

EFFECTS OF A GERONTOLOGY UNIT  
ON CHILDREN'S ATTITUDES  
TOWARDS THE ELDERLY

CENTRE FOR NEWFOUNDLAND STUDIES

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EFFECTS OF A GERONTOLOGY UNIT ON  
CHILDREN'S ATTITUDES TOWARDS THE ELDERLY

by

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A Thesis submitted to the School of Graduate  
Studies in partial fulfillment of the  
requirements for the degree of  
Master of Education

Department of Educational Psychology  
Memorial University of Newfoundland

November, 1985

St. John's

Newfoundland

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ISBN 0-315-31015-4

## ABSTRACT

The purpose of the study was to determine elementary school children's attitudes towards the elderly and to investigate the effects of the gerontology unit on these attitudes.

Six classes consisting of 166 students participated in the study. The treatment group consisted of one class from each of grades three, four and five. The treatment group was given a gerontology unit which attempted to increase their knowledge of and feelings towards the elderly and aging.

Both treatment and control students were given a post-test administration of the Children's Attitudes Towards the Elderly Group Test (CATE-G). The results of the study indicated that children who took the gerontology unit had significantly more knowledge of the elderly, significantly more neutral feelings about their own aging, significantly more active interactions with the aged and significantly more positive views of the elderly as displayed by semantic differential results.

Based on the results it was concluded that children have negative attitudes towards the elderly, attitudes can change in a short period of time through educational

experience, older students' attitudes towards the elderly are more difficult to change and contact with the elderly can reduce negative attitudes.

These conclusions imply the need for educators to establish effective gerontology units in their schools in order to break down intergeneration barriers. As a result, both generations can benefit from increased contact and sharing of knowledge.

Finally, recommendations were made as a result of the study. Some of them were that gerontology units be made available to all students, similar studies be conducted to ascertain long-term effects of the gerontology units and teacher workshops be given to help teachers prepare for effective teaching of these gerontology units.

#### ACKNOWLEDGEMENTS

I would like to thank the following people:

- Dr. Terrance Boak, thesis supervisor, for his encouragement, support and advice which made this study possible.

- The teachers and students at Mary Queen of the World School for participating in the study.

- Betty Morgan for being such a competent and conscientious typist.

- A special thank you to all members of my immediate family for their continued encouragement, interest, patience and prodding, and most of all, to my loving wife, Julia, and daughter, Kyla, who believed in me throughout. After three years we can now begin to enjoy family life without summer school or a thesis.

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## CHAPTER I

### INTRODUCTION

#### 1.1 Rationale and Significance of the Problem

The elderly represent an increasing minority of the total population. At present, in the United States, over 11 percent of the population is 65 or older, and this number is expected to increase to 18 percent by the year 2030. This projection is based on data from the United States Senate Committee on Aging, 1980 (Ganikos and Benedict, 1982). Similar population projections are found in Canada. According to Statistics Canada (1985) in 1983, 10.0 percent of the population was 65 or older and this number is expected to increase to 26.6 percent according to a low growth scenario while a high-growth scenario predicts an increase to 18.9 percent by the year 2031.

People, aged 65 years of age and older, are the fastest growing segment of our population. According to Statistics Canada (1985) this expected large increase in the elderly population is directly due to the well known decline in fertility to a subreplacement level, appearing in the early 1970's (p. 47). Statistics Canada (1985) also revealed that Canadian society will be substantially different from

what it is today. These projections indicated that the median age of the population will rise from 30 years in 1983 to 41 years in 2006 and reach 48 years by 2031 (p. 48).

North American society is youth oriented and often discriminates against the needs of the elderly. Butler (1975), a psychiatrist and current Director of the National Institute on Aging, argued that ageism results in:

Discrimination against people because they are old, just as racism and sexism accomplish this with skin color and gender .... Ageism allows the younger generations to see older people as different from themselves; thus they subtly cease to identify their elders as human beings (p. 12).

For example, professional occupations such as law, social work and medicine revealed strong negative attitudes towards the elderly (Geiger, 1978). Gunter (1971) found that senior nursing school students had a considerable dislike to working with older patients. In 1964, Kastenbaum and Durkee found that adolescents had a predominantly negative appraisal of the elderly. Graduate students looked upon old age as a period characterized by economic insecurity, poor health, loneliness, resistance to change, and failing physical and mental powers (Tuckman and Lorge, 1953).

According to Murphey, Myers and Drennan (1982) there has been very little information gathered and reported concerning children's attitudes towards the elderly. A review of existing research revealed a lack of research

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studies on children, below adolescent age, in terms of their attitudes towards the elderly. Seefeldt, Jantz, Galper and Serock (1977) found that children's attitudes towards the elderly were "complex and mixed, and generally negative and stereotypic" (p. 506). Hickey, Hickey and Kalish (1968) found that old people were stereotyped, by third graders, as either being very mean or very nice. This study concluded that the older the person, as perceived by the children, the less positive the image the children had of that person. Page, Olivas, Driver and Driver (1981) indicated that younger children have negative attitudes of the aged. However, a study by Thomas and Yamamoto (1975) concluded that children do not have negative attitudes of the elderly. Another study by Robertson (1976) found that grandchildren do not see their grandparents as old fashioned or out of touch. Treybig (1974) indicated that previous research found that "attitudes of very young children towards the elderly are neither overwhelmingly positive nor negative" (p. 75).

In general, this limited research suggested that children's attitudes towards the elderly are less than positive but this finding was not conclusive for two major reasons. Firstly, there were only a few studies which, in fact, measured children's attitudes towards the elderly. Secondly, the limited research which now exists stated

opposing conclusions. More research in this area is needed before further conclusions are established.

Children's attitudes, according to Klausmeier (1975), developed early in life and remained stable, enduring parts of the child's life. Furthermore, Mussen, Conger and Kagan (1974) indicated that a child's attitude has a powerful influence on one's life and predisposes the individual to act and react in a consistent way, favorable or unfavorable, towards persons or objects. Thus, attitudes formed by children about the aged will have consequences in how they behave later in life, towards older persons. It is, therefore, essential to start forming positive attitudes of children towards the elderly and changing negative attitudes, which appear to exist, into a more positive direction before these negative attitudes become more stable and eventually lead to undesirable interactions between the young and old. Children with positive attitudes towards the aged can interact in a meaningful way utilizing the elderly's knowledge and experience throughout their lifetimes.

Schools may be one of the potential places to develop or change children's attitudes to the elderly because students are easily accessible and confined to regular class schedules. Schools also have the facilities and personnel to successfully implement and integrate educational programs which measure and then foster more positive

attitudes towards the elderly during instructional time. This study attempted to justify the implementation of a seven session gerontology unit to improve children's attitudes towards the elderly. Previous limited research on children's attitudes towards the aged indicated, although not conclusively, that negative attitudes do exist.

### 1.2 Statement of Purpose

The present study was undertaken for two reasons:

1. To determine the types of attitudes that exist towards the elderly in elementary school children.
2. To investigate the effects of a gerontology program on children's attitudes towards the elderly.

### 1.3 Limitations of the Study

This study was confined to a small, homogeneous sample of grade three, four and five students in one school under the jurisdiction of a single urban school board. The results are only generalized to this board at the stated grade levels. Obtained results cannot be generalized to other gerontology units. Since this study was conducted by one teacher the results may be influenced by teacher-student interaction and cannot be generalized to other teachers.

#### 1.4 Definition of Terms

The following terms apply for the purpose of this study:

ATTITUDE: There are three components that compose attitudes: (a) the affective component referring to an individual's feelings and emotions towards an object or group, (b) the cognitive component alluding to an individual's knowledge and information about a certain object or group, and (c) the behavioral component referring to actions of an individual towards an object or group.

ELDERLY-AGED-SENIOR CITIZEN: These terms are synonymously used and refer to individuals who are 65 years of age or older.

GERONTOLOGY UNIT: The term refers to the seven session, gerontological, educational program. Topics include defining old age, stereotypes of old age, body changes, retirement years and new directions. Refer to Appendix A for a detailed description of this Unit.

#### 1.5 Hypotheses

1. There is no significant difference on knowledge of the elderly, as measured by the post-test results, between children in the experimental and control groups.

2. There is no significant difference on feelings about their own aging, as measured by the post-test results, between children in the experimental and control groups.

3. There is no significant difference on active interactions with the elderly, as measured by the post-test results, between children in the experimental and control groups.

4. There is no significant difference on the old man semantic differential mean scores, as measured by the post-test results, between the children in the experimental and control groups.

5. There is no significant difference on the total old man-young man semantic differential mean scores, as measured by the post-test results, between children in the experimental and control groups.

## CHAPTER II

### REVIEW OF LITERATURE

#### 2.1 Introduction

The review of existing literature related to this study is presented in this chapter in order to provide a theoretical basis of the study. Topics include attitudes and attitude change, attitudes towards the elderly, and programs attempting to change attitudes towards the elderly.

#### 2.2 Attitudes

Attempting to measure attitude formation or change involves a difficult evaluation procedure, but according to Kerlinger (1964), attitudes can be measured. Attitudes have been extensively studied by Allport (1935), Doob (1947), Fishbein (1967), Fishbein and Azjin (1975), Kretch and Crutchfield (1948), McGuire (1968) and Rosenberg (1960a, 1960b, 1960c) to name a few. There has been disagreement among the various authors regarding the meaning of attitudes. Kiesler, Collins and Miller (1969) mentioned five of the dimensions of disagreement among attitude definitions:



1. Psychological locus of attitudes..
2. Degree to which attitudes are defined as a response or readiness to respond.
3. Degree to which attitudes are organized.
4. Extent to which attitudes are learned from previous experience.
5. Extent to which attitudes play directive-knowledge or dynamic-motivational function. (pp. 3-4)

The author accepted and used Rosenberg (1960b) and Triandis (1971) definitions of attitude which included many of the central ideas used by attitude theorists. Their combined definition stated that an attitude is an idea charged with emotion which predisposes a response to some class of stimuli. The three major types of responses (components) are cognitive, affective and behavioral. Triandis (1971) described these three components of attitudes as follows:

1. A cognitive component, that is the idea which is generally some category used by humans in thinking. Categories are inferred from consistencies in responses to discriminably different stimuli.
2. An affective component, that is the emotions which charges the idea. If a person 'feels good' or 'feels bad' when he thinks about the category we would say that he has a positive or negative affect towards members of that category.
3. A behavioral component, that is a predisposition to action such as driving, using, buying or admiring cars. (p. 3)

Attitudes towards the elderly have these three closely related components and each component was measured by a variety of written subject responses. These written

statements concerning affect, belief and behavior were necessary in order for each subject to have completed the Children's Attitudes Towards the Elderly Group Test.

