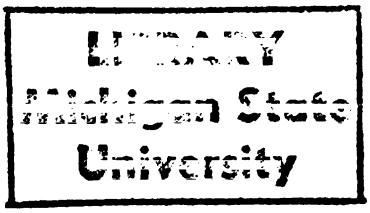

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AN EXPLORATORY STUDY OF SELECTED ANDRAGOGICAL AND PEDAGOGICAL VARIABLES RELATED TO TEACHER PREFERENCES FOR APPROACHES TO THEIR CONTINUED LEARNING

By

Hasen Rafea Al-Shehri

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ABSTRACT

AN EXPLORATORY STUDY OF SELECTED ANDRAGOGICAL AND PEDAGOGICAL VARIABLES RELATED TO TEACHER PREFERENCES FOR APPROACHES TO THEIR CONTINUED LEARNING

By

Hasen Rafea Al-Shehri

This study was conducted to investigate the perceptions of teachers regarding the andragogical and pedagogical components of inservice education programs. A questionnaire was distributed to a representative sample of 360 teachers in a midwestern metropolitan area school. Frequency distribution, analysis of variance, and t-tests were used to determine whether significant differences existed between group means for pedagogical and andragogical dimensions.

The findings indicated that the more experience teachers had and the more conferences they had attended, the less they agreed with the pedagogical Purpose of Education dimension. Degree level and hours of participation in inservice programs were significantly related to perceptions of the andragogical Purpose of Education dimension. The higher the academic degree in arts and more hours of participation in inservice programs, the greater the agreement with the andragogical Purpose of Education dimension. Teaching experience, gender, and hours spent at conference meetings had a significant positive effect on the pedagogical Nature of Learners dimension. Hours of participation in

inservice programs had a significant positive effect on the andragogical Nature of Learners dimension. Having an M.A. degree, hours of participation in inservice programs, and hours spent at conference meetings had a significant positive effect on the andragogical Characteristics of Learning Experience dimension. Having an M.S. degree had a significant positive effect on the corresponding pedagogical dimension. Hours spent at conference meetings had a significant positive effect on the andragogical Management of Learning Experience dimension. Respondents' age had a significant positive effect on the andragogical Evaluation dimension. Having an M.S. degree or being male had a significant effect on the pedagogical Relationships dimension, whereas more hours of participation in inservice programs had a significant positive effect on the andragogical Relationships dimension. In general, respondents expressed more agreement with the andragogical method than with the pedagogical method.

This work is dedicated to the memory of my grandmother (may Allah in His mercy rest her soul in peace). It is also dedicated with love to my mother and father, who spent many nights awaiting my return, and to my wife, Ziynah, for her care, patience, and understanding.

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CHAPTER I

INTRODUCTION TO THE STUDY

Statement of the Problem

Many educators have maintained that current inservice education programs are not adequate for adult learners (Brime & Tollett, 1974; Burrello & Obough, 1982; Edelfelt, 1975; Harris, 1969). Among the major deficiencies of such programs is the fact that they do not consider the specific characteristics of adult learners.

Important differences exist between children as learners and adults as learners (Darkenwald, 1982; Elias, 1979; House, 1972; Kasworn, 1980; Kidd, 1959, 1976; Knowles, 1978, 1980, 1984; Randall, 1980). Adults bring to the learning process rich experience and knowledge. They do not want to be taught what they already know; rather, they want to participate in planning their educational program and not be treated as children.

Knowles (1980), a renowned scholar and adult educator, offered a new model for adult learners based on andragogy--"the art and science of helping adult learners" (p. 324). The andragogical model assumes the individual is self-directing and self-developing in order to maintain and enhance his learning competencies. The andragogical concept, therefore, may offer a basis for overcoming some of the apparent deficiencies of current inservice education programs.

Need for the Study

Many inservice educators have observed deficiencies in current educational programs. Brime and Tollett (1974) pointed out that 73% of the teachers they surveyed said inservice education often was not relevant to their needs. Edelfelt and Lawrence (1975) confirmed that finding:

> Inservice education has been the weakest and most haphazard component of teacher education. Even the most charitable would have to admit that it has not been nearly as effective as it might have been, considering the expenditure of time and resources. However, to say that inservice education has been inadequate is not to say that teachers can or want to do without it. (p. 16)

Although teachers want quality inservice education, they also recognize a significant discrepancy between what exists and what they desire.

Furthermore, regarding the current state of inservice education programs, Edelfelt and Lawrence added that the deficiencies of these programs stem from the fact that "content and approach are prescribed by universities and school districts. Course credits are mandated by state department regulations and school district policies" (p. 14). Many writers, however, have diagnosed these problems and suggested solutions to them. Kinnick (1957) emphasized the importance of teacher participation in the inservice program, arguing that unless teachers help in identifying their problems and planning how to work on them, inservice experiences are likely to be the same for everyone and of little practical help to anyone.

Moffitt (1963) maintained that one learns best when he accepts the goals for learning and shares in the establishment of those goals. In another study, Turner (1974) concluded that teachers must be

actively involved in the learning process and not be merely passive listeners. Jaquith (1973) found that when teachers are involved in selecting objectives and organizing inservice education they are, consequently, more active participants. Likewise, Brim and others (1974) reported that "an overwhelming majority (93%) of the respondents stated that teachers need to be involved in the development of the purpose, activities, and methods of evaluation for inservice education programs" (p. 524).

Harris (1969) also stated that inservice programs should be planned with the active participation of those who are to be the benefactors. Dunn (1970), too, emphasized that teachers must be involved in planning inservice programs and added, "if teachers are to learn, if they are to become interested and enthusiastic, they must be the ones to whom the task of creating and initiating the inservice training is proposed" (p. 92). Griffin (1983) asserted, "What is needed is a service for adult persons, not for children or adolescents. Its environment must be adult both physically and psychologically. Its methodology and content must be appropriate to adults" (p. 61).

Thus research on inservice education has indicated that adult learners must be involved in the educational process; they refuse to be treated as children. Adult learners demand an environment appropriate to their intellectual maturity; they need to be more involved in the educational process and to be consulted on what they want to learn.

Knowles (1980) explored the concept and practice of andragogy, which meets the needs of the adult as learner both physically and psychologically. The fundamental idea of the andragogical approach is to help the adult be self-directed and to develop, maintain, and enhance the competencies of his self-directed learning. Hadley (1975) described the andragogical approach as follows:

> The orientation of an andragogical adult educator stresses free choice of alternative goals for learning, with interdependent decision and action among students and educator as the basis of effective learning. The educator perceives his relationship to students as that of helper, resource consultant, and co-learner. The goal is to increase effectiveness of learning by encouraging situations which increase cooperative interaction among learners and increase their participation in and direction of their learning. (p. 7)

Purpose of the Study

Inservice educators have observed that current educational programs for teachers are deficient because the adult learners themselves are not actively involved in the learning process. Therefore, this study was designed to assess the perceptions of teachers regarding various components of the inservice education process. Specifically, the purpose of this study was to investigate the perceptions of teachers regarding the andragogical and pedagogical components of inservice education programs.

Research Questions

The following research questions were posed to guide the collection of data in this study.

1. To what extent do the respondents agree/disagree with the andragogical dimensions of inservice education?

2. With what andragogical dimension do respondents agree the most?

3. To what extent do the respondents agree/disagree with the pedagogical dimensions of inservice education?

4. With what pedagogical dimension do respondents agree the most?

5. To what extent do the demographic variables of gender, age, school level, subject taught, degree, teaching experience, hours of participation in inservice programs, hours spent at conference meetings, and graduate credit hours devoted to the teachers' professional development relate to respondents' perceptions of the andragogical and pedagogical dimensions?

6. To what extent do the demographic variables of gender, age, school level, subject taught, degree, teaching experience, hours of participation in inservice programs, hours spent at conference meetings, and graduate credit hours devoted to the teachers' professional development relate to respondents' perceptions of the total andragogical method score and the total pedagogical method score?

7. Are respondents more in agreement with andragogical dimensions or pedagogical dimensions?

8. Are respondents more in agreement with the andragogical method in total or with the pedagogical method in total?

Hypotheses

Seven hypotheses were formulated to test the data collected in the study.

Hypothesis 1: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Purpose of Education dimensions.

Hypothesis 2: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Nature of the Learner dimensions.

Hypothesis 3: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Characteristics of Learning Experience dimensions.

Hypothesis 4: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Management of Learning Experience dimensions.

Hypothesis 5: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Evaluation dimensions.

Hypothesis 6: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Relationships Between Facilitator and Learners and Among Learners dimensions.

Hypothesis 7: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical methods, as measured by total scores.

Study Population and Sample

The study population comprised all elementary, junior high, and senior high school teachers in the Lansing School District, Lansing, Michigan. Designated liaisons acted as intermediaries between the Lansing School District evaluation unit and teachers. The evaluation unit distributed research questionnaires to each liaison, who distributed these instruments within his/her group of teachers. Three hundred

sixty questionnaires were distributed and 180 usable surveys were collected, for an overall usable response rate of 50%. Thus the sample comprised 180 elementary, junior high, and senior high school teachers.

Data-Collection and Data-Analysis Techniques

A questionnaire was used to collect the data for this study. The first part of the questionnaire was designed to elicit demographic and personal information on the respondents. The second part of the instrument was a slight revision of Hadley's (1975) Educational Orientation Questionnaire (EOQ). The EOQ is designed to elicit respondents' agreement with the pedagogical and andragogical components of six dimensions of education: purpose of education, nature of learners, characteristics of the learning experience, management of the learning experience, evaluation, and relationships between educator and learners and among learners themselves.

Pedagogical and andragogical component scores were calculated by totaling the individual item scores and dividing by the number of items included in each dimension. Total scores were calculated by adding item scores together.

Analysis of variance was used to determine if there were significant score differences, based on the independent variables. T-tests were used to rank the pedagogical and andragogical components in relative terms of degree of agreement with each component. T-tests were also used to test hypotheses concerning whether respondents agreed most with pedagogical components or with andragogical components of

corresponding dimensions. Frequencies, percentages, means, and standard deviations were used to describe the respondents' response patterns.

Limitations and Generalizability of the Study

The sample was selected by the Lansing School District evaluation unit. Individuals designated as liaisons provided contact between the evaluation unit and individual teachers. Liaisons distributed surveys to members of their liaison group. The evaluation unit thought this procedure would produce results similar to those of a simple random sample. However, to the extent that there was bias in the way that liaisons chose respondents from their group, the sample might not have represented the total population.

The sample was chosen from the Lansing School District teacher population. Results of the study can be generalized to other teacher groups only to the extent that these groups are similar to teachers in the Lansing School District.

Definition of Terms

The following key terms are defined in the context in which they are used throughout this dissertation.

Adult learner-trainee. The elementary, junior high, or high school teacher who has participated in inservice education.

Andragogy. Self-direction in adult education; the art and science of helping adult learners (Knowles, 1980).

Dimensions of the EOQ. The dimensions of the EOQ include (a) the purpose of education, (b) the nature of the learner, (c) the characteristics of the learning experience, (d) management of the learning experience, (e) evaluation, and (f) the relationship between educator and adult learner and among the adult learners themselves.

Educational orientation. Respondents' preference for an andragogical or a pedagogical orientation in inservice education, as determined by responses to items on the EOQ (Hadley, 1975).

Formal education. The elementary, junior high, or senior high school instruction that the adult learner-trainees provided.

Inservice education. "Any planned program of learning opportunities afforded staff members of schools for purposes of improving the performance of the individual in already assigned positions" (Harris, 1980, p. 21).

Liaison. A voluntary position. The person will be willing to work with needs assessment and development of building and individual inservice programs selected by staff-development policy board.

Pedagogy. The process of teaching children.

Perceptions. Respondents' ideas about the dimensions of their teaching roles.

Organization of the Study

The dissertation is divided into five chapters. The first chapter contained an introduction to the study, a statement of the problem, the need for and purpose of the study, a description of the population and sample, limitations of the study, and definitions of key

terms. Chapter II is a review of related literature in four areas: (a) history, philosophy, and definition of andragogy; (b) the adult as learner; (c) research on andragogy; and (d) the importance and purpose of inservice education.

The research design and methodology are described in Chapter III. Included are descriptions of the sampling procedure employed, the data-collection process, and the instrument used in the research. Data-analysis procedures are also explained. The findings of the data analyses are reported in Chapter IV. The fifth chapter contains a summary of the study, major findings, conclusions, and recommendations for further research.

CHAPTER II

REVIEW OF RELATED LITERATURE

Key (1976) stated that "one of the main purposes of the review of the literature is to provide a basis for the research questions, objectives, or hypotheses" (p. 22). The review of literature for the present study was conducted with an eye toward andragogy as an approach to adult learning. The chapter is divided into four sections: (a) the historical and philosophical foundations of andragogy, (b) the adult as learner, (c) research on andragogy, and (d) the importance and purpose of inservice education.

Historical and Philosophical Foundations of Andragogy

The educational method implicit in the concept of andragogy is focused on the adult (whereas pedagogy involves leading the child into the light of learning and education). The term "andragogy" is derived from two Greek root words, aner (andra) meaning male and agogs (gogy) meaning leader. Pedagogy shares the root "gogy" with its counterpart andragogy, but peda is derived from the Greek root pais meaning boy. Hence these two terms stand in contradistinction to one another. A consideration of the natures of both the child and the adult casts serious doubt on whether that which is true of the learning process for

the inexperienced, fledgling child is valid for an experienced adult learner. In this doubt lies the importance of the concept of andragogy in adult education.

Indeed, andragogical concepts are rooted in the goals of humanistic education, the main focus of which is man as an individual. In humanistic education, the focus is on the learner rather than on the body of knowledge to be imparted. Furthermore, in such education, the teacher, together with the body of knowledge, yields center stage to the learner, whose unique nature and needs play a central role in planning and executing the educational program. The student is free to learn what he wants to learn, and the teacher must facilitate that learning.

Although Malcolm Knowles is generally credited with developing the concept of andragogy, its evolution has been attributed to such eminent psychologists as Abraham Maslow and Carl Rogers. Both Maslow and Rogers viewed education as a means of self-actualization and the development of a fully functioning individual. The concept of self-actualization necessitated redefinition of learning and the methodology of teaching, as well as of education itself. Maslow (1971) said that the ultimate goals of education are the:

> self-actualization of a person, the becoming fully human, the development of the fullest height that the human species can stand up or what the particular individual can come to. In a less technical way, it is helping the person to become the best that he is able to become. (p. 169)

According to Rogers (1969), the aim of education is to develop the fully functioning person:

> the individual who has experienced optimal psychological growth--a person functioning freely in all the fullness of his organismic potentialities, a person who is dependable in being realistic, self-enhancing, socialized, and appropriate in his behavior; a creative person, whose specific formings of behavior are not easily predictable; a person who is ever changing, ever developing, always discovering himself and the newness in himself in each succeeding moment of time. (p. 298)

Humanists view the teacher as facilitator--helping students to be responsible for their own learning and respecting the learner's experience. Quoting from Rogers's view of humanistic education, Elias (1980) described the role of the teacher as follows:

1. The teacher as a facilitator sets the initial mood or climate for the group or class experience.

2. He or she helps to elicit or clarify the purposes of the individuals in the class, as well as the more general purposes of the group.

3. The teacher as a facilitator relies upon the desire of each student to implement those purposes which have a meaning for the learner as the motivational force behind significant learning.

4. The teacher endeavors to organize and make easily available the widest possible range of resources for learning.

5. The teacher regards himself as a flexible resource to be utilized by the group.

6. In responding to the intellectual content and emotionalized attitude of the learner, he accepts their expression and endeavors to give each aspect its appropriate degree of emphasis which they have for the individual learner or group.

7. As the acceptable classroom climate becomes established, the facilitator is increasingly able to become a participant learner, a member of the group, expressing his views only as an individual.

8. He takes the initiative of sharing his feelings and thoughts with the group.

9. Throughout the classroom experience, the teacher remains alert to the expressions indicative of deep or strong feelings.

10. In his function as a facilitator of learning, the teacher endeavors to recognize and accept his own limitations. (p. 126)

Humanists see the act of learning as emanating from the learner's personal goals, interests, and attitudes. In other words, they believe the motivation for learning is intrinsic rather than extrinsic. Furthermore, humanists think all evaluation should come from the learner himself. Elias (1980) summarized the humanistic principles of learning as follows:

1. Personal Involvement: The entire affective and cognitive aspects of a person should be involved in the learning act.
2. Pervasiveness: Learning must make an impact on the behavior, attitude, and personality of the learner.
3. Evaluation: The learner can best evaluate the learning process, if the experiences meet his needs.
4. Essence of Meaning: When experiential learning takes place, its meaning to the learner becomes incorporated into his total experience.

In essence, it is adult educators who espouse, in large measure, the basic tenets of humanistic education. Malcolm Knowles, considered one of the foremost adult educators, attempted to translate the humanistic goals into a theoretical framework. He was the first educator to use the concept of andragogy in the education of adult learners.

The concept of andragogy stands in sharp contrast to the age-old concept of pedagogy. Knowles (1984) differentiated between the two methods as follows:

> The difference is that the content (pedagogical) model is concerned with transmitting information and skills whereas the process (andragogical) model is concerned with providing procedures and resources for helping learners acquire information and skills. (p. 103)

The procedural differences between andragogy and pedagogy, as identified by Knowles, are summarized in Table 2.1.

Table 2.1.--Comparison of the processes of teacher-directed (pedagogical) and self-directed (andragogical) learning.

Elements	Teacher-Directed Learning (Pedagogical)	Self-Directed Learning (Andragogical)
Climate	Formal, authority oriented, competitive, judgmental	Informal, collaborative, mutually supportive, consensual
Planning	Primarily by the teacher	By participatory decision making
Diagnosis of Needs	Primarily by the teacher	By mutual agreement
Goal Setting	Primarily by the teacher	By mutual agreement
Designing	By course syllabi, content units, logical sequencing	Learning projects, learning contracts sequenced in terms of readiness
Learning	Transmittal techniques	Inquiry projects, independent studies, experimental techniques
Evaluation	Primarily by the teacher	By mutual assessment of self-directed evidence

The pedagogical model of education, Knowles (1984) asserted, is a set of beliefs (or an ideology, as viewed by many traditional teachers), based on assumptions about the learner and learning, that evolved between the seventh and twelfth centuries in monastic and cathedral schools throughout Europe. The pedagogical model affirms that the teacher has full responsibility for making all decisions about what will be learned and how it will be learned. The pedagogical concept of education includes the following conceptual assumptions about various aspects of education:

1. The Need to Know: Learners must learn what the teacher teaches if they want to pass and get promoted; they need not know whether what they learn will apply to their lives or not.

2. The Learner's Self-Concept: Knowles (1984) indicated that "the teacher's concept of the learner is that of a dependent personality. In fact, the learner's self-concept eventually becomes that of a dependent personality" (p. 53).

3. The Role of Experience: The learner's experience is not important; "the experience that counts is that of teachers, textbook writers, and the audiovisual aids procedures" (p. 54).

4. Readiness to Learn: In the pedagogical model, the learner must be ready to learn when and what the teacher decides.

5. Orientation to Learning: "Learners have a subject-centered orientation to learning; they see learning as acquiring subject-matter control. Learning experiences, therefore, are organized according to the logic of the subject-matter" (p. 54).

6. Motivation: The learner is motivated by external pressures.

The Foundation and Definition of Andragogy

Knowles (1969, 1984) explained that the concept of andragogy in education has been evolving in Europe for some time. Adult education

in Europe led to the expansion of the concept, and it is finally being recognized by adult educators in the United States.

The fundamental purpose of andragogy, according to Knowles (1984), is "to develop individuals to be self-directing learners; and to develop, maintain, and enhance the competencies of self-directed learning" (p. 37). The andragogical model makes the following assumptions, which differ from those of the pedagogical model:

1. The Need to Know: Learners need to know why they need to learn something before undertaking to learn it. (Knowles, 1984, p. 55)

2. The Learner's Self-Concept: Learners come to the learning process with the self-concept that they are fully responsible for their own decisions, for their own lives. (p. 56)

3. The Role of Learners' Experiences: Adult learners come into an educational process with a greater volume and more varied quality of experiences than young learners. (p. 57)

4. Readiness to Learn: Learners become ready to learn those things they need to know and are able to do so in order to cope effectively with their real-life situations. (p. 57)

5. Orientation to Learning: In contrast to children's subject-centered orientation to learning, adults are life-centered, task-centered, or problem-centered in their attitude to learning. (p. 59)

6. Motivation: While adults are responsive to such external motivators as better jobs, promotions, higher salaries, and the like, the most potential motivators are internal pressures such as the desire for increased job satisfaction, self-esteem, quality of life, etc. (p. 61)

The distinctions between the pedagogical and andragogical concepts of learning are summarized in Table 2.2.

Table 2.2.--Distinctions between pedagogical and andragogical concepts of learning.

Elements	Teacher-Directed Learning (Pedagogical)	Self-Directed Learning (Andragogical)
Concept of the learner	Dependent personality	Increasingly self-directed
Role of learner's experiences	To be built on more than used	A rich resource for learning
Readiness to learn	Directed by curriculum	Develops from life tasks and problems
Orientations to learning	Subject centered	Task or problem centered
Motivation	External rewards and punishments	Internal incentive, curiosity

Knowles (1980) described seven conditions of learning that must be satisfied in an andragogical educational environment. These are summarized in Table 2.3.

The philosophical base of education determines the overall objectives of education, and it adds particular emphasis to the entire educational process. For this reason, it is necessary to understand the particular philosophy of education in which the concept of andragogy is rooted. There are as many philosophies of education as there are people engaged in education and as there are systems throughout the world. No man, woman, or system fits neatly into any one of these philosophies exclusively; as long as a clear predominance

Table 2.3.--Conditions of learning and corresponding andragogical principles of teaching.

Condition of Learning	Principle of Teaching
Learners feel a need to learn.	1. The teacher exposes students to responsibilities of self-fulfillment.
	2. The teacher helps each student clarify his own aspirations for improved behavior.
	3. The teacher helps each student diagnose the gap between his aspiration and his present level of performance.
	4. The teacher helps the students 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 conditions that are comfortable . . . and conducive to interaction.
	6. The teacher accepts each student as a person of growth and respects his feelings and ideas.
	7. The teacher seeks to build relationships of mutual trust and helpfulness among the students by encouraging cooperative activities and refraining from inducing competitiveness and judgmentalness.
	8. The teacher exposes his own feelings and contributes his resources as a colearner in the spirit of mutual inquiry.
The learner perceives the goals of learning experiences to be his/her goals.	9. The teacher involves the students in the process of formulating learning objectives in which the needs of the student, teacher, subject matter, and society are taken into account.

