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**Instrumental and Expressive Education:
Indentifying the Educational Interest
of the Institutionalized Elderly**

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A Thesis

in

The Department

of

Education

Presented in Partial Fulfillment of the Requirements
for the Degree of Master of Arts at
Concordia University
Montreal, Quebec, Canada

June 1990

ABSTRACT

Instrumental and Expressive Education:
Identifying the Educational Interest
of the Institutionalized Elderly

Mary Louise Radcliffe

The primary objective of this research was to investigate the concepts of aging and education in relation to life-stages of development. A secondary aim was to examine the institutionalized elderlys' educational interests in terms of time, health, class attendance, stability of interest and self-perception of educational need. Two hypotheses were presented: 1) that the institutionalized elderly would not believe that they were too old to learn; 2) that educational interest of the institutionalized elderly would focus upon expressive (designed to enhance enjoyment) rather than instrumental (basic or skill mastery) educational goals. The second hypothesis was based upon Talcott Parsons' social theory as applied to educational goals.

A questionnaire survey was conducted among 100 elderly, aged 60-98, residing in six different long-term care facilities located in Metropolitan Montreal. The findings indicated an 86% rejection of the notion that age was an inhibiting factor in learning. Expressive educational goals were preferred according to parametric statistical analysis. Other data analysis showed that: 54% agreed that their educational needs were lacking, interest in a topic did not parallel interest in class attendance and there was an indication of stability of interest over the years.

This study suggests that further research investigate the elderlys' educational interests in terms of data collecting methods, socio-economic status, barriers to class participation and the personal characteristics of the adult educator.

ACKNOWLEDGEMENTS

DEDICATION

to John

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Learning is a journey not a destination.
Anonymous

Introduction

Aging and education are two concepts which are salient in contemporary society. First, older people are becoming an increasingly larger part of the general population. Second, it is vital that our understanding of the aging process be studied in relation to learning ability in order to meet the educational interests of todays' older adults. The elderly of our time have participated in vast social changes, rapid industrial development and profound technological advancement which continue to demand ongoing learning and personal adaptation. Nevertheless, as Tibbitts (1979) points out, some of the myths targeted at the elderly are rooted in a society which emphasises the energy required of its people in moving from a frontier to a technological orientation. In such a social milieu people are valued according to their power to produce and by their contributions to the economy. Negative observations made of some elderly underlie persistent myths and generalizations which are applied to all of the aged. For instance, negative images persist which equate aging with physical decompensation, emotional irritability and intellectual decay. Such myths are reflected in social attitudes which suggest that educating the elderly is futile, and thus, in lieu of providing them with meaningful learning experiences they are frequently placated with demeaning leisure time activities. Alternately, one does witness a growing number of elderly who are creative, articulate and respond positively to an intellectual challenge. Moreover, it is predicted that as the average level of education rises more elderly will be familiar with the student role, will have enjoyed past academic success, and consequently, will continue to seek structured intellectual stimulation.

Aging is normal. For many, however, one effect of a longer life will be diminished physical health and the resultant need to enter a senior residence, a long-term care facility or nursing home. This step need not become, as it presently is for many, an emotionally devastating experience. It is frequently perceived with fear as a time when one is snatched from the community and placed in a setting where personal experiences are negated and personal growth is halted- a place to linger until death. Conversely, a more positive attitude toward aging can be facilitated by adult educators who intervene at critical

developmental stages of life. Lifelong learning may be considered as a formal or informal process which brings about behavioral changes as a consequence of maturity, experience, insight or study (Peterson, 1975). Now is the time for adult educators to intervene. They will be met with strong support from the professionals working with the elderly. As Coleman (1978) states:

> To assume that patients[*] do not have the ambition or ability
> to exercise their mental skills is to negate the genius loci of
> identity and personality - perhaps the only thing they still
> have in their possession (p. 100).

In addition, the latest research (Yu, 1989) indicates a correlation between cognitive impairment and level of education; impairment was less as the level of education increased. The implications for the concept of lifelong learning are profound. Accordingly, it is vital that aging myths be replaced with a progressive philosophy which is founded in research. One step toward this foundation is to identify the educational interests and needs of the older adult student.

Problem Statement

In recent years educational opportunities for senior citizens have dramatically increased. It appears, however, that the aged a, slow to respond to this chance to participate in a learning experience. A survey conducted by Statistics Canada (Devereaux, 1984) reported that there was a significant decline in the rate of participation in adult education after the age of 45. The highest rate (29%) of enrollment was among those 25-34 years of age. Next in rank order were those 35-44 years of age with a participation rate of 25% (p. 6). Among the retired population (65 years and over) the rate of enrollment was only 3% (p. 8). This survey was directed at those elderly living in the general community. It does not consider those elderly who live in an institutional setting. One method of reaching some of the hidden non-participants of formal learning activities, is to reach into the unconventional settings of teaching, into the senior residential centres, nursing homes, long-term care hospitals and similar institutions in order to identify the educational interests of this population. Moreover, the National Advisory Council on Aging (Priorities For Action, 1981) supports the notion of lifelong learning for all elderly regardless of residence. The Council's perspective is that after the age of 65 the elderly "...will continue to need to develop, to grow, to learn, to expand the scope of their life experience"

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[*]In our context "patients" mean "institutionalized elderlys".

(p. 15). Educational programs for those over 60 years of age will continue to be weak until social attitudes to lifelong learning become more positive and adult educators acknowledge that the elderly have unique needs and interests.

Statement of Intent and Limitations

This exploratory research project was intended to: *identify the expressed educational interests of residents, over the age of 60, who are living in an institutional setting.* *

It considered the educational interests of cohorts residing in the community at large only as a reference point for earlier research and as applicable to the older population in general. It did not focus upon a comparison of interests between those living in the community and those living in an institutional setting.

Purpose of the Research

This research is of interest and importance because it provides the challenge and opportunity to direct attention at adult education in a two-pronged fashion. First, identifying the educational interests of the institutionalized aged has the potential to open an area of service which is thus far neglected. Second, the quality of the residents' lives can be improved by providing the opportunity for personal development through lifelong learning. Education which meets their special needs allows for the normalization of life; it allows them to continue to participate more fully in the mainstream of life even though they are living in an institutional setting. As the elderly add to the quality of their personal development their contribution to society will continue, and ultimately add to the strength of its people as a whole.

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*see page 31 for a definition of terms.

Chapter II
Literature Review

Conceptual Foundation

The social theory of Talcott Parsons (1952) is the conceptual framework upon which this research is founded. Parsons presents a global perspective of the social dynamics of action which depicts a relational scheme among the social system, personality and culture. The emphasis is upon the action frame of reference which examines the interactions of different types of individuals, within a given situation, as they act in response to their shared values, roles and goals. In sociological terms the individual is not considered as a solitary being, but as one who is socialized to accept a basic system of values and culture in order to ensure social harmony and stability. Those who act in accord with the value system receive its rewards such as prestige, love and money. Those who are not rewarded may react with deviant behaviors. Most significantly, an individual's behavior in the social setting is "motivated in terms of a tendency to the 'optimization' of gratification..." (Parsons, 1952, p. 5). In this model gratification appears as the dynamic concept.

Parsons also analyses the concepts of need and motivation in relation to culture and personality. Parsons notes three features of culture: transmission, learning, and sharing which become interwoven in the social system. Therefore, learning and living within a culture can only be understood after an examination of motivation which is sparked within the context of a larger social system. As Parsons states:

> Learning in this broad sense, then, means the incorporation of cultural pattern elements into the action systems of individual actors (p. 16).

Transmission of a culture takes place in a social system where communication is stable and shared symbols are operative. This system is important because it sets up a mechanism where actions are prioritized and responses are anticipated. A positive response is essential for ego gratification. Personality is active in this system and two fundamental characteristics are said to affect the learning process. First, a sensitivity is vital in order to be aware of the nuances of the responses from others. This process is basic in its effect upon learning. Secor d, plasticity of personality is thought necessary in order to learn appropriate and alternate patterns of behavior. These personality traits are deemed to be operant throughout life:

> Learning is not confined to the early stages of the life cycle, but continues throughout life. What is ordinarily called a "normal" adaptation to a change in the situation or the

> "unfolding" of an established dynamic pattern, is a learning
> process (Parsons, 1952, p. 203).

Explicit in this notion of learning is the need to cope with and resolve problems of daily living through each stage of life, and thus the "mechanisms of adjustment merge with those of learning" and changes in behaviors become evident (Parsons 1952, p. 204). Consequently, motivation is perceived as goal-seeking behavior, stimulated by a need, to optimize gratification and minimize deprivation. This process takes place over time.

Parsons proposes that there are two classes of motivation which are relevant to the time factor and which influence an individual's pursuit of a goal. Extrinsic motivation is based on the expectation of future gratification. This sense of fulfillment follows the completion of a task which, in itself is not intrinsically satisfying; the work is perceived as an instrument in achieving a long-term goal. Alternately, intrinsic motivation rests on the notion of immediate gratification which is evoked by the task at hand. Performing the task is its own reward. In summary, an instrumental goal is described as follows:

> Action may be oriented to the achievement of a goal which
> is an anticipated future state of affairs, the attainment of
> which is felt to promise gratification....immediate
> gratifications are renounced in the interest of the
> prospectively larger gains...(Parsons 1952, pp. 48-49).

On the other hand, gratification is present in the execution of an expressive goal:

> Here the primary orientation is not the attainment of a goal
> anticipated for the future, but the organization of the "flow"
> of gratification....Given the cognitive definition of the
> situation the primacy is cathectic (Parsons, 1952, p. 49).

It is the interweaving of the concepts of need, motivation, gratification and time that has come under investigation. Parsons' hypothetical construct of the social system was not targeted at educators but his thesis has been examined by educators and by gerontologists.

Parsons' Theory and Education

In 1963 social scientists and adult educators met at the Second Annual Syracuse Conference, Sagamore, New York, in order to consider issues of shared concern. A second goal was to reach a larger audience by publishing significant ideas which emerged from the sessions. One outcome was that Parsons' theoretical construct was applied to education. Gerontologist, R. Havighurst (1970) presented a paper which introduced Parsons' expressive and instrumental categories to educational goals. Havighurst maintained the

same definitions and motivations as proposed by Parsons. Also in agreement with Parsons, Havighurst cautions about making too strict a division between the two dimensions of education since there is some degree of satisfaction in instrumental education, if the student is successful; and there is some pragmatic result in almost every type of expressive education. For example, an adult enrolls in a course because of a need and the motivation to change careers. Participation in classes and other student-related behaviors are aimed at a future goal, the satisfaction of changing jobs. This goal is defined as instrumental. A second adult student may enroll in the same class simply for the gratification inherent in the learning experience. Reward is immediate and the goal is termed expressive. One cannot assume that the first student is devoid of all satisfaction when pursuing a long-term goal. Accordingly, caution must be used in assessing at what stage satisfaction does occur. In practical terms there is considerable overlapping of the two categories. Both aspects are mingled throughout life as one progresses through developmental stages and social roles.

In todays' rapidly paced society one must keep abreast of technological, political, economic and social change in order to maintain the role of a competent citizen. Lifelong learning is the path to competence. Education that is complete, teaches one the skills required in a technological society (instrumental) and also teaches skills vital for success in interpersonal relationships (expressive). Consequently, a principal role of education is that it serves as "a means of maintaining engagement with society" (Havighurst, 1970, p. 22). The clear implication is that those who are non-participants in formal or informal learning are alienated from their social role and from society (Havighurst, 1970). This opinion is also implied in Parsons' model which stresses individual and organizational adaptation. Lowy's (1986) perception of the individual within society is similar. He maintains that there is a need for societal institutions to modify their role in allocating their rewards; for example, "rewarding those institutions which offer educational opportunities to older people to learn and study, and thereby give evidence that people in their later years can indeed learn" (Lowy, 1986, pp. 144-145). Following upon this notion Havighurst argues for a curriculum designed to parallel life stages and the dominant concern of each adult life decade.

Adult Stages of Development

Adult educators must understand the adult stages of development in order to build a strong theoretical foundation for teaching the older adult. Havighurst (1970) cites Buhler's

(1962) clinical theory as follows:

The 20-30 year old strives for an identity through one's occupation, marriage, political and religious affiliation. At this stage the majority of the middle class use education as a vehicle toward job advancement or homemaking. The curriculum is founded upon topics relative to the instrumental category in preparation to assume an adult social role.

The 30-40 year old is thought to be in a more stable period of life. The instrumental form of education continues to dominate, however; and the focus is now upon improving skills. Expressive forms of education also begin to emerge and take the style of friendship groups, enrollment in a course to study a second language or similar pleasurable learning experiences.

The 40-50 year old sees the beginning of a concern with health and the physical changes of aging. This decade is also, for many, a period of positive growth in relation to power and influence. Expressive forms of education are further developed as interests turn toward the community and cultural activities. Instrumental pursuits are lessened in the group aged 40-60 and parallel a diminished concern with one's occupation and parenting roles. Expressive forms of education become of more interest; for example, travel, study groups, music groups and similar activities gain ground. Ironically, it is also noted to be the age where motivation in attending adult education classes decreases (Devereaux, 1984).

The 50-60 year old is considered to be a plateau regarding one's occupation and a decline in terms of ego and physical changes. In addition, the limitation of life-time is acknowledged. Educators are puzzled regarding their role with this age group, and advise that perhaps it lies in assisting with the transition to aging.

The 60-70 year old is thought to be highlighted by the process of disengagement. Havighurst notes a gradual process of disengagement between the ages of 50-70. After the age of 70, it is believed that disengagement occurs rapidly. There was, however, a trend which focused on the various definitions of successful aging, and the implications for education soon became evident.

Adult Development and Learning

The trend of adult educators to become more sensitive to the relationship between developmental stages and learning is noted in the later work of Havighurst (1976). In his earlier work (1970) he writes as a pioneer in the theory of instrumental and expressive

forms of education. In his later work he remains a strong advocate of the dual categories, but he writes with a more confident pen when describing education as a lifelong process. Accordingly, there are two points which are expansions of his earlier study. First, more attention is given to the developmental tasks of those 55-75 years of age and older. Second, the theme of disengagement is reviewed, and re-engagement is considered.

