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An Experimental Study of Contact with the Elderly Upon Second-Grade Students' Attitudes and Factual Knowledge

Theresa Ann Haman

AN EXPERIMENTAL STUDY OF CONTACT WITH THE ELDERLY UPON SECOND-GRADE STUDENTS' ATTITUDES AND FACTUAL KNOWLEDGE

by

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AN EXPERIMENTAL STUDY OF CONTACT WITH THE ELDERLY UPON SECOND-GRADE STUDENTS' ATTITUDES AND FACTUAL KNOWLEDGE

Theresa Ann Haman, Ed.D.

The University of North Dakota, 1984

Faculty Advisor: Professor Beverly W. Brekke

Purpose

Purposes of this study were: (a) to assess the effects of intergenerational contact on the attitudes and knowledge of second-grade students and (b) to determine if similarities existed between second-grade students' and their parents' attitudes and knowledge concerning the elderly.

Procedure

The research population for this study was comprised of 91 Grand Forks Public School second-grade students and 61 of their parents. The experimental group of students (46) participated in an intergenerational program with elderly persons in a nursing home. The control group of students (45) was not involved in this intergenerational program. All of the students (91) were given adapted versions of the following tests during January and February 1984: (a) Children's Views on Aging (CVOA), and (b) Palmore Facts on Aging Quiz. Additionally, during February of 1984 at least one of the parents of 61 students voluntarily completed

the following: (a) My Child's Contact With Elderly People Questionnaire, (b) Kogan's Old People Scales, and (c) Palmore Facts on Aging Quiz. Resulting data were statistically tested for significant relationships and group differences.

Findings

1. On most measures no differences were found between the experimental and control groups of children and parents. There was a significant difference found between the groups of children concerning their perception of how the oldest person they knew felt to be old. The children involved in the intergenerational program tended to perceive that the oldest person they knew felt bad, while the children in the control group tended to perceive that this oldest person felt good.

2. With one exception, no significant relationships were found between the children's or parents' perceptions and factual information concerning the elderly. The exception was that of children who had higher scores on factual information concerning the elderly also perceived the elderly as stronger.

3. No strong relationship between children's and parents' attitudes and information concerning the elderly was found in this study.

This Dissertation submitted by Theresa Ann Haman in partial fulfillment of the requirements for the Degree of Doctor of Education from the University of North Dakota is hereby approved by the Faculty Advisory Committee under whom the work has been done.

Beverly Brekke
(Chairman)

S. Harlow

John D. Williams

Donald K. Lemon

Mark Drake

This Dissertation meets the standards for appearance and conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

A. William Johnsen 6/27/84
Dean of the Graduate School

Permission

Title An Experimental Study of Contact with the Elderly Upon Second-Grade Students' Attitudes and Factual Knowledge

Department Center for Teaching and Learning

Degree Doctor of Education

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Signature Theresa Haman

Date June 18, 1984

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DEDICATION

This study is dedicated to all the students and parents with whom I have worked. These students' special needs provided me with the motivation to pursue my graduate studies in education.

ABSTRACT

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Chapter I

Introduction

Background of the Study

Preadolescents were once thought to possess no opinions about socially related issues. However, studies of children's social attitudes in the 1930s and 1940s confirmed that they do hold differential racial and ethnic attitudes. Clark and Clark (1947) found that black preschool children (age 3) held positive views of white children and negative views of their own racial group. In their study, two-thirds of these black young children chose the black doll as looking bad when asked to choose between a white doll and a black doll. This position was supported by Pickford (1975) whose research indicated "the early presence of racial and ethnic prejudices in children's views of themselves and in their reactions and expectations of other persons" (p. 76).

Ageism has evolved as one type of prejudice. As a social phenomenon, ageism is a stereotyping of old people. Stereotyping constrains the expectations, roles, and behaviors assigned to a group of people (Ansello, 1978). These constraints, in turn, as in racism and ethnocentrism, condition reactions to particular groups.

Attitudes of children toward the elderly was the focus of research by Hickey, Hickey, and Kalish (1968) and Kogan, Stephens, and Shelton (1961). Results of their research demonstrated that children as young

as four years of age perceive age differences. Suggested in these findings was the possibility that most of the stereotypical attitudes young children held toward the elderly were relative to the physical attributes of the aging process. It is possible that these physical attributes, unless viewed within the total context of the aging process, could leave children with negative attitudes in respect to their own aging process. "The views which children of today hold toward the aged might be expected to have a strong influence upon their adult reactions to the aged, and also to color their self-concept when they themselves are elderly" (Hickey et al., 1968, p. 227).

Throughout the last few decades, a number of studies (Bennett, 1976; Harris, 1975; Hickey & Kalish, 1968) have been conducted that investigated attitudes toward the elderly and the aging process. Most of these researchers have utilized a cross-sectional (i.e., across ages) or a descriptive survey design. These researchers concluded that all age groups including the elderly population had stereotypical, negative views of the elderly. After an extensive review of studies investigating perceptions of the elderly, McTavish (1971) found that most age groups saw the elderly as

> generally ill, tired, not sexually interested, mentally slower, forgetful and less able to learn new things, grouchy, withdrawn, feeling sorry for themselves, less likely to participate in activities (except perhaps religion), isolated, in the least happy or fortunate time of their life, unproductive, and defensive in various combinations and with various emphases. (p. 97)

Axelrod and Eisdorfer (1961), in a study of 280 college students, concluded that negative stereotypes increased respectively with the age of the stimulus (subject) group. That is, the students' responses were less negative and stereotypical toward the group of subjects aged 35 than they were toward the group of subjects aged 45. Negative responses increased

as the age of the stimulus group increased from age 55 to 65 and 65 to 75 respectively.

Children's Attitudes Toward the Elderly

It has been postulated that age-related, negative stereotypes may be a result of an age-segregated society in which there is little contact between the various age groups (Jantz, Seefeldt, Galper, & Serock, 1977; Seefeldt, Jantz, Galper, & Serock, 1977b; Sheehan, 1978). Bronfenbrenner (1970) feared that children were losing contact with significant elderly persons because the families were growing apart. However, contrary to these views, Shanas (1979) expressed the view that the development of (children's) misconceptions of the elderly may result from their direct contact with them.

Studies of the effects of intergenerational contact with the elderly on young people's attitudes toward them as well as toward the aging process have produced mixed results. Rosencranz and McNevin (1969) found that the type of contact the young had with the elderly affected the young's perceptions of the elderly. "Hospital contact with the aged seemed to have a consistently negative effect on attitudes. . . . [C]ontact with the aged in a clinical situation may constitute assessing them as disadvantaged" (Bennett, 1976, p. 138). Bennett concluded:

> Research yields a mixed bag of results. Spontaneous contacts with old people seem to lead to positive attitudes. More formal contacts with the subject of gerontology or with sick old people through courses in gerontology or volunteer programs do not seem to improve attitudes toward the aged. Contacts with the healthy aged [do] seem to improve attitudes. (p. 139)

Of interest to note was that none of over 300 studies investigating perceptions of the elderly which McTavish (1971) reviewed were concerned with children under the age of 11 (Jantz et al., 1977). Jantz et al.

(1977) stated, "Attitude theory postulates that attitudes are learned very early in life and continually influence behavior throughout one's lifetime. . . . [C]hildren's attitudes toward the elderly are indeed worthy of study" (p. 519).

The results of investigations into children's attitudes toward the aged (Hickey et al., 1968; Seefeldt et al., 1977a, 1977b; Thomas & Yamamoto, 1975) indicated that children's perceptions of the elderly were complex and contingent upon a multitude of variables. One of these variables, that is, contact with the elderly, was the focus of Carstensen, Mason, and Caldwell's (1982) pre- and post-test study of children's attitudes toward the elderly. In this study the children in the experimental group were tutored by elderly individuals in reading over a two-month period, in addition to regular classroom reading instruction. Those in the control group received only the classroom reading instruction. Pre- and post-data were collected on the children's attitudes toward the elderly and also on their reading achievement. The attitude scores of the children in the experimental group changed significantly in a positive direction. However, both groups showed improvements in their reading scores. Carstensen et al. found "that intervention can positively alter children's attitudes toward the aged. Following a period of increased beneficial contact with old persons, children's scores changed in a positive direction" (p. 298).

Need for the Study

Research findings indicated that children's concept of age and aging followed a cognitive-developmental sequence (Galper, Jantz, Seefeldt, & Serock, 1980-81; Hickey et al., 1968; Seefeldt et al., 1977a, 1977b).

Thomas and Yamamoto (1975) noted "a steady increase in judgmental accuracy [of age] as children increase in age" (p. 126). Possible relationships between young children's cognition of aging and their level of factual information about the elderly need to be investigated. This need for further research was supported by Galper et al. (1980-81) who concluded that "children are not only taking in the information provided them about aging, but are processing this information according to their cognitive structural level" (p. 156).

Cross-age categorical studies of children's attitudes toward the elderly indicated age-related differences in elementary-aged children's perceptions (Galper et al., 1980-81; Hickey et al., 1968; Seefeldt et al., 1977a, 1977b). A better understanding of the possible relationship between children's level of information about the elderly and their attitudes toward the elderly may facilitate curriculum planning for aging. Aging education should be comprised of cognitively sequential curriculum experiences that are appropriate for developing an accurate, positive understanding of the aging process and the elderly. "Poorly structured curriculum materials may leave children with the same cognitive confusion evidenced prior to . . . intervention" (Galper et al., 1980-81, p. 156).

Klausmeier and Ripple (1971) indicated that children acquired their attitudes from those with whom they identified and wanted to be like. Because parents have played a significant role during the early years of children's lives, it appeared important to relate children's attitudes toward the elderly to their parents' attitudes toward the elderly.

Since an attitude has been viewed as a hypothetical construct, it cannot be measured directly. Part of an attitude has been determined

by a knowledge base. Differences in knowledge base could affect one's predisposition to act toward an object (Cattell & Child, 1975). In this writer's opinion, parents' factual knowledge about aging needed to be explored as a possible influence on their children's attitudes toward the elderly.

"Attitude theory . . . would suggest the importance of gaining the cooperation and support of the parents when teaching about aging and the elderly" (Seefeldt et al., 1977a, p. 308). Parent involvement as a part of an intergenerational program (i.e., a program involving contact between the young and the elderly) apparently has not been investigated. The possible influence which parent involvement in the intergenerational contact may have on the parents' as well as their children's attitudes toward the elderly needed to be investigated.

Purpose of the Study

The major purpose of this study was to assess the effects of intergenerational contact on the attitudes and knowledge of second-grade students. Purposes of the study were: (a) to determine the factual information about the elderly possessed by second-grade students and their parents; (b) to determine the affective predisposition or attitudes toward the elderly of these students and parents; (c) to determine if a similarity existed between these students' and parents' factual information about the elderly; (d) to determine if a similarity existed between these students' and parents' affective predisposition or attitudes toward the elderly; (e) to determine if the experimental group had significantly greater factual information about the elderly than did the control group; and (f) to determine if the experimental group revealed significantly more positive attitudes toward the elderly than did the control group.

Delimitations

The proposed study was conducted within the framework of the following delimitations:

1. This study was limited to four classrooms of second-grade students (and their parents) at the Kelly Elementary School and the Viking Elementary School within the Grand Forks, North Dakota, Public School system during the 1983-84 school year.

2. The subjects in this study were not randomly selected and may not be representative of the population of all second-grade students and their parents.

3. Comparative analysis of the two groups of subjects was limited to the extent that the subjects within the two groups were similar.

4. The reliability and validity of this study was limited by the reliability and validity studies that have been conducted on the Palmore Facts on Aging Quiz as a measure of factual information about the elderly and on Kogan's Old People Scales and the Children's Views on Aging (CVOA) instrument as measures of attitudes toward the elderly.

Assumptions

The study was based upon the following assumptions:

1. It was assumed that the subjects were honest and accurate in their responses.

2. It was assumed that the Viking and Kelly Elementary School populations were equivalent.

3. It was assumed that adaptations of the Palmore Facts on Aging Quiz for use with the children did not alter the meaning of the questions.

Definition of Terms

For purposes of this study, the following terms were defined:

Affective predisposition. Feelings or inclinations toward an object. For purposes of this study, affective predisposition refers to attitudes toward the elderly.

Attitudes. Internal states of being. Attitudes are based on previous experiences and thoughts. For purposes of this study, the terms attitudes and perceptions will be used interchangeably.

Conative. The willingness or desire to act. In this study, conative refers to the aspect of the children's attitudes relating to their desire or willingness to interact with the elderly.

Kogan's Old People Scales (OP+ and OP-). This scale provides a measure of an individual's attitudes and perceptions toward the aged. The two obtained scores are expressed as OP+ and OP-. OP+ refers to positive attitudes toward the aged, while OP- refers to negative attitudes toward the aged.

Children's Views on Aging (CVOA). This survey instrument provides measures of children's perceptions or attitudes toward the elderly and the aging process.

Semantic Differential (SD). A semantic differential is a measuring instrument on which a set of concepts is rated on a common set of adjective scales. As a part of the CVOA, this SD will provide the following factoral measures of children's views toward the aged: Evaluative (E), Potency (P), and Activity (A).

Elderly. A term ascribed to a group of people who are approaching or are old in age or in number of years lived. In light of past research studies, for the purposes of this study it is used to refer to people 65

years of age and over. It is used interchangeably with the terms old people and the aged.

Palmore Facts on Aging Quiz. This instrument is composed of 25 factual statements relative to the elderly population. Documented by empirical research this instrument utilizes a true-false response format and provides an index score of the respondent's level of factual information about the elderly.

Intergenerational. The type of activity, program, or action between two or more individuals from different generations. For purposes of this study, it refers to various types of interaction between the children and the elderly.

Cognition. That which comes to be known; knowledge. It is also the process of knowing. In this study cognition refers to the subjects' knowledge or factual information about the elderly.

Grandperson. A special person. In this study, grandpersons are those residents at the nursing home involved in the intergenerational program.

Research Questions

This study proposed to answer the following research questions:

1. Is there any significant difference between the experimental and the control groups of children on their factual information about the elderly scores as measured by the Palmore Facts on Aging Quiz (children's version)?

2. Are there any relationships between children's scores on the Palmore Facts on Aging Quiz (children's version) and their responses to selected questions on the Children's Views on Aging (CVOA), either in the experimental group, in the control group, or in the combined groups?

3. Is there any significant difference between the experimental and the control groups of children on their attitudes toward the elderly as measured by their responses on the semantic differential items of the Children's Views on Aging (CVOA) instrument?

4. Are there any differences in the experimental and control groups on the close-ended questions on the Children's Views on Aging (CVOA) instrument relating to the children's attitudes toward the elderly?

5. Are there any significant relationships between the children's factual information about the elderly as measured by the Palmore Facts on Aging Quiz (children's version) and their attitudes toward the elderly as measured by the semantic differential items of the Children's Views on Aging (CVOA) instrument?

6. Are there any relationships between the children's Palmore Facts on Aging Quiz (children's version) scores and their responses on the Children's Views on Aging (CVOA) close-ended questions relating to attitudes toward the elderly?

7. Are there any significant relationships between the children's attitudes toward the elderly as measured by the semantic differential items of the Children's Views on Aging (CVOA) instrument and their parents' attitudes toward the elderly as measured by Kogan's Old People Scales?

8. Is there any significant relationship between the children's factual information about the elderly and their parents' factual information about the elderly as measured by the Palmore Facts on Aging Quiz?

9. Are there any significant differences between the experimental and the control groups of children's parents on the following measures: (a) their attitudes toward the elderly as measured by Kogan's Old People

Scales and (b) their factual information about the elderly as measured by the Palmore Facts on Aging Quiz?

