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M.A. Thesis

'Andragogical Preferences of
Adult Basic Education Students:
A Test of Knowles' Model

Presented in Partial Fulfillment for the
Degree of Master of Arts in Education

Mary C. Mayer

November 1986



Mary C. Mayer, Ottawa, Canada, 1987.

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Abstract

Knowles (1970) theorizes that the andragogical approach is more appropriate for adult learners. The purpose of this study was to determine if Adult Basic Education (ABE) students prefer the andragogical approach. It was expected that the extent to which they would prefer the andragogical approach would be influenced by the age of the students, the type of program delivery that they were receiving, and the length of time that they had been in the program.

The research subjects were 89 ABE students who were registered in programs in three Eastern Ontario cities. The subjects ranged in age from 18 to 63 and were working at levels from one to eight. The 51 male and 34 female respondents had been in the programs for lengths of time varying from two weeks to 30 months. The three types of programs involved in the study were one to one tutorial, teachers and tutors in the classroom with the students, and one teacher with a group of students.

The 23 item questionnaire, developed for this particular study, included nine items to determine student preference for the andragogical approach. The nine items represented specific procedures recommended by Knowles (1980). Besides the andragogical preference items, questions on the organizational structure of the program were included.

A t-test comparing the observed mean to a mean representing no preference indicated support for the hypothesis that ABE students

prefer the andragogical approach. The respondents showed preference for mutual planning in the following areas: determining timetables, determining course content, and participating in group discussions. Also supported were Knowles' (1980) recommendations that adult education classes should include the use of audio-visual equipment and that adult educators should receive special training. There was an indication that the type of program influences the extent to which the students prefer the andragogical approach. There was no significant difference found for the extent to which present grade level or length of time in the program would influence the preference. In this investigation, the age and sex of the student did not influence the results.

Overall, the findings obtained from this student sample indicated a preference for the andragogical approach. However, the limitations of this research must be considered before the findings can be generalized. One limiting factor in the study is the low reliability of the measuring instrument. Also, there was no control over the possible influence teachers and tutors may have had on students when helping them complete the questionnaires. Finally, this study was conducted with a limited sample and did not include all types of ABE programs. To further test these findings, additional research should be conducted with an improved instrument and a larger sample.

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Introduction

Many adults in Ontario have less than grade nine schooling. It is estimated that 20% of the population falls within this category. Although upgrading programs are available, few people are enrolled. Perhaps existing programs do not satisfy the needs of functionally illiterate adults.

Practitioners in the field of Adult Basic Education (ABE) generally agree that the teaching approach for students must differ from the approach used with children. Because adults come to ABE classes in order to satisfy a specific need, programs should be organized in a manner that will allow maximum flexibility to meet these diverse needs. Many practitioners feel that ABE students can best be served through the andragogical approach.

Knowles (1970) believes that the andragogical approach is a learning approach designed specifically for adults. He states that the teaching methods used with children may not always be appropriate in adult education. The purpose of this study is to examine the reported preference of ABE students for the andragogical approach.

In chapter one, the andragogical approach advocated by Lindeman (1926) and Knowles (1970) is presented. This is followed by a report of the andragogy-pedagogy debate and the discussion of research relating to the use of the andragogical approach. The chapter concludes with the rationale and hypotheses for this study.

In the second chapter the research design is presented. Characteristics of the research subjects, a description of the measuring instrument, and methods used for data collection and data analysis are included. In the third chapter the results of the investigation are presented and discussed. The chapter concludes with recommendations and suggestions for further research.

Chapter I

Review of the Literature

This chapter is divided into four sections. In the first section the andragogical approach as outlined by Lindeman and Knowles is presented. Next, the andragogy-pedagogy debate is discussed. In section three research is presented which relates to the andragogical approach used in various teaching/learning situations. Finally the rationale and hypotheses for this study are presented.

The Andragogical Approach

Although research in andragogical methods is relatively recent, the andragogical model has been advocated for many years. Lindeman (1926) suggested four aspects of adult education that should be considered. He first stated that "education is life" and should not be seen as a preparation for the future. This form of ongoing education would continue throughout life. Lindeman called it "adult education".

Secondly, Lindeman (1926) presented the non-vocational ideals of education. He believed in the importance of education to improve a job-related skill. However, he believed that adult education should do more than help workers perform in the work place; it should put meaning into the whole of life. Lindeman saw adult education as an opportunity for workers to find meaning and joy in their lives. This was especially true of workers who could never express their

total personality while working with machines.

Thirdly, Lindeman (1926) stressed the problem-centered approach rather than the subject-centered approach to adult education. He stated that young students were required to adjust to an existing curriculum; rather, the curriculum for adult students should be built around their needs and interests. Later on, Houle (1961) identified three types of life-long learners: (1) the "goal-oriented" learners who use education to accomplish clear-cut objectives; (2) the "activity-oriented" learners who participate for reasons usually not connected to content (for instance, to socialize); (3) the "learning-oriented" people who learn for the sake of acquiring knowledge.

Lastly, Lindeman (1926) placed great importance on the learner's experience which he viewed as the most valuable resource in adult education. He believed that learning should be relevant to the learner's present life situation, and therefore should not consist of the presentation of someone else's experience. Lindeman stated that experience is a living textbook for adult learners. He saw adult education as a process which would enable learners to become aware of significant experience.

Lindeman's (1926) comments on adult education have greatly influenced educators. He stated that process rather than content should be the priority in adult education.

Knowles (1984), who personally knew Lindeman and regarded him as his "mentor", gives him credit for being the single most influential person in guiding his thinking. Since 1968, Knowles has popularized the term "andragogy" on the North American continent. Knowles (1970) developed an "andragogical model" which he defines as a system of assumptions about adult learners. Because the term "pedagogy" was derived from the Greek words "paid" (meaning "child") and "agogus" (meaning "leader of"), the word means the art and science of teaching children. Knowles (1984) explains that European educators have chosen the word "andragogy" to refer to adult learning. The Greek word "aner" means "man" or adult. The term is therefore defined as the art and science of helping adults learn. Knowles (1970) does not define andragogy as the art and science of "teaching" adults. In a similar vein, "mathetics" places its emphasis on learning rather than on teaching (Brundage and MacKeracher 1980, Kidd 1978).

In his earlier work, Knowles (1970) perceived andragogy and pedagogy as two distinct models: (1) pedagogy for children and (2) andragogy for adults. His beliefs initiated a debate that continued for almost ten years. Both practitioners and researchers cited examples of situations where andragogical and pedagogical approaches were applied outside their defined areas. Knowles (1980) now prefers to present the two models as being on a continuum. However, the andragogical model does possess five assumptions that clearly contrast

it to the pedagogical model.

In his first assumption, Knowles (1984) discusses the concept of the learner. He sees adults as being responsible for their own lives and as being self-directed. Adults have a tendency to resent having rules and regulations imposed on them. Yet, when placed in a learning situation, adults often revert to being dependent upon a teacher or trainer. Earlier educational experiences condition the adult student to play the role of the child student. Knowles argues if adults show self-direction in decisions concerning their daily lives, they must also learn to be self-directing in learning situations.

With the second assumption, Knowles (1984) looks at the experience that adults bring to the learning situation. Adult learners not only possess more experience than young learners, but they also possess experience of a different quality. Generally, adults perform roles that demand a greater commitment and responsibility than their younger counterparts. Adults derive their self-identity from their experience. If in the learning situation adults' experiences are ignored, then they are also being ignored as people.

In his next assumption Knowles (1984) maintains that adults learn in order to satisfy a particular need in their lives. As adults move from one stage of development to another, they naturally acquire a readiness to learn. However, readiness can also be fostered by providing adults with role models and involving them in career

planning advancement.

With the fourth assumption, Knowles (1984) places adults in a problem-centered orientation to learning. He believes that adults usually enter a learning situation in order to learn a specific task, solve a problem, or live in a more satisfying way. Therefore, the curriculum must evolve from present life situations. Some courses can not be taught directly from a textbook.

In his final assumption, Knowles (1984) considers adults' motivations to learn. For the most part, young students are motivated to learn by external pressures. Adults, on the other hand, tend to be internally motivated. Knowles believes that in present programs emphasis is being placed on helping adult students attain the outcomes that they are seeking.

Knowles (1984) sees the format of the pedagogical model as a content plan and the andragogical model as a process design. Knowles presents his process design in terms of seven elements.