Cummings and Henry (1961) theorize that as people age they begin a slow and steady social and psychological withdrawal from society and its inherent responsibilities. Disengagement is thought to be a process that is natural, inevitable, functional and universal. Withdrawal is thought as natural because as the aged become more aware of diminished capacities they would "naturally" withdraw. It is functional because the older generation left jobs and other social roles open to the younger generation. Its critics argue that if disengagement is viewed as "natural" it "excuses" others from offering assistance to continue in existing or adjusted social roles (Roadburg, 1985). Additionally, it is said that the elderly do not withdraw naturally but are "forced" to do so because of subtle social pressures. Disengagement is not considered a conclusion, a "must happen" event which a person must learn to accept without question. Rather, it is viewed from a more positive position as a time when one is offered choices.

Adult educators can be instrumental in assisting the elderly to re-engage by providing learning experiences which facilitate the expansion or substitution of interests. Cleary, there is a notable turning away from Havighurst's (1970) "rocking chair" theory toward active participation in adult education programs. If one does choose to participate, it is predicted that choices will be made among a mix of instrumental and expressive forms of education. For example, health and physical fitness classes add to the vitality of body and mind. Also, a sense of self-control is evident as one learns to continue to manage financial matters. One of the ways these competencies are learned is by following courses labelled as instrumental. On the expressive side courses in literature or history stimulate discussion with others and, in turn, can lead to a better self-understanding and heightened sense of dignity. Consequently, there is a merging of the two categories which is assumed to be beneficial to the elderly student.

On a more pragmatic level, however, there are barriers to ongoing formal learning. In a study among the aged population living in the community at large, a distinction concerning the level of interest in learning, was made between the interested and the disinterested (Graney & Hays, 1976). Barriers to learning for the interested are: information, money and time. Barriers for the disinterested are: no interest in the topic, feeling too old to participate and feeling uncomfortable in a classroom setting. These

psychological barriers must be overcome before ongoing formal learning is viewed as normal adult behavior.

Successful Aging

There is disagreement among proponents of successful aging. Many educators and counsellors continue to emphasize the process of disengagement and the need to learn how to cope with a changing life style. It is recommended that educational programming aim at facilitating life satisfaction. Some argue that satisfaction lies in providing health services and social comforts, the "rocking chair" theory (Havighurst, 1970). Others advocate a program of activities such as those offered at Golden Age Clubs. Ironically, the focus is away from teaching the elderly anything "new".

Ager (1982) describes three essential components of successful aging. First, developing an attitude of exploration can lead to an expansion of friends and interests. This activity, in turn, promotes physical and psychological well-being. The clinical work of Yost and Corbishley (1985) is in strong accord with this notion. Second is physical and mental exercise, which includes choosing available options. This latter practice, in turn, leads to a sense of control, self-worth and mastery. Third, planning is vital if one is to make the best use of one's time, energy and other resources in setting personal priorities and realistic objectives. In all three dimensions education can be a valuable vehicle toward personal achievement. It is believed that this path to learning would be followed by those who possessed certain characteristics.

Covey (1980) presents a profile of the elderly learner as: one who is self-motivated, one with higher education and socioeconomic status, and one whose self-perception is as younger and active. Other characteristics include curiosity, risk taking and creativity (Brockett, 1985). An interest in books, people and current events was also noted among adult students (Thorndike, 1928). Being aware of new opportunities was identified as the principal characteristic of the active learner (Radcliffe, 1983). In addition, a high level of education and occupations which involved working with people were noted as the greatest variables leading to interest in lifelong learning (Heisel, 1981). People who possess the above characteristics reject the notion that education is only for the young.

The adult educator has the challenge and opportunity to assist the elderly through the stages of successful aging. As our population continues to increase in number and longevity, the interests of those aged 60-90 must be given serious consideration. This positive dimension of old age juxtaposed with lifelong learning has the support of

behavioral experts.

Erikson (1963) terms the eighth, and final, stage of man's development, ego-integrity vs. despair. It is at this time that one sets about a we review from two opposite perspectives. Ego-integrity signifies "an emotional integration" (p. 269), an acceptance of one's life as the only one that had to be within a specific cultural and historic framework. Alternately, despair is the consequence of a vision of diminished lifetime and unfulfilled ambitions. Similarly, Jung (1933) presents a dynamic argument for the latter stage of life as a time when the aging person has "a duty and a necessity to give serious attention to himself" (p. 109). Failure to do so may result in behaviors which show an overconcern for health, a focus on the past which is glorified at the expense of the present, or behaviors which are age-inappropriate. Accordingly, the fundamental task of old age is an acknowledgement and acceptance of the self. This insight may be faci'.ated through an educational process which permits psychological growth through an exploration of such topics as philosophy, history and literature. These topics take on new meaning because they are now being studied from a pragmatic foundation of a long-lived life.

Aging, Health and Intellect

One of our cultural myths is that aging and intellectual deterioration are synonymous. Early research into the learning ability of the aged has fuelled the metaphor "you can't teach an old dog new tricks". Thorndike (1928) was most influential in having perpetuated the notion that learning ability peaked about 20-25 years of age and thereafter declined. Nevertheless, Thorndike's research carries two notable qualifiers which require further examination. First, when a decrease in learning is evident it generally can be attributed to health, level of interest, ability and opportunity. Second, Thorndike (1928) clearly states: "The learning of adults is rarely nil" (p. 146), but learning occurs on a more informal basis as compared to the child and young adult who actively strive to add to their knowledge base. The relationship between health and intellect and a comparison between the learning ability of the young with the old are two dimensions which require further examination.

As early as 1928, Thorndike recognized that between the ages of 65-85 one's state of health was the most important factor related to learning. Moreover, nearly thirty years ago the concept of terminal drop was the subject of research. Investigators reported a sharp decline in intellectual ability of those who were over 60 years of age and in poor health (Jarvik and Falek, 1963). Ongoing research has questioned this theory because of its

methodological flaws, and follow-up study points to insignificant terminal drop (Palmore & Cleveland, 1976). More recent research suggests that socioeconomic levels are,in turn, related to health and longevity and thus places further doubt upon this theory. Nonetheless, the concept of terminal drop is important because it raises some vital questions: Can decreased cognitive ability be predictive of death? Can the process be reversed? Are the aged sensitive to cognitive changes and respond by avoiding learning activities? (Kastenbaum, 1985). Do cognitive decrements oc⁻ʳr not because of the aging process but because of a decline in health? (Kalish, 1965). More research into this observation is recommended (Botwinick, 1984). The research of Buhler, cited by Weiner (1978) reported that aging does not bring about as rapid a decline in mental abilities as it does in physical capacities. Lastly, Stewart (1989) states that in spite of all clinical research "we still know very little about the relative impact of different chronic conditions on patients' functioning and well-being" (p. 907).

Recent research also indicats that intellectual decline is less when measured on a longitudinal rather than a cross-sectional scale (Willis, 1985). Longitudinal studies report intellectual challenge, a flexible life-style and environmental factors as essential variables in terms of aging and cognitive ability. In addition, those elderly who perceive themselves as healthy are more apt to participate in leisure time activities (Morgan & Gobey, 1978). These studies cast strong doubt, on the generally held notion, that aging and cognitive decline follow parallel paths.

The controversy centered on learning ability is most evident when comparing the young and the old on two vital variables, level of education and speed of response. Credit is given to Lorge (1955) as one who was keen to recognize that although the aged were slower to respond, the quality of response was superior. Lorge states:

> Whenever learning is measured in terms of power-
> ability...the evidence is clear that learning ability does not
> change significantly....An individual at 60 can learn the sa· ie
> kinds of knowledge, skill and appreciation at 60 that l· ,
> could at 20 years of age (p. 49).

Further research into Lorge's observation indicated that the aged (60-69 years) who were permitted to pace themselves showed greater improvement in performance, and as the tasks became more meaningful the performance improved (Canestrari 1963). Calhoun and Gounard '' ,79) support these findings. Their research reported that the aged perform best when a task is self-paced, is deemed meaningful and time is allowed for practice.

The young and the old approach the concept of meaning differently. Bolton (1979) notes the distinction between teaching literature to the young and to the frail elderly. The

young learn through external criteria. They use knowledge, gained through literary study, to explore their cultural heritage and will use this knowledge throughout their lives. On the other hand, the aged, with a shorter life perspective, learn through internal criteria. Literature is used as a "vehicle for inward exploration and less as a technical tool to understand life" (Bolton 1979, p. 15). Learning is not age limited.

Subsequent studies attempted to explain the process whereby the aged learned. A distinction was made between fluid and crystallized intelligence (Catell, 1963). Fluid intelligence was associated with short term memory and one's ability to make complex relationships and abstractions. Its characteristics were well attuned to respond to standard items called for when testing memory. Conversely, crystallized intelligence was linked with long-term memory, and was considered cumulative. Its ability was in perceiving relationships and abstractions founded upon past experience. The two forms of intelligence were believed to be essential in learning, reasoning and problem solving. Both types were thought to develop from childhood with a peak of fluid intelligence during adolescence followed by a steady decline. Crystallized intelligence was said to continue to develop throughout the adult life-span. This growth, however, did not take place without a continued input of information. Moreover, this ability is not limited to only those with an advanced level of education, but is open to all who follow a path of lifelong learning. This model implies that cognitive decline and biological aging are related. This premise has not been accepted in full. There is agreement that there are decrements in speed of response and sensory losses are evident, but other dimensions of learning cannot be ignored.

Other theorists have stressed the interplay of the non-cognitive variables of learning. For instance, at any age motivation is an essential variable to learning. When the aged regard a task as trivial their attitude toward performance is negative and the outcome is poor. In one test situation, people aged 65-80 were asked to remember paired associations which were unrelated; 80% of the participants refused to complete the test (Hulicka & Grossman 1967). Paradoxically, being "too motivated" results in the aged becoming nervous, a tendency not prevalent among the young. It was found that if a medication (Inderal) was given prior to testing, the performance improved (Eisendorfer,1970). The research had two significant outcomes. First, learning can be improved by modifying the autonomic nervous system to lessen stimulation. Second, the premise, at least in part, is that over stimulation and not physical changes of aging are responsible for poor learning performance. In addition, motivation is dependent upon one's stage of development, time, resources available, perceptions of the task and goals.

One's attitude to the task is another non-cognitive factor which affects learning.

Aiken (1980) lo·nu: a hesitancy to take a chance for fear of doing poorly, increased dis*. -tibility and fatigue, less formal education than the young, sensory deficits and the r. ˻ ᵕd of testing all affect one's attitude and ultimately the outcome of the test performance. More than sixty years ago it was noted that the elderly were sensitive to ridicule or negative comments when participating in a formal learning activity because it was considered to be outside the boundary of normal adult behavior (Thorndike, 1928). Later research confirms this perception. Lorge (1955) cites anxiety and self-underestimation of ability as barriers to learning and Spencer (1980) supports this evidence.

Instrumental Educational Goals

Londoner (1971) agrees with the concept of lifelong learning and argues in favor of instrumental educational goals. It is a myth to believe that once one is freed of the workplace, one's later years are an idyllic arena for the pursuit of expressive type of activities. Educational programs must also be available which assist the aged to continue to develop new abilities to deal with everyday situations. Londoner is forceful in this premise: "If he [the aged] fails to develop his competencies in the face of new challenges, he will lose the battle for survival" (Londoner, 1971, p. 114). And instrumental goals of education provide these competencies. Londoner also introduces the notion of the "teachable moment" which further supports the argument in favor of instrumental education, and is in accord with the developmental framework proposed by Havighurst. The premise is that one is ready to learn according to the demands of one's unique life situation. Indeed, if adult educators are not sensit˺ · ᵕo the timing of programs in relation to the needs of potential students, teaching efforts will fail. When planning for the needs of the elderly, who must adjust to a new environment brought about by a lessening of physical abilities and a narrowing of social roles, educators are in a opportune position to seize the "teachable moment". Clearly, the instrumental forms of education will assist the elderly by increasing their skills for daily living.

The aged require guidance when personal adjustment is complex and they must learn to cope with and master change. Londoner (1971) suggests this assistance be given by offering courses in the following areas:

1) Financial: Knowledge about social programs, pension benefits, and the legal interpretation of wills and contracts allows the elderly the sense of control by offering a choice of financial options.

2) <u>Health</u>: Information programs focused on diet, exercise and healthy aging emphasizes aging as a normal, not a pathological process.

3) <u>Work opportunities</u>: Information about resources that are available should one wish to work on a part-time basis.

4) <u>Family relationships</u>: Such programs assist in understanding the dynamics of changing patterns within the family, notably in relation to new living arrangements and subsequent responsibilities.

5) <u>Personal needs</u>: Such courses acknowledge the many needs that arise which are not readily categorized; for example, maintaining good grooming habits or how to manage when living alone.

Initially Londoner argued strongly for the emphasis to be placed on the instrumental category. In his later writing, however, he moves to more neutral territory and states that the same educational opportunity can be simultaneously instrumental and expressive: "how it is perceived and used by the actors is the crucial point " (Londoner, 1978, p. 87-88). Alternately, Moody has remained a faithful advocate of expressive educational goals.

Expressive Educational Goals

The expressive goal of education appears to be particularly appropriate in assisting the elderly with the later stages of growth. In developing a persuasive argument in favor of the expressive goal, Moody (1978) begins with the symbol of the ouroborus, a snake eating its tail, which symbolizes the life cycle returning to itself. During old age one can take the opportunity, through dialogue, to review one's life, gain new insights, and thus resolve what might have been puzzling at an earlier life-stage. This notion is in exact accord with the principle of adult education which recognizes and incorporates life experiences into learning. Knowles (1978) emphasizes the interweaving of life experiences as it affects learning, motivation and ongoing personal growth. He states:

> The assumption is that as an individual matures he accumulates an expanding reservoir of experiences that cause him to become a rich resource for learning, and at the same time, provides him with a broadening base to which to relate new learning (p. 56).