Table 2.3.--Continued.

Condition of Learning	Principle of Teaching
The learners accept a share of the responsibility for planning and operating a learning experience, and therefore have a feeling of commitment toward it.	10. The teacher shares his thinking about options available in the designing of learning experiences and the selection of materials and methods and involves the students in deciding from among these options jointly.
The learners participate actively in the learning process.	11. The teacher helps students, or they organize themselves, 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 students exploit their own experiences as a resource for learning through the use of such techniques as discussions, role-playing, case method, etc.
	13. The teacher gears the presentation of his own resources to the level of the experiences of his particular students.
	14. The teacher helps students to relate new learning to their experiences, and thus makes learning more meaningful and integrated.
Learners have a sense that they are progressing toward their goals.	15. The teacher involves students in developing mutually acceptable criteria and methods for measuring progress toward the learning objectives.
	16. The teacher helps students develop and apply procedures for self-evaluation according to these criteria.

Source: Knowles, 1984, pp. 57-58.

of any particular principle of education is discernible, however, educators tend to classify the system, or the educator concerned, under a particular philosophical orientation. It is assumed, therefore, that it is not possible to fit andragogy into a watertight philosophical system (when attempted, this only reveals accepted concepts of a well-known system or systems). In light of this, a brief description of some well-known philosophies of education is in order.

Among the best known educational philosophies is the idealist concept. According to Gutek (1974), idealists assume that the basic aim of education is to "assist the individual self, or the learner to achieve a good unification with the absolute" (p. 17). Accordingly, the ideal must first be recognized and then adopted as a goal toward which the entire educational process must move. Furthermore, idealists assume that the individual potentialities inherent in one's ideational structure must aid in the unfolding and self-development of education. This image of the learner is based on the Platonic concept that the entire physical world is an image of the ideal, that all human beings embody something of this ideal, and that, in helping the individual realize his individuality, the educator helps society and its members advance toward this absolute ideal.

In contrast to the idealistic view of education, it must be observed that the andragogical model of education focuses on the unique needs of the individual learner (to the extent that one believes he has to create as many syllabi as there are individuals in a class). Andragogy does not project an ideal or ideals to which learners must

conform. Rather, the educational process is focused on the needs of the individual. It is not difficult to see that the concept of andragogy owes very little to the idealists.

As far as curriculum is concerned, the idealists view knowledge as a body of intellectual subject matter that is ideationally, conceptually, and hierarchically arranged and must, therefore, ultimately culminate in a philosophy or theology that explains man's basic relationship with God and the cosmos. To an andragogist, the curriculum originates in the needs of the learner: It culminates in and fulfills his particular requirements.

At the other end of the spectrum are the realists, who believe there is an objective "reality" that informs the entire cosmos. Various educational disciplines consist of clusters of related concepts and generalizations that interpret and explain interactions between the objects these concepts represent. Each discipline is a conceptual system with an inherent structure--the structure that is a framework of related conceptual meanings and their generalizations (which, in turn, explain the natural, physical, and social aspects of reality). In such a view of the world, the learner becomes a part of a system or structure, and his individual needs are pushed into the background because the central focus is the subject matter. Thus the realist's curriculum is based on the idea that the most efficient and effective way to discover reality is to study it through organized, separate, and systematically organized subject matter. To an andragogist, the learner is not a part of the system but is peculiarly endowed, and the curriculum

he must pursue for his own betterment must be one that realizes his personal goals. It is evident that the realist philosophy of education, like the idealist concept, has very little to do with andragogy.

A compromise between the idealist and realist concepts is the Thomist school of education, which emphasizes the intellectual function of the school. The Thomistic concept of subject matter is "that of 'scientia' or bodies of funded, accumulated, demonstrated, and organized knowledge" (Gutek, 1974, p. 54) and includes what is either self-evident, experimentally proven, or derived from a higher science. The teacher is the possessor of that body of knowledge and must transmit it to his pupils, who, in turn, must recognize the infallibility of the teacher to understand, master, and apply the principles embodied in the subject matter. In other words, the emphasis in the educational process is on the teacher and the subject matter.

In this philosophical setting, instruction is highly verbal, and the teacher selects and presents the material in a manner that he deems appropriate. The learner must be able to grasp the complex material and measure up to the standards set by the teacher. Under the Thomistic approach to education, the learner is reduced to a state of passive recipience, sacrificing his personal educational needs to acquire highly structured subject matter.

By contrast, in the andragogical approach, the learner is the focal point. In fact, the teacher becomes a facilitator among a variety of talents. He has little control over the material to be "learned." Hence it is clear that andragogy and the Thomistic

philosophy of education are worlds apart--andragogy would not have originated from the Thomistic school of thought.

Another popular philosophy of education is the essentialist philosophy. The essentialists believe education should be concerned with the arts and skills that are essential and useful to man, such as reading, writing, and arithmetic. The schools' function is to channel the materials of man's undifferentiated experiences into the organized, coherent, and differentiated unity of the major disciplines. Even in this view of education, the learner is subservient to what are called the essentials of education. However, by emphasizing the needs of the learner so that he may function better in society, essentialists give the learner a greater role in his own education that he is given by the idealists, realists, or Thomists. In this context, it may be said that the basic philosophy of andragogy incorporates some of the essentialists' ideas.

Andragogy can be fully explained in terms of Dewey's (1916) experimental pragmatism. Dewey believed the starting point of any educational activity should be the expressed needs of the learner. He rejected externally governed classroom discipline and called for an internal discipline, imposed by the self-directing and self-disciplined student. As proposed by Dewey, such discipline is the task or problem, the management of which is brought about by the cooperative effort of shared activity and involves working with instruments and individuals. In Dewey's experimental pragmatism, the teacher acts as a resource person, leading the activities of the group and providing guidance,

advice, and assistance. In general, direction originates from the requirements of the task or the problem to be solved. The educational aims are the learner's rather than the teacher's.

It is apparent, in recalling Dewey's experimental pragmatism, that one is, in fact, defining andragogy. If one were to look for a philosophical base for andragogy, it would be found in this pragmatic view. It does not agree with those who identify andragogy with existentialist philosophy because under existentialism the learner has the entire responsibility for his education and needs.

However, in a sense, it can be argued that andragogy is an extension of the existentialist view of life. Existentialism takes for granted a condition of experience, defines the individual in terms of the choices he makes, and maintains that man alone is responsible for creating his own meaning. Consequently, the goals of existentialist education cannot be specified in advance, nor can they be imposed by the teacher or the school system. Although each person is responsible for his own education, it has to be in terms of the society around him. Existentialists urge one to accept that every man is an island. But in education, this island has to be an integral part of an archipelago. Education cannot be conceived in total isolation, although the emphasis on the individual does make existentialism consistent with andragogy.

The Adult as Learner

A number of educators, psychologists, and philosophers have written that adults are different from children in their needs and educational motivation: Their educational goals are completely

different from one another (Bergevin, 1967; Essert, 1951; Frank, 1955; Heimstra, 1976; Houle, 1975, 1978; Kidd, 1973; Knowles, 1980, 1985; Lindeman, 1961; Liveright, 1968; Maslow, 1971; Newton, 1977; Rogers, 1969; Wald, 1982; Whipple, 1957). Essert (1951) implied a distinction between adult and child education in the following description of adult education:

> As an experience of maturing, voluntarily selected by people, whose major occupation is no longer going to school, in which these individuals or groups plan meaningful tasks and apply sustained inquiry to them . . . the major portion of adult education is engaged in helping people to meet their individual needs as they are interpreted by the individual needs. (p. 5)

Frank (1955) indicated that adults have more experiences than children. Their experiences, therefore, are oriented differently. He stated, "Adults have experiences in areas not available to youth such as marriage, politics, vocation. The experiences of youth are prescribed in time and place because of his dependency status" (p. 25). Like Frank, Whipple (1957) indicated the experiential difference is one of orientation. An individual comprehends a new experience by appropriating it into an already existing world view. These differences reside in the degree of emotional meaning and differing patterns of thought.

Another factor that distinguishes between child and adult learners is time. Knowles (1968) explained that the adult time perspective, in regard to learning, is one of immediate application. The time perspective of the adult is different from that of a child, and

the time an adult has available for organized educational experiences is more limited.

Adults' experiences differ from children's in two ways: The wider range of activities available to adults produces diverse experiences among the adults themselves, and adults live less prescribed existences than youths. Lindeman (1961) stressed that one important feature of education is that the learner becomes aware of his significant experiences. However, the more experiences one has during his life, the more self-actualization one realizes. In this sense, Maslow (1971) asserted that self-actualization does not occur in young people because:

> Youngsters have not achieved identity, or autonomy, nor have they had time enough to experience an enduring, loyal, post-romantic love relationship . . . nor have they worked out their own system of values; nor have they had experience enough (responsibility for others, tragedy, failure, achievement, success) to shed perfectionistic illusions and become realistic; . . . nor have they learned to be patient; nor have they learned enough about the evil in themselves and others to be compassionate; nor have they had time to become post-ambivalent about parents and elders, power and authority. (p. 54)

Randall (1982) emphasized that adult learners need different teaching methodologies than children do. He enumerated the following differences between adult and child learners:

1. Adults want to learn--adults don't learn just because someone said to; they must have a desire for the skill or knowledge.
2. Adults learn only when they feel a need to learn. They are practical and want to know that training will help them now. Each session should offer something that can be used immediately.
3. Adults learn by doing. They should use new information immediately.

4. Adults learn by solving realistic problems.

5. Adults want guidance, not grades; adults shy away from grades and tests. . . . They want to know how they have progressed. (p. 110)

Citing the preceding reasons, many educators have pointed out that educational programs are not created for the adult learner but are designed primarily by and for the instructors. The focus of education should shift from the teacher to those being taught, thus enabling adults to cope effectively with the various life situations they encounter. Wald (1982) asserted that because adults have experience in making daily decisions affecting their lives, they have a right to participate in planning and implementing their own learning. Adults are also most able to judge the value of their learning activities. Bergevin (1967) stated, "Regardless of the scope or nature of the educational program the adult learner should truly become a participant--a person who is dynamically involved in the learning experience, sharing responsibility for it with the other learners" (p. 10).

Research on Andragogy

A number of researchers have studied various aspects of the andragogical approach to education. The purpose of Cronkite's (1974) study was to examine the need-assessment process from an andragogical viewpoint. Cronkite developed a theoretical model rather than empirically testing an existing model. He found that the individual learns when he has a need that requires an integration of cognitive, affective, and motor behavior to help him grow.

Hadley (1975) assessed adult educators' orientation with respect to andragogical and pedagogical constructs. He suggested that:

> Pedagogical adult education rests upon philosophical views oriented toward superhuman, eternal, and traditional realities. Andragogical adult education, in contrast, grows from philosophies which see reality as a continually changing process which evolves through and by the choice and action of learners. (p. 121)

Hadley concluded that idealism and realism are pedagogical philosophies and that pragmatism and existentialism are andragogical philosophies.

The purpose of Kerwin's (1979) study was to determine whether students perceived any differences in teaching behavior between andragogically and pedagogically oriented educators and, if so, to determine in what ways these teachers differed. Kerwin concluded:

1. The education in vocational programs tends to be andragogically oriented. (p. 74)

2. The teachers of technical and general educational programs tend to be andragogically oriented. (p. 74)

3. The differences between andragogical and pedagogical orientations toward education were greater than the differences between student-perceived teaching behavior. (p. 80)

Kerwin also found that female teachers tended to be more andragogically oriented than male teachers. The researcher indicated that evaluation was done primarily by the teachers; therefore, he agreed with Hadley's assertion that evaluation is a key issue. Kerwin concluded, however, that andragogically oriented teachers were more likely than pedagogically oriented ones to encourage students to critically evaluate their society and to be concerned with their own growth through self-understanding.

O'Gorman (1981) examined, identified, and compared the philosophical positions of teachers in adult basic education programs with low and high rates of student retention. She sought to determine whether the educational orientations of these teachers were more pedagogical or andragogical. O'Gorman found that existentialists and pragmatists were the most andragogically oriented of the respondents regarding the following dimensions: purpose of education, nature of the learners, characteristics of the learning experience, management of the learning experience, evaluation, and relationships of educator to learners and among learners. The majority of the teachers in programs with low rates of student retention were classified as idealists and realists; they were more pedagogically oriented. Teachers who had more experience and advanced education tended to be more andragogically oriented.

The purpose of Mueller's (1982) study was to develop a model that could be used to determine educational programs' philosophy, purpose, and methodology and to evaluate the differences that exist between adult education and child education. Mueller found a "realist philosophy in both the academic and vocational programs. Academic students were taught through teacher lectures and readings, and a small percent (41%) of the vocational students engaged in hands-on experiences" (p. 53). In contrast, companies followed an idealist approach for skilled workers and a realist approach with professionals. Mueller concluded that schools and companies used the same basic philosophies, teaching methods, and evaluation techniques and that there were no

significant differences between andragogical and pedagogical orientations in his sample.

Christian (1982) examined the differences in student-perceived educational orientation in military and civilian education programs conducted at Tinker Air Force Base. The major finding of this study was that the military group was more andragogical in orientation than the civilian group (in similar mandatory training). Significant differences existed between military personnel and civilians with regard to the characteristics of their learning experiences. The military group was more andragogical than other groups on the dimensions of evaluation and relationships between educator and students and among students themselves. The military group preferred an andragogical orientation (probably because of a program that included human-relations training and acceptance of responsibility).

Ronan (1980) attempted to find ways to bring illiterate and undereducated adults into the Massachusetts adult education program. He proposed an andragogical model as an alternative to their current adult education program structure. Delalic (1982) examined the concept of adult learning and the role of educators as facilitators. In his handbook, Delalic outlined teaching strategies that are based on the andragogical orientation. He found these strategies were appropriate for use with adult learners.

Using a 34-item instrument, Minix (1982) attempted to evaluate the theory of andragogy, as described by Knowles, to determine if

teachers preferred the andragogical approach to the methods they were using. These 34 items were related to one of six factors:

1. The beliefs of a self-directed learner.
2. The characteristics associated with teacher-centered inservice programs.
3. Improving teachers' self-knowledge.
4. Thought processes and the trust factor.
5. Small-group work.
6. The teachers' desire to have inservice programs teacher-initiated.

Minix attempted to answer the following questions:

1. To what extent did teachers agree or disagree with their learning experience in inservice education?
2. To what extent did inservice education affect teachers' behavior and students' achievement in the classroom?

There was a great deal of diversity in Minix's findings. In general, teachers agreed with the andragogical belief statements, although respondents rated some factors lower than others. No significant relationships were found between demographic variables and teachers' agreement with the andragogical theory.

The Importance and Purpose of Inservice Education

The importance of inservice education has been recognized since formal education began. Tyler (1971) examined the history of inservice education in America during the past century. He indicated that because of the early lack of certification requirements for teachers, evening programs were originated to provide continuing inservice

education. The primary goal of such programs was to compensate for deficits in teacher knowledge.

Inservice education programs are important in many professions, but such programs are essential for educators. Harris and Bessent (1969) cited four reasons why inservice education is important:

1. Pre-service preparation of professional staff members is rarely ideal and may be primarily an introduction to professional preparation, rather than professional preparation as such.

2. Social and educational change can make current professional practices obsolete or relatively ineffective in a very short period of time. This applies to methods and techniques, tools, and substantive knowledge itself.

3. Coordination and articulation of instructional practice requires change in practitioners. Even when each instructional staff member is functioning at a highly professional level, employing an optimum number of the most effective practices, such an instructional program might still be relatively uncoordinated from subject to subject and/or poorly articulated from year to year.

4. Other factors may require inservice education activities for various reasons, i.e., morale can be stimulated and maintained through inservice education, and is a contribution to instruction in itself, even if instructional improvement of any dynamic doesn't occur. (pp. 3-4)

According to Hass (1952), a number of facts make clear the need for inservice education:

1. Continuing cultural and social changes create a need for curriculum change.

2. Pre-service education cannot adequately prepare members of the public school professional staff for their responsibilities.

3. Increases in pupil enrollment.

4. The present and continuing increases in the numbers of teachers.

5. The present and continuing shortages of adequately prepared teachers.

6. The present and continuing need to improve school leadership. (p. 14)

Peters (1975) indicated a need for inservice education programs that can be "tied into a day-to-day development" of instructional materials and programs, can serve the periodic and special needs of educators, can be employed for purpose of exposure to new equipment and materials, and can be used to bring teachers, administrators/teachers, and administrators together for purposes of social interaction/group training or the exchange of ideas and experiences.

Howey (quoted in FaLougi, 1980) identified six categories of reasons why inservice education activities are needed:

1. "Transitional" orientations allowing teachers to move from generalized, pre-service education to a specific role.

2. "Job-Specific" training is a response to typically recurring needs and problems in a particular situation.

3. "System-Related" training is a response to dramatic changes in society and in the schools. Because of these changes teachers must reorient or redefine their roles.

4. "General Professional Development" is a means of staying current, professionally, without regard to applying the information to one's specific situation.

5. "Career Progression" is a means of changing roles or responsibilities.

6. "Personal Development" is a process of understanding and enhancing the individual in a professional role. (pp. 55-56)

Hass (1957) stressed that inservice education is important because knowledge changes rapidly and teachers need to keep abreast of new information. He wrote:

> The major reason for inservice education is to promote the continuous improvement of the total professional staff of the school system. All teachers, administrators, and supervisors must constantly study in order to keep up with advances in subject matter and the theory and practice of teaching. Continuous inservice education is needed to keep the profession abreast of new knowledge and to release creative activities. (pp. 13-14)

Jackson (1971) recognized the importance of inservice education as one dimension of <u>improving</u> teaching. He noted:

> Inservice training . . . is only one of many schemes to make teaching better. Whether it is the one on which we should pin our highest hopes and expend our major energies is a question I am not prepared to answer. All we need assume is that inservice training, as a strategy for improving education, is of sufficient merit to warrant further thought. (p. 20)

Moffit (1965) emphasized the importance of teacher inservice education to the educational system:

> Proper education of the nation's teachers should be the concern of every citizen. It is the education of teachers that determines the quality of learning and therefore the quality of the people of this country. . . . It therefore appears safe to conclude that the quality of any school system may largely be determined by the quality of the inservice educational programs involving the total professional staff. (pp. 7-8)

According to Peters (1980), the overall purpose of inservice programs is to provide practicing classroom teachers, resource personnel, and building/system-level administrators with quality training that:

1. Develops their awareness of new practices and techniques.
2. Exposes those on the "firing line" to the how-to-do-its of their profession.
3. Provides social interaction situations.
4. Allows for the exchange of ideas and experiences.
5. Provides the opportunity for skills development and/or application.

6. Provides opportunities for exposure to and interaction with new instructional equipment and materials.

7. Directly involves educators in the process of instructional program development.

8. Provides the opportunity to use teachers/staff, personnel, and administrators as resource people for other educators; using the resource person's expertise and skills in peer group instruction. (p. 11)

Moffit (1964) stressed that continuing education for new teachers is another objective of inservice programs:

> Regardless of the quantity and quality of academic education received in a college or university, a teacher new to any given school system needs inservice education. . . . The beginning teacher enters into a strange and completely new situation. For many, it is the first real job the teacher has had; with the responsibilities attached thereto, everything is strange. Commonly, he is unacquainted with the other teachers, the principal, or the administrative or supervisory personnel. The students are strange, and often the community is one about which he has little knowledge. (p. 6)

Smith (1969) indicated further that one of the purpose of inservice education is to keep the teacher current with new knowledge:

> As long as knowledge about education continues to increase and new techniques and advice are contrived, there will be something new for the teacher to learn regardless of his degree or years of experience. The continuum of preparation can therefore cover the teacher's entire career. (p. 15)

Burrello and Obraugh (1982) indicated that effective inservice programs have five major characteristics:

1. --Inservice education should be designed so that programs are integrated into and supported by the organization within which they function.

   --Inservice education should be an integral part of the total school program.

--Programs of inservice education should be explicitly supported at the outset by district and building administrators.

2. --Inservice education programs should be designed to result in collaborative programs.

3. --Inservice education programs should be grounded in the needs of the participants.

--Inservice programs should respond to assessed needs, including the interests and strengths of participants.

--The development of problem-solving skills should be made a part of inservice training.

4. --Inservice education programs should be responsive to changing needs.

--The design of inservice programs should be complex and ambitious.

--Each person is often his or her own most competent trainer.

--Inservice education should model good teaching.

--Trainees should make use of peer-teaching strategies.

--Content should be directed toward changing teaching, not changing student behavior.

--Implementation strategy should include <u>continual</u> professional growth activities and the <u>local</u> development of collaboratively prepared materials.

--Outside agencies or consultants may be helpful in supportive roles, especially as catalysts during start-up or as process aides during times of crisis and stalemates.

5. --Inservice education activities should be evaluated over time and be compatible with the underlying philosophy and approach of the district.

--The evaluation of inservice education should be a collaborative venture whose primary purpose is to assist with the planning and implementation of programs.

--Decisions concerning the inservice education program should be based on the findings from continuing program evaluation by program participants and others affected by the program.

--The evaluation design should address planning, implementation, and dissemination. (p. 24)

According to Peters (1980), inservice programs should provide school-system personnel the opportunities to:

1. Develop awareness of and exposure to concepts, content, materials, pedagogical strategies, and skills related to newly emerging and/or adopted areas of study, such as career education, environmental education, and health education.

2. Gain knowledge and skills enrichment in more familiar content and service subjects such as Language Arts, Mathematics, Music, Physical Education, Science, and the Social Studies.

3. Acquire professional recertification credit(s).

4. Participate directly in the school system's decision-making process(es). (p. 12)

Yarger, Howey, and Joyce (1974) listed seven major characteristics of successful inservice programs:

1. Individualized inservice education tends to be better than single offerings for large groups.

2. Active involvement in inservice programs tends to be better than passive-receptive involvement.

3. Demonstration of skills with supervised feedback tends to be better than provision of skills to be stored for future use.

4. Teacher-helping-teacher inservice tends to be better than teachers-working-alone inservice.

5. Inservice that is integrated into a large program tends to be more effective than one-shot affairs.

6. Self-initiated inservice tends to be more effective than self-prescribed inservice. (p. 24)

Edelfelt and Johnson (1975) emphasized that the effective inservice education program considers the teacher as an adult. Specifically,

1. Inservice education programs that place the teacher in an active role (constructing and generating materials, ideas, and behavior) are more likely to accomplish their objectives than are programs that place the teacher in a receptive role.

2. Teachers are more likely to benefit from inservice programs in which they can choose goals and activities for themselves as contrasted to programs in which the goals and activities are preplanned.