In the first element, Knowles (1984) explains the desired climate setting of an andragogical learning situation. The physical environment must not suggest one-way transmission of knowledge from teacher to student. The preferred arrangement is a circular seating plan in a bright, cheerful room. The psychological climate is of prime importance. Students must feel respected and that their experience is valued. Participants in learning must be encouraged to collaborate

rather than compete. Learners are rich resources for each other and sharing knowledge can enhance the learning experience for all. The climate must be one of mutual trust, supportiveness, openness, authenticity, and pleasure. This includes providing for human comfort as well as a positive social and educational atmosphere.

Elements two to seven are descriptions of the participation of the students in the process design. The second element states that learners should be involved in mutual planning. Knowles (1984) believes that the learners will feel a greater commitment to a decision that includes their personal input. The third element involves participants in diagnosing their own need for learning. Knowles perceives a problem in attempting to combine the needs of which the learner is aware with the needs that are being ascribed to the learner by an organization or society. In elements four and five Knowles suggests that learners be involved in formulating their learning objectives and designing learning plans. With the sixth element, Knowles places the facilitator in the position of helping the learners carry out their learning plans. In order to facilitate the implementation of elements four, five or six, Knowles (1984) suggests the use of learning contracts. Finally, the learners are to be involved in evaluating their learning. The evaluation should also include judging the entire programme and not only the meeting of objectives by the learners.

Knowles (1984) explains that these assumptions are presented in their extreme form. Practitioners will sometimes need to incorporate the pedagogical model depending on the type of student and the learning situation. Knowles mentions that teachers and trainers working with learners in basic skills training programs seem to require the pedagogical model.

Lindeman (1926) and Knowles (1970, 1984) have presented the unique status of the adult learner. Both have identified adult learning as being relevant to present life situations rather than a preparation for some later activity. They have also urged that students' experiences play a greater role in the learning process. When Knowles (1970) presented his beliefs as the assumptions of the andragogical model, he succeeded in capturing the attention of educators. The debate that ensued is presented in part in the following section.

Andragogy and Pedagogy: The Debate

Since Knowles (1970) presented andragogy as an alternative approach to adult education, researchers and practitioners alike have engaged in a debate. They have questioned everything from the need for an adult teaching/learning methodology to the use of the term "andragogy". The comments of McKenzie (1977, 1979), Elias (1979), Knowles (1980), Carlson (1980), Rachal (1983), Yonge (1985), and Davenport and Davenport (1985a) are considered.

McKenzie (1977) sees the andragogy-pedagogy debate as stemming from two philosophies of education: the classical and the phenomenological. The classical position is supported by educators who believe that education is basically the same for people of all ages, no matter where or when the learning occurs. Because these educators believe that adults and children share the same human nature, the learning process is therefore the same for both age groups. For those who accept this philosophy, the existence of an andragogical model is unnecessary..

McKenzie (1977) believes that Knowles' andragogical assumptions best explain the phenomenological position. McKenzie outlines the assumptions and describes how adult learners change as they mature and accumulate experience. If educators accept phenomenology as being what is obtained through experience, they will then be willing to accept an andragogical approach to learning.

In his summary, McKenzie (1977) states his belief that a stronger philosophical base is necessary before the acceptance of andragogy increases. He credits Knowles with beginning the search for a model of adult education. McKenzie suggests that by introducing and defining the concept of andragogy, Knowles has begun conducting a phenomenological analysis of adult education.

Presenting an opposing view, Elias (1979) believes that there is no valid basis for distinguishing between andragogy and pedagogy.

He accuses adult educators of promoting the use of andragogy in an attempt to increase the professionalization of their field. Elias argues that the amount and quality of experience possessed by an adult is not sufficient reason to develop two distinct approaches. He feels that experience-centered education is just as successful with children as it is with adults.

Elias (1979) contends that children and adults learn by basically the same methods and therefore the educational process need not be different. He dismisses the assumption that adults are more problem-centered than children by stating that progressive educators have used the problem solving approach with children for years. Elias believes that the term "andragogy" is simply another term for progressive education.

Elias (1979) agrees with McKenzie (1977) that adults and children differ in some ways. He cites as an example that the physical and social characteristics of adults and children are obviously different. However, Elias (1979) reiterates his belief that there is no difference in the modes of learning and teaching for adults or children.

The comments of Elias (1979) provoked responses from McKenzie (1979), Knowles (1980), and Carlson (1980). McKenzie (1979) stresses the need for a philosophical understanding of andragogy. He explains that the existential differences between adults and children naturally demand different educational practices. McKenzie questions

Elias' comment that there are no "basic" differences between teaching and learning for children and adults. McKenzie (1979) interprets the term "basic" to mean mode of "being-in-the-world". He explains his meaning of "being-in-the-world" as follows:

Being-in-the-world refers to the way in which a person is attuned to the world, the way in which a person relates to the world, the way in which a person interprets self-in-the-world and acts intentionally in the light of this interpretation, and the way a person communicates with others. (p. 256).

McKenzie (1979) maintains that adults and children are different because of their different modes of "being-in-the-world". He adds that phenomenological analysis identifies the different modes. McKenzie therefore concludes that adults require an educational approach that relates to adult life.

McKenzie (1979) does not agree with Elias (1979) that andragogy and ~~progressive~~ education are synonymous. McKenzie states that andragogy represents an existentialist orientation towards education, while progressivism represents a pragmatic orientation. He believes that progressivism historically relates to childhood with emphasis on public school education, while andragogy stresses the adult and the non-traditional setting for education.

Knowles (1980) begins his response to Elias (1979) by commenting

on the need for further clarification in the field of adult education. He sees our society entrenched in the pedagogical model to the point where questioning the existing model is viewed as heresy. Knowles (1980) claims to have erred when he used the subtitle "Andragogy versus Pedagogy" in his book The Modern Practice of Adult Education (1970). He states that the term used should have read "From Pedagogy to Andragogy". He also believes that the assumptions should have been presented on a continuum. Knowles states that his assumptions are to be tested, not presumed. Some learning situations for adults may demand a pedagogical approach in the beginning. However, Knowles believes that a truly andragogical educator will provide the fundamental content needed, then will encourage the learner to become increasingly self-directed.

Carlson (1980) brings to the debate a political dimension and urges that a philosophical dimension be included. Carlson questions the right of educators in a democratic society to socialize or resocialize adults. While such a practice may be acceptable with children, it should not be permitted to continue into adulthood. Carlson believes that the chronological age recognized as adulthood can be set through political policy. When a member of society reaches the pre-determined age of adulthood, learning should shift from the pedagogical model to the andragogical model. However, he does not believe that the shift from one learning model to the next

must be abrupt or irreversible. Carlson explains that he is not suggesting that andragogy is only for adults and that pedagogy is only for children. In certain situations, both could be used effectively outside their age domain.

Carlson (1980) claims that andragogy also demands a philosophical dimension. He fears that some educators may employ the pedagogical model yet profess to be providing an andragogical approach. Practitioners would be professing to satisfy the political dimension of andragogy without feeling a strong commitment to the philosophical emphases of andragogy. Carlson explains that practitioners must view human beings as being basically good and capable of self-directed learning. Carlson places greater emphasis on facilitating rather than directing or motivating adult learners. By following the above principles and by respecting the humanity of the individual, Carlson believes that the philosophy of andragogy will be consistent with democracy.

Rachal (1983) not only sees andragogy as a superfluous approach, he objects to the introduction of the term "andragogy". He claims that the addition of the new term to educational jargon now makes the meaning of the term pedagogy obscure. Because Knowles' most recent comments allow that andragogy and pedagogy can be used with both adults and children, Rachal suggests that the word andragogy be eliminated. Instead, he suggests the use of the terms "self-directed"

and "teacher-directed".

Rachal (1983) also presents arguments to demonstrate that not all adults enter a learning situation voluntarily. If further education becomes synonymous with keeping a job, the motivation to learn may be external rather than internal. In such a case, the learner may profit from a teacher-directed approach. However, Rachal believes that even teacher-directed learning allows the student to make choices and to dialogue openly with the teacher. He also feels that professionally and ethically the educator is responsible for evaluation.

Yonge (1985) presents a different view of the andragogy-pedagogy debate. He believes that andragogy and pedagogy represent two ways of accompaniment. In a teaching/learning situation, either an adult will be accompanying a child or an adult will be accompanying another adult. Yonge states that in the first instance there exists a situation of pedagogy and that the second represents a situation of andragogy.