Informally, students' attitudes towards the elderly were measured by verbal statements concerning belief, behavior and affect that were made during the classroom sessions.

### 2.3 Attitude Change

Wagner and Sherwood (1969) found that the study of attitude change is an attempt to identify and understand the process underlying the modification of attitudes. There have been basically four different approaches to the explanation of attitude change: (a) functional approach, (b) learning theory, (c) perceptual theory, and (d) consistency theory.

The author followed the consistency theory approach using Rosenberg's Affective-Cognitive Consistency Theory. Rosenberg (1960a, 1960b) had concerned himself primarily with conceptualizing what happened within the individual when attitudes changed. He was one of the first theorists to look at attitude change from the point of view of consistency with a single attitude. Rosenberg (1960b) stated that all attitude change could be understood as resulting from one or two distinct processes. One process was cognitive change followed by affective change while

the other was affective change followed by cognitive change.

Rosenberg's (1960b) theory was based upon change in direction for maintaining consistency between cognitive and affective components, "a homeostatic conception of attitude dynamics" (p. 22). This conception was stated in three main principles by Rosenberg (1960a):

1. When the affective and cognitive components of an attitude are mutually consistent, the attitude is in a stable state.
2. When these components are mutually inconsistent, to a degree that exceeds the individual's 'tolerance limit' for such an inconsistency, the attitude is in an unstable state.
3. In such an unstable state the attitude will undergo reorganizing activity until one of three possible outcomes is achieved. These outcomes are: (a) rejection of communication, or other focus, that engendered the original inconsistency between affect and cognition and thus render the attitude unstable, i.e., restoration of the original stable and consistent attitude; (b) fragmentation of the attitude through isolation from each other of the mutually inconsistent affective and cognitive components; (c) accommodation to the original inconsistency producing change so that a new attitude, consistent with that change, is now stabilized, i.e., attitude change. (p. 322)

From this proposition it followed that if certain external forces bring about a change in either the affective or cognitive components of a previously stable attitude, pressure would arise to change the remaining component. Most studies previous to Rosenberg's had emphasized change in cognitive components as a cause of change in affective

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components. Rosenberg (1960c) had demonstrated that a change in affective component would produce cognitive changes. He took eight subjects who were in favor of the United States policy of giving economic aid to foreign nations and placed them under deep hypnosis. The study reported that the subjects' positive feelings about economic aid were changed to negative feelings. As a result, the subjects made large scale changes in their cognitions regarding economic aid, as measured by changes in value statements concerning economic aid. Using Rosenberg's model this study attempted to change both the cognitive and affective components of attitudes with major emphasis on the cognitive component.

#### 2.4 Adolescent and Adult Attitudes Towards the Elderly

Geiger (1978) examined how future professionals viewed the elderly. She studied 69 future professionals who were enrolled in the graduate programs of law, medicine and social work at the University of Michigan, and found that all student groups demonstrated a lack of basic knowledge about the elderly. This lack of knowledge was measured by the results of two short questionnaires that were given to these future professionals. There was no information given about reliability and validity of these instruments. These questionnaires had items not directly

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related to knowledge about the elderly, such as "What percentage of males 65 and over are working (part and full time)?" (p. 592). The study concluded that, despite the many problems encountered by the aged, not one graduate student in the sample preferred to work with the elderly.

Gunter (1971) studied 162 nursing assistants who took a course which focused on elderly development. This study indicated that the gerontology course reduced the number of stereotypes towards the aged but also developed a stronger unwillingness of students to work with the elderly. A modified version of the Tuckman-Lorge Attitude Questionnaire was used to measure stereotype responses. Validity and reliability information concerning this questionnaire was not included. These findings raised questions concerning the type of geriatric programs necessary to develop a more positive preference for working with the aged.

In one of the pioneering studies in attitude measurement towards the elderly, Tuckman and Lorge (1953) measured 147 graduate students enrolled in an adult psychology course at Teachers' College, Columbia University. The questionnaire, developed for study, contained 137 items classified into 13 categories; namely, Physical, Financial, Conservation, Family, Attitudes Towards Future Insecurity, Mental Deterioration, Activities and Interests, Personality Traits, Best Time of Life, Sex, Cleanliness and Interference. The

questionnaire responses indicated a negative attitude towards the elderly as students viewed old age as a period of poor health, loneliness, declining mental and physical powers, and economic insecurity. The study also revealed that students had limited knowledge of the elderly.

In a review of literature, Bennett (1976), McTavish (1970) and Parnell (1980) concluded that studies consistently demonstrated that adults and adolescents have negative attitudes and stereotypes towards the elderly. In a summary of the presently available literature on children's attitudes towards the elderly, Murphey et al. (1982) found the main reasons for these negative attitudes are a lack of basic knowledge about, and negative stereotyping of, the elderly.

A study by Robertson (1976) indicated that contact with the elderly has an important influence on development of positive attitudes. This study examined 86 adolescents' and young adults' perceptions of grandparents. The elderly were regarded as an important source of influence on their grandchildren. These grandchildren did not view their grandparents as unimportant and out of touch, but felt definite responsibilities towards their grandparents. This study used Likert-type items to assess attitudes and expectations that were held regarding grandparents.

## 2.5 Children's Attitudes Towards the Aged

According to Murphey et al. (1982), very little data have been gathered and reported in literature concerning children's attitudes towards the elderly but existing research has indicated that attitudes towards the aged are not positive. The majority of the existing research in this area has indicated that children have negative attitudes towards the elderly.

Jantz, Seefeldt, Galper and Serock (1977a) studied 180 children from ages 3 to 11 and found that they possessed both positive and negative attitudes towards the elderly. However, the majority of children in this study possessed negative attitudes and stereotypes towards the elderly. These children did not view growing old as positive and they had limited knowledge and contact with older persons. (This study was limited in that only one school was used and the sample consisted of 20 participants per grade. These researchers developed and used a reliable and valid instrument for measuring children's attitudes towards the elderly, called Children's Attitudes Towards the Elderly (CATE).

Hickey et al. (1968), who studied 208 third graders in the Greater Los Angeles area, had findings similar to those of Jantz et al. (1977a). These Los Angeles students, with

a mean age of eight, were asked to write a few sentences about an older person, like their grandparents. The results revealed that the older the person, as perceived by elementary school children, the less positive the image they had of that person. In general, old people were stereotyped as either being very nice or very mean.

Page et. al. (1981) examined the attitudes of children, aged 3 to 11, towards old people and towards growing old. This study used the Children's Attitudes Towards the Elderly (CATE) scale. The subjects for the study were chosen from nursery school to grade six. Ten to twenty children were selected from each grade yielding a total sample of 144 students. The results indicated that younger children have negative attitudes towards the elderly. The authors also suggested that the educational system needs to implement programs to enable young students to think of the elderly in more positive terms.

In 1974, Treybig informally interviewed 85 children aged 3, 4 and 5 and found mixed perceptions of the elderly. These children were asked what old meant and whether they would like to be old someday. There was no indication of other questions being asked. This study concluded that young children's attitudes towards the elderly are neither extremely positive nor negative.

However, in 1975, a study by Thomas and Yamamoto of



1,000 children in grades six, eight, ten and twelve concluded that the overall impression, from their findings, is that school age children do not share negative attitudes towards the elderly as compared to the older segments of our population. Three newspaper photographs were presented to the children, who estimated the person's age and wrote stories about each photograph in his or her preferred order. Scores were obtained from a semantic differential. There was no mention of validity and reliability of the instrumentation.

In summary, Greybig (1974) indicated that previous research stated that attitudes of children towards the elderly are neither positive nor negative. Thomas and Yamamoto (1975) claimed that children do not have negative attitudes towards the elderly. However, the majority of this limited research, Hickey et al. (1968), Jantz et al. (1977a) and Page et al. (1981) indicated that children do have negative attitudes of the aged.

The findings of the research reviewed have been mixed but suggested that children have developed attitudes towards the elderly and many of these attitudes fall into the negative category. If indeed children have negative attitudes towards the elderly, there is a need for educators to devise, implement and evaluate innovative programs aimed at attitude change, in a more positive direction, towards the elderly.

## 2.6 Effects of Educational Programs on Adolescent and Adult Attitudes

Wilson and Hafferty (1983) studied the long term effects of a seminar on aging on 43 first-year medical students. The length of the seminar was not indicated, nor was reliability and validity information available on the instrument-designed to assess attitudes. The attitude instrument used was a questionnaire consisting of five sections containing Likert-type opinion statements, sentence completion items, estimation of the percentage of chronically ill elderly, questions concerning their contact with the elderly and open-ended questions. It was found that after four years students who took the seminar course, as compared to the control students, revealed significantly greater positive attitudes towards the elderly. Therefore, it was reasonable to assume that this educational experience had lasting effects on attitudes and behaviors of medical students.

In 1976, Gorden and Hallauer studied the effects of a gerontology course, a student visitation program with the elderly and the combination of the two on 60 college students. One of the most reliable and valid measurement scales, Kogan's Old People Scale, was used in the study (Kogan, 1961). It was evident that the most successful in changing attitudes towards the elderly, in a more positive direction, was the

combination of the gerontology course and elderly visitations. The second most effective was the gerontology course.

Kay, Jensen-Osinski, Beidler and Aronson (1983) found that younger students in intergenerational college classes exhibited a more positive attitude towards the elderly when compared to students their own age in non-intergenerational classes. These results suggested that interaction between generations in a college English class improved student attitudes towards the aged without any direct gerontology content.

Thorson (1975) studied 98 adults that were controlled for age and education. They completed Kogan's Old People Scale and results revealed that subjects having more education clearly had more positive attitudes towards old people. These results confirmed earlier findings and suggested the notion that education is an aid in developing more positive attitudes towards the elderly.