Chapter II

Review of Literature

In the review of literature related to the present study the following subclassifications were addressed: (a) Attitudes in General, (b) Relationship between Cognition and Affect, (c) Perceptions of and Attitudes Toward the Elderly, (d) Children's Perceptions of the Elderly, (e) Intergenerational Contact with the Elderly, (f) Young Children's Intergenerational Contact with the Elderly, and (g) Parent Involvement. Summaries were made after each subclassification.

Attitudes in General

An investigation of children's attitudes toward the elderly necessitated some insight into the nature of attitudes in general. Marks (1980) in his search found several definitions of attitudes. Most of the researchers and theorists in the behavioral sciences tended to agree on two particular elements in attitudes. After a survey of the literature, Lester (1983) identified these elements in his definition of an attitude.

> An Attitude is a [an individual's] predisposition to react to some stimulus with a reaction that involves affective behavior, the feelings or emotions of an individual. . . . Second, an individual will respond to a particular stimulus in a fairly consistent manner whenever he is exposed to that stimulus. (p. 13)

This supported earlier theorists such as Sherif and Cantril (1945) who stated that an attitude is a "functional state of readiness which determines the organism to react in a characteristic way to certain stimuli or stimulus situations" (p. 300).

This predisposition or readiness inferred that one function of an attitude was to control and guide behavior. Since this element of an attitude cannot be observed, it cannot be measured. Therefore, it was dependent upon the act or response occurring in a fairly consistent manner. Succinctly put, "in order to interpret the notion of predisposition, we are dependent on a specific definition of consistency" (Marks, 1980, p. 15).

Fishbein (1967) suggested that "in judging the response consistency [of an attitude] it is necessary to do so with reference to an evaluative or affective dimension" (p. 491). This evaluative consistency was an overall favorableness or unfavorableness in response to an object or stimulus. Consequently, the predisposition referred more to "a behavioral pattern with an underlying degree of favorability rather than a specific behavior" (Marks, 1980, p. 15).

Fishbein (1967) added a third component to an attitude. "Since a person's complete history is not available . . . [we] often turn to variables that reflect residues of past experience" (p. 498). Marks (1980) concluded, "Attitudes are generally assumed to constitute such residues, and hence attitudes are considered to be learned" (p. 16).

Rokeach (1968) provided yet another dimension to an attitude which was relevant to this study. He defined an attitude as "a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner" (p. 1). This

definition implied that an attitude was not generated in isolation. It was contingent upon the contextual or situational framework in which it was found.

> An attitude--(toward an)--object is always encountered within some situation about which we also have an organized attitude . . . thus it follows that a person's social behavior must always be a function of at least two attitudes--one activated by an attitude--(toward an)--object, the other activated by the situation. (Rokeach, 1968, p. 132)

In summary, an attitude implied a predisposition to react in a consistent manner toward an object within a particular situation. This dual nature of an attitude, attitude toward an object within a situation, was clearly applicable to the present study. The object was the aged, and, experimentally, the situation was contact with the aged within a nursing home setting.

Relationship between Cognition and Affect

Attitudes comprise the affective or evaluative tendencies of an act. This was supported by Rosenberg, Hovland, McQuire, Abelson, and Brehm (1960) who pointed out that most attitude research has involved indexes of affective or evaluative response as the primary measures of attitudes. However, interrelated with attitudes were the beliefs about the object to which one was responding.

> A belief links an object to some attribute. . . . It is the totality of these beliefs which serve as the informational base that will determine a person's affect . . . to a specific object. . . . [C]learly, a person's cognitive information, or his beliefs about an object form the basis for the affective evaluations of that object. That is to say, that presumably these two elements are directly linked. (Marks, 1980, pp. 20-21)

In summary, the literature reviewed suggested that an attitude was multidimensional. The knowledge or cognitive element formed the base

upon which the affective or feeling element was established. Another element, behavioral intention, was considered reactionary to the mixture of cognition and affect. Analyses of attitudes should incorporate all of these interactive, interrelated dimensions.

Perceptions of and Attitudes Toward the Elderly

Interest in the aged was awakened by the increasing number of older people in our country's population. In 1900 older Americans totaled only 3 million. The number multiplied phenomenally to over 25 million by 1984. In 1978 one out of every nine persons had reached a 65th birthday. It has been predicted that the proportion of 65-year-old persons in America will increase to one in eight by the year 2000 (U.S. Department of Health and Human Services, 1980).

Development of an understanding of how this increasingly large group of older citizens was perceived was justified as providing service, insight, and theory in respect to the aged and the aging process. Kalish (1982) enumerated the basic reasons for the study of issues concerning the elderly.

1. To participate in providing resources for those who are old today and for those who will be old tomorrow (that is, you and me), so that they--and we--can lead a more satisfactory life during later years.
2. To enable us to better understand our own relationships to older persons and to our own aging process, so that we can lead a more satisfactory life ourselves today.
3. To place the earlier years of the life span in proper perspective and to perceive individual development as a lifelong process. (p. 4)

Attitudes about oneself becoming older can easily be confused with attitudes toward older people. While the two may be related, few people look forward to old age; and yet, many have positive attitudes toward the elderly. Kogan (1979) found that when people were forced to choose

between older persons and other age groups, it appeared that they had negative attitudes toward the elderly as compared to other groups. When they evaluated the elderly without making such comparisons, their responses were largely positive.

Prior to 1960, it appeared that the most extensive research efforts in the study of attitudes toward old people came from Tuckman and Lorge (1953). They hypothesized that the fact that old people were expected to play a decreasingly active role in life fostered stereotyped ideas about the expectations of old age. Several later studies explored that hypothesis.

Kastenbaum and Durkee (1964) investigated the attitudes of adolescents and adults. They found that adolescents had a predominantly negative appraisal of older adults and tended to omit any consideration of the later years in their own lives; old age appeared risky, unpleasant, and without significant positive value to the adolescent. That our society exemplified a youth orientation was posited by Fischer (1977):

> Every sort of human relations was transformed by it [youth orientation]: relations between nations, classes, races, sexes--and also generations. The great revolution was, among other things, a revolution in age relations. . . . On the surface it introduced a spirit of age equality. . . . But beneath that surface a new sort of inequality was born, a new hierarchy of generations in which youth acquired the moral advantage that age had lost. (p. 78)

Jones (1977) reported that society's de-emphasis on the importance of the elderly was a contributing factor to the self-importance and disproportionate authority claimed by modern children and contributed to the negative attitudes by those same children toward the elderly.

In 1975, Harris conducted an extensive national survey of 1,500 adults over the age of 18. A major portion of his survey was concerned

with attitudes toward the elderly. He concluded from his study that negative attitudes toward the elderly were pervasive among the young population.

> Negative portrayals of old age can do the young [a] disservice. Exaggerations of the problems of old age might instill in the young a deep seated fear of growing old. They might force the young to struggle to look and act young, thus inhibiting maturity and preventing the young from enjoying the natural and rewarding process of aging. They may cause fears of aging that inhibit normal, rational planning for their later years. (p. 39)

Further ramifications of negative attitudes toward the elderly were reported by Bennett (1976) in her review of the research.

> It can be assumed that negative attitudes on the part of the young toward the old foster a climate of opinion that may well affect those who work with the aged, thereby encouraging mistreatment. Studies . . . indicate that a negative view of the aged and perhaps of aging, is fairly impervious to change efforts. Fear and even denial of one's own aging can thus be expected to continue, as well as reluctance to work with the aged. (p. 139)

Many professionals in the medical and social services--doctors, nurses, and social workers--appeared to have the same negative attitudes as the rest of society toward aging and the aged as reported in McClusky and Altenhof (1978). They noted that the medical care received by the elderly was frequently characterized by "negativism, defeatism, and professional antipathy" (p. 147).

Kogan and Shelton (1962), in a comparative study of older and younger adults' beliefs about old people, concluded that, even though the underlying sentiment toward the elderly may not have been as extreme as that usually found toward a minority group, "the dynamics of beliefs about the elderly are sufficiently similar to the ethnic prejudice case to warrant discussion in a minority group context" (p. 109). Like racism and sexism, "ageism," which was coined by Butler in 1969, connotes

a biased set of negative attitudes and stereotyping, in this case, toward the aged. Butler speculated that the implications of negative attitudes and stereotyping "allow for the poor treatment of the elderly and are responsible for much of the self-hatred seen in old people" (Butler & Lewis, 1973, p. 43).

The literature reviewed tended to support the idea that most age groups, including the elderly population, held negative and stereotypical attitudes toward the elderly. Research studies stressed the implications of such negativism upon one's own aging process as well as upon an individual's willingness to associate with or work with the elderly population.

Children's Perceptions of the Elderly

The negative approach to the elderly or ageism unfavorably affected not only older persons themselves but younger generations as well. Though some of the research results were conflicting, the overwhelming bulk of evidence indicated that, at least in America, ageism begins at a young age.

Age discrimination abilities and affective responses of 102 children, ages 4 to 6, were studied by Kogan, Stephens, and Shelton (1961). These children's responses to sets of photo stimuli of men and women indicated a progressive increase in ability to discriminate between old and young in children 4 to 5 years of age. There was little noted increase in that ability from age 5 to age 6. Affective responses were reported to have been more positive to younger faces in the photographs than to older faces.

Hickey et al. (1968) stated that behavioral scientists tended to accept the premise that values, attitudes, and stereotypes were internalized by children in their early years. In their study of the attitudes of 208 third graders in the greater Los Angeles area, the subjects were asked to write an in-class paper about an old person. These children's descriptions of an old person were grouped into two major categories: physical characteristics and social characteristics. Results of this study indicated that these eight-year-old children held stereotypical views of the physical characteristics of the aged. The responses in the social characteristics category were less consistent and tended to correlate with the economic status of the children. However, the researchers concluded that it was thought that "some of the differences between the wealthy and the poor population could be attributed to differing levels of conceptual ability and verbal learning, rather than differing perceptions" (Hickey et al., 1968, p. 234). These researchers concluded that these children had stereotypical views of the physical and social characteristics of the aged. Negative attitudes about the aged were common to rich and poor alike.

Hickey et al. (1968) attempted to test whether differentiated perceptions were dependent upon "differing levels of conceptual ability and verbal learning" (p. 234). Hickey and Kalish (1968) investigated the attitudes and perceptions toward the elderly of 335 subjects ranging in age from 8 to 20. Their results indicated that these youth differentiated between different-aged adults. They found that the differentiation ability of the older subjects was greater than that of the younger subjects. Further, they noted that as the age of the adults increased, the negative attitudes also increased.

After testing a broad sample of 180 preschool and elementary school children, Jantz et al. (1977) found that the children had little knowledge of older people. These children's comments were noted as positive when discussing older people affectively, but negative when describing older people in physical or behavioral terms and when discussing the aging process or their own old age.

Thomas and Yamamoto (1975) obtained similar findings in their investigation. The attitudes of 1,000 children in grades 6, 8, 10, and 12 toward young, middle-age, and old persons were negative in physical terms, had limited knowledge of aging, and were, in effect, negative. These researchers used a semantic differential scale in their study. It appeared that the old people were perceived as less pleasant, happy, and exciting than the young and middle-age persons.

A study conducted by Marcoen (1979), investigated the characteristics and the quality of the images which 114 children in second, fourth, and sixth grade had of their grandparents and the elderly in general. The children were asked to draw an aged man, an aged woman, their grandfather, and their grandmother, successively. The results were based on an analysis of the characteristics in the drawings. Marcoen found several significant differentiations among his subjects' drawings. Richness of the drawings as well as the number of deficit characteristics found in the drawings were significantly related to the sex of the child, the age of the child, the kinship of the figure drawn, and the sex of the stimulus person (i.e., the sex of the drawing). Marcoen concluded that old age stereotyping was already present in elementary school-aged children. Although stereotyped, these children's drawings clearly indicated that the children differentiated between aged persons and their

grandparents; grandparents were depicted less negatively than aged persons. "Children," stated Marcoen, "have several images of older people which are connected with different experiences or lack of experience with older men and women" (p. 103).

Kahn (1981) examined developmental and sex differences in children's perceptions of old age. Although the children in her study were similar in age (i.e., 6, 9, and 12 years of age) to those in Marcoen's (1979) study, the investigative approaches utilized added breadth to Marcoen's findings. A qualitative analysis was conducted of the children's essays, individual interviews with the examiner, and group discussions pertaining to old age. This analysis was also supplemented by the application of objective instrumentation (i.e., quantitative measures of the children's perception of the aged). The conclusions of Kahn's study were similar to those drawn by Marcoen. Kahn's findings also indicated that children at an early age (first grade) differentially discriminated on the basis of age and that their differentiations were significantly related to their age, their sex, and the sex of the stimuli presented. These children tended to value old people-related characteristics less than they valued younger adult-related characteristics.

Differences in children's responses to old people on the basis of the sex of the stimuli were supported in a research study conducted by Fillmer (1982). Fillmer individually interviewed the subjects which included students randomly selected from classes in each grade level in an elementary school. During the course of the interview, the subjects were shown a series of four pictures; a young man (age approximation of 20-28), an old man (age approximation of 60+), a young woman (age approximation of 20-28), and an old woman (age approximation of 60+). For

each stimulus picture the subjects were asked to tell if the person in the picture appeared sick or healthy, ugly or pretty, rich or poor, happy or sad, and friendly or unfriendly. Then the subjects were asked questions which were designed to elicit their willingness to associate with the persons depicted in the pictures. Analysis of the data indicated that all the subjects selected more negative adjectives to describe the old man and old woman than to describe the young man and young woman. Responses to the questions indicated that the girls were more willing than the boys in this study to associate with the elderly.

Research studies investigating children's perceptions of the elderly and the aging process were not entirely conclusive. However, they tended to indicate that young children differentiated between adult age groups (Jantz et al., 1977) and held stereotypical attitudes toward the elderly (Kahn, 1981; Marcoen, 1979). After obtaining similar findings in their research, Page, Olivas, Driver, and Driver (1981) stated that "education [i.e., aging education] must reach children long before 6 years of age if it is to modify their perceptions of older people and to create positive images of aging" (p. 43).

Page et al. (1981) interviewed 144 children from a university campus school in Virginia using the Children's Attitudes Toward the Elderly (CATE) scale (Jantz et al., 1977). The sampling, selected from nursery school through grade six, was comprised of 71 girls and 73 boys. Once again, the results indicated that the children generally held negative and stereotypical attitudes toward the elderly. These attitudes were based on the physical characteristics of the elderly such as wrinkles, grey hair, and false teeth.

Most of the children (90%) reported knowing an elderly person in their family, but, as reported by their parents, they had little contact with elderly persons outside the family. Although their understanding of the aging process appeared to be developmental in nature (i.e., improved as their age increased) and independent of the amount of interaction which they had with elderly persons, these children experienced a very limited amount of contact with elderly persons. Most of their interactional contacts with the elderly were reportedly restricted to passive activities.

These researchers concluded "that children at a very early stage in their lives accept the negative stereotypes of age. . . . Negative stereotypes prevent children from seeing the elderly as strong and coping; consequently, they anticipate a negative experience in their own aging" (Page et al., 1981, p. 47). With these concerns in mind, Page et al. made the following comments:

> American education needs to help youth become aware of the value in wisdom, in personality development over time, in the development and strength of the capacity to cope, in introspection and self-knowledge, and in seeing that society has evolved over time with great guidance and contribution from the elderly. (p. 47)

In summary, the research findings indicated that young children tended to hold negative stereotypical views of the elderly. Although not conclusive, boys tended to hold more negative views of the elderly than did girls. Also, the children appeared to have more positive predispositions toward personalized elderly (i.e., grandparents or elderly persons with whom they had personal contact) than they did toward the elderly in general.

These research results tended to have significant educational implications. The fact that children in first grade and above were aware

of physical differences at various age levels (i.e., they had the ability to differentiate age) may validate beginning education about aging at the lowest levels of our public educational systems.

