toward acting upon felt needs detailed in the previous category was perceived as increasing the community's readiness for participation as the orientation toward acting increased. Orientation toward action or inaction was concluded to be closely aligned with the decision-making process as it exists within the power structure of the community, compounded by the remaining factors. The accompanying factor of leadership (paired with the previous two factors in Chapter IV) was not incorporated as a broader factor here, due to the conclusion from Cooperative Extension agents' and community development experts' observations that leadership was a part of decision-making processes within the community and not the primary factor. In addition, similar sources observed that many powerful and effective players in community decision-making processes are not always highly visible nor always perceived as leaders by other community residents.

It should be noted that the demographic factors and potential program participant responses that were discovered in the data implied a support of Rossi's (1966) pyramidal power structure and a combination of Thullen's (1978) power actor and differential participation perspectives on community decision-making.
The initial factors of willingness for responsibility and ownership of the problem falling under the umbrella of community decision-making processes/power structure were concluded to be action orientation manifestations of their corresponding felt need motivations of role expectation and perception of the problem. In other words, a learner's motivation to participate in a CNRD Extension education program based upon role expectation, for example, was perpetuated by a positive orientation toward action based upon willingness for responsibility within that role. Similarly, ownership of the problem was concluded to be the next step augmenting readiness to participate, motivated by a perception of the problem. In this way, the factors of each category can be seen to interconnectedly influence an individual, group, or community toward or away from readiness. In the case of Holmes County, a lack of ownership of the problem corresponded with a lack of a perception of the problem in the community.

The participation of key figures noted by data sources surfaced mainly as a spark for more wide-spread participation from groups in the community, directly mirroring Schautz's (1985) concept of 'spark plugs' in the community. The implication of these data are that the key figures are acting as innovators and the residents immediately following their lead are early adopters, equating the community's orientation towards readiness to participate in an education program with Rogers' (1983) diffusion of innovations model.
As stated in Chapter IV, the newly-formed factor of leaders' perceptions of community decision-making was an attempt by this researcher to solidify numerous responses from elected officials and other meeting attenders espousing community leadership status about the decision-making processes in their communities, particularly citizen participation or lack of it. Themes within this factor were concluded to be as follows: 1) leaders make decisions with no input from citizens, relating to the apathy community leaders feel exists in their communities (Compton and McClusky, 1980; Blank, et al., 1983), 2) leaders make decisions based on their interpretations of citizen input, and 3) decision-making is made by citizen consensus, but represented by leaders. In a study comparing rural leaders and residents in their attitudes toward community change, Ayres and Potter (1989) found, among other things, that leaders had more positive evaluations of community opportunities and were more change-oriented than residents. This may account in part for the pervasive negative perceptions by leaders toward the participation of community residents in decision-making. Another perspective might be to view community leader interviews as synonymous with elite interviews. Elites were described by Dexter (1970) and Bernard (1988) as solid insiders within a group or culture, but sufficiently distanced from it to provide an objective characterization of the whole. Elites were quite often
cynical about their culture, yet were found to provide accurate information about it as well.

A closely related factor to leader's perceptions of community decision-making was the participation of stakeholders. Community leaders attending the promotional meetings noted again and again that residents only got involved in decision-making if it directly affected them. The implication was that shared decision-making was only accomplished by the addition of those people whose lives are affected by the program to those people whose decisions can affect the future of the program (Gold, 1981, 1983; Greene, 1988); i.e., the addition of community residents to community leaders for shared decision-making.

The feeling of power or powerlessness on the part of community residents in decision-making was not detected to any significant level. One explanation for this could be that those residents who felt powerless did not attend the promotional meetings. Another reason could be that those who felt power did not express that feeling on a personal basis, but rather as a high confidence level in the group or community. The two factors were concluded to be very closely associated with one another, but not the same, in that a community resident could feasibly feel power in their decision-making input and still have a low confidence level about the community's ability to act on the decisions. It should be noted that the confidence level was high in Miami
County, and low in Pike and Holmes Counties, suggesting a relationship with community readiness.

A pervasive factor related to community readiness for participation in a community and natural resource development Extension education program was the communication systems within and between the community. Roberts (1979) reported that a closed communication system, the state of entropy, was the result of communication atrophy and negatively influenced community development. In the case of Holmes County, a very closed communication system went hand-in-hand with a lack of readiness within the community. The communication systems was concluded to be an influential factor in impacting many other factors. One could view the open communication within the community as a positive force upon felt need, action orientation, and a motivator to act upon an issue. In addition, the media was perceived as an external force upon the communication systems within the community.

An aspect of the community's communication systems outside the community, rather than within, was the redefined factor of community outreach. Factor characterization was comprised of the emergent themes of 1) community residents actively searching for information and assistance outside the community, with a corresponding higher level of readiness; versus 2) community residents looking for an easy fix/instant solution from an outside entity, or 3) community residents not actively looking outside the community for information or
resources, with corresponding lower levels of readiness. A prominent example of the second theme was Pike County community residents and elected officials focusing on grant money from the state or Federal government to solve their sewage problem. When they learned that only the fifth session of "Wastewater Treatment Alternatives" would deal with grants on a limited scale, the mayor wrote Dr. Mancl to cancel the workshop (see Appendix E). In Holmes County, money was found to hire a consultant for developing a sewage plan rather than the community developing their own plan after attending the workshop, so the businessmen's group initially supporting participation in the educational program contacted the Extension agent to cancel the promotional meeting. In both cases, the search for an easy fix implied that those communities possessed lower levels of readiness to participate in an Extension education program.

Recommendations for further study into the factors within the action orientation category should include targeting the power structure of a community to find differences in readiness based on that power structure, further study of individual action orientation versus group or community action orientation to find differences in the level of community readiness based on these, and research into the possible existence of a correlation between the level of community readiness and the amount of non-leadership citizen participation. Continued community readiness research should
ascertain the percentage of community leaders intending to participate in an Extension education program and whether community readiness to participate in these programs is significantly increased by greater community leader intentions to participate or not.