It has been shown that attitude change can take place in short time. Glass and Trent (1980) designed and implemented a two-week course on the aged with 451 grade nine students. As a result of the gerontology course students' attitudes changed significantly in a positive direction. The study also revealed that attitude change persisted four to six months after the end of the gerontology course. This two-week course consisted of ten sessions dealing with topics

related to aging: Myths and Realities of Aging; Problems and Satisfaction of Aging; What Will I Be Like When I Get Old?; Physical and Psychological Changes of Aging; Adjustments to Aging; and, Young and Old Together. A variety of teaching methods were used. The Kogan's Old People Scale was used to measure student attitudes.

## 2.7 Gerontology Units/Programs for Elementary School Students

There are currently a number of educational programs available for teachers who are interested in using a unit of study about the aged in their classrooms. These programs/units were developed for two major reasons. It appears that elementary school children have negative attitudes towards the elderly, although this statement is not proven conclusively. Secondly, a review of children's literature indicated that the elderly are stereotyped as being the concerned grandmother or grandfather with no real lives of their own (Taylor, 1977). The following education units do not contain empirical evidence, except for Cartensen, Mason and Campbell (1980), to support their effectiveness. There is a great need for evaluation of these educational units to determine which gerontology programs are most effective in changing children's attitudes towards the elderly in a more positive direction.

Cartensen et al. (1980) studied whether contact with an older person working as a tutor altered children's perceptions of the aged. Over a two month period, 26 students, 6 to 9 years of age, were tutored fifteen minutes per day, four days a week. This study revealed that increased contact time with the elderly produced more positive attitudes towards the aged. The Children's Assessment of Old People Scale was developed specifically for this investigation. This scale consisted of 20 objective items and had a test-retest reliability of .76.

Saxe (1977) devised a manual to aid school administrators and teachers in implementing programs about aging and the elderly. This manual discussed rationale, course content, teacher training, curricular development and course plans. Sample teaching units for grades seven to twelve, evaluation methods and reference materials were also discussed. This manual reported to, but did not deal with, the needs of the elementary school students in terms of changing their attitudes towards the elderly.

Jones, Schneider, Rupert and Blue (1975) briefly mentioned helpful ideas that elementary school teachers could implement in their own classroom when attempting to change children's attitudes towards the elderly in a more positive direction. Some useful ideas included: listen to retired persons speak, view and discuss audio-visual

material; and, listen to older persons speak about how he/she perceives aging. Other useful ideas included visitations to old age homes, extended care homes and retirement clubs.

Paranya (1974) developed teaching units on the elderly and many useful activities that were mentioned were also used in the present study. These activities include: using words that describe old people, viewing and discussing films about the elderly, and talking with senior citizens.

In 1977, Gotwald described 15 lesson plans compiled for elementary school teachers to help them assist students to prepare for their own aging. Each of these lesson plans included a title, purpose, behavioral objectives, materials required and recommended teaching procedure. These lesson plans were not sequentially organized and no recommended outline was given to obtain the most effective use of this material. Some activities included: recognizing stereotypes of old age, identifying "old" for themselves, and imagining themselves as old (fantasy time).

Remer and Schrader (1982) developed a seven session gerontology unit dealing with the elderly and aging which the author used in this study. This unit included many of the major items and activities found in other gerontology units as mentioned in the previous sections. Topics included defining old age, stereotypes of old age, body

changes and retirement years. A more detailed description of each section is found in Appendix A.

## 2.8 Summary of Literature Review

The review of literature has included reference to research on the aged which provided further rationale for the current study. The problems of defining attitude were first addressed. This study accepted and used a combined definition by Rosenberg (1960b) and Triandis (1971). A discussion of attitude change followed with particular emphasis on Rosenberg's Affective-Cognitive Consistency Theory.

Attitudes of adults, adolescents and children towards the elderly were discussed. A number of studies revealed that society, in general, has negative attitudes towards the elderly. However, children's attitudes towards the aged were not clearly established due to conflicting conclusions within existing literature.

A number of studies were provided in the review to demonstrate the effects of planned gerontology units and programs on adult, adolescent and children's attitudes towards the elderly. A majority of these studies dealt with the adult and adolescent groups.

The review was concluded with a look at curriculum

guides for teachers who wish to implement a study of aging and the aged in their classrooms. The strengths and weaknesses of these programs were discussed.



## CHAPTER III

### METHODOLOGY

#### 3.1 Description of Sample

The sample consisted of two classes from each of the grade three, four and five classes at Mary Queen of the World School in St. John's. There was a total of 166 students in the six classes. The classes of each grade level were heterogeneously grouped in terms of age, sex distribution and intellectual level.

#### 3.2 Procedure

The principal of this all-grade school and the grade three, four and five teachers were asked for seven class periods to conduct the gerontology unit. Permission was granted by the administration and teachers to conduct the gerontology program following an explanation of the purpose and rationale of the study.

Three classes, one from each grade level, were randomly chosen as the experimental group to receive the gerontology program. The remaining three classes, the control group, were not given the gerontology program. The experimental

group contained 85 students and the control group had 81 students.

The students were given the Children's Attitudes Towards the Elderly Group Instrument (CATE-G) at the end of the program. It was assumed that the groups were equivalent and any significant differences in the post-test results were due to the gerontology program.

### 3.3 Description of Gerontology Unit

The gerontology program was adapted from Remer and Schrader's (1982) "Facilitating a Positive Awareness of Aging." Appendix A contains a complete description of this adapted program. This program was chosen because of sequentially structured lesson plans, few materials required and additional student activities listed.

This educational unit emphasized changing two of the major components of attitudes, the cognitive and the affective. According to Rosenberg (1960a, 1960b) changes in either or both of these components resulted in modified attitudes. Rosenberg stated that children who had negative attitudes towards the elderly had either affective-cognitive components mutually consistent or affective-cognitive components mutually inconsistent but not exceeding individual tolerance limit for inconsistency.

### 3.4 Description of Instrument

The instrument used to obtain data was the Children's Attitudes Towards the Elderly Group Test [CATE-G, Appendix B] (Jantz et al., 1977b). The CATE-G was designed from the original CATE (Jantz et al., 1976) which tested students individually. Murphey et al. (1982) described CATE as the most widely used instrument designed to assess children's attitudes towards the elderly.

The group CATE-G included questions that were similar in content to the original CATE but in a different form. Questions were answered by either short statements or by checking a response, Yes or No. Based upon a pilot study the questions were designed to facilitate test administration as well as scoring (Jantz et al., 1977b). Revisions were necessary on the word association and picture series subtests. The semantic differential subtest proved to be appropriate for both individual and group administration; thus no changes were made. These subtests were given in the following order: (a) word association, (b) semantic differential, and (c) picture series. Depending upon the grade level being examined, testing time varied from 20 to 40 minutes.

The CATE-G was designed for students who express their thoughts in written form. Therefore, according to Jantz et al. (1977b), the CATE-G was designed to be administered to children above the second grade level.

### 3.4.1 Validity and Reliability of CATE-G

This section contains information relating to the validity and reliability of the different subtests of CATE-G based upon the test manual (Jantz et al., 1977b).

The Word Association subtest was designed to sample the possible universe of questions which assess the affective, cognitive and behavioral components of children's attitudes towards the elderly. According to Jantz et al. (1976) piloting and consultation with experts, in both fields of gerontology and measurement, permitted a refinement of the subtest. This subtest had an inter-rater reliability for test items ranging from 0.78 to 0.96. The test-retest reliability indicated a moderate to high reliability for some items. Two examples found in the test manual were a child's knowledge of old people outside the family (.74) and an ability to produce alternate names for old people (.70).

The Picture Series subtest was designed to elicit affective, cognitive and behavioral components of children's attitudes towards the elderly. Validation of the drawings were established by asking graduate students in the fields of gerontology and human development to rate each drawing by giving it an estimated age. This subtest revealed high test-retest reliabilities for items. An example given in the test manual was how a subject would feel when as old as

the oldest man (.53). The inter-rater reliability was between 0.78 and 0.96.

The Semantic Differential subtest was retained from the original CATE instrument. The only modification made was rearrangement of the worded items followed by boxes, instead of lines, so subjects could check the appropriate answer. This section of the test had a moderately high test-retest reliability for each of the two scales. The young people scale (0.58) and the old people scale (0.50) were acceptable, while an extremely low correlation (0.25) between the young people scale and old people scale indicated that the two scales measure different concepts. The moderate to high correlation for each item with the total scale score (0.14 to 0.45) indicated high homogeneity for the items. Measures of internal consistency of the young people scale (0.81) and the old people scale (0.84) indicated high internal consistency for the instrument.

The reliability and validity information concerning the semantic differential indicated that attitude learning and change, in the area of children's attitudes towards the elderly, can be measured with an acceptable degree of accuracy. Kerlinger (1964) has found the semantic differential useful in exploring attitudes of children at different age levels. The CATE-G test was quick and economical to administer and score.

Jantz et al. (1977b) considered the various subtests as experimental and in need of future validation and reliability studies. After administering the instrument to a random sample of 107 children from grade-three to grade six, they found CATE-G to be a valid and reliable measure.

### 3.5 Description of Research Design

The design of this study was experimental in nature. The Posttest-Only Control Group Design (Campbell and Stanley, 1963) was utilized in this study. The design was as follows:

R	X	O <sub>1</sub>
R		O <sub>2</sub>

The letter R refers to the random assignment of classes to the experimental and control groups. The administration of the treatment (gerontology unit) to the experimental group but not the control group is assigned by the letter X. The letter O refers to the administration of the post-test (CATE-G) to both groups.

The significance of the results were determined by Chi-squared and t-test statistical procedures.

## CHAPTER IV

### ANALYSIS OF DATA

#### 4.1 Introduction

The results of the present study concerning children's attitudes towards the elderly and the effectiveness of the gerontology unit in changing children's attitudes towards old people are presented in this chapter. The experimental (N = 85) and control (N = 81) groups were given the Children's Attitudes Towards the Elderly Group Test (CATE-G). Refer to Appendix C for detailed examples of the various types of student responses. The t-test and Chi-squared were the main statistical procedures used in the analysis of data. The level of significance used to reject the null Hypothesis was  $p < .05$ . A discussion followed the presentation of results relating to each hypothesis.