Intergenerational Contact with the Elderly

Over forty years ago, Davis (1940) pointed out that the faster the rate of social change, the wider the gaps between generations and the more difficult life becomes for those of all ages. Since the turn of the century, propelled by technology, social change has occurred at an unprecedented rate.

Just as a society can be described in terms of its social stratification, so too, it can be described in terms of its age stratification. The broadly different sets of experience among these age strata tend to magnify and thereby widen the gap between generations.

Bronfenbrenner (1970) described the gravity of the situation in his book, Two Worlds of Children, in which he contrasted growing up in America and in the Soviet Union.

> We cannot escape the conclusion that if the current trend persists, if the institutions of our society continue to remove parents, other adults, and older youth from active participation in the lives of children, and if the resulting vacuum is filled by the age-segregated peer groups, we can anticipate increased alienation, indifference, antagonism, and violence on the part of the younger generation in all segments of our society--middle-class children as well as the disadvantaged. (pp. 116-117)

Generational differences and conflicts are not new. Aristotle (cited in Kiell, 1964) pointed to generational conflicts as the prime movers in political change. "Older generations," said Aristotle, "see the young as incorrigible idealists, dogmatists, and extremists" (p. 262). It was debatable whether communication between generations was any more

difficult today than it was in Aristotle's time.

However, if education was seen as an institution that influenced as well as reflected societal trends, education could also influence the bridge between generations. Davis (1965) stated that "education is one of the most promising areas in which social attitudes may be changed with a view to improving intergroup relations" (p. 39).

The first real impetus for aging education within the elementary and secondary schools came as a result of the 1961 White House Conference on Aging. As a result of the conference, the report titled Basic Policy Statements and Recommendations (Department of Health, Education, and Welfare, 1961) stated that "the initial stimulation of educational programs for, about, and by aging, should be through institutions that have public responsibility for education" (p. 83).

It was not until ten years later at the 1971 White House Conference on Aging (Department of Health, Education, and Welfare, 1971) that specific recommendations were made for the implementation of programs in aging education at the elementary and secondary school level. Of particular interest were the recommendations made by the high school delegates to this conference. These young people recommended (a) that day-care centers and nurseries at the pre-elementary levels utilize the elderly as supervisors, (b) the use of the elderly as classroom aides and tutors for individual children, (c) a national poster contest on the theme "Young and Old Together" to boost interest in aging education, and (d) activities which provide "face-to-face interaction between the young and the old in the school setting" (p. 249). These as well as other and more specific details of these young delegates' recommendations became an important part of the final 1971 conference report.

Many of the approaches and activities involving the aged which have developed in the last few years have reflected the ideas inherent in these youths' recommendations. Many of these programs, funded by public and private agencies at the local, state, and national levels, have incorporated intergenerational contact between children and the aged. The most prominent one is ACTION's Foster Grandparents program which pays low income elderly to provide support, guidance, and instruction to handicapped children (J. Preston, personal communication, June, 1983). In some of these programs the elderly came to the young and worked in schools, homes, and day-care centers; and in other programs the young came to the elderly.

Jacobs (1969), generally recognized as the first to advance a model for the development of aging curricula in grades K-12, gave four basic principles for aging curricula:

1. "It must be informal and innovative, since it cuts across subject matter, experience, and years" (p. 2). At the elementary level he saw such teaching as informal in approach and integrated into existing classroom activities. He did not visualize any formal instruction until the high school years. He advocated keeping students involved in learning about aging and the aged throughout their entire school experience in an attempt to alter stereotypes.

2. Education for aging must "be kept within a scientific framework to appeal effectively to today's children and youth" (p. 5). Simply stated, students in our society have been conditioned to accept scientific approaches as factual and, therefore, providing validation.

3. "It must be family problem and intergenerational centered" (p. 8). According to Jacobs, this was essential since many of the

stereotypical attitudes toward the aged and the aging process have come out of the family setting.

4. Aging education "must be all pervasive, without being disruptive of the total curricula of the public and/or private schools" (p. 11). Promotion of a separate curriculum and classes in aging education all at once may cause confusion and turmoil. As a general principle, applicable to any type of program, no aging education may be better than poor aging education.

The earliest experimental studies of the possible effects of intergenerational contact between the young and the elderly have been done with young adults, primarily college students. The results have been mixed (Bennett, 1976). For example, the results of the Tuckman and Lorge study in 1953 indicated that attitudes toward the aged of a group of college students who had regular contact with the elderly were less negative than those of the group in the study who had limited contact with the elderly. Drake's findings in 1957 contradicted those of Tuckman and Lorge. With 97 college students as subjects in his study, Drake concluded that these subjects' frequency of contact with the elderly, including contact with their grandparents, had no effect on their attitudes toward the aged.

Rosencranz and McNevin (1969) added another dimension to their study of the effects of intergenerational contact on young adults' attitudes toward the elderly. They theorized that not only the amount of contact but also the quality of contact with the elderly would affect their subjects' attitudes toward the aged. Subjects who had regular contacts with a grandparent or consistently meaningful associations with elderly people responded with more favorable attitudes toward the elderly.

Those subjects whose contact with the elderly was primarily in a hospital setting responded consistently more negatively toward the elderly.

Amir (1969) pointed out that although the "philosophy of most social goodwill programs is based upon the assumption that any intergroup contact tends to produce better attitudes and relations among the members of the group, this optimistic belief is not born out either experimentally or historically" (p. 320).

Auerbach and Levenson (1977) explored the attitudes of a group of college students toward the aged. A Likert-type instrument was given to the students following particular types of contacts with the elderly. Kogan's Old People Scales (OP) (1961) were administered to the subjects at the beginning and then again at the end of a semester of classroom interaction with elderly fellow students. Based on the OP scale scores, the subjects' attitudes toward the elderly became significantly more negative after a semester of contact with them in class. The subjects "perceived that the elderly students preferred identifying with the instructors" (p. 365). They "also complained that the elderly, who tended to take but one course per semester, expended an inordinate amount of time and energy upon classwork and were . . . unfair competition" (p. 365). Auerbach and Levenson's findings suggested that closer consideration needed to be given to the conditions or nature of intergenerational programs.

In support of this, Weinsberg (1974) found that attitudes of young adolescents toward the elderly did not change after a period of volunteer work in nursing homes. Based on previous findings regarding changes in attitudes toward the elderly as a result of interpersonal contact

with them, Olejnik and Larue (1977) conducted an experimental study of intergenerational contact within a naturalistic setting; that is, the school lunch room. The subjects were adolescents in grades six, seven, and eight. A preliminary assessment of these students' perceptions of the elderly was made. After this, for the next two months in the school cafeteria during the students' lunch periods, meals were served to approximately 40 persons who were over the age of 60. A control group of adolescents in another school did not receive this exposure to the elderly. After the two-month period, the students' attitudes toward the elderly were assessed again. Findings indicated that the adolescents receiving the experimental treatment (i.e., exposure to the elderly during their lunch period) became less negative in their attitudes and developed a less stereotyped perception of the aged. There were no significant differences by sex. However, the younger students showed a greater change in their attitudes than the older students. Another finding of significant interest was that, following this intergenerational contact, these adolescents showed a decreased willingness to interact with the elderly. Olejnik and Larue (1977) suggested that "the younger adolescents appeared to have been more malleable and to have had less firmly established perceptions of the aged. . . . Future attempts to modify or change attitudes toward aging or perceptions of the aged are likely to be more successful when working with younger subjects" (p. 11).

In retrospect, the context of this intergenerational contact proved to be far from optimally favorable. The old people received special lunches which were specially prepared and served to them. Also, the students and the elderly, although in the same room, ate in different areas of the cafeteria. Nonequal status and little personal contact

resulted between the young and the old. After the two-month period, the old people asked to be moved out of the cafeteria, "complaining that it was too noisy for them" (Olejnik & Larue, 1977, p. 12).

Young Children's Intergenerational Contact with the Elderly

Studies testing the social-contact theory of young children's (i.e., elementary school-aged) attitude change toward the elderly reported mixed results. Some indicated contact with the elderly led to more positive attitudes, and others reported contrary results.

In one study, Olson (1981) interviewed 96 children ranging in age from 4 to 9 years. The areas assessed in her interviews were (a) children's general age discriminations and awareness, (b) age discrimination and awareness of family members, (c) contacts with elderly people, (d) attitudes toward the elderly and grandparents, and (e) children's level of cognitive development. Children's level of cognitive functioning was the major variable found to differentiate their ability to discriminate age and their awareness of age cues in their parents, grandparents, and the elderly in general. The major variables related to the children's attitudes toward the elderly were their level of cognitive development and their amount of contact with elderly people. Children at the concrete operations and formal operations levels of cognitive development tended to identify a favorite grandparent for mutual and intimate reasons. Egocentric and concrete reasons were the basis of choice of a favorite grandparent for children at the pre-operational level of cognitive development.

In another study, Phenice (1979) compared the perceptions toward the elderly of two groups of preschool children. Each group consisted

of 22 parent-child dyads. The factor of comparison was that one group of preschoolers was enrolled in a day-care facility with an ongoing foster grandparent program, while the other group was selected from day-care centers without elderly persons or parents present. In this study there were no significant differences found between the two groups in their perceptions toward elderly persons. However, the children who had the contact with the foster grandparents viewed their own aging more positively with fewer bad feelings about getting old than did the other group. By using descriptive analysis, Phenice (1979) also found that children who had the most contact with elderly persons were able to describe and discuss more things they could do with and for elderly persons than children who had the least contact. As stated earlier, identifiable differences were found between the two groups of children. Their perceptions of the elderly were egocentric with a mixture of positivity and negativity based on the physical and behavioral characteristics of the elderly.

Jantz et al. (1977) findings were similar. With a sample of 180 preschool and elementary school children, they found a mixture of perceptions toward the elderly. That is, children were positive when discussing older people affectively but negative when describing older people in physical or behavioral terms.

The importance of the frequency and the type of contact which young children have with the elderly was indicated by Sheehan's (1978) research findings. Sheehan investigated the frequency of contact with elderly persons of 60 children, 4 to 6 years of age. He interviewed each child's parents by telephone to determine the nature and frequency of the children's contact with the elderly. An unexpected finding was

that a significant proportion (23%) of the children encountered elderly persons on a regular basis (i.e., once a week). This tended to indicate that the extended family was still in existence and that intergenerational contact was still occurring in our society today. Frequency of contact was a significant variable found in relation to the children's ability to identify or discriminate elderly persons. Although Sheehan's (1978) data pertaining to the children's contact with the elderly were a quantitative view of their experience with the elderly, they offered "tentative confirmation of the significance of the relationship between young children and older persons" (p. 573).

Chappell's (1977) findings countered those of Sheehan (1978). In her study, Chappell tested the effect of contact with an older person on children's attitudes toward the elderly. The subjects were 40 children in grades five and six. These children were placed in either the Maximum, Ongoing (MO) Contact Group or the Minimum, Sporadic (MS) Contact Group. The MO group consisted of children who saw their grandparents on a daily to weekly basis for at least one hour per week. The MS group consisted of children who saw their grandparents no more than twice a year for a maximum of 14 days. All the children were administered a 7-point bipolar semantic differential (SD) scale. Statistical analysis of the data indicated no significant differences in the children's attitudes toward the elderly based on contact with the elderly, sex of the child, or interaction of contact and sex. The evaluative factor on the SD scale was generally quite positive, slightly negative judgments were found on the potency factor, and the activity factor was neutral.

Marks (1980) studied the views on aging of 256, what he termed, latency-aged children (i.e., ages 7 to 11) in grades three, four, and five in four elementary schools in Allegheny County in Pennsylvania. Three categorical groups of children were included: (a) children who had completed one year of weekly interaction (approximately one-half day per week) with an elderly volunteer in their classroom and who were about to begin their second year with an elderly volunteer in their classroom, (b) children with no previous elderly volunteer participation in their classrooms who were about to begin their first year with this form of interaction, and (c) children with no previous interaction with elderly volunteers in their classroom and who would not participate in this type of programing in the coming year. After six hours of training and orientation, the elderly volunteers worked weekly with individual students and with small groups of students in their classrooms in a variety of academic areas. This was the experimental intervention, children's weekly classroom contact with the elderly volunteers. The results of this study indicated that the most predominant element in the children's attitudes toward the elderly was the complexity of their attitudes. The correlations between the children's attitudes and their frequency of contact with grandparents or other older persons were low, negative, and non-significant. "Clearly, more elaborate procedures are required in order to adequately assess the quality of grandparent (or other elderly person) contact to enable an examination of their influences on attitudes" (Marks, 1980, p. 198). However, post-test attitude scores indicated more positive changes for children with the elderly contact in the classroom than for children without this contact. Marks concluded that "despite children's very clear

perceptions of old age, they nevertheless can be moderated, thus suggesting that young children's attitudes toward old age have not been fully internalized and indeed are capable of undergoing change" (p. 199).

The attitudinal effects on children after their involvement in an intergenerational program with elderly volunteers in the classroom was also the subject of investigation in a study conducted by Carstensen et al. (1982). Prior to implementation of the program, the elderly volunteer tutors were given two 2-hour training sessions to learn administration and use of the Caldwell Reading Tutor Program, a guided reading system. Pre- and post-measures were taken of the children's attitudes toward the elderly utilizing the Children's Assessment of Old People Scale (CAOPS) which was developed for use in this investigation. Other pre- and post-measures included a diagnostic reading test for the children, scales of the elderly volunteers' life satisfaction and purpose for life, and subject (i.e., children and elderly) evaluative questionnaires. The program was instituted following the pre-data collection. Fifteen children were tutored by the elderly volunteers for 15 minutes per day, 4 days per week, for a period of 2 months. Each tutor worked approximately one hour per day, and one day per week for the two-month period. Pre- and post-data analysis indicated positive change in the children's attitudes toward the aged. Although all the children stated that they liked the tutors and that they learned, only 27% of the children viewed their tutors as old. Based on these results, Carstensen et al. (1982) came to some interesting conclusions.

> It appears that a surprisingly large proportion of the children had made the tutors exceptions to the rule that devalues old age. Although the introduction of new information may change previously existing rules, it is also possible that instead of changing the rule, individuals adjust their perceptions of the

> new information. . . . The treatment was multidimensional and many aspects of the intervention [in this study] besides those directly measured probably contributed to its overall success. However, results of this study indicate that the integration of the elderly within the school system may serve to improve the education of children and simultaneously [positively] modify attitudes toward the elderly. (pp. 298-299)

Immorlica (1980) investigated the effects of another intergenerational program within the public school setting. Her findings indicated that attitudes toward the elderly in elementary school children do change as a result of intergenerational contact. However, the results of this study indicated that the greater the intergenerational contact the more unfavorable the children's perceptions.

In Immorlica's study, a questionnaire derived from Kogan (1961), Hickey et al. (1968), and Seefeldt (1977a) was used for measuring the perceptions of a random sample of 120 children in the Los Angeles Unified School District. Three groups comprised the sampling: (a) 44 children who had direct interaction with an older classroom volunteer in a remedial aid situation, (b) 30 children who had exposure but no interaction with an older classroom volunteer, and (c) 46 children who had no exposure or contact with an older classroom volunteer. She concluded that in a remedial aid situation, intergenerational contact under unfavorable circumstances was associated with a problem-oriented perception of old people. Contact conditions (i.e., nature of the contact) had a greater effect on attitude than did demographic variables. It appeared that children's negative attitudes toward the elderly would not decrease if the contact situation had unpleasant connotations for them.

