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EDUCATIONAL ORIENTATION AND JOB SATISFACTION: A STUDY OF EXTENSION AGENTS AND THEIR SUPERVISORS

By

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ABSTRACT

EDUCATIONAL ORIENTATION AND JOB SATISFACTION: A STUDY OF EXTENSION AGENTS AND THEIR SUPERVISORS

By

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This study investigates the educational orientation held by Extension agents and the relationship between their educational orientation and their level of satisfaction in extension work. Personal characteristics of agents that relate to such orientation is determined along with an attempt to find out whether agents possessing educational orientations similar to that of their immediate supervisor have a higher level of job satisfaction. The Extension agents and their immediate supervisor in Michigan were requested to supply attitudinal responses and information through a mail questionnaire.

Findings showed that Extension agents hold a moderate to strong orientation toward andragogy and pedagogy. The andragogical orientation was found relatively stronger than the pedagogical orientation. No significant relationships were found between demographic characteristics like age, sex, position, experience, graduate degree, and prior experience as a school teacher and educational orientations. Exceptions were that male agents tended to possess a

stronger pedagogical orientation than female agents and that home economics and agriculture and marketing agents were different from 4-H youth agents in terms of andragogical orientation scores. Further, respondents with high andragogy scores were found to possess lower pedagogy scores but those with high pedagogy were not found to hold low andragogy scores.

Extension agents were well satisfied with the content and context of their jobs. The andragogy score of Extension agents was positively related to their job satisfaction but no relationship was observed between pedagogy score and job satisfaction.

The findings showed no significant differences on the level of job satisfaction between agents whose educational orientations were similar to their immediate supervisor and those who had educational orientations different from their immediate supervisor.

Since andragogy is related to job satisfaction, the hiring practices of the CES should consider individuals who not only have expertise in technical subject matter content but also possess appropriate educational orientations. A series of inservice programs on adult learning principles regardless of an agent's position, education or experience could help to further strengthen the field agents' andragogical orientation vis-a-vis job satisfaction.

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CHAPTER I

INTRODUCTION

The Cooperative Extension Service (CES) is a unique organization whose mission has been to extend lifelong learning and continuing growth opportunities to each member of the community served. It is a system of non-formal education whose professional staff member must be well grounded in foundation disciplines as well as be dynamic and adaptive to changing practices (Blackburn, 1989). Although the history of Extension work as it relates to the dissemination of new agricultural information to farmers who can use the ideas to improve farming probably goes back to the Chinese civilization and biblical times (Forest, 1989), the Cooperative Extension Service in the United States was formally established when the Smith-Lever Act was passed by the Congress in 1914. The Cooperative Extension Service has been an integral part of the Land-Grant institution network including the university campus and research station components.

The Cooperative Extension Service has a diverse set of clients who are mainly adults. The major function of Extension agents is to provide for the development and

implementation of an educational program with local people. They serve the local people in developing a variety of skills that encourage personal growth through experience, aid attainment and refinement of problem solving skills, and provide for the acquisition of new information to be used in life-enriching activities (Prawl, et al. 1984; Dillman, 1985). The subject matter areas addressed by the Cooperative Extension Service programs include agriculture, home economics, 4-H youth, and community and natural resources development.

The direction of CES, however, has been changing. Major shifts that are taking place are: emphasis in information transfer skills to discovery learning/problem solving /thinking/application skills, disciplinary focus to interdisciplinary /collaborative/teamwork focus, and doing things right to doing right things (Meier, 1989).

The CES educational programs are primarily developed and executed by professional Extension agents. The Extension agents are agents of learning, growth and change (Sanderson, 1988). Their basic function is to establish a link between a perceived need of a client system and a possible means of satisfying that need. The Extension agents may themselves be the means or they may simply establish a link between the client system and the source of need satisfying product or service (Lionberger and Gwen, 1982). The roles of the Extension agent, as described by

Zaltman and Duncan (1977), include diagnostician, information specialist and solution builder, evaluator, system monitor, innovation manager, and facilitator. Based on the behavior expected, the roles of the Extension agent was described by Gallaher and Santopolo (1967) as an analyst, advisor, advocator, and innovator. Above all, Extension agents are professional adult educators rather than just a body of workers.

Extension agents are the basic resource of the CES organization. The extent to which the CES accomplishes its goals is ultimately derived from its individual staff members, mainly the field level agents, who are the cutting edge of the organization. As CES has sought to address itself to a changing mission; agents with different kinds of skills and competencies and with a higher level of commitment and dedication are needed. Such agents have frequently had different expectations of the organization and job, and sought different means of experiencing job satisfaction. Studies have indicated that agents' perceptions of the professional commitment vis-a-vis productivity is closely related to their level of job satisfaction (Kemp, 1967; Keffer and Cunningham 1977; Terpstra, 1979). Improving the level of job satisfaction and motivation of the agents has been the continuing objective of Extension administration. The ultimate concern is for improved Extension program efficiency, effectiveness,

and management.

The Study

This study investigates the educational orientation held by Extension agents and the relationship between their educational orientation and their level of satisfaction in Extension work. Personal characteristics of Extension agents that relate to such orientation are determined, along with an attempt to find out whether agents possessing educational orientations similar to that of their immediate supervisors have a higher level of job satisfaction. The CES agents and their immediate supervisors in Michigan were requested to supply attitudinal responses and information through a mail questionnaire. Attitudinal dimensions of Extension agents and their immediate supervisors pertaining to andragogical and pedagogical orientations to teaching are ascertained. Similarly, attitudes of Extension agents toward the level of satisfaction on various aspects of their job are measured. Information on selected personal characteristics is also collected. Data were tabulated and analyzed in order to provide answers to the related research questions.

Theoretical Foundations of the Study

The early work on job satisfaction and motivation led to the development of the theory of human motivation by

Abraham Maslow (1970). Maslow concluded that human needs are structured in a hierarchy and as one fulfills or satisfies the lower level needs, higher level needs emerge. He also noted that man rarely reaches a state of complete satisfaction except for a very short time. Herzberg (1971) elicited 14 job factors, of which six were classified as "motivator" or satisfier and the remaining eight as "hygiene" or dissatisfiers. He also noted that in order for a worker to be truly motivated, his/her environmental or context needs must have been met.

Recent studies have indicated that agents' performance is related to their level of job satisfaction (Van-Tilburg, 1987, 1986; Keffer and Cunningham, 1977; Henderson, 1970). Turnover intentions of Extension agents were associated with a low level of job satisfaction (Van-Tilburg, 1987). Job satisfaction was the best single predictor of burnout among Extension agents in Ohio (Igodan, 1985). Currently, Extension agents are pressured with increasing demands by funding agencies and clients to serve more people, serve diverse people, offer different kinds of programs, continue to offer on-going programs, and to be more cost effective. Further, they are expected to be more accountable and show economic and social consequences of their programs. These emerging issues tend to be directly related to the agent's satisfaction because of added stress on Extension work.

On the other hand, Land-Grant Colleges and Universities

have accepted a stronger commitment to adult education through the Cooperative Extension Service (CES). The Extension agent is expected to function more effectively to link the resources of the university to the needs of the client system. The extent to which such educational programs are effective is largely determined by the Extension agent whose job responsibilities place him/her in direct contact with local people, the adult learners. Hyatt (1966) identified general areas of competence relevant to the Extension agent's job and indicated that:

> "Extension agents, thus, need to know and understand the principles of learning and teaching and to have a high degree of proficiency in applying these principles. In order to teach, we need to understand the basic fundamentals of teaching and learning. Knowledge alone is not enough to stimulate desired action. Getting people to understand, accept, and apply knowledge is a difficult task. A basic understanding of the teaching-learning process can greatly facilitate and enhance our efforts in planning for and effecting change among people" (p.138).

In order to be a successful educator of adults, an Extension agent needs to possess a set of orientations about working educationally with the adults.

Contemporary theories of adult learning suggest that adult learners are increasingly self-directed and independent; they are goal-oriented, activity-oriented, and their learning is active, problem-centered and oriented toward immediate application (Brookfield, 1986; Knowles, 1980). Knowles (1980) advocates that andragogy, not pedagogy, is an appropriate model for helping adults learn.

He defines andragogy as "the body of theory and practice on which self-directed learning is based", whereas, pedagogy is "the body of theory and practice on which teacher-directed learning is based" (p.390).

The concept of andragogy is based on several assumptions: (a) adults are increasingly self-directed and independent in their learning; (b) adults develop a reservoir of experience that becomes a rich resource for learning; (c) adult learning is active, problem-centered and instrumental; (d) adults are oriented toward life tasks, so that their learning must have immediate application; and (e) motivation to learn is primarily by internal incentives and curiosity. In short, adults are eminently teachable, so long as they perceive the subject matter as having relevance to their goals and problems (Knowles, 1978).

Brookfield (1986) argues that the pedagogical model assigns to the teacher full responsibility for making all decisions about what will be learned, how it will be learned, and if it has been learned. It is teacher-directed education, leaving to the learner only the submissive role of following a teacher's instruction. Considering the fact that the nature of adult learning is quite different from that of children (Brookfield, 1986; Knowles, 1978 & 1985; Cross, 1981; Elias and Merriam, 1980; Langenbach, 1988), educators of adults need to possess a set of educational orientations which can be different from that of a

conventional school teacher (Knowles, 1980; Holmes, 1977; Hadley, 1975). The educational orientation of an educator tends to have a profound influence on the effectiveness of the educational programs. Sanderson, et al (1988) argue that CES is a complex organization with a broad, dynamic mission, and Extension work demands flexibility and a variety of work styles in its professional staff. There are legitimate differences among Extension professionals when it comes to work style preferences. "Knowing ourselves better and focusing on our own development as educators are strategic paths to successful Extension work" (Sanderson, et al 1988, p. 83).

Statement of the Problem

The Cooperative Extension Service is essentially an educational program for adults. Extension agents function as firing-line educators for the CES organization and work directly with their clientele in (a) helping learners diagnose their needs; (b) planning with learners a sequence of experience that will produce desired learning; (c) creating conditions that will cause learners to want to learn; (d) selecting the most effective methods and techniques for producing the desired learning; (e) providing the human and material resources necessary to produce the desired learning; and (f) helping learners measure the outcomes of learning experiences (Knowles, 1980).

Considering the fact that each agent is expected to perform these roles and since the literature says that andragogy is preferable as a philosophical basis in adult education, the members of the CES organization should possess an andragogical orientation. Extension agents who possess an andragogical orientation should enjoy their Extension work better and be more satisfied with their job than those agents who possess a pedagogical orientation. This is because andragogy, as a philosophical basis, tends to be a better match for the type of role expected of them than does pedagogy. The pedagogical orientation tends to appear as a mis-match for Extension agents.

An instrument to determine educational orientations of adult educators, especially in terms of the andragogy - pedagogy continuum, was developed by Hadley (1975). Holmes (1977) administered the educational orientation instrument developed by Hadley (1975) among Alabama CES personnel and reported that CES personnel differed significantly from adult educators in university continuing education faculty with the former being more andragogical than the later.

Several studies have been made to assess the level of job satisfaction of Extension agents. Cassina (1989) assessed the level of job satisfaction of Illinois Cooperative Extension personnel and found that the overall job satisfaction of county and area Extension agents was satisfactory. Mallillo (1990) reported that the job

satisfaction among Extension employees in Rhode Island ranged from "moderate to high". These studies have also attempted to identify personal characteristics of Extension agents associated with the level of their job satisfaction.

Currently, no studies have reported the job satisfaction of Extension agents as it relates to their educational orientations. No studies have indicated whether Extension agents who have educational orientations which are similar to their immediate supervisor are more satisfied with their job than agents who have educational orientations different from their immediate supervisor. Extension educators have little empirical evidence to base their recommendations as to what philosophical orientation, andragogy or pedagogy, is appropriate for the Extension agent role. This study is, therefore, an attempt to answer the following research questions:

Research Questions

1. What educational orientations do Michigan Cooperative Extension Service agents and their immediate supervisors hold?
2. Is there a relationship between an agent's personal characteristics and their educational orientation?
3. What is the level of job satisfaction of Cooperative Extension Service agents?
4. Is there a relationship between an agent's educational

orientation and their job satisfaction?

5. Are Extension agents who have educational orientations which are similar to their immediate supervisor more satisfied with their job than agents who have educational orientations different from their immediate supervisor?

Importance of the Study

Andragogy and pedagogy are two major educational orientations in adult education literature. Educators advocate that andragogy is preferable as a philosophical basis in adult education. Considering the fact that each Extension agent is expected to help adults to learn and change, the andragogical orientation tends to be more of an appropriate match for them than pedagogy. This is because adults are self-directed learners and an andragogical educator perceives his relationship to the learner as that of helper, resource, consultant and co-learner. Although Extension work has utilized several principles of teaching and learning in planning, implementing, and evaluating educational programs, Extension agents might have not been exposed to the theories and practices of adult learning. As there are no studies that indicate the type of philosophical orientation to adult learning, andragogy or pedagogy, held by Extension agents, this study is designed to provide basic information on the subject.

Identification of an Extension agent's educational orientation, the congruence of such orientation with that of their immediate supervisor and its relationship to their job satisfaction yields information which is useful in designing orientation training to new agents as well as in-service programs for field Extension agents. The results of such an investigation are also useful to Extension educators in designing pre-service courses on Extension education. For researchers, the findings will serve as an entry point to conduct research on Extension agents' educational orientations as it relates to Extension agent effectiveness.

Definition of Terms

Educational Orientations: The attitudinal dimensions held by Extension agents with respect to their role as educators of adults. The attitudinal dimensions may include, but are not limited to, aspects such as purpose of education, nature of learners, characteristics of learning experience, management of learning experience, and relationships of educator to learners. For this study, educational orientations include andragogical orientation and pedagogical orientation.

Andragogical Orientation Andragogy is the body of theory and practice on which self-directed learning is based (Knowles, 1980). The orientation of an andragogical

educator stresses free choice of alternative goals for learning, with interdependent decision and action among learners and between learners and educator as a basis for effective learning. The educator perceives his relationship to the learner as that of helper, resource, consultant and co-learner. The goal is to increase the effectiveness of learning by encouraging situations which increase cooperative interaction among learners, and increase their participation in and direction of their learning (Hadley, 1975).

Pedagogical Orientation: Pedagogy is the body of theory and practice of education on which teacher-directed learning is based (Knowles, 1980). The orientation of a pedagogic educator emphasizes learners' acquiring knowledge and skills that the educator judges as true and effective. The personal judgement of the educator is based on tradition, accepted views and practices, or current knowledge of the physical and social universes. In the judgement of the educator these knowledge and skills tend to have values, inherent and instrumental, that are perennial and universal. The pedagogical educator, therefore, sees his primary relationship to learners as that of an authority, technical expert, director of their learning, and judge of their achievement (Hadley, 1975).

Cooperative Extension Service (CES): An organization with a unique partnership between the federal government, state

governments, educational institutions, local governments and the people of the United States that provides a direct educational link with local communities. In Michigan, the Cooperative Extension Service offers non-formal educational programs in four areas: Agriculture and Marketing, Natural Resources and Public Policy, 4-H Youth, and Home Economics.

Job Satisfaction: The extent of contentment an individual has with his job. According to Locke (1976), it is a pleasurable positive emotional state resulting from the appraisal of one's job experiences.

County Extension Office: The closest link between the Extension service and the people of Michigan is the county Extension office. A county Extension office is located in 82 of the Michigan's 83 counties. A County Extension Director (CED) is in charge of the office and its programs. Serving on the county office staff are one or more Extension agents in agriculture and marketing, natural resources and public policy, 4-H youth and home economics. Program assistants and aides provide technical and educational assistance under the direction and guidance of the county Extension staff (Michigan State University, 1989).

Extension Agent: Employee of the Michigan Cooperative Extension Service working at the county level with the purpose of educating people through the diffusion of useful and practical information. Extension agents are assigned according to the major program area.

Agricultural Agents: County Extension staff in charge of organizing and conducting Extension programs primarily with people engaged in the production, processing and distribution of agricultural products. They also work with those who provide farmers with goods and services.

Natural Resources and Public Policy Agents: County Extension staff who are responsible to develop and evaluate educational programs that assist in developing natural resources and encouraging their wise utilization. They offer public affairs education to local leaders and officials. In addition, they bring new knowledge and ideas to people and help solve community and resource development-related problems.

4-H Youth Agents: County Extension staffs who guide volunteers in working with young people. These agents are responsible for providing opportunities for young people to develop leadership potential, citizenship responsibility and productive capacity under the volunteer leadership of adults and older youths.

Home Economics Agents: County Extension staff who plan, organize, implement and evaluate programs based on individual, family and community needs in areas of family and government, food and nutrition, health, housing, human development and resource management. They work with community leaders and agencies in developing and coordinating educational programs. They also provide the

educational setting for leadership development and recruit and train volunteers and leaders to extend the scope and effectiveness of their program (MSU, 1989).

County Extension Director (CED): Person responsible for the general administration of a county CES program. The CEDs have the direct responsibility of supervising the work of the county agents and most of them also have educational roles in the county. In this role the CED maintains relationship with the county board of commissioners, the general public and various organizations and groups; obtains and administers local financial support for the CES programs and activities; and provides leadership to the professional staff members, program assistants and clerical personnel serving the county (Michigan State University, 1989).

Delimitations

For the purpose of this research, Extension agents are delimited to all board-appointed permanent county agents in Michigan CES who are: (1) under the direct supervision of a County Extension Director (CEDs), (2) have worked for at least one year in their current position, (3) are currently working and not on study leave or some other kind of long-term leave, and (4) are not considered as CEDs. Though most of the CEDs also have educational roles in the county as Extension agents, for the purpose of this research they are categorically considered as supervisory personnel.