Yonge (1985) agrees that there are some qualitative differences in the ways that adults and children learn and in the ways that they are taught. However, if an adult is in a learning situation that utilizes the basic forms of play usually applied with children, the learning situation is still considered to be one of andragogy. Yonge states that even if all of Knowles' (1978) andragogical

assumptions were implemented in a child's learning, the situation would still be considered pedagogy because an adult is guiding the child. Yonge believes that Knowles' andragogical assumptions are not what distinguish andragogy from pedagogy.

Yonge (1985) professes that andragogy and pedagogy differ with respect to their aim. He states that a particular teaching strategy or mode of learning will have a different meaning in andragogy as compared to pedagogy. He explains that even though the content of a lesson may be the same for children and adults, the content is contributing to a different aim.

Yonge (1985) also discusses the structure of the relationship between the adult-child and adult-adult. He explains that trust, understanding, and authority that are present in a situation of pedagogy also exist in a modified form in andragogy. This is particularly true with the relationship of authority. When an adult seeks the help of an andragogue, the relationship of authority differs from the pedagogical situation. The adult student accepts andragogues as authorities if they possess the knowledge, expertise, and personal qualities that the student requires. Yonge maintains that in the adult-adult relationship, authority is not seen as dependency and obedience.

Yonge (1985) believes that the term andragogy can not be used as a synonym for "adult education". He feels that the term andragogy

should only be used in situations where one adult is assisting another adult to become more refined, productive, and knowledgeable.

Davenport and Davenport (1985a) comment on the andragogy-pedagogy debate. They state that Rachal's use of the terms "self-directed" and "teacher-directed" does not resolve the debate. They explain that while "self-directed" learning is one aspect of andragogy, it does not encompass all of the assumptions.

Davenport and Davenport (1985a) suggest some reasons for the existence of the andragogy-pedagogy debate. Many of the arguments focus on the usefulness and value of the term andragogy for adult education. Another problem appears to be the classification of andragogy. Is it a theory, a method, a technique, or a set of assumptions? Knowles (1980) states that his intention was to have his assumptions tested and not presumed. The debate may stem from the fact that adult educators are attempting to use the assumptions to satisfy the search for a theory, a method, and a technique. If this is the case, the andragogy-pedagogy debate may be merely an argument over terminology.

Finally, the different philosophical orientations of practitioners lead to either acceptance or rejection of the concept of andragogy. The solution to these uncertainties lies in further research. Some of the recent research in the andragogy-pedagogy issue is outlined in the following section.

Research Studies of the Andragogical Approach

As the andragogy-pedagogy debate continues, research is being conducted with adult learners and educators to determine if a preference exists for one of the two approaches. Researchers are developing orientation questionnaires in order to classify adults as having an andragogical or pedagogical orientation to learning and teaching. In effect, many of the researchers are examining the validity of Knowles' andragogical assumptions.

Davenport and Davenport (1985b) report on some recent research and recommendations on the issue of andragogical and pedagogical orientations of adult learners. One study mentioned by Davenport and Davenport was conducted by Grubbs (1981). Grubbs studied 122 faculty and 332 students in 20 midwestern schools of theology. He found that female faculty members were more andragogical than the males. Davenport and Davenport warn that the correlational studies do not prove causal relationships and that because of the limited sample generalization to all adult learners must be treated with caution. Davenport and Davenport state that since results do not show groups of learners as entirely andragogical or pedagogical, adult educators should consider a combination of andragogical and pedagogical techniques. Other recommendations suggest that adult educators be aware of differences in educational orientation, know how to use orientation instruments, and consider using a more

andragogical approach with female students. Finally, they encourage all educators to remember that research in andragogy is relatively new and to remain informed of research developments in the field of andragogy.

Another study critiqued by Davenport and Davenport (1985b) was conducted by Van Allen (1982). Using the Educational Orientation Questionnaire (EOQ) developed by Hadley (1974), he surveyed 40 faculty members and 488 students in community colleges in an attempt to determine an andragogical or pedagogical preference. The 50 statements on the questionnaire are arranged using a five point Likert-type scale ranging from "almost always" to "almost never". Andragogical-orientation statements are scored from 5 for "almost always" to 1 for "almost never". Reverse order scoring, 1 for "almost always" to 5 for "almost never" is used on pedagogical-orientation statements. A high score represents the respondent as andragogical while a low score represents the respondent as pedagogical. With a range of possible scores from 50 to 250 a score below 150 is considered pedagogical. Other orientation scales may vary slightly; however, most are basically the same.

Van Allen (1982) claims that students' and faculty's education preferences could best be described as neutral though showing a slight preference for pedagogy. However, full-time younger female and married students had higher andragogical scores. Van Allen also

reported higher andragogical scores for younger female instructors with higher education attainment and more courses in adult education. Van Allen's findings suggest that sex and exposure to different types of programs may affect the results.

Holmes (1980) surveyed adult educators to determine their pedagogical or andragogical orientation to teaching and to identify selected interpersonal behaviours of the adult educators. He hoped to determine the relationship of these behaviours to andragogical and pedagogical orientations. He also wanted to determine if the interpersonal behaviours utilized by those with an andragogical orientation differed from the interpersonal behaviours utilized by those with a pedagogical orientation.

Holmes (1980) sent a total of 300 questionnaires to university faculty and cooperative extension service personnel identified as experienced adult educators. One hundred and sixty-seven subjects returned questionnaires. The two instruments used by Holmes were the EQQ, similar to that used by Van Allen (1982), and the Fundamental Interpersonal Relation Orientation Behaviour Scale (FIRO-B). The FIRO-B measures the relationship between educational orientation and interpersonal behaviour. Holmes concludes that adult educators possess differences in beliefs and attitudes about education and effective learning situations. Holmes believes that his results support the contention that the different beliefs and practices among

adult educators can be either andragogically or pedagogically inclined. Holmes prefers to see andragogy and pedagogy as extremes on a continuum. He believes that factors such as the nature of the learners, the purpose of education, or the characteristics of the learning process may necessitate a combination of andragogical and pedagogical techniques.

Beder and Darkenwald (1982) studied educators in public schools and colleges who taught both adults and pre-adults. A self administered questionnaire was used to collect the data, and 27 of the 173 respondents were also interviewed. The researchers felt that teachers believed that there were differences in adults and pre-adults as learners, and that these beliefs would obviously affect teacher behaviour.

Beder and Darkenwald (1982) measured differences in teaching behaviour, the teachers' perceived differences in teaching and learning characteristics of adults and pre-adults, and different ways teachers believe adults and pre-adults should or should not be taught. They reported that teachers do perceive adult and pre-adult students differently and teach them differently. The educators in this study perceived adults as more intellectually curious, more concerned with the practical applications/implications of their learning, more motivated to learn, less confident in the ability as learners, more willing to take responsibility for their own learning,

clearer about what they want to learn, more willing to work hard at learning, and less emotionally dependent on the teacher.

When teaching adults, as opposed to pre-adults, teachers made greater use of group discussions, spent less time on classroom discipline, varied their teaching techniques more, spent less time giving instructions, related class material more to student life experiences, structured instructional activities less tightly, made more adjustments in instructional content in response to student feedback, and provided less emotional support for individual students. The educators in the study found their adult students to be more motivated, serious, and self-directed than the pre-adult students.

Beder and Darkenwald (1982) explain that it was not their purpose to test Knowles' andragogical assumptions. However, the suggested teaching methods that were obtained through extensive interviews with teachers do resemble Knowles' statements on characteristics of adult learners. The research does support Knowles' andragogical assumptions concerning the differences between adults and pre-adults as learners.

In contrast to Holmes (1980) and Beder and Darkenwald (1982) who studied the teachers' orientations, Briggs (1982) attempted to establish the preferred teaching/learning strategies of students. She collected the information by means of a questionnaire sent to administrators enrolled in higher degree programs in South Australia.

Five hundred and sixty-five questionnaires were returned. Opinions were also solicited from students from 35 countries who were attending the International Institute for Educational Planning in Paris. Forty-four questionnaires were obtained. The results from Australia and Paris were compared and the responses from both groups were compared to recommended strategies based on andragogical theory. Students classified eighteen teaching/learning strategies as being "recommended", "essential", or "inappropriate". Ten of the eighteen were strategies recommended by andragogical theory. The ten andragogical strategies listed were: (a) seminars at which students present papers and discuss them, (b) seminars at which students' own relevant work experiences are discussed, (c) workshops, (d) practical projects, (e) case studies, (f) use of simulation, (g) individual projects, (h) group projects, (i) student participation by designing courses, and (j) self-assessment.