Immorlica's (1980) findings were supported by those of Baggett (1981). Baggett administered the Children's Attitudes Toward the Elderly (CATE) test by Jantz et al. (1977) to a group of 28 children, in kindergarten

through grade three, before and after 10 weeks of participation in an intergenerational contact program with elderly volunteers. A comparison group of 28 children who were not involved in the intergenerational program were also tested and then retested 10 weeks later. The children in the experimental program were chosen for the "special friend" project because they came from one-parent families or were selected by their teachers as students who could benefit the most from the one-to-one attention with an adult. Each child spent approximately 2 hours per week with an elderly volunteer involved in both formal (teacher-directed) and informal activity.

After finding no significant changes in either the experimental or control group's attitudes toward the elderly, Baggett (1981) suggested that "informal interaction alone may or may not contribute to the desired results. . . . Demographic characteristics of the program cannot be ignored" (p. 29). Since the teachers in this study were not clear about the role which the volunteers would play, "most of the older adults were forced to fall into the usual role of tutor to the children" (p. 29). This may imply the same "problem-oriented perception" of old people referred to in the Immorlica (1980) study.

In the studies reviewed, the nature or context of the intergenerational contact between young children and the elderly appeared to be a relevant variable. The P. K. Yonge Laboratory School in Gainesville, Florida, provided children, ages 6 to 8, with intergenerational contact with nursing home residents, ages 75-80. Interaction activities included conversation, reading, art, music, and shared cultural traditions. In operation since 1968, the program has evidenced significant benefits for both the youngsters and the elderly. In addition to positive attitudes toward the elderly, studies (Whitley, Duncan, McKenzie, & Sledjeski, 1976)

of the program have indicated that the children developed compassion for the physical problems of the elderly, viewed growing old as a natural occurrence, and understood death as a part of life's continuum. It appeared that this particular group of elderly, the institutionalized, had positively influenced children's perceptions of the aged and the aging process.

Leitner (1982) examined the effects of a 6-week intergenerational music activities program on the elderly who received day-care and sixth-grade children. Attitude questionnaires were administered to the children and the elderly before and after the 6-week intervention. Behavior observation ratings were also made of the elderly day-care participants. Findings indicated that the children's attitudes were significantly more positive toward older persons after their involvement in the intergenerational music activities program. Leitner concluded that both the children and the elderly day-care participants desired and enjoyed interaction with each other. The musical activities conducted in the elderly day-care centers with sixth-grade children appeared to be one type of intergenerational activity that worked successfully.

Intergenerational programs, contextually, generated a relevant data base. It appeared that when, where, and how of the intergenerational contact was as matter-of-fact or innovative, exciting or boring, and negative or positive as the program allowed.

In summary, it appeared that intergenerational programs have had some success with changing the attitudes of young people toward the aged (Carstensen et al., 1982; Leitner, 1982; Marks, 1980; Phenice, 1979; & Whitley et al., 1976). Less success was found in studies of the relationship between young children's frequency of contact and the nature of the

contact with the elderly (Baggett, 1981; Chappell, 1977; & Immorlica 1980). Importantly, it was the quality of the intergenerational contact and its nature which caused changes in the attitudes of young children.

Parent Involvement

Perhaps, exposure to a dynamic and loving elder in a person's earliest years would eliminate the need for aging education at any other age. Unfortunately, American people no longer have that experience readily available. Children's impressions of age have developed a biased input from the various media, especially television and literature (Ansello, 1978; Barnum, 1977; Blue, 1978; Constant, 1977; & others). Significant others, primarily parents, have influenced and passed on certain attitudes to their children that reflected their own perceptions and/or misconceptions.

In reference to aging education, Jacobs (1969) stated that "it must be a family problem" (p. 8) since many of the stereotypes of aging come out of a family setting. He suggested that community projects be instituted in which all (i.e., children, parents, elderly, and educators) worked together toward a common goal.

Lichtman, in her monograph prepared as part of the work of the Leadership Training Institute in 1974, stated that there was "evident interest [by parents] in participating in an educating-motivating role" (p. 8). Lichtman cited the 1971 Gallup Survey of national public opinions about schools..

> Preparing parents to carry out their educational responsibility is just as important as training teachers for their work. . . . What is of utmost importance is that parents themselves see the need for this kind of training. They are willing to devote time to learn how to do a better job of motivating their children, improving their behavior and covering those areas of education not included in the school curriculum. (p. 9)

In her monograph Lichtman discussed the need for parent involvement.

> Factors other than teaching in schools influence learning success or failure in school. There is considerable consensus that interactions between parents and children have much more effect than socioeconomic factors, though more evidence on specific behaviors and cause and effect is needed. But attitudes and behavior . . ., on the part of both parents and students, have considerable influence on learning, and these may be modified through parent involvement. . . . There is overwhelming evidence . . . that involving parents/community in schools in meaningful ways will result in benefit to the schools and the students. (p. 11)

Two major tenets have been proposed. First, it was inferred that parents' attitudes and perceptions influenced those of their children. Second, parent involvement in educational endeavors may influence both their own and their children's attitudes and behaviors pertinent to the situation. The majority of the studies of children attitudinal effects as a result of intergenerational programs have not addressed these issues relating to parent influence and involvement.

Only one of the studies reviewed reported a correlational analysis between children and their parents' perceptions of the elderly. Phenice (1979) compared two groups of day-care centers child-parent dyads. One group of children had ongoing foster grandparent contact while the other group of children did not have this contact. Pertinent to the present discussion, part of the results of this study indicated that parents influenced children's perceptions of elderly persons. Phenice found that the children's perceptions about elderly persons were not significantly different from their parents' perceptions of elderly persons.

Fernandes (1982) investigated the attitudes of 80 kindergarten children toward personalized (i.e., those with whom personal contact had been made) and non-personalized elderly (i.e., the elderly in general).

His study addressed the role of the family in providing children with personalized contact with the elderly. With no significant difference found between the children's attitudes toward personalized and non-personalized elderly, Fernandes concluded that "knowledge of how parental attitudes toward the elderly influence their children's developing concepts of aging and the aged as well as the child's impact on parental attitudes would appear to be an area deserving future scrutiny" (p. 82).

Although not a result of her study, but, nevertheless, an observation which appeared relevant was made by Chappell (1977). In reporting the results of her study of the effect of frequent, ongoing contact with an old person on young children's attitudes toward the elderly, Chappell observed that the parents invested much thought and time into filling out the questionnaires which were sent to them. "Many of the parents responded at length and a number [of parents responded] quite emotionally" (p. 2850B).

Chapter III

Design of the Study

Introduction

The purpose of the present study was to investigate children's and parents' attitudes toward and understanding of the elderly. From a review of the literature, it was concluded that intergenerational contact with the elderly did change children's perceptions toward them. Whether the change was positive or negative appeared to depend on the type of contact or the context of the contact. Intergenerational programs where the elderly were "forced to fall into the usual role of tutor to the children" (Baggett, 1981, p. 29) created a problem-oriented perception of the elderly. When the intergenerational contact included less formal activities such as conversation, reading, art, music, and shared cultural traditions, children's attitudes toward the elderly have become more positive (Whitley et al., 1976). In light of this, in the present study a comparison was made between two groups of children's perceptions of the elderly. One group was involved in a weekly contact program with elderly persons at a nursing home. Interaction activities were informal and included reading, conversation, and music; activities similar to those cited by Whitley et al. (1976). The other group of children was without this type of exposure to the elderly. Other variables which were investigated included the amount of other contacts each child had with

elderly persons and children's and parents' factual knowledge of the elderly.

In this chapter the procedures utilized in the present research will be explained. A discussion of the following topics will be included: Sources of Data, Instruments, Research Population, and Statistical Procedures.

Sources of Data

The data utilized in this study were collected during January and February 1984. The study included 91 second-grade students (see Research Population, Chapter III). All of the students in this study were administered adapted versions of the following tests during January and February 1984:

1. Children's Views on Aging (CVOA).
2. Palmore Facts on Aging Quiz.

Other sources of data used in this study were comprised of the following questionnaire and tests completed during February 1984 by those students' parents (see Research Population, Chapter III) who voluntarily participated in the study:

1. My Child's Contact with Elderly People Questionnaire.
2. Palmore Facts on Aging Quiz.
3. Kogan's Old People Scales (OP+ and OP-).

Instruments

Children's Views on Aging (CVOA). The original CVOA instrument (see Appendix A) was designed for use with children ages 7 through 11. Since the children in the present study were within this age range, selected items from the CVOA (see Appendix B) were utilized to yield the

following information: (a) the children's cognition of aging, (b) the affective component of the children's attitudes toward the elderly and the aging process, and (c) the conative component of their attitudes (i.e., desire or willingness to interact with the elderly). The selected items from the CVOA were open- and close-ended questions and the semantic differential scale. The scale was changed from a 5-point to a 3-point scale because of the young age of the subjects in this study.

Through a series of open-ended questions, subjects provided samples of their cognition and information concerning aging and the aged (questions 2, 3, 4, 14, 15, 16, 17, and 18). The subjects' affect was researched in three areas: (a) their perceptions of how "old people" feel (questions 5, 6, and 7), (b) their feelings about their own aging process (questions 9, 10, and 11), and (c) their attitudes toward the elderly as indicated by their responses on a semantic differential scale (see Appendix B). The objective of the semantic differential, composed of 15 bipolar adjective sets, was to determine the strength of dimensions of the children's attitudes toward the elderly. The adjective pairs in the scale represented three factoral dimensions about the subjects' attitudes toward the elderly; Evaluative, Potency, and Activity factors.

Listed in Table 1 are the semantic differential adjective pairs used in this study. Each pair is listed under the factor of which it is indicative.

The subjects' conative views about the elderly were investigated through a series of questions designed to measure the subjects' perceptions of elderly persons' interactional abilities. These questions

Table 1

Factor Categorization of the Adjective Pairs on the CVOA Semantic Differential Scale

Factor Category	Adjective Pair
Evaluative (E)	Good/Bad Unpleasant/Pleasant Unfriendly/Friendly Happy/Sad Pretty/Ugly Clean/Dirty Cruel/Kind Wise/Foolish Hated/Loved Generous/Stingy Dishonest/Honest
Potency (P)	Strong/Weak
Activity (A)	Slow/Fast Boring/Exciting Active/Inactive

presented various activities and actions in which elderly persons and the subjects would interact (questions 19, 20, 21, 22, 23, 24, 25, 26, and 27).

What an individual feels and believes (attitudes) cannot be separated from what one knows (cognition). In this study the subjects were asked where they learned (sources of cognition) about old people and growing old (questions 8 and 12). This was done in an attempt to explore possible relationships between children's sources of cognition of the elderly with their attitudes toward them.

Validity and reliability studies of the CVOA were conducted at the University of Pittsburgh (R. Onawola, personal communication, December, 1983 and March, 1984). In the results of his studies, Onawola addressed several aspects of the reliability and validity of the CVOA. On the semantic differential scale section, face and content validity were determined by four experts. Concurrent validity was determined by correlating the scale with the Across-Age Semantic Differential Scale developed by Petersen in 1976 (McTavish, 1982). A coefficient of .64 was obtained (N = 20). In regard to reliability, a test-retest reliability study on the semantic differential section of the CVOA produced a coefficient of .70 (N = 25). An internal consistency coefficient of .81 (N = 37) was indicated by Onawola's studies on the semantic differential. Onawola indicated that the children's responses to the subjective questions on the CVOA seemed to be consistent with their responses to items on the semantic differential section of the CVOA.

The CVOA was administered to all the student participants by the investigator in their respective classrooms during January and February 1984. Due to the length of time required for testing, test administrations were done in two settings of 20-25 minutes each.

Palmore Facts on Aging Quiz (children's version). An adapted version of the Palmore Facts on Aging Quiz (see Appendix C) (Palmore, 1977) was utilized in the present study to provide a measure of the students' level of factual information about the elderly population. Developed and tested by Palmore, this short quiz was "designed to cover the basic physical, mental, and social facts and the most common misconceptions about aging" (p. 319). The instrument has been used in a variety of ways (D. A. Peterson, personal communication, September 28,

1983). Examples of its possible uses included stimulating discussion, measuring and comparing different groups' overall levels of information about aging, identifying the most frequent misconceptions about aging, measuring the effects of courses, and measuring changes in public information and bias. In this study, the Palmore Facts on Aging Quiz (children's version) was used to measure and compare the children's overall level of information about aging.

In order to use the Palmore Facts on Aging Quiz with the second-grade subjects in this study, some of the wording needed to be simplified. An effort was made to accurately preserve the content of the statements. Some of the language was changed to make the statements commensurate with the subjects' level of vocabulary understanding. Determination of the appropriateness of the language changes was made by the investigator in consultation with three second-grade teachers and a professor of elementary reading instruction at the University of North Dakota.

The students' scores on the Palmore Facts on Aging Quiz (children's version) were reported as number correct. The quiz was administered by the investigator to all the students in their respective classrooms during January and February 1984.

My Child's Contact With Elderly People Questionnaire. The purpose of this questionnaire (see Appendix D) was to obtain the following data about the student participants:

1. Frequency and type of contact with grandparents.
2. Frequency and type of contact with great-grandparents.
3. Frequency and type of contact with other elderly persons.

The My Child's Contact With Elderly People Questionnaire was sent home by the investigator to each student participant's parents via the

student during the first week of February 1984. A covering letter (see Appendix E) explained the purpose of the study and requested the parents' voluntary participation. In an effort to facilitate parental response, a pre-addressed stamped envelope was enclosed. Eighty of the students' parents (61 different students) completed and returned the questionnaires. Of these 80 parent responses, 39 were from the experimental group and 41 were from the control group.

The questionnaires were coded for two identification purposes:

1. To match child with parent for comparison on measures.

2. To send a follow-up letter to those parents who did not respond to the first letter within a week's time period.

Palmore Facts on Aging Quiz. The purpose of the Palmore Facts on Aging Quiz (see Appendix F) was to provide an index measure of the parents' level of factual information about the elderly population. As reported earlier, this quiz can be utilized in various ways. In this study, it was used to measure and compare the parent groups' overall levels of factual information about aging in a manner similar to that used with the children.

This instrument was also sent home with the students. In this study the parents' scores on the Palmore Facts on Aging Quiz were reported as number correct.

Kogan's Old People Scales (OP+ and OP-). The Kogan's Old People Scales (OP) (see Appendix G) were utilized in the present study to provide a measure of the parent participants' affect toward the elderly. Developed by Kogan (1961), the "Old People" items consisted of 17 positive-negative pairs and required responses by the subjects on a Likert-type scale. The 17 statement pairs are presented in Table 2.

Table 2

Kogan's Old People Scales Positive (P) and

Negative (N) Pair Statements

Item	Statement
1 P	It would probably be better if most old people lived in residential units that also housed younger people.
1 N	It would probably be better if most old people lived in residential units with people of their own age.
2 P	Most old people are really no different from anybody else: they're as easy to understand as younger people.
2 N	There is something different about most old people: it's hard to figure out what makes them tick.
3 P	Most old people are capable of new adjustments when the situation demands it.
3 N	Most old people get set in their ways and are unable to change.
4 P	Most old people would prefer to continue working just as long as they possibly can rather than be dependent on anybody.
4 N	Most old people would prefer to quit work as soon as pensions or their children can support them.
5 P	Most old people can generally be counted on to maintain a clean, attractive home.
5 N	Most old people tend to let their homes become shabby and unattractive.
6 P	People grow wiser with the coming of old age.
6 N	It is foolish to claim that wisdom comes with old age.