#### 4.2 Knowledge of the Elderly: Hypothesis 1

In order to gain sufficient information students were asked to respond to the following four questions/statements:

- (1) Write one or two things you know about old people.
- (2) Do you know old people in your family?
- (3) Do you know old people who are not in your family?
- (4) Write another name for old people.

The results of these four themes are provided in Tables 1, 2, 3 and 4 respectively.

Table 1

Responses on Knowledge of the Elderly

Group	Grade	Affective		Physical		Behavioral	
		<sup>a</sup>	<sup>b</sup>	+	-	+	-
Control (N = 81)		32	0	0	20	3	4
	3	7	0	0	4	0	0
	4	12	0	0	5	1	4
	5	13	0	0	11	2	0
Experimental (N = 85)		36	0	6	30	24*	4
	3	11	0	1	19	0	0
	4	14	0	4	18	6	0
	5	11	0	1	3	18	4

<sup>a</sup> Positive responses

<sup>b</sup> Negative responses

\* $p < .05$  ( $\chi^2 = 5.84$ ,  $df = 1$ )



Table 2

Knowledge of Elderly Inside the Family

Group	Grade	Knowledge	
		Yes	No
Control (N = 81)		76	5
	3	29	2
	4	24	2
	5	23	1
Experimental (N = 85)		80*	5
	3	27	3
	4	25	0
	5	28	2

\*p > .05 ( $\chi^2 = 0.006$ , df = 1)

Table 3

Knowledge of Elderly Outside the Family

Group	Grade	Knowledge	
		Yes	No
Control (N = 81)		56	25
	3	25	6
	4	10	16
		21	3
Experimental (N = 85)		73*	12
	3	29	1
	4	18	7
	5	26	4

\* $p < .05$  ( $\chi^2 = 6.73$ ;  $df = 1$ )

Table 4

Alternate Name for Elderly

Group	Grade	Name	
		Yes	No
Control (N = 81)		19	62
	3	0	31
	4	3	16
	5	16	8
Experimental (N = 85)		66*	19
	3	24	6
	4	20	5
	5	22	8

\* $p < .05$  ( $\chi^2 = 48.76$ ,  $df = 1$ )

The results indicated that children in the experimental group had significantly more positive responses in the behavioral category as compared to students in the control group. There were no significant differences between students in the control and experimental groups on the affective and physical categories.

Analysis by grade revealed that the main reason for the significant difference between control and experimental groups on the behavioral category was due to the grade five responses. The experimental grade five's had 18 positive responses compared to 2 positive responses by the grade five control group (see Table 1).

Analysis revealed no significant difference between students in treatment and control groups or grade level responses on their knowledge of the elderly inside the family (see Table 2).

Students in the experimental group knew significantly more older people outside the family as compared to students in the control group after completion of the gerontology unit. Analysis by grade level revealed that experimental grade levels had more knowledge outside the family than students in the control grades. The experimental grade three's, four's and five's knew more elderly; 29, 18 and 26 respectively, as compared to the 25, 10 and 21 of the control three's, four's and five's (see Table 3).

Students in the experimental group had significantly more positive ability to provide an acceptable alternative name for old people as compared to control group students. Analysis by grade of the control group revealed that as students became older their ability to provide an acceptable name for the elderly increased. The grade three's, four's and five's had 0, 3 and 16 acceptable names for the elderly, respectively, in each of their classes.

#### 4.3 Feelings About Own Aging: Hypothesis 2

To test this theme students were asked two questions dealing with their feelings. The first question was "How do you feel about getting old?" (Table 5) and the second statement was "Write how you would feel when you are as old as this man" [picture of oldest man] (Table 6).

Students in the experimental group had significantly more neutral responses to the first question, than students in the control group. Analysis by grade revealed that there were no significant differences between grades in the control group or between grades in the experimental group (see Table 5).

Responses to the second question revealed that students in the experimental group had a significantly greater number of neutral responses as compared to control group students.

Table 5

Feelings About Getting Old

Group	Grade	Feelings		
		<sup>a</sup>	<sup>b</sup>	<sup>c</sup>
Control (N = 81)		9	38	34
	3	2	18	11
	4	5	10	11
	5	2	10	12
Experimental (N = 85)		3	66*	16
	3	1	24	5
	4	1	21	3
	5	1	21	8

<sup>a</sup>Positive responses<sup>b</sup>Neutral responses<sup>c</sup>Negative responses\* $p < .05$  ( $\chi^2 = 16.93$ ,  $df = 2$ )

Table 6

Feelings About Being Old as Picture

Group	Grade	Feelings		
		a	b	c
Control (N = 81)		8	29	44
	3	2	12	17
	4	5	5	16
	5	1	12	11
Experimental (N = 85)		12	43*	30
	3	2	17	11
	4	4	15	6
	5	6	11	13

\* $p < .05$  ( $\chi^2 = 6.07$ ,  $df = 2$ )

Analysis by grade revealed that there were no significant differences between grades in the control group or between grades in the experimental group (see Table 6).

#### 4.4 Active Interactions with the Elderly: Hypothesis 3

To examine this topic the responses of two questions were analyzed. The first question asked students to write some things that they would do with older people (Table 7). The second question asked to write some things that they would do with this man [picture of oldest man] (Table 8).

The response to the first question indicated that the experimental group students had significantly more active interactions as compared with students in the control group. Analysis by grade of the experimental group indicated that as students became older they indicated more passive behaviors towards the elderly. The results indicated that third graders had 2 passive responses compared with 10 passive responses of students in grade five.

The response to the second question was similar to the response of the first question, in that, students in the treatment group responded with significantly more active interactions as compared with students in the control group. Analysis by grade of the experimental group indicated that older students had more passive responses to this question than younger students. The results indicated that third



Table 7

Things To Do With Older People

Group	Grade	Interactions	
		Active	Passive
Control (N = 81)		49	42
	3	13	17
	4	19	12
	5	17	13
Experimental (N = 85)		89*	18
	3	32	2
	4	29	6
	5	28	10

\* $p < .05$  ( $\chi^2 = 20.02$ ,  $df = 1$ )

Table 8

Things To Do With This Man<sup>a</sup>

Group	Grade	Interactions	
		Active	Passive
Control (N = 81)		41	46
	3	15	15
	4	13	11
	5	13	20
Experimental (N = 85)		78*	28
	3	31	6
	4	21	6
	5	26	15

<sup>a</sup>Each student was given a picture of oldest man.

\* $p < .05$ . ( $\chi^2 = 14.89$ ,  $df = 1$ )

graders had 6 passive responses while grade five students had 15 passive responses.

#### 4.5 Old Man Semantic Differential Mean Scores: Hypothesis 4

The responses of a semantic differential questionnaire were used to examine this topic (Table-9). A detailed description of the questionnaire is included in Appendix B.

The t-test was used to analyze this data. The results indicated that students in the experimental group had significantly more positive responses than students in the control group. Analysis by grade revealed that the grade four treatment group had significantly more positive mean responses towards the elderly than the grade four control group. There was also a more positive mean response, though not significant, from the experimental grade three's (40.23) as compared to students from the control grade three's (38.68). There was little difference between responses from the treatment grade five's (39.76) as compared to responses from students in the control grade five's (39.54).

In the control group the grade three's had a large standard deviation (7.60) as compared to grade four's (3.85) or grade five's (5.82) (see Table 9).

Table 9

Old Man Semantic Differential

Group	Grade	n <sup>a</sup>	$\bar{x}$ <sup>b</sup>	SD <sup>c</sup>
Control		79 <sup>1</sup>	38.68	5.99
	3	29	38.62	7.60
	4	26	37.96	3.85
	5	24	39.54	5.82
Experimental		84	40.33*	5.02
	3	30	40.23	4.53
	4	25	41.12*	4.18
	5	29	39.76	6.13

<sup>a</sup> Number of students in each group/class; <sup>b</sup> mean; <sup>c</sup> standard deviation.

<sup>1</sup> Two semantic differential tests were spoiled in grade three control group and one was spoiled in grade five experimental group.

\*p < .05 (t = 1.89)

#### 4.6 Old Man-Young Man Semantic Differential Mean Scores: Hypothesis 5

The responses of semantic differential questionnaires were used to examine this topic (Table 10). A detailed description of these questionnaires is included in Appendix B.

The statistical procedure used to analyze the data was the t-test. The results indicated that students in the treatment group responded significantly more positively towards the elderly than students in the control group in terms of their responses on the old man-young man semantic differential. Analysis of data by grade revealed similar mean results as those of the old man semantic differential. Students in the grade three (49.70) and four (52.76) treatment group indicated a significantly greater number of positive responses than grade three (46.10) and four (49.69) control group students. Also, there was little difference between responses from the treatment grade five (51.21) as compared to responses from students in the control grade five group (51.25) (see Table 10).

#### 4.7 Summary of Results

In summary the major findings of the study were:

1. There was a significantly greater knowledge of the elderly in the behavioral category, outside the family and

Table 10

Total Old Man-Young Man  
Semantic Differential

Group	Grade	n <sup>a</sup>	$\bar{x}$ <sup>b</sup>	SD <sup>c</sup>
Control		79 <sup>1</sup>	48.85	7.32
	3	29	46.10	8.97
	4	26	49.69	5.75
	5	24	51.25	5.63
Experimental		84	51.13*	5.90
	3	30	49.70*	4.79
	4	25	52.76*	6.04
	5	29	51.21	6.60

<sup>a</sup>Number of students in each group/class; <sup>b</sup>mean;  
<sup>c</sup>standard deviation.

<sup>1</sup>Two semantic differential tests were spoiled in grade three control group and one was spoiled in grade five experimental group.

\* $p < .05$  ( $t = 2.18$ )

ability to provide an alternate name for the elderly with students in the treatment group as compared to control group students.

2. Student participating in the gerontology unit had significantly more neutral feelings about their own aging as compared with students from the control group.

3. The treatment group students displayed a significantly greater tendency to participate in active interactions with the elderly as compared with students in the control group.