Although most of the strategies preferred by the students were like the recommended andragogical strategies, the respondents rated the strategies as "recommended" and not as "essential". One of the strategies, "self-assessment", was regarded as inappropriate by both groups. In andragogical theory this form of evaluation is suggested because it presents a non-threatening learning situation for the adult student. Generally, Knowles (1970) does not favor the use of lectures in the andragogical approach; however, respondents accepted

this teaching method as a valid strategy. Briggs (1982) does not conclude that the above findings disprove the validity of andragogical theory. A possible explanation may be a reluctance on the part of the respondents to accept an unfamiliar teaching/learning strategy. Although the ten andragogical strategies were not seen as "essential", the Austrian group recommended six of the ten and the Paris respondents recommended nine of the ten strategies. Besides self-assessment, other strategies not recommended by the Australian respondents were (a) workshops, (b) use of simulation, and (c) group projects.

Diflo (1982) attempted to implement the andragogical model with eight adult Aboriginal students who chose to participate in a study tour of the Kakadu National Park in Australia. The planning and implementation of the tour stressed "process" rather than "content". The learning climate was relaxed and comfortable and students were encouraged to formulate their objectives and organizational needs for the tour. Initially, the instructor was often called upon to guide the group. Diflo feels that this supports Knowles' belief that some adults have difficulty accepting a self-directing role. Because of administration policy at the college, the lecturer must evaluate the students and assign a grade. However, students were asked to evaluate themselves and their grade was compared to that of the instructor. The evaluations coincided in five out of eight cases.

Lam (1985) designed his study to test the validity of andragogy

as a theory. He believed that knowing the ideal learning experience of the adult student would help determine to what extent andragogical principles were the desired learning process for these students. By examining the difference between the ideal learning experience and the actual learning experience, Lam hoped to determine how much teaching at the post-secondary level supports the andragogical principles. His sample consisted of students at the university and college levels in Western Manitoba. Lam developed a questionnaire that focused on two types of learning experiences: (1) the learning experience that the students hoped to have, and (2) the learning experience that they did have.

The questionnaire was comprised of 15 andragogical principles. The researcher requested information on age, sex, level of formal education, and program or area of specialization. Of 500 questionnaires distributed to university students, 366 were returned and of 500 sent to community college students, 374 were returned.

Discrepancies were found between real and ideal learning experiences for both the universities and the colleges and in all programs surveyed. Lam (1985) reported that adults with a higher level of education wanted their learning to be more life-centered and less subject-centered. They valued self-evaluation and wished to be involved in developing criteria for assessment. Lam found that these results did not apply to students in the Basic Education programme

(having only elementary school education) and the Special Mature program (having Grade 12 education) at the community college. These students tended to agree with the teacher-structured instructional mode. Lam reports that adult learners wish to be "more" involved in the planning, organizing, delivery, and evaluation of the learning situation. However, they do not express a desire for "complete" partnership in the process.

Fellenz (1982) studied the different stages of self-directed learning in ABE students. Sixty-five learners ranging in age from 18 to 96 were interviewed. Fellenz presents three factors that contribute to growth in self-direction: modelling, self-concept, and perception of reality. Fellenz states that some teachers encourage students to be dependent in order to obtain quicker and more effective learning. However, he feels that this approach achieves only short-term results. The student has not learned how to learn, that is, meta-learning. Meanwhile, students who wish to attempt self-directed learning should be encouraged to experiment in a non-threatening atmosphere in the classroom. Many of those interviewed spoke of teachers who offered challenges, increased self-confidence, were flexible, and let them learn.

Kratz (1980) also researched self-directed learning with ABE students. He studied ten ABE programs in New York State. He examined the students' preferences for self-directed learning and the relationship

of the preference to stipending of students, their drop-out rate, and their level of achievement. His findings indicated that students registered in programs that fostered self-directed learning preferred self-directed learning. A positive relationship, although not significant, was found between the extent to which a program fostered self-directed learning and the length of time students remained in the program. No relationship was discovered between preference for self-directed learning and level of achievement and stipending. Kratz claims that these findings support Knowles' assumption that adults see themselves as being self-directed.


An increasing number of practitioners are implementing the andragogical approach in a variety of settings such as business, industry, universities, continuing education for the health professions, religious education, and remedial education (Knowles, 1984). The latest Unesco Report (1985) provides an extensive list of recommendations for the area of adult education. One recommendation is that the role of adult education be defined in terms of the needs of the individual and society. Also recommended is that the development of adult education activities relate to peoples' daily, concrete needs. The document also provides support for granting adults a greater role in curriculum choice and definition, counselling, research facilities, scheduling, and evaluation.

The amount of empirical research in the field of andragogy is

steadily increasing. Presently, researchers have not provided indisputable findings in favor of the andragogical approach; however, they have shown that adult learners possess educational needs and characteristics not present in children.

There is definitely a lack of research on the use of andragogical methodology with ABE students. Traditionally, there is a presumption that adults who cannot read are unable to make decisions about their learning. Yet many of these adults lead successful lives and often find themselves in decision-making situations. When making recommendations for the illiterate adult, the Unesco (1985) document encourages its member states ". . . to give the motivations and wishes of illiterate persons themselves due importance in order to stimulate their abilities and ensure their positive participation in the common endeavour;" (p. 58). It is suggested that illiterates are among those who are most likely to suffer economic deprivation. It also recommends that the world experiences of those participating in literacy education be considered for the benefit of all. This recommendation supports the andragogical approach as outlined by Knowles (1984). As more practitioners and learners advocate the andragogical approach, the possibility of applying this approach to ABE students must be considered.

Rationale and Hypotheses

ABE students need not be totally dependent learners. They have real-life experiences to build on, a readiness to learn and, in some cases, an immediate application for their learning. They have decided to improve their reading and writing skills in order to satisfy a personal goal. They are able to provide input and to work with the teacher to develop a program that best suits their needs. Research generally has shown that where self-direction is fostered, self-direction is preferred. Each ABE student must be considered individually. There is a need for educators to be aware of the ABE student's role outside the classroom setting. The student may possess a positive self-concept as a spouse, parent, or employee. However, since ABE students tend to equate their past learning experiences with failure, they may have a low self-concept as students. In the literature many variables are identified which affect a learner's preferred learning approach. Although ABE students have the ability to express their preference for scheduling, mode of delivery, and classroom organization, initially they may be reluctant to do so. From the above it seems reasonable to hypothesize that ABE students prefer an andragogical approach rather than a pedagogical approach to learning. 

It is hypothesized that the grade level of the ABE students will affect the degree to which they prefer the andragogical approach. It

is expected that students who are working below the grade four level will have a greater dependency on the teacher than those who are functioning at the grade seven and eight levels.

It seems reasonable to further hypothesize that the type of program delivery that the students are receiving will influence the degree to which they prefer the andragogical approach. Students in a one to one instruction situation may display less of a tendency for an andragogical approach than those who are in programs with only one teacher for the entire class. The students who are working in a less individualized situation may have learned to be more self-directing because the teacher is not always available. Kratz (1980) reports that students who were in programs that encouraged self-directed learning preferred that approach. This also supports the argument that the type of program influences the students' preferences.

Finally, it is hypothesized that students who are in the program longer will show a greater preference for the andragogical approach. It is expected that after a period of time students will become more relaxed and will participate to a greater degree in the decision-making process. Research conducted outside the area of ABE suggests that the relationship of age and sex to student preference be investigated. Research by both Van Allen (1982) and Grubbs (1981) indicated that younger people and females preferred the andragogical approach. Younger students may have been exposed to a teaching

methodology that did not exist when older students attended school.

The curriculum for all levels of education now encourages group work, presentations, and greater student input.

The research methods are described in the following chapter.

Chapter II


Research Design

The research design is presented in this chapter. First the characteristics of the research subjects and their selection are discussed. This is followed by a discussion of the measuring instrument which is a 23 item questionnaire developed for use in this study. Included in this discussion are a brief description of the instrument, the rationale for the selection of the items on the questionnaire, and an explanation of how instrument validity was verified. The chapter concludes with an explanation of the methods used for data collection and data analysis.