CHAPTER II

REVIEW OF RELATED LITERATURE

This study is an investigation of the educational orientations held by Cooperative Extension Service (CES) field agents and the relationship between their educational orientation and job satisfaction. The theoretical foundation for this study emerged primarily from a review of literature on the development and operation of CES programs in relation to principles and practices of helping adults learn. In addition, literature related to employee job satisfaction in related fields has been included.

The literature review is presented in six sections. The first section briefly describes the development and operation of Michigan CES, the organization under which the study subjects work. The second section presents the role of Extension agents under the CES organization. An overview of different views of how adults learn is presented in the third section. The concept of andragogy and pedagogy is described and analyzed in the fourth section. The final two sections present the job satisfaction of Extension agents and their educational orientations.

Each of the six sections is discussed under a separate

heading in this chapter. The information is organized to help the reader better understand the existing knowledge by following a progression from the general theoretical literature toward the more specific literature that has a somewhat narrower scope and application to the research problem.

Michigan Cooperative Extension Service

The oldest division of Michigan State University, the School of Agriculture, was the first school in the country organized to teach scientific agriculture. Since its inception in 1855, the school has been constantly seeking to improve farm and home life. The Wolverine (MSU, 1955) describes the early extension efforts of the school as follows:

> During the early years, the school has faced many problems. One of the most formidable was the best method to tell the farmers of the developments and experiments being carried on by the school. In January, 1876, the faculty established the first Farmers' Institute.
>
> These institutes were received favorably by the farmers and in 1894, the first short course in dairying met on campus. With the beginning of yearly railroad excursions in 1897, even more farmers were able to attend sessions and see the work being done in East Lansing. Farmers were able to bring their problems to Michigan State and to learn the newest agricultural methods (p. 383).

With the passage of the Smith-Lever Act by the Federal Congress in May 1914, Michigan State College officially launched operations of Cooperative Extension work on July 1,

1914 (McDonel, 1941). The objective of the Cooperative Extension service was "to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics and encourage the application of the same" (Simons, 1962). The history of the Michigan Cooperative Extension Service, twenty five years after the passage of the Smith - Lever Act in 1914, is well documented by McDonel (1941). Olstrom and Miller (1984) provide a comprehensive summary of the developments of Michigan Extension from 1940 to 1980. Since a historical review of MCES is beyond the scope of this thesis, only a brief review of current programs is described in the following section.

The early Extension work in Michigan was organized by projects. Agriculture was the major emphasis. A MSU publication states the mission of the Cooperative Extension Service as follows:

> For more than seven decades, the Cooperative Extension Service of Michigan State University has been a leader in action education to help people make sound decisions and carry them out in solving day-to-day problems. Through its statewide system of county offices, the Cooperative Extension Service extends the resources of Michigan State University to the people of Michigan through educational programs in agriculture and marketing, natural resources and public policy, 4-H youth and home economics. The Cooperative Extension Service has been deeply committed to the development of rural communities since the 19th century and currently serves the interests of both rural and urban clients. Its program tap the resources of eight MSU colleges and 22 academic departments.
>
> In keeping pace with rapidly changing times, the

> Cooperative Extension Service adapts its programs to the continuing needs of people. Its guiding mission has remained the same: "to help people to help themselves through education" (MSU, 1989).

In line with the above mission, CES educational programs, information sources and volunteer outreach activities are directed toward extending the knowledge resources of Michigan State University by developing, interpreting and transmitting knowledge based upon applied science and research. New research-based knowledge is made available to solving problems, identifying issues, and the concerns of individuals, families, businesses, industry, organizations, agencies and communities throughout the state (Department of Agricultural and Extension Education, 1990).

The MCES offers educational programs in four program areas. The educational programs in agriculture and marketing are designed to help growers produce efficiently, assure adequate supplies of high quality agricultural products, maintain profitable farm operations and keep the state's agricultural industry competitive in national and world markets.

The educational programs in natural resources and public policy emphasize wise use and conservation of land, forests, water and wildlife; the development of tourism and recreation; planning and implementing orderly community development for social and economic progress and activities that assure a quality environment; public policy education and decision making; community health education; foreign

education development; and Great Lakes development and coastal resource management.

4-H youth programs are designed to provide experiences for the development of young people. The program aims at helping young people become self-directing, productive and contributing members of society. The educational programs are led by local volunteers. The programs reach youths on farms, in suburbs and in cities with "learning by doing" experiences.

Home economics programs help families identify needs and offers education for improving the quality of life in homes and communities. The educational programs are built around the needs of contemporary living with emphasis on family and government, food and nutrition, health, housing, human development and resource management. In addition, the program extends nutrition education to families with limited resources.

The Extension programs are conducted cooperatively by the U. S. Department of Agriculture, Michigan State University and county governments. This cooperative venture in education is financed by federal, state and county funds.

The MCES staff consist of more than 450 professionally trained workers. The administrative arrangements of the MCES has been described as follows:

> "Four assistant directors are responsible for statewide program leadership in agriculture and marketing, natural resources and public policy, 4-H youth and home economics. They are supported

> by a staff of program leaders, associates and assistants in program planning and development. In addition, there is a staff of more than 150 subject-matter specialists who are members of the MSU faculty in 22 campus departments. They provide current technical information for field agents and assist in planning, developing and implementing county programs.
>
> To provide supervision of these programs, Michigan is divided into regions that are the responsibility of regional supervisors. The supervisors counsel with the county, area and district staff members and coordinate joint program efforts. They are the link between the campus and the field staffs. They work closely with county boards of commissioners and are engaged in special program and administrative concerns.
>
> The closest link between the Cooperative Extension Service and the people of Michigan is the county Extension office. In each of Michigan's 83 counties, a county extension director is in charge of the office and its programs. Serving on the county office staff are professional agents in agriculture and marketing, natural resources and public policy, 4-H and home economics. These agents are assigned on a county, area, district or regional basis. Program assistants and aides provide technical and educational assistance under the direction and guidance of the county Extension staff." (MCES, 1989: pp. 2-4).

The chief administrative officer of the MCES is its director. The director exercises broad authority and initiative in the performance of his/her responsibility to ensure that MCES achieves the highest standards of excellence in serving the needs of its constituents.

Extension Agents As Adult Educators

The guiding mission of the Cooperative Extension Service (CES) has been to help people to help themselves

through education. Extension is a system of non-formal education whose professional staff members must be well grounded in foundation disciplines as well as dynamic and adaptive to changing practices (Blackburn, 1989). It adapts its programs to the continuing needs of people. Extension also facilitates citizen participation in local, state, national and international issues - contributing to individual and public actions that affect the general welfare of all.

The major function of Extension agents is to provide for leadership in developing a total educational program at the county level. In this capacity, the agent must be capable of analyzing and identifying the relevant social and economic needs of the people within the county and also determining how all the available resources might be brought to bear most effectively on existing problems. In brief, according to Hyatt (1966), an Extension agent is expected to function as an administrator, programmer, and a technical specialist.

The CES educational programs are primarily developed and executed by professional Extension agents. The Extension agents are agents of learning, growth and change (Sanderson, 1988). Their basic function is to establish a link between a perceived need of a client system and a possible means of satisfying that need. The extension agents may themselves be the means or they may simply establish a link between the

client system and the source of need satisfying product or service (Lionberger and Gwen, 1982). The roles of the extension agent, as described by Zaltman and Duncan (1977), include diagnostician, information specialist and solution builder, evaluator, system monitor, innovation manager, and facilitator. Above all, extension workers are professional adult educators rather than just a body of workers.

The outstanding characteristics of the Extension agent's work environment is that it brings into focus a concern for guiding change through a planned educational process. In this process, the function of an agent is to link the resources of the knowledge center to the needs of the client system (Gallaher and Santopolo, 1967). According to them, the agent is expected to play, either singly or in combination, the following roles:

> Analyst - the change agent's main commitment is to interpret a situation for the client.
>
> Advisor - the agent's main commitment is to present to the client alternatives applicable to a given situation.
>
> Advocator - the change agent's main commitment is to recommend to the client one from among a number of alternatives.
>
> Innovator - the agent's main commitment is to create an innovation to satisfy a special need of the client. (p.225)

What distinguishes the practice of competent Extension educators from that of untrained persons? Copa and Sandmann (1987) studied this question by studying a select group of CES educators. The study found four primary themes that

seemed to fit the competent educators: (1) an accute sense of context, (2) thoughtful loyalty to goals, (3) careful consideration of alternative means, and (4) reflective judgements based on balance. The study concluded that such reflective educational practices should be encouraged, and educators should be helped to remember the context of their work and see themselves as facilitators.

Extension agents are the basic resource of the CES organization. The extent to which the CES accomplishes its goals is ultimately derived from its individual staff members, mainly the field level agents who are the cutting edge of the organization. As CES has sought to address itself to a changing mission, new programs will continue to emerge and the roles of the agents may change over time. The need for committed and dedicated agents who are well grounded in the theory and practices of helping adults learn and change, however, will continue to prevail.

Teaching and Learning of Adults

Adult education is a relatively young field. Its existence as worthwhile study began with the work of some of the great educators of the early 1900's. The educators like Lindeman and Dewey began to seriously look at adults and began to gather a theoretical base for the future study of adults as learners (Brookfield, 1984).

Eduard Lindeman was one of the eminent thinkers of

adult education. Throughout his life he raised questions and continued to highlight the neglected issues of adult education. Lindeman believed in social living, not a privatized life style, and always urged for participatory decision-making and collective action. For Lindeman, a learning democracy was the overall and the highest aim of education. He believed that adults' participation in learning is voluntary.

As early as 1925, Lindeman described adult education as a cooperative venture in non-authoritarian, informal learning the chief purpose of which is to discover the meaning of experience; a quest of mind which digs down to the roots of the preconceptions which formulate our conduct; a technique of learning for adults which makes education coterminous with life, and hence elevates living itself to the level of an experiment (Lindeman, 1926). Later in 1938, Lindeman identified two paradigms of adult education practice which he called the mechanistic school and organic school. The mechanistic school viewed adult education as the extension of existing forms of education to the illiterate and underprivileged where as in the organic conception, adult education is considered not as an extension of existing privilege to a new population but "as a right, and a normal expectancy" (Brookfield, 1984). From Lindeman's writings, Levine (1990a) implied the following:

> "unless you as a teacher of adults responded to their needs you would find yourself without any pupils. Adult learners would not tolerate an educational setting that did not clearly respond to their learning needs" (p.12).

Lindeman identified four elements that characterize the nature of the adult education process: (a) it is a life long process, (b) it is non-vocational in character, (c) it puts emphasis on situation, not on subjects, and (d) places primary emphasis on learners' experience. He believed that the schooling approach to education which he called a "merely additive process" would not lead to meaningful adult learning. Adult education should be a continuous process where adults learn to become aware of and to evaluate their past experience. He also introduced the concept of andragogy to the modern adult education literature (Brookfield, 1986).

Dewey, another educator of the period and a contemporary of Lindeman, also saw personal experience as the focus of adult learning. His theory proposed that the most significant growth would come from an education that encouraged learning by doing based on the immediate needs of the learner. He also stressed the importance of the social context these learning experiences and suggested that social reforms could be accomplished through schools which taught democratic education.

Malcolm Knowles (1978), who popularized the concept of andragogy, lists what he considers to be the "foundation

stones" of modern adult learning theory:

1. Adults are motivated to learn as they experience needs and interests that learning will satisfy; therefore, these are the appropriate starting points for organizing adult learning activities.
2. Adults' orientation to learning is life-centered; therefore, the appropriate units for organizing adult learning are life situations, not subjects.
3. Experience is the richest resource for adults' learning; therefore, the core methodology of adult education is the analysis of experience.
4. Adults have a deep need to be self-directing; therefore, the role of the teacher is to engage in a process of mutual inquiry with them rather than to transmit his or her knowledge to them and then evaluate their conformity to it.
5. Individual differences among people increase with age; therefore, adult education must make optimal provision for differences in style, time, place, and pace of learning. (p. 31)

Knowles (1980) also developed and popularized the concept of learning contracts. The learning contract is a process through which the adult learner is able to develop individual goals for learning and thus transfer this responsibility from the educator to the learner. The learner makes a contract with the educator concerning the

learning that will take place. He also advocated the importance of learning climate as a necessary condition to effective learning.

Houle (1980) describes three "types" of adult learners, thus providing some insight into their motivation for learning: the first, the goal-oriented, are those who use education as a means of accomplishing fairly clear-cut objectives. The second, the activity-oriented, are those who take part because they find in the circumstances of learning a mean which has no necessary connection, and often no connection at all, with the content or announced purposes of the activity. The third, the learning-oriented, seek knowledge for its own sake. Understanding the learners' motivation for participation becomes important in planning educational programs.

The review of adult education theories offered by different educators offer several implications for practice. In summary, the following generalizations can be drawn:

1. Adult learning is active, problem-centered and instrumental. So consider learners' needs, interests, and concerns while designing an educational effort.
2. Adults are increasingly self-directed and independent in their learning. Selection and use of teaching-learning methods should consider a learning atmosphere that that encourages free dialogue, mutual support among learners, and co-learning. Adult learning

methods should permit and encourage the active participation of the learner.

3. Education is essentially a political process and it is not possible to come up with a curriculum apart from politics.
4. Adults develop a reservoir of experience that becomes a resource for learning. Learner participation in all stages of the education process including sharing of their past experience (i.e. teachers learn with and from students) is the most critical element in successful adult educational program.
5. Adults are oriented toward life tasks, so their learning must have immediate application.
6. Learning is greater when learners choose, from a variety of options and resources, what they need and want to know. Adults prefer learning by doing and they want to apply the knowledge into practice to solve their immediate problems.
7. Education must be accessible to all members of the society and alternative modes of schooling such as "learning webs" need to be explored. The climate of learning must be collaborative, educator-to-learner and learner-to-educator, as opposed to authority oriented.
8. Evaluation should lead to reappraisal of needs and interest of the learners and therefore should be utilized to redesign new learning activities.

Concept of Andragogy and Pedagogy

Learning is the process by which a person through his own activity becomes changed in behavior (Rhoad, 1950). Learning is part of the process of being human. With the development of the human civilization, learning and education functions of the society have become institutionalized and professionalized. Scholars and philosophers have studied the process of learning and education and classified it from different perspectives. One way of classifying learning and education is to look into the process from andragogical and pedagogical perspectives. Knowles (1980) defines andragogy and pedagogy as:

> "the body of theory and practice on which self-directed learning is based is coming to be labeled "andragogy" from the greek word aner (meaning adult)- thus being defined as the art and science helping adults (or, even better, maturing human beings) learn.
>
> The body of theory and practice on which teacher-directed learning is based is often given the label "pedagogy" from the Greek word paid (meaning child) and agogus (meaning guide or leader)-thus being defined as the art and science of teaching children" (p.390).

These models about learning and education have different philosophical foundations. Hadley (1975) reviewed the philosophical bases of these models and concluded that pedagogy rests upon philosophical views oriented toward superhuman, eternal, and traditional realities, whereas andragogy grows from philosophies which see reality as a continually changing process which evolves through and by

the choice and action of the learner.

The purpose of pedagogical education is the transmittal of knowledge. The pedagogical educator encourages and reinforces in the learner a "self-concept of dependency" by defining the learner's role "as the more or less passive one of receiving and storing up the information..." that others have decided the learner should have (Hadley, 1975). The andragogical purpose of education, on the other hand, emphasizes self-directed growth of learners. Andragogical education, according to Knowles (1980), aims at producing competent people - people who are able to apply their knowledge under changing conditions and the competence to engage in lifelong self-directed learning in order to acquire knowledge in the context of its application.

Brookfield (1986) differentiates pedagogy and andragogy according to the nature and participation of the learner in the learning process. According to him, the learner in pedagogy is viewed as dependent on the teacher and is a passive recipient of information and skills. Control by the teacher is considered as essential for effective learning. Motivation to learn is extrinsic and comes from external pressure of competitive stress accompanying the fear of failure. In andragogy the learner is expected to take full responsibility for what happens in the teaching-learning transaction. The motivation for learning lies with the learner. An andragogical educator helps the learner create

or increase his motivation by describing alternative goals the learner may choose, but the choice, the commitment, and the consequent motivation are the learner's.

Another major difference between an andragogical and pedagogical view of learning and education is the management of the learning experience. Knowles (1980) advocates that the heart of andragogy is learning, not teaching. That is, andragogy concentrates on conditions to enable learning: creating educative environments that stimulate and enable learner's self-directed growth. It is characterized by mutually participative management of learning. Knowles (1980) describes seven general conditions to be satisfied by an educative learning environment and lists the superior conditions of learning and principles of teaching. This is presented in Figure 1.