4. Students who participated in the gerontology program had significantly greater mean scores on the old man semantic differential as compared with students from the control group. In addition, treatment grade four's had significantly greater mean scores than control grade four's.

5. There was a significantly more positive mean score response on the old man-young man semantic differential from students in the treatment group as compared to student responses in the control group. In addition, treatment grade three's and four's had significantly greater mean scores than control grade three's and four's.

## CHAPTER V

### DISCUSSION, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

#### 5.1 Introduction

The first part of this chapter will be organized around the hypotheses presented in Chapter I. Based on the review of literature of attitudes towards the elderly found in Chapter II, the collection of data and the results which were presented in Chapter IV, these hypotheses will be discussed. Conclusions and implications drawn from the results are made concerning children's attitudes towards the elderly and the gerontology unit. The final part of this chapter will consist of recommendations based on the study.

#### 5.2 Hypothesis 1

There is no significant difference on knowledge of the elderly as measured by the post-test results between the children in the experimental and control groups.

From the results, it was found that significant differences do exist between these groups. Students in the control group displayed negative attitudes towards the elderly in the behavioral category. Bennett (1976),



McTavish (1970) and Parnell (1980) stated that the main reasons for these negative attitudes are lack of basic knowledge of the elderly and negative portrayals of old age by our society. Bennett (1976) stated that "portraits of the elderly as economically and socially deprived and in desperate need of help from all sides might tempt the young to turn their heads away from the elderly" (p. 136). Students in the treatment group saw the elderly as being physically more energetic and active. The elderly guest speakers displayed these traits during their classroom visitations. In addition, students discussed society's negative stereotyping of the elderly.

In both groups student responses in the affective and physical categories were similar. In the affective category students displayed positive feelings towards the elderly. A large number of these students (76 out of 81 in control and 80 out of 85 in experimental group) knew elderly within the family and their responses reflected many kind thoughts and opinions about the elderly. However, in the physical category both groups viewed the elderly as having many negative attributes such as poor eyesight and hearing, inability to walk and baldness, to name a few. In fact, one of the guest speakers had a minor hearing problem which required the students to ask their questions louder than usual.

The main reason for the significant difference, in the behavioral category, was due to the grade five responses. The older students in the treatment group responded with more positive responses in the behavioral category and they saw the elderly as being capable of more physical activities. This finding was not consistent with the literature. Jantz et al. (1977b) found that age or grade level was not associated with responses to this behavioral category. However, the study had a wider grade range (K-6) than the present study (3-5) enabling greater detection of differences due to grade levels.

After the gerontology unit was completed the treatment students knew significantly more older people outside the family unit as compared to students in the control group. This finding was similar to another study by Jantz et al. (1977b) who concluded that subjects in the intervention (aging curriculum) group knew significantly more older people outside the family structure than subjects in the control group. These outside elderly could have included the guest speakers or the interviewees they met during their class assignments. Students were encouraged to actively interact with these individuals.

There was a significant difference between children in the experimental and control groups on their ability to

provide an acceptable alternate name for old people. This finding was consistent with Jantz et al. (1977b) who concluded that students who received an aging curriculum knew significantly more alternate names for old people as compared to students who did not receive the aging curriculum.

Students in the gerontology unit were able to elaborate more on their knowledge of old people by providing other socially acceptable words commonly used in place of the term old people. Parts of the gerontology unit, such as guest speakers and films, encouraged the children to establish correct terminology in reference to old people.

### 5.3 Hypothesis 2

There is no significant difference on feelings about their own aging as measured by the post-test results between children in the treatment and control groups.

Significant differences existed between students in the treatment and students in the control group. Students in the treatment group had significantly more neutral or ambivalent feelings about their own aging as compared to control group students. Consequently the control students had more negative responses. This finding was similar to Jantz et al. (1977b) who noted that the aging curriculum changed students' feelings about their own aging in a more

neutral direction as compared to control students. Children were more ambivalent about growing old and were uncertain about the fact that they too would someday become old.

In the control group 9 out of 81 expressed positive feelings about getting old. Page et al. (1981) found less than 1 out of 4 children viewed getting old with positive feelings. Children have negative feelings about their own aging and the educational experience changed these attitudes in a more neutral direction in terms of their own feelings about aging. These neutral feelings may have indicated a shift of feelings from negative to positive. It is very likely that children would, in the process of changing negative feelings, find themselves in a position of uncertainty before establishing positive feelings about their own aging.

#### 5.4 Hypothesis 3.

There is no significant difference on active interactions with the elderly as measured by the post-test results between children in the experimental and control groups.

The results indicated that students who took the gerontology unit had significantly more active interaction responses than students in the control group. This finding is similar to Jantz et al. (1977b) who reported that children in the treatment group had significantly more

active interactions with older people as compared to students in the control group. Results of students in the gerontology unit indicated a shift away from stereotypes of the elderly as a group of passive, unhappy people to views of older people as happy individuals who participated in a variety of physical activities. Once students realized that the elderly were also active they started to actively interact with these older individuals.

From the results it was also found that as students in the treatment group became older they became more passive. Younger children reported more active interactions, which is not surprising, since younger children are very active and were probably pleased to learn, through the gerontology unit, that older people could share their activities and interests.

#### 5.5 Hypothesis 4

There is no significant difference on the old man semantic differential mean scores as measured by the post-test results between children in the experimental and control groups.

The results indicated that students in the experimental group had significantly more positive responses than children in the control group ( $t = 1.89, p < .05$ ). These results revealed that students who took the gerontology course had a significantly more positive opinion of an

elderly person.

Analysis by grade revealed that younger children's (grades three and four) attitudes changed more positively as compared to older children (grade 5). This finding was explained in two ways. First, as previously stated, younger children are more active and willing to share activities with the elderly. Secondly, as students become older their attitudes become more solidified and more difficult to change. This observation was also noted by Klausmeier (1975) when he stated that "attitudes in elementary school children are acquired early in life and become more fixed with future learning" (p. 369). As the data indicated, younger children are more willing to actively interact with older people.

In the control group the large standard deviation for the grade three's meant that the grade three's had a large variance in their responses. They tended to look upon the aged as largely positive or largely negative. These findings were similar to those of Hickey et al. (1968) who studied third graders' attitudes towards the elderly and found that old people were stereotyped as either very mean or very nice. Their attitudes were not skewed in one direction. As a result of the gerontology unit, the experimental grade three's established a positive view of the elderly while reducing their wide range (variance) of

views towards the elderly.

#### 5.6 Hypothesis-5

There is no significant difference on the total old man-young man semantic differential mean scores as measured by the post-test results between children in the experimental and control groups.

The results indicated that students in the experimental group responded significantly more positively towards the elderly than students in the control group ( $t = 2.18, p < .05$ ) in terms of their responses on the old man-young man semantic differential. These results were consistent with those in Hypothesis 4 and both results meant that students who took the gerontology program viewed the elderly in a more positive way. For example, these students looked upon the elderly as more friendly, clean, healthy and helpful. These findings were consistent with those of Seefeldt et al. (1977b) who stated that their aging curriculum was effective in changing children's attitudes towards the elderly as measured by the total difference scores on the semantic differential.

The standard deviation of students in the experimental group (5.90) was lower than students in the control group (7.32). These results were similar to those in Hypothesis 4 (experimental = 5.02; control = 5.99) which indicated

that the gerontology unit students viewed the elderly in less extreme terms. They were consistently more positive in their attitudes, while the control students' attitudes were more varied, thus resulting in a larger standard deviation.

Analysis by grade of the experimental group revealed, like results of the previous hypothesis, that younger children's attitudes changed more positively in terms of their attitudes towards the elderly. The reasons for this change were similar to those of the previous hypothesis.

Analysis by grade of the control group revealed a large standard deviation for grade three's (8.97) as compared to those of grade four (5.75) and grade five (5.63). These findings were similar to those of Hypothesis 4. This large variance in younger children meant that these students looked upon the elderly as very good or very bad. The older students were more consistent in their views, thus resulting in a small standard deviation.

### 5.7 Conclusions and Implications

The conclusions and possible implications from this study are summarized as follows:

1. Elementary school children have some negative and stereotypic attitudes towards the elderly. These negative



attitudes prevent children from acting fairly and responsibly towards the needs of the elderly. These attitudes also prevent the elderly from sharing their vast amount of experience and knowledge with our youth. As a result, both groups suffer due to this lack of contact. Young people need to be familiar with the elderly so they can better prepare for their own aging. An increased intergenerational friendship would discourage society from suggesting that the aged live in segregated communities called retirement villages where spontaneous contact between young and old is prevented. An increased familiarity would also reduce stereotypic views of the elderly by the media and the media could begin showing the elderly as real and complex individuals.

2. Children's attitudes towards the elderly can be changed significantly in a positive direction over a short period of time through educational experiences specifically designed to change attitudes. This conclusion implies the need for educators to take a more active role in the development, implementation and evaluation of educational units designed to enhance children's views of the elderly. As a result, students with positive attitudes towards the elderly, who are also interested in working with the aged, will have many professional careers to choose from in the future because of the growth in the aged population.

3. Grade three students in the gerontology program tended to have a greater positive change in their attitudes towards the elderly than the older grade five gerontology unit students. These older students appear to have more stable attitude structures and hence require different gerontology units in order to change their attitudes towards the elderly in a more positive direction. These older students may require an increased number of sessions in their gerontology units, or more sessions per week or more classroom visitations by the elderly. Educators should match various gerontology units with the appropriate age/grade levels based upon unbiased evaluations of various gerontology units. Where possible, educators wishing to change attitudes towards the elderly should focus their efforts on younger children before their negative attitudes rigidify.

4. Any educational activity that enables students to observe and talk with the well-adjusted aged can help dispel negative stereotypes regarding aging and the elderly. Therefore, teachers should encourage elderly people to visit their classrooms to share their knowledge and expertise in appropriate educational areas. Educators could also encourage follow-up programs, outside the classroom, such as adopt-a-grandparent. These programs would enable

children to view the aged as unique thus eliminating many negative myths and stereotypes. The elderly could then be seen, not as detached old people, but as ordinary people - some active and happy, some sad and lonely. As a result, children will view the aged and aging as part of their own future.