Subjects like literature, history or psychology, as Moody indicates, have added meaning for many of the elderly because they have such vast concrete experiences with the topics. Lowy (1986) _ strongly supportive of Moody and the importance of expressive education. Lowy states: "...such learning may enhance the learner's ability to adjust to

losses and crises in life" (Lowy, 1986, p. 146).

Moody is critical of the present method of teaching the elderly which ignores their unique needs and interests. He states:

> As matters stand now, education for older adults tends to follow the pattern of adult education in general: an indiscriminate proliferation of courses based on student interest, guided only by the implicit faith that · uriosity and new interests are intrinsically desirable (Moody, 1978, p. 37).

In this latter model experience is demeaned, viewed as mere opinion, when compared with systematized knowledge. The point is that for older adults, the objective is to gain a better or new understanding rather than present new information. Furthermore, the author stresses that through the process of dialogue, fostered by expressive educational goals, long-held or rigid opinions are challenged in order to make way for new insights which are captured .om experience. The fundamental thesis is that the expressive educational goals are most appropriate in challenging cognitive ability, and, in turn, facilitating the developmental tasks of the aged. Clearly, education of the aged must validate experience and be sensitive to the fact that: "...the immense task of old age: [is] to know ourselves as a whole, as we really are, in the light of finitude and at the horizon of death" (Moody, 1978, p. 47). Such an undertaking is recognized as immensely important. It is serious. It is difficult. It is not recreation.

Leisure and Expressive Education

The expressive goal of education is distinct from education which is labelled, "leisure time". This latter goal, when termed education, is considered demeaning for two reasons. First, it suggests that "serious" education for the elderly is a waste of time; second, the term seems ironic because the elderly have less "leisure time" than the younger population. Moody further suggests, that by following a strict program of recreational type of education one is avoiding this fundamental task of old age, an encounter with "who we are" (Moody, 1976, pp 10-11). Accordingly, time is of more value, a time when developmental tasks need attention if one is to gain a sense of life integrity.

Other educators are in accord with Moody. London (1970) emphatically states: "...we tend to place them [the elderly] in 'playpens' by providing recreation...while doing almost nothing to furnish them with the means to keep mentally alert" (p. 15). Similarly, Paterson (1979) suggests that some educators avoid their responsibility by offering the

aged leisure time activities and hobby classes rather than facing the primary demand of education, the development of the person. He states: "much of what passes for education classes contains little that is worth mastering for its own sake...." (p. 180). Moreover, many adults are thought to participate in classes simply to relieve the "claustrophobic monotony" of their lives (Paterson, 1979, p. 180). Research by Verduin (1984) suggests that the elderly do not seem to be as keen on leisure activities as is generally assumed. It was reported that many hobbies and leisure time pursuits may be avoided because the person neglected to acquire the necessary skills earlier in life. Old hobbies may be continued for a longer time period but new leisure time activities are seldom initiated.

The role of the media in filling one's leisure time has come under recent study. Kubey (1980) reports that watching television is "the single most time consuming leisure activity" among the aged population (p. 16). In a comprehensive review of research literature of television viewing habits of the elderly, Kubey notes that the elderly are motivated to watch television because of a need for entertainment, knowledge, relaxation and as method of filling time. Interestingly, Kubey states: "the elderly's need to know exceeds their desire for pure diversion" (p. 18). It also gives the individual a sense of being part of a larger community. Perlmutter (1985) reports that 16% of the elderly say that they have too much "free" time, and television seems to be a viable method of using this time. Furthermore, newspapers were preferred over television as a source of local news only. Reading the newspaper was the only activity in which 75% of the aged regularly participated (Morgan & Godby, 1978). There was, however, a decline, after the age of 65, in the use of all news media except watching the news on television. Newspapers and television are relevant to self-directed learning because they are easily accessible and inexpensive.

Strengths and Weaknesses of the Categories

As the instrumental and expressive categories are better understood the educational planner will be able to provide learning activities which meet the needs of a greater number of older people. Although the expressive/instrumental division is considered useful in categorizing the needs of the elderly, the concept itself has come under scrutiny and has been the subject of both praise and criticism. Its critics believe that it is too rigid and too simple (Londoner, 1978). It is inflexible if one fails to heed the early warning of Havighurst and Parsons and insist on a strict classification system. The categories do overlap in definition and ultimately, the goal lies, as noted by Londoner, in the perception

of the student. Also, its simplicity is thought to "force" the student to make an either/or choice. The choice, however, is based upon interest in a topic which is placed in a specific category, and not in the category itself. Moreover, this same criticism can be applied to any concept with a duality. Those who favor this classification system acknowledge that the categories do not help educators determine what type of program to plan but how to appropriately meet the educational needs of the elderly student. Additionally, Parsons' hypothetical construct offers a possible explanation for behaviors in general. Londoner (1978) states:

> ...the model suggests that people have needs that trigger clusters of present-time behaviors; that these present-time behaviors are designed to achieve goal gratification; and that when the goals are achieved, we conclude that people have met their needs (p. 81).

Failure to acknowledge the need-goal relationship results in a poor understanding of the reasons why people participate in adult education. Indeed, the lack of a clear theoretical base for needs assessment can result in poor program planning and a failure to "meet the need" of the adult student. The consequence is an increase in the drop-out rate. The concept's strength lies in its usefulness as a program-planning guide. This concept has also been examined from a philosophical stance.

Expressive and Instrumental Philosophy

Lowy (1986) presents a philosophical argument by building upon a historical analogy. Instrumental education is compared with vocational or progressive education where the focus is economic. The student is taught in order to produce goods and services; the ultimate goal is outside of the student. Expressive educational goals are related to liberal education with its focus upon one's personal relationship to the history of thought. Expressive education runs the "risk of elitism" (p. 149) because it seems to be more attractive to those of the white-collar, educated and monied class, those who are not dominated by the tasks of survival. Conversely, those who are poorly educated and in a less fortunate income group, often because of sex or race discrimination, are thought more suited to the tasks of instrumental goals and the tools of production. Lowy cites Elderhostel as an example of a seniors' program which emphasizes liberal (expressive) education, and attracts those from the more advantaged social class. It is not restrictive in its admission policy, still, 80% have a background of higher education. This point raises the question: Will only the experiences of an elitist class give answers to the "collective

search for meaning?" (p. 149). The result would be a "two-tiered" system of education. The economically poor would be taught to produce, and the economically advantaged would be free to gather personal insights. Alternately, elitism can be viewed from an instrumental perspective. If an individual is valued simply because of one's skill in the market place, the benefit of learning for its own sake is demeaned. What is the status of the elderly, the institutionalized frail, the handicapped and other minority groups in this instrumentally weighted sketch? Will the elderly be "forced" into second careers when retirement is preferable? Clearly such a scheme is inoperable in our society.

Empirical Research

Although Londoner, Havighurst and others used the terms expressive and instrumental education it was almost two decades before Parsons' theoretical construct was subject to empirical research. In 1971 R. Hiemstra was the first to survey the needs and interests of the elderly in relation to expressive and instrumental educationai goals. The objective of the study was to gain insight into needs and interests of those over 60 years of age. The population of his research consisted of 86 retired people who lived in senior residential centres or participated in senior citizen activity programs. The questionnaire listed 12 activities defined as instrumental and 44 as expressive. The respondents were not made aware of this division. The results indicated a preference for instrumental activities which took place in residential or senior centres, rather than in formal educational settings. In summarizing the study, Hiemstra notes that the aged are a "special clientele with special needs and interests" which must be considered by adult educators (Hiemstra, 1972, p. 108). He suggests that although needs and interests may vary, the instrumental educational goals provide this population with the skills and knowledge to cope with a changing lifestyle. Instrumental activities included those "related to retirement needs, religion, economics and finances, medical care, reading and writing efficiency and the aging process....cultural arts, hobbies, music, travel, literature and crafts" were designated as expressive educational goals (Hiemstra, 1972, p. 105). These findings support the initial thesis of Londoner.

In 1973 Hiemstra conducted another research in response to Londoner's thesis that instrumental educational goals provide the competencies necessary for survival. The population of Hiemstra's second study consisted of 75 retired people, 60 years of age and older. Once again, the questionnaire did not make a distinction between the two categories of educational goals. Succinctly stated, the findings were: one's level of

education, occupation and previous participation in adult learning programs are important variables when selecting among the two alternate categories. Adult education programs appealed to white collar workers and this group reported a higher selection (79.1%) of expressive forms of education. College graduates (81.6%) preferred expressive education as compared to 51.4% of those who had lower educational attainment levels. Those who had previously taken part in adult education programs preferred the expressive category, 77.8%. Others had no clear preference. The final result showed that instrumental courses were selected more frequently, but, based upon other data, this finding could not be clearly explained. The author concluded that both categories of education were vital in assisting the individual through the dynamic stages of later life. Incidentally, later research by Green (1980) supports Hiemstra's finding that the needs and interests of the elderly correlates with their socioeconomic status.

Subsequent research focused upon the expressive and instrumental categories was conducted between 1974-1976. Five studies were completed by graduate students: Whatley, 1974, Goodrow, 1975, Burkley, 1975, Bauer, 1975, and Marcus, 1976. The age of the populations under study was reported, by all researchers, to be 55 years and older. Two studies reported that the instrumental goal of education was favored, two studies found that there was no clear choice among the alternatives, and one study reported preference for the expressive category. In general the studies noted a significant relationship between the choice of category and educational background rather than age.

The educational interests of the older population was again the focus of research by Hiemstra in 1976. The aim of the survey was to determine the amount of time, the involvement and the type of learning projects with which 214 people, over the age of 55 (average age 68.11) were active. There was also a comparison made between actual learning projects and the level of interest in enrollment in adult education classes. Participants were asked to choose among courses of interest which were classified as instrumental (16 courses) or expressive (16 courses). Again, they were not made aware of this division. The findings reported no significant difference between present involvement in learning activities and topics which would be of interest in the future. Enjoyment of the project was the prime reason for the activity (68.99%). The learner was the principal planner of the program and the subjects which provided the most enjoyment and self-fulfillment were classified as expressive. In addition, all of his research indicated that the older person has an interest in ongoing education.

More recent research supports this educational interest by the elderly. Research was conducted by Ralston (1981) using the expressive and instrumental categories. The

study population consisted of people over the age of 65 and living in the community at large. The objective was to examine self-perceived educational needs in relation to programs offered at a seniors' centre. The study indicated that what the aged individual wanted was not always what programmers offered. There was interest in learning about aging and its consequence, personal development, family and home, all instrumental topics. It remains unclear what further topics were requested under the personal development category and if there is an implicit request for a more expressive form of educational opportunity. Nevertheless, there was an identified need for help with coping with the ongoing flux in day to day living.

Adult educators do not agree on whether the instrumental or the expressive category provide the requisite for successful aging. Ultimately it is the pragmatic issues which must be spotlighted. Lifelong learning as a concept for lifespan development is only possible when educational opportunities are offered. The first step in providing learning opportunities is to identify the expressed needs and interests of the aged population.

Monette's Needs Assessment Inventory

The concept of need is complex and the literature examining this notion is voluminous. The task of reviewing the writings devoted to educational need was undertaken by Monette (1977) who organized the material according to definitions. He states: "Labelling a need as educational implies that it is capable of being satisfied by means of a learning experience which can provide appropriate knowledge, skills or attitudes" (Monette, 1977, p. 119). Based upon implicit and explicit definitions the term need is assigned into one of four major categories as follows:

1) Basic human needs are loosely defined but imply a tension between a lack and a struggle to fill this deficiency. Consequent behaviors are aimed at gratification. It is noted that society influences one's needs in relation to its values and resultant satisfaction. This dimension of need varies among people and societies; therefore it remains so vague in terms of basic human needs that it does not help the educator in program planning. Still, its definition carries strong echoes of Parsons' social theory.

2) Felt and expressed needs suggest that the educator fulfill a "want" or "desire" expressed by the student in order that the receipient gain a sense of gratification. Pragmatically, the educator is faced with the questions: In what manner are needs to be prioritized? How are these needs to be met? What

are the ethical considerations? Is the educator merely filling needs according to the learners "shopping list"? Accordingly, this category is a poor indicator of meaningful need and appears to relate more to whimsical or passing interests.

3) Normative needs are defined as the difference between a desirable standard and the real standard. The group or person falling between the gap is said to be in need. These needs, which are subjective, vary among people and societies, and are influenced by time, values, current knowledge and available educational resources.

4) Comparative needs examine the characteristics of two groups, one in receipt of a service, the other lacking service. If group characteristics are similar the group without services is said to have a need. This technique does not identify real need but simply implies a need.

5) Other needs which are reviewed, are outside the boundary of assessing a learner's needs and include: a) educational program-planning which includes operational and process needs and b) the word "need" when used as a slogan is vague, but is frequently used to gain support for a project.

Monette's principal conclusion is that further research into needs assessment is vital, notably in the philosophical realm. Who can best perceive needs? What value judgements do we make when responding to needs? How might we accommodate shifting needs? What is the relationship between needs and the operational philosophy of the provider institution? These are only some questions which raise complex philosophical issues and are largely ignored in needs assessment. Monette stresses this point as follows: "No analysis which is purely scientific can determine the desirability or 'need' of anything" (Monette, 1977, p. 125). This philosophical quandary has been examined by Moody.

Four Models of Education for the Elderly

Moody (1976) presents four models of adult education which are specific to old age. Underlying the dynamics of each model lies the philosophical question: Is there anything that is distinctive about old age, when compared to the adult population as a whole, which has relevance for education? And if there is an essential difference, how might needs be assessed and an appropriate curriculum be planned? The four models are not considered in a pure chronological sequence but are more centered on attitudes and public policy statements occurring during the recent past. The first model is labelled *Rejection* and is characterized by the public attitude to mandatory retirement and the isolation of the

nuclear family. The prevalent social attitude is that old age and the aged are to be repressed and avoided; they represent mortality, that which one fears and denies. Moreover, the aged are economically unpredictable and therefore expendable. Since our modern attitude is future orientated toward development and progress, the elderly are antithetical. Accordingly, it is considered a waste of resources to educate the aged in this economic focused model.