Research Subjects

The research subjects were 89 adults enrolled in adult literacy programs and who were reading and writing below a grade 9 level. These adults are not classified as mentally retarded and they do have the ability to acquire or improve reading and writing skills. The students were registered in four different programs in three cities in Eastern Ontario. The age range was from 18 to 63, and of this sample 34 were female and 51 were male.

All the programs emphasized the same basic reading and writing skills; however the mode of delivery differed slightly. Basically, three types of instruction were employed. One type was one to one tutorial. In this case a tutor met a student for several hours a



week in a location other than a classroom. A second type of program was one to one tutorial in a classroom setting. Teachers and tutors circulated in a classroom working with the students on an individual basis. In this type of program the students were receiving individualized help, but others were present in the same room. The third type of delivery was group instruction. One teacher was responsible for a fairly homogeneous class of students who were taught as a group but may have had individualized help as well. Not only was it necessary to survey the four centers in order to obtain research subjects from different types of programs, but also to ensure a sufficient number of respondents. Although Thomas (1983) claims that 25% of Ontario residents have less than grade 9 education, the majority of these people never register in adult upgrading programs.

The Measuring Instrument

It was thought that the EQQ developed by Hadley (1974) was inappropriate for ABE students. The length and content would discourage students who are unable to read. Therefore, a questionnaire developed by the researcher was used to collect data for this investigation.

Obtaining information through an interview method was eliminated for two reasons. First the geographical area covered by the three centers would make it difficult to meet and interview each student within a limited time. The second reason relates to the character of many ABE students. The students are often reluctant to discuss

their lack of literacy skills with a stranger. For these reasons the questionnaire was chosen as the measuring instrument. It could be distributed easily to outlying areas, and students could complete it in a relaxed, familiar setting and retain their anonymity.

An attempt was made to write the questionnaire at a relatively low reading level in order that students who read and comprehend at a grade 5 level or beyond would be capable of answering many of the questions personally, and would perhaps require help with only a few of the words. However, because of the low reading level of some students it was anticipated that the assistance of a teacher or tutor would be required. Therefore total anonymity was not possible and could have influenced the results. Illiterate adults may not be accustomed to expressing their opinions on educational matters. They may want their preferences to remain private and not to be shared with their teacher or tutor. Therefore, asking a functionally illiterate adult to complete a questionnaire with the help of a tutor, a teacher, or a friend must be handled in a way that will not intimidate the student.

At the beginning of the questionnaire, students were requested to provide relevant demographic information. They were asked to provide their approximate grade level, the type of program delivery they were receiving, the length of time that they had been in the program, their age and sex.

The remainder of the questionnaire (see Appendix A) consisted of a total of 23 items divided into three sections. Part A included questions each followed by lists of choices; the students were asked to select the choice that best supported their opinion. Students could choose more than one option or supply an additional response on the space provided below each question. Students were told that they could add personal comments or explanations after any of the items. Part A included questions relating to preference for course location, for the organizational structure of the program, and for student participation in program planning. Part B was made up of questions that required a yes or no answer. Students were asked their preference for specific teaching procedures and the relevance of particular teaching aids. Again, the students could provide comments or explanations after the questions. Part C consisted of a series of open-ended questions. In this section of the questionnaire students' opinions were solicited on the structure and focus of ABE programs. The information in this section is of particular interest to practitioners and program developers.

Of the 23 questions, nine related to student preference for or against an andragogical approach. The nine item Andragogical Preference Scale (APS) was used as the dependent variable. The items tested student preference for the following:

Item 1: Physical organization of the classroom.

Item 2: Who determines student's timetable.

Item 3: Who determines course content.

Item 4: Student self-evaluation.

Item 5: Students choosing books or stories.

Item 6: Group discussions.

Item 7: Student presentations to the class.

Item 8: Use of AV equipment.

Item 9: Special training for instructors.

Items one to item nine correspond to items three, seven, and eight in Part A and items one, two, three, four, six, and nine in Part B of the questionnaire. Item 1 was used to determine if a relationship existed between Knowles' preferred setting for adult education and the preference of the ABE students. Items two, three, and five were inserted to determine the degree to which the students preferred to be involved in mutual planning with the teacher. Knowles (1980) feels that adult educators should involve the learners in setting learning objectives. ABE students may be interested in one specific application of the newly acquired reading and writing skills. For example, the goal may be to read and complete forms, to read recipes and directions on cans and boxes of food, or to read magazines and newspapers. Only through mutual planning can the teacher help the students reach their individual goals.

Knowles (1980) believes that students should be helped to develop

and apply self-evaluation procedures. Item four requires the students to approve or disapprove of these procedures. Knowles also encourages teachers to help students make use of their own experiences as resources for learning. He suggests the use of such methods as role playing, case studies, and discussions. In items six and seven, students were asked to state their opinions on discussions and presentations in ABE classes. Knowles urges educators to make use of the wide variety of audio-visual aids that are available. Therefore, in item eight, students were being asked if they feel that there is a need for the use of audio-visual equipment in an ABE program. Knowles (1978) encourages program planners to train their teachers. He feels that most teachers and trainers know only the pedagogical approach because that is how they were trained. In item nine, students were asked if they feel that teachers and tutors of adults should be given special training.

For item one, if the students chose the traditional setting of individual desks or study carrels, the response was not considered andragogical. If they chose a more open setting with tables and chairs, the response was coded andragogical. A response of "teacher only" for items two and three indicated no andragogical preference, while an answer of "student and teacher together" was perceived as being andragogical. If the students approved of the strategies outlined in items four to eight, their answers were coded andragogical.

They were considered to prefer the andragogical approach if they believed that teachers and tutors of adults should receive special training. It was planned to sum scores from the nine items to create a measure of andragogical preference (APS) with possible scores ranging from zero to nine.

Besides the nine questions on the APS, two additional questions were included to determine if there was further support for Knowles' (1980) beliefs. First the students were asked to state why they were taking the program. Students could check one of the possibilities provided, or state a personal reason that was not listed. The information from this question was to be used to test the andragogical assumption that adults have an immediate application for their learning. In the second question, respondents were provided with the opportunity to list the characteristics they believed were necessary to be a good ABE teacher or tutor. The answers were compared to the characteristics recommended by Knowles (1980).

After the questionnaire was developed, the contents were discussed with teachers who have advanced degrees in the area of adult education. Next, co-ordinators and teachers, who are presently working with ABE students, were asked to comment on the questions and format. It was important to determine if the questions reflected Knowles' theory and applied to ABE students. Minor modifications were made to the wording in some items to clarify the intent of the questions. Finally

the questionnaire was thought appropriate for use with ABE students.

The original questionnaire was pre-tested with seven students who were assisted by five different tutors and one program co-ordinator. After completing the questionnaire, everyone was interviewed in order to determine if the questionnaire would provide the desired results. Students found the items self-explanatory and simple to answer. The tutors and co-ordinator who helped with the pre-test felt that students were not confused by the questions and had very definite opinions about most of the items in Parts A, B, and C. Most students reported that they enjoyed the process of providing information about the program.

Originally it had been planned to use a 25 item Self-Disclosure Questionnaire taken from Jourard (1971) to test the level of self-disclosure of the ABE students. The results of the Self-Disclosure Questionnaire were to be used to determine if a relationship existed between self-disclosure and preferences for the andragogical approach. ~~This 25 item questionnaire was included in the pre-test with Parts A, B, and C.~~ Tutors reported that the students became apprehensive and hesitant when confronted with the self-disclosure questionnaire. In many cases the students did not feel comfortable answering the questions even though they were not required to disclose any personal information. This section of the questionnaire was eliminated after the pre-test.

Another area of confusion in the pre-test was the demographic question relating to the type of program that the student is presently following. Some students were not aware that different types of programs existed and others were uncertain how to explain their particular mode of delivery. This problem was rectified by including an explanation to the tutors and teachers in the cover letter. Teachers and tutors were asked to provide the student with the necessary information.

Method of Data Collection

One hundred and twenty-five questionnaires were mailed or delivered to teachers or program co-ordinators in each of the four centers. It was anticipated that this number of questionnaires would supply each student reported to be enrolled in the programs. A total of 89 were returned. In the three centers where the questionnaires were distributed in a classroom setting, the students who were present at the time completed and returned the survey. Perhaps the time of year that the questionnaires were circulated accounts for the low number of questionnaires completed. Attendance was high in January and February when permission was sought to circulate the questionnaires, but may have dropped before they were distributed in March. In late spring many ABE students find summer work or return to seasonal jobs. This usually creates a drop in enrollment or a fluctuation in daily attendance.