Drawing from the theory of andragogy, Levine (1990c) offers six basic principles that can guide educators in organizing instructional presentations for adult learners. The six basic principles include: 1) tell the adults what you are about to tell them-- start by telling the adults what you are about to teach them; 2) organize your material for presentation in a logical order; 3) tell them a bit and then create ways to let them tell you what else they need to know; 4) decide what you want the adults to do with your information--know information, understand information, use information or share information with others; 5) know when

Conditions of Learning		Principles of Teaching
The learners feel a need to learn.	1.	The teacher exposes students to new possibilities for self-fulfillment.
	2.	The teacher helps each student clarify their own aspirations for improved behavior.
	3.	The teacher helps the each students diagnose the gap between their aspirations and their present level of performance.
	4.	The teacher helps the learners identify the life problems they experience because of the gaps in their personal equipment.
The learning environment is characterized by physical comfort, mutual trust and respect, mutual helpfulness, freedom of expression, and acceptance of differences.	5.	The teacher provides physical conditions that are comfortable (as to seating, smoking, temperature, ventilation, lighting, decoration) and conducive to interaction (preferably no person sitting behind another person).
	6.	The teacher accepts each student as a person of worth and respects their feelings and ideas.
	7.	The teacher seeks to build relationships of mutual trust and helpfulness among the learners by encouraging cooperative activities and refraining from inducing competitiveness and judgmentalness.
	8.	The teacher exposes his or her own feelings and contributes his resources as a co-learner in the spirit of mutual inquiry.
The learners perceive the goals of a learning experience to be their goals.	9.	The teacher involves the learners in a mutual process of formulating learning objectives in which the needs of the learners, of the institution, of the teacher, of the subject matter, and of society are taken into account.

The learners accept a share of the responsibility for operating a learning experience and therefore have a feeling of commitment toward it.	10.	The teacher shares his or her thinking about planning options available in the designing of learning experiences and the selection of materials and the methods and involves the learners in jointly deciding among these options.
The learners participate actively in the learning process.	11.	The teacher helps the learners to organize themselves (project groups, learning-teaching teams, independent study, etc.) to share responsibility in the process of mutual inquiry.
The learning process is related to and makes use of the experience of the learners.	12.	The teacher helps the learners exploit their own experience as resources for learning through the use of such techniques as discussion, role playing, case method, etc.
	13.	The teacher gears the presentation of his or her own resources to the levels of experience of the particular students.
	14.	The teacher helps the students to apply new learning to their experience, and thus to make the learning more meaningful and integrated.
The learners have a sense of progress toward their goals.	15.	The teacher involves the learners in developing mutually acceptable criteria and methods for measuring progress toward the learning objectives.
	16.	The teacher helps the learners develop and apply procedures for self-evaluation according to these criteria." (Knowles, 1980, pp. 57-58).

Figure 1. Superior conditions for learning and principles of teaching

to teach and when to learn--adults are a lot more willing to learn if they feel that they are being listened to; and 6) help adults transfer the concepts to their own situations.

In contrast, pedagogy emphasizes teaching: systematic procedures designed to fill the minds of the learner with required knowledge and implemented by the teacher. In pedagogical methods of managing learning the teacher is the source of truth and the role of the student is that of the receiver of this truth. Ideal pedagogical methods are described by Stewart (1950, p. 6) as follows:

> "methods of good teaching depend upon meeting pupil needs or the usefulness of the knowledge in the learner's life activities; the interest of the learner in his lesson; the thinking and understanding that result from the discussion of the lesson; the repetition, if it is necessary, that is provided to fix the useful knowledge in mind. That's our "million dollar idea." Is it yours?"

According to Hadley (1975) these practices may include: 1) maintaining authority and status of the teacher through formality and social distance from learners, 2) motivation by external devices such as competition among learners through examinations and grades, and 3) decisions on purposes and content of education and teaching jealously guarded as prerogatives of the teacher.

Evaluation of learning through examinations and grading in terms of fixed standards are the typical characteristics of pedagogy. Curricula are organized around objectives and these objectives serve as the basis for planning

instruction. These objectives also represent evaluative criteria; that is, a program can be judged successful according to the extent to which these objectives have been attained (Brookfield, 1986; Rhoad, 1950). Andragogical evaluation of learning is based on the self-diagnosis of progress made toward achieving individual goals with the

Elements	Pedagogical	Andragogical
Climate	Tense, low trust Formal, cold, aloof Authority-oriented Competitive,judgmental	Relaxed, trusting Mutually respectful Informal, warm Collaborative, supportive
Planning	Primarily by teacher	Mutually by learners and facilitator
Diagnosis of needs	Primarily by teacher	By mutual assessment
Setting of objectives	Primarily by teacher	By mutual negotiation
Designing learning plans	Teachers' content plan Course syllabus Logical sequence	Learning contracts Learning projects Sequenced by readiness
Learning techniques	Transmittal techniques Assigned readings	Inquiry projects Independent study Experiential techniques
Evaluation	By teacher Norm-referenced (on a curve) with grades	By learner collected evidence validated by peers, facilitators, and experts Criterion-referenced

Figure 2. Elements of andragogy and pedagogy (Knowles, 1980)

assistance of a teacher and fellow students. The challenge for an andragogical educator, as pointed out by Hadley (1975), is to help students choose increasingly complex objectives which include learners to test and expand their abilities rather than setting for compliance with fixed standards. The process elements of andragogy and pedagogy described by Knowles (1980) are presented in Figure 2.

Levine (1990a) offers a summary of the basic assumptions made by educators about learners under each model which further simplify the andragogical and pedagogical models of learning and education. The assumptions are presented in Figure 3.

Pedagogy	Andragogy
1. The learner is dependent.	1. The learner is self directed.
2. Experience of teacher is key to learning.	2. Experience of learner is rich and should be built on.
3. Teaching is focused on content.	3. Teaching is focused on problems of the learner.
4. Concern is for information and not for application.	4. Concern is for information and application of learning.
5. Age is an important variable for learning.	5. Developmental stage of learner is an important variable for learning.
6. Learner can be motivated externally.	6. Learner motivation can only come from within the learner.

Figure 3. Assumptions made about the learners by educators (Levine, 1990a)

Considerable debate exists, however, in the literature as to the definition of the term "andragogy". Morhing (1989) points that the use of the term "andragogy" to mean education of adults is etymologically inaccurate because andragogy derives from "aner," meaning adult male and not adult of either sex, and suggests that introduction of a term that excludes women is nonessential. Thompson (1989) reports that the andragogical instructional approach is a necessary but not sufficient model for adult educators to utilize. He suggests that the andragogical model is effectively complimented by the pedagogical instructional model. Davenport (1987) reports that the early critics have been joined by an increasing number of educators, researchers, and practitioners who question andragogy's theoretical and practical efficacy. He argues that assumptions of andragogy and pedagogy lack clarity and solid empirical support. Rachal (1983) discusses the terms "andragogy" and "pedagogy" and their use in adult education and suggests that since "andragogy" has never been adequately defined and is virtually unknown outside the field of adult education, the terms "self-directed" and "teacher-directed" should be substituted to clarify the situation.

An early proponent of the concept of andragogy, Malcolm Knowles (1980, 1985), has made an attempt to clarify such confusions by acknowledging that:

> "Originally I defined andragogy as the art and science of helping adults learn, in contrast to pedagogy as the art and science of teaching children. Then an increasing number of teachers in elementary and secondary schools (and a few in colleges) began reporting to me that they were experimenting with applying the concept of andragogy to the education of youth and finding that in certain situations they were producing superior results. So I am at the point now of seeing that andragogy is simply another model of assumptions about learners to be used alongside the pedagogical model of assumptions, thereby providing two alternative models for testing out the assumptions as to their "fit" with particular situations. Furthermore, the models are probably most useful when seen not as dichotomous but rather as two ends of a spectrum, with a realistic assumption in a given situation falling in between the two ends" (p.43).

The andragogical practice may not be appropriate, however, to facilitate adult learning in all situations. Kammar (1988) views that appropriateness of the model depends on the subject-matter at hand. He suggests that as the subject-matter to be dealt with moves higher in the cognitive domain, facilitative teaching that is based on andragogical assumptions becomes more appropriate. In the other direction, directive teaching that is based on pedagogical assumptions may be most appropriate for content that has to do with the lower cognitive levels of knowledge and comprehension. Similar views were expressed by Knowles (1989) when he indicated that straight introduction is an appropriate form of education in some situations, particularly where protection of human life is involved. He believed that in situations-such as how to operate a machine the learner has never seen before-direct, didactic

instruction is appropriate. But whenever more complex human performances are involved, especially those requiring judgement, insight, creativity, planning, problem-solving, self-confidence and the like, self-directed learning is appropriate.

Job Satisfaction

The early work in job satisfaction and motivation led to the development of the theory of human motivation by Maslow (1970). Maslow concluded that the individual must be considered as an integrated and organized whole being with multiple motivations. He also noted that man rarely reaches a state of complete satisfaction except for a very short time. He identified five types of human needs and classified them in a hierarchy. His theory was that the lower level needs must be met before an individual can work on the higher level needs. That is, as one desire is fulfilled or satisfied, another takes its place. The five types of needs in ascending order were: physiological needs, safety needs, belongingness and love needs, esteem and status needs, and self actualization. He also classified motives into fundamental groups corresponding to man's basic needs and stated that the environment or situation surrounding the individual influences his/her motives.

Another basic work related to job satisfaction is the motivator-hygiene theory developed by Herzberg, Mausner and

Snyderman (1959). They identified five factors that they classified as job satisfiers. They concluded that the job satisfiers would either lead to job satisfaction or no job satisfaction but the job satisfiers have no influence on job dissatisfaction. The five factors identified as influencing job satisfaction were: achievement, recognition, the work itself, responsibility, and advancement. These factors were labelled as motivators. They also identified several job dissatisfiers such as organization policy and administration, supervision, salaries, interpersonal relationships with supervisors, co-workers and clients and working conditions which they labelled as hygiene factors.

Studies of Herzberg (1959 and 1971), Maslow (1970), Clegg (1967), and VanDersal (1974) showed that job satisfaction led to productivity. Herzberg (1971) noted that in order for a worker to be truly motivated, the environmental or context needs must have been met.

Job Satisfaction of Extension Agents

Studies have been conducted to determine CES employee's job satisfaction utilizing the framework of the Motivator-Hygiene Theory and the Theory of Human Motivation. The results have reported varied conclusions.

Keffer and Cunningham (1977) studied the job satisfaction of field staff of the Virginia Polytechnic Institute and State University extension division and

reported that the staff were satisfied with the content and context of their jobs. They found that achievement was the most important dimension toward predicting overall job satisfaction followed by advancement, recognition, responsibility and the work itself.

Henderson (1970) conducted a study to determine why Missouri Extension Youth Agents resigned or changed their positions within the Extension Division. It revealed that while no single factor was responsible, there were a number of reasons why this occurred. Among them was the dissatisfaction with the leadership and program support received from the state staff, salary, job location, low prestige of the position and the feeling that their opinions had little or no affect on policy decisions by either the extension administration or the state youth department.

Findings of a study conducted in Wisconsin (Gutenberger and Geiger, 1976) revealed that the primary job satisfiers for 4-H agents were: professional growth opportunities, working with the media, working with the public teaching, the community, clients and peers. The primary dissatisfiers identified by this group were: required weekend work, supervision, bureaucracy, job responsibilities, vacation policies, lack of compensatory time, salary, and lack of recognition. The older the agent, the more satisfied he/she was. A similar study conducted by Whaples and Mieliken (1977) in Maryland reported that most satisfying factors

identified by 4-H Youth workers were: job security; organizing events and activities; relations with the public, 4-H members, leaders, families; vacation policies, diversity of job tasks, program planning and teaching. Most dissatisfying factors in Maryland were: salary, potential for advancement, government bureaucracy, reporting systems, evening and weekend work, lack of clarity in job definition, 4-H program direction and lack of recognition for efforts.

Igodan and Newcomb (1985) examined the extent and causes of burnout among Extension agents in Ohio. The Extension agents were found to experience low to moderate level of burnout. They reported that job satisfaction was the best single predictor of burnout when all significant independent variables were entered in a stepwise regression equation.

A study was conducted to determine the factors influencing Ohio CES county agents to leave their jobs (Van-Tilburg and Miller, 1987). The findings showed that the CES agents had moderate amounts of overall job satisfaction, satisfaction with supervision and work itself, high satisfaction with co-workers, and fairly low amounts of satisfaction with promotion and pay. Findings showed that the agents, in general, had low intentions of leaving their present jobs and job satisfaction was related to the intention to leave the job. They concluded that lower performers had higher intentions of leaving the job than did

higher performers. Other predictors of intention to leave the job were overall job satisfaction, satisfaction with co-workers, and age. In a similar study in Illinois, Manton (1985) reported that opportunity to advance, better salary, dissatisfaction with administration and too much time away from family were the reasons for leaving extension programs.

The MCES Job Opinion Study (1987) reported that more than 87 percent of the field staff were satisfied with their job. The satisfaction related to pay was, however, low. In a statement "In comparison with non-extension professionals in job assignments similar to mine, I am satisfied with my pay", more than 59% disagreed and almost 32% agreed (p. 14) indicating a lower level satisfaction in terms of salary.

The level of job satisfaction of Illinois county and area extension agents was half way between "acceptable" and "satisfied" (Cassina, 1989). The findings indicated that a higher level of satisfaction was noted on statements pertaining to the top level of Maslow's hierarchy of needs, esteem and self actualization. Cassina reported that approximately 20% of the 44 items had means below the "acceptable" level of satisfaction and the lowest ranked item was salary, which is a dissatisfier according to Herzberg's motivator-hygiene theory.

Job satisfaction and in-service training needs of Iowa CES personnel was determined by Kesler (1989). The study reported that high levels of satisfaction were observed for

fringe benefits, importance and value of work, challenge of job, performance and capability of job, feelings about community, and relationship with clientele, and low levels of satisfaction for amounts of time and work necessary to do the job, adequacy of performance evaluation, salaries compared to others in similar work, and new staff orientation.

Mallilo (1990) assessed the job satisfaction of Rhode Island CES staff and reported that the staff had "moderate to high" level of satisfaction. The findings also indicated that despite low salary the staff felt their job was more interesting than other jobs they could get.

Educational Orientation of Extension Agents

The philosophy of extension education in the United States has been consistent throughout its development. Extension helps people make their own decisions about the directions their lives and society should take. The Futures Task Force (1987) reported that Extension is an effective, non-biased source of educational information. It has been helping people to develop skills to solve their own problems by transferring the information generated by research and experts to people who "need" or desire it.

Historically, CES programs have focussed more on information transfer to its clientele groups. Jimmerson (1989) noted that in recent years extension agents have

prided themselves on being "process experts" as well as specialists in a subject-matter area. After a careful analysis of the trends of CES, Dillman (1985) advocated that extension educators in the "information age" should be learning with clientele rather than being their teacher. This demands that the role of extension agents be seen as facilitators of learning rather than as content transmitters. The emphasis should be shifted from "information transferrer" to problem solver, bringing to bear the resources of the land grant university on the needs and problems of the clientele (Meier, 1989; Bonanno, et al 1988). In order to be successful in these changing roles of an adult educator, extension agents need to possess a set of orientations about educationally working with adults. They need to possess educational orientations, a set of values, beliefs and attitudes, with respect to their role as educators of adults.

According to Sisco (1984) qualities needed by the effective facilitator include: empathy, use of reward, respect for the dignity and worth of each individual, a sense of fairness and objectivity, willingness to accept new things and ideas, patience, sensitivity, humility, and commitment to own lifelong learning. He further stated that the transition from teacher to facilitator of learning is difficult, but suggests that designing a learning plan based on appropriate climate setting and diagnosis of learning

needs could help achieve better results. Little (1981) identified six key characteristics of adults as learners and suggests that information provided to adults should consider: adult life cycle, immediate time orientation, broad base of experience, independent self-concept, gradual state of physical decline, and a number of social roles to be fulfilled when teaching.

Hadley (1975) developed an instrument, the Educational Orientation Questionnaire, with which adult educators' orientations could be assessed with respect to constructs of andragogy and pedagogy. He found that educators of adults possess an andragogical orientation. The Educational Orientation Questionnaire developed by Hadley was utilized by Hynes (1989) who studied the effects of educational orientations of university faculty on adult learner satisfaction. The specific purpose was to determine whether faculty's understanding of and concern for the unique ways adults engage in learning affect student satisfaction with the learning experience. The study found that male faculty were pedagogs and female faculty were andragogs. No differences were reported between educational orientation held by the faculty and student satisfaction of learning experience.

Andragogical-pedagogical orientation and its relationships to selected variables among university students was studied by Davenport and Davenport (1984).

They utilized a Student Orientation Questionnaire to measure students' preferences, attitudes, and beliefs about education and to identify a learning style responsive either to authority-oriented, formal education (pedagogical) or informal and collaborative instruction (andragogical). Findings indicated that female students were more likely than male students to have a higher andragogical orientation and no statistical relationship was found between age and educational orientation.

Educational orientations of adult educators who were on the university continuing education faculty of Auburn University and Alabama Cooperative Extension Service personnel were studied by Holmes (1977). This study utilized the Educational Orientation Questionnaire (Hadley, 1975) to determine the andragogical and pedagogical nature of the adult educators' orientations. Holmes (1977) found that the educational orientations of adult educators in the Cooperative Extension Service differed significantly from those adult educators in university continuing education. The CES educators were more andragogically oriented than were the adult educators in continuing education.

CHAPTER III

METHODOLOGY

The purpose of this chapter is to describe the methods and procedures used to study the educational orientation and job satisfaction of Extension agents. This was an exploratory study aimed at providing data and drawing conclusions that could contribute toward the development of theories to explain and direct future research activities. This section describes the theoretical base for the methodology and an explanation of the principles and procedures used for collecting and analyzing the collected information.

The purpose of this study was to investigate the educational orientations held by Cooperative Extension Service (CES) field agents and the relationship between their educational orientation and their level of job satisfaction. The questions that guided the research were:

1. What educational orientations do CES agents and their immediate supervisors hold?
2. Is there a relationship between an agent's personal characteristics and their educational orientation?
3. What is the level of job satisfaction of CES agents?