3. Inservice education programs in which teachers share and provide mutual assistance to each other are more likely to accomplish their objectives than are programs in which each teacher does separate work.

4. Inservice education programs having differentiated training experiences for different teachers (that is, individualized) are more likely to accomplish their objectives than are programs that have common activities for all participants.

5. School-based programs in which teachers participate as helpers to each other and planners of inservice activities tend to have greater success in accomplishing their objectives than do programs which are conducted by college or other outside personnel without the assistance of teachers. (pp. 1-9)

Brams and Sell (1984) indicated that need assessments are a traditional method of determining the content and organization of inservice programs. What is needed is the promotion of both occupational and personal development by using the adult life cycle in planning inservice education. The adult life cycle serves the specific career, personal interest, and individual needs of participants at their particular stages of professional development. The authors asserted that:

> Inservice offerings consistent with life cycle requirements allow individuals to build career and interpersonal skills of immediate and critical interest and envision organizational career paths, which, in turn, increases the loyalty, wellness, attendance, morale, productivity, and sense of community among an organization's participants. (p. 2)

Based on the literature reviewed in this section, one can conclude that inservice education is important because:

1. There is a lack of universal certification requirements for teachers.

2. Remediation and helping teachers to compensate for their educational deficits is needed for certification.

3. Curricula have not been adequate in fulfilling the needs of the pupils and the community.

4. Social changes and economic developments place more demands on educators now than in the past.

5. The demand for teacher competency and accountability has influenced teacher education.

6. Inservice education is highly desirable to promote occupational and personal development and growth.

Chapter Summary

This chapter contained a review of literature related to the topic under investigation. First, the historical and philosophical foundations of andragogy were examined. Such educational philosophies as idealism, realism, Thomism, and essentialism were discussed in relation to andragogy. Next, the unique characteristics of the adult learner were discussed. Research studies on andragogy were reviewed. Finally, writings on the importance and purpose of inservice education were discussed. In the following chapter, the design and methodology of the present study are explained.

CHAPTER III

STUDY DESIGN AND METHODOLOGY

This study was designed to investigate the perceptions of teachers in the Lansing School District, Lansing, Michigan, regarding the andragogical and pedagogical components of inservice education programs. In this chapter, the methodology used in this inquiry is described. Included are descriptions of the instrument used in collecting the data, the population, the sampling procedure, the data-collection process, and the data-analysis methods employed.

The Research Instrument

The questionnaire contained two sections. The first section comprised 12 questions designed to elicit demographic and personal information about the respondents. The demographic variables included:

1. Gender. Two categories were included: male and female.

2. Grade level. This variable contained three categories: elementary school, middle school, and senior high school.

3. Age. This variable contained five categories: under 28, 29-34, 35-43, 44-55, and 56 and over.

4. Experience in teaching. This variable contained five categories: 2 years or less, 3-8 years, 9-14 years, 15-20 years, and 21 years and over.

5. Subject taught. This variable included ten categories: mathematics, science, social science, arts, foreign languages, physical or health education, business education, vocational education, English/ language arts, and other subjects.

6. Degree. This variable contained six categories: Ph.D., M.A., M.S., B.A., B.S., and other.

7. Number of hours that teachers had participated in Lansing School District inservice education programs.

8. Hours that teachers had devoted to professional development through graduate courses during the last year.

9. Hours that teachers had spent attending conference meetings during the last year.

In addition to the demographic-variable questions, three open-ended questions were posed. In the first, teachers were asked to list two or more of the main ways the Lansing School District inservice programs had contributed to their growth. In the second open-ended question, teachers were asked to list two or more of the main ways in which graduate courses for credit had contributed to their growth. Finally, the third open-ended question asked respondents to list two or more of the main ways in which attending conferences, workshops, and/or meetings of professional associations had contributed to their growth.

Section Two of the questionnaire was a slight modification of the Educational Orientation Questionnaire (EOQ) developed by Herschel Hadley (1975) (see Appendix A). The researcher requested and received permission from Hadley to use the EOQ in the present study (see

Appendix B). The instrument is designed to assess respondents' degree of agreement with andragogical and pedagogical aspects of six dimensions of education: purpose of education, nature of learners, characteristics of the learning experience, management of the learning experience, evaluation, and relationships of educator to learners and among learners. Hadley defined the pedagogical and andragogical aspects of these dimensions as follows:

> Purpose of Education. The purpose of pedagogical education is to enable the learner to comprehend eternal reality. The skills required of the learner are intellectual dexterity and intuition. For andragogical education the main purpose is enabling the learner to implement his growth in personal and social dimensions of value to the learner. In andragogical adult education, the learner is to learn the process of learning which he can use to develop his understanding and move toward his own realities.
>
> Nature of Learners. In pedagogical tradition a learner is viewed as a container to be filled by the art of an educator with knowledge of the truth, and shaped by the educator into a human being whose behavior conforms to that traditionally deemed virtuous. . . . In an andragogical system of education the learner is called upon to perform important functions in all phases of the educational process. These responsibilities include choosing directions for his learning and helping other learners choose their learning objectives, to contribute his resources of experience and ability in a cooperative effort to achieve chosen learning objectives, to develop skills in the process of utilizing resources, resources of the educator and of other learners as well as other resources, and to help other learners achieve these skills.
>
> Characteristics of the Learning Experience. Pedagogy sees control by the teacher as essential for effective learning. This is consistent with the pedagogical view of education as transmittal. The pedagogical learner is seen as motivated to achieve by external pressures of competitive stress accompanying fear of failure. The effectiveness of learning in andragogy focuses on a learner's achieving the self-knowledge and self-confidence which motivates him to accept the challenge to build on traditional knowledge and creatively experiment with new concepts and new behavior. Cooperative, interdependent action directed toward mutual growth is emphasized by andragogy.

Management of the Learning Experience. Pedagogical management of learning stresses systematic procedures designed and implemented by the teacher. Andragogy is characterized by mutually participative management of learning. While an andragogical educator controls development of the learning process, the control is there to assure that participants experience the achievement of objectives through mutual sharing of resources.

Evaluation. Courses neatly packaged for purposes of evaluation through examination and grading in terms of fixed standards are characteristic of pedagogical systems of education. Andragogical evaluation of learning is essentially self-diagnosis and re-diagnosis of progress toward individual goals with the assistance of teacher and fellow students. While institutional standards form part of the criteria relevant to diagnosis, growth toward personal objectives is more crucial. The challenge for an andragogical educator is to help students choose increasingly complex objectives which induce learners to test and expand their abilities rather than settling for compliance with fixed standards.

Relationships between educator and students and among students. Pedagogical educators tend to view students as types rather than individuals. Also, in pedagogical classrooms competitive, divisive relationships are encouraged since these support teacher control and discourage interaction among students. In order to perform consistently the traditional impersonal role expected of an educator in a hierarchical, autocratic system, it is important to pedagogical educators . . . to maintain formality and social distance between teacher and students. . . . Relationships in an andragogical environment focus on linkages among persons--with the educator and among learners. The importance of expressing personal and interpersonal feelings is recognized, in fact, stressed. An andragogical adult educator appreciates the necessity of expressing through his personal behavior a model of the open, sharing behavior style. (pp. 121-24)

Hadley reported that the reliability of the EOQ, determined by the test-retest method, was .89. He judged the content validity to be satisfactory.

The EOQ contains 30 statements concerning pedagogical aspects and 30 statements concerning andragogical aspects of the six dimensions. The breakdown of pedagogical and andragogical items under each dimension is as follows:

1. Purpose of Education: Four items (1, 13, 27, 39)were pedagogical in nature, and six items (2, 14, 28, 40, 43, 52) are andragogical in nature.

2. Nature of the Learners: Five items (3, 15, 29, 41, 53) were pedagogical in nature, and three items (4, 30, 31) are andragogical in nature.

3. Characteristics of the Learning Experience: Five items (5, 16, 17, 32, 44) were pedagogical in nature, and six items (6, 18, 33, 45, 51, 55) were andragogical in nature.

4. Management of Learning Experience: Eight items (7, 19, 21, 34, 46, 54, 56, 60) were pedagogical in nature, and seven items (8, 22, 35, 47, 49, 57, 59) were andragogical in nature.

5. Evaluation: Three items (9, 23, 48) were pedagogical in nature, and four items (10, 24, 36, 50) were andragogical in nature.

6. Relationships Between Educator and Students and Among Students: Five items (11, 20, 37, 42, 58) were pedagogical in nature, and four items (12, 25, 26, 38) were andragogical in nature.

Respondents were asked to indicate whether they strongly agreed (SA), agreed (A), agreed/disagreed (A/D), disagreed (D), or strongly disagreed (SD) with each of the 30 pedagogical and 30 andragogical items. Subscores were calculated by adding item scores together and dividing the total score by the number of items in the subscale. The ranges associated with each response category were as follows: Strongly Agree (1.00-1.50), Agree (1.51-2.50), Agree/Disagree (2.51-3.50), Disagree (3.51-4.50), and Strongly Disagree (4.51-5.00). The lower the score for a statement, the greater the respondents' agreement with that statement. Conversely, the higher the score for a statement, the greater the respondents' disagreement with that statement.

Pilot Test

A pilot test was conducted to evaluate the survey instrument. The pilot study group comprised seven teachers who were graduate students at Michigan State University and who did not teach in the Lansing School District. The researcher gave each pilot study participant the questionnaire, and all individuals returned the completed instruments within one week. Respondents' recommendations for refinement of the questionnaire were collected. The average length of time it took respondents to complete the questionnaire was 20 to 25 minutes.

The Population and the Sample

The target population for this study comprised all elementary, junior high, and senior high school teachers in the Lansing School District. The researcher's dissertation advisor sent a letter to Pat Petersen, chairperson of the Lansing School District's evaluation service, requesting permission to conduct this study in the district (see Appendix B). Pat Petersen sent the researcher a letter confirming that this study had been approved by the Research Review committee of the Lansing School District (see Appendix B). The researcher then made an appointment with the evaluation service chairperson to arrange the questionnaire distribution.

Initially, the researcher had intended to select a random sample of teachers by drawing numbers from a census list. However, the evaluation service chairperson advised following another procedure, whereby all individuals in the population would have an equal and independent chance of being selected for the sample. The procedure

involved distributing the questionnaire through local district liaisons. The researcher accepted this advice after consulting two of his doctoral committee members at Michigan State University.

Data Collection

After being told that the researcher's committee had approved the alternative sampling procedure, Pat Petersen, the evaluation service chairperson, forwarded the questionnaire to the curriculum development chairman, Dr. William Helder. On March 17, 1986, Dr. Helder sent a memorandum to the district liaisons chosen to assist with the study, asking each of them to distribute the questionnaires to five colleagues. Sufficient numbers of questionnaires and cover letters were included for this purpose. Two weeks later, on April 1, another memorandum was sent out, asking those who had not returned their questionnaires to do so.

On April 15, the researcher contacted Dr. Helder to collect the returned questionnaires. Three days later, completed questionnaires that had been returned to Helder's office were forwarded to the researcher. All instruments received by April 21 were included in the study. Of the 360 questionnaires distributed by district liaisons, 210 (58.73%) were returned. Of that number, 30 questionnaires (14%) were found to be unusable. Hence 180 usable questionnaires were returned, or 50% of those distributed.

Data-Analysis Procedures

Questionnaire responses were coded, key punched, and verified. Data were analyzed at the Michigan State University Computer Center using the Statistical Package for the Social Sciences (SPSS). The statistical analysis included descriptive and inferential statistics. Frequencies and percentages were used to describe the demographic characteristics and personal data of the respondents. Percentages were used to analyze the perceptions of respondents concerning pedagogical and andragogical statements concerning six dimensions of education.

Analysis of variance was used to determine if significant differences existed between group means for pedagogical and andragogical statements. The Scheffe test was used to determine which group means were significantly different from each other. The t-test was used to determine if significant differences existed between mean scores on the pedagogical and andragogical statements. The seven hypotheses were tested using the t-test, with the level of significance set at alpha = .05.

The results of the data analyses performed in this study are reported in Chapter IV.

CHAPTER IV

PRESENTATION OF THE STUDY RESULTS

The primary purpose of this study was to investigate the perceptions of teachers regarding the pedagogical and andragogical components of inservice education programs. In this chapter, findings related to that purpose are reported in five sections. In the first section, respondents are described in terms of the demographic variables of gender, age, level of school in which they teach, subjects they teach, types of degrees held, teaching experience, hours of inservice education in the Lansing School District, hours spent at conference meetings, and hours of graduate courses devoted to their professional development. The second section contains findings regarding respondents' perceptions concerning the relative importance of the andragogical dimensions. The third section contains findings related to respondents' perceptions concerning the pedagogical dimensions. The fourth section contains findings related to respondents' perceptions concerning the pedagogical and andragogical dimensions in relation to the independent variables. The results of the hypotheses testing are reported in the fifth section.

Description of Respondents

The first part of the instrument contained questions designed to obtain specific personal and demographic information about the respondents. As can be seen from Table 4.1, of the 180 teachers who participated in the study, a majority (135 or 75%) were female. Forty-five (25%) were male.

Table 4.1.--Distribution of respondents by gender.

Gender	N	Percent
Female	135	75.0
Male	45	25.0
Total	180	100.0

The majority of subjects involved in this study were between 35 and 55 years old, as shown in Table 4.2. Fifty-six respondents (36.7%) were between 35 and 43, and 75 (41.7%) were between 44 and 55.

Table 4.2.--Distribution of respondents by age.

Age	N	Percent
Under 28	6	3.3
29-34	18	10.0
35-43	56	36.7
44-55	75	41.7
56 or older	15	8.3
Total	180	100.0

In regard to school level taught, almost half of the respondents (87 or 48.4%) taught at the elementary school level. The remaining respondents were fairly evenly divided between the middle school and senior high school levels. Table 4.3 shows the responses to this item.

Table 4.3.--Distribution of respondents by school level taught.

School Level	N	Percent
Elementary	87	48.4
Middle school	40	22.2
Senior high	53	29.4
Total	180	100.0

Next, middle school and high school teachers were asked to indicate the subject they taught. Table 4.4 indicates that the largest number of these teachers taught social science (38 or 21.1%), followed by English/language arts (23 or 12.8%), math (11 or 6.1%), and science (7 or 3.9%).

As shown in Table 4.5, the majority of respondents (67 or 37.2%) indicated they had had 21 or more years of teaching experience. The next largest group (49 or 27.2%) had had between 15 and 20 years of teaching experience. The third largest group of respondents (37 or 20.6%) had had between 9 and 14 years of teaching experience.

Table 4.4.--Distribution of middle school and senior high school teachers by the subjects they taught.

Subject	N	Percent
Social science	38	21.1
English/language arts	23	12.8
Math	11	6.1
Science	7	3.9
Business education	6	3.3
Vocational education	6	3.3
Art	3	1.7
Foreign language	2	1.1
Physical or health education	2	1.1
Other[a]	82	45.6
Total	180	100.0

[a]Indicates elementary school teachers.

Table 4.5.--Distribution of respondents according to years of teaching experience.

Years of Teaching Experience	N	Percent
2 or less	2	1.1
3- 8	25	13.9
9-14	37	20.6
15-20	49	27.2
21 or over	67	37.2
Total	180	100.0

Table 4.6 shows the distribution of respondents according to the number of hours that they had participated in inservice education in the Lansing School District. The majority of subjects (97 or 53.9%)

had had between 1 and 11 hours of inservice education, whereas 23 (12.8%) had participated in inservice education programs for more than 48 hours.

Table 4.6.--Distribution of respondents according to the number of hours they had participated in inservice education in the Lansing School District.

Number of Hours	N	Percent
0- 5	57	31.7
6-11	40	22.2
12-17	21	11.7
18-23	12	6.7
24-29	11	6.1
30-35	10	5.6
36-41	4	2.2
42-47	2	1.1
48 or more	23	12.8
Total	180	100.0

Next, subjects were asked the number of hours they had devoted to their own professional development through graduate courses for credit during the past year. The greatest number of respondents (135 or 75%) indicated they had devoted less than five hours to taking graduate courses for credit during the past year. (See Table 4.7.)

Table 4.8 displays the number of hours the respondents reported having spent attending meetings of professional associations relating to their professional development during the past year. The majority of respondents (95 or 52.8%) indicated they had spent between 1 and 11 hours attending such meetings.

Table 4.7.--Distribution of respondents according to the number of hours they had devoted to their professional development through taking graduate courses for credit.

Number of Hours	N	Percent
0- 5	135	75.0
6-11	15	8.3
12-17	12	6.7
18-23	6	3.3
24-29	3	1.7
30-35	1	.6
36-41	3	1.7
42-47	--	--
48 or more	5	2.8
Total	180	100.0

Table 4.8.--Distribution of respondents according to hours of attendance at meetings of professional associations during the past year.

Number of Hours	N	Percent
0- 5	54	30.0
6-11	41	22.8
12-17	16	8.9
18-23	--	--
24-29	22	12.2
30-35	11	6.1
36-41	10	5.6
42-47	10	5.6
48 or more	16	8.9
Total	180	100.0

In response to the open-ended question asking respondents to list the main ways in which the Lansing School District inservice

programs had contributed to their growth, a majority of teachers (136 or 75.6%) indicated that these programs had helped them keep up to date and helped them learn different subjects and new skills. Thirty-three respondents said the inservice programs had allowed them to apply new skills. (See Table 4.9.)

Table 4.9.--Respondents' perceptions concerning the ways in which Lansing School District inservice programs had contributed to their growth.

Way Program Contributed	N	Percent
Learned different subjects and skills; kept up to date	136	75.7
Allowed them to apply new skills	33	18.3

In response to the open-ended item asking respondents to list the ways in which graduate courses had contributed to their growth, 56 teachers (31.1%) said they had learned from such courses. Another 14 (7.9%) claimed that such courses had contributed little or nothing to their growth. (See Table 4.10.)

The third open-ended question asked respondents to list the ways that attendance at conferences, workshops, and/or meetings of professional associations had contributed to their growth. As shown in

Table 4.11, 124 respondents (68.9%) said they had learned from attending such conferences. Ninety-three teachers (51.7%) said that conferences and meetings enabled them to share ideas with other people.

Table 4.10.--Respondents' perceptions concerning the ways in which graduate courses had contributed to their growth.

Way Course Contributed	N	% Responding
Learned from course	56	31.1
Course contributed little or nothing	14	7.9

Table 4.11.--Respondents' perceptions concerning the ways in which attendance at conferences, workshops, and/or meetings had contributed to their growth.

Way Conferences Contributed	N	% Responding
Learned from conferences	124	68.9
Shared ideas with others	93	51.7

Respondents' Perceptions Concerning the Andragogical Dimensions

Research Question 1: To what extent do the respondents agree/disagree with the andragogical dimensions of inservice education?

To answer the first research question, each andragogical dimension was examined. (For item information, see Appendix C.) The percentage, mean, and standard deviation were calculated for each

dimension. Table 4.12 displays the findings for the six andragogical dimensions.

Table 4.12.--Percentage of respondents agreeing and disagreeing with andragogical dimensions.

Andragogical Dimension	SA/A (%)	D/SD (%)	Mean	S.D.
Relationships Between Facilitator and Learners and Among Learners	70.0	0.0	2.40	.511
Evaluation	68.9	1.2	2.50	.443
Nature of Learners	63.9	.6	2.36	.508
Purpose of Education	56.1	1.7	2.51	.491
Management of Learning Experience	52.2	0.0	2.51	.446
Characteristics of Learning Experience	29.4	.6	2.71	.365

Note: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree

As shown in Table 4.12, more respondents (70.0%) agreed with the Relationships Between Facilitator and Learners and Among Learners dimension than with any other dimension. Nearly sixty-nine percent agreed with the Evaluation dimension, whereas only 1.2% disagreed with it. The smallest number of respondents (29.4%) agreed with the Characteristics of Learning Experience dimension. Very few respondents disagreed with any of the andragogical dimensions.

Respondents' Perceptions Concerning the Relative Importance of Andragogical Dimensions

Research Question 2: With what andragogical dimension do respondents agree the most?

The second research question concerned the relative importance of the andragogical dimensions. Pairs of andragogical dimension scales were compared using t-tests. The dimensions were ranked from greatest to least mean agreement. Relationships between adjacent means were examined for equality and differences. Nonadjacent means were examined for equality when they were connected by linking means (i.e., two means both equal to a mean that fell between the two numerically). Table 4.13 displays the mean differences between the andragogical dimensions and whether the differences were significant at the .05 level. Table 4.14 displays the actual ranks of the dimensions, based on mean scores, and the relationships between adjacent and nonadjacent dimensions.

Table 4.13.--Differences between means of andragogical dimensions.

Andragogical Dimension	Mean	Difference	p
Characteristics of Learning Experience	2.517	.1491	.004*
Nature of Learners	2.368		
Purpose of Education	2.512	.1435	.006*
Nature of Learners	2.368		
Relationships	2.355	-.0130	.800
Nature of Learners	2.368		
Management of Learning Experience	2.714	.3458	.000*
Nature of Learners	2.368		
Evaluation	2.454	.0856	.069
Nature of Learners	2.368		

Table 4.13.--Continued.

Andragogical Dimension	Mean	Difference	p
Nature of Learners Characteristics of Learning Experience	2.368 2.517	-.1491	.004*
Purpose of Education Characteristics of Learning Experience	2.512 2.517	-.0056	.874
Relationships Characteristics of Learning Experience	2.355 2.517	-1.6200	.000*
Management of Learning Experience Characteristics of Learning Experience	2.714 2.517	.1967	.000*
Evaluation Characteristics of Learning Experience	2.454 2.517	-.0634	.130
Nature of Learners Purpose of Education	2.368 2.512	-.1435	.006
Characteristics of Learning Experience Purpose of Education	2.517 2.512	.0056	.874
Characteristics of Learning Experience Purpose of Education	2.517 2.512	.0056	.874
Relationships Purpose of Education	2.355 2.512	-.1565	.000*
Management of Learning Experience Purpose of Education	2.714 2.512	.2022	.000*
Evaluation Purpose of Education	2.454 2.512	-.0579	.212
Nature of Learners Relationships	2.368 2.355	.0130	.800
Characteristics of Learning Experience Relationships	2.517 2.355	.1620	.000*
Purpose of Education Relationships	2.510 2.355	.1565	.000*

Table 4.13.--Continued.