Constraints or Motivators

The last category of factors was related to the pulls or pushes on a community affecting its readiness to participate in a CNRD Extension education program. Emergent factors that were discovered in the literature review included perceived benefits and costs, attitude toward cooperative action/group setting, attitude toward learning and change, amount of local initiative or support, competing priorities, community pride, amount of conflict or consensus, perception of the change agent/agency, and educational provider factors.

Perceived costs of participation in an educational program or community action arose mainly as a possible loss of status for the individual and as financial roadblocks to community action, while perceived benefits arose from group cooperation. One implication of the latter is that perceived benefits from participation in an educational program should increase as the attitude toward cooperative action/group setting becomes more positive. Going back a step further, individual attitudes toward cooperative action/group setting were concluded to be impacted by the individual's past participation in groups.
On the other side of the coin, participants who responded that individuals were more effective in making changes in their communities than groups, overwhelmingly tied their attitudes to a positive feeling about participation of key figures. One implication is that a lack of past participation in groups could impact an individual's feelings about the participation of key figures in a positive manner.

The potential program participant responses concerning attitude toward learning and change came primarily from community leaders in discussing their communities. The leaders were perceived as more change oriented than other community residents, which directly supports the findings of Ayres and Potter (1989).

Emergence of the factor amount of local initiative or support suggested that it was a broader factor under which competing priorities and community pride fell. Competing priorities were concluded to be a negative influence on the amount of local initiative or support, and community pride was seen as a positive influence. Schautz (1985) similarly noted the influence of both sub-factors upon local support for participation or action within the community.

Like the factor of communication systems discussed previously, the amount of consensus or conflict within the group or community was prevalent in the collected data and was determined to influence many other factors in all the categories. Conflict in the community was perceived by most
data sources as an obstacle of readiness; however, conflict was also pointed out to be an indicator of interest within the community about an issue or program. Consensus surfaced as mainly a catalyst for community readiness, particularly if consensus exists between residents and between residents and leaders about the factors of felt need in the community, the factors of action orientation in the community, and the factors of constraints or motivators in the community. Although the amount of conflict or consensus was placed within this category due to its essential nature of being a constraint or motivator to community readiness, one could view the factor as a magnetic field over all the other factors, acting as an attractant or repellant between them concerning readiness to participate in an educational activity. As noted by Thullen (1978), conflict is not always necessarily bad but could have negative consequences for the community if it gets out of hand. Conflict emerged in the data primarily as introduced by outside entities, supporting Thullen's assertion that conflict often arises from external forces on the community.

The remaining two factors of perception of the change agent/agency and educational provider factors were concluded by this researcher to be closely associated with one another, but not one-in-the-same. The most obvious difference between the two factors was that the educational provider could be affecting community readiness without residents ever
perceiving the effect, or the change agent. In addition, community residents could have a perception about the change agent/agency in general that does not match their perceptions about an individual educational provider, possibly due to a feeling that the educational provider is exceptional or not the norm. Perceptions, in this way, were viewed as overriding the reality of the situation.

The educational provider factors identified in the data had to do with the basic effectiveness of the educational provider himself or herself. Initial participation and continued participation in an educational activity were concluded to be partially dependent upon 1) the educational provider's knowledge of the community's demographic and related factors, felt needs, action orientations, and constraints or motivators, i.e., knowledge of the community's level of readiness to participate; and 2) the style of teaching or facilitative approach of the educational provider, and whether the style/approach is based upon an understanding of the community's readiness to participate in a community and natural resource development educational program or not.

The subsequent reorganization of the factors within this category was represented in the following table (Table 7).
Table 7

Constraints or Motivators

A. **Attitude toward cooperative action/group setting**

<table>
<thead>
<tr>
<th>(individual)</th>
<th>(group)</th>
<th>(community)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. perceived benefits and costs</td>
<td>1. perceived benefits and costs</td>
<td></td>
</tr>
</tbody>
</table>

B. **Attitude toward learning and change**

C. **Amount of local initiative or support**

<table>
<thead>
<tr>
<th>(individual)</th>
<th>(group)</th>
<th>(community)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. competing priorities</td>
<td>1. competing priorities</td>
<td></td>
</tr>
<tr>
<td>2. community pride</td>
<td>2. community pride</td>
<td></td>
</tr>
</tbody>
</table>

D. **Amount of conflict or consensus**

E. **Perception of the change agent/agency**

<table>
<thead>
<tr>
<th>(individual)</th>
<th>(group)</th>
<th>(community)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. educational provider factors</td>
<td>1. educational provider factors</td>
<td>1. educational provider factors</td>
</tr>
</tbody>
</table>
Recommendations for future study concerning the factors within the category of constraints or motivators consist mainly of research into the interrelatedness of several factors. Are perceived costs of participation in an education program greater if the potential participant has a relatively negative attitude toward cooperative action/group setting or a relatively negative attitude toward learning and change? Is there a correlation between a lack of past participation in groups and a positive attitude toward the participation of key figures? Should the amount of conflict or consensus in a community change the approach used by the educational provider? In what way?

General Recommendations

Beyond the specific recommendations offered at the close of each structural category, there are broader recommendations for both researchers and community development practitioners conducting further studies about community readiness to participate in educational activities.

For researchers:

1) A methodological recommendation is to include community residents that are designated as non-participatory in community development activities as another data source in replications of this study. Naturalistic inquirers could access community leaders in purposively sampling citizens
designated by them as non-participatory, while quantitative researchers could use random sampling of all residents within the community.

2) Research needs to be conducted within a wide range of rural communities, with divergent populations, and in varying areas of the U.S. and in developing nation contexts to determine key, universal factors affecting rural community readiness for the stated activities. In addition, further research within non-rural communities must be advanced to determine whether the identified factors and the definition of the construct provided in this research study are meaningful and appropriate to both rural and urban contexts.