(table continues)

Item	Statement
7 P	Old people should have more power in business and politics.
7 N	Old people have too much power in business and politics.
8 P	Most old people are very relaxing to be with.
8 N	Most old people make one feel ill at ease.
9 P	One of the most interesting and entertaining qualities of most old people is their accounts of their past experiences.
9 N	Most old people bore others by their insistence on talking about the "good old days."
10 P	Most old people tend to keep to themselves and give advice only when asked.
10 N	Most old people spend too much time prying into the affairs of others and giving unsought advice.
11 P	When you think about it, old people have the same faults as anybody else.
11 N	If old people expect to be liked, their first step is to try to get rid of their irritating faults.
12 P	You can count on finding a nice residential neighborhood when there is a sizeable number of old people living in it.
12 N	In order to maintain a nice residential neighborhood, it would be best if too many old people did not live in it.
13 P	It is evident that most old people are very different from one another.
13 N	There are a few exceptions, but in general most old people are pretty much alike.

(table continues)

Item	Statement
14 P	Most old people seem to be quite clean and neat in their personal appearance.
14 N	Most old people should be more concerned with their personal appearance; they're too untidy.
15 P	Most old people are cheerful, agreeable, and good humored.
15 N	Most old people are irritable, grouchy, and unpleasant.
16 P	One seldom hears old people complaining about the behavior of the younger generation.
16 N	Most old people are constantly complaining about the behavior of the younger generation.
17 P	Most old people need no more love and reassurance than anyone else.
17 N	Most old people make excessive demands for love and reassurance.

In the development of the scales, Kogan found the correlations between the positive and negative scales (i.e., OP+ and OP-) to be significant in the direction of "logical consistency of response" (p. 53). That is, the positive and negative statements were significantly correlated with each other. McTavish (1982), in his review of instruments used to measure perceptions of old people, determined that the Kogan's Old People Scales were "probably among the better scales for an investigator to select, in part, because of the possibility of comparing results obtained with it and earlier work" (p. 556).

The OP scales were sent home with student participants for their parents. The parents were requested to complete and return them in the enclosed, pre-addressed stamped envelope. The parents' scores are reported as Old People Positive (OP+) and Old People Negative (OP-) mean scores.

One week after the initial letter (see Appendix E) was sent home, a second letter (see Appendix H) was sent home to those parents who had not yet responded. This format was utilized in an effort to encourage their participation in the study.

Research Population

The 91 second-grade subjects in this study were enrolled in two classrooms at Kelly Elementary School and two classrooms at Viking Elementary School in the Grand Forks, North Dakota, School District #1, during the 1983-1984 school year. Forty-six of the second-grade students (28 boys and 18 girls) were from Kelly Elementary School and 45 of the second-grade students (20 boys and 25 girls) were from Viking Elementary School.

The (quasi)-experimental group of students from Kelly Elementary School were involved in an intergenerational contact program with elderly persons. The program was initiated in September of 1983 through the coordinated efforts of the two teachers of the second-grade classrooms at Kelly Elementary School and the staff at Tufte Manor Nursing Home. Tufte Manor is a nursing home located about one block away from the Kelly Elementary School. Twenty-five residents of the home volunteered to be involved in the program. The major objective of the program was to assist the residents and children in the formation of new relationships

with one another.

Every Friday afternoon the two classes of second graders took one hour away from their typical studies and walked over to the nursing home. These "field trips" were supervised by the two classroom teachers and several parent volunteers. The vehicle used for initiating and establishing discussions between the children and the residents was reading. The children planned for their visits to Tufte Manor by choosing a book that their "Grandpersons" would enjoy hearing. During the week, the children practiced reading their books. Then on Fridays they would meet with their grandperson. Although the setting was not restricted to the grandpersons' individual rooms, this was usually the place where the children and grandpersons would meet together. A pair of children was assigned to each grandperson. As time went on, the children and grandpersons' interaction expanded beyond the children reading their library books to their grandpersons.

Other activities which have evolved during the course of this program included students having lunch with the residents, students' letter writing, students' journal writing, taking field trips together, shared holiday parties, making pottery together, and the residents demonstrating and sharing with the children their special talents such as cooking, crocheting, music, crafts, and foreign language.

The control group of students from Viking Elementary School were not involved in an intergenerational program with elderly persons. The Viking Elementary School is located in an area in the Grand Forks community that is most similar to the Kelly Elementary School area with respect to socioeconomic factors. This was determined in consultation with the Assistant Superintendent of Elementary Instruction for the

Grand Forks Public School system.

In this study parent participation was voluntary. At least one of the parents of 61 children voluntarily participated. A total of 80 parent responses were received since 19 of the students had 2 parental responses. However, for purposes of testing in this study, the nineteen 2-parent responses were averaged into a mid-parent response. Therefore, 61 parental responses were utilized in this part of the study.

Statistical Procedures

In the initial analysis, simple descriptive statistics were reported on the overall groups of subjects in the study. Tallies, frequencies of response, and means were reported separately and for the combined groups of children and parents.

Statistical tests were utilized in the analysis of the research questions in this study. Each research question was listed followed by a description of the analysis.

Research Question 1. Is there any significant difference between the experimental and the control groups of children on their factual information about the elderly scores as measured by the Palmore Facts on Aging Quiz (children's version)?

The *t*-test for independent samples was utilized in an analysis of data for this question. Between group difference was tested on the Palmore Facts on Aging Quiz (children's version) scores.

Research Question 2. Are there any relationships between children's scores on the Palmore Facts on Aging Quiz (children's version) and their responses to selected questions on the Children's Views on Aging (CVOA), either in the experimental group, in the control group, or in the

combined groups?

In the analysis of the data for the research question, Pearson correlation coefficients were found. Correlations were obtained between the children's scores on the Palmore Facts on Aging Quiz (children's version) and their responses to selected questions on the Children's Views on Aging (CVOA).

Research Question 3. Is there any significant difference between the experimental and the control groups of children on their attitudes toward the elderly as measured by their responses on the semantic differential items of the Children's Views on Aging (CVOA) instrument?

The t-test was used in the analysis of the data to address this research question. Between group difference was tested on the children's responses on the semantic differential items of the Children's Views on Aging (CVOA) instrument.

Research Question 4. Are there any differences in the experimental and control groups on the close-ended questions on the Children's Views on Aging (CVOA) relating to the children's attitudes toward the elderly?

A comparison between group responses was made utilizing the chi square test. Differences between groups on close-ended questions on the Children's Views on Aging (CVOA) relating to the children's attitudes toward the elderly were examined.

Research Question 5. Are there any significant relationships between the children's factual information about the elderly as measured by the Palmore Facts on Aging Quiz (children's version) and their attitudes toward the elderly as measured by the semantic differential items of the Children's Views on Aging (CVOA) instrument?

Pearson correlation coefficients were found in the analysis of the data to answer this research question. Correlations were obtained between the children's scores on the Palmore Facts on Aging Quiz (children's version) and their scores on the semantic differential items of the Children's Views on Aging (CVOA) instrument.

Research Question 6. Are there any relationships between the children's Palmore Facts on Aging Quiz (children's version) scores and their responses on the Children's Views on Aging (CVOA) close-ended questions relating to attitudes toward the elderly?

Group membership variables were used in a quasi-analysis of variance design matrix to examine these relationships. The degree of relationship between the children's scores on the Palmore Facts on Aging Quiz (children's version) and their responses on the Children's Views on Aging (CVOA) close-ended questions relating to attitudes toward the elderly was obtained.

Research Question 7. Are there any significant relationships between the children's attitudes toward the elderly as measured by the semantic differential items of the Children's Views on Aging (CVOA) instrument and their parents' attitudes toward the elderly as measured by Kogan's Old People Scales?

Pearson correlation coefficients were found in the analysis of the data to answer this research question. Correlations were obtained between the children's scores on the semantic differential items of the Children's Views on Aging (CVOA) and their parents' scores on the Kogan's Old People Scales.

Research Question 8. Is there any significant relationship between the children's factual information about the elderly and their parents'

factual information about the elderly as measured by the Palmore Facts on Aging Quiz?

A Pearson correlation coefficient was found in the analysis of the data for this research question. The correlation between the children's and parents' scores on the Palmore Facts on Aging Quiz was obtained.

Research Question 9. Are there any significant differences between the experimental and the control groups of children's parents on the following measures: (a) their attitudes toward the elderly as measured by Kogan's Old People Scales and (b) their information about the elderly as measured by the Palmore Facts on Aging Quiz?

The *t*-test for independent samples was applied in the analysis of the data for this research question. Between group differences were tested on the parents' Kogan's Old People Scales scores and on their Palmore Facts on Aging Quiz scores. For this question the group membership was based on whether or not their child was in the experimental or control group.

In an ancillary analysis, the relationship of parent (i.e., mother and father) with child's sex on parent scores was also investigated for those children who had two parent responses. A solution similar to a Type I design by Lindquist (1953) was employed, where the parents served as a pair. Since there was an unequal number of male and female children (i.e., 9 male and 10 female) who had both parents responding on the forms, a regression solution was executed (Williams, 1974). Application of this design produced analysis of variance of parents with the child's sex on the following parent scores: (a) Palmore Facts on Aging Quiz, and (b) Kogan's Old People Scales, OP+ and OP-.

Chapter IV

Analysis of the Data

The results of the analyses of data are presented in this chapter. The first section provides a descriptive analyses of item responses, including frequency tables of scores, responses, and/or means of scores and responses to items.

The second section of this chapter presents the results of the statistical analyses used in testing each research question. The order of presentation of the results follows that of the research questions in Chapter I.

Descriptive Analyses

Children's Cognition of Aging and the Aged

The children's cognition of aging and the aged was investigated in this study. The children's responses to open-ended questions on the CVOA relating to their cognition of aging and the aged and their scores on the Palmore Facts on Aging Quiz (children's version) were analyzed.

The following questions on the CVOA were designated as indicative of the children's cognition of aging and the aged:

1. At what age is a person an old person?

2. How old do you think this person is? (That is, how old is the oldest person they know.)

3. Are your grandparents old?
4. What are the ages of your grandmothers?
5. What are the ages of your grandfathers?
6. Do you have great-grandparents?
7. Are your great-grandparents old?

The children's factual information about the elderly, as measured by the Palmore Facts on Aging Quiz (children's version), provided further analysis of the children's cognition of the aged.

Question: At what age is a person an old person? The frequencies of the children's responses to this question are presented in Table 3. The mean response for the two groups was 70 with a modal response of 60. The experimental group had a mean age response of 78 with a modal age response of 60. The control group had a mean age response of 62 and a modal age response of 60. The mean age response in the experimental group was 18 years higher than the mean age response in the control group. An analysis of the table revealed that within the control group there was a wider range of age responses to this question. In general, the responses to this question indicated that the understanding of age (i.e., for an old person) was not consistent among these second graders. This was indicated by the range of age responses from "20 to "200."

Question: Who is the oldest person you know? Three categories were identified from the children's responses to this question. The frequencies of response are listed in Table 4. The majority or 58 of the responses were either a grandparent or a great-grandparent. Nineteen of the children in the experimental group indicated the name of their grandperson (i.e., the specific name of the elderly person with whom they visited in the intergenerational program). Fourteen of the children gave other

Table 3

Frequencies of Children's Responses to "At What Age is a Person an Old Person?"

Experimental Group		Control Group		Total Group	
Age Response	Frequency	Age Response	Frequency	Age Response	Frequency
40	1	20	1	20	1
49	1	29	1	29	1
50	2	30	2	30	2
54	2	31	1	31	1
59	1	33	2	33	2
60	5	36	1	36	1
64	2	39	2	39	2
66	1	40	1	40	2
69	1	50	3	49	1
70	4	52	1	50	5
71	1	53	1	52	1
72	1	57	1	53	1
73	1	60	7	54	2
75	1	69	1	57	1
78	1	70	1	59	1
80	3	73	1	60	12
83	1	75	2	64	2
85	3	76	1	66	1
86	1	78	2	69	2
87	1	79	2	70	5
88	1	80	4	71	1
89	2	83	1	72	1
90	1	91	1	73	2
96	1	93	1	75	3

(table continues)

Experimental Group		Control Group		Total Group	
Age Response	Frequency	Age Response	Frequency	Age Response	Frequency
99	1	99	1	76	1
100	5	100	3	78	3
200	1			79	2
				80	7
				83	2
				85	3
				86	1
				87	1
				88	1
				89	2
				90	1
				91	1
				93	1
				96	1
				99	2
				100	8
				200	1
Mean 78		62		70	
Mode 60		60		60	
Total	46		45		91

Table 4

Frequencies of Children's Responses to "Who is the Oldest Person You Know?"

Response Category	Experimental Group	Control Group	Total
Grandparent or Great-grandparent	24	34	58
Grandperson	19	0	19
Other (e.g., parent, aunt, or uncle)	3	11	14
Total	46	45	91

responses such as the name of a parent, aunt, or uncle in response to this question.

Question: How old do you think this person is? (i.e., How old do they think the oldest person they know is?) The frequencies of the children's responses to this question are presented in Table 5. For the total group the mean age response was 75. The modal or most frequently occurring age response was 79. The mean age response for the experimental group was 79 and the modal age response was 90. For the control group the mean age response was 70 and the modal age response was 78. The age responses tended to be higher in the experimental group than they were in the control group.

Question: Do you have grandparents? In Table 6 the children's responses to this question are given. All of the children in this study reported that they had grandparents.

Table 5

Frequencies of Student Responses to "How Old Do You Think This Person Is? (That is, How Old Do They Think the Oldest Person They Know Is?)

Experimental Group		Control Group		Total Group	
Age Response	Frequency	Age Response	Frequency	Age Response	Frequency
32	2	20	1	20	1
50	2	31	1	31	1
51	1	32	1	32	3
54	1	33	2	33	2
64	2	36	1	36	1
67	1	40	1	40	1
69	3	41	1	41	1
71	1	46	1	46	1
72	1	50	1	50	3
75	2	52	1	51	1
77	1	53	1	52	1
78	1	59	1	53	1
79	3	60	1	54	1
80	2	64	1	59	1
81	1	67	1	60	1
85	3	69	1	64	3
86	2	71	1	67	2
87	1	73	2	69	4
89	2	74	1	71	2
90	4	75	1	72	1
92	1	77	1	73	2
93	1	78	3	74	1

(table continues)

Experimental Group		Control Group		Total Group	
Age Response	Frequency	Age Response	Frequency	Age Response	Frequency
94	2	79	3	75	3
97	1	80	1	77	2
100	1	83	1	78	4
103	3	85	1	79	6
110	1	86	1	80	3
		89	1	81	1
		90	2	83	1
		91	1	85	4
		92	1	86	3
		93	1	87	1
		94	1	89	3
		98	2	90	6
		99	1	91	1
		100	2	92	2
				93	2
				94	3
				97	1
				98	2
				99	1
				100	3
				103	3
				110	1
Mean 79		70		75	
Mode 90		78		79	
Total	46		45		91

Table 6

Student Responses to "Do You Have Grandparents?"

Response Category	Experimental Group	Control Group	Total
Yes	46	45	91
No	0	0	0
Total	46	45	91

Question: Are your grandparents old? In Table 7 the children's responses to this question are shown. A majority (79) of the children indicated "yes" in response to this question. Eleven of the children indicated "no" in their response. One child did not respond. There was close similarity between groups in their responses to this question.

Table 7

Student Responses to "Are Your Grandparents Old?"

Student Response	Experimental Group	Control Group	Total
Yes	36	42	78
No	8	3	11
Total	45*	45	90*

*One student did not respond to this question

Question: What are the ages of your grandmothers? In Table 8 the frequencies of the average of each student's responses to this question are listed. The mean age response for the total group was 67 and the modal age response was 60. The mean age response in the experimental group was 72 and the modal age response was 60. In the control group the mean age response was 63 and the modal age response was also 60. The age responses tended to be higher in the experimental group than in the control group.

Question: What are the ages of your grandfathers? In Table 9 the frequencies of the average of each student's responses to this question are listed. The mean age response for the total group was 70 and the modal was 50. The mean age response in the experimental group was 72 and the modal was also 72. The mean age response in the control group was 68 and the modal was 60. Once again, the age responses tended to be higher in the experimental group than in the control group.