In the one to one tutorial program, the co-ordinator forwarded the questionnaires to the tutors. Only 11 of the 25 questionnaires were returned by the deadline. Either the questionnaires did not reach the students, or they were not willing to complete the survey.

When possible, questionnaires were completed by the students themselves. In most cases, teachers or tutors read the questionnaires with the students. It took each student an average of 15 to 20 minutes to complete the survey. Questionnaires were circulated and returned during the months of April to July. In all programs, students had been studying for varying lengths of time.

Method of Data Analysis

To test the first hypothesis, it was proposed that a t-test be performed to determine whether the mean on the APS would be larger than the hypothesized value (the midpoint of possible scores). The mean scores on the nine-item APS were to be compared using one-way analyses of variance with type of program, grade level, and length of time in the program as the independent variables. In addition, differences for andragogical preference by age and sex were to be examined using analyses of variance. The level of significance was set at 0.05. The results are presented and discussed in the following chapter.

Chapter III

Results and Discussion

The results of the research are presented and discussed in this chapter. First, demographic information relating to the research subjects is discussed. Next the reliability of the APS is presented, followed by the presentation and discussion of the results. The chapter concludes with recommendations and suggestions for further research.

Demographic Data

Demographic information is presented in Table 1 (see following page). The majority of the students have been participating in the program for four months or less. This information appears to support the tendency towards a high drop-out rate among ABE students in programs across the province.

There is a fairly even spread of students for ages 18 to 39. However, there are fewer students over 40 registered in the programs. Perhaps older illiterate adults have learned to cope with low reading and writing skills and do not feel compelled to return to school.

The demographic information also indicates a higher number of male students in this sample. Thomas (1983) states that in Ontario there are more women than men with low levels of schooling, yet less women are registered in ABE programs. Possibly more men attend ABE classes in order to improve their chances of obtaining a job or to

Table 1:
Demographic information relating to the research subjects.

Variable	Category	N
Time:	4 months or less	45
	5 to 8 months	19
	over 9 months	19
	no response	6
Age:	18 to 24	26
	25 to 29	20
	30 to 39	23
	40 to 63	14
	no response	6
Sex:	male	51
	female	34
	no response	4
Program type:	one to one tutorial	11
	classroom with teachers and tutors	40
	classroom with one teacher	29
	no response	9
Grade level:	1-2-3	15
	4-5-6	23
	7-8	28
	no response	23

improve their present job status. Illiterate women may not feel as urgent a need to enter the work market, or they may already be there working as unskilled labour.

It was difficult to obtain an even distribution of subjects for type of program. Smaller centers offer programs that best suit the needs of the illiterate adults in the community. Therefore programs vary from one area to the next. Only 11 of 25 questionnaires were returned from the one to one tutorial program. The small sample size may not truly reflect the opinions of this group.

Of the 66 respondents who reported their grade level, only 15 indicated that they were working below a grade four level. The distribution of subjects in the section on grade level is not surprising. Thomas (1983) reports fewer adults with less than grade five and a higher percentage of adults with grades six to nine. It is interesting to note the numerous cases of non-responses for grade level. Students were perhaps too self-conscious to disclose their grade level, or they may be uncertain of their present level.

Reliability of the APS

Since this was the first usage of the APS, it was necessary to establish its reliability. Internal consistency was determined using alpha (KR-20) and the results (alpha = .27, N = 66) indicated a lack of reliability for the APS. Because item one was negatively correlated with the sum of the other eight items and contributed to the lack of

reliability, it was decided to drop it from the APS. In item one students were to indicate their choice of classroom seating arrangement. Many respondents omitted the question or simply stated that the issue was not important. Other students chose all the possibilities also indicating their lack of preference. These results are perhaps related to the character of ABE students. They would like privacy because of fear of ridicule, yet they possess a need to socialize and be accepted. Finally, item one was measuring a preference for physical setting and not a preference for shared participation in program planning and delivery.

A further problem existed because any questionnaires containing missing data were not being included in the data analysis. In order to improve the number of responses, adjustments were made to the questionnaires containing the missing data. For each individual with missing values, the recorded responses to the items with non-missing data were examined. For those individuals with one or two missing values, either a zero (no andragogical preference) or a one (andragogical preference) was substituted if there was a clearcut preference on the other items either for or against the andragogical approach. The reliability of the eight-item APS was still weak ($\alpha = .44$, $N = 84$). However it was decided to use the eight-item APS in testing the hypotheses.

Results and Discussion

Each hypothesis was tested in the null form followed by a discussion of the findings. In the first hypothesis it was predicted that ABE students prefer an andragogical approach. In order to test this hypothesis, a t-test was used to compare the observed mean to a hypothesized mean. The observed mean was 5.52 with a standard deviation of 1.50. Because the APS consisted of eight items, a hypothesized mean of four was chosen. A mean of four would indicate no preference for or against an andragogical approach. The observed mean was significantly higher than four ($t(83) = 7.16, p < .05$). These results showed support for the hypothesis. Further, to study student preferences, for each of the eight items a chi-square test was done to determine if a greater proportion of the students preferred the andragogical approach. For the purpose of this test, item one was included. These results are shown in Table 2 (see following page). The chi-square test showed significant results for six of the nine items. However, results on only five of the items supported the hypothesis. Although the results for item four are significant, they do not indicate a preference for andragogical approach. The majority of the students do not support self evaluation. Possibly they have a need for teacher approval in order to assure them that they have progressed. ABE students may lack the confidence to evaluate their own progress because of past failures in their academic endeavours.

Table 2:

Results of chi-square test to determine students' preference for each of the nine items measuring andragogical preference

Item	Chi-square
1. Classroom organization	$\chi^2 (1, N = 72) = 0, p > .05$
2. Determining timetable	$\chi^2 (1, N = 86) = 50.0, p < .05^*$
3. Determining course content	$\chi^2 (1, N = 87) = 34.78, p < .05^*$
4. Self-evaluation	$\chi^2 (1, N = 88) = 24.04, p < .05^*$
5. Choosing books and stories	$\chi^2 (1, N = 86) = .74, p > .05$
6. Group discussions	$\chi^2 (1, N = 86) = 44.7, p < .05^*$
7. Student presentations	$\chi^2 (1, N = 85) = 3.40, p > .05$
8. Use of AV equipment	$\chi^2 (1, N = 85) = 28.24, p < .05^*$
9. Training for teachers and tutors	$\chi^2 (1, N = 87) = 24.04, p < .05^*$

* Significant at the .05 level.

Because of their lack of reading and writing skills, they may not trust themselves to assess improvement in this area. They may also support the premise that only a teacher can judge what is or is not effective. Lam (1985) reported that adults who were studying in a basic education program did not approve of self-evaluation, but adults with a higher level of education did approve. Briggs (1982) surveyed administrators in higher degree programs and reported that respondents viewed self-assessment as an inappropriate teaching strategy. Thus, dislike of self-evaluation is not confined to ABE students. It is apparently a strategy that students at many levels of education find difficult to accept.

On the other five items, the results indicate that ABE students do want to actively participate in their learning. They wish to be involved in determining program timetabling, selecting course content, and sharing in discussions and presentations. These findings do not correspond with results reported by Lam (1985). He found that students in basic education programs in community colleges preferred a teacher-structured instructional mode. However, the results support Knowles' (1980) belief that adult learners do want to be actively involved in program planning. Knowles (1984) mentions that a pedagogical approach may be necessary with adults working in basic skills training programs. It is interesting that adults working on basic skills in English have shown a preference for the andragogical

approach. Perhaps ABE programs contain the flexibility that allows for student input, while other basic training courses do not. For example a student who is learning to operate a specific piece of equipment may be totally dependent upon the instructor to teach the operational procedure.

The ABE student in this sample also approved the use of audio-visual equipment and specialized training for teachers and tutors of adults. The respondents favor the recommendations of Knowles on these two matters. The overall results support the hypothesis that ABE students prefer an andragogical approach.

A one-way analysis of variance using the APS scores as the dependent variable was used to test the second, third, and fourth hypotheses. In the second hypothesis it was predicted that the grade level of ABE students affects the degree to which they prefer the andragogical approach. The grade levels were divided into three groups: grades 1 to 3, grades 4 to 6, and grades 7 to 8. The mean and standard deviation are reported in Table 3.