Andragogical Dimension	Mean	Difference	p
Management of Learning Experience Relationships	2.714 2.355	.3587	.000*
Evaluation Relationships	2.454 2.355	.0986	.036*
Nature of Learners Management of Learning Experience	2.368 2.714	-.3458	.000*
Characteristics of Learning Experience Management of Learning Experience	2.517 2.714	-.1967	.000*
Purpose of Education Management of Learning Experience	2.512 2.714	-.2022	.000*
Relationships Management of Learning Experience	2.355 2.714	-.3587	.000*
Evaluation Management of Learning Experience	2.454 2.714	-.2601	.000*
Nature of Learners Evaluation	2.368 2.454	-.0856	.069
Characteristics of Learning Experience Evaluation	2.517 2.454	.0634	.130
Purpose of Education Evaluation	2.512 2.454	.0579	.212
Relationships Evaluation	2.355 2.454	-.0986	.036*
Management of Learning Experience Evaluation	2.714 2.454	.2601	.000*

*Significant at the .05 level.

Table 4.14.--Actual means and relationships between the andragogical dimensions.

Andragogical Dimension	Mean	Relationship
Relationships	2.35	Nature of Learners = Relationships
Nature of Learners	2.36	Evaluation = Nature of Learners
Evaluation	2.45	Purpose = Evaluation Relationships< Evaluation
Purpose of Education	2.51	Management > Purpose
Characteristics of Learning Experience	2.51	Characteristics = Purpose Management > Characteristics
Management of Learning Experience	2.71	Management = Purpose

The greatest agreement was with Relationships Between Facilitator and Learners and Among Learners, followed by the Nature of Learners dimension. There was greater agreement with the Evaluation than the Purpose of Education dimension. Respondents' agreement with Purpose of Education was equal to their agreement with Characteristics of Learning Experience, but greater than their agreement with Management of Learning Experience.

Based on the mean values, the andragogical dimensions were ranked as follows (from greatest to least agreement): (1) Relationships Between Facilitator and Learners and Among Learners, (2) Nature

of Learners, (3) Evaluation, (4) Purpose of Education and Characteristics of the Learning Experience (tied), and (5) Management of Learning Experience.

Respondents' Perceptions Concerning the Pedagogical Dimensions

Research Question 3: To what extent do the respondents agree/disagree with the pedagogical dimensions of inservice education?

The third research question concerned the extent to which the respondents agreed or disagreed with the pedagogical dimensions of inservice education. The percentage, mean, and standard deviation were calculated for each dimension. Table 4.15 shows the findings for each pedagogical dimension. Item data are provided in Appendix C.

Table 4.15.--Percentage of respondents agreeing and disagreeing with pedagogical dimensions.

Pedagogical Dimension	SA/A (%)	D/SD (%)	Mean	S.D.
Characteristics of Learning Experience	59.5	7.1	2.4	.4
Purpose of Education	41.1	13.9	2.8	.7
Nature of Learners	6.7	32.2	3.2	
Management of Learning Experience	1.8	41.7	3.5	.5
Evaluation	5.0	51.7	3.6	.7
Relationships Between Facilitator and Learners and Among Learners	1.7	56.7	3.6	.5

Respondents tended to agree with the Characteristics of Learning Experience and the Purpose of Education dimensions, whereas they tended to disagree with the Relationships and Evaluation dimensions. Thus the pedagogical Characteristics of Learning Experience received the greatest agreement, whereas the pedagogical Relationships and Evaluation dimensions received the least agreement.

Respondents' Perceptions Concerning the Relative Importance of Pedagogical Dimensions

Research Question 4: With what pedagogical dimension do respondents agree the most?

The fourth research question concerned the relative importance of the pedagogical dimensions. Each dimension was analyzed using t-tests to compare it with each other dimension, to determine if there were significant mean differences. (See Table 4.16.) The dimensions were ranked from greatest to least agreement. Relationships between nonadjacent means were examined for equality when they were connected by linking means. Table 4.16 displays the mean differences between the pedagogical dimensions and whether these differences were significant.

Table 4.16.--Differences between means of pedagogical dimensions.

Pedagogical Dimension	Mean	Difference	p
Characteristics of Learning Experience	2.380	-.8667	.000*
Nature of Learners	2.240		
Purpose of Education	2.810	-.4250	.000*
Nature of Learners	3.240		
Relationships	3.591	.3430	.000*
Nature of Learners	3.247		

Table 4.16.--Continued.

Pedagogical Dimension	Mean	Difference	p
Management of Learning Experience	3.488	.2400	.000*
Nature of Learners	3.247		
Evaluation	3.566	.3180	.000*
Nature of Learners	3.247		
Nature of Learners	3.247	.8660	.000*
Characteristics of Learning Experience	2.381		
Purpose of Education	2.812	.4314	.000*
Characteristics of Learning Experience	2.381		
Relationships	3.591	1.2100	.000*
Characteristics of Learning Experience	3.381		
Management of Learning Experience	3.488	1.1020	.000*
Characteristics of Learning Experience	2.381		
Evaluation	3.566	1.1850	.000*
Characteristics of Learning Experience	2.381		
Nature of Learners	3.242	.4353	.000*
Purpose of Education	2.812		
Characteristics of Learning Experience	2.381	-.4310	.000*
Purpose of Education	2.812		
Relationships	3.591	.7780	.000*
Purpose of Education	2.812		
Management of Learning Experience	3.488	.6750	.000*
Purpose of Education	2.812		
Evaluation	3.566	.7540	.000*
Purpose of Education	2.812		
Nature of Learners	3.247	-.3430	.000*
Purpose of Education	3.591		
Characteristics of Learning Experience	2.381	-1.2100	.000*
Relationships	3.591		
Purpose of Education	2.810	-.7780	.000*
Relationships	3.590		

Table 4.16.--Continued.

Pedagogical Dimension	Mean	Difference	p
Management of Learning Experience Relationships	3.488 3.591	-1.029	.007*
Evaluation Relationships	3.566 3.590	-.0240	.609
Nature of Learners Management of Learning Experience	3.247 3.488	-.2400	.000*
Characteristics of Learning Experience Management of Learning Experience	2.381 3.488	-1.107	.000*
Purpose of Education Management of Learning Experience	2.810 3.480	-.6757	.000*
Relationships Management of Learning Experience	3.590 3.480	.1020	.007*
Evaluation Management of Learning Experience	3.566 3.488	.0785	.077
Nature of Learners Evaluation	3.247 3.566	-.3189	.000*
Characteristics of Learning Experience Evaluation	2.381 3.566	-1.1850	.000*
Purpose of Education Evaluation	2.812 3.566	-.7540	.000*
Relationships Evaluation	3.591 3.566	.0244	.609
Management of Learning Experience Evaluation	3.488 3.566	-.0780	.077

*Significant at the .05 level.

Table 4.17 shows the actual means and the relationships between adjacent and nonadjacent linked means. The greatest agreement was with the Characteristics of Learning Experience dimension, followed by the Purpose of Education dimension and then the Nature of Learners dimension. Respondents agreed more with the Nature of Learners dimension than they did with the Management of Learning Experience dimension. Respondents' agreement with the Management of Learning Experience dimension was equal to their agreement with Evaluation but greater than their agreement with Relationships. Agreement with Evaluation was equal to agreement with the Management of Learning Experience dimension.

Table 4.17.--Actual means and relationships between the pedagogical dimensions.

Pedagogical Dimension	Mean	Relationship
Characteristics of Learning Experience	2.381	Purpose > Characteristics
Purpose of Education	2.812	Nature of Learners > Purpose
Nature of Learners	3.247	Management > Nature of Learners
Management of Learning Experience	3.488	Relationships > Management
Evaluation	3.566	Evaluation = Management
Relationships	3.590	Relationships = Evaluation

Based on the mean values, the pedagogical dimensions were ranked as follows (from greatest to least agreement): (1) Characteristics of Learning Experience, (2) Purpose of Education, (3) Nature of Learners, (4) Management of Learning Experience. The order of the two lowest-ranked dimensions was cloudy because Evaluation was equal to both the Relationships and Management of Learning Experience dimensions, but Management of Learning Experiences was greater than the Relationships dimension.

Respondents' Perceptions Concerning the Pedagogical and Andragogical Dimensions in Relation to the Independent Variables

Research Question 5: To what extent do the demographic variables of gender, age, school level, subject taught, degree, teaching experience, hours of participation in inservice programs, hours spent at conference meetings, and graduate credit hours devoted to the teachers' professional development relate to respondents' perceptions of the andragogical and pedagogical dimensions?

Purpose of Education

The results shown in Table 4.18 indicate that no significant differences were found between group means concerning the pedagogical Purpose of Education dimension by gender. The mean scores of both groups fell within the central range of the scale. In addition, no significant differences were found between group means concerning the andragogical Purpose of Education dimension by gender. The males' mean score fell within the central range of the scale, whereas the females' mean score fell within the agree range of the scale.

Table 4.18.--ANOVA results for pedagogical and andragogical Purpose of Education dimensions by gender.

Gender	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Male	46	2.68	.69	2.05	.150	2.57	.43	.930	.330
Female	134	2.86	.74			2.50	.51		

No significant differences were found between group means concerning the pedagogical and andragogical Purpose of Education dimensions by age. (See Table 4.19.)

Table 4.19.--ANOVA results for pedagogical and andragogical Purpose of Education dimensions by age.

Age	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Under 28	6	2.92	.80	.85	.494	2.53	.34	.345	.847
29-34	18	2.69	.76			2.53	.49		
35-43	66	2.94	.73			2.56	.51		
44-55	75	2.74	.67			2.48	.46		
56 and over	15	2.73	.99			2.46	.62		

The results shown in Table 4.20 indicate that no significant differences were found between group means concerning the pedagogical Purpose of Education dimension by degree level. The M.S. degree group had the highest observed agreement with this dimension. Significant differences were found between group means by degree level concerning

the andragogical Purpose of Education dimension. The M.A. degree group agreed more strongly with this dimension than did the other groups.

Table 4.20.--ANOVA results for pedagogical and andragogical Purpose of Education dimensions by degree.

Degree		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
M.A.	111	2.82	.75	.896	.467	2.41	.48	4.041	.004*
M.S.	10	2.40	.39			2.43	.37		
B.A.	33	2.87	.79			2.69	.51		
B.S.	15	2.88	.48			2.58	.35		
Other	9	2.86	.79			2.87	.18		

*Significant at the .05 level.

Significant differences were found between group means concerning the pedagogical Purpose of Education dimension by years of teaching experience. (See Table 4.21.) The group with 9 to 14 years of teaching experience agreed with this dimension more than did the other groups. No significant differences were found between group means concerning the andragogical Purpose of Education dimension by years of teaching experience.

The results in Table 4.22 indicate that no significant differences were found between group means concerning the pedagogical Purpose of Education dimension by hours of participation in inservice programs in the Lansing School District. All mean scores fell within the central range of the scale (2.71 to 2.98). Significant differences

were found between group means concerning the andragogical Purpose of Education dimension by hours of participation in inservice programs in the Lansing School District. The group with 24 to 29 hours of inservice displayed greater agreement with this dimension than did the other groups.

Table 4.21.--ANOVA results for pedagogical and andragogical Purpose of Education dimensions by years of teaching experience.

Years of Experience	Pedagogy N	Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
3- 8	25	2.63	.51	3.705	.012*	2.48	.31	.16	.921
9-14	37	2.31	.78			2.55	.62		
15-20	48	2.84	.77			2.48	.45		
21 and over	68	2.67	.67			2.51	.50		

*Significant at the .05 level.

Table 4.22.--ANOVA results for pedagogical and andragogical Purpose of Education dimensions by hours of participation in inservice programs.

Hours of Participation	Pedagogy N	Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
0- 5	57	2.71	.60	.983	.429	2.57	.45	2.31	.045*
6-11	40	2.72	.77			2.50	.50		
12-17	21	2.94	.67			2.47	.32		
18-23	12	2.70	.61			2.75	.42		
24-29	11	2.93	1.07			2.12	.48		
30 and over	39	2.98	.86			2.47	.56		

*Significant at the .05 level.

No significant differences were found between group means concerning the pedagogical Purpose of Education dimension by subject area. (See Table 4.23.) The mean scores fell within the central range of the scale, from 2.52 to 2.79. Likewise, no significant differences were found between group means concerning the andragogical Purpose of Education dimension by subject area. All mean scores fell within the central range of the scale, from 2.51 to 2.56.

Table 4.23.--ANOVA results for pedagogical and andragogical Purpose of Education dimensions by subject area.

Subject Area	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
Social science	80	2.79	.60	2.00	.16	2.56	.50	.11	.16
Math and science	18	2.52	.74			2.51	.43		

No significant differences were found between group means concerning the pedagogical Purpose of Education dimension by number of graduate credits devoted to professional development. (See Table 4.24.) All mean scores fell within the central range of the scale, from 2.79 to 2.83. Likewise, no significant differences were found between group means concerning the andragogical Purpose of Education

dimension by number of graduate credits devoted to professional development. The group who had taken five credit hours displayed greater agreement with this dimension than did the other groups.

Table 4.24.--ANOVA results for pedagogical and andragogical Purpose of Education dimensions by graduate credit hours.

Graduate Credit Hours	Pedagogy N	Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
0- 5	135	2.79	.73	.195	.822	2.47	.49	1.31	.270
6-11	15	2.91	.46			2.56	.40		
12 and over	30	2.83	.82			2.63	.51		

Significant differences were found between group means concerning the pedagogical Purpose of Education dimension by hours spent at conference meetings. (See Table 4.25.) The 30-35 hour group displayed greater disagreement with this dimension than did the other groups. No significant differences were found between group means concerning the andragogical Purpose of Education dimension by hours spent at conference meetings.

As shown in Table 4.26, no significant differences were found between group means concerning the pedagogical Purpose of Education dimension by teaching level. The mean scores fell within the central range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Purpose of Education dimension by teaching level.

Table 4.25.--ANOVA results for pedagogical and andragogical Purpose of Education dimensions by hours spent at conference meetings.

Hours Spent	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
0- 5	44	2.67	.70	2.31	.027*	2.54	.48	.780	.604
6-11	41	2.83	.75			2.49	.51		
12-17	16	2.59	.77			2.36	.39		
18-23	22	2.92	.60			2.68	.53		
24-29	11	2.79	.69			2.42	.46		
30-35	10	3.60	.90			2.40	.62		
36-41	10	2.80	.67			2.56	.51		
48 and over	16	2.81	.59			2.45	.38		

*Significant at the .05 level.

Table 4.26.--ANOVA results for pedagogical and andragogical Purpose of Education dimensions by teaching level.

Teaching Level	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
Elementary	87	2.83	.75	.232	.793	2.47	.49	1.926	.148
Middle	40	2.83	.73			2.64	.37		
Senior high	53	2.75	.69			2.47	.54		

Nature of Learners

Significant differences were found between group means concerning the pedagogical Nature of Learners dimension by gender. (See Table 4.27.) No significant differences were found between group means concerning the andragogical Nature of Learners dimension by

gender. The mean scores of both groups fell within the agree range of the scale.

Table 4.27.--ANOVA results for pedagogical and andragogical Nature of Learners dimensions by gender.

Gender		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Male	46	3.09	.50	5.44	.02*	2.35	.56	.042	.83
Female	134	3.30	.51			2.37	.49		

*Significant at the .05 level.

No significant differences were found between group means concerning the pedagogical Nature of Learners dimension by age. (See Table 4.28.) All mean scores fell within the central range of the scale, from 3.09 to 3.23. Likewise, no significant differences were found between group means concerning the andragogical nature of Learners dimension by age. All group means fell within the agree range of the scale, from 2.22 to 2.41.

As shown in Table 4.29, no significant differences were found between group means concerning the pedagogical Nature of Learners dimension by school level. All mean scores fell within the central range of the scale, from 3.17 to 3.31. Likewise, no significant differences were found between group means concerning the andragogical

Nature of Learners dimension by school level. All mean scores fell within the agree range of the scale, from 2.32 to 2.47.

Table 4.28.--ANOVA results for pedagogical and andragogical Nature of Learners dimensions by age.

Age		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Under 28	6	3.20	.17	.68	.60	2.22	.40	.51	.72
29-34	18	3.10	.58			2.24	.39		
35-43	66	3.23	.48			2.40	.55		
44-55	75	3.09	.54			2.37	.47		
56 and over	15	3.20	.53			2.35	.61		

Table 4.29.--ANOVA results for pedagogical and andragogical Nature of Learners dimensions by school level.

School Level		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Elementary	87	3.31	.53	1.27	.28	2.32	.48	1.55	.21
Middle	40	3.17	.45			2.32	.54		
Senior high	53	3.20	.52			2.47	.51		

No significant differences were found between group means concerning the pedagogical Nature of Learners dimension by degree level. (See Table 4.30.) All mean scores fell within the central range of the scale, from 3.00 to 3.32. Likewise, no significant differences were found between group means concerning the andragogical

Nature of Learners dimension by degree level. The mean scores ranged from 1.92 to 2.53.

Table 4.30.--ANOVA results for pedagogical and andragogical Nature of Learners dimensions by degree level.

Degree Level	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
M.A.	111	3.24	.54	.86	.48	2.38	.55	2.05	.089
M.S.	10	3.00	.53			2.53	.35		
B.A.	33	3.32	.39			2.35	.43		
B.S.	15	3.16	.33			2.35	.32		
Others	9	3.31	.72			1.92	.43		

As shown in Table 4.31, significant differences were found between group means concerning the pedagogical Nature of Learners dimension by years of teaching experience. The group with 9 to 14 years of teaching experience displayed less agreement with this dimension than did the other groups. No significant differences were found between group means concerning the andragogical Nature of Learners dimension by years of teaching experience. All mean scores fell within the agree range of the scale.

No significant differences were found between group means concerning the pedagogical Nature of Learners dimension by subject area. (See Table 4.32.) All mean scores fell within the central range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Nature of Learners dimension by

subject area. All mean scores fell within the agree range of the scale.

Table 4.31.--ANOVA results for pedagogical and andragogical Nature of Learners dimensions by years of teaching experience.

Years of Experience	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
3- 8	35	3.14	.39	2.909	.036*	2.41	.40	1.804	.148
9-14	37	3.46	.52			2.47	.60		
15-20	48	3.18	.54			2.23	.50		
21 and over	68	3.21	.49						

*Significant at the .05 level.

Table 4.32.--ANOVA results for pedagogical and andragogical Nature of Learners dimensions by subject area.

Subject Area	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
Social science	80	3.17	.50	.229	.63	2.38	.48	.29	.58
Math and science	18	3.11	.52			2.46	.70		

No significant differences were found between group means concerning the pedagogical Nature of Learners dimension by hours of participation in inservice programs in the Lansing School District.

(See Table 4.33.) However, significant differences were found between group means concerning the andragogical Nature of Learners dimension by hours of participation in inservice programs. Groups who had participated 6-11 and 30 or more hours agreed more strongly with this dimension than did the other groups.

Table 4.33.--ANOVA results for pedagogical and andragogical Nature of Learners dimensions by hours of participation in inservice programs.

Hours	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	57	3.19	.49	1.37	.235	2.48	.44	2.27	.049*
6-11	40	3.231	.48			2.19	.50		
12-17	21	3.22	.44			2.44	.55		
18-23	12	3.10	.50			2.47	.59		
24-29	11	3.56	.81			2.39	.46		
30 and over	39	3.323	.50			2.27	.52		

*Significant at the .05 level.

As shown in Table 4.34, no significant differences were found between group means concerning the pedagogical Nature of Learners dimension by graduate credits devoted to professional development. All mean scores fell within the central range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Nature of Learners dimension by graduate credits devoted to professional development. All mean scores fell within the agree range of the scale.

Table 4.34.--ANOVA results for pedagogical and andragogical Nature of Learners dimensions by graduate credit hours.

Graduate Credit Hours	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
0- 5	135	3.25	.53	.21	.81	2.38	.51	.40	.67
6-11	15	3.28	.47			2.33	.54		
12 and over	30	3.19	.49			2.30	.45		

Significant differences were found between group means concerning the pedagogical Nature of Learners dimension by hours spent at conference meetings. (See Table 4.35.) Groups who had spent 30 to 35 hours at conference meetings disagreed more strongly with this dimension than did the other groups. No significant differences were found between group means concerning the andragogical Nature of Learners dimension by hours spent at conference meetings.

Characteristics of the Learning Experience

No significant differences were found between group means concerning the pedagogical Characteristics of Learning Experience dimension by gender. (See Table 4.36.) All mean scores fell within the agree range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Characteristics of Learning Experience dimension by gender. All mean scores fell within the central range of the scale.

Table 4.35.--ANOVA results for pedagogical and andragogical Nature of Learners dimensions by hours spent at conference meetings.

Hours Spent		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	54	3.14	.49	2.14	.041*	2.30	.39	.89	.51
6-11	41	3.27	.43			2.34	.58		
12-17	16	3.20	.54			2.29	.74		
18-23	22	3.44	.45			2.48	.36		
24-29	11	3.21	.50			2.60	.49		
30-35	10	3.68	.70			2.50	.63		
36-41	10	3.22	.70			2.43	.68		
48 and over	16	3.07	.44			2.27	.30		

*Significant at the .05 level.

Table 4.36.--ANOVA results for pedagogical and andragogical Characteristics of Learning Experience dimensions by gender.

Gender		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Male	46	2.30	.41	2.08	.15	2.53	.38	.10	.74
Female	134	2.40	.45			2.51	.46		

As shown in Table 4.37, no significant differences were found between group means concerning the pedagogical Characteristics of Learning Experience dimension by age. All mean scores fell within the agree range of the scale. Likewise, no significant differences were

found between group means concerning the andragogical Characteristics of Learning Experience dimension by age.

Table 4.37.--ANOVA results for pedagogical and andragogical Characteristics of Learning Experience dimensions by age.

Age		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Under 28	6	2.50	.32	.275	.89	2.58	.09	.27	.89
29-34	18	2.32	.53			2.56	.53		
35-43	66	2.36	.40			2.53	.43		
44-54	75	2.39	.48			2.47	.47		
55 and over	15	2.42	.33			2.54	.38		

No significant differences were found between group means concerning the pedagogical Characteristics of Learning Experience dimension by teaching level. (See Table 4.38). All mean scores fell within the agree range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Characteristics of Learning Experience dimension by teaching level. Mean scores ranged from 2.47 to 2.56.

As shown in Table 4.39, significant differences were found between group means concerning the pedagogical Characteristics of Learning Experience dimension by degree level. The M.S. degree group agreed more with this dimension than did the other groups. Significant differences were also found between group means concerning the andragogical Characteristics of Learning Experience dimension by degree

level. The Scheffe procedure indicated that the M.S. degree group was significantly different from the B.S. degree group in terms of agreement with this dimension.

Table 4.38.--ANOVA results for pedagogical and andragogical Characteristics of Learning Experience dimensions by school level.

School Level	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
Elementary	87	2.40	.49	.204	.81	2.47	.49	.74	.47
Middle	40	2.37	.38			2.53	.34		
Senior high	53	2.35	.39			2.56	.42		

Table 4.39.--ANOVA results for pedagogical and andragogical Characteristics of Learning Experience dimensions by degree level.