4. Is there a relationship between an agent's educational orientation and their job satisfaction?
5. Are Extension agents who have educational orientations which are similar to their immediate supervisor more satisfied with their job than agents who have educational orientations different from their immediate supervisor?

The Design

The design chosen, according to terminology used by researchers in the field of education (Borg and Gall, 1979; Merriam and Simpson, 1984) and socioligy (Babbie, 1986), can be categorized as a descriptive survey methodology in the form of a mailed questionnaire. If properly employed and cautiously interpreted, the descriptive survey can be a useful methodology for the development of knowledge (Best, 1981). The data obtained from the completed questionnaires are used to describe how the study population distributed itself for different variables. One of the goals of this study was to provide data, draw conclusions, and generate knowledge that could contribute toward the development of theories to explain the relationship between educational orientation and job satisfaction of Extension educators. The survey method was chosen for this study considering the need to satisfy certain exploratory aspects of the study.

The survey method of research is an established

strategy that offers many advantages. According to Babbie:

> survey research is probably the best method available to the social scientist interested in collecting original data for describing a population too large to observe directly. Surveys are also excellent vehicles for measuring attitudes and orientations in a large population (p. 209).

This study followed a descriptive survey methodology to collect information to ascertain the perceptions commonly held by extension workers about their educational orientations. This research followed the guidelines set forward by John Best (1981) as he described the characteristics of descriptive survey research studies:

1. They are non-experimental, for they deal with the relationships between nonmanipulated variables in a natural, rather than artificial, setting. Since the events or conditions have already occurred or exist, the researcher selects the relevant variables for an analysis of their relationships.
2. They involve hypothesis formulation and testing.
3. They use the logical methods of inductive-deductive reasoning to arrive at generalizations.
4. They often employ methods of randomization so that errors may be estimated when inferring population characteristics from observations of samples.
5. The variables and procedures are described as accurately and completely as possible so that the study can be replicated by other researchers.

Researchers, however, must be cognizant of the limitations to descriptive survey research. Borg and Gall (1979) listed the frequently made errors by researchers in survey research: not formulating clear, specific objectives for their research; relating data gathering procedures to objectives in only a general way and thereby failing to get quantitative data specific to the problem; selecting the sample on the basis of convenience; and analyzing survey data one variable at a time instead of analyzing relationships, longitudinal changes, and comparisons between groups. Every effort was made in this study to minimize these limitations.

Population

The identification of the population is a critical step in the research process. Two types of population are generally described in the research literature: the "target" population and the "survey" population. According to Rossi, et al (1983), the target population is the collection of elements that the researcher would like to study. The survey population is the population that is actually sampled and for which data may be obtained.

The target population for this study included all groups of non-formal educators including the Cooperative Extension Service (CES) field level agents who are involved in the planning, implementation and evaluation of non-formal

educational programs in the United States. Due to time and financial resources available, it was beyond the scope of this study to provide coverage of the total population. In order to appropriately respond to the stated problem and provide answers to the research questions, a survey population of employees with professionally similar roles within the Michigan CES was considered for this study. The survey population for this study consisted of two groups:

Extension agents All board-appointed permanent county agents in Michigan CES who are: (1) under the direct supervision of a County Extension Director, (2) have worked for at least one year in their present position, (3) are currently working and not on study leave or some other kind of long-term leave, and (4) are not considered as County Extension Directors.

County Extension Directors (CEDs): In most counties in Michigan, CEDs work together with county agents to assist in program planning and implementation. The CEDs have the direct responsibility of supervising the work of the county Extension agents. Though most of them have educational roles in the county as Extension agents, for the purpose of this research, they are categorically considered as supervisory personnel. All board appointed CEDs with at least one year at their current location and those who are not on any kind of leave were included in the survey population.

The Personnel Office of the Michigan CES provided a list of county agents and County Extension Directors. With the help of the CES Personnel Office, county agents and CEDs were identified and selected to be included in the survey population. Altogether 153 county agents and 79 CEDs were included in the survey population. Those excluded from the survey population were county agents and CEDs who did not have at least one year of work experience, who were appointed on a temporary basis, who were on study leave or who were not currently working as county agents or CEDs, CEDs who have not supervised agents in their present location for at least one year, and those who held a District Agent position or Sea Grant Agents who are not under the direct supervision of the CEDs.

Sample

A sample is a strategically and systematically identified group of people or events that meets the criterion of representativeness for a particular study (Merriam and Simpson, 1984). Several approaches to sampling are available to the researcher depending upon the nature and objective of the research. As indicated earlier, one of the research questions of this study is the comparison of the level of job satisfaction between agents who have educational orientations which are similar to their immediate supervisor and agents who have educational orientations different from their immediate supervisor.

Since there were only 79 immediate supervisors and 153 extension agents identified and considering that all may not choose to participate in the study by responding to the survey, a nonprobability sampling approach, popularly known as total enumeration, was used in this study. In addition, total enumeration was chosen because of the relatively small number of individuals that were sorted out into the Extension agent and the immediate supervisor subgroups which are needed for cross-tabulation and other comparison procedures to be used in the data analysis. Further, considering the exploratory nature and the possible contribution of the study to enhanced professional competencies of the study population, it was considered important to give each member of the survey population an equal opportunity to participate.

The shortcomings of nonprobability sampling is very well described by Babbie (1983). The biggest criticism of nonprobability sampling is the inability to generalize the study findings to a larger population and hence, is referred to as a threat to external validity. While this limitation is acknowledged, the total enumeration approach is still considered a justifiable sampling strategy in social survey research. Steel (1986) noted that:

> One very significant result of a non-probability sampling strategy might be that the careful, in-depth understanding that could result from the analysis of data might foster new conceptualizations and hypotheses that could guide future related research studies (p.104).

Regardless, it should be noted that the results of the study can only be generalized to the survey population and not the target population.

Instrumentation

The study utilized a survey in the form of a mail questionnaire for data collection. The questionnaire had three major parts: educational orientation, job satisfaction, and personal data. The first part consisted of statements regarding the educational orientation of the respondents. This part of the instrument was originally developed by Hadley (1975) to measure andragogical - pedagogical orientations of educators of adults. A review of major validation concerns was presented by Hadley (1975) in support of its repeated use:

> Reliability of the instrument was measured by test-retest reliability and coefficient alpha. Test-retest reliability measured 0.89, and coefficient alpha was 0.94.
>
> The use validity of the Educational Orientation Questionnaire was its effectiveness in discriminating among adult educators. Analysis of variance demonstrated that the Educational Orientation Questionnaire detected differences in orientation (significant at the 0.05 level or less) with respect to variables of: Sex, Subject Matter or Specialty, Level of Position, and Type of Organization ... Differences in Age of adult educators were not associated with significant differences in orientation.
>
> The content validity was judged satisfactory. Predictive validity of the instrument based on total scores was satisfactory with coefficients ranging from 0.24 to 0.49. However, predictive validity coefficients based on summary scores of

items grouped by multiple regression ranged from 0.50 to 0.60 which were well above the usual such coefficients.

Factor analysis of the Educational Orientation Questionnaire determined eight identifiable factors: Pedagogical Orientation, Andragogical Orientation, Competitive Motivation, Pedagogical Teaching, Social Distance, Student Undependability, Standardization, and Self-Directed Change. As anticipated, Pedagogical Orientation and Andragogical Orientation were dominant factors of the instrument.

The educational orientation part of the instrument was adapted from the Hadley (1975) study. Only those statements in the Hadley instrument pertaining to the pedagogical and andragogical orientation as identified by the study's factor analysis were selected. Certain wordings on the statements were edited in order to keep the language consistent with prevailing CES vocabulary. The changes in statement wording were made according to the following procedures:

1. Four professors who were familiar with the pedagogy-andragogy literature and had long experience with the Cooperative Extension Service at Michigan State University served as a panel of experts. They were given the original statements from the Hadley (1975) instrument. Each of them was asked to read the statements and make suggestions pertaining to wording changes in each statement.
2. Suggestions from each professor on each statement were carefully studied. Changes in wording were made only if two or more professors agreed to a change in wording

and suggested the same wording for the change.

3. The instructions and the format of the instrument, however, were changed at a minimum.

Thus, the first part of the questionnaire was designed to study the educational orientation of the respondents, on a five point Likert-type scale, toward a set of 24 statements related to pedagogical and andragogical orientation.

The second part of the instrument consisted of questions pertaining to the respondent's attitude toward their job satisfaction. This part of the instrument utilized a questionnaire that was originally developed by the Cooperative Extension Service at Iowa State University and was used there in 1976, 1980, and 1988. More recently it was utilized to assess the level of job satisfaction of Illinois Cooperative Extension Service personnel (Cassina, 1989). Reliability of this instrument was assessed using the Cronbach alpha which was found at 0.92. This coefficient indicates that the consistency of the survey was acceptable. According to Nunnally (1982), an alpha greater than 0.65 is the minimum recommended for research purposes. This study adapted the questionnaire used by Cassina (1989) except that four items pertaining to marketing of extension programs and the emphasis of the extension service on leadership development were deleted from the job satisfaction questionnaire. Thus, part two of the instrument was designed to seek respondents' attitudinal

response, on a five point Likert-type scale, to 40 items that reflected the agents' level of job satisfaction in extension work.

The third part of the instrument was called "personal data". Respondents were asked to select an appropriate answer to describe their personal characteristics. Such characteristics included age, gender, marital status, position, primary program area, regional assignment, experience in current position and in the extension profession, the major for their undergraduate degree, and whether they had previously served as a school teacher.

A cover letter, signed by the dissertation director and the researcher, accompanied the questionnaire. The letter outlined the reasons for the study, the nature of participation, confidentiality of responses, and usefulness of the study. Respondents desiring a summary of findings of the study were asked to indicate their intent by signing their name and address on the postage-paid self-addressed return envelope. The cover letter was duplicated on the Department of Agricultural and Extension Education, Michigan State University letterhead. Necessary instructions on how to complete the survey and an explanation of the scale to be used were also provided at appropriate sections of the instrument.

As indicated earlier, the panel of experts provided assistance in addressing all three types of validity

concerns: content, construct, and face. The instrument was pilot tested using CES personnel who had previous experience as a field agent but who were no longer in that position.

Data Collection

The questionnaire was photocopied on off-white paper to enhance professional image and readability. The cover letter was designed to create a positive first impression and communicate a relevant purpose to the study population. To facilitate individualization, the name and address of each respondent was printed directly on the cover letters. An individual identification number was recorded on the first page of each questionnaire for follow-up mailing purposes. To increase the ease of completion, each part of the questionnaire was preceded by adequate instruction.

The survey packet included the cover letter, questionnaire, and postage paid self-addressed return envelope. It was mailed to each member of the survey population using first class metered postage service from East Lansing on September 5, 1990. A follow-up postcard reminding the respondents to complete and return the questionnaire was sent to each non-respondent two weeks after the first mailing on September 19, 1990. Copies of all materials used in the mailing packets and the postcard are provided in Appendix A.

Completed questionnaires were carefully checked upon

return. All usable questionnaires were given a new identification number. The information was coded and entered into a microcomputer data file. There were 112 usable questionnaires returned out of 153 questionnaires mailed to the Extension agents and 64 usable questionnaires returned out of 79 questionnaires mailed to the County Extension Directors, a response rate of 73.20 percent and 81.01 percent for the Extension agents and County Extension Directors, respectively. In order to address the problem of possible nonrespondent bias, "early respondents" were compared with "late respondents" on selected variables. No differences at the 0.05 level were found between the two groups which allowed for the generalization of the results to the survey population (Miller and Smith, 1983).

Data Analysis

Data were coded and analyzed by using the SPSS/PC+ microcomputer software. The data were first submitted to frequency counts in order to detect coding or data entry errors. Necessary corrections were made in the data file and any errors or inconsistencies were checked.

The first part of the analysis consisted of determining the demographic characteristics of the survey population. Response frequencies, percentage, range and measures of central tendency and dispersion were generated for demographic variables as appropriate.

The educational orientation and the job satisfaction parts of the questionnaire that provided for response on a Likert-type attitudinal scale were interpreted and analyzed as if they were measured in an interval level. First, the statistical procedure to determine reliability (Norusis, 1988) was performed and Cronbach's alpha was determined at .72, .73 and .94 for instruments pertaining to andragogy, pedagogy and job satisfaction, respectively.

The educational orientation part of the questionnaire consisted of twenty four statements - twelve each on the andragogical and pedagogical orientation. The statements were developed on a five point Likert-type scale and the five positions from which to choose the response were: "SA - I strongly agree with this statement", "A - I agree with this statement", "U - I'm uncertain about this statement to agree or disagree", "D - I disagree with this statement", and "SD - I strongly disagree with this statement". The responses were coded as 5, 4, 3, 2, and 1 to represent SA, A, U, D, and SD positions, respectively.

The educational orientations of the respondents were ascertained by computing the scores against andragogical and pedagogical constructs. An andragogical orientation for each respondent was defined by assessing the values on items 4, 5, 6, 7, 11, 13, 15, 16, 18, 21, 22, and 24 in the first part of the questionnaire. A mean andragogical score for each respondent was determined by averaging numerical scores

for all the above indicated andragogical items.

Pedagogical orientation for each respondent was defined by examining the responses on items 1, 2, 3, 8, 9, 10, 12, 14, 17, 19, 20, and 23 in the first part of the questionnaire. A mean pedagogical score for each respondent was determined by averaging the numerical values for all pedagogical items.

The job satisfaction part of the instrument consisted of 40 items. A procedure, similar to that used for educational orientation, was followed to compute the job satisfaction score. An overall job satisfaction score was computed for each Extension agent by averaging all items in the second part of the questionnaire.

Descriptive statistics such as frequency counts, mean and standard deviation scores were used to analyze educational orientations held by the Extension agents and the level of their job satisfaction.

Pearson's product moment correlation coefficient was computed to examine the nature and extent of linear relationship between continuous demographic characteristics such as age, experience and the agent's educational orientation. Similar procedures were utilized to test the relationship between demographic characteristics such as age, experience in current position and total extension experience of Extension agents and their level of job satisfaction. The correlation coefficient was also used to

examine the relationship between educational orientation and job satisfaction.

T-tests were performed to examine if Extension agents differ in their educational orientations and job satisfaction as relates to gender, marital status, single or multi-county assignments, having a graduate degree, and whether he/she was a school teacher. One-way analysis of variance and the Scheffe post-hoc procedures were used to find out the differences in educational orientations and job satisfaction when considering Extension agents' program area of work.

For the purpose of this study congruence of educational orientation of Extension agents with that of their immediate supervisor was measured as the difference in score between the CED and the agents on andragogical and pedagogical orientation scores. Based on this congruence score, quartile values at 25th, 50th, and 75th percentile were determined. Respondents belonging to the first and the last quartiles of the andragogical and pedagogical orientation congruence continuum were classified as "incongruent" and the rest, the middle of 50%, were classified as congruent. The t-test was used to determine the differences in the level of job satisfaction between the "congruent" and "incongruent" groups.

The alpha level was set apriori at the 0.05 level for all significance tests.

Limitations of the Study

This study is limited to Michigan Cooperative Extension Service field staff. Only the board-appointed permanent county agents and County Extension Directors (CEDs) with at least one year of experience in their current position were studied. In addition, this study utilized a nonprobability sampling approach, popularly known as total enumeration, which limits the generalizability of conclusions to a larger population.

This study assumed no similarity between MCES and those operating in other states or countries. Therefore, precautions must be taken to apply the findings of this study in other settings.

As indicated earlier, the respondents of this study included the County Extension Directors (CEDs) and county Extension agents with at least one year of experience in their current position. The CEDs have two major roles: they are responsible for the general administration of the county CES program and most of them also have educational roles. As part of their administrative role, CEDs have direct responsibility of supervising the work of the county Extension agents. As indicated in the study delimitations, this research considered CEDs not as Extension agents but as immediate supervisor of Extension agents. No attempt was made studying the educational orientations of supervisors at the regional and state level.

It is was not the intent of this study to determine the factors affecting job satisfaction of Extension agents. Job satisfaction was studied only in relation to andragogical and pedagogical orientations of Extension agents. No attempt was made to find out the job satisfaction of Extension agents with respect to their personal characteristics.

CHAPTER IV

FINDINGS

The data collected in the study were analyzed according to the procedures described in Chapter III and are presented in this chapter. The discussion of findings is arranged to answer the research questions set forth in this study.

The information in this chapter is organized under the following headings:

1) Personal characteristics of respondents
2) Educational orientations of respondents
3) Relating personal characteristics and educational orientation of Extension agents
4) Job satisfaction of Extension agents
5) Relating educational orientation and job satisfaction of Extension agents
6) Congruence of educational orientations and job satisfaction

As reported in Chapter III, as of October 31, 1990, 112 usable questionnaires were received from Extension agents which represented a 72.2 percent response rate. Similarly, questionnaire from 64 CEDs were received by October 31, 1990, which accounted for a response rate of 81.01 percent. Of the total respondents, 36.4 percent were County Extension

Directors (CEDs) and 63.6 percent were county agents. Table 1 shows that CEDs from 64 counties and agents from 57 counties, out of 83 counties in Michigan, responded to this study. It should be noted, however, that some counties did not have a CED and/or agents who qualified to be included in the study population.

Table 1. Response rate in the study

Respondent group	Identified population	Number responding
CEDs	79	64
Agents	153	112
Total	232	176

In order to determine the generalization of the results, "late respondents" were compared with "early respondents". No differences at the .05 level of significance were found between the "early" and "late" respondents (see Appendix B). This procedure allows the generalization of the results to the study population (Miller and Smith, 1983).