3) Design an assessment technique using all of the structural categories and their identified factors, henceforth called a 'community readiness assessment', for the purposes of determining the level of readiness within a community for participation in CNRD educational activities and the probable success or failure of those efforts. The community readiness assessment would recognize more than needs; it would recognize demographic and environmental factors, action orientations, and constraints or motivators affecting the level of readiness within the community as well.
For practitioners:

1) Community development practitioners are recommended to use the community readiness assessment technique for the purposes stated above, and to provide feedback to the developers of the technique as to the completeness, appropriateness, and practicality of the assessment technique.
APPENDIX A

RESEARCH INSTRUMENTS
FOCUS GROUP INTERVIEW WITH
OCES COUNTY AGENTS

Date________________________

Location________________________

1. We will be discussing community readiness for participation in extension education programs concerning community development. What is your definition of community readiness for this type of activity?

2.a. Imagine that you are working with a community which is, by your definition, ideally ready for participation in an extension education program about community development. What knowledge would that community possess to indicate its readiness, keeping in mind that readiness can be present on a collective and/or individual level?

b. What attitudes would that community possess to indicate its readiness, again remembering the different levels in which readiness can be present?

c. On an individual and/or collective level, what behaviors would citizens of that community display to indicate their readiness for participation in an extension education program about community development?

3. The character of a community is affected by its environment: its location within a country or continent, as well as changes over a long period of time. How do environmental factors, and other factors you may perceive, have an effect on community readiness for participation in an extension education program?

4. In your words, what constitutes participation in an extension education program concerning community development?
5. What factors do you believe have an effect on continued participation by learners in an extension education program?

6. Drawing on your own experiences of working with Dr. Mancl's "Wastewater Treatment Alternatives" education program, what can a County Agent do to determine if a community is ready for this type of program or not ready for this type of program?

7. What should the program facilitator, such as Dr. Mancl, do to determine if a community is ready or not?

8. What has occurred since the "Wastewater Treatment Alternatives" program was given to indicate whether your participant communities were or were not ready for this program?
GROUP INTERVIEW

Date____________________  Location____________________

1. What is it about you or your personality that prompted you to attend this meeting tonight? (In other words, why did you come here tonight?)

What other reasons prompt people to attend a meeting like this one?

What do you think will be some of the benefits of attending this workshop? What will be some of the costs?

2. Think about living conditions, local services, and development in your community. What is satisfactory or unsatisfactory about your community's present situation?

Can you explain that further?

When did you realize that about your community?

3. What people are responsible for making decisions about community development issues in your community?

(if given name) What is [name's] occupation?

Why is [name or organization or "everyone"] responsible?

What people should be responsible for making decisions about community development issues in your community?

4. What provisions, if any, are made for citizens in your community to be involved in decision-making concerning community development?

How do citizens voice their opinions in your community?
Do you think most citizens feel they have a voice in community decision-making? Why?

Thinking back to a previous decision made in your community that affected residents, were the people most affected by the decision included in the decision-making process?

5.a. Every community has strengths and weaknesses in dealing with change. What is special about your community and its people that make it possible for changes to occur?

What kind of local support is there for making changes?

How much do people in your community agree or disagree on community development issues?

How is change, of any kind, viewed in your community?

5.b. What do you think are the major roadblocks to making changes in your community?

(see previous probes)

Are there more important issues of community development that need to be dealt with in your community than wastewater treatment at this time? Can you give me an example? Do you foresee any in the future?

6. Think back to past experiences your community has had with working on a problem. Can you give some examples, positive or negative, of how your community went about making changes?

Can you give me a specific example?

Do you think [action mentioned] will happen again?
7. Imagine you are responsible for deciding whether a community development workshop like this one should take place in your community or not. How would you know if your community is ready or not ready for this activity?

Would you get adequate participation?

Who would come?
WRITTEN QUESTIONNAIRE

COMMUNITY RESEARCH

MARK A. MILLER

OHIO STATE UNIVERSITY

(circle the letter of the correct response or fill in the blank provided)

1. In your opinion, is your community adequately represented at this meeting?
   a. YES
   b. NO

   If you answered NO, what individuals or groups should be in attendance that are not here?
   (Please identify individuals by their occupations, not by their names):
   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________

2. Whom do you feel is more effective in making changes in your community, individuals or groups?
   a. INDIVIDUALS
   b. GROUPS

   (Please explain why you chose your answer)
3. What do you feel is your role in your community's development efforts?

4. Have you been involved with any groups in the last 5 years? (For example: social clubs, church groups, or political organizations)
   a. YES
   b. NO

   If you answered YES, please name some of the groups you have been involved with in the last 5 years:

   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________

5. What is your primary occupation? _______________________________
6. Do you serve as an elected official?
   a. YES
   b. NO

   If YES, what is your official title?

7. Are you a resident of the town where this meeting is being held?
   a. YES
   b. NO

   If NO, how many miles away from here is your community or township? ____________

8. How much previous experience have you had with wastewater treatment? Would you say you are:
   a. NOT AT ALL EXPERIENCED
   b. SOMewhat EXPERIENCED
   c. VERY EXPERIENCED

9. Why is wastewater treatment information important to you or not important to you?

10. Do you feel the Cooperative Extension Service is a help or a hindrance to community development within your community?
    a. HELP
    b. HINDRANCE

    (Please explain why you chose your answer)
11. What is your age? ________________________

12. Are you:  
   a. MALE  
   b. FEMALE

13. Please circle the letter of the highest education level you have attained:
   a. SOME HIGH SCHOOL  
   b. HIGH SCHOOL DIPLOMA OR EQUIVALENCE DEGREE  
   c. SOME COLLEGE  
   d. BACHELOR'S DEGREE  
   e. MASTER'S DEGREE  
   f. DOCTORATE DEGREE

14. Please circle the letter of the category that best describes your gross annual family income for 1988:
   a. LESS THAN $15,000  
   b. $15,000 - $24,999  
   c. $25,000 - $34,999  
   d. $35,000 OR ABOVE

** Please feel free to make any additional comments:

Thank you for taking the time to complete this survey.
FACE-TO-FACE INTERVIEW WITH HOLMES COUNTY AGENT

Date ______________________

Location ______________________

1. Why was the promotional meeting cancelled?

2. Who made the decision to cancel the meeting? Alone or in a group? Was there consensus to cancel? In your opinion, why was the meeting cancelled?