Degree Level	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
M.A.	111	2.34	.38	2.31	.05*	2.42	.47	3.23	.01*
M.S.	10	2.18	.65			2.43	.26		
B.A.	33	2.42	.48			2.71	.36		
B.S.	15	2.45	.40			2.50	.43		
Other	19	2.73	.63			2.75	.25		

*Significant at the .05 level.

No significant differences were found between group means concerning the pedagogical Characteristics of Learning Experience

dimension by years of teaching experience. (See Table 4.40.) All mean scores fell within the agree range of the scale, from 2.30 to 2.44. Likewise, no significant differences were found between group means concerning the andragogical Characteristics of Learning Experience dimension by years of teaching experience. The mean scores of the groups with 3-8 and 9-14 years of experience fell within the agree range of the scale, whereas the other groups' mean scores fell within the central range of the scale.

Table 4.40.--ANOVA results for pedagogical and andragogical Characteristics of Learning Experience dimensions by years of teaching experience.

Years of Experience	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
3- 8	25	2.39	.39	.88	.45	2.50	.31	.10	.95
9-14	37	2.35	.41			2.48	.62		
15-20	48	2.30	.45			2.52	.45		
21 and over	68	2.44	.46			2.53	.37		

As shown in Table 4.41, no significant differences were found between group means concerning the pedagogical Characteristics of Learning Experience dimension by subject taught. All mean scores fell within the agree range of the scale. In addition, no significant differences were found between group means concerning the andragogical Characteristics of Learning Experience dimension by subject taught. All mean scores fell within the central range of the scale.

Table 4.41.--ANOVA results for pedagogical and andragogical Characteristics of Learning Experience dimensions by subject taught.

Subject		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Social science	80	2.34	.41	.37	.54	2.56	.38	.19	.65
Math and science	18	2.41	.49			2.51	.36		

No significant differences were found between group means concerning the pedagogical Characteristics of Learning Experience dimension by hours of participation in inservice programs. (See Table 4.42.) The mean scores of groups with 0-5, 6-11, 12-17, 24-29, and 30 and over hours fell within the agree range of the scale. Significant differences were found between group means concerning the andragogical Characteristics of Learning Experience dimension and hours of participation in inservice programs. The group with 24-29 hours agreed with this dimension more than did the other groups. The Scheffe procedure indicated that the group with 24-29 hours of participation in inservice programs was significantly different from groups with 0-5, 6-11, and 30 and over hours of participation.

Table 4.42.--ANOVA results for pedagogical and andragogical Characteristics of Learning Experience dimensions by hours of participation in inservice programs.

Hours		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	57	2.35	.45	1.86	.10	2.57	.41	3.56	.004*
6-11	40	2.33	.50			2.54	.39		
12-17	21	2.11	.30			2.57	.38		
18-23	12	2.56	.33			2.44	.40		
24-29	11	2.47	.33			2.00	.52		
30 and over	39	2.48	.45			2.54	.47		

*Significant at the .05 level.

No significant differences were found between group means concerning the pedagogical Characteristics of Learning Experience dimension by graduate credits devoted to professional development. (See Table 4.43.) All of the mean scores fell within the agree range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Characteristics of Learning Experience dimension by graduate credits devoted to professional development. The mean scores of groups with 6-11 and over 12 hours fell within the central range of the scale.

As shown in Table 4.44, no significant differences were found between group means concerning the pedagogical Characteristics of Learning Experience dimension by hours spent at conference meetings. The majority of means tended to fall in the agree category. Significant differences were found between group means concerning the

andragogical Characteristics of Learning Experience dimension by hours spent at conference meetings. Groups who had spent 30-35 hours at conference meetings agreed with this dimension more than did the other groups.

Table 4.43.--ANOVA results for pedagogical and andragogical Characteristics of Learning Experience dimensions by graduate credit hours.

Graduate Credit Hours		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	135	2.39	.44	.20	.81	2.48	.45	1.46	.23
6-11	15	2.38	.44			2.58	.42		
12 and over	30	2.33	.42			2.62	.38		

Table 4.44.--ANOVA results for pedagogical and andragogical Characteristics of Learning Experience dimensions by hours spent at conference meetings.

Hours Spent		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	54	2.31	.05	1.14	.33	2.59	.38	2.47	.01*
6-11	41	2.44	.07			2.41	.46		
12-17	16	2.31	.12			2.46	.40		
18-23	22	2.38	.08			2.77	.44		
24-29	11	2.43	.17			2.59	.39		
30-35	10	2.54	.13			2.31	.75		
36-41	10	2.14	.19			2.36	.40		
48 and over	16	2.50	.04			2.37	.29		

*Significant at the .05 level.

Management of the
Learning Experience

Significant differences were found between group means concerning the pedagogical Management of Learning Experience dimension by gender. (See Table 4.45.) Females agreed with this dimension more than did males. No significant differences were found between group means concerning the andragogical Management of Learning Experience dimension by gender. All mean scores fell within the central range of the scale.

Table 4.45.--ANOVA results for pedagogical and andragogical Management of Learning Experience dimensions by gender.

Gender		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Male	46	3.31	.46	7.81	.005*	2.59	.34	7.37	.07
Female	138	2.53	.47			2.75	.36		

*Significant at the .05 level.

No significant differences were found between group means concerning the pedagogical Management of Learning Experience dimension by age. (See Table 4.46.) The mean scores for the 35-43 and 44-55 age groups fell in the disagree range, whereas the other groups' mean scores fell within the central range of the scale. Likewise, no significant differences were found between group means concerning the

andragogical Management of Learning Experience dimension by age. All mean scores fell within the central range of the scale.

Table 4.46.--ANOVA results for pedagogical and andragogical Management of Learning Experience dimensions by age.

Age		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Under 28	6	3.45	.43	.861	.48	3.00	.29	1.73	.14
29-34	18	3.31	.34			2.65	.56		
35-43	66	3.51	.46			2.76	.35		
44-55	75	3.51	.50			2.66	.31		
56 and over	15	3.38	.53			2.67	.33		

No significant differences were found between group means concerning the pedagogical Management of Learning Experience dimension by school level. (See Table 4.47.) The perceptions of elementary school teachers fell in the disagree range, whereas the other groups' means tended to fall within the central range of the scale. No significant differences were found between group means concerning the andragogical Management of Learning Experience dimension by school level. All mean scores fell within the central range of the scale.

As shown in Table 4.48, no significant differences were found between group means concerning the pedagogical Management of Learning Experience dimension by degree level. The group means for B.S. and other degree holders fell in the disagree range, whereas the other groups' means fell within the central range of the scale. Likewise, no

significant differences were found between group means concerning the andragogical Management of Learning Experience dimension by degree level. All of the mean scores fell within the central range of the scale.

Table 4.47.--ANOVA results for pedagogical and andragogical Management of Learning Experience dimensions by school level.

School Level	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
Elementary	87	3.52	2.74	.83	.42	2.74	.39	2.72	.06
Middle	40	2.43	2.59			2.59	.37		
Senior high	53	2.43	2.00			2.75	.27		

Table 4.48.--ANOVA results for pedagogical and andragogical Management of Learning Experience dimensions by degree level.

Degree Level	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
M.A.	111	3.48	.48	1.74	.14	2.69	.39	1.30	.26
M.S.	10	3.27	.50			2.57	.21		
B.A.	33	3.37	.47			2.82	.27		
B.S.	15	3.65	.30			2.67	.32		
Others	9	3.66	.56			2.77	.39		

No significant differences were found between group means concerning the pedagogical Management of Learning Experience dimension by teaching experience. (See Table 4.49.) The means of the groups

with 9-14 and 15-20 years of experience fell in the disagree range, whereas the other groups' means fell within the central range of the scale. In addition, no significant differences were found between group means concerning the andragogical Management of Learning Experience dimension by teaching experience. All mean scores fell within the central range of the scale.

Table 4.49.--ANOVA results for pedagogical and andragogical Management of Learning Experience dimensions by teaching experience.

Years of Experience	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
3- 8	25	3.51	.35	.81	.48	2.66	.35	.88	.45
9-14	37	3.57	.52			2.77	.43		
15-20	48	3.41	.50			2.74	.34		
21 and over	68	3.45	.47			2.67	.34		

Table 4.50 shows that no significant differences were found between group means concerning the pedagogical Management of Learning Experience dimension by subject taught. All mean scores fell within the central range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Management of Learning Experience dimension by subject taught. All mean scores fell within the central range of the scale.

Table 4.50.--ANOVA results for pedagogical and andragogical Management of Learning Experience dimensions by subject taught.

Subject	Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Social science	80	3.43	.46	.31	.57	2.71	.32	1.07	.30
Math and science	18	3.36	.44			2.61	.40		

No significant differences were found between group means concerning the pedagogical Management of Learning Experience dimension by hours of participation in inservice programs. (See Table 4.51.) The mean score for the group with 24 hours and over fell in disagree range, whereas the other groups' means fell within the central range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Management of Learning Experience dimension by hours of participation in inservice programs. All mean scores fell within the central range of the scale, from 2.60 to 2.93.

No significant differences were found between group means concerning the pedagogical Management of Learning Experience dimension by graduate credit hours devoted to professional development. (See Table 4.52.) The mean scores ranged from 3.47 to 3.59. Likewise, no significant differences were found between group means concerning the andragogical Management of Learning Experience dimension by graduate

credit hours devoted to professional development. The mean scores tended to fall within the central range of the scale, from 2.68 to 2.80.

Table 4.51.--ANOVA results for pedagogical and andragogical Management of Learning Experience dimensions by hours of participation in inservice programs.

Hours	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	52	3.49	.43	.61	.68	2.73	.36	1.63	.15
6-11	40	3.45	.41			2.60	.29		
12-17	21	3.37	.42			2.76	.35		
18-23	12	3.48	.42			2.67	.45		
24-29	11	3.65	.62			2.93	.32		
30 and over	39	3.52	.55			2.72	.40		

Table 4.52.--ANOVA results for pedagogical and andragogical Management of Learning Experience dimensions by graduate credit hours.

Graduate Credit Hours	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	135	3.47	.46	.40	.66	2.68	.36	1.24	.29
6-11	15	3.59	.53			2.80	.39		
12 and over	30	3.48	.43			2.77	.33		

As shown in Table 4.53, no significant differences were found between group means concerning the pedagogical Management of Learning Experience dimension by hours spent at conference meetings. The means of groups with 6-11, 12-17, 30-35, and 36-41 hours spent at conference meetings fell in the disagree range, whereas other groups' means fell within the central range of the scale. Mean scores ranged from 3.37 to 3.78. In addition, significant differences were found between group means concerning the andragogical Management of Learning Experience dimension by hours spent at conference meetings. The group with 12-17 hours spent at conference meetings agreed with this dimension more than did the other groups. The Scheffe procedure indicated that no two groups were significantly different.

Table 4.53.--ANOVA results for pedagogical and andragogical Management of Learning Experience dimensions by hours spent at conference meetings.

Hours Spent	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
0- 5	54	3.40	.44	1.00	.43	2.67	.32	2.08	.04*
6-11	41	3.51	.50			2.71	.34		
12-17	16	3.52	.52			2.48	.51		
18-23	22	3.51	.38			2.88	.24		
24-29	11	3.37	.42			2.76	.42		
30-35	10	3.78	.65			2.85	.32		
36-41	10	3.55	.25			2.80	.38		
48 and over	16	3.49	.46			2.66	.34		

*Significant at the .05 level.

Evaluation

No significant differences were found between group means concerning the pedagogical Evaluation dimension by gender. (See Table 4.54.) All mean scores fell within the disagree range of the scale. Also, no significant differences were found between group means concerning the andragogical Evaluation dimension by gender. All mean scores fell within the agree range of the scale.

Table 4.54.--ANOVA results for pedagogical and andragogical Evaluation dimensions by gender.

Gender		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Male	46	3.63	.06	.73	.39	2.44	.46	.06	.80
Female	134	3.54	.64			2.45	.43		

As shown in Table 4.55, no significant differences were found between group means concerning the pedagogical Evaluation dimension by age. The 29-34, 35-43, 44-55, and over 56 age groups' means fell in the disagree range, whereas the other groups' means fell in the central range of the scale. Significant differences were found between group means concerning the andragogical Evaluation dimension by age. Teachers in the 29-34, 35-43, and 44-55 age groups displayed the highest agreement with this dimension.

No significant differences were found between group means concerning the pedagogical Evaluation dimension by school level. (See

Table 4.56.) All mean scores fell within the disagree range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Evaluation dimension by school level. All mean scores fell within the agree range of the scale.

Table 4.55.--ANOVA results for pedagogical and andragogical Evaluation dimensions by age.

Age	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Under 28	6	3.16	.45	.71	.58	2.75	.38	-3.22	.01*
29-34	18	3.51	.73			2.44	.51		
35-43	66	3.60	.57			2.49	.44		
44-55	75	3.59	.72			2.34	.41		
56 and over	15	3.51	.56			2.70	.38		

*Significant at the .05 level.

Table 4.56.--ANOVA results for pedagogical and andragogical Evaluation dimensions by school level.

School Level	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Elementary	87	3.58	.72	.23	.78	2.42	.44	.33	.71
Middle	40	3.60	.60			2.46	.39		
Senior high	53	3.51	.55			2.49	.47		

Table 4.57 shows that no significant differences were found between group means concerning the pedagogical Evaluation dimension by degree level. The means of the groups with M.A. and B.A. degrees fell

in the disagree range, whereas other groups' means fell in the central range of the scale. In addition, no significant differences were found between group means concerning the andragogical Evaluation dimension by degree level. Means for the M.A., M.S., and B.S. groups fell within the agree range, whereas the other groups' means fell within the central range of the scale.

Table 4.57.--ANOVA results for pedagogical and andragogical Evaluation dimensions by degree level.

Degree Level	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
M.A.	111	3.62	.70	1.04	.38	2.44	.45	1.55	.18
M.S.	10	3.33	.60			2.25	.40		
B.A.	33	3.53	.53			2.56	.39		
B.S.	15	3.35	.49			2.30	.38		
Others	9	3.44	.62			2.52	.55		

No significant differences were found between group means concerning the pedagogical Evaluation dimension by years of teaching experience. (See Table 4.58.) Means of the groups with 9-14 and over 21 years of experience fell within the disagree range; other groups' means fell within the central range of the scale. Likewise, no significant differences were found between group means concerning the pedagogical Evaluation dimension by years of teaching experience. All mean scores fell within the agree range of the scale.

Table 4.58.--ANOVA results for pedagogical and andragogical Evaluation dimensions by years of teaching experience.

Years of Experience	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
3- 8	25	3.45	.64	2.38	.07	2.39	.38	.34	.79
9-14	37	3.81	.60			2.48	.42		
15-20	48	3.47	.59			2.47	.54		
21 and over	68	3.56	.68			2.43	.40		

As shown in Table 4.59, no significant differences were found between group means concerning the pedagogical Evaluation dimension by subject taught. The mean for the social science teacher group fell in the disagree range, whereas the mean for the math and science group fell within the central range of the scale. No significant differences were found between group means concerning the andragogical Evaluation dimension by subject taught. The mean of the math and science group fell within the agree range; the social science group mean fell within the central range of the scale.

No significant differences were found between group means concerning the pedagogical Evaluation dimension by hours of participation in inservice programs in the Lansing School District. (See Table 4.60.) The means of the groups with 0-5, 6-11, 18-23, 24-29, and over 30 hours fell in the disagree range; the mean of the group with 12-17 hours fell within the central range of the scale. No significant differences were found between group means concerning the

andragogical Evaluation dimension by hours of participation in inservice programs. The means of groups with 0-5, 6-11, 12-17, and over 30 hours of participation fell within the agree range; means of groups with 6-11, 18-23, and 24-29 hours of participation fell within the central range of the scale.

Table 4.59.--ANOVA results for pedagogical and andragogical Evaluation dimensions by subject taught.

Subject	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Social science	80	3.54	.58	.28	.59	2.52	.43	1.67	.19
Math and science	18	3.46	.45			2.37	.43		

Table 4.60.--ANOVA results for pedagogical and andragogical Evaluation dimensions by hours of participation in inservice programs.

Hours	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	57	3.56	.57	.70	.61	3.56	.57	.70	.61
6-11	40	3.53	.52			3.53	.52		
12-17	21	3.38	.57			3.38	.57		
18-23	12	3.52	.56			3.52	.55		
24-29	11	3.66	1.02			3.66	1.02		
30 and over	39	3.69	.80			3.69	.80		

Table 4.61 shows that no significant differences were found between group means concerning the pedagogical Evaluation dimension by graduate credits devoted to professional development. All mean scores fell within the disagree range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Evaluation dimension by graduate credits devoted to professional development. The means of groups with 0-5 and 6-11 credits fell within the agree range, whereas other groups' means fell within the central range of the scale.

Table 4.61.--ANOVA results for pedagogical and andragogical Evaluation dimensions by graduate credit hours.

Graduate Credit Hours		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	135	3.55	.65	.08	.92	2.43	.41	1.43	.24
6-11	15	3.55	.79			2.38	.48		
12 and over	30	3.61	.55			2.57	.51		

No significant differences were found between group means concerning the pedagogical Evaluation dimension by hours spent at conference meetings. (See Table 4.62.) The means of groups with 0-5, 6-11, 12-17, 18-23, and 30-35 hours at conference meetings fell within the disagree range; the other groups' means fell within the central range of the scale. No significant differences were found between group means concerning the andragogical Evaluation dimension by hours spent

at conference meetings. The means of groups with 0-5, 6-11, 12-17, 24-29, 36-41, and over 48 hours at conference meetings fell within the agree range; other groups' mean scores fell within the central range of the scale.

Table 4.62.--ANOVA results for pedagogical and andragogical Evaluation dimensions by hours spent at conference meetings.

Hours		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	54	3.54	.65	1.26	.27	2.46	.48	.49	.84
6-11	41	3.62	.55			2.42	.44		
12-17	16	3.64	.84			2.37	.53		
18-23	22	3.66	.53			2.56	.37		
24-29	11	3.21	.70			2.40	.45		
30-35	10	3.90	.93			2.55	.36		
36-41	10	3.40	.53			2.47	.39		
48 and over	16	3.39	.57			2.35	.39		

Relationships Between Facilitator and Learners and Among Learners

Significant differences were found between group means concerning the pedagogical Relationships dimension by gender. (See Table 4.63.) Males displayed greater agreement with this dimension than did females. The mean score for males was 3.46, whereas the mean score for females was 3.63. No significant differences were found between group means concerning the andragogical Relationships dimension by gender. All of the mean scores fell within the agree range of the scale.

Table 4.63.--ANOVA results for pedagogical and andragogical Relationships dimensions by gender.

Gender	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Male	46	3.46	.54	3.71	.05*	2.36	.58	.01	.89
Female	134	3.63	.47			2.35	.48		

*Significant at the .05 level.

As shown in Table 4.64, no significant differences were found between group means concerning the pedagogical Relationships dimension by age. The means of the 29-34, 35-43, 44-45, and over 56 age groups fell in the disagree range, whereas the other groups' means fell within the central range of the scale. No significant differences were found between group means concerning the andragogical Relationships dimension by age. The mean scores for the under 28, 29-34, 35-43, and 44-55 age groups fell in the agree range; the means for the over 56 age group fell within the central range of the scale.

No significant differences were found between group means concerning the pedagogical Relationships dimension by school level. (See Table 4.65.) All mean scores fell within the disagree range of the scale. Likewise, no significant differences were found between group means concerning the andragogical Relationships dimension by school level. All mean scores fell within the agree range of the scale.

Table 4.64.--ANOVA results for pedagogical and andragogical Relationships dimensions by age.

Age	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Under 28	6	3.33	.39	.60	.66	2.41	.46	1.12	.34
29-34	18	3.53	.48			2.29	.62		
35-43	66	3.61	.51			2.28	.52		
44-55	75	3.58	.48			2.38	.44		
56 and over	15	3.68	.58			2.56	.02		

Table 4.65.--ANOVA results for pedagogical and andragogical Relationships dimensions by school level.

School Level	Pedagogy					Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Elementary	87	3.64	.45	1.09	.33	2.32	.49	.59	.55
Middle	40	3.58	.57			2.33	.57		
Senior high	53	3.51	.50			2.41	.49		

Significant differences were found between group means concerning the pedagogical Relationships dimension by degree level. (See Table 4.66.) Means of the M.S. and B.S. degree groups fell in the agree range, whereas the other groups' means fell in the disagree range of the scale. No significant differences were found between group means concerning the andragogical Relationships dimension by degree

level. Means of the M.A., M.S., B.A., and B.S. degree groups fell in the agree range of the scale; means of the remaining degree group fell within the central range of the scale.

Table 4.66.--ANOVA results for pedagogical and andragogical Relationships dimensions by degree level.

Degree Level	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
M.A.	111	3.58	.50	2.44	.04*	2.34	.49	.57	.68
M.S.	10	3.28	.42			2.47	.34		
B.A.	33	3.73	.49			2.28	.64		
B.S.	15	3.38	.38			2.36	.39		
Other	9	3.68	.53			2.52	.56		

*Significant at the .05 level.

As shown in Table 4.67, no significant differences were found between group means concerning the pedagogical Relationships dimension by years of teaching experience. The means of groups with 9-14, 15-20, and over 21 years of teaching experience fell in the disagree range; the mean of the group with 3-8 years of teaching experience fell within the central range of the scale. No significant differences were found between group means concerning the andragogical Relationships dimension by years of teaching experience. All of the mean scores fell within the agree range of the scale.

Table 4.67.--ANOVA results for pedagogical and andragogical Relationships dimensions by years of teaching experience.

Years of Experience	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
3- 8	25	3.40	.57	1.53	.20	2.40	.45	2.09	.10
9-14	37	3.60	.48			2.16	.57		
15-20	48	3.65	.48			2.41	.46		
21 and over	68	3.60	.48			2.39	.50		

Table 4.68 shows that no significant differences were found between group means concerning the pedagogical Relationships dimension by subject taught. All mean scores fell within the disagree range of the scale. Likewise, no significant differences were found between group means concerning the pedagogical Relationships dimension by subject taught. All mean scores fell within the agree range of the scale.

Table 4.68.--ANOVA results for pedagogical and andragogical Relationships dimensions by subject taught.