Question: Do you have great-grandparents? The children's responses to this question are presented in Table 10. Sixty-six of the children responded "yes" to this question. Twenty-five of the children indicated a "no" response.

Question: Are your great-grandparents old? The children's responses to this question are reported in Table 11. The majority (59) of those children who indicated that they had great-grandparents responded with a "yes" to this question. Nine other children responded to this question by indicating a "no" response. Two of the children in the control group, who had indicated on the previous question that they did not have great-grandparents, responded "no" to this question. Thus, it appeared that there was some confusion in their understanding of the directions, the

Table 8

Frequencies of the Average of Each Child's Responses to "What Are the Ages of Your Grandmothers?"

Experimental Group		Control Group		Total Group	
Age Response	Frequency	Age Response	Frequency	Age Response	Frequency
33	1	29	1	29	1
35	1	31	1	31	1
49	1	34	1	33	1
50	2	36	1	34	1
51	1	40	1	35	1
54	1	41	1	36	1
55	1	43	1	40	1
58	2	48	1	41	1
59	1	49	2	43	1
60	3	50	1	48	1
61	3	53	1	49	3
62	1	56	1	50	3
63	3	57	2	51	1
64	3	58	2	53	1
65	1	59	1	54	1
66	1	60	3	55	1
68	1	62	1	56	1
69	1	64	2	57	2
70	1	66	1	58	4
72	1	67	1	59	2
78	1	68	2	60	6
80	1	69	2	61	3
81	1	70	1	62	2
84	1	73	2	63	3

(table continues)

Experimental Group		Control Group		Total Group	
Age Response	Frequency	Age Response	Frequency	Age Response	Frequency
85	1	74	1	64	5
86	3	75	1	65	1
89	1	76	1	66	2
94	1	78	1	67	1
95	1	79	1	68	3
99	2	81	2	69	3
100	2	83	1	70	2
111	1	85	1	72	1
		86	1	73	2
		89	1	74	1
		93	1	75	1
				76	1
				78	2
				79	1
				80	1
				81	3
				83	1
				84	1
				85	2
				86	4
				89	2
				93	1
				94	1
				95	1
				99	2
				100	2
				111	1
Mean 72		63		67	
Mode 60		60		60	
Total	46		45		91

Table 9

Frequencies of the Average of Each Child's Responses to "What are the Ages of Your Grandfathers?"

Experimental Group		Control Group		Total Group	
Age Response	Frequency	Age Response	Frequency	Age Response	Frequency
50	2	32	1	32	1
51	1	36	1	36	1
52	1	37	1	37	1
53	1	42	1	42	1
54	1	44	2	44	2
56	2	50	2	50	4
57	1	59	2	51	1
60	1	60	3	52	1
61	1	61	1	53	1
62	1	62	2	54	1
63	2	63	1	56	2
64	2	64	1	57	1
66	1	65	1	59	2
69	1	67	1	60	4
70	2	71	1	61	2
71	2	72	1	62	3
72	3	73	1	63	3
73	1	75	1	64	3
75	1	76	1	65	1
76	2	77	1	66	1
78	2	79	3	67	1
80	1	80	2	69	1
81	2	81	1	70	2
82	2	83	1	71	3

(table continues)

Experimental Group		Control Group		Total Group	
Age Response	Frequency	Age Response	Frequency	Age Response	Frequency
90	2	86	1	72	4
91	1	89	1	73	2
97	1	90	2	75	2
108	1	93	1	76	3
118	1	94	1	77	1
		99	1	78	2
				79	3
				80	3
				81	3
				82	2
				83	1
				86	1
				89	1
				90	4
				91	1
				93	1
				94	1
				97	1
				99	1
				108	1
				118	1
Mean 72		68		70	
Mode 72		60		50	
Total	42		40		82*

*Nine children did not respond to this question

Table 10

Student Responses to "Do You Have Great-grandparents?"

Response Category	Experimental Group	Control Group	Total
Yes	32	34	66
No	14	11	25
Total	46	45	91

Table 11

Student Responses to "Are Your Great-grandparents Old?"

Response Category	Experimental Group	Control Group	Total
Yes	28	31	59
No	4	5	9
Total	32	36	68

question, or their conceptual understanding of the term great-grandparents.

Palmore Facts on Aging Quiz (children's version, see Appendix C). The frequencies of the children's scores on this quiz are listed in Table 12. In the experimental group the mean score was 11.89 and the modal score was 12. In the control group the mean score was 12.58 and the modal score was 11. As indicated by the data in this table, there was close similarity between the groups on both the mean and modal scores.

Table 12

Frequencies of Children's Scores* on the Palmore Facts on Aging Quiz (Children's Version)

	Experimental Group		Control Group		Total	
	Score	Frequency	Score	Frequency	Score	Frequency
	7	2	9	4	7	2
	8	1	10	5	8	1
	9	2	11	8	9	6
	10	5	12	5	11	16
	11	8	13	7	12	17
	12	12	14	5	13	16
	13	9	15	7	14	7
	14	2	16	3	15	9
	15	2	18	1	16	5
	16	2			18	2
	18	1				
Mean	11.89		12.58		12.23	
Mode	12		11		12	
Total		46		45		91

*Reported in number correct out of a total possible number correct of 24

Children's Attitudes Toward the Elderly

The children's attitudes toward the elderly and the aging process were analyzed utilizing two sources of data. Their responses to open- and close-ended questions on the CVOA relating to their attitudes toward the elderly and the aging process as well as their scores on the semantic differential scale section on the CVOA were analyzed.

The following questions on the CVOA were designated as indicative of the children's attitudes toward the elderly:

1. How do you think this person (i.e., the person who was designated as the oldest person the subjects knew) feels to be old?

2. Do you think growing old is (a) a good thing to happen, (b) a bad thing to happen, or (c) not good or bad?

3. How do you think it feels to be an old person? Do you think it feels (a) good, (b) bad, or (c) not good or bad?

4. What do you think you will be like when you are old? Do you think this will be (a) a good thing, (b) a bad thing, or (c) not good or bad?

5. How do you think you will feel when you are an old person? Do you think this will feel (a) good, (b) bad, or (c) not good or bad?

6. Now imagine some of the things you will do when you are an older person. Do you think doing these things will be (a) a good thing, (b) a bad thing, or (c) not a good or a bad thing?

The frequencies of the children's responses to these questions are listed in Table 13. An analysis of this table indicated similar responses between groups on questions relating to attitudes toward the elderly.

The children's scores on the semantic differential scale section of the CVOA were also examined as a part of the analysis of the children's affective disposition toward the elderly. The frequencies of the mean factor scores are listed in Table 14. In the experimental group the mean Evaluative (E) score was 2.80. The control group had a mean Evaluative (E) score of 2.75. The mean Potency (P) scores were 1.57 for the experimental group and 1.73 for the control group. The mean Activity (A) scores were 1.88 for the experimental group and 1.98 for the control group. The total group mean scores were as follows: E = 2.78, P = 1.65, and A = 1.93.

Table 13

Frequencies of Children's Responses to Questions on the CVOA Indicative of Their Attitudes Toward the Elderly

Group	Response Frequencies		
	Good	Bad	Not Good or Bad
Question: How do you think this person (i.e., the person who was designated as the oldest person the subjects knew) feels to be old? (Three categories were identified from the children's responses: (a) good, (b) bad, and (c) not good or bad.)			
Experimental	17	24	5
Control	28	15	2
Total	45	39	7
Question: Do you think growing old is (a) a good thing to happen, (b) a bad thing to happen, or (c) not good or bad?			
Experimental	12	5	29
Control	15	5	25
Total	27	10	54
Question: How do you think it feels to be an old person? Do you think it feels (a) good, (b) bad, or (c) not good or bad?			
Experimental	15	9	22
Control	20	9	16
Total	35	18	38
Question: What do you think you will be like when you are old? Do you think this will be (a) a good thing, (b) a bad thing, or (c) not good or bad?			
Experimental	17	6	23
Control	19	5	21
Total	36	11	44

(table continues)

Group	Response Frequencies: Good	Bad	Not Good or Bad
Question: How do you think you will feel when you are an old person? Do you think this will feel (a) good, (b) bad, or (c) not good or bad?			
Experimental	14	14	18
Control	21	5	19
Total	35	19	37
Question: Now imagine some of the things you will do when you are an older person. Do you think doing these things will be (a) good, (b) bad, or (c) not good or bad?			
Experimental	32	3	11
Control	33	2	10
Total	65	5	21

Two items on the CVOA were used to investigate the children's perceived sources of information about growing old and about the elderly in general. The frequencies of the children's responses to these items are provided in Table 15. For the total group the response "parents" or "grandparents" was chosen most frequently. However, on both items the response "school" was chosen more frequently by the children in the experimental group than it was chosen by the children in the control group. This may have been the result of the experimental group of children's involvement through the school in the intergenerational program.

Table 14

Frequencies of the Mean Evaluative (E), Potency (P), and Activity (A) Scores

Factor	Experimental Group			Control Group			Total		
	Score	Frequency	$\bar{X}$	Score	Frequency	$\bar{X}$	Score	Frequency	$\bar{X}$
Evaluative (E)	2	6		2	6		2	12	
	3	40		3	39		3	79	
Total		46	2.80		45	2.75		91	2.78
Potency (P)	1	20		1	17		1	37	
	2	23		2	23		2	46	
	3	3		3	5		3	8	
Total		46	1.57		45	1.73		91	1.65
Activity (A)	1	10		1	5		1	15	
	2	31		2	36		2	67	
	3	5		3	4		3	9	
Total		46	1.88		45	1.98		91	1.93

Table 15

Frequencies of Children's Responses to Items on the CVOA Indicative of Their Perceived Sources of Information About the Elderly

Group	Response Frequencies							
	TV	Friends	Parents	Movies	Grandparents	Books	School	Somewhere Else
Item 1: Circle the one that tells where you think you learned the most about old people.								
Experimental	1	1	11	2	17	1	8	5
Control	4	0	20	0	13	1	4	3
Total	5	1	31	2	30	2	12	8
Item 2: Circle the one that tells where you think you learned the most about becoming or growing old.								
Experimental	3	2	13	1	11	0	14	2
Control	2	0	21	0	15	2	4	1
Total	5	2	34	1	26	2	18	3

Children's Contact with Elderly Persons

Parent responses on the "My Child's Contact With Elderly People Questionnaire" provided information on the children's frequency and type of contact with elderly persons. Tables 16, 17, and 18 display the frequencies of the 61 parental responses to the items on this questionnaire. Parent perceptions of children's contact with the elderly were listed according to three classifications of elderly persons: (a) grandparents (see Table 16), (b) great-grandparents (see Table 17), and (c) other elderly persons (see Table 18). An analysis of these tables indicated there were no apparent differences between the experimental and the control groups of parental perceptions of their children's type and amount of contact with elderly persons.

Parents' Factual Information About the Elderly

The parent participants' scores on the Palmore Facts on Aging Quiz provided a measure of their level of factual information about the elderly. In Table 19 the frequencies of these scores are listed. The mean score for the total group of parent participants was 15.5. The modal score was 14. For the experimental group of parent participants the mean score was 15.9 and the modal score was 17. In the control group of parent participants the mean score was 15.2 and the modal score was 14. From an analysis of the data in Table 19 it was found that the scores and means between groups were similar.

Parents' Attitudes Toward the Elderly

The parent participants' scores on the Kogan's Old People Scales (OP) provided a measure of their affect toward the elderly. The means

Table 16

Parents' Perception of Children's Contact With Grandparents

Group	Response Frequencies		
	Yes	No	Total
Item 1: Does your second-grade child have grandparents who are living?			
Experimental	28	0	28
Control	33	0	33
Total	61	0	61

(table continues)

Group	Response Frequencies: Almost Every Day	Almost Every Week	Almost Every Month	Summers	Once or Twice a Year	Never	Total
Item 2: How often does he/she (your second-grade child) see them (grandparents).							
Experimental	2	10	4	1	11	0	28
Control	1	16	10	0	6	0	33
Total	3	26	14	1	17	0	61
Item 3: How often does your child talk to his/her grandparents on the telephone?							
Experimental	1	7	11	1	7	1	28
Control	2	12	12	0	7	0	33
Total	3	19	23	1	14	1	61

Table 17

Parents' Perception of Children's Contact With Great-grandparents

Group	Response Frequencies		
	Yes	No	Total
Item 1: Does your second-grade child have great-grandparents who are living?			
Experimental	11	17	28
Control	18	15	33
Total	29	32	61

(table continues)

Group	Response Frequencies						
	Almost Every Day	Almost Every Week	Almost Every Month	Summers	Once or Twice a Year	Never	Total
Item 2: If yes, how often does he/she (your second-grade child) see them (great-grandparents)?							
Experimental	0	0	3	1	6	1	11
Control	0	1	5	1	11	0	18
Total	0	1	8	2	17	1	29
Item 3: How often does your child talk to his/her great-grandparents on the telephone?							
Experimental	0	0	1	0	8	2	11
Control	0	0	4	0	11	3	18
Total	0	0	5	0	19	5	29

Table 18

Parents' Perception of Children's Contact With Other Elderly Person(s)

Group	Response Frequencies		
	Yes	No	Total
Item 1: Are there other elderly person(s) that are close to your family?			
Experimental	18	10	28
Control	15	18	33
Total	33	28	61
Item 2: If yes, are these elderly person(s) related to your family?			
Experimental	3	15	18
Control	4	11	15
Total	7	26	33

(table continues)

Group	Response Frequencies: Almost Every Day	Almost Every Week	Almost Every Month	Summers	Once or Twice a Year	Never	Total
Item 3: How often does your second-grade child see this elderly person(s)?							
Experimental	2	11	1	0	4	0	18
Control	0	7	6	0	2	0	15
Total	2	18	7	0	6	0	33
Item 4: How often does your child talk to this person(s) on the telephone?							
Experimental	1	0	1	0	9	6	18
Control	0	1	2	1	7	4	15
Total	1	1	3	1	16	10	32

Table 19

Frequencies of Parent Participants' Scores* on the Palmore Facts on Aging Quiz

	Experimental Group		Control Group		Total	
	Score	Frequency	Score	Frequency	Score	Frequency
	12	1	10	2	10	2
	13	3	11	2	11	2
	14	5	13	4	12	1
	15	4	14	6	13	7
	16	2	15	5	14	11
	17	7	16	3	15	9
	18	2	17	3	16	5
	19	3	18	4	17	10
	20	1	19	4	18	6
					19	7
					20	1
Mean	15.9		15.2		15.5	
Mode	17.0		14.0		14.0	
Total		28		33		61

*Total possible correct is 25

of the scores, reported as Old People Positive (OP+) and Old People Negative (OP-) mean scores, are listed in Table 20. An analysis of the data in this table indicated that the mean scores between the experimental and control groups were similar.

Table 20

Means of Parent Participants' Scores* on Kogan's Old People Scales (OP+ and OP-)

Group	OP+ Mean	OP- Mean
Experimental	3.55	3.86
Control	3.45	3.74
Total	3.52	3.81

*Likert-type 5-point scale

Statistical Analyses

Research Question 1. Is there any significant difference between the experimental and the control groups of children on their factual information about the elderly as measured by the Palmore Facts on Aging Quiz (children's version)?

The results of the t-test for independent samples, comparing the Palmore Facts on Aging Quiz mean scores of the experimental and the control groups of children, are presented in Table 21. The results of this test indicated that there was no significant difference ($p < .05$) found between the experimental and control groups of children's scores on the Palmore Facts on Aging Quiz (children's version).

Research Question 2. Are there any relationships between children's scores on the Palmore Facts on Aging Quiz (children's version) and their responses to selected questions on the Children's Views on Aging (CVOA), either in the experimental group, in the control group, or in the combined groups?