3. Relate the circumstances of promoting the meeting, up to and including cancellation:
   - Reception of the idea
   - Communication systems and publicity
   - Discussion and any action
   - Conflict or consensus

4. Do you feel this community is ready or is not ready for participation in Dr. Mancl's educational program? Why or why not?

5. What needs to occur for this community to be ready for this type of activity? How will you know the community is ready? How could Dr. Mancl determine the community's readiness?

6. Every community has strengths and weaknesses in dealing with change. What is positive about this community and its residents that make it possible for changes to occur?
7. What do you think are the major roadblocks to making changes in this community?

   How is change, of any kind, viewed?

   Is there a perception of a problem here? What is the perception?

   Is there ownership of the problem?

8. Community situations can be unique to a particular period in time or a specific location: what I call 'environmental factors.' How important are environmental factors in this community's readiness or lack of readiness for participation in an Extension education program?

   How unique is that situation in relation to other communities?
APPENDIX B

MAP OF OHIO COUNTIES WHERE PROMOTIONAL MEETINGS WERE SCHEDULED
APPENDIX C

LOGAN COUNTY WORKSHOP DOCUMENTATION
"Wastewater Treatment Alternatives"

LOGAN COUNTY ATTENDANCE LIST

<table>
<thead>
<tr>
<th>Attenders</th>
<th>Occupation or Elected Status</th>
<th>Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>1.</td>
<td>Local official</td>
<td>x x x x x</td>
</tr>
<tr>
<td>2.</td>
<td>Builder</td>
<td>x x x</td>
</tr>
<tr>
<td>3.</td>
<td>Builder</td>
<td>x</td>
</tr>
<tr>
<td>4.</td>
<td>Local official</td>
<td>x x x x</td>
</tr>
<tr>
<td>5.</td>
<td>Interested citizen</td>
<td>x x x</td>
</tr>
<tr>
<td>6.</td>
<td>Soil conservation service</td>
<td>x x x</td>
</tr>
<tr>
<td>7.</td>
<td>Interested citizen</td>
<td>x x</td>
</tr>
<tr>
<td>8.</td>
<td>Local official</td>
<td>x x x x</td>
</tr>
<tr>
<td>9.</td>
<td>Local official</td>
<td>x x x x</td>
</tr>
<tr>
<td>10.</td>
<td>Health department</td>
<td>x x x</td>
</tr>
<tr>
<td>11.</td>
<td>Health department</td>
<td>x x</td>
</tr>
<tr>
<td>12.</td>
<td>Health department</td>
<td>x x x x</td>
</tr>
<tr>
<td>13.</td>
<td>Local official</td>
<td>x x x x</td>
</tr>
<tr>
<td>14.</td>
<td>Health department</td>
<td>x x</td>
</tr>
<tr>
<td>15.</td>
<td>Health department</td>
<td>x</td>
</tr>
<tr>
<td>16.</td>
<td>Interested citizen</td>
<td>x x x x</td>
</tr>
<tr>
<td>17.</td>
<td>-------</td>
<td>x</td>
</tr>
</tbody>
</table>

* Attendance unavailable for session 3
PRETEST/POST TEST RESULTS

Wastewater Treatment Alternatives Workshop
Logan County
Conducted by: Karen Mancl and Harold Schneider

Overall attendance
Session 1 13
Session 2 15
Ses. 3 (field trip) 12
Session 4 12
Session 5 10

Pretest/Post test results for 8 participants

Objective 1
20% will be able to identify the relative
costs for treatment plants and sewer systems
Results 25%

Objective 2
20% will learn how septic systems work
no change*
(86% responded correctly in pre-test)

Objective 3
20% will learn the limits to the
use of septic systems
38%

Objective 4
20% will be able to identify a failing
septic system
38%

Objective 5
20% will be able to prescribe the use of
one alternative sewage system
38%

Objective 6
10% will be able to identify system
operation and maintenance requirements
13%

Objective 7
20% will be able to identify necessary
consultant qualifications
25%

Objective 8
20% will learn the role of regulatory
agencies
50%

Objective 9
30% will find the seminar very helpful in
planning
89%

Overall test scores
Ave. score for pretest (13 tests) 59%
Ave. score for post-test (9 tests) 83%
PARTICIPANT EVALUATIONS OF THE INSTRUCTOR

Extension Specialist Student Evaluation*

Specialist’s Name: Karen Mancl  
Date:  

1. Ability to communicate with audience: 6.8 AVERAGE SCORE

7 6 5 4 3 2 1
Expressed ideas clearly with well chosen words and illustrations.  
Meaning clear to unclear.  
Explanations frequently vague and rambling.

2. Organization of presentation: 6.6 AVERAGE SCORE

7 6 5 4 3 2 1
Very well organized.  
Moderately organized.  
Poorly organized.

3. Speaking ability: 6.9 AVERAGE SCORE

7 6 5 4 3 2 1
Speaks clearly and distinctly; words come easily.  
Words sometimes indistinct or hesitant.  
Inadequate in expressing oneself; frequently impossible to hear.

4. Familiarity with subject matter: 6.8 AVERAGE SCORE

7 6 5 4 3 2 1
Shows a high degree of familiarity with subject matter taught.  
Shows a moderate degree of familiarity with subject matter taught.  
Shows lack of familiarity with subject matter taught.