Subject	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
Social science	80	3.53	.54	.000	.97	2.40	.54	.65	.42
Math and science	18	3.53	.42			2.29	.52		

No significant differences were found between group means concerning the pedagogical Relationships dimension by participation in inservice programs. (See Table 4.69.) Means of groups with 0-5, 6-11, 18-23, 24-29, and over 30 hours of participation in inservice programs fell in the disagree range; the mean of the group with 12-17 hours of participation fell in the central range of the scale. Significant differences were found between group means concerning the andragogical Relationships dimension by hours of participation in inservice programs. Groups with 0-5, 6-11, 12-17, 24-29, and over 30 hours of participation in inservice programs were in greater agreement with this dimension than were the groups with 18-23 hours of participation.

Table 4.69.--ANOVA results for pedagogical and andragogical Relationships dimensions by hours of participation in inservice programs.

Hours		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	57	3.54	.47	1.34	.24	2.47	.47	2.51	.03*
6-11	40	3.61	.49			2.20	.59		
12-17	21	3.40	.43			2.34	.42		
18-23	12	3.61	.42			2.64	.37		
24-29	11	3.60	.26			2.22	.54		
30 and over	39	3.72	.61			2.28	.49		

*Significant at the .05 level.

As shown in Table 4.70, no significant differences were found between group means concerning the pedagogical Relationships dimension by graduate credit hours devoted to professional development. Means of

the groups with 0-5 and over 12 credit hours fell in the disagree range; the mean of the group with 6-11 credit hours fell within the central range of the scale. No significant relationships were found between group means concerning the andragogical Relationships dimension by graduate credit hours devoted to professional development. All mean scores fell within the agree range of the scale.

Table 4.70.--ANOVA results for pedagogical and andragogical Relationships dimensions by graduate credit hours.

Graduate Credit Hours	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
0- 5	135	3.59	.49	.47	.62	2.37	.49	.44	.63
6-11	15	3.48	.50			2.31	.66		
12 and over	30	3.63	.52			2.28	.48		

No significant differences were found between group means concerning the pedagogical Relationships dimension by hours spent at conference meetings. (See Table 4.71.) Means of groups with 0-5, 6-11, 12-17, 18-23, 24-29, 30-35, and 36-41 hours spent at conference meetings fell in the disagree range; the mean of the group with 48 or more hours at conference meetings fell within the central range of the scale. No significant differences were found between group means concerning the andragogical Relationships dimension by hours spent at conference meetings. Means of the groups with 0-5, 6-11, 12-17, 24-29, 30-35, 38-41, and over 48 hours spent at conference meetings fell in

the agree range; the mean of the group with 18-23 hours spent at conference meetings fell within the central range of the scale.

Table 4.71.--ANOVA results for pedagogical and andragogical Relationships dimensions by hours spent at conference meetings.

Hours		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	54	3.61	.46	.50	.83	2.23	.60	1.06	.38
6-11	41	3.65	.51			2.35	.48		
12-17	16	3.57	.43			2.39	.53		
18-23	22	3.60	.40			2.54	.37		
24-29	11	3.54	.76			2.38	.39		
30-35	10	3.52	.52			2.45	.51		
36-41	10	3.58	.43			2.50	.40		
48 and over	10	3.40	.58			2.29	.45		

Differences in Perceptions Concerning the Total Pedagogical Method Score and the Total Andragogical Method Score According to the Independent Variables

Research Question 6: To what extent do the demographic variables of gender, age, school level, subject taught, degree, teaching experience, hours of participation in inservice programs, hours spent at conference meetings, and graduate credit hours devoted to the teachers' professional development relate to respondents' perceptions of the total andragogical method score and the total pedagogical method score?

Significant differences were found in mean total pedagogical method scores by gender. (See Table 4.72.) Males were significantly more in agreement with the total pedagogical method than were females. The mean total score for males was 18.49, whereas the mean total score for females was 18.27. No significant differences were found between

mean total andragogical scores by gender. The mean total score for males was 14.85; the mean total score for females was 17.94.

Table 4.72.--ANOVA results for mean total pedagogical method scores and mean total andragogical method scores by gender.

Gender		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Male	46	18.48	2.45	3.73	.05*	14.85	1.59	.10	.74
Female	134	18.27	2.34			17.94	1.55		

*Significant at the .05 level.

No significant differences were found in mean total pedagogical method scores by age. (See Table 4.73.) The mean total scores ranged from 18.44 for individuals between 29 and 34 years of age to 19.25 for individuals between 35 and 43 years of age. No significant differences were found in mean total andragogical method scores by age. The mean total scores ranged from 14.72 for individuals between 29 and 34 and those between 44 and 55 years of age to 15.50 for individuals under 28 years old.

No significant differences were found in mean total pedagogical method scores by school level. (See Table 4.74.) The mean total scores ranged from 18.77 for the senior high school group to 19.29 for the elementary school group. Likewise, no significant differences were found in mean total andragogical method scores by school level. The

mean total scores ranged from 15.17 for the senior high school group to 14.77 for the elementary school group.

Table 4.73.--ANOVA results for mean total pedagogical method scores and mean total andragogical method scores by age.

Age	Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Under 28	6	18.57	2.06	.49	.74	15.50	.91	.89	.46
29-34	18	18.44	2.37			14.72	2.07		
35-43	66	19.25	2.18			15.05	1.53		
44-55	75	19.14	2.59			14.72	1.48		
56 and over	15	18.93	2.44			15.29	1.59		

Table 4.74.--ANOVA results for mean total pedagogical method scores and mean total andragogical method scores by school level.

School Level	Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
Elementary	87	19.29	2.62	.81	.44	14.72	1.21	1.05	.34
Middle	40	18.99	2.00			14.89	1.43		
Senior high	53	18.77	2.57			15.17	1.39		

No significant differences were found in mean total pedagogical method scores by degree level. (See Table 4.75.) The mean total scores ranged from 17.46 to 19.70. No significant differences were found in mean total andragogical method scores by degree level. The mean total scores ranged from 14.69 to 15.38.

Table 4.75.--ANOVA results for mean total pedagogical method scores and mean total andragogical method scores by degree level.

Degree Level	N	Pedagogy Mean	Pedagogy S.D.	Pedagogy F	Pedagogy p	Andragogy Mean	Andragogy S.D.	Andragogy F	Andragogy p
M.A.	111	19.11	2.36	1.36	.24	14.72	1.63	1.64	.16
M.S.	10	17.46	2.83			14.69	.55		
B.A.	33	19.26	2.52			15.43	1.54		
B.S.	15	18.89	1.60			14.78	1.24		
Other	9	19.70	2.77			15.38	1.24		

As shown in Table 4.76, no significant differences were found in mean total pedagogical method scores by years of teaching experience. The mean total scores ranged from 18.52 for the group with 3 to 8 years of experience to 19.91 for the group with 15 to 20 years of experience. No significant differences were found in mean total andragogical method scores by years of teaching experience. The mean total scores ranged from 14.85 to 14.95.

No significant differences were found in mean total pedagogical method scores by subject taught. (See Table 4.77.) The mean total scores ranged from 18.41 for the math and science group to 18.82 for the social science group. Likewise, no significant differences were found in mean total andragogical method scores by subject taught. The mean total scores ranged from 14.78 for the math and science group to 15.15 for the social science group.

Table 4.76.--ANOVA results for mean total pedagogical method scores and mean total andragogical method scores by years of teaching experience.

Years of Experience	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
3- 8	25	18.52	2.19	2.18	.09	14.85	1.26	.03	.99
9-14	37	19.91	2.45			14.95	2.06		
15-20	48	18.88	2.40			14.88	1.65		
21 and over	68	18.94	2.34			14.94	1.31		

Table 4.77.--ANOVA results for mean total pedagogical method scores and mean total andragogical method scores by subject taught.

Subject	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
Social science	80	18.82	2.23	.51	.47	15.15	1.35	.99	.32
Math and science	18	18.41	2.07			14.78	1.61		

Table 4.78 shows that no significant differences were found in mean total pedagogical method scores by hours of participation in inservice programs in the Lansing School District. The mean total scores ranged from 18.51 for the group with 12 to 17 hours of participation in inservice programs to 19.89 for the group with 24 to 29 hours of participation. Significant differences were found in mean

total andragogical method scores by hours of participation in inservice programs. Groups with 6 to 11 and over 24 hours of participation were significantly more in agreement with the andragogical method than were the other groups.

Table 4.78.--ANOVA results for mean total pedagogical method scores and mean total andragogical method scores by hours of participation in inservice programs.

Hours		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	57	18.85	2.16	1.24	.29	15.37	1.40	2.42	.03*
6-11	40	18.88	2.13			14.51	1.40		
12-17	21	18.51	2.00			15.07	1.43		
18-23	12	19.00	1.82			15.51	1.62		
24-29	11	18.89	3.54			14.26	1.67		
30 and over	39	19.73	2.84			14.65	1.87		

*Significant at the .05 level.

No significant differences were found in mean total pedagogical method scores by graduate credit hours devoted to professional development. (See Table 4.79.) The mean total scores ranged from 19.07 to 19.21. Likewise, no significant differences were found in mean total andragogical method scores by graduate credit hours devoted to professional development. The mean total scores ranged from 14.85 to 15.19.

Table 4.79.--ANOVA results for mean total pedagogical method scores and mean total andragogical method scores by graduate credit hours.

Graduate Credit Hours	N	Pedagogy Mean	S.D.	F	p	Andragogy Mean	S.D.	F	p
0- 5	135	19.07	2.41	.02	.97	14.85	1.52	.60	.54
6-11	15	19.21	2.45			14.48	1.92		
12 and over	30	19.09	2.32			15.19	1.58		

As shown in Table 4.80, no significant differences were found in mean total pedagogical method scores by hours spent at conference meetings. The mean total scores ranged from 18.58 for the group with 24 to 29 hours spent at conference meetings to 21.02 for the group with 36-41 hours spent at conference meetings. Significant differences were found in mean total andragogical method scores by hours spent at conference meetings. Groups with 12-17 hours spent at conference meetings were significantly more in agreement with the andragogical method than were the other groups.

Results of Hypothesis Tests

Research Question 7: Are respondents more in agreement with andragogical dimensions or pedagogical dimensions?

The research hypotheses were tested to determine if significant differences existed between respondents' perceptions of the pedagogical and the andragogical dimensions.

Table 4.80.--ANOVA results for mean total pedagogical method scores and mean total andragogical method scores by hours spent at conference meetings.

Hours		Pedagogy				Andragogy			
	N	Mean	S.D.	F	p	Mean	S.D.	F	p
0- 5	44	18.70	2.07	1.54	.13	14.82	1.66	2.08	.04*
6-11	41	19.35	2.29			14.75	1.52		
12-17	16	18.85	2.78			14.37	1.93		
18-23	22	19.53	2.11			15.93	1.21		
24-29	11	18.58	2.79			15.15	1.48		
30-35	10	21.02	2.37			15.07	1.48		
36-41	10	18.69	2.50			15.14	1.39		
48 and over	16	18.67	2.27			14.43	1.12		

*Significant at the .05 level.

Hypothesis 1: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Purpose of Education dimensions.

Null Hypothesis 1 was rejected at the alpha = .05 level. As shown in Table 4.81, respondents displayed significantly greater agreement with the andragogical than with the pedagogical Purpose of Education dimension. The mean agreement score for the andragogical Purpose of Education dimension was 2.51 (1 = high agreement; 5 = high disagreement), whereas the mean score for the pedagogical Purpose of Education dimension was 2.81.

Table 4.81.--T-test results comparing the pedagogical and andragogical Purpose of Education dimensions.

Variable	N	Mean	S.D.	t-Value	p
Pedagogy	780	2.81	.73	5.29	.000*
Andragogy	180	2.51	.49		

*Significant at the .05 level.

Hypothesis 2: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Nature of the Learner dimensions.

Null Hypothesis 2 was rejected. Respondents displayed significantly greater agreement with the andragogical than with the pedagogical Nature of Learners dimension. As shown in Table 4.82, the mean score for the pedagogical Nature of Learners dimension was 3.24, whereas the mean score for the andragogical Nature of Learners dimension was 2.36.

Table 4.82.--T-test results comparing the pedagogical and andragogical Nature of Learners dimensions.

Variable	N	Mean	S.D.	t-Value	p
Pedagogy	180	3.24	.73	16.79	.000*
Andragogy	180	2.36	.49		

*Significant at the .05 level.

Hypothesis 3: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Characteristics of Learning Experience dimensions.

Null Hypothesis 3 was rejected. The respondents were in significantly greater agreement with the pedagogical than with the andragogical Characteristics of Learning Experience dimension. Table 4.83 shows that the mean score for the pedagogical Characteristics of Learning Experience dimension was 2.38, whereas the mean score for the andragogical Characteristics of Learning Experience dimension was 2.51.

Table 4.83.--T-test results comparing the pedagogical and andragogical Characteristics of Learning Experience dimensions.

Variable	N	Mean	S.D.	t-Value	p
Pedagogy	180	2.38	.44	-3.13	.002*
Andragogy	180	2.51	.44		

*Significant at the .05 level.

Hypothesis 4: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Management of Learning Experience dimensions.

Null Hypothesis 4 was rejected. The respondents displayed significantly greater agreement with the andragogical than with the pedagogical Management of Learning Experience dimension. The mean score for the andragogical Management of Learning Experience dimension was 2.71, whereas the mean score for the pedagogical Management of Learning Experience dimension was 3.48. (See Table 4.84.)

Table 4.84.--T-test results comparing the pedagogical and andragogical Management of Learning Experience dimensions.

Variable	N	Mean	S.D.	t-Value	p
Pedagogy	180	3.48	.46	17.32	.000*
Andragogy	180	2.71	.36		

*Significant at the .05 level.

Hypothesis 5: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Evaluation dimensions.

Null Hypothesis 5 was rejected. Respondents were in significantly greater agreement with the andragogical than with the pedagogical Evaluation dimension. The mean score for the andragogical Evaluation dimension was 2.45; the mean score for the pedagogical Evaluation dimension was 3.56. (See Table 4.85.)

Table 4.85.--T-test results comparing the pedagogical and andragogical Evaluation dimensions.

Variable	N	Mean	S.D.	t-Value	p
Pedagogy	180	3.56	.65	19.37	.000*
Andragogy	180	2.45	.03		

*Significant at the .05 level.

Hypothesis 6: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical Relationships Between Facilitator and Learners and Among Learners dimensions.

Null Hypothesis 6 was rejected. The respondents were in significantly greater agreement with the andragogical than with the pedagogical Relationships dimension. The mean score for the andragogical Relationships dimension was 2.35; the mean score for the pedagogical Relationships dimension was 3.59. (See Table 4.86.)

Table 4.86.--T-test results comparing the pedagogical and andragogical Relationships dimensions.

Variable	N	Mean	S.D.	t-Value	p
Pedagogy	180	3.59	.49	21.31	.000*
Andragogy	180	2.35	.51		

*Significant at the .05 level.

Research Question 8: Are respondents more in agreement with the andragogical method in total or with the pedagogical method in total?

Hypothesis 7: There will be no significant difference in respondents' degree of agreement with the pedagogical and the andragogical methods, as measured by total scores.

Null Hypothesis 7 was rejected. The total mean score for the andragogical method was 14.92, whereas the total mean score for the pedagogical method was 19.08. Respondents were in significantly greater agreement with the andragogical method than with the pedagogical method. (See Table 4.87.)

Table 4.87.--T-test results comparing the total scores of the pedagogical and andragogical dimensions.

Variable	N	Mean	S.D.	t-Value	p
Total pedagogy	180	19.88	2.39	2.65	.000*
Total andragogy	180	14.92	1.56		

*Significant at the .05 level.

CHAPTER V

SUMMARY, MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary purpose of this study was to investigate the perceptions of teachers regarding the andragogical and pedagogical components of inservice education programs. Specifically, the study was designed to answer the following research questions:

1. To what extent do the respondents agree/disagree with the andragogical dimensions of inservice education?

2. With what andragogical dimension do respondents agree the most?

3. To what extent do the respondents agree/disagree with the pedagogical dimensions of inservice education?

4. With what pedagogical dimension do respondents agree the most?

5. To what extent do the demographic variables of gender, age, school level, subject taught, degree, teaching experience, hours of participation in inservice programs, hours spent at conference meetings, and graduate credit hours devoted to the teachers' professional development relate to respondents' perceptions of the andragogical and pedagogical dimensions?

6. To what extent do the demographic variables of gender, age, school level, subject taught, degree, teaching experience, hours of participation in inservice programs, hours spent at conference meetings, and graduate credit hours devoted to the teachers' professional development relate to respondents' perceptions of the total andragogical method score and the total pedagogical method score?

7. Are respondents more in agreement with andragogical dimensions or pedagogical dimensions?

8. Are respondents more in agreement with the andragogical method in total or with the pedagogical method in total?

Study Population and Sample

The target population comprised teachers in the Lansing School District. The sample consisted of 180 elementary, middle school, and senior high school teachers. Selected liaisons distributed questionnaires to colleagues to obtain a representative sample of teachers in the Lansing School District.

Methodology

Percentages were used to examine respondents' agreement and disagreement with pedagogical and andragogical statements under six educational dimensions and to describe the distribution of respondents according to the demographic variables. Means and standard deviations were employed to analyze respondents' perceptions concerning the pedagogical and andragogical dimensions.

Analysis of variance was used to determine if significant differences existed between group means for the pedagogical and andragogical dimensions. The Scheffe procedure was used to determine which group means were significantly different from the others. In addition, t-tests were used to determine if significant differences existed between the mean scores on the pedagogical and andragogical dimensions.

Respondent Characteristics

Of the 180 subjects who participated in this study, 135 or 75% were female. The majority of respondents (87 or 45.4%) were elementary school teachers. Most of the respondents (78 or 43.5%) were between 35 and 55; 67 or 37% had more than 21 years of teaching experience. The largest group of respondents (38 or 21%) taught social science. Data collected for this study indicated that a majority of respondents (111 or 61.6%) had Master of Arts degrees; only 15 (8%) had Bachelor of Science degrees.

Most of the respondents indicated that they had participated in relatively few hours of inservice education in the Lansing School District. A majority of respondents (135 or 75%) had taken few graduate credit hours devoted to professional development. More than half of the respondents (95 or 52.8%) had spent between 1 and 11 hours attending meetings of professional associations. A majority of respondents (136 or 73%) said that the Lansing inservice program had contributed to more than their personal growth, but at the same time

they indicated that the Lansing inservice program did not allow them immediately to apply the new skills in the classroom.

A small group of the respondents with up to five hours of graduate credit hours said that the graduate courses had contributed to their growth; most teachers did not mention whether graduate courses had contributed to their growth.

A majority of respondents (124 or 68.4%) indicated that they had learned from conference meetings. Also, more than half of the respondents (93 or 51.7%) said the conference meetings had allowed them to share ideas with other people.

Major Findings

The major findings regarding each of the research questions are discussed in this section.

Research Question 1: To what extent do the respondents agree/disagree with the andragogical dimensions of inservice education?

The findings revealed that the respondents were in agreement with the andragogical Relationships Between Facilitator and Learners and Among Learners, Evaluation, Nature of Learners, Purpose of Education, and Management of Learning Experience dimensions. They were in disagreement with the andragogical Characteristics of Learning Experience dimension.

Research Question 2: With what andragogical dimension do respondents agree the most?

The findings indicated that Relationships Between Facilitator and Learners and Among Learners was the most important andragogical dimension to respondents.

Research Question 3: To what extent do the respondents agree/disagree with the pedagogical dimensions of inservice education?

The findings indicated that the respondents were in agreement with the pedagogical Characteristics of Learning Experience dimension. They were in disagreement with the pedagogical Relationships, Management of Learning Experience, and Nature of Learners dimensions.

Research Question 4: With what pedagogical dimension do respondents agree the most?

The findings revealed that Characteristics of Learning Experience was the most important pedagogical dimension to respondents.

Research Question 5: To what extent do the demographic variables of gender, age, school level, subject taught, degree, teaching experience, hours of participation in inservice programs, hours spent at conference meetings, and graduate credit hours devoted to the teachers' professional development relate to respondents' perceptions of the andragogical and pedagogical dimensions?

The results of the study indicated that:

Regarding the Purpose of Education dimension,

1. No significant relationships were found between gender, age, graduate credit hours, school level, or subject taught and the pedagogical or andragogical Purpose of Education dimensions.

2. Significant relationships were found between teaching experience and hours spent at conference meetings and the pedagogical Purpose of Education dimension. It was concluded that the more experience teachers had and the more conferences they had attended, the less they agreed with the pedagogical Purpose of Education dimension.

3. No significant relationships were found between hours of participation in inservice programs or degree level and the pedagogical Purpose of Education dimension.

4. Significant relationships were found between degree level and hours of participation in inservice programs and the andragogical Purpose of Education dimension. It was concluded that the higher the degree and the more hours of participation in inservice programs, the greater the agreement with this dimension.

5. No significant relationships were found between teaching experience and hours spent at conference meetings and the andragogical Purpose of Education dimension.

Regarding the Nature of Learners dimension:

1. No significant relationships were found between school level, age, subject taught, or graduate credit hours and the pedagogical or andragogical Nature of Learners dimension.

2. No significant relationships were found between gender, teaching experience, degree level, or hours spent at conference meetings and the andragogical Nature of Learners dimension.

3. A significant relationship was found between hours of participation in inservice programs and the andragogical Nature of Learners dimension. This finding indicated that there was a tendency for respondents who had more hours of participation in inservice programs to agree more with the andragogical Nature of Learners dimension.

4. Significant relationships were found between degree level and hours of participation in inservice programs and the pedagogical Nature of Learners dimension.

5. Significant relationships were found between teaching experience, gender, and hours spent at conference meetings and the pedagogical Nature of Learners dimension. Females disagreed more with this dimension than did males. Also, there was a tendency for respondents who had had more teaching experience and who had spent more hours at conference meetings to disagree more with the pedagogical Nature of Learners dimension.

Regarding the Characteristics of Learning Experience dimension:

1. No significant relationships were found between gender, age, school level, teaching experience, subject taught, or graduate courses and the pedagogical or andragogical Characteristics of Learning Experience dimension.

2. Significant relationships were found between degree level and the andragogical and pedagogical Characteristics of Learning Experience dimensions. The M.A. degree group agreed more with the andragogical Characteristics of Learning Experience dimension, whereas the M.S. degree group agreed more with the pedagogical Characteristics of Learning Experience dimension.

3. No significant relationships were found between hours spent at conference meetings or hours of participation in inservice programs and the pedagogical Characteristics of Learning Experience dimension.

4. Significant relationships were found between hours of participation in inservice programs and hours spent at conference meetings and the andragogical Characteristics of Learning Experience dimension. The more hours spent at conference meetings and the more hours of participation in inservice programs, the greater the agreement with the andragogical Characteristics of Learning Experience dimension.