Social Services, the second model, appears as a band-aid solution to model number one. It is based upon political liberalism and the use of the resources of the welfare state. The principal characteristic is that "something [is] done for someone" (p. 4). Ironically, this action does not assist the person to cope or learn, but to become increasingly passive. This "doing for someone" response is in keeping with the theory of disengagement which, in turn, reinforces and justifies the attitude that the elderly choose to be separated from the mainstream of society. Some educators argue, and the aged frequently agree, that the need is to keep active. Hence, many leisure time pursuits are offered which reinforce the image of the aged as "consumer, not as a producer" in a production orientated society (p. 5). Some examples of educational programs offered under this model are: dancing, crafts, drama, or art appreciation. Moody is critical of this model because:

> Old people are portrayed as human beings who have become something less than human, that is, they are not seriously engaged in projects and demands of life that are validated by the entire community as supremely worth while, such as work, child rearing, artistic creation, or spiritual devotion (p. 6).

The third model, *Participation*, would appear as a solution. This model proposes that the aged maintain social integration and implies that disengagement is inappropriate. Its advocates point to history as a reminder of a time when the aged were active, indeed, were needed in order to have an adequately functioning society. It implies that activity is the basis for successful aging. In this instance the role of education is to plan and offer innovative means of keeping an active social role, such as second career options. Its critics, however, note that the very process of striving for continued integration is a denial of aging and neglects the opportunity to discover a more profound meaning to life.

The final model, *Self-Actualization*, alludes to Maslow's (1968) theory of motivation and is presented as valued. Moody acknowledges that its tenets, which encompass psychological and spiritual growth "does not yet appear on the agenda of social policy,...although its implications for education are profound" (p. 8). An examination of self-actualization in old age evokes the question: "...does old age constitute a phase of

experience with its own distinct and qualitative demands? " (p. 9) Moody continues:

> It is difficult to imagine exactly what this consists of,
> precisely because old age in the modern world has no
> distinctive or positive features. It is either an invisible void
> in one's psychological life-space or it is to be "filled-up" with
> activities in common with previous roles and responsibilities
> (p. 9).

Still, this aspect of aging is not invisible in all cultures. India and China are cited as examples where the elderly hold a position of respect and their unique task is spiritual, contemplative and meditative. Knowles (1978) concurs with Moody on the importance of life experience in relation to adult learning. Indeed, it is the basic pillar of andragogy. Knowles states:

> ...to an adult, his experience is who he is. So in any
> situation in which an adult's experience is being devalued or
> ignored, the adult perceives this as not rejecting just his
> experience, but rejecting him as a person. Andragogues
> convey their respect for people by making use of their
> experience as a resource for learning (p. 56).

Acknowledgement of the aged person's experience and applying it to present need is only one challenge which the adult educator must encounter. Moody asks the basic question: Why should older adults be educated? Is it simply because it is thought to be something "good" to do? If the underlying philosophy is to keep busy, then programming with a focus on leisure-time activities will suffice. Many elderly will agree. Moody is forceful in stating that in assessing the educational needs of the elderly our vocabulary is "largely vacuous" because it is based on the false premise that educators are responding to these needs. In truth, however, " we have no clear idea of why older adults should be educated, and this absence of fundamental philosophical reflection is ultimately dangerous for the whole enterprise" (p. 14). Five years prior to the publication of Moody's philosophical premise McClusky perceived that the elderly had unique educational needs.

Unique Needs of the Elderly

In preparation for the 1971 White House Conference on Aging McClusky developed a "theory of margin" which depicts man as struggling to maintain self-autonomy. In order to triumph in this battle one needs energy which is expended, in a balance, between the individual's "load", demands made upon the individual, and one's "power", the resources available to control the load. During old age there is thought to be a diminishing of power with a resultant increase in the weight of the load. The load was considered heavier

because of the problems related to aging such as retirement and poor health. Consequently, it was recommended that education help to lighten the load by providing the necessary resources to cope with the later stages of life. This notion, incidentally, anticipates the empowerment movement which helps people to take more control and to master changes in their lives by learning to make appropriate decisions. McClusky did not expand upon this theory. He did, however, go on to identify educational needs of the elderly which could be interpreted as a pragmatic application of this theory.

In 1974 McClusky presented five categories of hierachial educational needs of the elderly which are cited by Lowy (1986). Although individual needs may vary, all are thought important in maintaining a sense of autonomy and could be addressed by ongoing education. The categories are as follows:

1) Coping needs which emerge in part from the general process of aging and subsequent adjustments which may be required. Such needs include assistance with nutrition, shelter, clothing, health care, finances and other activities of daily living. Clearly, these needs correspond to an instrumental classification, defined by Londoner as "survival needs". Educational goals responding to these needs would include subjects which fill the gap left in earlier learning, and could include literacy courses. Aspects of normal aging and the required adjustment brought on by role transition, economic modification and understanding affective changes, are some recommended areas of instruction.

2) Expressive needs, as defined by McClusky, are in accord with Parsons' social theory. Learning for its own sake and the pleasure it affords, presents opportunities for intellectual challenge tnrough the arts, and at another level, the facilitation of growth through personal relationships. This aspect of education is frequently associated with leisure time pursuits and not with financial gain.

3) Contributive needs highlight the altruistic tendency of most people. They take the form of social involvement, generally through volunteering one's time and energy in the service of others. Education can facilitate and enhance the process by providing training in technical skills and by serving as a resource centre. Incidentally, the 1981 Conference on Aging, Recommendation 424 states: "Tax credit should be established for older persons who donate 50 hours or more per year to non-profit agencies" (Lowy, 1986, p. 188).

4) Influence needs examine the desire, by most people, to be meaningfully

participative in social issues. This may be accomplished by involvement with community or political groups. Education can fill a role by providing information which guides the individual through the complexities of the bureaucratic arena, and assisting with evaluating the outcomes. In contemporary society the older citizen acts to influence social change for personal as well as altruistic reasons.

5) Transcendence needs centers on life-review, a need to look back in order to look forward with acceptance and understanding. To transcend the ephemeral dimensions of life and to accept mortality is a developmental task of old age. The process,in order to be successful, must be ego-transcendant rather than egocentric. The expressive goal of education is appropriate in helping the aged achieve this complex aim.

Accordingly, it is evident that McClusky is in concert with psychologists (Maslow and Erikson) in presenting the role of education in relation to needs at the later stages of life. He also recognizes its complexity. He states:

> ...the development of a curriculum especially designed for
> older persons will constitute a massive task for innovation,
> demonstration, evaluation and research in the years ahead
> (McClusky 1980, p. 86)

More recent research examines the distinction between the educational needs and wants of the elderly. Peterson (1983) defines needs as what the experts think the aged should have, and are generally judged by observation. Such needs are frequently viewed from a deficit model and formulated along a philosophical scheme and "idealized values" (Peterson, 1983, p.132). Consequently, programs based on the needs of experts are easy to sell to the public. Such programs, however, may not be what the potential student deemed to be the appropriate need. On the other hand, wants are defined as choices of the elderly. These choices may sometimes appear as whimsical and often defy the educational label, suggesting rather a social or recreational orientation. Such programs are often difficult to justify to an educational administration or board. Hence, needs, the administrator's perception, dominate wants, the choices of the elderly. The intermingling of needs and wants is considered appropriate but its success depends upon the background of the learner. Level of education, state of health, financial resources and location of the sessions are only some of the aspects to be considered when attempting to identify the meaningfulness of interest among the elderly.

Knowles (1978) reviews three sources for building a model to assess educational needs. The primary source is the individual who, through a selected procedure, expresses

personal needs and goals. The second source of information is the organizatio.i which studies supervisors' reports regarding performance, productivity, safety, costs and effectiveness and thereby assesses specific n.·eds. The third source is society which relies on the expertise of its professionals. Knowles states that in pragmatic terms if conflict arises between these three sources of information, reality demands that a compromise be made between individual and organizational needs. Other authors hold similar opinions. Londoner (1978) recommends three sources of information which are important in needs assessment, experts, clients and educational planners. Interviews, survey research and "opinionnaires" are client sources of information. Moreover,Londoner suggests that all data be screened through the expressive and instrumental categories. Peterson (1983) concludes that regardless of the methodology of data collecting, needs are self-perceived desires, and if these needs and desires are not met through program planning class attendance will be low.

The Expressive/Instrumental Categories and Needs

Peterson (1983) reviews the research findings relative to expressive and instrumental educational goals. He concludes that both categories could be accepted by the elderly and encourages their participation in both. In order to be successful, however, the differing categories should be targeted at different socioeconomic sectors. The instrumental category could serve those with greater coping needs, those frequently at a less fortunate economic level. The expressive category is considered to best meet the needs of the more educated and economically stable sector of society. This recommendation is in agreement with the research of Green and Enderline (1980). Their key hypothesis was that interest in the expressive category will be highest among those from the middle and upper-middle socioeconomic class and instrumental educational goals would be selected by those in the lower socioeconomic class. Nevertheless,"There must be a felt need on the part of the old learner" (Wass, 1977, p. 414) before an individual will enroll in any course, regardless of its expressive or instrumental label.

Methodology of Needs Assessment

Lowy (1986) examines some problems in collecting data from questionnaires, the most frequently used procedure for identifying needs. First, how does the researcher develop an adequate measurement of the educational interests of todays' elderly? The

frame of reference, for the aged, is often in the past ir. considering subjects or teachers which were "liked" or "not liked" and applying that former perception to today. Nevertheless, Strong's (1943) supports this point of reference. He reported that a rapid change of interest occurred between the ages of 15 and 25. This interest stabilized between 25-55, and accounts for a relatively constant interest level. A decrease in interest between the ages 25-55 was associated primarily with activities which required physical exertion. Second, questionnaires are often designed so that respondents are "forced" to choose among alternatives but have no true interest in the topic. For example, most questionnaires do not ask if one would be willing to attend a program in the topic area, the ultimate test of interest. Third, one tendency of the examiner is to assume that a person has educational interests. Significantly, it is pointed out that many elderly hold little or no interest in educational activity (Peterson, 1971). Hence, it is meaningless to present this individual with a list of subjects and receive a "psychologically forced" reply which indicates true interest. Individual interest will differ depending upon how the question is posed. Admittedly, the questionnaire does have its flaws but, at this time, it is the only source of data collection which is practical. Clearly, there is no one model which is totally adequate in assessing educational needs.

Chapter III
Research Process

Research Hypotheses

A review of selected literature from various professions such as adult education, psychology, social work and medicine indicates that lifelong learning is a concept which is interwoven into developmental stages of life. Personal growth is not halted at a certain age nor is it influenced by one's place of residence. An individual's interest frequently changes in accord with a changing lifestyle and adult educators can ease this transition. One approach toward this objective is to use Parsons' theory of expressive and instrumental goals as a guide to identify the educational interests of older adults. Accordingly, this research will examine the following hypotheses:

H.1)   *that a significant majority of the residents of an institutiona!
        setting, 60 years of age and older do not believe they are
        too old to learn.*

H.2)   *that the institutionalized elderly will choose topics of
        interest categorized as "expressive" rather than
        "instrumental".*

H_0.2)   *The institutionalized elderly, 60 years of age and over will
        show no statistically significant difference in their
        preference of topics categorized as "expressive" or
        "instrumental".*

Definition of Terms

For the purpose of this research the following terms are functionally defined:

1) Resident.   A resident is defined as an alert male or female, over 60 years of age, living in an institutional setting and dependent upon professional or non-professional assistance in performing activities of daily living. Assistance may be required for personal hygiene and grooming, nutrition, medical and/or nursing care and emotional support.

2) Institutional Setting: An institutional setting is defined as a private or public home or hospital which provides twenty-four hour professional care for the elderly on a long-term basis.

3) Expressive Category: The expressive category is a classification of topics offered as a learning activity which provide immediate satisfaction in and of themselves. Such topics are sometimes classified as liberal, and assist one in

personal growth through an examination of values which leads to an expansion of self-awareness and in turn improves relationships and heightens coping skills. In this study 22 topics have been labelled as expressive using earlier research as a guide (Hiemstra, 1972).

4) Instrumental Category: The instrumental category is a classification of topics offered as a learning experience which provide future satisfaction. These topics are also considered vocational, pragmatic and directed outside oneself. Such topics can improve one's life situation by providing skills for survival. In this research 22 topics have been labelled as instrumental using ι ε procedure described above.

5) Courses taken in the past: This category includes those topics studied any time from early adulthood to the past 6 months and provided by any recognized educational institution, or a regularly scheduled learning activity held at one's present residence.

6) Courses taken at present: This category includes all regularly scheduled learning activities, continuing over a period of one month or more in which the respondent is a present participant.

7) Education interest is defined according to Strong (1943) as follows:

> Interest is present when we are aware of our set or disposition toward the object. We like the object when we are prepared to react toward it; we dislike the object when we wish to let it alone or get away from it (p. 7).

In this research the respondents' interest level was measured for each of the 44 topics according to the responses which were given to a five point Likert Scale.

8) Topic of Interest: Includes the 44 topics which were listed on the questionnaire. Twenty-two of these topics belong to the expressive category and twenty-two to the instrumental category. No description of content was given.

Population

The institutionalized geriatric population was the focus of this research. The sample population was not random. However, the criteria for admission into a long-term care facility is, in general, standardized. Therefore, it was assumed that the data producing sample was representative of the institutionalized geriatric population of the urban centres in Quebec.

The selected sample population for this research consisted of residents of institutional settings: one long-term care hospit﹖ , one rehabilitation centre and four nursing homes located in Metropolitan Montreal. The criteria for participation were: no dementia or dementia-related diagnosis, over 60 years of age and a willingness to complete a questionnaire. Physical limitations and/or chronic illness were not considered to be inhibiting factors. The names of potential participants were supplied by either the Executive Director or the Director of Nursing of each facility. The respondents had diversified backgrounds. There was a balanced mix of residents from institutions designated as Roman Catholic, Jewish, Salvation Army and United Church. The cultural and religious backgrounds, however, were not examined in this study. The data-producing sample consisted of 70 women and 30 men. A more detailed profile appears later in this study.