5. Thinking encouraged: 6.4 AVERAGE SCORE

7 6 5 4 3 2 1
Audience was stimulated to think how to use ideas presented.  
Some independent thinking required.  
Audience was not stimulated to think how to use ideas presented.

*To be filled out by audience being taught.
PARTICIPANT EVALUATIONS OF THE INSTRUCTOR

6. How would you rate the value of this meeting? Did you learn: 6.4 AVERAGE

7 __________ 6 __________ 5 __________ 4 __________ 3 __________ 2 __________ 1
Much. Moderate amount. Very little.

7. How would this meeting rank with other Extension meetings that you have attended? 6.5 AVERAGE SCORE

7 __________ 6 __________ 5 __________ 4 __________ 3 __________ 2 __________ 1
Very high. Medium. Low.

8. Mannerisms of the specialist? 6.8 AVERAGE SCORE

7 __________ 6 __________ 5 __________ 4 __________ 3 __________ 2 __________ 1
Easy to listen to. Moderately easy to listen to. Turned me off.

9. How does this specialist rank with other specialists whom you have heard? 6.5

7 __________ 6 __________ 5 __________ 4 __________ 3 __________ 2 __________ 1
Very high. Medium. Low.

10. What constructive criticism do you have of the meeting and/or the instructor? (Use reverse side if needed).

The quantity and quality of information was good. I was unable to go on tour but would have a suggestion. The tour might to a failed system or to a cluster system in operation. Excellent program. You did an excellent job in presentation and delivery.

Little less hurried - even if it cost us all more. No reflection on the teacher only time allotted. Spoke in language layperson could understand. How information could be applied to existing unit in small community.

I have no criticism. I just wanted to say I have attended many classes and workshops and I have never seen anyone as enthusiastic about the subject matter they were teaching. Mrs. Mancl took what could have been a boring subject and made you want to learn more. Thank you!

I really appreciated Karen’s enthusiasm and her easy manner. No question was ever ridiculous. Classes closer together might be a nice thought.

Presented the information in graphic and entertaining manner. Was good at taking the time to answer any and all questions as they arose while still keeping control of presentation.
EXTENSION ANNOUNCEMENT FOR THE PROMOTIONAL MEETING

Ohio Cooperative Extension Service
Logan County
Memorial Hall
Bellefontaine, OH 43311
Phone 513-599-4227

NEWS RELEASE

FOR MORE INFORMATION, CONTACT: HAROLD C. SCHNEIDER
COUNTY EXTENSION AGENT, AGR’L
MEMORIAL HALL
BELLEFONTAINE, OH 43311
PHONE: 513-599-4227

August 23, 1989

WASTEWATER TREATMENT SEMINAR

Local Leaders in communities of less than 500 homes are facing one of the most confusing and important decisions they will ever make; how to provide wastewater treatment services for their communities.

Anyone interested in this workshop is encouraged to attend the following informational meeting to be held at Memorial Hall Meeting Room, Court & Opera, Bellefontaine, Tuesday, August 29th, from 7 – 9 p.m.

Dr. Karen Mancl, Waste Management Specialist, Agricultural Engineering, The Ohio State University, will be the resource person.
Workshop tour

Several participants of the Wastewater Treatment Alternatives Workshop spent a day recently visiting five different sized wastewater treatment facilities. They toured plants at Bellefontaine, the Transportation Research Center, West Liberty, Huntsville and the Ohio Department of Transportation rest stop on U.S. Route 33. The object was to learn more about such plants. See story on page 10.
When The Septic System Fails!

By HAROLD C. SCHNEIDER
Extension Agent, Agr

Farm View

In the rural communities of Logan County, local officials and concerned citizens are grappling with a major environmental problem. How to deal with individual, on-site septic systems to treat wastewater. Located in the backyards of homeowners, septic systems can be an inexpensive way to treat wastewater. But age, lack maintenance, poor soil and a simple lack of space have contributed to their failure as untreated sewage has been polluting the communities' groundwater, ditches and streams.

Eighteen individuals have enrolled in an intensive, 14-hour course administered by The Ohio State University, Logan County Extension and Health Department. It features new concepts and vocabulary, management seminars and even a Saturday field trip.

Are the pupils pursuing degrees in political science or public policy theory? Not quite. These local folks are receiving an education in rural wastewater management.

With contractors, consultants and regulators all telling the small town official what to do about his wastewater management problem, it's easy for the local official to become intimidated. But the educational program from Ohio State taught by Dr. Karen Mancini, agricultural engineering, may make matters more clear. The five-part course — four two-hour meetings, and a six-hour field trip — is designed specifically with the small town in mind.

Session 1 introduces the range of terms in wastewater treatment and details each wastewater management alternative and where they may be used in a respective community. About two weeks later, session 2 begins with a review and then focuses on how town officials can gather and assess crucial information about their community's needs. The typical assumptions about the percentage of septic systems that are failing, the number of people who need service and where to construct a system can be costly if not correct.

During session 2, students learn the importance of soil evaluation in determining the suitability of a lot for on-site treatment. They also are introduced to the county soil survey and they learn about the soils in their county. Typically, many in the group have never seen a soil survey or known that one even existed.

Session 2 also is an exercise in investigative training as participants learn how to interview homeowners about their sewage systems, water use and overall attitudes about the wastewater treatment dilemma. Since the results of a survey belong to the local officials, they are much more likely to act on the results if personally involved in the data collection. Therefore, the local politicians themselves — armed with a preconceived series of questions — should pound the pavement and conduct face-to-face interviews. Since interviews generally require minimal work for the respondent, they are preferable to mail surveys, which need to be filled out.

Going door to door also gives the local official firsthand information and gives residents a chance to voice their opinions directly to one of the people who will be making the decision. During session 2 participants receive sample interview questions and a series of interview tips, and then go through a mock interview.

Session 3 is traditionally a student's delight — an all-day field trip. The officials visit sewage facilities and treatment plants where they can see, smell, hear and evaluate a facility. They speak with plant operators and learn the right questions to ask when ready to make a purchase for their own town. After all, a person wouldn't dream of buying a house without looking at it first, yet many small town officials buy sewage facilities without first visiting a similar facility.