Regarding the Management of Learning Experience dimension:

1. No significant relationships were found between age, degree level, teaching experience, subject taught, hours of participation in inservice programs, or graduate credits and the pedagogical or andragogical Management of Learning Experience dimension.

2. A significant relationship was found between hours spent at conference meetings and the andragogical Management of Learning Experience dimension. The more hours spent at conference meetings, the greater the agreement with the andragogical Management of Learning Experiences dimension.

3. A significant relationship was found between gender and the pedagogical Management of Learning Experience dimension. Male teachers agreed more with this dimension than did female teachers.

4. No significant relationships were found between school level or hours spent at conference meetings and the pedagogical Management of Learning Experience dimension.

Regarding the Evaluation dimension:

1. No significant relationships were found between gender, school level, degree level, subject taught, hours of participation in

inservice programs, hours spent at conference meetings, or graduate credits and the pedagogical or andragogical Evaluation dimension.

2. No significant relationship was found between age and the pedagogical Evaluation dimension.

3. A significant relationship was found between age and the andragogical Evaluation dimension. The older the respondent, the greater the agreement with this dimension.

Regarding the Relationships dimension:

1. No significant relationships were found between age, school level, teaching experience, subject taught, graduate courses, or hours spent at conference meetings and the pedagogical or andragogical Relationships dimension.

2. No significant relationship was found between degree level and the andragogical Relationships dimension.

3. No significant relationship was found between hours of participation in inservice programs and the pedagogical Relationships dimension.

4. A significant relationship was found between hours of participation in inservice programs and the andragogical Relationships dimension. The more hours of participation in inservice programs, the greater the agreement with this dimension.

5. Significant relationships were found between degree level and gender and the pedagogical Relationships dimension. Male teachers agreed more with this dimension than did female teachers. Also, M.S.

and B.S. degree holders agreed more with this dimension than did respondents holding other types of degrees.

> Research Question 6: To what extent do the demographic variables of gender, age, school level, subject taught, degree, teaching experience, hours of participation in inservice programs, hours spent at conference meetings, and graduate credit hours devoted to the teachers' professional development relate to respondents' perceptions of the total andragogical method score and the total pedagogical method score?

The findings revealed that:

1. No significant relationships were found between age, school level, degree level, subject taught, or graduate credits and the mean total scores for the andragogical or the pedagogical method.

2. No significant relationships were found between hours of participation in inservice programs and hours spent at conference meetings and the mean total pedagogical method score.

3. A significant relationship was found between gender and the mean total pedagogical method score. Male teachers agreed with the pedagogical method, whereas female teachers agreed with the andragogical method.

4. Significant relationships were found between hours of participation in inservice education and hours spent at conference meetings and the mean total andragogical method score. The more hours spent at conference meetings and the more hours of participation in inservice programs, the greater the agreement with the andragogical method.

5. No significant relationships were found between gender and years of teaching experience and the mean total andragogical method score.

Research Question 7: Are respondents more in agreement with andragogical dimensions or pedagogical dimensions?

The findings revealed that:

1. Teachers were more in agreement with the andragogical than the pedagogical Purpose of Education, Nature of Learners, Management of Learning Experience, Evaluation, and Relationships dimensions.

2. Teachers were more in agreement with the pedagogical than the andragogical Characteristics of Learning Experience dimension.

Research Question 8: Are respondents more in agreement with the andragogical method in total or with the pedagogical method in total?

The findings indicated that, according to the mean total scores, respondents agreed more with the andragogical method than they did with the pedagogical method.

Conclusions

The following conclusions were drawn from the major findings of the study. Table 5.1 contains a summary of the findings shown in Tables 4.12 through 4.87. A positive sign indicates a significant difference was found between groups with regard to a particular pedagogical or andragogical approach, whereas a zero indicates no significant difference was found. The patterns of conclusions that appeared to emerge from the table are as follows.

Table 5.1.--Significant relationships between pairs of independent and dependent variables for andragogical and pedagogical dimensions.

Variable	Dimension												Total Score for Pedagogical and Andragogical Method	
	Purpose of Education		Nature of Learners		Characteristics of Learning Experience		Management of Learning Experience		Evaluation		Relationships			
	P	A	P	A	P	A	P	A	P	A	P	A	P	A
Gender	0	0	+	0	0	0	+	0	0	0	+	0	+	0
Age	0	0	0	0	0	0	0	0	0	+	0	0	0	0
Years of experience	+	0	+	0	0	0	0	0	0	0	0	0	0	0
Hours of participation in inservice programs	0	+	0	+	0	+	0	0	0	0	0	+	0	+
Subject area	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate courses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hours spent at conferences	+	0	+	0	0	+	0	+	0	0	0	0	0	+
Teaching level	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degree	0	+	0	0	+	+	0	0	0	0	+	0	0	0

Key: P = pedagogical dimension
A = andragogical dimension

\+ = significant difference between groups on the dimension
0 = no significant difference between groups on the dimension

1. Male teachers appeared to agree more frequently than female teachers with pedagogical approaches to their own education.

2. Age of teachers appeared to make little or no difference in their preferences for andragogical or pedagogical methods, except that teachers of all ages favored being evaluated through an andragogical approach.

3. Teachers with less experience exhibited a slight tendency to agree with pedagogical approaches to their own education. However, the more experience teachers had had in actual inservice courses and conferences tended to reverse any such tendency.

4. The dependent variables that appeared most frequently to discriminate between groups of teachers regarding their preferred treatment in inservice education were:

a. The purpose for which the education was performed (four significant differences noted).

b. The nature of the learner assumed by the educational program (four significant differences noted).

c. The characteristics of the learning experiences provided (four significant differences noted).

5. An overall tendency--although certainly not a strongly consistent one--appeared to be for a preference for andragogical treatments among teachers who had had more exposure to inservice education. However, most of the comparisons made in this study failed to show significant differences.

Recommendations

Based on the findings and conclusions of this study, the researcher recommends the following:

1. The school district in which this study was conducted should use the research findings in formulating inservice education programs that continue to

a. place more responsibility on the adult learners to determine their own programs and learning processes.

b. build relationships of mutual trust and helpfulness among the teachers as adult learners and between the learners and both the school administrators and those who conduct the inservice education experiences.

c. accept adult learners as mature individuals and respect their feelings.

d. encourage adult learners to participate actively in the learning process in inservice programs, recognizing that these learners have a rich background of experience that is a valuable learning resource.

e. provide a learning environment in which adult learners are comfortable, feel respected, and accept others' differences.

f. involve adult learners in diagnosing their own need for learning.

2. Teachers should be given an opportunity to apply the new skills that they learn in inservice programs.

3. School administrators should recognize that teachers have different philosophical beliefs and should examine the effects of philosophy on the school organizational practices.

4. School administrators should encourage teachers to attend inservice programs and conference meetings related to their professional development and consider such attendance in their promotion.

5. The school district in which the research was conducted should use the information contained in this study to determine the reasons teachers are not satisfied with inservice programs in the district.

6. Workshops, seminars, and group discussions should be developed to guide teachers in self-directed learning.

7. Inservice program planners should provide as many options as possible from which teachers may choose, in order to select their own learning experiences.

8. The College of Education at Michigan State University should extend the providing of courses that further teachers' professional development.

Recommendations for Further Research

Based on the findings of this study, further research is recommended in the following areas:

1. A similar study should be carried out with a large sample, using different sampling techniques.

2. A similar study should be done using Minix's (1981) instrument to investigate teachers' perceptions of the andragogical method.

3. A study should be conducted using Minix's (1981) instrument to investigate inservice program planners' perceptions of the andragogical method.

4. Further research should be conducted using some dimensions from Minix's and Hadley's instruments, especially andragogical Characteristics of Learning Experience and Management of Learning Experience, to investigate if the findings would differ from those of this investigation.

5. A study should be conducted using Hadley's instrument to investigate inservice program planners' perceptions of the pedagogical and andragogical methods.

6. According to the findings of this study, some demographic variables did not affect respondents' perceptions of the pedagogical and andragogical dimensions. Therefore, future researchers should not use demographic variables as predictors.

7. A study should be undertaken to observe systematically the behavior of school teachers and inservice program teachers to determine whether they have a pedagogical or an andragogical orientation.

APPENDICES

APPENDIX A

THE RESEARCH QUESTIONNAIRE

Dear Fellow Teacher:

Increased attention has been given recently to the strengthening of professional development programs in local schools. An important part of these efforts has been to learn more about how adults, such as yourself, learn most effectively. I am conducting a study of how teachers see their own learning process as a part of my doctoral program at Michigan State University.

The attached questionnaire is being sent to a selected group of teachers so that we might learn more about your preferences for ways of learning. With such information it should be possible to increase the effectiveness of professional development programs and activities. Your participation, while completely voluntary, is very important to the success of the study.

All replies will be treated with utmost confidentiality and under no circumstance could your response be identified by name. In fact, all responses will be reported in group statistics only. I truly appreciate your cooperation. Kindly return the questionnaire in the enclosed stamped envelope as expeditiously as possible.

Sincerely,

Hasen Shehri
2317 #14 East Jolly Road
Lansing, Michigan 48910
Phone: (517) 882-4841

INTRODUCTORY QUESTIONS

Please answer each question by placing an (X) in the appropriate space.

1. Gender: Male ____ Female ____

2. What is your age?

   1. Under 28 ____
   2. 29-34 ____
   3. 35-43 ____
   4. 44-55 ____
   5. 56 or over _____

3. Which grade level do you teach?

   1. Elementary School ____
   2. Middle School ____
   3. Senior High School ____

4. If you are a middle school or high school teacher, what subject do you teach? (Check only one.)

   1. Mathematics ____
   2. Sciences (Physics, Chemistry, Biology) ____
   3. Social Sciences ____
   4. Arts (Art, Music, Performing Arts, Graphic Arts) ____
   5. Foreign Languages ____
   6. Physical or Health Education ____
   7. Business Education ____
   8. Vocational Education ____
   9. English/Language Arts ____
   10. Other ____ Specify _____

5. What is the highest degree that you hold?

   1. Ph.D. ____
   2. M.A. ____
   3. M.S. ____
   4. B.A. ____
   5. B.S. ____
   6. Other ____ (Please Indicate)

6. How many years have you been teaching?

   1. 2 or Less ____
   2. 3-8 ____
   3. 9-14 ____
   4. 15-20 ____
   5. 21 and Over ____

7. How many hours in the past year have you volunteered to participate in the inservice education program in the Lansing School District?

   Number of Hours _____

8. How many hours in the past year have you devoted to your own professional development through graduate courses for credit?

   Number of Hours _____

9. How many hours in the past year have you spent in attendance at meetings of professional associations relating to your professional development?

   Number of Hours _____

10. Please list two or three or more of the main ways in which the Lansing inservice programs did in fact contribute to your growth.

    _____

    _____

    _____

11. Please list two or three or more of the main ways in which the graduate courses for credit did in fact contribute to your growth.

    _____

    _____

    _____

12. Please list two or three or more of the main ways in which attendance at conferences, workshops and/or meetings of professional associations did in fact contribute to your growth.

    _____

    _____

    _____

Please respond to each statement as you think about your participation in District sponsored inservice programs. To what degree do you believe that inservice programs should consider or incorporate each of the following items? Please circle the most appropriate answer. Please keep in mind the word "Facilitator" means the person who taught you in the inservice program and "Teacher" means yourself - the person filling out the questionnaire.

	Extent To Which You Agree				
	STRONGLY AGREE	AGREE	AGREE/DISAGREE	DISAGREE	STRONGLY DISAGREE
Example: I believe the teacher should decide what the content will be of inservice program	(SA)	A	A/D	D	SD
1. Inservice education should focus on what is sure, reliable, and lasting	SA	A	A/D	D	SD
2. Inservice effectiveness should be measured by teachers' increase in examination of their own feelings, attitudes, and behaviors	SA	A	A/D	D	SD
3. Teachers need a strong facilitator who can direct their learning	SA	A	A/D	D	SD
4. It's hard to keep teachers from learning	SA	A	A/D	D	SD
5. Learning is an intellectual process of understanding ideas (concepts) and acquiring skills	SA	A	A/D	D	SD
6. Effective inservice learning occurs most often when teachers actively participate in deciding what is to be learned and how	SA	A	A/D	D	SD
7. Giving examinations regularly motivates teachers to learn	SA	A	A/D	D	SD
8. Organization of the content and sequence of inservice learning activities should grow out of teachers' needs, with their participation	SA	A	A/D	D	SD

	Extent To Which You Agree				
	STRONGLY AGREE	AGREE	AGREE/DISAGREE	DISAGREE	STRONGLY DISAGREE
9. It should be the facilitator's responsibility to evaluate teachers' achievements and assign grades	SA	A	A/D	D	SD
10. The best sources of ideas for improving inservice education are the teachers	SA	A	A/D	D	SD
11. Competition among teachers encourages keen learning	SA	A	A/D	D	SD
12. A facilitator by his/her behavior should show each teacher that his abilities and experiences are respected and valued	SA	A	A/D	D	SD
13. A facilitator should help teachers accept values of our society	SA	A	A/D	D	SD
14. To see inservice education as transmittal of knowledge is obsolete	SA	A	A/D	D	SD
15. Teachers tend to be much alike	SA	A	A/D	D	SD
16. It is a facilitator's responsibility to motivate teachers to learn what they ought to learn	SA	A	A/D	D	SD
17. Clear explanation by the facilitator is essential for effective learning	SA	A	A/D	D	SD
18. A facilitator's primary responsibility is helping teachers choose and develop their own directions for learning	SA	A	A/D	D	SD
19. A good facilitator makes the decisions about what should be taught, when, and how	SA	A	A/D	D	SD
20. A facilitator seldom needs to know the average teachers as separate individuals	SA	A	A/D	D	SD

	Extent To Which You Agree				
	STRONGLY AGREE	AGREE	AGREE/DISAGREE	DISAGREE	STRONGLY DISAGREE
21. A facilitator should not change his/her expressed decisions without unusually good reasons	SA	A	A/D	D	SD
22. Emphasizing efficiency in inservice education often blocks development of an effective learning climate	SA	A	A/D	D	SD
23. Inservice education programs should be evaluated by the same standards as other accredited programs of education	SA	A	A/D	D	SD
24. Evaluating achievement should be primarily a responsibility of the teacher since he/she has the necessary data	SA	A	A/D	D	SD
25. Competition among teachers develops conceit, selfishness and envy	SA	A	A/D	D	SD
26. A facilitator should discuss his/her blunders and learnings with teachers	SA	A	A/D	D	SD
27. A facilitator should be sure his/her questions steer teachers toward truth	SA	A	A/D	D	SD
28. Inservice educational objectives define changes in behavior which the teacher desires and the facilitator helps him/her undertake	SA	A	A/D	D	SD
29. Most teachers are able to keep their emotions under good control	SA	A	A/D	D	SD
30. Teachers are quite competent to choose and carry out their own projects for learning	SA	A	A/D	D	SD
31. A facilitator should help teachers free themselves of fixed habits and patterns of thought that block their growth	SA	A	A/D	D	SD

	Extent To Which You Agree				
	STRONGLY AGREE	AGREE	AGREE/DISAGREE	DISAGREE	STRONGLY DISAGREE
32. The major qualifications of a facilitator are grasp of subject matter and ability to explain (demonstrate) it clearly and interestingly	SA	A	A/D	D	SD
33. It is better for teachers to create their own learning activities and materials than for the facilitator to provide them	SA	A	A/D	D	SD
34. A facilitator should require assignments and grade them	SA	A	A/D	D	SD
35. Use of a topical outline course plan often blocks a facilitator's perception of teachers' needs	SA	A	A/D	D	SD
36. An inservice education program should be evaluated only in terms of its own objectives	SA	A	A/D	D	SD
37. Competition among teachers develops courage, determination, and industry	SA	A	A/D	D	SD
38. A facilitator should provide opportunities for warm relationships with teachers and among teachers	SA	A	A/D	D	SD
39. Inservice education should lead people to goals that result in orderly, reasonable lives	SA	A	A/D	D	SD
40. Inservice education should increase teachers' critical evaluation of our society and courage to try new, creative, satisfying behavior	SA	A	A/D	D	SD
41. Often teachers don't know what is best for them	SA	A	A/D	D	SD
42. When a facilitator makes a mistake, he/she is likely to lose teachers' respect	SA	A	A/D	D	SD
43. Maturity depends more on continuing growth in self-understanding than on growth in knowledge	SA	A	A/D	D	SD

	Extent To Which You Agree				
	STRONGLY AGREE	AGREE	AGREE/DISAGREE	DISAGREE	STRONGLY DISAGREE
44. Teachers frequently "get off the subject" either intentionally or unintentionally	SA	A	A/D	D	SD
45. Inservice education programs which tell what should be learned and how rarely help teachers learn	SA	A	A/D	D	SD
46. Letting teachers determine learning objectives wastes too much time in irrelevant discussion	SA	A	A/D	D	SD
47. The primary concern of a facilitator should be the immediate needs of the teacher	SA	A	A/D	D	SD
48. Grades should reflect a teacher's grasp of the subject or skill taught	SA	A	A/D	D	SD
49. Assignments by a facilitator tend to restrict teachers' significant learnings	SA	A	A/D	D	SD
50. Tests prepared by teachers are usually just as effective as those prepared by a facilitator	SA	A	A/D	D	SD
51. The goals teachers set for themselves are the basis of effective learning; not the facilitator's goals	SA	A	A/D	D	SD
52. A facilitator's mission is to help each teacher learn what he/she decides will aid him in achieving his personal goals	SA	A	A/D	D	SD
53. If a facilitator isn't careful, teachers take advantage	SA	A	A/D	D	SD
54. Considering the possible effects on teachers, a facilitator should usually play it safe rather than take a chance	SA	A	A/D	D	SD

	Extent To Which You Agree				
	STRONGLY AGREE	AGREE	AGREE/DISAGREE	DISAGREE	STRONGLY DISAGREE
55. Without a cooperative climate encouraging teachers to risk and experiment, significant learning is unlikely	SA	A	A/D	D	SD
56. A facilitator who does not plan the work for a class carefully is taking advantage of the teachers' ignorance	SA	A	A/D	D	SD
57. To use teachers' experiences and resources for learning requires group activities rather than such methods as lectures	SA	A	A/D	D	SD
58. It is a good rule in teaching to keep relationships with teachers impersonal	SA	A	A/D	D	SD
59. Planning units of work should be done by teachers and facilitators together	SA	A	A/D	D	SD
60. Good teaching is systematic--set up a clear plan and schedule and stick to it	SA	A	A/D	D	SD

EDUCATIONAL ORIENTATION QUESTIONNAIRE
HADLEY, 1975

Name_____Address_____
Zip Code_____

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

Please Note: In completing this questionnaire keep in mind that the word "student" means adult student, and the word "teacher" means yourself--the person filling out the questionnaire. In other words, your answers indicate your educational orientation in working with adults.

For each statement, please put an "X" in one of the five boxes in front of that statement. Choose the box 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 too uncertain about this statement to agree or disagree.

D--I disagree with this statement.

SD--I strongly disagree with this statement.

SA	A	U	D	SD		
( )	( )	( )	( )	( )	1.	Education should focus on what is sure, reliable, and lasting.
( )	( )	( )	( )	( )	2.	Teaching effectiveness should be measured by students' increase in examination of their own feelings, attitudes, and behaviors.
( )	( )	( )	( )	( )	3.	Students need a strong teacher who can direct their learning.
( )	( )	( )	( )	( )	4.	It's hard to keep people from learning.
( )	( )	( )	( )	( )	5.	Learning is an intellectual process of understanding ideas (concepts) and acquiring skills.

SA	A	U	D	SD		
( )	( )	( )	( )	( )	6.	Effective learning occurs most often when students actively participate in deciding what is to be learned and how.
( )	( )	( )	( )	( )	7.	Giving examinations regularly motivates students to learn.
( )	( )	( )	( )	( )	8.	Organization of the content and sequence of learning activities should grow out of students' needs, with their participation.
( )	( )	( )	( )	( )	9.	It should be the teacher's responsibility to evaluate students' and assign grades.
( )	( )	( )	( )	( )	10.	The best sources of ideas for improving teaching and education are the students.
( )	( )	( )	( )	( )	11.	Competition among students encourages keen learning.
( )	( )	( )	( )	( )	12.	A teacher by his behavior should show each student that his abilities and experiences are respected and valued.
SA	A	U	D	SD		
( )	( )	( )	( )	( )	13.	A teacher should help students accept values of our society.
( )	( )	( )	( )	( )	14.	To see education as transmittal of knowledge is obsolete.
( )	( )	( )	( )	( )	15.	Students tend to be much alike.
( )	( )	( )	( )	( )	16.	It is a teacher's responsibility to motivate students to learn what they ought to learn.
( )	( )	( )	( )	( )	17.	Clear explanation by the teacher is essential for effective learning.
( )	( )	( )	( )	( )	18.	A teacher's primary responsibility is helping students choose and develop their own directions for learning.

SA A U D SD

( ) ( ) ( ) ( ) ( ) 19. A good teacher makes the decisions about what should be taught, when, and how.

( ) ( ) ( ) ( ) ( ) 20. A teacher seldom needs to know the average students as separate individuals.

( ) ( ) ( ) ( ) ( ) 21. A teacher should not change his expressed decisions without unusually good reasons.

( ) ( ) ( ) ( ) ( ) 22. Emphasizing efficiency in teaching often blocks development of an effective learning climate.

( ) ( ) ( ) ( ) ( ) 23. An adult education program should be evaluated by the same standards as other accredited programs of education.

( ) ( ) ( ) ( ) ( ) 24. Evaluating his achievement should be primarily a responsibility of the student since he has the necessary data.

( ) ( ) ( ) ( ) ( ) 25. Competition among students develops conceit, selfishness, and envy.

SA A U D SD

( ) ( ) ( ) ( ) ( ) 26. A teacher should discuss his blunders and learnings with students.

( ) ( ) ( ) ( ) ( ) 27. A teacher should be sure his questions steer students toward truth.

( ) ( ) ( ) ( ) ( ) 28. Educational objectives should define changes in behavior which the student desires and the teacher helps him undertake.

( ) ( ) ( ) ( ) ( ) 29. Most students are able to keep their emotions under good control.

( ) ( ) ( ) ( ) ( ) 30. Students are quite competent to choose and carry out their own projects for learning.

SA A U D SD

( ) ( ) ( ) ( ) ( ) 31. A teacher should help students free themselves of fixed habits and patterns of thought that block their growth.

( ) ( ) ( ) ( ) ( ) 32. The major qualifications of a teacher are grasp of subject matter and ability to explain (demonstrate) it clearly and interestingly.

( ) ( ) ( ) ( ) ( ) 33. It is better for students to create their own learning activities and materials than for the teacher to provide them.