It was noted that the mean does increase slightly from the lower to the higher grade levels. However, when an analysis of variance was used to test for difference among the means, no significant differences were found ($F(2, 60) = .08, p > .05$). Because of the low reliability of the APS, it was decided to do a chi-square test

Table 3:

Mean and standard deviation on the APS for grade level.

Grades	N	M	SD
1-2-3	15	5.23	1.33
4-5-6	23	5.37	1.58
7-8	25	5.48	1.78

using each of the eight APS items with grade level. In addition, item one (physical organization of the classroom) which was originally omitted from the APS, was included. There was no significant relationship with grade level found for any of the nine items. Apparently grade level does not affect preference for andragogical approach. Perhaps this could be explained in terms of the students' goals. For the most part, participants are taking the program in order to improve their reading and writing skills or in the hope of someday obtaining a high school diploma. If goal is a priority to the students, their dependency on the teacher may be less even at a low grade level. Naturally, the students will depend on the teacher for basic academic instruction. However, these students may still prefer to be involved in the decision-making process because they have set their own personal learning goals. Because the results show that grade level does not influence the students' preference for an andragogical approach, the second hypothesis is not supported.

In the third hypothesis it was predicted that the type of program delivery that students are receiving influences the degree to which they prefer the andragogical approach. For the purpose of analysis, the students were divided into three groups: one to one instruction, teachers and tutors working with students in a classroom setting, and one teacher working with a group. Many of the students in the third group were working on individualized programs. The means and

standard deviations are reported in Table 4 (see the following page).

The results indicated a significant difference at the .05 level ($F(2, 70) = 3.41, p < .05$). Post hoc, the Tukey-Kramer modification of Tukey's HSD was used to compare all possible pairs of means.

Group three was significantly higher on andragogical preference than group two. The other two pairs did not differ significantly.

Further analysis using chi-square on the nine item APS indicated significant differences for items six ($\chi^2(2, N = 77) = 12.07, p < .05$) and seven ($\chi^2(2, N = 76) = 10.61, p < .05$) only. The results are shown in Tables 5 and 6 (see the following page).

Students who are studying in group situations reacted more favorably to group discussions and class presentations. The students in the other two types of programs were less interested in these two teaching approaches. Students who are studying with one tutor or with several tutors in a classroom have less of an opportunity to become involved in discussions or presentations. For this reason, they may be reluctant to advocate this teaching approach. While they feel confident enough to participate in the decision-making process with their teachers, they may not possess the self-confidence to participate openly with other students. It is interesting to note that the greatest difference in choice was for class presentations. Obviously, group discussion is a less threatening situation for the ABE student. Although differences are not significant on the other

Table 4:

Means and standard deviations on the APS for type of program.

Group	N	M	SD
1. One to one instruction	10	5.40	1.17
2. Instructors in a classroom	39	5.00	1.58
3. Teacher with one group	26	5.98	1.37

Table 5:

Frequencies, by type of program, of students approving or disapproving of group discussions.

Group	N	Disapproved	Approved
1. One to one instruction	10	5	5
2. Instructors in a classroom	39	6	33
3. Teacher with one group	28	1	27

Table 6:

Frequencies, by type of program, of students approving or disapproving of student presentations.

Group	N	Disapproved	Approved
1. One to one instruction	10	6	4
2. Instructors in a classroom	39	22	17
3. Teacher with one group	27	5	22

items, students in a classroom setting with one teacher tended to have a greater preference for an andragogical approach. Perhaps students in this type of program have less of a dependency on the teacher. Because a teacher or tutor is not constantly guiding their learning, they learn to be self-directed. Kratz (1980) also reported that ABE students who were in programs that fostered self-directed learning preferred self-directed learning. This is not to say that other types of programs cannot foster self-direction or that they encourage teacher-dependency. Although groups one and two did show an overall preference for an andragogical approach, they were not in favor of choosing their own books or stories. Perhaps they are simply accustomed to having someone else perform this task. The third hypothesis is supported. The type of program related to the extent to which an ABE student prefers the andragogical approach.

In hypothesis four it was stated that students who have been in the program longer show a greater preference for the andragogical approach. The students were grouped into three categories: four months or less, five to eight months, and over nine months. The mean and standard deviation for each group are reported in Table 7 (see the following page).

Examination of the data indicated a slight increase in the mean as time in the program increased. An analysis of variance showed no significant differences ($F(2, 75) = 2.16, p > .05$). Chi-square

Table 7:

Mean and standard deviation of APS scores by length of time in the program.

Group	N	M	SD
0-4 months	41	5.17	1.46
5-8 months	19	5.52	1.39
9 months or longer	18	6.02	1.56

tests on the eight APS items and item one indicated a significant difference ($\chi^2 (2, N = 80) = 6.28, p < .05$) for item five--choosing your own books and stories (see Table 8 on the following page).

A greater proportion of students who have been in the program for a longer period of time approve of choosing their own reading materials. Having been in the program longer, they may be less fearful of choosing material at an inappropriate level. They may also be more aware of classroom procedure and are therefore able to anticipate what materials will follow or which ones will correspond with their present books. The results indicate that length of time does not seem to influence, in total, the students' preferences for andragogical approach. The fourth hypothesis is not supported.

The scores on the APS were also compared using age and sex as independent variables, since they may affect the results. For the variable sex, no significant difference was found on APS scores ($F (1, 78) = .005, p > .05$). The means and standard deviations are listed in Table 9 (see the following page). A chi-square test was also conducted using the original nine items; however, no significant differences were shown. The sex of the ABE student does not appear to influence the preference for andragogical approach. Van Allen (1982) and Grubbs (1981) reported that female students tended to prefer the andragogical approach more than male students. The level of educational attainment of the subjects in the previous research

Table 8:

Frequencies, by length of time, of students wishing to choose their own books and stories.

Group	N	Disapprove	Approve
0-4 months	43	26	17
5-8 months	19	6	13
9 months or longer	18	6	12

Table 9:

Means and standard deviations on APS by sex and age.

Variable	N	M	SD
Sex: male	48	5.49	1.44
female	32	5.52	1.61
Age: 18-24	25	5.20	1.71
25-29	19	5.26	1.63
30-39	21	5.81	1.03
40-63	14	5.79	1.54

(Van Allen, 1982; Grubbs, 1981) may account for the difference in preference according to sex. The preference for a different teaching approach may be more pronounced between male and female students at the college and university level than at the basic literacy level.

In analyzing the relationship of age to APS, the students were grouped into four age categories: 18 to 24, 25 to 29, 30 to 39, 40 to 63. Presumably the younger students would prefer the andragogical approach to a greater extent. Although there were no significant results ($F(3, 75) = .95, p > .05$), the means of the older students were somewhat higher. The means and standard deviations are presented in Table 9.

A chi-square test was performed using each of the nine original APS items, but no significant differences were found. It would appear that chronological age has little influence on andragogical preference. Younger students do not support the andragogical approach to a greater degree than older students. Perhaps older adults have a tendency to be more involved in their learning regardless of past educational experiences. Therefore, if younger students choose the andragogical approach because of past exposure and older adults choose the approach because of a tendency to be more self-directed, the results would not vary significantly. The variables age and sex were found not to influence the student preference for andragogical approach.

Additional support for ABE student preference for an andragogical approach was found when students were asked to list the special characteristics necessary in order to be a good ABE teacher or tutor. The results are listed in Table 10.

Knowles (1984) presents recommendations that adult educators should consider in order to create the best learning climate. He believes that educators should support adult learners rather than judge them. He also feels that adult learners must be respected and taught to trust. Knowles states that adult learners must also see learning as a pleasurable experience and enjoy the process. The list of characteristics in Table 10 indicates that the students do want an adult educator who can create the learning climate recommended by Knowles.

Knowles (1970) believes that adults enter learning situations with a life-centered or problem-centered orientation. In other words, the material to be learned should have an immediate application for the learner. In this research, of 78 responses, half the students did not indicate an immediate application for their learning. Perhaps these students were not satisfied with reading and writing as a goal in itself. If they have come to see the value of an education, they may believe that several years of schooling are necessary to reach their goal. There is also the possibility that these students could be identified as the "activity-oriented" learners described by Houle

Table 10:

Characteristics of good ABE teachers and tutors.