Research Design and Dat﹖ Collecting Instrument

This research used a questionnaire as the method of collecting data. The method of developing the questionnaire is expanded upon below. In two institutions the residents were addressed, by the interviewer, at a regularly scheduled Residents' Council meeting. They were told of the research objectives, anonymity and confidentiality were assured, questions were answered and participation was requested. Following the meeting questionnaires were distributed, as asked; also, a notice was placed on the bulletin board, on every floor of the facility, which was signed by those who chose to be interviewed. In the four remaining health facilities, potential respondents were approached, by the interviewer, on an individual basis; the study's aim and the steps of the process were described. There was a high level of co-operation, indeed, enthusiasm, among many of the elderly in completing the survey. More than 80% of the respondents chose to be interviewed. The others elected to complete the questionnaire alone and to return it at a predetermined date. The refusal rate was low; only four people excused themselves from the interview because of being "too tired" or not feeling well. There were 115 individuals who agreed to participate and 100 questionnaires were considered for the study. Fifteen questionnaires were rejected either because of incompleteness or not meeting validity criteria.

This questionnaire was considered experimental because it addressed two non-traditional aspects of adult education: 1) it was directed at a population which was much older than the average adult learner is thought to be, 2) the research population was

unique because its members are living in an institution whose primary mandate is health care and not education.

The search for an appropriate model questionnaire was unsuccessful. Questionnaires targeted at identifying the educational needs of the adult population were not specific to those over 60 years of age and generally neglect people living in an institutional setting. When the interests of the aged were studied, the focus, most often, was upon those who are healthy and living in the community. However, one questionnaire which had be used by a community college was located. The objective, in part, was to determine its students educational perceptions, understanding and needs. The students were residents of retirement homes and convalescent hospitals; 58% were aged 55-7ᴄ years and 10% were aged 85 and over (Nielson and Geyer, 1986). The second aim of the questionnaire was to determine how its program was perceived by the college's staff and administrators. Consequently, it was necessary to create a new questionnaire based on the available literature in this domain and using the described questionnaire as a guide only (Appendix A). The first page of the questionnaire was designed to obtain:

    a) biographical data such as age, sex and educational background.

    b) interest in adult education programs in terms of health or being too old.

    c) present perception of educational needs being met or not.

    d) how much time they were willing to devote to adult education courses.

The following four pages listed 44 topics grouped according to four areas: 1) Arts and Science, 2) Fine Arts and Crafts, 3) Health Care, Recreation and Leisure and 4) Personal Life. These topics were compiled using the advertisements for community based adult education programs. Interest in each topic and interest in attending a class in that topic were measured on a five point Likert Scale: "not at all" (1), "a little bit" (2), "some" (3), "quite a bit" (4) and "a great deal" (5) The topics were then categorized as instrumental (22) and expressive (22) as described above. In accord with the earlier research the respondents were not made aware of the division of topics.

The secondary aim of the questionnaire was to determine stability of interest in a topic. Hence, the participants were asked to respond, with a "yes" or "no", to past and/or present attendance at a class in each of the 44 topics.

The questionnaire was then pretested for reliability, validity and appropriateness with a sample population of twenty people. The pretest population consisted of those living in an institutional setting and aged 60 to 86; the average age was 75. Some respondents noted the unequal distribution of what they considered "masculine" and "feminine" topics,

and also offered suggestions for additional topics. This insight required an adjustment which provided a more reliable data collecting tool, one which measured only what it intended to measure. Some features which were considered when testing for appropriateness were: amount of time required to complete the questionnaire, size of the print, color of the paper and the ease of completing the questionnaire without assistance. An example of a response to a topic was given in order to facilitate clarity. Lastly, pretesting indicated that most people preferred being interviewed rather than completing the questionnaire alone. Nonetheless, participants were given an option. Agreeing to this request held a clear advantage in reaching a greater number of respondents, those who might otherwise have refused participation, notably because of poor vision or arthritic hands, or by those who are illiterate. Incidentally, in a similar study Brockett (1985) used both methods in conducting research in a long-term care facility; most of the elderly chose to be interviewed. It was reported that this dual method of collecting data did not effect the outcome.

The actual survey for this research was conducted by one interviewer over a period of two months. The interview was structured, yet informal. The questions were read, by the interviewer, as they were in the questionnaire and in the same order. The answers were recorded, by the interviewer, on the questionnaire as they were given. However, the interviewer had the possibility of repeating a question if necessary, to explain a question if it was not well understood and to ask follow-up questions for clarifying the respondents' point of view.

Chapter IV
Research Findings

Age of Population

There was an age range of 60 to 98 among the 100 institutionalized elderly who participated in this study. The average age was 82. The ages were divided into three categories: the "young-old", aged 60-79, the "middle-old", 80-89 and the "old-old" 90 and above. As indicated in Table 1, those aged 80-89 had the highest rate of participation. The age difference between the sexes was not significant. However, there were more females (70) respondents than males (30).

Age of Population

Age	60 - 79 N	60 - 79 %	80 - 89 N	80 - 89 %	90+ N	90+ %	Total N	Total %
Female	25	35.7	42	60.0	3	4.3	70	100.0
Male	10	33.3	15	50.0	5	16.7	30	100.0
Total	35	35.0	57	57.0	8	8.0	100	100.0

Table 1

Education Level of Population

The respondents' highest level of education was placed into one of four categories: 1) primary school, 2) high school, 3) some post-secondary education, which included vocational school or college and 4) college or university graduate, including the undergraduate and the graduate levels (Table 2). The female participants had attained a higher level of education than the males. The Chi-Square measuring the difference between male and female level of education was significant (p <0.05).

Level of Education

Highest Level	Primary N	%	High School N	%	Some College N	%	University N	%	Total N	%
Female	22	31.4	21	30.0	11	15.7	16	22.9	70	100.0
Male	17	56.7	4	13.3	5	16.7	4	13.4	30	100.0
Total	39	39.0	25	25.0	16	16.0	20	20.0	100	100.0

Table 2

Hypothesis One

The first hypothesis was that:

> a significant majority of the residents of an institutionalized setting, 60 years of age and older do not believe they are too old to learn.

Question IV and question V, A of the questionnaire (Appendix A) examined this supposition; both questions requested a "yes" or "no" reply. Question IV asked: "Do you feel that your present state of health does/would prevent you from participating in adult education classes?" And V,A asked for a response to the statement: "I am too old to participate/learn."

Health

In answer to question IV a significant majority (78%) of the residents rejected the notion that their health would interfere with their ability to participate in a learning activity (Table 3). Twenty-two percent believed that their present state of health was an inhibiting factor. Surprisingly there was no significant difference in the responses when comparing age groups.

State of Health

Age	60 - 79 N	60 - 79 %	80 - 89 N	80 - 89 %	90+ N	90+ %	Total N	Total %
No	26	74.3	48	84.2	4	50.0	78	78.0
Yes	9	23.7	9	15.8	4	50.0	22	22.0
Total	35	100.0	57	100.0	8	100.0	100	100.0

Table 3

Too Old to Learn

The statement: "I am too old to participate/learn" was directly focused upon the first hypothesis. The response was strong and clear. A significant majority of 86% disagreed, 6% were uncertain and only 8% agreed (Table 4). It was noted that the highest response was among those responding to the "strongly disagree" category (55%) and the lowest response was to "strongly agree" (1%).

Too Old to Learn or Participate

Age	60 - 79 N	60 - 79 %	80 - 89 N	80 - 89 %	90+ N	90+ %	Total N	Total %
S-Disagree	22	62.8	29	50.9	4	50.0	55	55.0
Disagree	10	28.6	19	33.3	2	25.0	31	31.0
Uncertain	1	2.9	5	8.8	0	0.0	6	6.0
Agree	2	5.7	4	7.0	1	12.5	7	7.0
S-Agree	0	0.0	0	0.0	1	12.5	1	1.0
Total	35	100.0	57	100.0	8	100.0	100	100.0

Table 4

In this research the elderly have not accepted the societal myth of being too old to learn. Hypothesis one was accepted.

Hypothesis Two

The second hypothesis stated that:

> *the institutionalized elderly, 60 years of age and older, will choose topics of interest categorized as "expressive" rather than "instrumental".*

Interest in Topics

The respondents' interest in each of forty-four topics was recorded according to a five point Likert Scale. The responses were weighted as follows:

not at all	1
a little bit	2
some	3
quite a bit	4
a great deal	5

This procedure resulted in a weighted interest scale with a range of 100 to 400. This scale was adjusted, for ease of calculation, to a 0 to 300 range. The topics were then ranked into six divisions following a 50 point range of weighted level of interest (Table 5).

Topics Ranked According to General Interest

Rank	Category	Topics	Interest	Division
1	E	World Affairs	286	High Interest
2	E	Music (Appreciation)	236	Preferred
3	E	Second Language	235	
4	E	Literature, Poetry	207	250 - 200
5	E	Bridge, Card Games	191	Eventual
6	E	Human Relations	188	
7	E	History, Geography	181	
8	E	Educational Games	170	
9	E	Public Speaking	169	
10	I	Nutrition and Cooking	168	
11	I	Medical Information	154	
12	E	Sewing, Weaving, Etc.	151	
13	E	Music (Playing)	150	200 - 150
14	I	Low Impact Aerobics	147	Indifferent
15	I	Religion, Sociology	143	
16	I	Travel Information	121	
17	E	Philosophy	120	
18	I	Business Administration	116	
19	E	Indoor Gardening	116	
20	E	Creative Writing	109	
21	E	Painting, Drawing	106	
22	I	Stress Reduction	104	150 - 100
23	I	Gerontology	97	Should not be
24	E	Art History	92	Considered
25	I	Economics	85	
26	E	Interior Decorating	83	
27	I	Law for the Senior	80	
28	I	Tax Planning	70	
29	I	Senior Consumerism	67	
30	I	Physical and Natural Sc.	65	
31	E	Fashion, Jewellery	64	
32	E	Ceramics, Pottery	63	
33	E	Social Dancing	63	
34	E	Woodworking	58	
35	I	Aqua Fitness	53	
36	I	First Aid	53	100 - 50
37	E	Photography	46	Rejected
38	I	Diversities of Judaism	42	
39	I	Computer (Any Topics)	39	
40	I	Machine Shop	16	
41	I	Social, Community Work	16	
42	I	Retirement Planning	10	
43	I	Real Estate	9	
44	I	Employability Skills	0	50 - 0

Table 5

The six divisions were defined relative to expressed interest which implied appropriateness for program planning as follows:

Division	Weighted Interest	No. of Topics
High Interest	300 to 250	1
Preferred	250 to 200	3
Eventual	200 to 150	9
Indifferent	150 to 100	9
Should not be Considered	100 to 50	14
Rejected	50 to 0	8

Table 5 also indicates the category of each topic and the weighted level of interest of each topic.

There are only four topics which are listed in the 300 to 200 division and qualify as having a "great deal" and "quite a bit" of interest. World Affairs was the prime topic of interest. Music (Appreciation, # 2) differed in choice, from Music (Playing, #13). Second language was the third ranked choice. The preferred language was French. English was chosen by a minority of French Canadians. There were 9 topics with a weighted interest between 200 and 150 which indicated a "little bit of interest". These nine topics which were ranked 5 to 13 were labelled "Eventual" topics in terms of programs planning. The following nine topics were ranked 14-22 with a weighted interest of 150 to 100 and were considered to hold "some" interest and thus were listed as "Indifferent".

The highest number of topics (14) were in the "Should not be Considered" division. These topics were ranked 23 to 36 with a weighted interest ranging from 100 to 50. There were 8 "Rejected" topics which were ranked 37 to 44 and weighted 50 to 0 on the interest scale. These topics were "not at all" of interest.

Topics Ranked According to Category (Expressive)

Rank	Category	Topics	Interest	Division
1	E	World Affairs	286	High Interest
2	E	Music (Appreciation)	236	Preferred
3	E	Second Language	235	
4	E	Literature, Poetry	207	250 - 200
5	E	Bridge, Card Games	191	Eventual
6	E	Human Relations	188	
7	E	History, Geography	181	
8	E	Educational Games	170	
9	E	Public Speaking	169	
10	E	Sewing, Weaving, Etc.	151	
11	E	Music (Playing)	150	200 - 150
12	E	Philosophy	120	Indiferent
13	E	Indoor Gardening	116	
14	E	Creative Writing	109	
15	E	Painting, Drawing	106	150 - 100
16	E	Art History	92	Should not be
17	E	Interior Decorating	83	Considered
18	E	Fashion, Jewellery	64	
19	E	Ceramics, Pottery	63	
20	E	Social Dancing	63	
21	E	Woodworking	58	100 - 50
22	E	Photography	46	Rejected

Table 6a

Topics Ranked According to Category (Instrumental)

Rank	Category	Topics	Interest	Division
1	I	Nutrition and Cooking	168	Eventual
2	I	Medical Information	154	200 - 150
3	I	Low Impact Aerobics	147	Indifferent
4	I	Religion, Sociology	143	
5	I	Travel Information	121	
6	I	Business Administration	116	
7	I	Stress Reduction	104	150 - 100
8	I	Gerontology	97	Should not be
9	I	Economics	85	Considered
10	I	Law for the Senior	80	
11	I	Tax Planning	70	
12	I	Senior Consumerism	67	
13	I	Physical and Natural Sc.	65	
14	I	Aqua Fitness	53	
15	I	First Aid	53	100 - 50
16	I	Diversities of Judaism	42	Rejected
17	I	Computer (Any Topics)	39	
18	I	Machine Shop	16	
19	I	Social, Community Work	16	
20	I	Retirement Planning	10	
21	I	Real Estate	9	
22	I	Employability Skills	0	50 - 0

Table 6b

A Comparison of Expressive and Instrumental Interests

As Table 5 indicates the first nine topics of interest are categorized as expressive and seven of the eight "Rejected" topics are instrumental. Table 6 shows the topics divided into the expressive and instrumental categories. The top four expressive topics are listed in the "High Interest" and the "Preferred" divisions. Conversely, the top four instrumental topics are listed in the "Eventual" and "Indifferent" divisions. There are only two instrumental topics in the "Eventual" division as compared to seven expressive topics. This division indicates that these topics could be considered in program planning. There was a close response to the "Indifferent" division, expressive (4) and instrumental (5). There are more (8) intrumental topics in the "Should not be Considered" division than expresive (6). The "Rejected" division lists seven instrumental topics and only one expressive topic. In summary the responses were:

Level of Interest	Expressive	Instrumental
High Interest	1	0
Preferred	3	0
Eventual	7	2
Indifferent	4	5
Should not be Considered	6	8
Rejected	1	7

The Expressive/Instrumental graph (Figure 1) indicates the level of interest in expressive and instrumental topics. The X axis indicates weighted interest which was arranged in a group frequency distribution (every 30). The Y axis indicates the frequency of responses. The bimodal expressive curve indicates two distributions of interest.