Table 21

Means, Standard Deviations, and t Value for Experimental and Control Groups on the Palmore Facts on Aging Quiz (Children's Version)

Group	$\overline{X}$	SD	t	p
Experimental	11.891	2.183		
			1.48	.143
Control	12.578	2.251		

As stated earlier, some of the questions on the CVOA were designated as indicative of the children's cognition of aging and the aging process. The children's responses to these questions (see Tables 3, 5, 8, 9, and 11) were compared to their score on the Palmore Facts on Aging Quiz (children's version, see Table 12). The results of the Pearson correlation test, which was used in this comparison, are presented in Table 22.

An analysis of the data presented in Table 22 indicated that all significant correlations ($p < .05$) were negative except for the correlation between the children's scores on the Palmore Facts on Aging Quiz (children's version) and their responses to the question, "Are your great-grandparents old?" The experimental group of children's responses to this question had a positive (.538) degree of relationship ($p = .001$) with their scores on the Palmore Facts on Aging Quiz (children's version). The degree of relationship between these two variables was also

Table 22

Pearson Correlation Coefficients, Number of Children Responding, and Probability Level for Children's Scores on the Palmore Facts on Aging Quiz With Their Response to Selected Questions on the CVOA

Group	r	N	p
Question: At what age is a person an old person?			
Experimental	-.061	46	.343
Control	.034	45	.412
Total	-.002	91	.494
Question: How old do you think this person is? (That is, how old do they think the oldest person they know is.)			
Experimental	-.237	46	.056
Control	-.085	45	.290
Total	-.179	91	.045
Question: How old are your grandmothers?			
Experimental	.089	44	.283
Control	-.355	45	.008
Total	-.177	89	.048
Question: How old are your grandfathers?			
Experimental	.079	42	.309
Control	-.392	40	.006
Total	-.185	82	.048

(table continues)

Group	r	N	p
Question: Are your great-grandparents old?			
Experimental	.538	32	.001
Control	.176	36	.151
Total	.328	68	.003

significant (p = .003) for the total group of children with a correlation coefficient of .328. The other significant correlations on this test were all negative and found within the control and the total group of children. In summary, of the questions on the CVOA used in this study as indicative of these children's cognition of the aged, only the question "Are your great-grandparents old?" was positively and significantly related to their level of information about the elderly as measured by the Palmore Facts on Aging Quiz (children's version). On the other hand, significant negative relationships occurred with the questions, "How old are your grandmothers?" and, "How old are your grandfathers?" This was due to the control group only.

Research Question 3. Is there any significant difference between the experimental and the control groups of children on their attitudes toward the elderly as measured by their responses on the semantic differential items of the Children's Views on Aging (CVOA) instrument?

The results of the t-tests, comparing the experimental and the control groups of children's Evaluative (E), Potency (P), and Activity (A) mean scores on the semantic differential scale of the CVOA, are presented in Table 23. There was no significant difference ($p < .05$) found between

Table 23

Means, Standard Deviations, and t Value for Experimental and Control Groups on the Semantic Differential Scale of the CVOA

Group	Mean	SD	t	p
Evaluative (E) Factor				
Experimental	2.680	.267		
			1.21	.230
Control	2.751	.290		
Potency (P) Factor				
Experimental	1.630	.610		
			0.78	.439
Control	1.733	.654		
Activity (A) Factor				
Experimental	1.944	.524		
			0.40	.692
Control	1.984	.455		

the two groups of children on their E, P, and A scores.

Research Question 4. Are there any differences in the experimental and control groups on the close-ended questions on the Children's Views on Aging (CVOA) relating to the children's attitudes toward the elderly?

The chi square test was used to compare the two groups of children's responses to questions on the CVOA; that is, questions designated as indicative of the children's attitudes toward the elderly. The results of the chi square are presented in Table 24. Interpretation of the results presented in Table 24 was complicated by the fact that several of the questions had some response categories with expected cell frequencies of less than 5. The question "How do you think this old person (i.e., the person whom they identified in a previous question as the oldest person they knew) feels to be old?" was the only question that demonstrated a significant ($p < .05$) difference between groups. The experimental group tended to perceive this "oldest person" as feeling bad, and the control group tended to perceive this "oldest person" as feeling good. With only one of the measures of the children's attitudes toward the elderly demonstrating a significant difference in responses between the experimental and the control groups, little evidence of group differences was found regarding this research question.

Research Question 5. Are there any significant relationships between the children's factual information about the elderly as measured by the Palmore Facts on Aging Quiz (children's version) and their attitudes toward the elderly as measured by the semantic differential items of the Children's Views on Aging (CVOA) instrument?

The results of the Pearson r test, comparing the children's scores on the Palmore Facts on Aging Quiz (children's version) with their mean

Table 24

Contingency Coefficients, Chi Squares, Degrees of Freedom, and Significance Level for Comparison Between the Groups of Children's Responses to Selected Questions on the CVOA

Contingency Coefficient	Chi Square	df	p
*Question: How do you think this old person feels to be old? (That is, the person whom they identified in a previous question as the oldest person they knew.)			
.250	6.041	2	.049
*Question: Do you think growing old is (a) a good thing to happen, (b) a bad thing to happen, or (c) not good or bad?			
.082	.619	2	.734
Question: How do you think it feels to be an old person?			
.133	1.650	2	.438
Question: What do you think you will be like when you are old?			
.056	.282	2	.869
Question: How do you think you will feel when you are an old person?			
.242	5.680	2	.058
*Question: Now imagine some of the things you will do when you are an older person. Do you think doing these things will be (a) a good thing, (b) a bad thing, or (c) not a good or a bad thing?			
.053	.252	2	.882

*These questions had some cells with expected cell frequency less than 5

E, P, and A scores on the semantic differential scale section of the CVOA, are presented in Table 25.

Table 25

Pearson Correlation Coefficients, Number of Children Responding, and Probability Level for Children's Scores on the Palmore Facts on Aging Quiz (Children's Version) With Their E, P, and A Mean Scores on the Semantic Differential Scale on the CVOA

Palmore Facts on Aging Factor	Correlation	Number	p
Evaluative (E)	.089	91	.202
Potency (P)	.187	91	.038
Activity (A)	.142	91	.089

The Pearson r of .187 found between the children's scores on the Palmore Facts on Aging Quiz (children's version) and their mean Potency (P) factor scores indicated a significant ($p < .05$) degree of relationship between these scores. These relationships were best described as modest. The children's perception of how strong or weak the elderly were appeared to be significantly related to their level of factual information about the elderly. Those children who perceived the elderly as strong tended to score higher on the Palmore Facts on Aging Quiz (children's version). Those children who perceived the elderly as weak tended to score lower on this measure.

Research Question 6. Are there any relationships between the children's Palmore Facts on Aging Quiz (children's version) and their responses on the Children's Views on Aging (CVOA) close-ended questions relating to their attitudes toward the elderly?

The children's scores on the Palmore Facts on Aging Quiz (children's version) were also compared with their responses to questions (see Table 12) on the CVOA; that is, questions designated as indicative of the children's affective predisposition toward the elderly. Quasi-one-way analyses of variance were utilized in the comparison of these measures. The data in Table 26 presents the results of these quasi-one-way analyses of variance.

Table 26

Children's Scores on the Palmore Facts on Aging Quiz (Children's Version) and Their Responses on CVOA Questions Relating to Their Attitudes Toward the Elderly (N = 91)

Questions	R^2	F
1. Children's scores with their responses to "How do you think this person feels to be old?"	.016	.716
2. Children's scores with their responses to "Do you think growing old is (a) a good thing to happen, (b) a bad thing to happen, or (c) not good or bad?"	.002	.080

(table continues)

	R^2	F
3. Children's scores with their responses to "How do you think it feels to be an old person?"	.008	.345
4. Children's scores with their responses to "What do you think you will be like when you are old?"	.035	1.60
5. Children's scores with their responses to "How do you think you will feel when you are an old person?"	.032	1.449
6. Children's scores with their responses to "Now imagine some of the things you will do when you are an old person. Do you think doing these things will be (a) a good thing, (b) a bad thing, or (c) not a good or a bad thing?"	.016	.711

There were no significant F values found in Table 26; the relationships were very close to zero.

Research Question 7. Are there any significant relationships between the children's attitudes toward the elderly as measured by the semantic differential items of the Children's Views on Aging (CVOA) instrument and their parents' attitudes toward the elderly as measured by Kogan's Old People Scales?

The data in Table 27 presents the Pearson correlations between the children's E, P, and A mean scores and their parents' OP+ and OP- mean scores on the Kogan's Old People Scales. Interpretation of the data presented in Table 27 indicated there were no significant relationships between the children's E, P, and A mean scores and their parents' OP+

and OP- mean scores.

Table 27

Pearson Correlations and Probability Level for Children's E, P, and A Mean Scores and Their Parents' OP+ and OP- Mean Scores (N = 61)

Semantic Differential Factors	Correlation	p
Evaluative (E)/OP+	.167	.101
Evaluative (E)/OP-	-.062	.319
Potency (P)/OP+	.068	.303
Potency (P)/OP-	.018	.445
Activity (A)/OP+	.202	.061
Activity (A)/OP-	.096	.233

Research Question 8. Is there any significant relationship between the children's factual information about the elderly and their parents' factual information about the elderly as measured by the Palmore Facts on Aging Quiz?

A correlation of .051 was found between the children's and parents' factual information about the elderly as measured by the Palmore Facts on Aging Quiz. This clearly was a weak or nonexistent relationship.

Research Question 9. Are there any significant differences between the experimental and the control groups of children's parents on the following measures: (a) their attitudes toward the elderly as measured by Kogan's Old People Scales and (b) their information about the elderly as measured by the Palmore Facts on Aging Quiz?

The results of the t-test for independent samples, comparing the experimental group of parents with the control group of parents on their OP+ and OP- mean scores and on their scores on the Palmore Facts on Aging Quiz, are presented in Table 28.

Table 28

Means, Standard Deviations, and t Value for Experimental and Control Groups of Parents on Their OP+ and OP- Mean Scores and on Their Palmore Facts on Aging Quiz Scores

Group	Mean	SD	t	p
OP+				
Experimental	3.611	.357		
			.41	.685
Control	3.649	.350		
OP-				
Experimental	3.944	.370		
			-.14	.890
Control	3.930	.407		
Scores on Palmore Facts on Aging Quiz				
Experimental	15.893	2.149		
			-1.20	.236
Control	15.152	2.612		

These test results (see Table 28) indicated there was no significant difference between the experimental and the control parent groups in their attitudes toward the elderly and in their level of information about the elderly.

Ancillary Findings

In Table 29 the ANOVA of parents with the child's sex for the Palmore Facts on Aging Quiz parent scores is presented. This analysis of variance indicated significant interaction. An analysis of the table of means (see Table 30) revealed that this was primarily the result of higher mean scores for mothers of male children and for fathers of female children. This disclosed that in this study, the parent scores on the Palmore Facts on Aging Quiz were higher in opposite sex matches between parent and child.

In Table 31 the ANOVA of parents with the child's sex for the parents' scores on the Kogan's Old People positive scale (OP+) is presented. This analysis of variance indicated no significant interaction between the parents' OP+ scores when compared with the sex of the child. As exhibited in the table of means (see Table 32), there was close similarity among the mean scores.

The analysis of variance in Table 33 showed some interaction between the parents' scores on the Kogan's Old People negative scale (OP-) and the sex of the child. Although not at a level of significance ($p < .05$), in the table of means (see Table 34), it was demonstrated that of the 19 mother and father pairs responding in this study the mothers tended to have higher OP- scores. This indicated that the mothers of these 19 children (9 male and 10 female) had less negative affect toward the elderly than did the fathers.

Table 29

Summary Table for Repeated Measures: Parents X Child's Sex (N = 38) for Palmore Facts on Aging Quiz Parent Scores

Source of Variation	df	SS	MS	F
Among Pairs	18	129.06		
Sex (of child)	1	1.56	1.56	.21
error (a)	17	127.50	7.50	
Within Pairs	19	102.00		
Parents	1	10.53	10.53	2.58[a]
Parents X Child	1	22.12	22.12	5.42[a]
error (b)	17	69.36	4.08	
Total	37	231.05		

[a]significant at $p < .05$

Table 30

Table of Means for Palmore Facts on Aging Quiz for Parent Pairs (N = 38)

	Parent		
Child	Mother	Father	Total
Male	15.33	14.78	15.06
Female	13.40	15.90	14.65
Total	14.32	15.37	

Table 31

Summary Table for Repeated Measures: Parents X Child's Sex (N = 38) for Kogan OP+ Mean Scores of Parents

Source of Variation	df	SS	MS	F
Among Pairs	18	2.40		
Sex (of child)	1	.00	.00	.00
error (a)	17	2.40	.14	
Within Pairs	19	2.08		
Parents	1	.06	.06	.55
Parents X Child	1	.10	.10	.91
error (b)	17	1.92	.11	
Total	37	4.48		

Table 32

Table of Means for Kogan OP+ for Parent Pairs (N = 38)

	Parent		
Child	Mother	Father	Total
Male	3.62	3.43	3.53
Female	3.52	3.54	3.53
Total	3.57	3.49	

Table 33

Summary Table for Repeated Measures: Parents X Child's Sex (N = 38) for Kogan OP- Mean Scores of Parents

Source of Variation	df	SS	MS	F
Among Pairs	18	3.88		
Sex (of child)	1	.00	.00	.00
error (a)	17	3.88	.23	
Within Pairs	19	2.48		
Parents	1	.51	.51	4.25
Parents X Child	1	.02	.02	.17
error (b)	17	1.97	.12	
Total	37	6.36		

Table 34

Table of Means for Kogan OP- for Parent Pairs (N = 38)

	Parent		
Child	Mother	Father	Total
Male	3.91	3.63	3.76
Female	3.86	3.67	3.77
Total	3.88	3.65	

Chapter IV has presented an analysis of the data. Chapter V presents a summary of the investigation with the findings and a discussion of the results. Limitations of the study and recommendations with implications for future research are also given.

Chapter V

Summary, Findings, Discussion, Limitations, and Recommendations

Summary

The major purpose of this study was to assess the effects of intergenerational contact on the attitudes and knowledge of second-grade students. Purposes of the study were: (a) to determine the factual information about the elderly possessed by second-grade students and their parents; (b) to determine the affective predisposition or attitudes toward the elderly of these students and their parents; (c) to determine if a similarity existed between these students' and parents' factual information about the elderly; (d) to determine if a similarity existed between these students' and parents' affective predisposition or attitudes toward the elderly; (e) to determine if the experimental group had significantly greater factual information about the elderly than did the control group; and (f) to determine if the experimental group revealed significantly more positive attitudes toward the elderly than did the control group.

This study proposed to answer the following research questions:

1. Is there any significant difference between the experimental and the control groups of children on their factual information about the elderly scores as measured by the Palmore Facts on Aging Quiz

(children's version)?

2. Are there any relationships between children's scores on the Palmore Facts on Aging Quiz (children's version) and their responses to selected questions on the Children's Views on Aging (CVOA), either in the experimental group, in the control group, or in the combined groups?

3. Is there any significant difference between the experimental and the control groups of children on their attitudes toward the elderly as measured by their responses on the semantic differential items of the Children's Views on Aging (CVOA) instrument?

4. Are there any differences in the experimental and control groups on the close-ended questions on the Children's Views on Aging (CVOA) instrument relating to the children's attitudes toward the elderly?

5. Are there any significant relationships between the children's factual information about the elderly as measured by the Palmore Facts on Aging Quiz (children's version) and their attitudes toward the elderly as measured by the semantic differential items of the Children's Views on Aging (CVOA) instrument?

6. Are there any relationships between the children's Palmore Facts on Aging Quiz (children's version) scores and their responses on the Children's Views on Aging (CVOA) close-ended questions relating to attitudes toward the elderly?