Sessions 4 and 5, meanwhile, concentrate on the maintenance and operation of a sewage facility once it's implemented and on administrative questions such as funding, hiring consultants and working with regulatory agencies. To date, nine workshops have been completed in Ohio.
Septic Tank Maintenance Encouraged

BY HAROLD C. SCHNEIDER
Extension Agent, Agr'l

Farmview
Would you buy a car and then never change the oil during the entire time you owned it? Of course not. Yet most of the 25 million owners of septic tanks in the United States treat their septic tanks this way — they rarely, if ever, check to see how their systems are operating. Most homeowners wait until something goes wrong with their septic system before taking any action. This is the same as driving your car until it runs out of oil and then having to replace the engine.

If everyone in a community adopted this approach concerning their cars, it would naturally lead to a need for public transportation systems. The same thing happens with septic systems — when many individual septic systems fail, homeowners demand costly conventional sewers.

Although cars come with owner’s manuals, septic tanks usually don’t. In fact, most people inherit a septic system rather than purchase it directly. To make matters even worse, septic systems are out of sight and difficult to find even if one wanted to check the system.

Fifteen public and private Logan County participants have been attending a 14-hour workshop sponsored by the Cooperative Extension Service. The workshop is designed to teach the principles of wastewater treatment and alternative sewage systems. The participants also learned that not pumping your septic tank is number three on why your septic system fails. The brochure “Septic Tank Maintenance” by Karen M. Mancl, water quality specialist, Ohio State University, is available at the Logan County Extension Office.

The most common wastewater treatment system used in rural Logan County is the septic tank-soil absorption system. The septic tank removes solids by holding wastewater in the tank, which allows the solids to settle and scum to rise to the top. To accomplish this, wastewater should be held in the tank for at least 24 hours. Up to 50 percent of the solids retained in the tank decompose. The remaining solids accumulate in the tank. Biological and chemical additives are not needed to aid or accelerate decomposition.

As the septic system is used, sludge continues to accumulate in the bottom of the septic tank. Properly designed tanks have enough space for up to three years safe accumulation of sludge. When the sludge level increases beyond this point, sewage has less time to settle properly before leaving the tank. As the sludge level increases, more solids escape into the absorption area. If sludge accumulates too long, no settling occurs before the sewage escapes directly to the soil absorption area.

To prevent this, the tank must be pumped periodically.

In Ohio, a 1,500-gallon septic tank is used for a home with three bedrooms. If six people reside in a three-bedroom house, the tank should be pumped every 2.6 years. If the same system serves a family of two, the tank would be ready for pumping every 9.1 years. Systems installed before the current rules and regulations may have smaller septic tanks. These tanks may need to be pumped more often than once a year.

It is important to note that the soil absorption field will not fail immediately when a full tank is not pumped. However, the septic tank is no longer protecting the soil absorption field from solids. Continued neglect may result in failure and the soil absorption field may need to be replaced. In some cases, replacement of the absorption area may not be possible due to site limitations.

Cleaning The Tank
Septic tank pump and haul contractors can clean your tank. It is a good idea to supervise cleaning to ensure that it is done properly. To extract all the material from the tank, the scum layer must be broken up and the sludge layer stirred up into the liquid portion of the tank. This is usually done by alternately siphoning liquid from the tank and reinjecting it into the bottom of the tank. The septic tank should be pumped out through the large central manhole, not the baffle inspection ports. Pumping out a tank through the baffle inspection ports can damage the baffles.

Before closing the tank, check the condition of the baffles. If they are missing or deteriorated, replace them with sanitary tees. It should never be necessary to enter a septic tank. Any work to replace the baffles or repair the tank should be made from the outside. The septic tank produces toxic gases which can kill a person in a matter of minutes. When working on a tank make sure the area is well ventilated and someone is standing by. Never go into a septic tank to retrieve someone who fell in and was overcome by toxic gases or the lack of oxygen without a self-contained breathing apparatus. If an SCBA is not available the best thing to do is call for emergency services and put a fan at the top of the tank to blow in fresh air.

To facilitate future cleaning and inspection, install risers from the central manhole and inspection ports to the surface before burying the tank. Also mark the location of the tank so that it can be easily located.
APPENDIX D

MIAMI COUNTY WORKSHOP DOCUMENTATION
"Wastewater Treatment Alternatives"

MIAMI COUNTY ATTENDANCE LIST

<table>
<thead>
<tr>
<th>Attender</th>
<th>Occupation or Elected Status</th>
<th>Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Local official</td>
<td>x x x x</td>
</tr>
<tr>
<td>2.</td>
<td>Interested citizen</td>
<td>x x x x x</td>
</tr>
<tr>
<td>3.</td>
<td>County official</td>
<td>x x</td>
</tr>
<tr>
<td>4.</td>
<td>Local official</td>
<td>x x x x x</td>
</tr>
<tr>
<td>5.</td>
<td>Local official</td>
<td>x x x x x</td>
</tr>
<tr>
<td>6.</td>
<td>Local official</td>
<td>x x x x</td>
</tr>
<tr>
<td>7.</td>
<td>Local official</td>
<td>x x x x</td>
</tr>
<tr>
<td>8.</td>
<td>Local official</td>
<td>x x x x</td>
</tr>
<tr>
<td>9.</td>
<td>Local official</td>
<td>x x x x x</td>
</tr>
<tr>
<td>10.</td>
<td>Local official</td>
<td>x x x x x</td>
</tr>
<tr>
<td>11.</td>
<td>County official</td>
<td>x x</td>
</tr>
<tr>
<td>12.</td>
<td>Local official</td>
<td>x x</td>
</tr>
<tr>
<td>13.</td>
<td>Sanitary engineer</td>
<td></td>
</tr>
</tbody>
</table>
Wastewater Treatment Alternatives Workshop
Miami County
Oct. 19 - Nov. 30, 1989
Conducted by: Karen Mancl and Jeff Layman