### 5.8 Recommendations

The following recommendations are made as a result of the study:

1. Similar studies should be conducted from grades kindergarten to twelve to fully study the effects of age, educational levels and various gerontology units on children's attitudes towards the elderly.
2. Teachers' attitudes towards the elderly should be examined to reveal possible myths and stereotypes about the elderly which may be transmitted, unknowingly, to students.
3. Follow-up studies should be conducted with students involved in the gerontology program to ascertain any long-term benefits.
4. This study should be duplicated in several classes with several teachers to eliminate the teacher and teacher-student interaction effects.

5. Further studies should be directed to the attitudes of the elderly towards young people and the effect of classroom visitations on these attitudes.

6. Consideration should be given to integrating various aspects of the gerontology unit into the regular academic curriculum. Writing reports and reading about the elderly could be part of the English course. Collages of magazine pictures depicting the elderly in stereotypic ways could be part of an Art class.

7. Arrangements for guest speakers, films and other materials should be made early in the school year.

8. Teachers who plan to teach the gerontology unit should be given a workshop in which they could receive help in preparing for the course.

The gerontology unit should be evaluated by teachers who have taught the course and by students who received the unit.

10. The gerontology unit(s) should be made available to all students.

## REFERENCES

- Allport, G.W. (1935). Attitudes. In C. Murchison (Ed.), A handbook of social psychology (Vol. 2, pp. 798-844). Worcester, Mass.: Clark University Press.
- Bennett, R. (1976). Attitudes of young towards the old: A review of research. Personnel and Guidance Journal, 55, 136-139.
- Butler, R.N. (1975). Why survive: Being old in America. New York: Harper and Row.
- Campbell, D.T., & Stanley, J.C. (1963). Experimental and quasi-experimental designs for research. Chicago: Rand McNally College.
- Cartensen, L., Mason, S.E., & Caldwell, E.C. (1980, March). Children's attitudes towards the elderly: An intervention. Paper presented at the annual meeting of the Southeastern Psychological Association, Washington, D.C.
- Doob, L.W. (1947). The behavior of attitudes. Psychological Review, 54, 135-146.
- Fishbein, M. (1967). Attitude and prediction of behavior. In M. Fishbein (Ed.), Reading in attitude theory and measurement (pp. 477-492). New York: Wiley and Sons.
- Fishbein, M., & Azjen, I. (1975). Beliefs, attitude, intervention and behavior: An introduction to research. Reading, Mass.: Addison-Wesley.
- Ganikos, M., & Benedict, R. (1982). Aging and the schools: An introduction to issues and ideas for school counsellors. The School Counsellor, 29(4), 263-274.
- Geiger, D.L. (1978). How future professionals view the elderly: A comparative analysis of social work, law and medical students' perceptions. The Gerontologist, 18, 591-595.
- Glass, C., & Trent, C. (1980). Changing nine-graders' attitudes towards old people. Research on Aging, 2(4), 499-514.

- Gorden, S., & Hallauer, D. (1976). Impact of a friendly visiting program on attitudes of college students towards the aged. The Gerontologist, 16(6), 371-376.
- Gotwald, K. (1977). Elementary lesson plans: Using senior citizens as volunteers and providing a more positive attitude towards aging. Cleveland Heights, Ohio: University Heights City School District. (ERIC Document Reproduction Service No. ED 155 483)
- Gunter, L.M. (1971). Students' attitudes towards geriatric nursing. Nursing Outlook, 19, 466-469.
- Hickey, T., Hickey, L., & Kalish, R. (1968). Children's perceptions of the elderly. The Journal of Genetic Psychology, 112, 227-235.
- Jantz, R.E., Seefeldt, C., Galper, A., & Serock, K. (1976, September). Final report: Children's attitudes towards the elderly. Paper presented at the annual meeting of the American Psychological Association, Washington, D.C.
- Jantz, R.E., Seefeldt, C., Galper, A., & Serock, K. (1976). The Gate: Children's attitudes towards the elderly, test manual. College Park, Maryland: Maryland University, Center on Aging. (ERIC Document Reproduction Service No. ED 181 081)
- Jantz, R.E., Seefeldt, C., Galper, A., & Serock, K. (1977a). Children's attitudes towards the elderly. Social education, 41, 518-523.
- Jantz, R.E., Seefeldt, C., Galper, A., & Serock, K. (1977b). Children's attitudes towards the elderly: A study of curriculum implementation. College Park, Maryland: Maryland University, Department of Early Childhood Education.
- Jones, J., Schneider, R., Rupert, P., & Blue, G. (1975). Curricular considerations for elementary schools. Columbus, Ohio: Ohio State Commission on Aging. (ERIC Document Reproduction Service No. ED 163 349)
- Kastenbaum, R., & Durkee, N. (1964). Young people view old age. In R. Kastenbaum (Ed.), New thoughts on old age (pp. 237-249). New York: Springer Publishing Co.
- Kay, E., Jensen-Osinski, B., Beidler, P., & Aronson, J. (1983). The graying of the college classroom. The Gerontologist, 23(2), 196-199.

Kerlinger, F. (1964). Foundations of behavioral research. New York: Holt, Rinehart and Winston.

Kielser, C.A., Collins, B.E., & Miller, N. (1969). Attitude change. New York: John Wiley and Sons, Inc.

Klausmeier, H. (1975). Learning and human abilities (4th ed.). New York: Harper and Row.

Kogan, N. (1961). Attitudes towards old people. Journal of Abnormal and Social Psychology, 62(1), 44-54.

Krech, D., & Crutchfield, R.S. (1948). Theory and problems in social psychology. New York: McGraw-Hill.

McGuire, W.J. (1968). Nature of attitudes and attitude change. In G. Lindzey and E. Aronson (Eds.), The handbook of social psychology (Vol. 3, pp. 136-314). Reading, Mass.: Addison-Wesley.

McTavish, D.C. (1970). Perceptions of old people: A review of the literature. The Gerontologist, 11, 90-101.

Murphey, M., Myers, J., & Drennan, P. (1982). Attitudes of children towards old persons: What they are, what they can be. The School Counsellor, 29(4), 281-284.

Mussen, P., Conger, J., & Kagan, J. (1974). Child development and personality (4th ed.). New York: Harper and Row.

Page, S., Olivas, R., Driver, J., & Driver, R. (1981). Children's attitudes towards the elderly and aging. Educational Gerontology, 7, 43-47.

Paranya, A. (1974). Unit on aging. Lexington, Mass.: Mystic Valley Mental Health Center. (ERIC Document Reproduction Service No. ED 098 125)

Parnell, K. (1980). Young and old together: A literature review. Childhood Education, 56, 184-188.

Remer, P., & Schrader, L.A. (1982). Facilitating a positive awareness of aging. The School Counsellor, 29(4), 297-307.

Robertson, J.F. (1976). Significance of grandparents: Perceptions of young adult grandchildren. The Gerontologist, 16, 137-140.

Rosenberg, M.J. (1960a). A structural theory of attitude dynamics. The Public Opinion Quarterly, 24, 319-340.

Rosenberg, M.J. (1960b). An analysis of affective-cognitive consistency. In M. Rosenberg, C. Hovland, W. McGuire, R. Abelson, and J. Brehm (Eds.), Attitude organization and change. New Haven, Conn.: Yale University Press.

Rosenberg, M.J. (1960c). Cognitive reorganization in response to hypnotic reversals of attitudinal affect. Journal of Personality, 28, 39-63.

Saxe, A. (1977). The young look at the old: Curriculum building in the area of aging. San Jose, Cal.: San Jose State University, School of Applied Science and Arts. (ERIC Document Reproduction Service No. ED 166 071)

Seefeldt, C., Jantz, R., Galper, A., & Serock, K. (1977). Using pictures to explore children's attitudes toward the elderly. The Gerontologist, 17(6), 506-512.

Statistics Canada. (1985). Population projections for Canada, Provinces and Territories 1984-2006 (Publication No. 8-1300-501). Ottawa, Ont.: Information Canada.

Taylor, H.S. (1977, April). And the twain shall meet: The aged in children's literature. Paper presented at the annual meeting of the conference on College Composition and Communication, Kansas City.

Thomas, E.C., & Yamamoto, K. (1975). Attitudes towards age: An exploration in school age children. International Journal of Aging and Human Development, 6(2), 117-129.

Thorson, J.A. (1975). Attitudes towards the aged as a function of race and social class. The Gerontologist, 15, 343-344.

Treybig, D.L. (1974). Language, children and attitudes towards the aged: A longitudinal study. The Gerontologist, 14, 75.

Triandis, H.C. (1971). Attitude and attitude change. New York: John Wiley and Sons, Inc.

Tuckman, J., & Lorge, F. (1953). Attitudes towards old people. Journal of Social Psychology, 37, 249-260.

Wagner, R.V., & Sherwood, J.J. (1969). The study of attitude change. Belmont, Cal.: Brooks/Cole.



Wilson, J., & Hafferty, F. (1983). Long-term effects of a seminar on aging and health for first-year medical students. The Gerontologist, 23(3), 319-324.

## APPENDIX A

GERONTOLOGY UNIT (7 class lessons)

Unit Goal: At the end of this unit  
students will develop  
more positive attitudes  
towards the elderly.

## LESSON 1: DEFINING OLD AGE

**OBJECTIVE:** After this class, students will demonstrate through class discussion how society, in general, views the elderly.

**INTRODUCTION:** Tell the students that once a week for the next seven weeks you will be doing a guidance unit with them that focuses on the elderly. In this unit you will be asking them to share their ideas about getting old and their feelings about older people. As a class, you will be exploring what it is like to be old.

**WARM-UP DISCUSSION:** Have each child take out a piece of paper. Tell the children to write down on the paper the age at which they think people are old. Collect the papers and record each response on the board. The mean of those ages will be used as the class definition of old.

**ACTIVITY 1:** Using the mean old age, ask students to brainstorm words that describe a person who is \_\_\_\_\_ years or older. Write these words on the board. If they have trouble thinking of enough words, the following questions may be helpful:

- A. How do you know if someone is old?
- B. Whom do you know that is old? Describe that person.