Expressive and Instrumental

Frequency of Weighted Responses

Level of Interest

—— Expressive —+— Instrumental
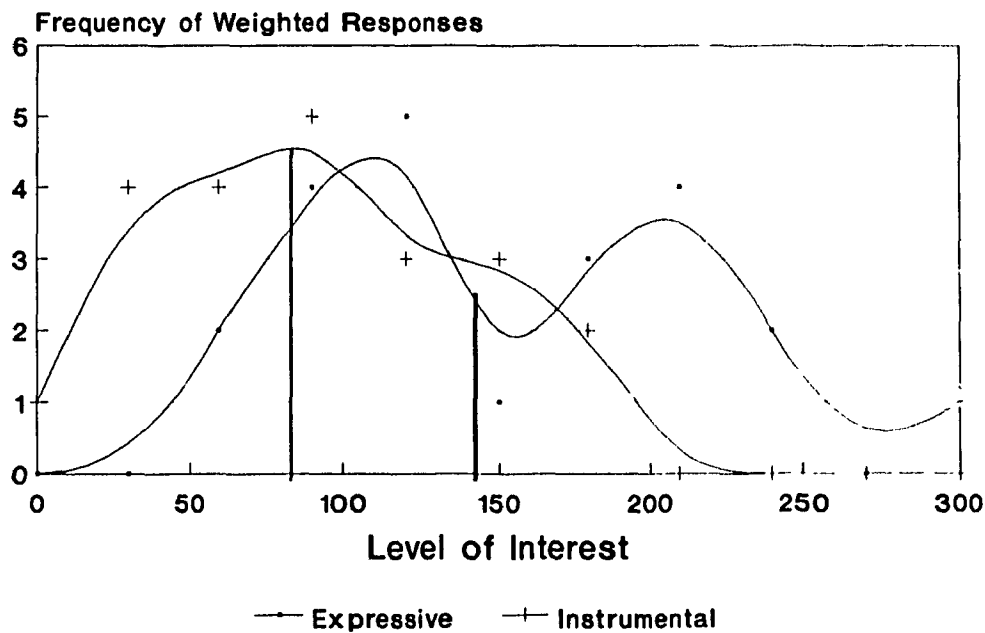
Figure 1

Statistical Analysis

A simple analysis of variance (ANOVA, F Test) was the parametric procedure which was chosen because it allows for a comparison of the means of two or more independent samples. The ANOVA allows for data analysis both within and between the sample groups and is applicable to samples of any size. Within sample analysis reflects the variation of individual scores about the mean. Between sample analysis reflects the variation of individual scores and the effect of any differential treatment.

The probability for statistical significance was set at the 0.05 level. The statistical findings for each sample unit follows:

	Expressive	Instrumental
Mean	140.0	75.2
Standard Deviation	65.5	49.8
Variance	42.92	24.84

The between sample and within sample were highly significant ($p < 0.01$). See Appendix B. The $H_0.2$ was rejected. There was a statistically significant difference shown by the institutionalized elderly in their choice of topics categorized as "expressive" or "instrumental". Accordingly, hypothesis two was accepted:

> the elderly residing in an institutional setting prefer topics
> labelled "expressive" rather than "instrumental".

Additional Results

This study examined three other aspects of education relevant to the institutionalized elderly. These issues included: perception of educational needs (question V, B/C), class participation in terms of interest and time available (question VI and column II), and past and present participation relevant to each of the 44 topics under consideration (columns III & IV of the questionnaire).

The respondents answered question V in either section B: "My educational needs are presently met because:", or section C: "My educational needs are not met because:". Forty-six percent of the respondents answered that their educational needs were met and 54% of the respondents stated that their educational needs were not met. The respondents to both categories indicated their reasons for their choices.

Educational Needs Met

Many respondents (34%) reported pursuing various routes of self-directed learning. Thirty-nine percent agreed that formal programs were available and 23% replied that there was enough informal activity to meet their educational needs. Accordingly, in considering the three alternate choices, 46% agreed that their educational needs were met either because there was enough informal activity or adult education programs available or they were active in learning on their own (Table 7).

Education Need Met

Responses*	SD	D	U	A	SA	NA	Total
"On my Own"	0	0	3	31	3	9	46
Formal Available	0	2	3	39	0	2	46
Enough Informal	0	2	10	23	0	11	46

Table 7

Educational Needs Not Met

There were more (54%) of the participants who agreed that their educational needs were not met (Table 8). The majority of the answers fell into the (NA) "Not Applicable / Do Not Want to Answer" category. Cost does not seem to have been a factor. There was agreement (32%) that one reason for the unmet need was the lack of educational activities. This finding was in contradiction to those who stated that their educational needs were met because such activities were available. Thus, it remains uncertain as to why needs were not met.

*	SD	Strongly Disagree	A	Agree
	D	Disagree	SA	Strongly Agree
	U	Uncertain	NA	Not Applicable

Education Need Not Met

Responses	SD	D	U	A	SA	NA	Total
No Interest	0	5	0	8	1	40	54
Too Expensive	0	9	0	0	0	45	54
No Activity/Class	0	14	5	32	1	2	54

Table 8

Time Available for Class Attendance

Table 9 illustrates a significant majority (86%) considered giving less than five hours a week to formal educational activities. There was no significant difference between gender in this response.

Weekly Time for Adult Education

Hours	0 - 4		5 - 9		10+		Total	
	N	%	N	%	N	%	N	%
Female	62	88.6	7	10.0	1	1.4	70	100.0
Male	24	80.0	6	20.0	0	0.0	30	100.0
Total	86	86.0	13	13.0	1	1.0	100	100.0

Table 9

A Comparison of Interest in Topics and Class Attendance

This study examined the distinction between the level of interest in a topic and the level of interest in attending a class dealing with that topic. One may be "interested" in a topic and still not be prepared to spend time and energy in attending a formal class. Both aspects of interest were measured on a Likert Scale which was weighted 1 to 5 (as described above). Compared levels of interest is illustrated (Figure 2). The X axis indicates weighted interest; the Y axis indicates frequency of response.

Topics and Classes

Frequency of Weighted Responses
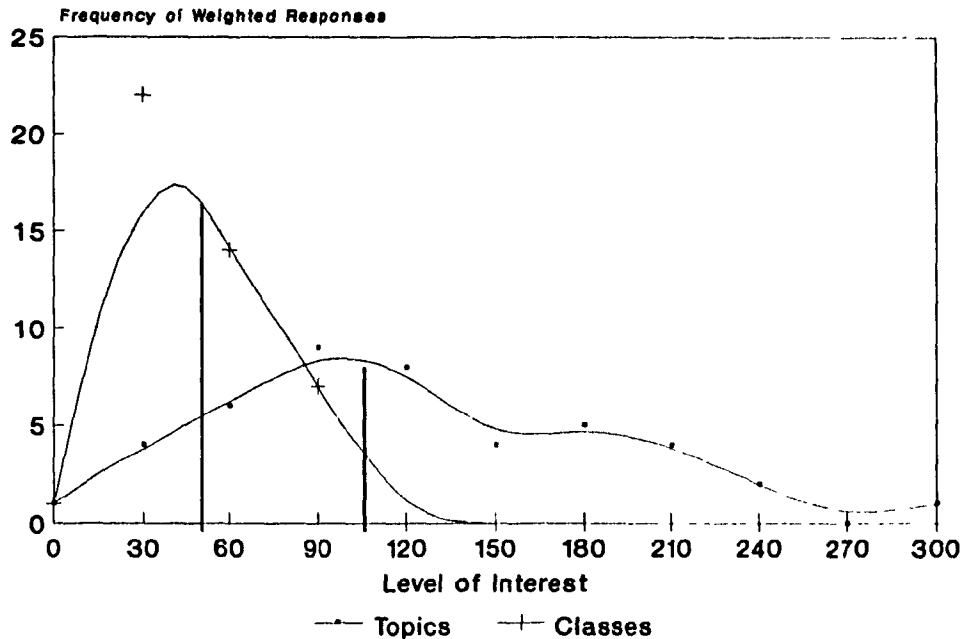
Figure 2

As Figure 2 denotes the majority of respondents have expressed a wide variance of interest and disinterest in topics. The highest extension of the "topics" curve is to the left, between 90 and 100, which signifies the "Rejected" and "Should not be Considered" division of topics. This curve rises slightly again as it responds to an interest in "Indifferent" and "Eventual" topics between the 150 and 200 level. On the other hand, there was more consensus in expressing a disinterest in class attendance. The "class" graph is skewed to the left indicating a minimal interest in class attendance.

The statistical analysis of data which compared interest in a topic with interest in attending a class in that topic follows:

	Topic	Class
Mean	107.0	55.5
Standard Deviation	66.6	39.9
Variance	44.43	15.95

The F Test (ANOVA) was used to measure the level of significance of the sample units (Appendix B). The F Ratio (165.54) was highly significant (p <0.01). The respondents to this study showed strong agreement in their disinterest in class attendance and less general agreement in terms of interest in topics.

Courses Taken in the Past

Research in human behavior has often noted that people are interested in topics with which they are familiar. In this study participants were asked to indicate the courses they had taken in the past at the post-secondary level, part of an adult education program or as a regularly scheduled learning activity at one's residence. Only five topics were mentioned by more than 20% of the respondents (Table 10). However, there was an interesting relationship between the courses which were taken in the past and present interest. The topic which had been formerly studied by the majority of respondents (47%) was a second language. This study ranked the topic third in general interest. Music was studied by 39% of the elderly and it now appeared in second rank of interest. Literature/Poetry, the fourth most popular topic today, had been studied in the past by 35% of the respondents. History and Geography held the seventh position of interest in this study; it had been studied by 21% of the sample population. Lastly, Sewing, Weaving appeared fifth as topics studied in the past and now held the twelfth position of general interest. Accordingly, the four topics which this study identified as holding prime interest are the same four topics which had been studied in the past by the majority of the respondents. This finding is in agreement with the research of Strong as cited in the literature review.

Comparison: Past Courses and Present Interest

Past Rank	Past Participation	General Rank	Topics
1	47%	3	Second Language
2	39%	2(13)	Music (Playing)
3	35%	4	Literature, Poetry
4	21%	7	History, Geography
5	20%	12	Sewing, Weaving

Table 10

Courses Taken at Present

This study's data found that there was very little present participation in adult education programs principally because little was offered. Only 33% of the 100 respondents stated they participated in adult education programs (Table 11). In practice, however, this rate is much lower; this statement will be expanded upon in Chapter V. It was not surprising that World Affairs, the principal topic of interest was among courses available. Moreover, its low rate of particip·tion emphasized this study's finding that an interest in a topic does not necessarily follow an interest in class attendance.

Courses Taken at Present

Rank Order	Present Participation	General Rank	Topics
1	19%	14	Low Impact Aerobics
2	6%	7	History Geography
3	4%	1	World Affairs
4	4%	21	Painting - Drawing

Table 11

Chapter V
Discussion

Level of Education

Many people who are now over the age of 60 have not had the opportunity to complete formal schooling. In general, girls were expected to marry, care for the children and the home; and thus, only basic education was judged to be necessary. Boys held no advantage; even when given an expanded educational opportunity it was often stopped if family need intervened. This lack does not necessarily mean a lack of learning opportunities. Many of todays' elderly have made meaningful contributions to society through apprenticeship or informal study of trade and business skills. An interesting outcome of this research was the discovery of a group of women who had a high level of education. This finding may imply the disparity among socioeconomic classes; years ago educational opportunities were available to girls from a more fortunate social level. The masculine population must have been comprised of white or blue-collar workers and some self-taught businessmen. However, no exact data on this matter is available. The recent past has been witness to an increase in the number of people who have attained a higher level of education. And as the literature review indicates these people are most apt to continue on a path of lifelong learning.

Too Old to Learn

The aged in this study have clearly rejected the notion of being too old to learn. The "middle-old" were those who most strongly disagreed. Many were vehement in denying that age was a factor in learning. Indeed, some seemed to be insulted by the statement. Consequently, there are many implications which could be examined. Is the notion of being "too old" in itself one that calls for a defensive response? Would a "yes" answer be equated with admitting to a lessening of cognitive ability? Does the statement expose an inherent assault to self-esteem, a parallel between aging and ability which is stereotypically negative? Does the response indicate a true perception?

In order to gain a fuller understanding of responses to the phrase "too old to learn", cognitive as well as non-cognitive aspects of learning need attention. For instance, minimizing the factors which may interfere with learning has come to be seen as a major task for adult educators. Research evidence continues to mount which indicates the aged

can learn when intellectually challenged and health is maintained. One clear barrier on the path of lifelong learning is a lack of understanding of how the aging brain functions in relation to one's general health. Too frequently the process of normal aging is linked with the process of disease and decline. The risk of chronic disease and disability does increase with age but, as Buhler's research suggests, it is not necessarily cognitively incapacitating. Today many more people survive illnesses because of the improved methods of treatment which have developed over the years. As the literature review has pointed out cognitive abilities cannot be measured in isolation; physical and psychological variables must also be given attention.