Overall attendance
<table>
<thead>
<tr>
<th>Session 1</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 2</td>
<td>10</td>
</tr>
<tr>
<td>Ses. 3 (field trip)</td>
<td>6</td>
</tr>
<tr>
<td>Session 4</td>
<td>11</td>
</tr>
<tr>
<td>Session 5</td>
<td>9</td>
</tr>
</tbody>
</table>

Survey Training | 10
Casstown Council | 12

Pretest/Post test results for 3 participants

Objective 1
20% will be able to identify the relative costs for treatment plants and sewer systems (100% responded correctly in pre-test)

Results
no change

Objective 2
20% will learn how septic systems work

Results
no change
(100% responded correctly in pre-test)

Objective 3
20% will learn the limits to the use of septic systems

Results
67%

Objective 4
20% will be able to identify a failing septic system

Results
0%

Objective 5
20% will be able to prescribe the use of one alternative sewage system (100% responded correctly in pre-test)

Results
no change

Objective 6
10% will be able to identify system operation and maintenance requirements

Results
33%

Objective 7
20% will be able to identify necessary consultant qualifications

Results
33%

Objective 8
20% will learn the role of regulatory agencies

Results
67%

Objective 9
30% will find the seminar very helpful in planning

Results
89%

Overall test scores
Ave. score for pretest (5 tests) | 70%
Ave. score for post-test (9 tests) | 76%
PARTICIPANT EVALUATIONS OF THE INSTRUCTOR

Extension Specialist Student Evaluation*

Specialist's Name: Karen Mancl  Date:

1. Ability to communicate with audience: 6.6 AVERAGE SCORE

<table>
<thead>
<tr>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressed ideas clearly with well chosen words and illustrations.</td>
<td>Meaning clear to unclear</td>
<td>Explanations frequently vague and rambling.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Organization of presentation: 6.8 AVERAGE SCORE

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<tr>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very well organized.</td>
<td>Moderately organized.</td>
<td>Poorly organized.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Speaking ability: 6.8 AVERAGE SCORE

<table>
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<tr>
<th>7</th>
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<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaks clearly and distinctly; words come easily.</td>
<td>Words sometimes indistinct or hesitant.</td>
<td>Inadequate in expressing oneself; frequently impossible to hear.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

4. Familiarity with subject matter: 6.9 AVERAGE SCORE

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<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows a high degree of familiarity with subject matter taught.</td>
<td>Shows a moderate degree of familiarity with subject matter taught.</td>
<td>Shows lack of familiarity with subject matter taught.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Thinking encouraged: 5.9 AVERAGE SCORE

<table>
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<tr>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audience was stimulated to think how to use ideas presented.</td>
<td>Some independent thinking required.</td>
<td>Audience was not stimulated to think how to use ideas presented.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*To be filled out by audience being taught.
PARTICIPANT EVALUATIONS OF THE INSTRUCTOR

6. How would you rate the value of this meeting? Did you learn: 6.4 AVERAGE

<table>
<thead>
<tr>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much.</td>
<td>Moderate amount.</td>
<td>Very little.</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

7. How would this meeting rank with other Extension meetings that you have attended? 6.5 AVERAGE SCORE

<table>
<thead>
<tr>
<th>7</th>
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<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high.</td>
<td>Medium.</td>
<td>Low.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Mannerisms of the specialist? 6.7 AVERAGE SCORE

<table>
<thead>
<tr>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to listen to.</td>
<td>Moderately easy to listen to.</td>
<td>Turned me off.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. How does this specialist rank with other specialists whom you have heard? 6.5 AVERAGE SCORE

<table>
<thead>
<tr>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high.</td>
<td>Medium.</td>
<td>Low.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. What constructive criticism do you have of the meeting and/or the instructor? (Use reverse side if needed).

COMMENTS

Lower ranking for Question 6 reflects my anticipation of specific answers for problems with new development in a more urban atmosphere and not with the material covered by Dr. Mancl. I actually learned more than I had anticipated, which will be of great value for other problems we could face in the future.

Questions asked seemed to be rhetorical.

Great job.
EXTENSION ANNOUNCEMENT FOR THE PROMOTIONAL MEETING

T. H. E
OHIO
STATE
UNIVERSITY

Ohio Cooperative Extension Service
Miami County
Court House
Troy, OH 45373
Phone 513-332-6829

September 19, 1989

To: Local Rural Community Leaders, Township Trustees, Health
Department Personnel, Planning & Zoning Personnel, Anyone with an
interest in Wastewater Treatment

Wastewater Treatment is a cause for concern in many small
rural communities across the United States, and the same holds true
here in Miami County. Providing sewage facilities for small towns
and rural communities can be expensive and confusing. Everyone is
trying to tell you what to do, how to do it, and in words that you
may not understand.

A workshop has been designed by personnel of the Ohio
Cooperative Extension Service to help you find the answers to your
sewage facilities problems. It will be offered right here in Miami
County with the first get together scheduled for Thursday evening,
November 5th from 7 until 9 pm. This promotional session will be
held in the Extension Office Meeting Room in the Northwest corner
of the Courthouse in Troy. There is an outside door to that room
on the north side of the building.

The program is offered in four 2 hour meetings and a 6 hour
field trip. These sessions are spread over a two-month period.
This allows for a small community to learn how to work together to
solve a common problem.

The cost of the program is nominal. Each person in attendance
will be billed for $10 to cover the cost of the notebook and
resource materials. If you perceive a problem in your community
this workshop can put you on your way to dealing with the
situation.

Please find on the reverse side of this letter a discussion
of the various sessions of the workshop. If you require further
information please contact me at the Cooperative Extension Service
Office in the Courthouse. My telephone number is 332-6829. The
county WATS number is 1-800-234-5373.