Ask children to list some names that we use to refer to old people. Write these words on the board and have someone copy them down for use in future sessions.

**ACTIVITY 2:** Tell the students that these words comprise our definition of old. In order to get other definitions, give out a homework sheet consisting of the following questions that will be given to two people (who are not their age) in their home or neighborhood:

- A. At what age does a person begin to be old?
- B. What do we call someone who is that age or older?
- C. What are three words that you use to describe such a person?
- D. What age is the person with whom you talked?

The homework answers are to be brought to the teacher the next day. Teachers should tally the information for use in Lesson Two.

## LESSON 2: DEFINING OLD AGE

**OBJECTIVE:** At the end of this session students will verbalize their feelings of what it feels like to be old in society.

**WARM-UP DISCUSSION:** Students tell the class the results of their interviews. The teacher summarizes the findings and computes the mean "old age" suggested by the interviewees.

**ACTIVITY 1:** Lead a discussion on the age requirements for various activities. Elicit such information as the age to start first grade, drive a car or vote, as well as the age to receive social security and to retire from work. Raise the following questions:

- A. When are children no longer children according to society?
- B. When are adults considered old according to society?

Present to class an information handout regarding the local community definition of old. Include the age at which a person qualifies for discount prescriptions or bus fares, or a retirement community.

**ACTIVITY 2:** Students will be asked to draw a picture of themselves as old. Pass out paper, have them get markers and crayons out. Prepare students for this activity by leading them in a short guided fantasy:

Sit comfortably in your seat; relax, hands in lap. Take a deep breath. Close your eyes. Take another deep breath. Imagine what you will look like at the beginning of school next year. How much have you grown? Now imagine that you are in junior high. Picture yourself, your face, your skin, your hair. How tall are you compared to your parents? How heavy are you? Now, see yourself in high school. What do you look like? Picture yourself in your 30's with a family of your own. How tall are you? How does your skin look? Your hair? Your weight? What kinds of things do you do? What kind of job do you have? What activities do you do with your family? Now, picture yourself as old. What do you look like - face, hair, body? What kinds of activities are you doing with your family? What about your work? How do you feel? When you are ready, open your eyes. Begin to draw a picture of yourself when you are old.

## LESSON 2 (cont'd)

Ask students to share and describe their pictures orally. Students are to write stories to go with their pictures for homework. After the teacher attaches the story to the picture, the two can be displayed in the classroom.

### LESSON 3: STEREOTYPES OF OLD AGE

**OBJECTIVE:** At the end of this session students will verbalize their feelings of being left out and stereotyped; similar to feelings shared by the elderly.

**WARM-UP DISCUSSION:** The teacher reviews some of the pictures and stories that were completed in the previous lesson.

**ACTIVITY 1:** Before class the teacher should cut out white and blue paper into enough squares for half of the class to get white squares and the other half get blue squares.

Give a blue square to the students who have blue in their shirts. Give white squares to the rest of the class. Tell the class: "Those of you who have white squares are going to play HANGMAN. I have found that people who have blue squares can't play this game very well, so everyone with a blue square is not allowed to play."

Play the game, allowing only those who have white squares to play. If someone who has a blue square tries to play, remind them that blue squares people can't play.

After finishing the game ask the students with blue squares how they feel about you and about being left out. If no one volunteers, say, "I'm guessing that you are angry with me." Then ask them to respond.

Ask the class if having a white square made them better players. Then define stereotyping as assigning some characteristic (such as bad at playing games) to all members of a group without regard to individual differences. Write this definition on the board.

Ask the students to guess what characteristic you used to distribute blue squares. Then discuss whether having blue clothes has anything to do with being a good player. Conclude that the blue clothes group was discriminated against.

**ACTIVITY 2:** Ask a volunteer to look up stereotype and discrimination in the dictionary. Ask the students to think back on the list of words from the first session that referred to older persons. (Write these words on the board.) Ask them which of these words are stereotypes of old people. Which convey positive or negative

## LESSON 3 (cont'd)

images? Ask them to think of ways old people are discriminated against? In what ways have students discriminated against older persons?

Ask students to decide on a word or phrase to refer to older people that is positive or negative. Tell them that this word will be used for the remainder of the lessons.

Students are to look for and bring to class newspaper and magazine stories about older people who do not fit these stereotypes.



## LESSON 4: BODY CHANGES

**OBJECTIVE:** Students will, at the end of class, demonstrate a basic knowledge of (a) bodily changes occurring at different rates in aging individuals, and (b) elderly people can be active and happy in their later years, through class discussion.

**WARM-UP DISCUSSION:** The teacher will read and briefly discuss a couple of stories that are not stereotypic of the elderly. These were the stories that students prepared from lesson three.

**ACTIVITY:** Invite a retired nurse or doctor from the community to come to the class to discuss the bodily changes that can occur in the aging process. It is important that the speaker emphasize that these changes occur at different rates and have various impacts on individuals. The speaker should give a short talk and then be available to answer any student questions during the discussion. (It is important that the guest speaker is active and happily retired.)

**Discussion:** Allow the students to discuss bodily changes in the elderly or about retirement life of the guest speaker.

For homework, students are to find newspaper and magazine stories about older people who are physically active and bring them into class for sharing.

## LESSON 5: RETIREMENT I

**OBJECTIVE:** At the end of class students will demonstrate orally that they share:

- A. Feelings about their own retirement.
- B. Feelings of retired people today.
- C. How they can help the elderly now by doing more active things with them.

**WARM-UP DISCUSSION:** The teacher will read and briefly discuss a few stories, collected at the last lesson, about physically active old people.

**ACTIVITY 1:** Prepare students for this activity by leading them into a short guided fantasy:

Sit comfortably and close your eyes. Take three deep breaths and relax. Picture yourself in school now. See yourself doing school activities, talking with friends, doing special art and social studies projects, going on field trips. Now picture yourself as having all day to do what you please. There is no school to go to. You have no work to do. You have some home responsibilities. See yourself helping at home with dinner, keeping your room neat. What do you do all day? What do you do all night? How do you meet your friends? How do you like this new arrangement the first week? The first month? At the end of the year? After 15 years? How do you feel about being retired from school? When you are ready, slowly open your eyes and come back to class.

Ask students to share some of their feelings about this fantasy experience.

**ACTIVITY 2:** Students watch a film "Shopping Bag Lady" and discuss how badly some people treat the elderly. Students are encouraged to discuss better ways of treating the elderly.

Tell students that a visitor is coming next lesson to talk with them about what it is like to be older and retired. For Homework, the students are to write questions that they would like answered from this person. (The students are to be reminded to politely ask only appropriate questions.)

## LESSON 6: RETIREMENT II

OBJECTIVE: Students will demonstrate through class discussion that the elderly can be active and healthy, and like other people, need love and friendship.

WARM-UP DISCUSSION: Remind the class that they have a special visitor who is going to talk about his or her retirement. Introduce the guest speaker.

ACTIVITY 1: The speaker talks briefly about his or her retirement and about any changes that have taken place in his or her life, activities and relationships. (Individuals who are having an active and satisfying retirement would be the best choice for speaker.) Have students ask their prepared questions.

For homework, the teacher has the students complete the following sentence stems after listening to the guest speaker:

- A. I learned that \_\_\_\_\_
- B. I was surprised that \_\_\_\_\_
- C. ~~I was~~ glad to hear that \_\_\_\_\_
- D. I was upset to hear that \_\_\_\_\_
- E. I wish that \_\_\_\_\_
- F. When I think about my own retirement, I feel \_\_\_\_\_

## LESSON 7: NEW DIRECTIONS

OBJECTIVE: At the end of class students will demonstrate by class discussion that:

- A. they will be active during their own retirement and lots of activity will help them feel better, and
- B. they will name specific ways to improve or develop relationships with the elderly.

WARM-UP DISCUSSION: The teacher will ask the students to share the results of their sentence stems.

ACTIVITY 1: The students will watch a film "Jack Rabbit" and discuss:

- A. some activities they could do when they get older, and
- B. how they could adopt an elderly person as a friend and give some activities they could do with this older person. If there is enough time, ask students how they feel about using these strategies.

## APPENDIX, B

NAME \_\_\_\_\_

GRADE \_\_\_\_\_

TEACHER \_\_\_\_\_

## Young People Are

Very Helpful ☐ A Little Helpful ☒ Don't Know ☐ A Little Harmful ☐ Very Harmful ☐

Very Sick ☐ A Little Sick ☐ Don't Know ☐ A Little Healthy ☐ Very Healthy ☐

Very Rich ☐ A Little Rich ☐ Don't Know ☐ A Little Poor ☐ Very Poor ☐

Very Dirty ☐ A Little Dirty ☐ Don't Know ☐ A Little Clean ☐ Very Clean ☐

Very Friendly ☐ A Little Friendly ☐ Don't Know ☐ A Little Unfriendly ☐ Very Unfriendly ☐

Very Ugly ☐ A Little Ugly ☐ Don't Know ☐ A Little Pretty ☐ Very Pretty ☐

Very Wonderful ☐ A Little Wonderful ☐ Don't Know ☐ A Little Terrible ☐ Very Terrible ☐

Very Wrong ☐ A Little Wrong ☐ Don't Know ☐ A Little Right ☐ Very Right ☐

Very Happy ☐ A Little Happy ☐ Don't Know ☐ A Little Sad ☐ Very Sad ☐

Very Bad ☐ A Little Bad ☐ Don't Know ☐ A Little Good ☐ Very Good ☐

WRITE ONE OR TWO THINGS THAT YOU KNOW ABOUT OLD PEOPLE.

DO YOU KNOW ANY OLD PEOPLE IN YOUR FAMILY? YES \_\_\_\_\_ NO \_\_\_\_\_

DO YOU KNOW ANY OLD PEOPLE WHO ARE NOT IN YOUR FAMILY? YES \_\_\_\_\_ NO \_\_\_\_\_

NAME AN OLD PERSON YOU KNOW WHO IS NOT IN YOUR FAMILY.

DO YOU DO ANY THINGS WITH THE OLD PEOPLE YOU KNOW? YES \_\_\_\_\_ NO \_\_\_\_\_

IF YOU SAID YES, WRITE SOME THINGS THAT YOU DO WITH OLDER PEOPLE.