This study has sought a physically frail yet mentally alert population. Over 35% used a wheelchair, visual and auditory acuity was diminished, two respondents were blind, and chronic illness added to the list of health concerns. Still, on condition that the learning program be held at their residence most people (78%) believed that their health would not prevent attendance.

As the literature review indicates attitude appears to be the most pervasive and debilitating barrier toward lifelong learning. If one holds a negative attitude pleasure in participating in an activity is absent. Consequently, Parsor , theory is supported; learning, in part, can be considered as the consequence of satisfaction and reward. If the elderly feel intimidated, or otherwise uncomfortable, in a classroom setting a sense of satisfaction in learning will be lacking. Age itself is not a factor. As Aiken (1980) has noted, from a pragmatic viewpoint how a person functions in everyday life may be the best indicator of learning ability. The aged who have participated in this study underscore this point.

Expressive and Instrumental Topics

The participants in this study have indicated a preference for topics categorized as expressive. A review of Table 6 suggests that most of the expressive topics carry the potential of being conducted in a group setting. A setting which can be made condusive to open dialogue fosters the interweaving of past experiences with present events. Accordingly the doorway to personal growth is set ajar. The principal topic, World Affairs serves as an example. Many elderly expressed a desire to follow-up on news stories through small discussion groups with their peers and someone with additional knowledge who could act as a group leader. Others were clear in stating that they did not enjoy speaking in a group because they thought of themselves as "too shy", but expressed a desire to attend a "news" session and listen. This aged population has experienced

extensive social, technological and subsequent personal change. Their need to respond to these kaleidoscopic shifts cannot be halted. This need was also suggested by giving an instrumental topic an expressive focus. Travel Information, which ranked sixteenth on the general interest list, was perceived as a forum for discussion. Some respondents suggested that travel films be shown which emphasized various cultures and geographic areas. Very few respondents considered this topic as a concrete base for planning a trip.

Second Language, the third rank choice, requires that one not study in isolation; this topic is most appropriate for study in a small group. Notably, French is the language of the majority living in this province and thus by expressing an interest in language the respondents have stated a need to be part of the community at large. Human Relations, which ranked fifth on the expressive scale, suggests the same desire for more social interaction and companionship which would be bonded by a sympathetic understanding based upon common experiences.

Literature and Poetry, the fourth "Preferred" topic, could also be held through small group discussions and are excellent tools for sparking memories. Many aged people stated that they enjoyed reading novels and several, with visual loss, continued to read with special aids. The sharing of literary thoughts held appeal. Public speaking as a topic in itself, was ranked in nineth position on the expressive interest scale. Other topics which were perceived as interactive group learning activities were card and educational games, ranked number five on the expressive list. There were many people who were keenly interested in bridge. Indeed, one person who played at the master's level, attempted to teach the game to her peers.

It was interesting to note how some of the aged have adapted to some physical losses. Music (Appreciation) the second most popular topic, differed in choice from Music (Playing), which was listed as number 13 in the general rank. Both aspects of music were judged as a pleasure which could be shared. However, many of the elderly lamented their inability to continue playing an instrument, or drawing and painting because of arthritic hands and/or poor vision. Conversely, many women were active with needlework, ranked number ten as an expressive interest. Many had learned this skill as a youngster and found pleasure in its ongoing pursuit. They were also aware of their limitations, however, and allocated a specific time for the activity, mainly during the daylight hours. On the other hand, physical losses influenced the respondents expressed interests. Some topics which were perceived negatively, in both instrumental and expressive categories were those which demanded some physical activity and do not accommodate to physical infirmities such as poor eyesight, hearing, or problems with mobility. Some of these topics

have been noted above; other topics, according to general rank (#32 to 37) include Social Dancing, Ceramics, Woodworking, Aqua Fitness, First Aid, Photography and (#40) Machine Shop. And, as was stated learning about the computer (#39) was "best left to the young." Consequently, the expressive topics were perceived as those which were appropriate to "student" interaction and dialogue.

Alternately, the instrumental topics demanded that the teacher act as the group expert in providing new information or skills. Hence, the classes would be more appropriately conducted as lectures and there would be less time alloted to "student" dialogue. Nutrition and Medical Information, the first and second ranked on the instrumental list are topics which suggested an interest in healthy aging.

Paradoxically, Gerontology was a topic which held little interest for the elderly. It ranked twenty-third on the general interest list as a topic which "Should not be Considered" when planning programs for the elderly. In response to this topic some people offered comments such as: "I know all about it [aging]", "I could teach the course", "I'm living it" and simply "No, one day I looked in the mirror and saw that I am old." It was made clear that this was a subject in which the aged held true experience. Incidentally, it is interesting that the highly successful Elderhostel Program does not include the aging process, or related topics, in its curriculum (Peterson, D., 1983).

Another surprise was that religion ranked number 15 on the general interest list, thus placing it into the "Indifferent" division. This finding is in contradiction to the generally held opinion that as one ages one turns toward religion. Many respondents, with varied religious backgrounds, stated that they had studied religion as a youngster and had "had enough."

Some other topics which held little interest included Law for the Senior, Tax Planning and Senior Consumerism, respectively ranked 27, 28 and 29 on the general interest list. One possible explanation for this lack of interest is that most of the institutionalized elderly have such matters managed by family members or social workers. They were satisfied with the status quo.

Consequently, this study's results were in agreement with those educators and social scientists who advocate that old age is a time for looking back and applying past experiences to present learning activities in order to look forward v ith strengthened understanding or new insights. The topics categorized as expressive serve as a guide toward this end. And as Moody has so emphatically emphasized, the task of planning programs for the aged "has barely begun" (Moody, 1976, p. 11).

A Comparison of Past Courses with Present Interest

The respondents in this study have shown a stability of interest over the years. This outcome was in agreement with the previously cited research of Strong, Thorndike and Verduin. This study also noted that a decrease in interest was associated with those activities which require physical exertion. All the topics in which the elderly identified a "Preferred" interest are topics which had been studied in the past and do not require physical abilities. Second language held the top position of subjects studied in the past (47%) and appears as third in 'odays' ranking. Music holds an ongoing interest but its mode is modified. In the past 39% of respondents had learned to play an instrument. Aging has brought about diminished physical abilities, primarily arthritic hands, which forced many to place their instruments aside; still, the interest continued and appears in second rank of interest, Music Appreciation. Literature and Poetry was reported to have been studied by 35% and contemporarily it holds interest at the number four position. History and Geography held past interest for 21% of the elderly and is ranked seventh in general interest. The interest in these two topics may be interpreted as an expanding interest which surfaces as a prime concern with World Affairs.

Courses Taken at Present and Educational Needs

Educational opportunities are not readily available to the elderly. Only one facility, at the time of this study, had educational programs brought to its residents. The highest response to present program attendance was for Low Impact Aerobics. This topic was ranked number 14 in general interest and is thus listed in the "Indifferent" division. The 19% rate of participation is misleading. However, it may, in part, explain the 39% response to the "adult education programs are available" option in answer to educational needs being met. All who reported participation in programs were, in fact, under active physiotherapy treatment. Additionally, the Painting and Drawing program, reported a 4% rate of participation, was also a form of therapy under the Occupational Therapy Department. It appeared that some respondents considered these activities more or less as compulsory courses. Accordingly, the 23% total reported rate of participation could be subtracted from the 39% who reported that formal activities were available. If the 16% difference is then added to the 33% who reported that no activities were offered, the total response to "no adult education activities/classes offered" would increase to 49%. This calculation appeared more in agreement with the observations of the interviewer. The only

programs in progress, which were in accord with the definition of adult education, took place at one nursing home. A small number (6%) reported registration in a Canadian History class and 4% participated in World Affairs discussions. In practice, most activities that are brought to the institutionalized elderly are readily classified as leisure time or entertainment in which the resident assumes a passive or spectator role. This finding of minimal present participation in courses support the response to the statement: "My educational needs are not met because no educational activities/classes are offered."

On the other hand, 34% reported that they were actively learning "on my own." The most common method selected for this activity was through reading nonfiction and fiction and the daily newspaper. Following the news and special educational programs on television was also noted to be a favored learning activity. Significantly, television was perceived not only as a source of learning, but also as a way of lessening isolation. This finding is in agreement with the research of Kubey (1980) and Morgan and Godby (1978). As the literature review points out (Kubey 1980) it is recommended that the role of the media be expanded to meet the specific educational needs of the elderly population. In addition, the respondents in this study are in accord with research (Hiemstra, 1976) which indicated that in the absence of a professionally planned education program older adults will plan their own learning project within a personal time frame.

Time and the Elderly

The concept of time holds major ramifications for the elderly. On one level time relative to education program planning is obvious and superficial. What time of day is most suitable to offer programs that will attract the majority of residents? Will the morning interfere with various treatments? During the afternoon will the residents be too tired and want to nap or fall asleep during a class? Will the evening time conflict with a favorite television program or family visit? This level of organizing time may appear routine. One must be aware, however, that many elderly hold to a very strict schedule and a strong incentive is required to break a routine. Moreover, it takes more time to move about. As one person said: "The body won't go as fast as I would like it to, like it did before" and therefore, more energy and effort are required in order to participate in any activity. On a more profound level time holds another meaning. This perception is reflected in the following comments: "The world is closing in - I don't see any reason to go to class", "Time is all I have", "I take courses to fill the time - out of boredom." The underlying concern is for the quality of time invested. The ultimate question is: What is the meaning of time in

terms of the "lifetime" that remains? And lastly, with whom is this time to be shared?

Interest in Class Attendance

Why is the interest in class attendance so low? Other data that was measured implies that the residents' educational interests could be met through adult education: 78% state that their health would not be an inhibiting factor, 86% do not believe that they are too old to learn and 54% perceive that their educational needs are lacking. There are three major considerations to this finding.

First, many of the residents feel that their educational needs are satisfied by other means (described above) than class attendance and this could be interpreted as normal for this population. Additionally, most of the respondents have not attended formal schooling for 60 or 70 years. Many described a classroom where indeed, one was "taught to the tune of a hickory stick." It understandably follows that the stimulation of such memories resulted in the rejection of any future attendance at class. Second, it may mirror a state of depression, which is common among the elderly population. Third, the researcher may be working under the false premise that the aged, interested in a topic, would also want to participate in a structured learning program. Social scientists may interpret this study's finding of low interest as a process of normal aging and label it disengagement. This study suggests that contrary to the need to disengage there is, among the frail institutionalized, a sense of community attachment which is expressed by a shared interest in current affairs and second language.

Gerontologists could assume a distinct perspective in interpreting this disinterest in class attendance. Health care professionals recognize that depression is the most prevalent psychiatric diagnosis of the elderly. It is estimated that among the elderly, with no cognitive impairment, there is a 10-20% rate of depression (Blazer, 1989 p. 164). The most prevalent symptom is an inability to experience pleasure and a decreased level of interest. Clearly, the outcome of this study indicates a low interest level for attending adult education classes. It is at this junction that the efforts of the adult educator and the geriatrician may become complementary. An individual suspected to be suffering from a depression should be encouraged to undergo a physical and psychological examination. If the depression is identified as having its roots in environmental factors the adult educator may be of assistance. Discussion which takes place in small groups and held under the aegis of an adult education program, can alleviate symptoms of depression. It provides a forum for the individual to relive and validate significant experiences which, in turn,

heightens self-esteem and one's sense of identity. As has been emphasized in the literature review subjects categorized as expressive serve as a priceless tool toward this end.

Chapter VI
Conclusion

Recommendations

One consequence of this research was an insight into the technique of collecting data from the elderly. First, the vast majority of respondents preferred being interviewed, rather than completing a questionnaire and returning it at a later time. This procedure was, of course, more time consuming for the interviewer, but it also had its advantages. The questionnaire was completed, there was no concern about a failure rate of return and the interviewer gained subject-related information from the respondents. In addition, the interviewer must be able to quickly establish a rapport with the elderly respondent and must be ever-vigilant not to guide the respondents' replies or comments. Although the minimum time allotted for each interview was twenty minutes, in practice the average time was forty-five minutes with several individual sessions lasting as long as one hour. This time was well spent. Reminiscences of school days, teachers, rules, sadness at having one's education interrupted or stopped because of Wars, the Depression or family struggles was a tale frequently told.

A second insight was that the questionnaire which is used for the elderly respondent should differ from that used with the adult population in general. During the interviews it became apparent that most of the elderly tended to answer in extremes. For example, responses were "yes" or "no", when asked about their interest in a topic. The refinements of answer required of a Likert Scale were often ignored. It followed that it was frequently necessary to remind the respondent of the scale's usefulness; some adapted to it quickly, others did not. Consequently, it is recommended that other researchers working with the aged population consider the questions: Is it appropriate to use a Likert Scale with the elderly? Does this scale increase the chance of error rather than increase the sensitivity of response?

Other considerations are: 1) if it is anticipated that the respondents come from wide geographic and cultural backgrounds, the education level is best measured by the number of years spent at school rather than attempting to "fit" each response into a North American equivalent, 2) the need for a separate category for those who would give zero hours to educational programs in order to make a clear distinction from those at the upper level of response, four hours.

The results of this research suggests further study relevant to the institutionalized elderly. The knowledge base of adult education could be strengthened by a comparative

examination of the educational interests of the institutionalized elderly with cohorts living in the community at large. Such fundamental knowledge could lead to more sensitized adult education programs which are in harmony with developmental and life situation transitions. For example, are the needs of the aged, living outside of an institutional setting more instrumental? Their life-style is different. Many continue to prepare their own meals, manage a budget, care for a home and arrange for health and other personal needs. Conversely, the institutionalized aged are provided with these services through professionals such as nurses, doctors, dietitians, social workers and other experts as need and interest indicate. Is it obvious, therefore, that the educational interests of the institutionalized aged be categorized as expressive? Or do these two distinct populations exhibit similarity of interest based upon age rather than situation?