Best Wishes

Jeffrey D. Layman
County Extension Agent, Agriculture and C&NRD
Wastewater Treatment Workshop
For Rural Communities & Townships

Session # 1
- learn about alternatives
- how the alternatives work
- where each alternative might be used

Session # 2
- learn how to assess your facility needs

Session # 3
- visit some operating facilities
- see them, smell them, watch them work

Session # 4
- learn about operation & maintenance

Session # 5
- how to hire a consultant
- identify funding sources
- learn how to work with regulatory agencies
Trustees trying to get handle on future of township

By ALAN FRIEMAN
Staff Writer

Township officials are conducting a sewage facility study and are looking into joining the Miami Valley Regional Planning Commission as ways to help gauge the township's future.

"We have some needs, but we're a small township and our funds are limited," said trustee President. "We're unable to hire consultants and spend a lot of dollars on these type of things. We're trying to find the most economic source of help we can to plan for our future."

The sewage facility study was suggested to the trustees at a conference for small, rural governments they attended, and is being developed by Ken Mando, an agricultural engineering professor at Ohio State University.

"We'll have 15 township officials doing the survey. We hope to survey about 150 homes in the area, said. "It's strictly a voluntary survey and the answers will be kept private. We hope to have it completed by Nov. 22.

"We're collecting information about existing sewage collection facilities and trying to pinpoint problems and find ways to provide additional sewage facilities," he said.

Once the information is collected, it will be turned over to Mando, who will make an analysis of the results. Copies of the analysis will be available to residents.

"We know we have sewage problems in the township. We have small areas and some sewage is getting into some of the township's drainage areas," said. "It's a problem that has to be corrected. It has been in existence for years, and we have to figure out how to correct it."

By surveying residents about the situation, the trustees hope to be able to find solutions that are more timely and cost-efficient, he said.

"We'll be meeting with them on Nov. 29 and talk with them on what we can do in terms of our community. We'll do more on the whole situation," said. "Anything we can do to get that accomplished we're going to investigate."

The land use plan is particularly important in helping the township with land use plans and possible annexations, he said.

"We want to prevent annexation. We don't want it to happen as long as we can avoid it," said. "Growth from the south, from Huber Heights, is press.

ing us. If we don't get some idea of our future growth, it might spill over into Miami County and into the township."

Although the township land use commission has been working with the county, it seems they've had other things come up and we've been put on the back burner," he said. "We had hoped to have the plan done by the middle of this year and we still are hoping to have it completed this year."

said he expects the trustees to make a decision on whether the township will join the MVRPC shortly after the Nov. 29 meeting.
Twp conducts sewage facility study

Township trustees have begun a community sewage facility survey in Brandt and surrounding areas of the township.

The survey, which began Nov. 15, is being conducted with Dr. Karen Mancl of Ohio State University's Department of Agricultural Engineering and the Miami County Cooperative Extension Service.

Trustees say the survey is being made to determine the ability of the present sewage system to handle the township's needs.

Also discussed was the township's application for State Issue II funds for reconstruction of New Carlisle Road. The township applied for $268,758 and was notified it was listed in eighth priority among 16 infrastructure assistance applications.

Trustees have scheduled a Nov. 29 meeting with the Miami Valley Regional Planning Commission and announced plans to have a new computer system in operation by year's end.

A zoning hearing has been scheduled Nov. 26 at 6:45 p.m. on a request by Michael Beams, 4112 Scarff Road, to rezone two parcels of land from A2—agricultural use to A1.
TOWNSHIP
BOARD OF TRUSTEES
ANNOUNCE
SEWER SYSTEM
STUDY

Your Board of Trustees have been attending a Workshop entitled "Wastewater Treatment Alternatives for Small Rural Communities." This workshop is being jointly sponsored by the Department of Agricultural Engineering, Ohio State University and the Miami County Office of the Ohio Cooperative Extension Service. The Workshop is being taught by Dr. Karen Manci, a water quality specialist from Ohio State University.

In conjunction with this workshop, we have been given the opportunity to conduct a community sewage facilities survey. We have selected the community of . With the help of many concerned members of our Zoning Boards and Land Use Planning Unit, we will be calling on you within the next two weeks.

We would appreciate your help by taking just a few minutes to answer the questions on the survey when one of your local officials calls on you. The information we will be collecting and compiling will be a valuable tool for us to use in future planning. The availability of using this survey is saving the community "megabucks" over what a consultant would charge.

We sincerely THANK YOU for your help.
Septic tank pumping frequency

Not sure: 8
Once: 22
More than once: 48
Not at all: 20
Sewage odors are offensive in this community

- Agree: 43
- Disagree: 51
- No Feeling: 3
It is acceptable to discharge sewage to streams and ditches.

- Agree: 1
- Disagree: 95
- No Feeling: 2
I am willing to pay for a sewer system for this community.

- Agree: 54
- Disagree: 23
- No Feeling: 18
APPENDIX E

PIKE COUNTY WORKSHOP DOCUMENTATION
WORKSHOP CANCELLATION LETTER

VILLAGE OF

November 3, 1989

Dr. Karen Mancl
Water Quality Specialist
Agricultural Engineering Extension
The Ohio State University
190 Oval Drive, North
Columbus, Ohio 43210

Dear Dr. Mancl:

We of Village wish to thank you and Mr. Jeff Fisher for your informative presentation at our September, 1989 Village Council meeting.

After much thought and discussion among our citizens and our councilmen, we must respectfully decline participation in the School on Wastewater Treatment.

Consensus of opinion is that at this time we specifically need help and expertise in securing a grant or grants or some sort of financial help to bring a sewage disposal plant to our area. As you have stated, only in your final workshop session will any information of this nature be made available to us.

We do appreciate your time and effort and hope that at some time in the future we will be able to take advantage of the information which you have to offer.

Yours truly,

VILLAGE OF

William Rowe, Mayor
PO Box #135
Ohio
BIBLIOGRAPHY