Characteristics	Frequency
Should be patient	33
be understanding	15
be friendly/easy to get along with	12
have good teaching skills	11
be encouraging and helpful	7
be interested in the students	6
understand adult students	4
be respectful	4
be intelligent	3
be flexible	1

(1961). They may simply come to school in order to socialize or to feel that they are part of a group.

In sum, the results have shown that ABE students prefer an andragogical approach. The findings indicate some differences in terms of the type of program delivery that the student is receiving. However, the other hypotheses are not supported and time in the program and the grade level do not significantly influence the extent to which an ABE student chooses the andragogical approach. The age and sex variables were also found to have no significant effect on the results.

These findings indicate that ABE students are willing to make decisions concerning their learning. They wish to participate in the organization and presentation of the course. They do not perceive their role as one of placid dependency. Not only does this substantiate Knowles' beliefs, it is also supported by Cross (1978). She states that more adults engage in self-planned learning in order to have a greater control over the conditions of learning. Cross believes that adult educators will have to learn to enter into a partnership with adults who wish to be involved in deciding what and how they will learn.

Although the skills to be developed may not vary from those taught to young children, the teaching approach differs. ABE students appear to possess the self-confidence necessary to participate in the

decision-making process; however they are reluctant to evaluate their progress. Perhaps ABE students are not unlike other students who depend on teacher approval to reinforce the belief that they are succeeding. Mature, well-adjusted adults do not seek approval for every routine action. However, they do need encouragement when applying a newly-learned skill. Brookfield (1986) actually mentions a possible danger in self-evaluation. The students may use criteria that have little or no educational worth. As examples, he cites students who may find a program successful because it allows them to earn more money or impress others with their new knowledge.

Although the findings of this investigation show support for Knowles' (1985) andragogical approach, the low reliability of the APS may have caused problems in testing some hypotheses. The measuring instrument should be revised before it is used again. Items on the scale must be examined in order to improve the reliability. Limitations because of small sample size are further compounded by the unequal distribution of subjects in each type of program. Only eleven students in the one to one tutorial program completed the questionnaire. The results from this group may not be indicative of all students in the same type of program. The research subjects' reactions to completing the questionnaire may also add to problems of validity. Because students working below a grade five level were unable to read the questionnaire, they received help from teachers

and tutors. The presence of another person may have influenced the respondents to give what they believed to be the desired answer. Also, there is no way of measuring how influential the teacher or tutor may have been when explaining the questions.

It is possible that adults who come to ABE programs are already self-directed and problem-centered. They have decided to seek help in improving their reading and writing skills in order to satisfy a personal goal. This could explain the preference for an andragogical approach by students presently in the program. Knowles (1984) believes that teachers should act as facilitators of learning and that their role of content resource should be secondary. He feels that there are other resources besides the teacher that are available to adult learners. In a similar vein, Brookfield (1986) criticizes the setting of specific course objectives that cannot be changed or challenged by students. Allowing ABE students the opportunity to help develop their programs can create a significant learning experience for each student.

Perhaps illiterate adults not enrolled in programs do not display the same andragogical tendencies and may require external motivators to direct them to learning situations. A possibility for lack of participation in ABE classes is outlined by Cross (1978). She states that the students' previous level of educational attainment determines whether they will participate in continuing learning activities. She

believes that education is addictive and that the more education adults have, the more they will want.

The individual preference of each student must be considered. Not every student who completed a questionnaire preferred the andragogical approach. Of the 82 respondents, eight showed no preference for andragogical approach (scored less than four on the APS) and eleven were neutral. Curriculum planners must have the flexibility to offer courses to students who do not feel comfortable working with the andragogical approach, while providing for those who do.

Overall, the findings obtained from this particular student sample indicated a preference for the andragogical approach. It is obvious that further research with andragogical preference and ABE students is required. The limitations that should be considered are the low reliability of the measuring instrument, possible teacher or tutor bias, and the limited number of programs surveyed. An improved instrument, still written at a level appropriate for ABE students, should be used. It is recommended that a larger sample be obtained and that more centers be included in the research. It is further suggested that interviews be included in the research. ABE students may wish to verbally express recommendations that they are not able to write. A large segment of the population is presently functioning with less than grade nine education. The recommendations of these adults would be extremely valuable to program developers and practitioners.

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Appendix A

Adult Basic Education Questionnaire

In this questionnaire the letters "ABE" stand for ADULT BASIC EDUCATION.

Information from the student:

Length of time you have been in the programme: _____

Age: _____

Sex: _____

Type of programme: _____

Your approximate grade level: _____

PART A

Place a check () next to the choice that supports your opinion. For some questions you may wish to check more than one option. If you are not satisfied with any of the choices, add your own comments under the section marked "other".

1. Are you taking this course

a) to improve your reading and writing skills _____

b) to qualify for another course _____

c) for enjoyment _____

d) to eventually get a high school diploma _____

e) other _____

2. Where should ABE programmes be offered?

a) classrooms in elementary schools _____

b) classrooms in secondary schools _____

- c) community colleges _____
 - d) community centers _____
 - e) church halls _____
 - f) private homes _____
 - g) the location of the programme is not important _____
 - h) other _____
-
3. If ABE programmes are located in a classroom setting, would you prefer:
- a) individual desks _____
 - b) study carrels _____
 - c) round tables and chairs _____
 - d) other _____
-
4. Should ABE students meet:
- a) in a location with other ABE students present in the same room _____
 - b) privately with a tutor or teacher _____
 - c) other _____
-
5. If the students meet in a location with other students in the same room, would you prefer:
- a) one teacher working with the whole class _____
 - b) tutor or teacher working with each student in the room _____

- c) a teacher or tutor with a group of three or four students _____
- d) other _____
6. Should ABE courses be offered by:
- a) local school boards _____
- b) community colleges _____
- c) volunteer organizations _____
- d) other _____
7. Who should decide how often a student attends class?
- a) the teacher _____
- b) the student _____
- c) the student and teacher together _____
8. Who should decide what the student will learn in class?
- a) the teacher _____
- b) the student _____
- c) the teacher and student together _____
- d) other _____

Part B

Circle either "Yes" or "No" after each of the following questions. If you wish, you may add comments after each question.

1. Should ABE students be permitted to mark their own tests? YES NO



2. Should the students decide which books or stories they will read with their teacher or tutor? YES NO

3. Should an ABE class include group discussions? YES NO

4. Should an ABE class include student presentations to the rest of the class? YES NO

5. If a tutor or teacher taught you how, would you use a computer to assist in your learning? YES NO

6. Should an ABE programme include the use of films, slides, tape recorders, VCR, ...? YES NO

7. Do you feel that most of your books are written for ABE students? YES NO

8. Do you feel that most of your books are too childish? YES NO

9. Do you feel that special training should be given to teachers and
tutors who are working with adults? YES NO

Part C

Please answer the following questions:

1. In your opinion, what special characteristics are necessary to be
a good ABE teacher or tutor?

2. a) Should an ABE programme include more than reading, writing
and math skills? _____

b) If you said yes, what else would you like to see included in
the programme? _____

3. How many hours of teaching should an ABE student receive in one
week? _____

4. As an adult, what other courses have you taken besides the ABE
programme? _____

5. Why do you feel that you did not succeed in learning to read and write when you were in school full time? _____

6. What more could the ABE programme do to help you reach your goal?

Appendix B

Letter to Program Co-ordinators

April 1, 1986

Dear

Thank you for agreeing to help circulate this questionnaire. Several changes were made in the last few weeks, therefore you are receiving the final draft later than anticipated. I hope that this does not inconvenience you in any way.

If possible, I would like to have the questionnaires returned by the end of April. I am hoping to provide you with the results during the month of June.

If you have any questions, please call me at school () or at home (). Once again, thank you for your co-operation.

Sincerely,

Mary C. Mayer

Appendix C
Letter to Tutors

Dear Tutor:

Thank you for agreeing to help your students complete this questionnaire. I am attempting to determine what type of programme delivery ABE students prefer.

I would like the students' honest opinions. I would also like the students to enjoy the activity and not feel threatened in any way.

Under the section "Type of Programme" please explain the method of programme delivery. Please feel free to include any other pertinent information.

When the questionnaires are completed, you may return them to me at the school, or call and I will pick them up.

Thank you for your co-operation.

Sincerely,

Mary C. Mayer