Characteristics of Respondents

The subjects of this study were the Michigan Cooperative Extension Service (MCES) field agents, county agents and County Extension Directors (CEDs), who had at least 1 year of working experience in their current position

as of July, 1990. Selected demographic information was collected from the subjects to better understand the nature of their population. This section presents information regarding the respondents' age, sex, marital status, position, program area, regional assignment, extension experience, education, and whether they had any experience as a school teacher.

Age: Age of the Extension agents ranged from 26 to 67 years with a mean of 39.9 years and a standard deviation of 9.2 years. Data in Table 2 show that 15.1 percent of the agents were under 30 years of age and 16.1 percent indicated an age of 51 or over.

Age of the County Extension Directors (CEDs) ranged from 29 to 62 years with a mean of 44.6 years and a standard deviation of 7.8 years. As shown in Table 2, only one respondent was under 30 years whereas 29.7 percent indicated an age of 51 years or over. Data in Table 2 reveal that county agents are younger than the CEDs.

Table 2. Age of respondents

Age Range	Agents (n=112) No.	(%)	CEDs (n=64) No.	(%)
Under 30 years	17	(15.1)	1	(1.6)
31-40 years	40	(35.7)	20	(31.2)
41-50 years	32	(28.6)	24	(37.5)
51 years and over	18	(16.1)	19	(29.7)
No response	5	(4.5)	-	-
Total	112	(100)	64	(100)

Gender: Of the survey respondents 52.3 percent were males and 47.7 percent were females. As shown in Table 3, most of the CEDs were male whereas majority of the agent respondents were female.

Table 3. Gender of respondents

Gender	Agents (n=112) Number	(%)	CEDs (n=64) Number	(%)
Male	46	(41.1)	46	(71.4)
Female	66	(58.9)	18	(28.1)
Total	112	(100)	64	(100)

Marital Status: Respondents were asked to indicate their marital status. Table 4 shows that 76.8 percent of the Extension agents and 83 percent of CEDs were married.

Table 4. Marital status of respondents

Marital Status	Agents (n=112) Number	(%)	CEDs (n=64) Number	(%)
Married	86	(76.8)	60	(93.8)
Single	23	(20.5)	4	(6.2)
No Response	3	(1.7)	-	-
Total	112	(100)	64	(100)

Assignment: Extension agents and CEDs in Michigan can have a single county or multi-county assignment. Respondents of this study were asked to indicate their assignment type since it was possible that this variable could be associated with an agent's educational orientation as well as his/her job satisfaction. As shown in Table 5, when asked to indicate the type of assignment, 82.1 percent of the agents and 89.1 percent of the CEDs in this study indicated having a single county assignment, respectively.

Table 5. County assignment of respondents

County Assignment	Agents (n=112) Number	(%)	CEDs (n=64) Number	(%)
Single county	92	(82.1)	57	(89.1)
Multi-county	20	(17.9)	7	(10.9)
Total	112	(100)	64	(100)

Program Area: Extension work in Michigan is administered and organized through four major program areas including

Agriculture and Marketing, 4-H Youth, Home Economics, and Natural Resources and Public Policy. Findings indicate that respondents of this study came from all of the program areas. As shown in Table 6, Agriculture and Marketing had the highest number of agents as well as CEDs followed by Home Economics, 4-H Youth , and Natural resources and Public Policy. Of the CEDs, 2.3 percent did not indicate their primary program area of work and some indicated working for more than one primary program area.

Table 6. Program area of respondents

Program Area	Agents (n=112) Number	(%)	CEDs (n=64) Number	(%)
Agriculture and Marketing	37	(33.0)	31	(48.4)
Home Economics	36	(32.1)	14	(21.9)
4-H Youth	31	(27.7)	9	(14.1)
Natural Resources and Public Policy	8	(7.1)	8	(12.5)
No program area indicated	-	-	2	(3.1)
Total	112	(100)	64	(100)

Region: The Michigan Cooperative Extension Service is organized into six geographical regions. Respondents were asked to indicate the region to which they were assigned. Table 7 shows that respondents in this study came from all six regions. The highest number of agents come from the East Central region followed by Southwest, West Central, Southeast, North and Upper Peninsula regions. On the other hand, highest number of CEDs were from the North region

followed by West Central, Southeast, East Central and Upper Peninsula, and Southwest regions.

Table 7. Regional assignment of respondents

Region	Agents (n=112) Number	(%)	CEDs (n=64) Number	(%)
East Central	26	(23.2)	10	(15.6)
Southwest	29	(25.9)	6	(9.4)
West Central	21	(18.8)	12	(18.8)
Southeast	20	(17.9)	11	(17.2)
North	8	(7.1)	15	(23.4)
Upper Peninsula	8	(7.1)	10	(15.6)
Total	112	(100)	64	(100)

Experience: Due to a possible relationship between years of extension work experience, educational orientation and job satisfaction, respondents were asked to indicate their experience in their current position. Findings showed that Extension agents' experience in their current position ranged from 1 to 22 years with a mean of 6.3 years and a standard deviation of 5.4 years. Of the responding agents, 55.4 percent had 5 years or less experience and 8 percent indicated an experience of 16 years or more above.

Experience in current position of the CEDs ranged from 1 to 20 years with a mean of 6.8 years and a standard deviation of 5.2 years. Of the responding CEDs, 46.8 percent had 5 years or less experience and 9.4 percent indicated having 16 years or more experience.

Table 8. Experience in current position

Experience in current position	Agents (n=112) No.	(%)	CEDs (n=64) No.	(%)
5 years or less	62	(55.4)	30	(46.8)
6-10 years	20	(17.8)	19	(29.7)
11-15 years	14	(12.5)	6	(9.4)
16 years & above	9	(8.0)	6	(9.4)
No response	7	(6.3)	3	(4.7)
Total	112	(100)	64	(100)

Time spent in current position may not precisely yield extension experience. Respondents could have several years of experience in similar jobs but in different positions. Therefore respondents were further asked to indicate their total Extension experience. It was found that total Extension experience of the responding agents ranged from 1 to 30 years with a mean of 9.9 years and a standard deviations of 6.8 years. Table 9 shows that 33 percent of the agents had a total Extension experience of 5 years or less and 21.4 percent indicated having 16 years or more experience.

Total Extension experience for the CEDs ranged from 1 to 27 years with a mean of 14.2 years and a standard deviation of 6.6 years. When the total experience was considered, only 9.4 percent of the CEDs had 5 years or less experience and 39.1 percent indicated having 16 years or more experience.

Table 9. Total Extension experience

Total Extension experience	Agents (n=112) Number	(%)	CEDs (n=64) Number	(%)
5 years or less	37	(33.0)	6	(9.4)
6-10 years	27	(24.1)	12	(18.7)
11-15 years	17	(15.2)	20	(31.3)
16 years & above	24	(21.4)	25	(39.1)
No response	7	(6.3)	1	(1.5)
Total	112	(100)	64	(100)

Undergraduate Major: Respondents indicated various majors for their undergraduate degrees. As shown in Table 10, home economics, agricultural and natural resources education, animal science, crop and soil science, education, natural resources management, horticulture, and sociology were the most frequently mentioned undergraduate degrees majors by Extension agents.

Table 10. Undergraduate degree major of respondents

Undergraduate major	Frequency Agents(n=112)	CEDs (n=64)
Home Economics	28	10
Agricultural and Natural Resources Education	12	16
Education	11	6
Crops and Soils	9	6
Animal Science	12	2
Natural Resources Management	7	3
Horticulture	6	2
Sociology	6	1
General Agriculture	3	4
Dietetics/Nutrition	4	1
Others	10	9
No response	4	4

Frequently mentioned undergraduate majors by the CEDs were agricultural and natural resources education, home economics, crop and soil science, and general agriculture.

Graduate Degree: When asked to indicate whether the respondent had a graduate degree, 51.8 percent of the agents and 67.2 percent of the CEDs indicated they had. Respondents who indicated having a graduate degree were asked to indicate their major area of study for their graduate work. As shown in Table 11, agricultural and extension education, home economics/food and nutrition/ family studies, adult and continuing education, education, and animal science/dairy science were the most frequently mentioned graduate degree major areas by Extension agents. Frequently mentioned graduate degree major areas by CEDs included agricultural and extension education, education, and adult and continuing education.

Table 11. Graduate degree major of respondents

Undergraduate major	Frequency	
	Agents	CEDs
Education	10	11
Agricultural and Extension Education	8	10
Adult & Continuing Education	7	8
Home Economics/Food and Nutrition/Family Studies	11	1
Animal Science/Dairy Science	7	1
Agricultural Economics	4	2
Crops and Soil Science	2	2
Park and Recreation	2	1
Others	7	7

School Teaching Experience: Due to a possible relationship between educational orientation and an individual's teaching experience in a formal school setting, respondents were asked to indicate whether or not they had ever been a school teacher. Findings in Table 12 show that 45.5 percent of the agents and 51.6 percent of the CEDs indicated having an experience as a formal school teacher.

Table 12. Experience as school teacher

School teaching experience	Agents (n=112) Number (%)		CEDs (n=64) Number (%)	
Have	51	(45.5)	33	(51.6)
Don't have	60	(53.6)	31	(48.4)
No response	1	(0.9)	-	-
Total	112	(100)	64	(100)

Educational Orientation of Respondents

The first research question of this study asked about the educational orientations held by Extension agents and their immediate supervisor. The Extension agents and CEDs with at least one year of experience in their current job were surveyed to study their attitude toward andragogical and pedagogical orientations by using an instrument. The instrument consisted of twelve statements relating to education, teaching and learning on each of the andragogical

and pedagogical orientations for a total of twenty four statements.

The statements were responded to on a five point Likert-type scale and the five positions from which to choose were:

SA - I strongly agree with this statement

A - I agree with this statement

U - I'm uncertain about this statement to agree or disagree

D - I disagree with this statement

SD - I strongly disagree with this statement

For statistical analysis purposes the responses of SA, A, U, D, and SD were coded as 5, 4, 3, 2, and 1, respectively. An andragogical orientation score for each respondent was defined by assessing the values on items 4, 5, 6, 7, 11, 13, 15, 16, 18, 21, 22, and 24 in the first part of the questionnaire. Then, these values were averaged to determine the andragogical orientation score for each respondent. Pedagogical orientation for each respondent was defined by examining the responses on items 1, 2, 3, 8, 9, 10, 12, 14, 17, 19, 20, and 23 in the first part of the questionnaire. A pedagogical orientation score for each respondent was determined by averaging the numerical values for the pedagogical items. Based on these scores, descriptive statistics were used to analyze the data.

Andragogical Orientation:

The andragogical orientation score for the Extension agents ranged from 2.67 to 4.75 with a mean of 3.71 and a standard deviation of 0.41. Frequency distribution in Table 13 shows that none of the Extension agents had a andragogy score of less than 2.5, 38.4 percent had an andragogy score between 2.5 and 3.5, and 61.6 percent had andragogy score of higher than 3.5 on a 1-5 scale.

The andragogical orientation score for the County Extension Directors ranged from 3.0 to 4.75 with a mean of 3.82 and a standard deviation of 0.40. Frequency distribution in Table 13 shows that none of the County Extension Directors had a andragogy score of less than 2.5, 25.4 percent had an andragogy score between 2.5 and 3.5, and 74.6 percent had andragogy score of higher than 3.5 on a 1-5 scale.

Table 13. Andragogical orientation score of the respondents

Level of andragogical orientation score	Range of scores	Agents No. (%)	CEDs No. (%)
Low	< 2.5	0(0)	0 (0)
Moderate	2.5 - 3.5	43 (38.4)	16 (25.4)
Strong	> 3.5	69 (61.6)	47 (74.6)
Total		112 (100)	64 (100)

Mean for Agents = 3.75, S.D. = 0.41
Mean for CEDs = 3.82, S.D. = 0.40

Descriptive statistics of the individual statements pertaining to andragogical orientation are presented in

Table 14. The data indicate that the Extension agents possess a moderate to strong andragogical orientation. Extension agents indicated a stronger agreement with statements related to client participation in educational programs. The strongest agreement was noted on the statement, "Effective learning occurs most often when clientele actively participate in deciding what is to be learned and how" (mean = 4.56), followed by: "Organization of the content and sequence of learning activities should grow out of clientele needs, with their participation" (mean = 4.34). Low agreement was noted on the statement, "It is better for clientele to create their own learning activities and materials than for the extension agent to provide them" (mean = 2.67), and it was the only item receiving an overall mean score below 3.

Of the twelve andragogical orientation statements, Extension agents indicated a strong agreement on two, with a mean higher than 4.0 on a 1-5 scale. They indicated a moderate agreement on nine statements with mean between 3.0 and 4.0. Only one statement had a mean score below 3.0, a low agreement.

Descriptive statistics of the individual statements pertaining to andragogical orientation for the CEDs are also presented in Table 14. The data indicate that CEDs possess a moderate to strong andragogical orientation. The County Extension Directors indicated a stronger agreement with

Table 14. Andragogical items means

Andragogical statements	Agents (n=112) Mean (SD)	CEDs (n=63) Mean (SD)
Effective learning occurs most often when clientele actively participate in deciding what is to be learned and how.	4.56 (.67)	4.54 (.64)
Organization of the content and sequence of learning activities should grow out of clientele needs, with their participation.	4.34 (.65)	4.43 (.67)
Educational objectives should define changes in behavior which the clientele desire and the extension agent helps them undertake.	3.99 (.69)	4.03 (.54)
An Extension agent's mission is to help each client learn what he/she decides will aid in the achieving of his/her personal goals.	3.98 (.79)	4.05 (.81)
An Extension agent's primary responsibility is helping clientele choose and develop their own directions for learning.	3.88 (.79)	4.03 (.72)
The best sources of ideas for improving CES educational programs are the clientele.	3.83 (.92)	4.06 (.78)
The goals that the clientele set for themselves rather than the goals that the Extension agent sets for the clientele, are the basis for effective learning.	3.85 (.79)	4.03 (.74)
Planning units of work should be done by clientele and Extension agents together.	3.80 (.92)	3.90 (.71)

Table 14. Contd...

Andragogical statements	Agents (n=112) Mean (SD)	CEDs (n=63) Mean (SD)
Extension clientele are quite competent to choose and carry out their own projects for learning.	3.29 (.91)	3.43 (.91)
Evaluating his/her achievement should be primarily a responsibility of the client since he/she has the necessary data.	3.27 (.91)	3.30 (.91)
Evaluations prepared by the clientele are usually just as effective as those prepared by the Extension agent.	3.06 (.90)	3.22 ((.81)
It is better for clientele to create their own learning activities and materials than for the Extension agent to provide them.	2.67 (.97)	2.71 (.75)

statements related to client participation in Extension educational programs. The strongest agreement was noted on the statement, "Effective learning occurs most often when clientele actively participate in deciding what is to be learned and how" (mean = 4.54), followed by: "Organization of the content and sequence of learning activities should grow out of clientele needs, with their participation" (mean = 4.43), and "Educational objectives should define changes in behavior which the clientele desire and extension agent helps them undertake" (mean = 4.03). Similar to that

of the agents, a low agreement was noted on the statement, "It is better for clientele to create their own learning activities and materials than for the extension agent to provide them" (mean = 2.71), and it was the only item receiving an overall mean score below 3.

Of the twelve andragogical orientation statements, CEDs indicated a strong agreement on seven, with a mean higher than 4.0 on a 1-5 scale. They indicated a moderate agreement on 4 statements with mean between 3.0 and 4.0. Only one statement had a mean score below 3.0, a low agreement. In general, Table 14 shows that the CEDs' had a stronger andragogical orientation than that of the Extension agents.

Pedagogical Orientation:

The mean pedagogical orientation score for the Extension agents ranged from 1.83 to 4.33, with a mean of 3.19 and a standard deviation of 0.51. On the other hand, the mean pedagogical score for the CEDs ranged from 2.16 to 4.33 with a mean of 3.14 and a standard deviation of 0.46. Analysis of the distribution of the pedagogy score is shown in Table 15. Findings show that 12.5 percent of the Extension agents and 11.1 percent of the CEDs had a low pedagogy score, a score of less than 2.5 on a 1-5 scale. A moderate pedagogy score was noted among 63.4 percent of the agents and 69.8 percent of the CEDs. Strong pedagogical

orientation score, a score above 3.5 on a 1-5 scale, was found among 24.1 percent of the agents and 19.1 percent of the CEDs.

Table 15. Pedagogical orientation score of respondents

Level of pedagogical orientation	Range of scores	Agents Number (%)	CEDs Number (%)
Low	< 2.5	14 (12.5)	7 (11.1)
Moderate	2.5-3.5	71 (63.4)	44 (69.8)
Strong	> 3.5	27 (24.1)	12 (19.1)
Total		112 (100)	63 (100)

Mean for Agents = 3.19, S.D. = 0.51
Mean for CEDs = 3.14, S.D. = 0.46

The means and standard deviations for each statement pertaining to pedagogical orientation are presented in Table 16. The pedagogical orientation statement receiving the strongest agreement among the Extension agent was "Learning is an intellectual process of understanding ideas (concepts) and acquiring skills" (mean = 4.07). Of the twelve statements on the pedagogical orientation, it was the only statement with a mean score above 4.0. It should be noted, however, that extension agents rated high on the statement "A clear explanation by the extension agent is essential for effective learning". Eight statements out of twelve pedagogical orientation statements had mean scores between 3.0 and 4.0 indicating a moderate agreement on these items. A mean score of less than 3.0 was noted on three statements

pertaining to control of the educational process. The least agreed upon item by the Extension agents was the statement pertaining to the control of educational process by the Extension agent.