( ) ( ) ( ) ( ) ( ) 34. A teacher should require assignments and grade them.

SA A U D SD

( ) ( ) ( ) ( ) ( ) 35. Use of a topical outline course plan often blocks a teacher's perception of students' needs.

( ) ( ) ( ) ( ) ( ) 36. An adult education program should be evaluated only in terms of its own objectives.

( ) ( ) ( ) ( ) ( ) 37. Competition among students develops courage, determination, and industry.

( ) ( ) ( ) ( ) ( ) 38. A teacher should provide opportunities for warm relationships with students and among students.

( ) ( ) ( ) ( ) ( ) 39. Education should lead people to goals that result in orderly, reasonable lives.

SA A U D SD

( ) ( ) ( ) ( ) ( ) 40. Education should increase students' critical evaluation of our society and courage to try new, creative, satisfying behavior.

( ) ( ) ( ) ( ) ( ) 41. Often students don't know what is best for them.

( ) ( ) ( ) ( ) ( ) 42. When a teacher makes a mistake, he is likely to lose students' respect.

( ) ( ) ( ) ( ) ( ) 43. Maturity depends more on continuing growth in self-understanding than on growth in knowledge.

( ) ( ) ( ) ( ) ( ) 44. Students frequently "get off the subject" either intentionally or unintentionally.

( ) ( ) ( ) ( ) ( ) 45. Education programs which tell what should be learned and how rarely help students learn.

SA A U D SD

( ) ( ) ( ) ( ) ( ) 46. Letting students determine learning objectives wastes too much time in irrelevant discussion.

( ) ( ) ( ) ( ) ( ) 47. The primary concern of a teacher should be the immediate needs of the student.

( ) ( ) ( ) ( ) ( ) 48. Grades should reflect a students' grasp of the subject or skill taught.

SA A U D SD

( ) ( ) ( ) ( ) ( ) 49. Assignments by a teacher tend to restrict students' significant learnings.

( ) ( ) ( ) ( ) ( ) 50. Tests prepared by students are usually just as effective as those prepared by a teacher.

( ) ( ) ( ) ( ) ( ) 51. The goals a student sets for himself are the basis of effective learning not the teacher's goals.

( ) ( ) ( ) ( ) ( ) 52. A teacher's mission is to help each student learn what he decides will aid him in achieving his personal goals.

( ) ( ) ( ) ( ) ( ) 53. If a teacher isn't careful, students take advantage.

( ) ( ) ( ) ( ) ( ) 54. Considering the possible effects on students, a teacher should usually play it safe rather than take chances.

( ) ( ) ( ) ( ) ( ) 55. Without a cooperative climate encouraging students to risk and experiment, significant learning is unlikely.

SA A U D SD

( ) ( ) ( ) ( ) ( ) 56. A teacher who does not plan the work for a class carefully is taking advantage of the students' ignorance.

( ) ( ) ( ) ( ) ( ) 57. To use students' experiences and resources for learning requires group activities rather than such methods as lectures.

( ) ( ) ( ) ( ) ( ) 58. It is a good rule in teaching to keep relationships with students impersonal.

( ) ( ) ( ) ( ) ( ) 59. Planning units of work should be done by students and teacher together.

( ) ( ) ( ) ( ) ( ) 60. Good teaching is systematic--set up a clear plan and schedule and stick to it.

APPENDIX B

CORRESPONDENCE

OFFICE OF
ALUATION SERVICES

500 W. LENAWEE
SING, MICHIGAN 48933

RESEARCH STUDY REQUESTS
1985-86

Each year a number of requests are made to the Lansing School District to carry out a variety of studies involving students and staff. Our first purpose is to educate students. In order to protect the rights and interests of students as they take part in this education and to protect the rights and interests of staff as they discharge their responsibility to provide that education, all requests to conduct research much be reviewed according to the following steps.

1. A Research Study Request form must be completed and sent, with 10 copies, to the Office of Research and Evaluation Services, 500 W. Lenawee, Room 220, Lansing, MI 48933, Attn. Pat Petersen. The form can be picked up from that office Monday - Friday, 8:00 a.m. to 5:00 p.m. The phone number is 374-4347.

   The Research Study Request form and any attachments must be typed.

2. The request form will be sent to the appropriate review committee. Committee members will have five working days to consider the request. A memo further describing these committees is available upon request.

3. The decision of the reviewers will be forwarded to you in writing. A study is not to begin until that notification is received.

4. A report of your findings is to be submitted to the Office of Research and Evaluation Services within 90 days after the close of your study. The timing of this requirement is flexible, with prior arrangements.

5. Studies which require teacher release time, and therefore substitutes, will not be considered.

6. The Board of Education for the Lansing School District has approved goal statements and areas of focus for 1985-1986. The applicant is urged to keep these statements in mind when making a request to carry out research in the Lansing School District, since preference will be given to requests bearing on these priorities. The complete document listing all goal statements and areas of focus is available to the applicant upon request.

   The text of the overall instructional program goal statement says:

   To improve student achievement at all levels with emphasis on reading and math; to offer the most comprehensive program possible, within the limits of the district's fiscal resources; to meet the diverse needs of the student population; to continue the curriculum revision process; to encourage and promote excellence at all levels; and to assure educational opportunities for all students.

The following are some general comments to make the process move quickly.

1. Any participation in research studies by teachers is voluntary.

2. Any participation in research studies by students must have written approval from the parent or the guardian of each student before any contact is made by the researcher. There are exceptions, but these are few. So, consider the time involved in this task as the study is planned.

   When you prepare the letter asking for parent permission, make it brief and straightforward (not condescending, just to the point).

3. If your study requires any equipment, e.g., video or audio taping equipment, you must be prepared to supply it. Where such equipment is approved for use, it must be clearly described in the request for parent permission.

4. Take some time to proof and correct any and all documents.

5. No research study activities will be initiated in September with grades 4, 7 and 10. No activities will be begun at any grade after May 1. All research activities must respect the substantial district-wide testing program. Those dates are available upon request.

6. Most people who have conducted research in the Lansing Schools have been great and have produced useful findings. Every now and then someone shows up who isn't and doesn't. Even the most well thought out and well organized research makes demands on a busy school schedule; anything less is not acceptable.

   Once approval to conduct the research is given, please make appointments or schedules with the teachers and schools with whom you are working. Be on time and call when you know that you will deviate from the schedule.

7. Call me if you have questions (374-4347).

Lee Paterson

Return to:
Pat Petersen
500 W. Lenawee
Lansing, MI 48933

Revised 7/85

RESEARCH STUDY REQUEST

Office of Research and Evaluation Services
Lansing School District

1. Name: Hasen Shehri

Address: 2317-14 East Jolly Road, Lansing, MI Phone: 517 882-4841
or Dr. Blackman ph: 355-8292

Professional title, if any: _____

Date of Application: February 4, 1986

Institution, organization, or agency with whom you are associated, if any:

doctoral student, Department of Teacher Education

Michigan State University

Reason for study:

College or university course requirement	_____
Partial fulfillment for Masters Degree	_____
Partial fulfillment for Doctors Degree	XX
Other, please specify: _____	_____

If the study is being conducted as part of a course requirement or as partial fulfillment of graduate requirements, please provide the course title and instructor's name and/or the title/subject of your dissertation and your major advisor.

Name: Dr. Charles A. Blackman

Full Title: Professor, Department of Teacher Education

Address: 306 Erickson Hall, MSU Phone: 355-8292
East Lansing, MI 48824

Course Title: _____
or
Subject of Dissertation: Selected Variables on Preferences of Professional Teachers for Androgogical Versus Pedagogical Outlooks on Education.

2. **Title of this study:** Selected Variables on Preferences of Professional Teachers for Androgogical Versus Pedagogical Outlooks on Education.

Duration of study: Administration of one questionnaure during the Winter 1986

Beginning Date: _____ **Ending Date:** _____

Statement of hypothesis, and/or objective(s) of this study:

The purpose of the study is to investigate the degree to which an array of selected variables among professional teachers tends to vary with differing views about factors/modes related to teacher learning in inservice education and in professional growth experiences.

Please attach a brief description of the study. As part of that description, please outline how students and/or staff will benefit from your study and how your study fits the instructional goals of the district.

3. If students are the focus of your study,

How many will you involve? ---

At what grade levels? ---

What, if any, are your requirements for any particular kinds of students, e.g., high or low ability, boys only, girls only, etc.?

NO.

What, if any, are your requirements for a specific school, department, geographical area, etc.?

NO.

What, if any, are your requirements for review of or access to student records?

NO.

Continuation of Question #2:

Many studies indicate that inservice education programs should consider the characteristics and the needs of adult learners. They have reached the following conclusions: the more the characteristics and the needs of adult learners are considered, the more inservice education programs are successful.

This study is designed to investigate to what degree teachers' involvement in inservice education and in professional growth may be related to particular types of learning activities. The population of the study will consist of a randomly selected sample of teachers in the Lansing School District. The target population will consist of 400 teachers randomly selected from the full Lansing population of teachers. A questionnaire will be sent to the sample by mail, to help investigate their beliefs about how effective staff development can best be carried out.

The Lansing School District will benefit from this study as follows:

1. It will ascertain how "adult learner" teachers tend to perceive the Lansing School District's inservice education program in general.

2. It will ascertain the relative outlooks of the sample toward teaching methods in inservice education: e.g., whether they believe that inservice education should employ self-directed learning or more traditional methods.

3. The Lansing School District also will benefit by learning what the sample believes about their characteristics as adults in inservice education and how these characteristics may be employed to develop inservice education.

How much student time will be required by your study? NONE.

Please list here, and attach, any instruments that will be used with or administered to students. This should include interview schedules as well.

Will teachers be required to help or take part in your study? No.

If so, please describe their involvement. No.

How much teacher time will be involved? ---

4. If teachers are the focus of your study,

How many will you involve? 400

At what grade levels? elementary, junior & senior high school

In what content areas? all different subjects

How much teacher time is required? between 25-30 minutes for each teacher.

When will this time be required? in late Winter Quarter

Will teachers be paid for participating in your study? No.

If so, how much? ---

What are your requirements, if any, for a particular school, department or geographical location?

NO.

What are your requirements, if any, for review or access to student records?

NONE.

If your study involves students in any way, how much student time is required? None.

5. Will any school personnel, other than the students and/or teachers already described, be involved in your study? No.

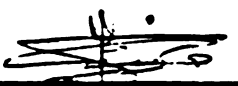
   If so, who, in what way and for how much time?

   _____

   _____

   _____

6. I agree to submit a written report of the findings of this study to the Office of Research and Evaluation Services within 90 days of the close of the study.

   Signature: 

   Hasen R. Shehri

   Date: 2b/11/96

LANSING SCHOOL DISTRICT

OFFICE OF
EVALUATION SERVICES

500 W. LENAWEE
LANSING, MICHIGAN 48933

March 3, 1986

Hasen Shehri
2317-14 East Jolly Road
Lansing, MI 48910

Mr. Shehri:

In regard to your research study titled, "Selected Variables on Preferences of Professional Teachers for Androgogical Versus Pedagogical Outlooks on Education", the request to conduct the study in the Lansing School District has __X__ been approved, _____ has not been approved.

The following comments apply to your study:

Please contact me to make arrangements to mail out the teacher survey. We cannot release teachers' home addresses. If you will provide us with stamped envelopes, we will label and mail them.

If you have any questions or need additional information, please contact me (374-4347).

Thank you.

Pat Petersen
Evaluation Specialist

PP/mlc

cc: Research Review Committee Members

M E M O R A N D U M

TO:

FROM: Bill Helder

SUBJECT: Attached Questionnaire

DATE: March 17, 1986

In an effort to learn more about the elements that make an effective professional development program, we are assisting Mr. Hasen Shehri in pursuing this question as a part of his doctoral program at MSU. If you could find the time (approximately 20 minutes) to fill out the attached questionnaire and ask five of your colleagues to do the same, we would very much appreciate it. Your participation is, of course, completely voluntary but it is very important to the success of the study. All replies will be treated with utmost confidentiality and under no circumstance could your response be identified by name. In fact, all responses will be reported in group statistics only.

If you would return the completed questionnaire in courier before you leave for spring vacation, it would be much appreciated. Please return to the Curriculum Office.

ph
Attachments

M E M O R A N D U M

TO:

FROM: Bill Helder Bill

SUBJECT: Staff Development Questionnaire

DATE: April 1, 1986

Last month we sent out a questionnaire to assist our staff development program by collaborating with Mr. Hasen Shehri. Since these questionnaires were returned anonymously, there is no way to follow up other than to say, if you have returned the questionnaire, we thank you very much. If not, could you do so no later than April 14? After that date the data will no longer be of value.

Thanks so much for your cooperation.

ph

P.S. If you have misplaced your questionnaire and need another, please call the Curriculum Office - 4210.

LANSING SCHOOL DISTRICT

519 W. Kalamazoo Street
Lansing, Michigan 48933

April 22, 1986

Dr. Charles Blackman
306 Erickson Hall
Michigan State University
East Lansing, MI 48824

Dear Chuck:

In order to assist you with Hasen's dissertation, I have enclosed the following:

1. Role of the liaison person

2. List of liaison persons by school

3. Copy of cover letter to elementary liaisons asking that they and three colleagues fill out the questionnaire

4. Copy of cover letter to secondary liaisons asking that they and five colleagues fill out the questionnaire

5. A follow-up request asking for those who had not already returned their questionnaires to do so. As individual questionnaires filter in, we are sending them directly to Hasen in his stamped, self-addressed envelopes.

2317 #14 East Jolly Road
Lansing, MI 48910

November 19, 1985

Dr. Henry Bradek
Chairman, UCRIHS
Office of the VP for Research
238 Administration Building
Michigan State University
East Lansing, MI 48824-1034

Dear Dr. Bradek:

I am preparing to collect data for my dissertation in the Department of Education. Enclosed are materials that UCRIHS are needed when the researcher is using human subjects for his research. I would appreciate your permission to conduct this research in order to send the questionnaire to the sample.

I would appreciate your timely attention to this matter. Thank you.

Sincerely,

Hasen al-Shehri

MICHIGAN STATE UNIVERSITY

COLLEGE OF EDUCATION • DEPARTMENT OF TEACHER EDUCATION EAST LANSING • MICHIGAN • 48824-1034

February 5, 1986

Dr. Henry Bredeck
Assistant Vice President
Research and Graduate Studies
238 Administration Bldg.
Campus

Dear Dr. Bredeck:

I am enclosing the dissertation proposal of Hasen Shehri. This proposal has the approval of his guidance committee. I believe the nature of the study is such that it should be exempted from full Committee review (I-C).

Mr. Shehri visited with you early in December concerning his proposal. It has since undergone some modification. Approval has been requested from the Lansing Public Schools.
Thank you for your assistance.

Sincerely yours,

Charles A. Blackman
Professor

CAB/dz

encl.

MICHIGAN STATE UNIVERSITY

COLLEGE OF EDUCATION • DEPARTMENT OF TEACHER EDUCATION EAST LANSING • MICHIGAN • 48824-1034

February 5, 1986

Lansing School District
500 W. Lenawee
Lansing, MI 48933

Att: Pat Peterson

I am enclosing the Research Study Request for Mr. Hasen Shehri. He is working with me on his doctoral program.

I discussed the proposal with Dr. Helder early in December. Since then it has undergone revision. If there are questions either Mr. Shehri or I might answer, let me know.

Sincerely yours,

Charles A. Blackman
Professor

CAB/dz

encl.

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
238 ADMINISTRATION BUILDING
(517) 355-2186

EAST LANSING • MICHIGAN • 48824-1046

February 10, 1986

Mr. Hasen al-Shehri
2317 #14 East Jolly Road
Lansing, Michigan 48910

Dear Mr. Shehri:

Subject: Proposal Entitled, "Adult Inservice Learners' Perceptions"

I am pleased to advise that I concur with your evaluation that this project is exempt from full UCRIHS review, and approval is herewith granted for conduct of the project.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval prior to February 10, 1987.

Any changes in procedures involving human subjects must be reviewed by the UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to my attention. If I can be of any future help, please do not hesitate to let me know.

Sincerely,

Henry E. Bredeck
Chairman, UCRIHS

HEB/jms

cc: Dr. Charles Blackman

HERSCHEL N. HADLEY

45 Martin Street
Acton, Mass. 01720
Telephone (617) 263-4775

October 30, 1985

Mr. Hasen Shehri
2317-14 E. Jolly Road
Lansing, MI 48910

Dear Mr. Shehri:

The purpose of this letter is to give formal permission for you to use the Educational Orientation Questionnaire in developing your dissertation.

I would appreciate a copy of your dissertation when it is complete.

Sincerely,

Herschel N. Hadley

APPENDIX C

MEANS AND STANDARD DEVIATIONS OF INDIVIDUAL PEDAGOGICAL AND ANDRAGOGICAL STATEMENTS

Table C-1.--Means and standard deviations of individual pedagogical statements.

Item	Statement	Mean	S.D.
1	Inservice education should focus on what is sure, reliable, and lasting.	2.517	1.044
3	Teachers need a strong facilitator who can direct their learning.	2.311	1.135
5	Learning is an intellectual process of understanding ideas (concepts) and acquiring skills.	2.028	.758
7	Being given examinations regularly motivates teachers to learn.	1.894	.808
9	It should be the facilitator's responsibility to evaluate teachers' achievement and assign grades.	3.956	.811
11	Competition among teachers encourages keen learning.	3.528	.971
13	A facilitator should help teachers accept values of our society.	3.367	1.041
15	Teachers tend to be much alike.	4.006	.931
16	It is a facilitator's responsibility to motivate teachers to learn what they ought to learn.	3.300	1.133
17	Clear explanation by the facilitator is essential for effective learning.	1.822	.694
19	A good facilitator makes the decisions about what should be taught when and how	3.428	1.099
20	A facilitator seldom needs to know the average teachers as separate individuals.	3.330	1.010
21	A facilitator should not change his/her expressed decisions without unusually good reasons.	2.950	.870
23	Inservice education programs should be evaluated by the same standards as other accredited programs of education.	3.310	.980

Table C-1.--Continued.

Item	Statement	Mean	S.D.
27	A facilitator should be sure his/her questions steer teachers toward truth.	2.670	.940
29	Most teachers are able to keep their emotions under good control.	2.460	.780
32	The major qualifications of a facilitator are grasp of subject matter and ability to explain (demonstrate) it clearly and interestingly.	1.930	.740
34	A facilitator should require assignments and grade them.	3.960	.750
37	Competition among teachers develops courage, determination, and industry.	3.490	.930
39	Inservice education should lead people to goals that result in orderly, reasonable lives.	2.680	1.010
41	Often teachers don't know what's best for them.	3.760	.990
42	When a facilitator makes a mistake, he/she is likely to lose teachers' respect.	3.900	.725
44	Teachers frequently "get off the subject" either intentionally or unintentionally.	2.817	.966
46	Letting teachers determine learning objectives wastes too much time in irrelevant discussion.	3.728	.746
48	Grades should reflect a teacher's grasp of the subject or skill taught.	3.428	.992
53	If a facilitator is not careful, teachers take advantage.	3.694	.992
54	Considering the possible effects on teachers, a facilitator should usually play it safe rather than take a chance.	3.789	.747
56	A facilitator who does not plan the work for a class carefully is taking advantage of the teachers' ignorance.	3.200	1.011

Table C-1.--Continued.

Item	Statement	Mean	S.D.
58	It is a good rule in teaching to keep relationships with teachers impersonal.	3.694	.826
60	Good teaching is systematic--set up a clear plan and schedule and stick to it.	3.967	.974

Table C-2.--Means and standard deviations of individual andragogical statements.

Item	Statement	Mean	S.D.
2	Inservice effectiveness should be measured by teachers' increase in examination of their own feelings, attitudes, and behaviors.	1.960	.900
4	It's hard to keep teachers from learning.	2.620	1.110
6	Effective inservice learning occurs most often when teachers actively participate in deciding what is to be learned and how.	1.890	.808
9	Organization of the content and sequence of inservice learning activities should grow out of teachers' needs, with their participation.	1.730	.655
10	The best sources of ideas for improving inservice education are the teachers.	2.050	.821
12	A facilitator by his/her behavior should show each teacher that his abilities and experiences and respected and valued.	1.639	.723
14	To see inservice education as transmittal of knowledge is obsolete.	3.689	.953
18	A facilitator's primary responsibility is helping teachers choose and develop their own directions for learning.	2.172	.883
22	Emphasizing efficiency in inservice education often blocks development of an effective learning climate.	3.117	1.309
24	Evaluation of achievement should be primarily a responsibility of the teacher since he/she has the necessary data.	2.400	.759
25	Competition among teachers develops conceit, selfishness, and envy.	3.333	1.093
26	A facilitator should discuss his/her blunders and learnings with teachers.	2.361	.844

Table C-2.--Continued.

Item	Statement	Mean	S.D.
28	Inservice educational objectives define changes in behavior which the teacher desires and the facilitator helps him/her undertake.	2.289	.801
30	Teachers are quite competent to choose and carry out their own projects for learning.	2.294	.760
31	A facilitator should help teachers free themselves of fixed habits and patterns of thought that block their growth.	2.189	.797
33	It is better for teachers to create their own learning activities and materials than for the facilitator to provide them.	3.100	.904
35	Use of a topical outline course plan often blocks a facilitator's perception of teachers' needs.	3.278	.872
36	An inservice education program should be evaluated only in terms of its own objective.	2.856	.969
38	A facilitator should provide opportunities for warm relationships with teacher and among teachers.	2.089	.886
40	Inservice education should increase teachers' critical evaluation of our society and courage to try new, creative, satisfying behavior.	2.400	.966
43	Maturity depends more on continuing growth in self-understanding than on growth in knowledge.	2.428	.859
45	Inservice education programs which tell what should be learned and how rarely help teachers learn.	3.233	.952
47	The primary concern of a facilitator should be the immediate needs of the teacher.	2.694	.885
49	Assignments by a facilitator tend to restrict teachers' significant learnings.	3.383	.807

Table C-2.--Continued.

Item	Statement	Mean	S.D.
50	Tests prepared by teachers are usually just as effective as those prepared by a facilitator.	2.511	.689
51	The goals teachers set for themselves are the basis of effective learning, not the facilitator's goals.	2.428	.833
52	A facilitator's mission is to help each teacher learn what he/she decides will aid him/her in achieving his/her personal goals.	2.306	.826
55	Without a cooperative climate encouraging teachers to risk and experiment, signifi- learning is unlikely.	2.278	.885
57	To use teachers' experiences and resources for learning requires group activities rather than such methods as lectures.	2.500	.829
59	Planning units of work should be done by teachers and facilitators together.	2.289	.780

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