Implicit in this study is the need to prepare adult educators to work with this unique population. During this study this aspect of adult education came into sharp focus. Several elderly commented that they would not attend any formal or informal learning activity where they were treated as children, spoken to in the abstract rather than the concrete, called by "cute" names or otherwise made to feel old. Many aged were quick to recognize a teacher's genuine rather than self-interest. Consequently, it is recommended that research into the personal characteristics of the adult educator of the elderly be given serious study.

Further investigation is also needed into the institutionalized elderlys' perception of time in relation to ongoing learning. This subject is of particular interest in light of the continued increase in the educational level of the population in general. The lack of interest in class attendance shown by the sample population may reflect the prevalent societal attitude that at a certain age one is too old to learn. The respondents have rejected this notion, but still are not willing to participate in a class. Why? What are the variables operating among the aged that serve as barriers to one's willingness to devote time to adult education classes? Is it focused upon attitudes and perceptions from the past? Is it focused upon the topics which are offered? Is it focused upon the classroom structure? Are we as adult educators setting unreasonable expectations for this elderly institutionalized population?

Summary

The accent on lifelong learning is noted to have followed three stages. First, there was a popular notion that as one entered the latter stages of life there was a decrease in

intelligence juxtaposed with a desire to disengage from one's social role. The adult educators responded to the aged by offering "educational" activities which were intrinsically leisure time pursuits. Over time, empirical research has rejected the premise that the old could not and did not want to learn. The spotlight of the second stage focused upon the instrumental educational goals which emphasized the "how to" dimensions of daily living. It was in agreement with the developmental stages of life. Consequently, it was deemed to be appropriate because it was said to meet the concrete needs of an aging population. The final stage is an expansion of the developmental process and is more integrative in its approach. There is a discernable trend toward lifelong education and the result is that adult educators are becoming more holistic in program planning. Research has made major contributions to this slow transition in attitude toward lifelong learning and in the development of adult education as a distinct discipline. Moreover, the social theory of Parsons has served as a dynamic and pragmatic guide in assisting the adult educator through the complexities of identifying the educational interests of the elderly. An understanding of the expressive and instrumental categories is fundamental in intergrating the developmental stages of life with educational needs and interests.

The predicted increase in the number of elderly among the general population, will most vividly transform the demographic map. These elderly will have attained a higher level of education, than the aged of the past or present. They will be more economically secure and carry more political clout. Simultaneously, congregate living will steadily grow as more elderly enter nursing homes, senior residences and other long-term care facilities. And these elderly will insist that their time be used in a meaningful manner. They will demand more than mere leisure-time activity, regardless of how colorfully it is packaged. Consequently, the implication for adult education is tremendous. Educational programs will become innovative, there will be an expanded definition of "student" and educational sites will become non-traditional. Ultimately, ongoing education will be considered to be a part of normal adult behavior. Indeed, learning will become a lifelong journey not a destination.

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Appendices

Appendix A - Questionnaire

This questionnaire is being distributed to a select number of people, over the age of 60, in order to identify your interests and needs in adult education programs.

This research project will help adult educators to plan and provide for the expressed educational needs of our growing senior population.

Thank you for taking the time to assist in this vital research.

`   INDICATE YOUR AGE AT LAST BIRTHDAY _____

II.   Male _____   Female _____

III.   INDICATE HIGHEST EDUCATION LEVEL (Check only one)
         A.   Primary School   _____
         B.   Graduated from High School   _____
         C.   Some College   _____
         D.   College/University Graduate   _____

IV.   DO YOU FEEL THAT YOUR PRESENT STATE OF HEALTH DOES/WOULD PREVENT
YOU FROM PARTICIPATING IN ADULT EDUCATION CLASSES?
                 YES _____   NO _____

V.   WHICH STATEMENT BEST DESCRIBES YOUR PRESENT NEED FOR ADULT
EDUCATION CLASSES? PLEASE RATE AS FOLLOW:
                 1.   Strongly Disagree
                 2.   Disagree
                 3.   Uncertain
                 4.   Agree
                 5.   Strongly Agree
                 6.   Not applicable OR Do not want to answer

    A. I am too old to participate/learn   ____

    B. My education needs are presently met because:
                 1.   there is enough informal activity available   ____
                 2.   adult education programs are available   ____
                 3.   I am active in learning on my own   ____

C. My education needs <u>are not</u> met because:

    1.   there are no adult education activities/classes offered ____

    2.   adult education classes are too expensive   ____

    3.   adult education classes are not adapted to my needs ____

VI.   HOW MUCH TIME A WEEK WOULD YOU GIVE TO ADULT EDUCATION CLASSES?

    A.   0 - 4 hours   ____

    B.   5 - 9 hours   ____

    C.   10 hours or more   ____

On the next pages you will find a selection of adult education courses which are given, or could be given, in order to satisfy your education needs. Please respond to each column as follow:

Columns I and II require a numerical answer

    1.   Not at all

    2.   A little bit

    3.   Some

    4.   Quite a bit

    5.   A great deal

Columns III and IV require a Yes or a No answer

    Y   Yes

    N   No

Example:

Arts & Science	I Level of Interest in the Topic	II Level of Interest in Attending Classes	III Course Taken in the Past	IV Course Taken at Present
Literature, Poetry	3	1	Y	N

Arts & Science	I Level of Interest in the Topic	II Level of Interest in Attending Classes	III Course Taken in the Past	IV Course Taken at Present
Literature, Poetry				
Creative Writing				
Second Language				
History, Geography				
Physical and Natural Sc.				
Philosophy				
Religion				
World Affairs				
Human Relations				
Business Administraion				
Economics				
Other (describe)				

Note:
The print of the original questionnaire was larger than is shown in this text.

	I	II	III	IV
Fine Arts and Crafts	Level of Interest in the Topic	Level of Interest in Attending Classes	Course Taken in the Past	Course Taken at Present
Painting, Drawing				
Fashion, jewellery design				
Art History				
Music (Playing an Instrument)				
Music, appreciation				
Photography				
Interior Decorating				
Ceramic, Pottery				
Sewing, Needlework,				
Other (describe)				

Health Care - **Recreation - Leisure**	I Level of Interest in the Topic	II Level of Interest in Attending Classes	III Course Taken in the Past	IV Course Taken at Present
Medical Information				
First Aid				
Gerontology,				
Nutrition and Cooking				
Machine shop welding				
Stress Reduction				
Low Impact Aerobics				
Social Dancing				
Aqua Fitness				
Woodworking				
Travel Information				
Indoor Gardening				
Bridge				
Educational Games				
Other (describe)				

Personal Life	I Level of Interest in the Topic	II Level of Interest in Attending Classes	III Course Taken in the Past	IV Course Taken at Present
Retirement Planning				
Employability Skills				
Tax Planning				
Law for the Senior				
Real Estate				
Senior Consumerism				
Public Speaking,				
Computer				
Social, Community Work				
Diversities of Judaism				
Other (describe)				

Appendix B - Statistical Data

Responses to Class Attendance and Topics

Area Category	Topics	ADJ Rank	NAA	ALB	S	QAB	AGD	Rank	NAA	ALB	S	QAB	AGD	Rank	ADJ Rank
A&S E	World Affairs	286	18	4	7	16	55	386	54	4	8	10	24	246	146
FA&C E	Music (Appreciation)	236	25	9	11	15	40	336	51	8	8	13	20	243	143
A&S E	Second Language	235	30	3	11	14	42	335	54	5	2	10	29	255	155
A&S E	Literature, Poetry	207	29	8	15	23	25	307	65	8	11	7	9	187	87
HC R L E	Bridges, Card Games	191	44	4	6	9	37	291	67	4	4	5	20	207	107
A&S E	Human Relations	188	29	10	21	24	16	288	67	7	6	8	12	191	91
A&S E	History, Geography	181	32	11	19	20	18	281	62	9	9	10	10	197	97
HC R L E	Educational Games	170	44	5	12	15	24	270	65	7	6	10	12	197	97
PL E	Public Speaking	169	50	3	3	16	28	269	58	3	8	11	20	232	132
HC R L I	Nutrition and Cooking	168	38	10	16	18	18	268	69	9	6	10	6	175	75
HC R L I	Medical Information	154	47	6	.3	14	20	254	69	8	7	6	10	180	80
FA&C E	Sewing, Weaving, Etc.	151	52	7	4	12	25	257	82	1	5	4	8	155	55
FA&C E	Music (Playing)	150	54	2	10	8	26	250	87	1	3	4	5	139	39
HC R L I	Low Impact Aerobics	147	49	8	7	19	17	247	59	10	2	19	10	211	111
A&S I	Religion, Sociology	143	49	6	14	15	16	243	75	3	9	6	7	167	67
HC R L I	Travel Information	121	61	3	9	8	19	221	78	3	4	5	10	166	66
A&S E	Philosophy	120	54	9	13	11	13	220	77	4	6	7	6	161	61
A&S I	Business Administration	116	64	2	7	8	19	216	81	1	3	9	6	158	58
HC R L E	Indoor Gardening	116	61	7	5	9	18	216	79	3	5	7	6	158	58
A&S E	Creative Writing	109	61	6	9	11	13	209	84	5	2	4	5	141	41
FA&C E	Painting, Drawing	106	67	3	4	9	17	206	86	3	2	3	6	140	40
HC R I I	Stress Reduction	104	64	2	12	10	12	204	73	5	7	7	8	172	72
HC R L I	Gerontology	97	58	10	15	11	6	197	75	9	4	8	4	157	57
FA&C E	Art History	92	66	7	8	7	12	192	85	2	6	3	4	139	39
A&S I	Economics	85	69	5	8	8	10	185	84	4	4	4	4	140	40
FA&C E	Interior Decorating	83	70	6	7	5	12	183	84	2	5	5	4	143	43
PL I	Law for the Senior	80	69	6	11	4	10	180	82	2	7	2	7	150	50
PL I	Tax Planning	70	74	6	4	8	8	170	85	3	3	4	5	141	41
PL I	Senior Consumerism	67	74	5	8	6	7	167	86	3	3	5	3	136	36
A&S I	Physical and Natural Sc.	65	72	7	11	4	6	165	90	2	2	3	3	127	27
FA&C E	Fashion, Jewellry	64	74	7	8	3	8	164	92	2	2	2	2	120	20
FA&C E	Ceramics, Pottery	63	78	3	7	2	10	163	89	1	4	0	6	133	33
HC R L E	Social Dancing	63	77	2	8	7	6	163	95	2	2	1	0	109	9
HC R L E	Woodworking	58	80	5	3	1	11	158	89	2	3	1	5	131	31
HC R L I	Aqua Fitness	53	84	1	2	4	9	153	94	0	1	3	2	119	19
HC R L I	First Aid	53	79	4	6	7	4	153	92	0	5	3	0	119	19
FA&C E	Photography	46	77	7	11	3	2	146	90	2	7	1	0	119	19
PL I	Diversities of Judaism	42	80	5	9	5	1	142	86	6	5	2	1	126	26
PL I	Computer (Any Topics)	39	86	2	2	7	3	139	88	2	1	7	2	133	33
HC R L I	Machine Shop	16	95	1	0	1	3	116	98	0	0	2	0	106	6
PL I	Social, Community Work	16	94	0	3	2	1	116	96	2	0	2	0	108	8
PL I	Retirer Planning	10	97	0	1	0	2	110	99	0	0	1	0	103	3
PL I	Real Est.	9	97	0	1	1	1	109	98	0	0	1	1	107	7
PL I	Employability Skills	0	100	0	0	0	0	100	100	0	0	0	0	100	0

F- Test (ANOVA)

Class and Topic Sample Groups

QTY A	QTY B	QTY C	SST	SSB	SSW
677259	7183	6+6164.9318	90946.625	59852.55681	31094.06818
E RAW A^/N	E RAW B^/N	MS BETW	MS WITHIN	F RATIO	
510411.8409	135753.0909	59852.55681	361.5589323	165.5402521	

RAW A	RAW B	RAW A^2	RAW B^2
286	146	81796	21316
236	143	55696	20449
235	155	55225	24025
207	87	42849	7569
191	107	36481	11449
188	91	35344	8281
181	97	32761	9409
170	97	28900	9409
169	132	28561	17424
168	75	28224	5625
154	80	23716	6400
151	55	22801	3025
150	39	22500	1521
147	111	21609	12321
143	67	20449	4489
121	66	14641	4356
120	61	14400	3721
116	58	13456	3364
116	58	13456	3364
109	41	11881	1681
106	40	11236	1600
104	72	10816	5184
97	57	9409	3249
92	39	8464	1521
85	40	7225	16G0
83	43	6889	1849
80	50	6400	2500
70	41	4900	1681
67	36	4489	1296
65	27	4225	729
64	20	4096	400
63	33	3969	108ᵒ
63	9	3969	81
58	31	336-4	961
53	19	2809	361
53	19	2809	361
46	19	2116	361
42	26	1764	676
39	33	1521	1089
1G	6	256	36
16	8	256	64
10	3	100	9
9	7	81	49
0	0	0	0

F- Test (ANOVA)

Instrumental and Expressive Sample Groups

QTY A	QTY B	QTY C	SST	SSB	SSW
705909	4739	556821.8636	195497.1590	46410.02272	149087.1363
E RAW A^/N	E RAW B^/N	MS BETW	MS WITHIN	F RATIO	
432320.7272	124501.1363	46410.02272	3549.693722	13.07437383	

RAW A	RAW B	RAW A^2	RAW B^2
286	168	81796	28224
236	154	55696	23716
235	147	55225	21609
207	143	42849	20449
191	121	36481	14641
188	116	35344	13456
181	104	32761	10816
170	97	28900	9409
169	85	28561	7225
151	80	22801	6400
150	70	22500	4900
120	67	14400	4489
116	65	13456	4225
109	53	11881	2809
106	53	11236	2809
92	42	8464	1764
83	39	6889	1521
64	16	4096	256
63	16	3969	256
63	10	3969	100
58	9	3364	81
46	0	2116	0