Findings in Table 16 show that CEDs and agents had similar attitude on the most of the pedagogical statement items. The pedagogical orientation statement receiving the strongest agreement among the CEDs was "Learning is an intellectual process of understanding ideas (concepts) and acquiring skills" (mean = 4.08). Of the twelve statements on the pedagogical orientation, it was the only statement with a mean score above 4.0. It should be noted, however, that CEDs rated high on the statement "A clear explanation by the extension agent is essential for effective learning" (mean = 3.95). Eight statements out of twelve pedagogical orientation statements had mean scores between 3.0 and 4.0 indicating a moderate agreement on these items. A mean score of less than 3.0 was noted on three statements pertaining to control of the educational process. It should be noted that the least agreed upon item by the CEDs was also the least agreed statement by the Extension agents.

Table 16. Pedagogical items means

Pedagogical statements	Agents (n=112) Mean (SD)	CEDs(n=63) Mean (SD)
Learning is an intellectual process of understanding ideas and acquiring skills.	4.07 (.78)	4.08 (.97)
A clear explanation by the Extension agent is essential for effective learning.	3.98 (.83)	3.95 (.91)
An extension agent should be sure his/her questions steer clientele toward truth.	3.46 (.99)	3.43 (.82)
The major qualifications of an Extension agent are a grasp of subject matter and ability to explain (demonstrate) it clearly and interestingly.	3.51 (1.1)	3.25 (1.0)
Education should lead people to goals that result in orderly, reasonable lives.	3.26 (.94)	3.27 (.81)
Clientele need a strong Extension agent who can direct their learning.	3.28 (1.1)	3.02 (1.2)
It should be the Extension agent's responsibility to evaluate clientele achievements and to determine the extent of learning.	3.05 (.97)	3.19 (98)
An extension agent who does not carefully plan the work for a program is taking advantage of the client's ignorance.	3.09 (1.0)	3.08 (.92)
Education should focus on what is sure, reliable and lasting.	3.04 (1.2)	3.03 (1.1)

Table 16. Contd...

Pedagogical statements	Agents (n=112) Mean (SD)	CEDs(n=63) Mean (SD)
It is an extension agent's responsibility to motivate clientele to learn what they ought to learn.	2.79 (1.1)	2.86 (1.1)
An extension agent should help clientele accept the values of our society.	2.46 (.90)	2.44 (.84)
A good extension agent makes the decisions about what should be taught, when, and how.	2.26 (.96)	2.21 (.88)

Relating Personal Characteristics and Educational Orientations of Extension Agents

The second research question of this study attempted to find out the relationship between an agent's personal characteristics and their educational orientation.

The Pearson product moment correlation coefficient was computed to examine if a linear relationship exists between continuous demographic variables such as age, experience in current experience and total extension experience, and an agent's educational orientations. Findings in Table 17 show no significant linear relationship between these demographic characteristics and educational orientations.

Table 17. Pearson correlation coefficient for selected demographic characteristics and educational orientations

Characteristics	Correlation Coefficient	
	Andragogy	Pedagogy
Age	-.10	.12
Experience in current position	.19	.17
Total Extension Experience	.05	.12

T-tests were performed to see if Extension agents have different educational orientations when examined in relation to their personal characteristics such as sex, marital status, single or multi-county assignments, having a graduate degree, and prior experience as a school teacher. The findings in Table 18 show that married agents were found to hold a different andragogy scores than that of their single counterparts. In other words, mean andragogy scores for married agents were lower than that of the unmarried agents. No significant differences were found between other dichotomous personal characteristics and andragogical orientation. In other words, Extension agents, whether male or female, having single county or multi county assignment, holding a graduate degree or not, and having served as a school teacher or not, do not hold different perceptions in terms of andragogical orientation.

Similar test was performed to find out whether agents differ in pedagogical orientation score according to the selected personal characteristics. Results of the t-test,

as presented in Table 19, showed that male agents were different from their female counterparts in terms of pedagogical orientations. The male extension agents were found to possess a stronger pedagogical orientation than female agents and the difference was significant at the .05 level. No significant differences were observed between other dichotomous demographic characteristics and pedagogical orientation.

Table 18. T-test analyzing andragogy score when considering selected demographic characteristics

Characteristic/group	(n)	Andragogy score	t-Value	Prob.
Sex:				
Male	(46)	3.69	.48	.63
Female	(66)	3.72		
Marital Status:				
Married	(86)	3.68	2.14	.04
Single	(23)	3.90		
County Assignment:				
Single County	(92)	3.72	.50	.62
Multi-county	(20)	3.66		
Graduate Degrees:				
Yes	(62)	3.66	1.35	.18
No	(49)	3.78		
School teacher:				
Yes	(51)	3.72	.18	.85
No	(60)	3.71		

Table 19. T-test analyzing pedagogy score when considering selected demographic characteristics

Characteristic/group	(n)	Pedagogy score	t-value	Prob.
Sex:				
Male	(46)	3.39	3.75	.00
Female	(66)	3.04		
Marital Status:				
Married	(86)	3.21	1.52	.13
Single	(23)	3.02		
County Assignment:				
Single County	(92)	3.21	1.13	.26
Multi-county	(20)	3.07		
Graduate Degrees:				
Yes	(62)	3.24	1.38	.17
No	(49)	3.11		
School teacher?				
Yes	(51)	3.21	.51	.61
No	(60)	3.16		

Educational orientations held by respondents were studied according to their program areas. Mean scores on andragogical orientations presented in Table 20 show that 4-H Youth agents hold the strongest andragogical orientation followed by NRPP, Agricultural and Marketing and Home Economics agents, respectively.

One-way analysis of variance and the post-hoc Scheffe procedure were used to examine differences in educational orientations in terms of respondents' program area

affiliation. As shown in Table 20, significant differences at the 0.05 level were observed among the respondents under different program areas in terms of andragogical orientation. Scheffe procedure showed that the andragogical orientations of the 4-H Youth agents were significantly different from Home Economics and Agricultural and Marketing agents.

Table 20. Analysis of variance of andragogical orientation when considering the agent's program area

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	2.5271	.8424	5.6324	.001
Within Groups	108	16.1522	.1496		
Total	111	18.6793			

Multiple Range Test: Scheffe Procedure

Group	Program Area	(n)	Mean	Group 4 1 3 2
Gr4	Home Economics	(36)	3.59	
Gr1	Agriculture/Marketing	(37)	3.62	
Gr3	NRPP	(8)	3.75	
Gr2	4-H Youth	(31)	3.94	* *

* Denotes pairs of groups significantly different at the .05 level

Similar procedures were followed to examine differences in pedagogical orientation when considering the program area affiliation of Extension agents. Findings in Table 21 show that the strongest pedagogical orientations were held by Agricultural and Marketing agents followed by Home Economics, 4-H Youth, and then NRPP agents. The F ratio and

the corresponding Scheffe procedure, however, showed no significance difference on pedagogy scores of Extension agents belonging to different program areas.

Table 21. Analysis of variance of pedagogical orientation score when considering the agent's program area

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	1.46	.4885	1.9145	.131
Within Groups	108	27.5591	.2552		
Total	111	29.0247			

Multiple Range Test: Scheffe Procedure

Group	Program Area	(n)	Mean	Group* 3 4 2 1
Gr1	Agriculture/Marketing	(37)	3.44	
Gr2	4-H Youth	(31)	3.10	
Gr3	NRPP	(8)	3.03	
Gr4	Home Economics	(36)	3.13	

*No two groups are significantly different at the .05 level

An attempt was also made to study whether it was possible for an Extension agent to hold simultaneously a high or low level andragogical and pedagogical orientation. For this purpose, agents whose score was above and below the mean andragogical score were categorized as high andragogy and low andragogy, respectively. Similarly agents scoring above and below the mean pedagogical score were categorized as high and low pedagogical orientation, respectively. A combination of the two high-low andragogical-pedagogical

orientation categories resulted in a matrix of four types of educational orientations as shown in figure 4. Agents who were above the mean in both the andragogical and pedagogical orientation scale were classified as "strong dual orientation"; whereas those below the mean in both educational orientations were labelled as "weak dual orientation". Similarly extension agents who had a high score in andragogy but were low in pedagogy were classified as "strong andragogical orientation"; and those who had a high score in pedagogy but were low in andragogy were classified as "strong pedagogical orientation".

		PEDAGOGY	
		High	Low
ANDRAGOGY	High	Strong dual orientation	strong andragogical orientation
	Low	strong pedagogical orientation	weak dual orientation

Figure 4. Matrix of educational orientations

When categorized according to the matrix of educational orientations, it was found that it is possible for an Extension agent to hold both orientations simultaneously. Findings in Table 22 show that an agent could possess a

combination of strong dual orientation, strong andragogical orientation, strong pedagogical orientation or weak dual orientation. In other words, it was possible that andragogy and pedagogy could exist simultaneously and an agent may hold both orientations at high or low levels.

Table 22. Distribution of Extension agents in a matrix of educational orientation

Educational Orientation	Number	(%)
Weak dual orientation	26	23.9
Strong pedagogical orientation	41	37.6
Strong andragogical orientation	23	21.1
Strong dual orientation	19	17.4
Total	109	100

An additional analysis was conducted to find out whether Extension agents, when grouped according to extreme educational orientation scores differ in terms of the demographic characteristics of age and experience. The level of andragogical and pedagogical orientations were categorized into two groups based on the mean and the standard deviation scores. Respondents whose andragogical orientation score was higher than plus one standard deviation value from the mean were classified as "high andragogy" and those scoring less than minus one standard deviation value from the mean were classified as "low andragogy". Similar procedures were applied to classify "high pedagogy" and "low pedagogy" groups. T-tests were

performed to determine whether Extension agents differ in terms of their level of andragogical and pedagogical orientations according to their age, experience in current position and total extension experience. No significant differences were observed between the "high" and "low" andragogical and pedagogical orientation groups and these personal characteristics (Appendix C, Table 2 and 3).

Do Extension agents with a high or low level of andragogy hold a different level of pedagogical orientation and vice-versa? T-tests were performed to answer these questions. Findings in Table 23 show that Extension agents belonging to the "high andragogy" group were significantly different from the "low andragogy" group with respect to their pedagogical orientation scores. The "high andragogy" group had a lower pedagogy score and vice-versa. However, Extension agents with "low pedagogy" scores were not significantly different from the "high pedagogy" group in terms of andragogical scores (Table 24). In other words, Extension agents with "low pedagogy" scores were not found to possess higher andragogy scores. It should also be noted that in both cases the lower mean scores for both groups can not be considered low in an absolute way. In other words, a mean pedagogy score of 2.86 can be considered a mid-range score and a mean score of 3.67 as a high score.

Table 23. T-test analyzing pedagogy score with high and low level of andragogy scores

Group	(n)	Mean Pedagogy score	t-value	Prob.
High andragogy	(19)	2.86	2.94	.00
Low andragogy	(22)	3.29		

Table 24. T-test analyzing andragogy score with high and low level of pedagogy scores

Group	(n)	Mean andragogy score	t-value	Prob.
High pedagogy	(21)	3.67	1.66	.10
Low pedagogy	(210	3.88		

Job Satisfaction of Extension Agents

Extension agents were surveyed regarding their attitude toward their job by using an instrument designed to assess job satisfaction. The instrument consisted of forty job satisfaction indicators and an agents' attitude toward each indicator was studied on a five point Likert-type scale. Agents were asked to indicate the extent to which they were satisfied with each indicator by circling a response which varied from "VERY SATISFIED" to "VERY DISSATISFIED". For statistical purposes, a numerical score of 5, 4, 3, 2, and 1 was assigned to each response of "VERY SATISFIED",

"SATISFIED", "ACCEPTABLE", "DISSATISFIED", and "VERY DISSATISFIED", respectively.

Descriptive statistics for each job satisfaction item were computed. The mean and the standard deviation values for all job satisfaction indicators are presented in Table 25. Findings show that Extension agents are well satisfied with the content and context of their jobs. Table 25 provides a mean and standard deviation score.

The mean value against each job satisfaction item in Table 25 show that 9 of the 40 job satisfaction items, 22.5 percent, were ranked "SATISFIED" or higher. The items with higher scores were related to agents' relationship with their clientele, freedom to choose own methods, the Extension work itself, interpersonal relations, and opportunity for creativity. Of the 40 job satisfaction items, 17.5 percent had a mean value of less than 3.0, i.e., below the "ACCEPTABLE" level. Table 25 presents the seven items that were rated below the acceptable level and had a mean score ranging from 2.36 to 2.97. The job dissatisfier items were related to the opportunity to advance in the organization, the amount of time and work necessary to do the job, the organization's internal communication, adequacy of performance evaluation, and salary progress and salary compared to those in a similar field of work.

Table 25. Descriptive statistics for job satisfaction items

Job Satisfaction Statements	Mean (SD)
My relationship with our clientele	4.31 (.57)
Freedom to choose my own methods	4.24 (.79)
Importance and value of my work	4.23 (.71)
My feelings about my community (residence)	4.20 (.81)
My performance and capability in my job	4.22 (.58)
Opportunity for creativity in my daily work	4.14 (.81)
Challenge of my present job	4.14 (.80)
Opportunity for creative programming	4.09 (.77)
Number of people I get to meet daily	4.02 (.82)
My fringe benefits (insurance, retirement)	3.95 (.99)
Physical location of my office	3.95 (.99)
Understanding of my job responsibilities	3.90 (.89)
Parking facilities	3.92 (1.0)
My feelings about our service	3.86 (.99)
Opportunity to cooperate with other staff program efforts	3.79 (.81)
Prestige of my current position	3.76 (.87)
My degree of authority and responsibilities	3.82 (.89)
My immediate physical surroundings	3.77 (.92)
Content of my job	3.82 (.74)
Size of geographical area that I serve	3.69 (.83)
Current programs	3.60 (.79)
Amount of supervision I receive	3.60 (1.0)
My relationship with Extension Administration (other than supervisor)	3.52 (.91)
Amount of encouragement for self-development	3.46 (1.1)
Adequacy of my orientation and in-service training	3.33 (1.1)
My standard of living in this community	3.35 (1.0)
Accessibility of supervisor for discussion of business	3.39 (1.2)
Accessibility of supervisor for discussion of personal problems	3.32 (1.2)
The organization's attitude regarding human dignity	3.21 (.940
The degree of security that I have in my position	3.05 (1.0)
Electronic technology available for program delivery	3.03 (1.1)
The amount of resource support I receive	3.08 (1.1)
Degree of recognition received for a job well done	2.97 (1.1)
My opportunity to advance in this organization	2.79 (1.1)

Table 25. Contd...

Job Satisfaction Statements	Mean (SD)
Amount of time and work necessary to do job	2.87 (.96)
Adequacy of the organization's internal communications	2.79 (.96)
My feeling about my salary progress	2.64 (1.1)
Adequacy of our performance evaluations	2.60 (1.1)
My salary compared to those in similar fields of work	2.36 (1.1)

Mean Job satisfaction score = 3.57
S.D = 0.50

Based on 40 different job satisfaction indicator items, an overall job satisfaction score was computed for each agent by averaging the numerical value of all items in the second part of the questionnaire. Descriptive statistics were computed to determine the level of overall job satisfaction of Extension agents. The results showed that the overall job satisfaction score ranged from 2.26 to 4.31 with a mean of 3.57 and a standard deviation of 0.50. An overall mean of 3.57 on a 1-5 scale indicates that the agent's job satisfaction level is well above the ACCEPTABLE category. Table 26 shows the frequency distribution of job satisfaction scores plotted according to high, moderate and low levels of satisfaction. Findings showed that 50.5 percent of the agents had high level of job satisfaction, 49.5 percent indicated a moderate level of job satisfaction and none indicated a low level of job satisfaction.

Table 26. Distribution of Extension agents' job satisfaction score

Level of job Satisfaction	Range of scores	Number(%)
Low	< 2.5	0 (0)
Moderate	2.5 - 3.5	55 (49.5)
High	> 3.5	56 (50.5)
Total		111 (100)

Relating Educational Orientation and Job Satisfaction of Extension Agents

The fourth research question of this study aimed at finding out the relationship between respondents' educational orientation and their job satisfaction. For each Extension agent, an andragogical orientation score, a pedagogical orientation score and a job satisfaction score were derived from the survey instrument. Correlation coefficients were computed to determine the nature and extent of relationship between andragogy and pedagogy scores and job satisfaction. The results of the Pearson correlation coefficient are presented in Table 27 which indicates that a low positive relationship exists between andragogy scores and job satisfaction scores. In addition, the correlation is shown not to have occurred by chance. Pedagogical orientation scores showed no relationship with agents' overall job satisfaction scores.

Table 27. Relationship between educational orientation and job satisfaction

Relationship	Correlation (r value)
Andragogy and job satisfaction	.30
Pedagogy and job satisfaction	.04

Data were further analyzed to find out whether Extension agents' level of job satisfaction differ according to their level of andragogical and pedagogical orientations. For this purpose, Extension agents whose andragogical orientation score was higher than plus one standard deviation value from the mean were classified in the "high andragogy" group and those scoring less than minus one standard deviation value from the mean were classified in the "low andragogy" group. Similar procedures were applied to classify "high pedagogy" and "low pedagogy" groups. T-tests were performed to determine whether the job satisfaction score was different for the "high" and "low" levels of andragogical and pedagogical orientations.

Findings in Table 28 show that respondents belonging to the "high andragogy" group were significantly different from the "low andragogy" group with respect to the job satisfaction score. The "high andragogy" group had a higher job satisfaction score. On the other hand, no significant

differences were found between "low pedagogy" and "high pedagogy" groups with respect to job satisfaction. In other words, pedagogical score had no direct effect on the level of job satisfaction.