WRITE ANOTHER NAME FOR OLD PEOPLE.

HOW DO YOU FEEL ABOUT GETTING OLD YOURSELF? CHECK YOUR ANSWER.

GOOD \_\_\_\_\_ IT DOESN'T MATTER \_\_\_\_\_ BAD \_\_\_\_\_



People Are:

Very Good ☐ A Little Good ☐ Don't Know ☐ A Little Bad ☐ Very Bad ☐

Very Sad ☐ A Little Sad ☐ Don't Know ☐ A Little Happy ☐ Very Happy ☐

Very Right ☐ A Little Right ☐ Don't Know ☐ A Little Wrong ☐ Very Wrong ☐

Very Terrible ☐ A Little Terrible ☐ Don't Know ☐ A Little Wonderful ☐ Very Wonderful ☐

Very Pretty ☐ A Little Pretty ☐ Don't Know ☐ A Little Ugly ☐ Very Ugly ☐

Very Unfriendly ☐ A Little Unfriendly ☐ Don't Know ☐ A Little Friendly ☐ Very Friendly ☐

Very Clean ☐ A Little Clean ☐ Don't Know ☐ A Little Dirty ☐ Very Dirty ☐

Very Poor ☐ A Little Poor ☐ Don't Know ☐ A Little Rich ☐ Very Rich ☐

Very Healthy ☐ A Little Healthy ☐ Don't Know ☐ A Little Sick ☐ Very Sick ☐

Very Harmful ☐ A Little Harmful ☐ Don't Know ☐ A Little Helpful ☐ Very Helpful ☐









Why do you think the man you picked as the oldest is the oldest man?

Write down a reason for choosing the man you preferred to be with?



Write how you will feel when you are as old as this man.

Check your answer:

\_\_\_\_\_ Good

\_\_\_\_\_ Bad

\_\_\_\_\_ It doesn't  
matter

Why will you feel that way?

Write some things that you could do with this man.



Word Association Subtest - Scoring:

WRITE ONE OR TWO THINGS THAT YOU KNOW ABOUT OLD PEOPLE.

The responses to this question were scored on two levels, the category into which the response fell and the degree of positiveness or negativeness of the response. The responses were assigned to one of the three following categories: Affective, Physical, and Behavioral. These categories are defined as:

Affective - feelings about older people that are expressed by comments such as "they're nice, mean, kind," or "I like them."

Physical - responses that pertain to physical attributes or personal appearance such as "they have wrinkles," or "gray hair."

Behavioral - answers that describe characteristics based upon life styles of older people, including specific behaviors. Included under this category are things the older person has and things he does. Typical responses might be old people "have money," "dogs," "old houses," or "they walk funny," "they die," "they don't go out much."

After the responses were separated into a category, they were assessed as either positive, neutral or negative.

For example, if the subject gave three affective responses that were positive in nature and two affective responses that were negative, the score for this category was positive. On the other hand three negative, affective and two positive, affective responses resulted in a negative score for this category ( $2-3 = -1$ ). In essence, the score for each subject on a category was determined by subtracting the number of negative responses from the positive responses. A constant was added to each score to eliminate the problem of coding negative signs.

DO YOU KNOW ANY OLD PEOPLE IN YOUR FAMILY?

Yes    No   

Responses were scored as either yes or no.

Yes - the subject knew someone old within the family structure

No - the subject did not know someone old within the family

DO YOU KNOW ANY OLD PEOPLE WHO ARE NOT IN YOUR FAMILY?

Yes    No   

Responses were scored as either yes or no.

NAME AN OLD PERSON YOU KNOW WHO IS NOT IN YOUR FAMILY?

This response was not scored. It was merely employed as an aid in determining the reliability of the child's response to the previous question. It was helpful in establishing if, in fact, the subject had an understanding

of what was meant by the phrase, "old person not in the family," and in some cases was used as a check in assuring that the person named was old and not in the family.

DO YOU DO ANY THINGS WITH THE OLD PEOPLE YOU KNOW?

Yes. \_\_\_\_ No \_\_\_\_

Responses were scored as either yes or no.

IF YOU SAID YES, WRITE SOME THINGS THAT YOU DO WITH OLDER PEOPLE.

Responses to this statement fell into one of two categories:

Active - Responses indicating joint active or moving participation between subjects. Activities involve doing things with each other, not to or for each other.

Passive - Responses referring to a quiet activity, such as talking, reading, watching T.V., etc. Responses are also included in which the older person is not taking an active part, even if the child is. For example, the child might be going something for the older person or to the older person, with or without the older person being present.

After the responses were assigned to a category, they were given a score based on the number of active minus the number of passive responses. Therefore, if the subject

provided three active and two passive responses, his score was 1 plus a constant. A constant was added to each score to eliminate the problem of dealing with negative signs in the coding process, so that the child listing three passive and two active responses would receive a score of -1 plus a constant. A "nothing" response was considered to be passive and scored as such.

#### WRITE ANOTHER NAME FOR OLD PEOPLE

Responses were scored as either yes or no:

Yes - included correct responses such as elderly and senior citizen

No - no response or inappropriate responses (e.g., aunt, grandma or Joey Smallwood)

#### HOW DO YOU FEEL ABOUT GETTING OLD YOURSELF?

Check your answer:

\_\_\_\_\_ Good \_\_\_\_\_ It doesn't matter \_\_\_\_\_ Bad

Responses were scored as either positive, negative or neutral.

Positive = Good

Neutral = It doesn't matter

Negative = Bad

#### Picture Series Subtest - Scoring:

Order the pictures from the youngest to the oldest by numbering them from 1 to 4, one being the youngest and four being the oldest.

Each child received a score for this task on the basis of how he ordered the pictures. There were twenty-four possible ways to order the pictures and each order was assigned a score based on the Kendall rank correlation coefficient ( $\tau$ ) (Siegel, 1956). The highest possible score was a 6 which was given if the child had the correct order, 1, 2, 3, 4. The lowest score would be 0, if the pictures were ordered 4, 3, 2, 1. The reasons for scoring in this manner were twofold. While it was important to know whether the child was correct or incorrect in ordering the pictures, it was also important to understand the degree of incorrectness in the process of ordering, so that in a pre-post test situation improvements in ordering would be discernible.

#### AGE ESTIMATIONS OF EACH PICTURE. PUT THE AGE ON EACH MAN ON THE PICTURE.

Each picture was assigned an age by the subject, and scoring was based on whether or not the assigned age fell within the age range as established in the 1976 study of children's attitudes toward the elderly study. The age

ranges for each picture consist of the following:

Picture 1 - 25-36 years

Picture 2 - 38-51 years

Picture 3 - 57-70 years

Picture 4 - 71-84 years

PUT AN X ON THE MAN WITH WHOM YOU PREFER TO BE.

Subjects received a score of 1, 2, 3, 4 in accordance with the picture of the man selected, 1 being the youngest, 2 the next oldest, etc.

WRITE HOW YOU WILL FEEL WHEN YOU ARE AS OLD AS THIS MAN.  
(THE OLDEST)

Check your answer:

\_\_\_\_\_ Good

\_\_\_\_\_ Bad

\_\_\_\_\_ It doesn't matter

Scoring for this item was the same as that for the word association item, "HOW DO YOU FEEL ABOUT GETTING OLD YOURSELF?"

WRITE SOME THINGS THAT YOU COULD DO WITH THIS MAN. (THE OLDEST)

The responses were scored as the number of active minus the number of passive responses as in the word association item, WRITE SOME THINGS THAT YOU DO WITH OLDER PEOPLE.

# Semantic Differential Subtest • Scoring:

Each item on the scale for young and the scale for old people was given a rating from 1-5. The most positive item received a 5, the most negative, a 1. The following sample illustrates this:

Very Bad	A Little Bad	Don't Know	A Little Good	Very Good
1	2	3	4	5

If the subject said that young people are very bad, he received a 1 for that item score. There were 10 items on each scale, so the scale for young people had 10 scores and a total score which ranged from 10-50. The same was true for the scale on old people. The final scoring procedure consisted of obtaining a difference score for the two scales, old and young, by subtracting each item score for the young people scale from the corresponding item score on the old people scale. Therefore, very good (5) on the old people scale minus very bad (1) on the young people scale resulted in a score of 4 plus a constant. The constant eliminated the use of negatives in the coding. This procedure was done for each item and the total score, so that the final scores for each subject consisted of 10 item-differences scores and 1 total-difference score.

## APPENDIX C



### Knowledge of the Elderly

1. Write one of two things you know about old people.

The following are samples of student responses:

- They have lots of wrinkles and grey hair.
- They are kind.
- I know they are loving.
- They are smart and friendly.
- They are fragile and very easy to get sick.
- They are usually weak.
- They are wise.
- Most of them are ill.

2. Do you know old people in your family?

Yes \_\_\_\_\_ No \_\_\_\_\_

3. Do you know old people who are not in your family?

Yes \_\_\_\_\_ No \_\_\_\_\_

4. Write another name for old people.

The following are examples of student responses:

- |                   |                |
|-------------------|----------------|
| - Middle age      | - Granddad     |
| - Senior citizens | - Old gizzer   |
| - My great poppy  | - Old timer    |
| - Old foke        | - Older people |

### Feelings about Own Aging

1. How do you feel about getting old?

Good \_\_\_\_\_ It does not matter \_\_\_\_\_ Bad \_\_\_\_\_

2. Write how you will feel when you are as old as this man (picture of the oldest man).

Good \_\_\_\_\_ It does not matter \_\_\_\_\_ Bad \_\_\_\_\_

### Active Interactions with the Elderly

1. Write some things that you do with older people.

The following comments are examples of student responses:

- I play cards and checkers.
- I help my nan get the groceries.
- We go for a walk.
- Watch T.V.
- They tell me about when they were growing up.
- Help nan walk downstairs.
- I do sewing with my grandmother.

2. Write some things that you would do with this man (picture of oldest man).

The following include samples of student responses:

- I could talk about what were you doing when you were a little boy.
- Take care of him, get breakfast for him.
- Walk with him and exercise.

- Get him mad.
- Go to the park and have a picnic.
- Don't know.
- Plant plants.
- Go fishing.