Table 28. T-test analyzing job satisfaction when considering the levels of andragogy and pedagogy

Group	(n)	Mean job satisfaction score	t-value	Prob.
High andragogy	(19)	3.90	2.47	.02
Low andragogy	(22)	3.48		
High pedagogy	(21)	3.60	.29	.77
Low pedagogy	(21)	3.65		

Congruence of Educational Orientation and Job Satisfaction

The final research question of the study attempted to find out whether extension agents who have educational orientations which are similar to their immediate supervisor are more satisfied with their job than agents who have educational orientations different from their immediate supervisor. For the purpose of this research question, as indicated in the study limitations, CEDs were considered as the immediate supervisor of the county Extension agents. Thus, data analysis in this section was limited to those

respondents for which a pair of respondents, an agent and the corresponding CED, could be identified. As reported earlier, CEDs from 64 Michigan counties and agents from 57 Michigan counties responded to the survey. This yielded a total of 92 pairs of congruence scores for analysis.

For the purpose of this study, the andragogical congruence score was defined as the difference in andragogy scores between the CED and the corresponding agent. Similarly, the pedagogical congruence score was defined as the difference in pedagogy scores between the CED and the corresponding agent. The andragogical congruence scores ranged from -1.91 to 1.25. Based on these andragogical congruence scores, quartile values of 25th, 50th, and 75th percentile were determined by the SPSS/PC+ procedures. The results are shown in Table 29. These results show that about one-fourth, 26.1%, of the pairs had an andragogical congruence score less than -0.5. Almost an equal number of pairs, 25%, had a score of 0.41 or higher.

Table 29. Andragogical congruence score of Extension agents

Range of congruence score	Frequency	Percentage
-1.91 to -0.50	24	26.1
-0.49 to 0.40	45	48.9
0.41 to 1.25	23	25.0

Negative value = CED has lower andragogy score
Positive value = agent has lower andragogy score

Table 30. Pedagogical congruence scores of agents

Range of congruence score	Frequency	Percentage
-1.75 to -.50	22	23.9
-.49 to .48	47	51.1
.49 to 1.67	23	25.0

Negative value = CED has lower Pedagogy score
Positive value = agent has lower Pedagogy score

The pedagogical congruence score ranged from -1.75 to 1.67. Based on these pedagogical congruence scores, quartiles were determined and the findings are shown in Table 30. Results show that about one-fourth, 23.9 percent, of the pairs had a pedagogical congruence score of less than -0.50. Pedagogical congruence scores of 0.49 or higher were noted for one-fourth, 25 percent, of the pairs.

Extension agents belonging to the first and last quartiles of the andragogical and pedagogical congruence scores were classified as "incongruent" and the rest were classified as "congruent". The t-test was used to determine the differences in the level of job satisfaction between the "congruent" and "incongruent" groups. Findings in Table 31 show that the level of job satisfaction of extension agents whose andragogical orientation score was "congruent" with their immediate supervisor was not significantly different from agents who were "incongruent" with their supervisor's andragogical score.

Table 31. T-test analyzing job satisfaction when grouped according to congruence of andragogical and pedagogical scores

Group	(n)	Job satisfaction	t- value	Prob.
Andragogy score:				
Incongruent group	(45)	3.66	1.57	.12
Congruent group	(46)	3.50		
Pedagogy score:				
Incongruent group	(48)	3.55	.50	.62
Congruent group	(43)	3.60		

Similar procedures were followed to determine the differences in the level of job satisfaction between agents who were "congruent" and "incongruent" with respect to the pedagogical orientation of their immediate supervisors. Results of the t-test showed that the Job Satisfaction of Extension agents whose Pedagogical orientation score was "congruent" with their immediate supervisor was not significantly different from agents who were "incongruent" with their supervisor's pedagogical score.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

An overview of the research questions, procedures, and results is presented in the first section of this chapter. A discussion of the major conclusions that were reached in the study is included in the second section. The third section contains a number of recommendations that were formulated based upon the findings and conclusions. The recommendations for future research are presented in the final section.

Summary

The orientation of the Cooperative Extension Service field agent has been the focus of considerable research. Extension agents function as front-line educators for the CES organization and work directly with clientele to meet their educational needs. Research has been conducted to examine the field agent's orientation in such diverse areas as administrative effectiveness, ability to cooperatively plan programs, and content area expertise. Currently, no studies have reported job satisfaction of Extension agents as it relates to their educational orientations.

The primary purpose of the study was to investigate the educational orientations held by Extension agents and the relationship between their educational orientation and their level of job satisfaction. Specifically, the study was organized around a set of five inter-related research questions. The research questions were:

1. What educational orientations do Cooperative Extension Service agents and their immediate supervisors hold?
2. Is there a relationship between an agent's personal characteristics and his/her educational orientation?
3. What is the level of job satisfaction of Cooperative Extension Service agents?
4. Is there a relationship between an agent's educational orientation and their job satisfaction?
5. Are Extension agents who have educational orientations that are similar to their immediate supervisor more satisfied with their job than agents who have educational orientations different from their immediate supervisor?

The results of this study have implications for those involved in managing Extension work especially for people engaged in staff development activities.

The population for this study was Cooperative Extension

Service (CES) field agents in Michigan. A total of 153 Extension agents and 79 County Extension Directors (CEDs) with at least one year of work experience were identified for this study.

The data collection instrument was a self-administered mailed questionnaire. The instrument was adapted for use in this study by combining two previously validated instruments. One was designed to measure educational orientation of adult educators as it relates to andragogy and pedagogy (Hadley, 1975; Holmes, 1977) and the other was designed to measure job satisfaction of Cooperative Extension Service personnel (Cassina, 1989; Kesler, 1989). A panel of experts examined the adapted instruments to ascertain their content validity. These instrument were pilot tested for reliability and Cronbach's alpha was determined at 0.72, 0.73, and 0.94 for scales pertaining to andragogy, pedagogy and job satisfaction, respectively.

The questionnaires were mailed to the identified populations in September, 1990. A follow-up postcard reminding the respondents to complete and return the questionnaire was sent to non-respondents two weeks after the first mailing. The study had a final response rate of 73.2 and 81.0 percent for the Extension agents and the CEDs, respectively. No additional follow-up was made. A comparison of early respondents with late respondents on selected variables indicated no significant difference.

Statistical techniques such as frequencies, ranges, percentages, means, standard deviations, correlations, chi-square, t-test, and analysis of variance were used to analyze data. The SPCC/PC+ computer program was used to analyze data.

Out of the 83 counties in Michigan, County Extension Directors (CEDs) from 64 counties and agents from 57 counties responded to this study. Findings indicate that 36.2 percent of the respondents were CEDs and 63.8 percent were agents. Similarly, 82.1 percent of the agents and 89.1 percent of the CEDs in this study indicated having a single county assignment.

Respondents came from all regions and represented all four program areas. Agriculture and Marketing had the highest number of respondents followed by Home Economics, 4-H Youth, and Natural Resources and Public Policy.

Age of the Extension agents ranged from 26 to 67 years with a mean of 39.9 years and a standard deviation of 9.2 years. Of the agents, 15.1 percent were under 30 years of age and 16.1 percent were of age 51 or over. Similarly, age of the CEDs ranged from 29 to 62 years with a mean of 44.6 years and a standard deviation of 7.8 years. The agents are found to be younger than the CEDs.

Of the survey respondents 52.3 percent were males and most of the CEDs were male whereas the majority of the agent respondents were female. Fifteen percent reported being

single. Agents and CEDs were found to hold similar Extension experience. Respondents' experience in their current positions ranged from 1 to 22 years, with a mean of 6.4 years and a standard deviation of 5.2 years. Total Extension experience of the respondents ranged from 1 to 30 years with a mean of 11.5 years and a standard deviation of 7 years. Almost half of the respondents, 47.7 percent, had some experience as a school teacher.

Respondents indicated various majors for their undergraduate degrees. Home economics, agricultural and natural resources education, animal science, crop and soil science, education, natural resources management, horticulture, and sociology were the most frequently mentioned undergraduate degree majors by Extension agents. Frequently mentioned undergraduate majors by the CEDs were agricultural and natural resources education, home economics, crop and soil science, and general agriculture. When asked to indicate whether they had a graduate degree 64.1 percent of the CEDs and 55.4 percent of agents indicated they had. Agricultural and extension education, home economics/food and nutrition/ family studies, adult and continuing education, education, and animal science/dairy science were the most frequently mentioned major areas of graduate degree work.

The first research question of this study asked about the educational orientations held by Extension agents and

their immediate supervisor. The andragogical orientation score for the Extension agents ranged from 2.67 to 4.75 with a mean of 3.71 and a standard deviation of 0.41. Of the Extension agents, 61.6 percent were found to possess a high level of andragogical orientation and had an andragogy score of 3.5 or higher whereas none scored less than 2.5 on a 1-5 scale.

The andragogical orientation score for the CEDs ranged from 3.0 to 4.75 with a mean of 3.82 and a standard deviation of 0.40. Of the CEDs, 74.6 percent were found to possess a high level of andragogical orientation and had an andragogy score of 3.5 or higher, 25.4 percent had an andragogy score between 2.5 and 3.5 and none scored less than 2.5 on a 1-5 scale. In general, the CEDs' had a stronger andragogical orientation than that of the agents.

The pedagogical orientation score for the Extension agents ranged from 1.83 to 4.33, with a mean of 3.19 and a standard deviation of 0.51. On the other hand, the mean pedagogical score for the CEDs ranged from 2.16 to 4.33 with a mean of 3.14 and a standard deviation of 0.46. Analysis of the pedagogical orientation items showed that 12.5 percent of the Extension agents and 11.1 percent of the CEDs had a low pedagogy score, a score of less than 2.5 on a 1-5 scale. A moderate pedagogy score was noted among 63.4 percent of the agents and 69.8 percent of the CEDs. A strong pedagogical orientation score, a score above 3.5 on a

1-5 scale, was found among 24.1 percent of the agents and 19.1 percent of the CEDs.

The second research question of this study attempted to find out the relationship between an agent's personal characteristics and his/her educational orientation. Findings showed no significant linear relationship between demographic characteristics like age, experience in current position and the total Extension experience and educational orientations. T-tests were performed to see if agents have different educational orientations when examined in relation to their sex, marital status, single or multi-county assignments, having a graduate degree, and prior experience as a school teacher. Findings showed that married agents had different andragogy scores than their single counterparts. In other words, mean andragogy scores for married agents were found to be lower than that of the unmarried agents. No significant differences were observed between other dichotomous characteristics and andragogy scores. In other words, all respondents, whether male or female CEDs or agents, having single county or multi county assignment, holding a graduate degree or not, and having served as a school teacher or not, do not hold different perceptions in terms of andragogical orientation.

Results of the t-test showed that male agents were different from their female counterparts in terms of pedagogy scores. The male extension agents were found to

possess a stronger pedagogical orientation than female agents and the difference was significant at the .05 level. No significant differences were observed between other dichotomous demographic characteristics and pedagogy scores.

One-way analysis of variance and Scheffe procedures were used to examine differences in educational orientations in terms of program area affiliation. Significant differences at the 0.05 level were observed among Extension agents under different program areas in terms of andragogical orientation. Results of the Scheffe post-hoc test showed that the andragogical orientations of the Agricultural and Marketing and the Home Economics agents were significantly different from 4-H Youth agents with the former groups being less andragogical than the latter.

The strongest pedagogical orientations were held by Agricultural and Marketing agents followed by Home Economics, 4-H Youth, and then NRPP agents. The Scheffe post-hoc test showed no difference on pedagogical orientation scores of agents according to program areas.

Do respondents with a high or low andragogical orientation score hold a different level of pedagogical orientation and vice-versa? T-tests were performed to answer these questions. Findings showed that Extension agents belonging to the "high andragogy" group were significantly different from the "low andragogy" group with respect to their pedagogical orientation scores. The "high

andragogy" group had a lower pedagogy score and vice-versa. However, Extension agents with "low pedagogy" scores were not significantly different from the "high pedagogy" group in terms of andragogical scores.

An attempt was also made to study whether an Extension agent could hold both andragogical and pedagogical orientations simultaneously at the higher or the lower level. For this purpose, agents whose scores were above and below the mean andragogical score were categorized as high andragogy and low andragogy, respectively. Similarly, agents scoring above and below the mean pedagogical score were categorized as high and low pedagogical orientation, respectively. A combination of the two high-low andragogical-pedagogical orientation categories resulted in a matrix of four types of educational orientations. Findings showed that it is possible for an Extension agent to hold a combination of strong dual orientation, strong andragogical orientation, strong pedagogical orientation or weak dual orientation. Findings indicated that andragogy and pedagogy could exist simultaneously and an agent may hold both orientations at high or low levels. It could be possible that andragogy and pedagogy are not merely two extremes on a single continuum but instead these are two separate phenomena that can be measured separately.

The third research question was to ascertain the level of job satisfaction of Extension agents. The agents were

surveyed on their attitude toward their job by using an instrument designed to assess job satisfaction. The overall job satisfaction score ranged from 2.26 to 4.31 with a mean of 3.57 and a standard deviation of 0.50. Findings showed that Extension agents were well satisfied with the content and context of their jobs. Of the 40 job satisfaction items, 9 items had a mean score of 4.0 or higher, on a 1 to 5 scale, indicating a higher level of job satisfaction, whereas seven items were rated below 3.0, i.e., below the "ACCEPTABLE" level of job satisfaction. The items with higher scores were related to agents' relationships with their clientele, freedom to choose their own methods, the Extension work itself, interpersonal relations, and opportunity for creativity in the job. The items with low scores were related to the opportunity to advance in the organization, the amount of time and work necessary to do the job, the organization's internal communication, adequacy of performance evaluation, and salary progress and salary compared to those in similar fields of work.

The fourth research question of this study aimed at finding out the relationship between an Extension agent's educational orientation and his/her job satisfaction. Pearson correlation coefficients were computed to determine the nature and extent of relationship between andragogy and pedagogy scores and job satisfaction. Correlation coefficient indicated a low positive relationship between

andragogy scores and job satisfaction scores. The pedagogical score showed no relationship with an agents' overall job satisfaction.

T-tests were performed to determine whether agents differ in their job satisfaction score with respect to the "high" and "low" levels of andragogy and pedagogy scores. Findings showed that respondents belonging to the "high andragogy" group were significantly different from the "low andragogy" group with respect to job satisfaction score and the "high andragogy" group had a higher job satisfaction score. On the other hand, no significant differences were found between "low pedagogy" and "high pedagogy" groups with respect to job satisfaction.

The final research question of the study attempted to find out whether Extension agents who have educational orientations which are similar to their immediate supervisor are more satisfied with their job than agents who have educational orientations different from their immediate supervisor. Andragogical congruence scores ranged from -1.91 to 1.25. Results showed that about one-fourth (26.1%) of the pairs had an andragogical congruence score of less than -0.5 and almost an equal number of pairs, 25%, had an andragogical congruence score of 0.41 or higher. The pedagogical congruence score ranged from -1.75 to 1.67 and results showed that about one-fourth (27.2%) of the pairs had a pedagogical congruence score of less than -0.50.

Pedagogical congruence scores of 0.50 or higher were noted for about one-fourth (25%) of the pairs.

Extension agents belonging to the first and last quartiles of the andragogical and pedagogical congruence scores were classified as "incongruent" and the rest were classified as "congruent". The t-test was used to determine the differences in the level of job satisfaction between the "congruent" and "incongruent" groups. Findings showed that the level of job satisfaction of extension agents whose andragogical orientation scores was "congruent" with their immediate supervisor was not significantly different from agents who were "incongruent" with their supervisor's andragogical score.

Similar procedures were followed to determine the differences in the level of job satisfaction between agents who were "congruent" and "incongruent" with respect to the pedagogical orientation of their immediate supervisors. Findings showed that Extension agents whose pedagogical orientation scores were congruent with their supervisor were not different from the incongruent group with respect to job satisfaction.

Conclusions

Extension agents and County Extension Directors (CEDs) in Michigan hold a moderate to strong orientation toward andragogy and pedagogy and the andragogical orientation was found relatively stronger than the pedagogical orientation.

A mean andragogy score of 3.71 and 3.82 and a mean pedagogy score of 3.19 and 3.14, for the agents and the CEDs, respectively, on a 1-5 scale, suggest that CES field staffs hold stronger andragogical orientation than pedagogical orientation. This conclusion is consistent with the writings of Knowles (1984) who advocates that adult educators can be characterized as andragogical. This is also consistent with the findings of Hadley (1975) and Holmes (1977) who reported that CES adult educators hold an andragogical orientation.

No significant relationships were found between demographic characteristics like age, experience, graduate degree, and prior experience as a school teacher and educational orientations. Exceptions were that married agents tended to possess a weaker andragogical orientation than unmarried agents and female agents were found to possess a stronger andragogical orientation score than male agents. Similarly Home Economics and Agriculture and Marketing agents were different from 4-H Youth agents in terms of andragogy scores. The difference of educational orientations according to gender was consistent with the findings of Hynes (1989) and with that of Davenport and Davenport (1984). The lower andragogical score among Agriculture and Marketing agents could be attributed to their academic background. It was noted that many of the Agriculture and Marketing agents hold degrees in technical

fields such as animal science, crops and soil science, horticulture and agricultural economics. These findings suggest that educational orientations are the function of values and beliefs Extension agents hold with respect to their role as educators of adults. The reflection of the prevailing nature and conditions under which Extension agents operate could be the basis of such educational orientations.

Findings indicated that andragogy and pedagogy could exist simultaneously and an Extension agent may hold both orientations at high or low levels. It could be possible that andragogy and pedagogy are not merely two extremes on a single continuum but instead these are two separate phenomena that can be measured separately.

Extension agents in Michigan are well satisfied with the content and context of their jobs. The level of job satisfaction of Michigan agents was slightly higher than that reported for Illinois (Cassina, 1989) and Iowa (Kesler, 1989), neighboring North Central states. The andragogy score of extension agents was positively related to their job satisfaction but no relationship was observed between pedagogy score and job satisfaction. Since an andragogical role is more congruent with the role of adult educator it seems most logical that those Extension agents who have higher andragogical scores would be more satisfied with their job as is supported by the findings of this study. It

should be noted here, however, that Extension agents do possess a moderate level of pedagogical orientation but no relationship was observed between pedagogy and job satisfaction.

The findings showed no significant differences in the level of job satisfaction between agents whose educational orientations were similar to their immediate supervisor and those who had educational orientations different from their immediate supervisor. In other words, congruence of educational orientation between pairs of Extension agent and his/her supervisor was not associated with the agent's job satisfaction. This could be due to the fact that Extension agents plan, implement, and evaluate their educational programs in a more independent manner and CEDs may not influence the decision making practices of agents with regard to what should be taught, to whom, when and how.

Implications

Recent studies in the CES setting have indicated that agents' performance is related to their level of job satisfaction. This study concludes that the Michigan CES agents possess a moderate andragogical and pedagogical orientation and that andragogical orientation is related to an agent's job satisfaction. Such a finding offers insights for those involved in managing extension programs. Since

andragogy is considered to be an appropriate orientation for adult educators and as it was related to job satisfaction, the hiring practices of the CES could consider individuals who not only have expertise in technical subject matter content but also possess appropriate educational orientations. A series of inservice programs, regardless of an agent's position, education or experience in adult learning principles seems appropriate considering the professional growth needs of Extension agents. Such inservice programs could help to further strengthen the Extension agents' andragogical orientation vis-a-vis job satisfaction.

The findings of no significant relationships between many demographic characteristics and educational orientations suggest that educational orientations are not related to the type of position in which a person works or whether he/she is married. Educational orientations are the attitudinal dimensions which are formed on the basis of reflections of prevailing values, beliefs, and practices of Extension agents with respect to their role as educators of adults. The educational orientations, like values and beliefs, could change over time depending on how well these orientations serve the agents, the amount of contact the agents have with others holding different orientations, and the range of opportunities the agents are presented with to question their current orientation or force them to actually

modify their orientations. Therefore, helping Extension agents to develop and hold an appropriate educational orientation could be a time taking process. In addition, the CES organization, over time, may have to demonstrate to agents using appropriate incentives that holding an appropriate educational orientation is a worthwhile goal.

This study concludes that the andragogy scores of extension agents are positively related to their job satisfaction but no relationship is observed between the pedagogy score and job satisfaction. The lower andragogical score among Home Economics and Agriculture and marketing agents suggest that these groups of agents could benefit significantly from in-service courses on how to work educationally with adult learners. Short courses like "How to teach technical information to adults" could be especially beneficial. As agents in this group possess a relatively strong pedagogical orientation, efforts to upgrade the level of andragogical orientation could significantly enhance their job satisfaction.

Findings indicated that andragogy and pedagogy could exist simultaneously and an Extension agent may hold both orientations at high or low levels. It could be possible that andragogy and pedagogy are not merely two extremes on a single continuum but instead are two separate phenomena that can be measured separately.

The findings of this study indicated that andragogy and

pedagogy are two different orientations. Although pedagogy was not found to be related to an agent's job satisfaction, higher pedagogy scores associated with higher andragogy scores were indicative of a higher level of job satisfaction. Thompson (1989) is probably right to suggest that an andragogical instructional approach is a necessary but not sufficient model for adult educators to utilize. According to Thompson, an andragogical approach is effectively complemented by the pedagogical instructional model and thus proposes a need for a complementary view of andragogy and pedagogy.

The congruence of educational orientation between pairs of Extension agent and their supervisor was not associated with the agent's job satisfaction. It could also be possible that CEDs really do not act as immediate supervisors, or agents consider them more like colleagues. It could also be possible that Extension agents do not have supervisors and hence the question of congruence may be naive in this context. Therefore the issue of congruence warrants further research in other contexts where there is clearly a "supervisor-subordinate" relationship among Extension educators.

The usefulness of this study could be realized if the results are utilized to improve Extension agents' level of understanding of the educational orientations. There is a need to arrange for appropriate dissemination of study

results. The summary of results should be made available to Extension agents, staff development professionals and practitioners in the field of Extension education.

Recommendations for Future Research

Several gaps in the research literature and knowledge related to the topic were noted during the course of this study. Listed below are the recommendations for follow-up, continued investigation, and future research:

1. Replicate the study in other states and regions to provide further evaluative information to draw generalizations pertaining to educational orientation and job satisfaction of extension agents.
2. Conduct a study assessing the relationship between educational orientation and job performance. Such studies would help establish the relationships between educational orientation and job performance which could be valuable for managing extension programs.
3. Conduct in-depth case studies of Extension agents working under different program areas to find out how their educational orientations are developed and how these orientations change over time. Survey data could be compared with data generated from fieldwork methods to further develop theories relevant to Extension education practice.

4. Conduct studies to examine whether andragogy is a necessary and sufficient model for adult educators to utilize. Extension professionals could benefit from studies that clarify the role and relationship of the pedagogical orientation in complimenting andragogical educational practices.
5. The relationship between the congruence of educational orientation of Extension agents with their supervisors and job satisfaction needs further investigation. Future research could explore the relationship between the congruence of educational orientation between Extension agents and their supervisors in a context where there is clearly a "supervisor-subordinate" relationship.
6. It is recommended that future research to explain educational orientation of Extension educators should consider additional variables. Other suggested variables might include clientele preference of the Extension agent, peer ratings, formal courses taken in the field of education and adult learning, adequacy of orientation and related in-service training, and family relationships such as number and age of children and other personal variables outside of the work environment itself.

APPENDIX A

QUESTIONNAIRE AND SURVEY MATERIALS

Cover letter to the Survey Questionnaire

September 5, 1990

[EXTENSION AGENTS FIRST AND LAST NAME
STREET ADDRESS
CITY, STATE AND ZIP]

Dear [EXTENSION AGENTS FIRST NAME];

We would like to ask for your participation in a study entitled "Job Satisfaction and Educational Orientation: A Study of Extension Agents and Their Supervisors". This study is being conducted in an attempt to better understand the different orientations of extension agents and the relationship of these orientations to other factors. A select group of Extension staff are being asked to participate in this research.

We would very much appreciate a few minutes of your time to respond to the attached questionnaire. It should only take 10-15 minutes. Completing the questionnaire is the only form of involvement that will be asked of you.

The information which you will provide will be held in strict confidence. Your answers will not be seen by anyone except the researchers. The identification number on the first page of the questionnaire is for mailing purposes only. This is so we can check off the names on our mailing list when a questionnaire is returned. Your names will never be placed on your questionnaire. Your participation in this research is voluntary.

An early response would be especially appreciated. A self addressed, stamped envelope has been enclosed for your convenience in returning the completed questionnaire.

A summary of the result of this study will be available upon completion. If you would like a copy of the results, please indicate this in the space on the return envelope. Thanks for your assistance. If you have any questions concerning the study, please call us at 517/355-6580.

Sincerely,

Murari suvedi
Graduate student

Dr. S. Joseph levine
Professor

FOLLOW-UP POSTCARD

Last week a questionnaire seeking your opinion about the educational orientation and job satisfaction was mailed to you.

Many thanks if you have already completed and returned the questionnaire. If not, please take a few minutes and do it today. Your cooperation is essential.

By some chance you did not receive the questionnaire, or it got misplaced, a phone call to 517-355-6580 will get you another one.

Many thanks for your help.

Sincerely,

Murari Suvedi &
Joe Levine

ID #

EDUCATIONAL ORIENTATION AND JOB SATISFACTION

QUESTIONNAIRE

Part A: Educational Orientation

Below are statements about education, teaching, and learning. These have been chosen to express several different viewpoints.

For each statement, please choose the response that indicates your attitude or position best- how much you agree or disagree with that statement.

The five positions from which to choose are:

SA - I strongly agree with this statement
A - I agree with this statement
U - I'm uncertain about this statement to agree or disagree
D - I disagree with this statement
SD - I strongly disagree with this statement

		Strongly Agree				Strongly Disagree
1.	Education should focus on what is sure, reliable and lasting.	SA	A	U	D	SD
2.	Clientele need a strong Extension agent who can direct their learning.	SA	A	U	D	SD
3.	Learning is an intellectual process of understanding ideas (concepts) and acquiring skills.	SA	A	U	D	SD
4.	Effective learning occurs most often when clientele actively participate in deciding what is to be learned and how.	SA	A	U	D	SD
5.	Organization of the content and sequence of learning activities should grow out of clientele needs, with their participation.	SA	A	U	D	SD

6.	It should be the Extension agents' responsibility to evaluate clientele achievements and to determine the extent of learning.	SA	A	U	D	SD
7.	The best sources of ideas for improving CES educational programs are the clientele.	SA	A	U	D	SD
8.	An extension agent should help clientele accept values of our society.	SA	A	U	D	SD
9.	It is an Extension agent's responsibility to motivate clientele to learn what they ought to learn.	SA	A	U	D	SD
10.	Clear explanation by the Extension agent is essential for effective learning.	SA	A	U	D	SD
11.	An Extension agent's primary responsibility is helping clientele choose and develop their own directions for learning.	SA	A	U	D	SD
12.	A good Extension agent makes the decisions about what should be taught, when, and how.	SA	A	U	D	SD
13.	Evaluating his/her achievement should be the primarily a responsibility of the client since he/she has the necessary data.	SA	A	U	D	SD
14.	An Extension agent should be sure his/her questions steer clientele toward truth.	SA	A	U	D	SD
15.	Educational objectives should define changes in behavior which the clientele desire and the Extension agent helps them undertake.	SA	A	U	D	SD

16. Extension clientele are quite competent to choose and carry out their own projects for learning. SA A U D SD

17. The major qualifications of an Extension agent are grasp of subject matter and ability to explain (demonstrate) it clearly and interestingly. SA A U D SD

18. It is better for clientele to create their own learning activities and materials than for the Extension agent to provide them. SA A U D SD

19. Education should lead people to goals that result in orderly, reasonable lives. SA A U D SD

20. Evaluations prepared by the clientele are usually just as effective as those prepared by the Extension agent. SA A U D SD

21. The goals that the clientele set for themselves, rather than the goals that the Extension agent sets for the clientele, are the basis for effective learning. SA A U D SD

22. An Extension agent's mission is to help each client learn what he/she decides will aid in the achieving of his/her personal goals. SA A U D SD

23. An extension agent who does not carefully plan the work for a program is taking advantage of the client's ignorance. SA A U D SD

24. Planning units of work should be done by clientele and Extension agents together. SA A U D SD

Part B: Job Satisfaction

This section attempts to assess the extent to which you are satisfied with your job. Please mark each item according to how satisfied you are with it.

The five response from which to choose are:
5 = Very Satisfied
4 = Satisfied
3 = Acceptable
2 = Dissatisfied
1 = Very Dissatisfied

		Very Dissatisfied				Very Satisfied
1.	Importance and value of my work	1	2	3	4	5
2.	Challenge of my present job	1	2	3	4	5
3.	My degree of authority and responsibilities	1	2	3	4	5
4.	Prestige of my current position	1	2	3	4	5
5.	Number of people I get to meet daily	1	2	3	4	5
6.	Opportunity for creativity in my daily work	1	2	3	4	5
7.	Freedom to choose own methods	1	2	3	4	5
8.	My opportunity to advance in this organization	1	2	3	4	5
9.	Opportunity for creative programming in my job	1	2	3	4	5
10.	Accessibility of my supervisor for discussion of business	1	2	3	4	5
11.	Accessibility of supervisor for discussion of personal problems	1	2	3	4	5
12.	Amount of supervision I receive	1	2	3	4	5
13.	Amount of encouragement for self-development	1	2	3	4	5
14.	Adequacy of my orientation and in-service training	1	2	3	4	5
15.	Adequacy of our performance evaluations	1	2	3	4	5
16.	Degree of recognition received for a job well done	1	2	3	4	5
17.	My feelings about my salary progress	1	2	3	4	5
18.	My salary compared to those in similar fields of work	1	2	3	4	5
19.	My standard of living in this community	1	2	3	4	5

		Very Dissatisfied				Very Satisfied
20.	The degree of security that I have in my position	1	2	3	4	5
21.	My fringe benefits (insurance,retirement, etc)	1	2	3	4	5
22.	My performance and capability in my job	1	2	3	4	5
23.	My immediate physical surroundings (office, equipment, etc.)	1	2	3	4	5
24.	Physical location of my office	1	2	3	4	5
25.	Parking facilities	1	2	3	4	5
26.	My feelings about my community (or residence)	1	2	3	4	5
27.	My relationship with my coworkers	1	2	3	4	5
28.	My relationship with Extension Administration (other than supervisor)	1	2	3	4	5
29.	My relationship with our clientele (Extension councils, audiences, etc.)	1	2	3	4	5
30.	My feelings about our service	1	2	3	4	5
31.	Adequacy of organization's internal communications	1	2	3	4	5
32.	Content of my job	1	2	3	4	5
33.	The amount of time and work necessary to do job	1	2	3	4	5
34.	The organization's attitude regarding human dignity	1	2	3	4	5
35.	Size of geographical area that I serve	1	2	3	4	5
36.	The amount of resource support I receive	1	2	3	4	5
37.	The current programs	1	2	3	4	5
38.	Opportunity to cooperate with other staff on program efforts	1	2	3	4	5
39.	Electronic technology available for program delivery	1	2	3	4	5
40.	Understanding of my job responsibilities	1	2	3	4	5

Part C: Personal Data

What is your age? _____ Years

Sex: _____ Male _____ Female

Marital Status: _____ Married _____ Single

What is your position (Agent, CED, etc.)?

_____

___ Single County ___ Multi-County

What is your primary program area? (check only one)
___ Agriculture and Marketing
___ 4-H Youth
___ Natural Resource and Public Policy
___ Home Economics

What is your regional assignment?
___ East Central ___ South East
___ South West ___ West Central
___ North ___ Upper Peninsula

Do you have supervisory/administrative responsibilities?
___ Yes ___ No

If yes, what percent of your time is spent in supervision/administration? _____ Percent.

How long have you been in your current position? ____ Years

What is your total extension experience (including work with other extension organizations)? ____ Years.

What was your major for undergraduate degree?

_____

Do you have a graduate degree? ___ Yes ___ No

If "yes", what was your major? _____

Have you ever been a school teacher? ___ Yes ___ No

Thanks for your cooperation, please return the questionnaire to:

410 Agriculture Hall
Michigan State University
East Lansing, MI 48824

APPENDIX B

COMPARISON OF "EARLY" AND "LATE" RESPONDENTS

Table 32. Comparison of "early" and "late respondents

Item	Early respondents (n = 34)	Late respondents (n = 34)	t-value	Prob.
EOQ Item 1	3.21	3.35	0.55	0.58
EOQ Item 5	4.38	4.41	0.19	0.86
EOQ Item 10	4.08	4.05	0.15	0.87
EOQ Item 15	4.02	3.88	0.92	0.36
EOQ Item 20	3.08	3.02	0.27	0.78
EOQ Item 24	3.75	3.79	0.28	0.77
Job Sat. Q1	4.11	4.33	1.25	0.22
Job Sat. Q6	4.05	4.12	0.31	0.75
Job Sat. Q11	3.08	3.51	1.55	0.12
Job Sat. Q16	2.79	3.12	0.57	0.57
Job Sat. Q21	3.94	3.93	0.02	0.99
Job Sat. Q26	4.25	4.39	0.68	0.49
Job Sat. Q31	2.77	3.09	1.36	0.18
Job Sat. Q36	3.14	3.48	1.32	0.19
Job Sat. Q40	4.00	3.87	0.59	0.55
Age	42.8	39.6	0.08	0.93
Experience in current position	6.00	5.90	0.08	0.93

APPENDIX C

T-TEST ANALYZING SELECTED DEMOGRAPHIC CHARACTERISTICS AND EDUCATIONAL ORIENTATION

Table 33. T-test analyzing selected demographic characteristics considering the level of andragogical orientation

Characteristics/Group	(n)	Mean value	t-value	Prob.
AGE				
Low andragogy group	(22)	41.22	.03	.98
High andragogy group	(19)	41.28		
EXPERIENCE IN CURRENT POSITION				
Low andragogy group	(22)	6.33	.15	.88
High andragogy group	(19)	6.14		
TOTAL EXTENSION EXPERIENCE				
Low andragogy group	(22)	10.03	1.18	.24
High andragogy group	(19)	12.14		

Table 34. T-test analyzing selected demographic characteristics considering the level of pedagogical orientation

Characteristics/Group	(n)	Mean value	t-value	Prob.
AGE				
Low pedagogy group	(21)	40.02	1.28	.21
High pedagogy group	(21)	42.93		
EXPERIENCE IN CURRENT POSITION				
Low pedagogy group	(21)	5.75	1.17	.25
High pedagogy group	(21)	7.29		
TOTAL EXTENSION EXPERIENCE				
Low pedagogy group	(21)	10.05	.40	.68
High pedagogy group	(210	10.65		

APPENDIX D

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BIBLIOGRAPHY

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