7. Are there any significant relationships between the children's attitudes toward the elderly as measured by the semantic differential items of the Children's Views on Aging (CVOA) instrument and their parents' attitudes toward the elderly as measured by Kogan's Old People Scales?

8. Is there any significant relationship between the children's factual information about the elderly and their parents' factual information about the elderly as measured by the Palmore Facts on Aging Quiz?

9. Are there any significant differences between the experimental and the control groups of children's parents on the following measures: (a) their attitudes toward the elderly as measured by Kogan's Old People Scales and (b) their factual information about the elderly as measured by the Palmore Facts on Aging Quiz?

The research population for this study was comprised of 91 Grand Forks Public School second-grade students and 61 of their parents. Of the 91 second-grade students, 46 (28 boys and 18 girls) were enrolled in two classrooms at Kelly Elementary School and 45 (20 boys and 25 girls) were enrolled at Viking Elementary School.

The (quasi)-experimental group was composed of those students from Kelly Elementary School. They were involved in an intergenerational program with elderly residents in a nursing home. Initiated in September of 1983, this program provided students weekly interaction with elderly persons at the nursing home.

The control group was composed of those students from Viking Elementary School. Within the Grand Forks community, the Viking Elementary School was located in an area that could be described as similar to the Kelly Elementary School area with respect to socioeconomic factors. The students from Viking Elementary School were not involved in an intergenerational program with elderly persons.

Both the experimental and control groups of students (91) in this study received adapted versions of the following tests during January and February 1984:

1. Children's Views on Aging (CVOA).

2. Palmore Facts on Aging Quiz.

Other sources of data used in this study were comprised of the following questionnaire and tests voluntarily completed by 61 of the students' parents during February 1984:

1. My Child's Contact With Elderly People Questionnaire.

2. Palmore Facts on Aging Quiz.

3. Kogan's Old People Scales (OP+ and OP-).

Resulting data were statistically tested for significant relationships and differences. The .05 level was set in determining the significance of the results.

Findings

The findings of the present study were addressed as follows in the same order in which the research questions were presented.

1. There was no significant difference found between the experimental and the control groups of children's scores on the Palmore Facts on Aging Quiz (children's version). This result was contradictory to the expected finding.

2. Within the control group, the children's scores on the Palmore Facts on Aging Quiz (children's version) had a significantly negative relationship with their responses on the following questions on the CVOA relating to their cognition of aging and the aging process: (a) "What are the ages of your grandmothers?"; (b) "What are the ages of your grandfathers?" Within the experimental group, the children's scores on the Palmore Facts on Aging Quiz (children's version) had a significantly positive relationship with their responses on the following question on the CVOA relating to their cognition of aging and the aging process:

"Are your great-grandparents old?" For the combined groups of children, scores on the Palmore Facts on Aging Quiz (children's version) had a significantly negative relationship with the following question on the CVOA relating to cognition of aging and the aging process: "How old do you think this person is?" That is, how old is the oldest person they knew.

In this study, two measures were used to indicate the children's cognition of aging and the aging process: the Palmore Facts on Aging Quiz (children's version) and selected questions on the CVOA. With the exception of the four significant relationships described earlier, the relationships between these two measures were modest and frequently negative.

3. There was no significant difference found between the experimental and the control groups of children on the semantic differential scale. Differences between groups on this measure of attitude toward the elderly were not evident, although they were anticipated.

4. The children's responses on the CVOA questions relating to their attitudes toward the elderly indicated one significant difference between groups. The question on the CVOA that reflected this difference was "How do you think this old person feels to be old?" That is, how did the oldest person they knew feel to be old. The majority (52%) of the children in the experimental group indicated that this "oldest person" felt "bad." The opposite was found within the control group of children. The majority (62%) of these children indicated that this "oldest person" felt "good." It may be important to note that, besides the 52% in the experimental group who indicated that the "oldest person" they knew was a grandparent, 42% of this group indicated that their

"grandperson" (from the intergenerational program) was the "oldest person" they knew.

5. There was a significant positive relationship between the children's level of information about the elderly (as measured by the Palmore Facts on Aging Quiz, children's version) and whether they perceived the elderly as strong or weak (Potency factor on the semantic differential scale). However, there were no significant relationships between the children's scores on the Palmore Facts on Aging Quiz (children's version) and their Evaluative and Activity factor scores on the semantic differential scale.

Children with a better factual understanding of the elderly population had a more positive view of this population's strength. The factual understanding of the elderly was not as good for those children who perceived the elderly as weak.

6. There was no relationship between the children's factual information about the elderly (as measured by the Palmore Facts on Aging Quiz, children's version) and their attitudes toward the elderly (as measured by their responses to selected questions on the CVOA). The fact that the relationships between these two variables were close to zero was an unexpected finding in this study.

7. No significant relationships were found between the children's attitudes toward the elderly (as measured by the semantic differential items of the CVOA) and their parents' attitudes toward the elderly (as measured by Kogan's Old People Scales). That the relationships between children and parent attitudes toward the elderly were close to zero was not an anticipated outcome.

8. It was found that the children's and parents' levels of factual information about the elderly were not significantly related. Children's scores on the Palmore Facts on Aging Quiz (children's version) were not found to be significantly related to their parents' scores on the Palmore Facts on Aging Quiz. The relationship between their scores was low ($r = .051$), which was an unforeseen result.

9. There were no significant differences between the experimental and the control groups of parents in the following areas: (a) their attitudes toward the elderly, and (b) their level of factual information about the elderly. The total group mean scores for the experimental and the control groups of parents were similar on both the Kogan's Old People Scales and on the Palmore Facts on Aging Quiz. Relationships between the experimental group of children's involvement in the intergenerational program and their parents' feelings and understanding of the elderly were not evident from the results of this study.

Discussion

This writer anticipated that children involved in the informal intergenerational program would have more positive attitudes toward the elderly as well as more factual information about the elderly than would have children who were not participants in this program. This outcome was not found in the present study. After surveying the data it appeared that the program was ineffective in modifying the knowledge and attitudes of the children.

The analysis of data in this study revealed no significant differences between the experimental and the control groups on the measure of the children's factual information about the elderly (Palmore Facts on

Aging Quiz, children's version). With this in mind, attention should be given to the differences between the groups of children when their Palmore Facts on Aging Quiz (children's version) scores were analyzed in relation to their responses to the questions on the CVOA designated as indicative of their cognition of aging. These questions were indicative of the children's personalized cognition (recognition and information) of the aged and the aging process. The statements on the Palmore Facts on Aging Quiz (children's version) investigated the children's cognition (information) of the elderly in general. The total group responses to three of the five questions (personalized cognition) had significant negative correlations with their scores on the Palmore Facts on Aging Quiz (children's version); that is, general cognition. A review of the literature produced no previous studies that had investigated the relationships between children's general and personalized cognition (information) of the elderly.

With one exception, the children's attitudes toward the elderly on the CVOA measures were not significantly different between groups. The exception was the significant difference between the experimental and the control groups of children's perceptions as to how the oldest person they knew felt in being old. The majority (52%) of the experimental group of children perceived this "oldest person" as feeling "bad" and the majority (62%) of the control group of children perceived this "oldest person" as feeling "good." This difference may be explained in terms of who the children identified as this elderly person. Forty-two percent of the experimental group of children were referring to their "grandperson" from the intergenerational program. The finding that 52% of this group perceived that this "oldest person" felt "bad"

agreed with the previous findings of research investigating the effects of intergenerational programs on children's attitudes toward the elderly. Weinsberg (1974) found that young adolescents' attitudes did not change after they were involved for a period of time doing volunteer work in nursing homes. Rosencranz and McNevin (1969) also found that those young adults whose contact with the elderly was primarily in a hospital setting possessed more negative attitudes toward the elderly. The children in the experimental group who indicated that the elderly felt "bad" about being old may also have been reacting to these elderly persons' place of residence, a nursing home. This would support Rokeach's (1968) view that an attitude is not generated in isolation. It "is always encountered within some situation about which we also have an organized attitude" (p. 132).

With one exception, the measure of children's attitudes toward the elderly was independent of the measure of their level of factual information about the elderly. The exception was the significant relationship found between the children's attitude toward the strength of the elderly and their level of factual information (scores on the Palmore Facts on Aging Quiz, children's version). Many researchers have supported McTavish's (1971) finding that the elderly were perceived as "generally ill" and "tired" (p. 97). As indicated in the present study, a higher level of factual information was related to perceiving the elderly as stronger and less to perceiving them as weak; this, of course, was due to the way in which the instrument was scored. Aging education, as a vehicle for increasing children's level of factual information about the elderly, may decrease some of the previously held negative stereotypical attitudes (such as weak or tired) about the elderly. However, in this

study the Potency (P) factor on the semantic differential scale was the only measure of the children's attitudes toward the elderly that demonstrated a significant relationship to the measure of their level of factual information about the elderly. From this, a strong relationship between children's cognition about the aged and attitudes toward the aged cannot be determined.

Jacobs (1969), in reference to aging education, stated that "it must be a family problem" (p. 8) since many of the stereotypes come out of the family setting. In the present study, the children's and parents' affective predispositions toward the elderly were not found to be significantly related. Significant degrees of relationships were found between only two items indicative of the children's conative perceptions of the elderly and their parents' attitudes toward the elderly. Limited findings such as these were insufficient to conclude that children's stereotypical attitudes toward the elderly were initiated in the home.

In the present study no evidence was found of a significant relationship between the children's and parents' levels of factual information about the elderly. The lack of relationship between the children's and parents' measures concerning the aged was a significant finding in itself. Children probably learn about the aged and the aging process from the material presented through various media, especially television and literature. Closer scrutiny should be given by responsible adults to this material.

The results of this investigation showed no significant differences between the experimental and the control groups of parents on measures pertaining to the aged. This outcome was to be expected, since the program was targeted at the children.

Ancillary findings in the data from the 19 two-parent (mother and father) responses showed a strong parent cross-sexed child relationship. On the Palmore Facts on Aging Quiz, parent scores were higher in opposite sex matches between parent and child. Another finding in these 19 two-parent responses was that the mothers were less negative in their attitudes toward the elderly than were the fathers.

In summary, the experimental program produced no result in attitude and information. Several explanations for this result are possible. The first was the amount of time (14 visits) was not sufficient to have modified either knowledge or attitudes toward the elderly. Against the ground of so many activities for second graders that do not involve the aged, the approximately seven hours of actual interaction with the elderly had too little impact to be significant. The second possible explanation was the setting itself (institutional with lack of autonomy) may have limited the potential of informational and attitudinal change. The third possible explanation was that the instruments were not sufficiently sensitive to differences in attitude and information. The writer particularly holds that the CVOA may not have been an effective instrument. The fourth explanation would take into account the possibility that opportunities such as the experimental program in question are intrinsically ineffective. That is to say, such programs do not generate the attitudinal and informational change that may be hoped. The writer, however, does not subscribe to this pessimistic explanation. Rather, she holds that the present investigation, as well as similar past investigations, have not given due regard to the factors of adequate opportunities in numbers and time of interactions. Further, investigations have not verbalized the institutional atmosphere of the

residential facility. Therefore, the writer maintains that the lack of change hoped for can be explained by a combination of the first three explanations.

Limitations

The following limitations were found in this study:

1. Thirty-three percent of the parents (30) did not participate in this study. Therefore, any analysis of parent attitudes and levels of factual information about the elderly was limited to those 61 parents who voluntarily participated in this study.

2. Since there were so few (19) parent responses with both the mother and the father participating, testing on the basis of mother or father responses was included only in an ancillary manner.

Recommendations

The following are recommendations generated from the findings in this study:

1. Additional research is needed to investigate the relationship of cognition of aging to intergenerational programs in a longitudinal study.

2. Further investigation into the possible differences in children's general and personalized cognition of the aged and the aging process should be done.

3. In that the present investigation gave only limited opportunity for intergenerational interaction (14 visits), the possible effects of intergenerational contact programs should be investigated after the programs have been in operation for at least one school year.

4. Further investigation into the possible effects of intergenerational contact programs on children's perceptions of the elderly should be analyzed in relation to personality factors in the children, such as nurturance and feelings of anomie.

5. It is recommended that further study be conducted to differentiate between attitudes and general information pertaining to the elderly.

6. Since an ancillary finding in this study indicated a strong parent/cross-sexed child relationship on the parents' Palmore Facts on Aging Quiz scores, further investigation in this area is warranted.

7. The possibility of instituting a type of intergenerational program between children and the elderly within a setting of the elderly persons' own private homes should be investigated.

8. The possibility that programs which have as a behavioral outcome the changing of attitudes might be more closely planned; the difficulty of affecting this change should be noted.

9. Using a Piagetian framework, the possible influence of children's level of cognitive development on their cognition of aging and attitudes toward the elderly should be investigated in future studies.

10. The possibility of pretraining sessions for the aged involved in intergenerational programs should be considered. Discussion and clarification of what concepts about aging and the aged they (the aged) would hope to communicate to the children may be warranted as preparatory for intergenerational programs.

11. The possible influence of self-concept of the elderly persons involved in an intergenerational program upon the children's attitudes toward them needs to be investigated in future studies.

APPENDICES

APPENDIX A

ORIGINAL CHILDREN'S VIEWS ON AGING (CVOA) INSTRUMENT

I CVOA

Instructions (For Students)

The following questions ask you to think about becoming an old person. For most of these questions you will just need to write a few words. For some others you will need to circle the answer that tells what you think. If you have any questions raise your hand. There are no right or wrong answers. Don't worry if you cannot spell a word you want to use.

Name_____ School_____

Grade_____

Please check one: Are you a: Boy_____ Girl_____

For the next eight questions you must need to write a few words or circle the response you want to make. Be sure to answer each question.

1. a) How can you tell when people are growing old?

   b) Do you think this is: (circle only one)

      a good thing to happen? a bad thing to happen? neither good nor bad?

2. a) How do you think it feels to be an old person?

   b) Do you think this: (circle only one)

      feels good? feels bad? feels neither good nor bad?

3. a) What do you think happens when you get to be an old person?

   b) Do you think this is: (circle only one)

      a good thing to happen? a bad thing to happen? neither good nor bad?

   c) At what age is a person an old person?

4. You have been answering questions about some of the things you know about old persons. Now I would like to know where you learned the most about old persons. Circle the one that tells where you think you learned the most. (circle only one.)

   a. television
   b. your friends
   c. your parents
   d. movies
   e. your grandparents
   f. books
   g. somewhere else

Now, imagine that you are an old person.

5. a) What do you think you will be like?

   b) Do you think this will be: (circle only one)

      a good thing? a bad thing? feel neither good or bad?

6. a) How do you think you will feel when you are an old person?

   b) Do you think this will: (circle only one)

      feel good? feel bad? feel neither good nor bad?

7. a) What do you think you will do when you are an older person?

   b) Do you think doing this will be: (circle only one)

   a good thing to do? a bad thing to do? neither good nor bad?

8. You have just answered some questions about what you think you will be like and what you think you will do when you are an old person. Now I would like to know where you learned the most about becoming old. Circle the one that tells where you think you learned the most. Circle only one.

   a. television or radio
   b. your friends
   c. your parents
   d. movies
   e. your grandparents
   f. books
   g. somewhere else

II.

Think of some of the old persons you know. First, write their names or what you usually call them. Then for each person you name write who they are. For each person you name write how old you think they are. Then write how often you see them and where you usually see them.

What is their name?	Who are they?	How old do you think they are?	How often do you see them?	Where do you see them?
			1. almost every day 2. almost every week 3. almost every month 4. summers 5. once or twice a year	

III.

What are some ways you would describe Old People?

Below are 12 pairs of words. For each pair place an X on one of the five lines that tells what you think about Old People.

Look at the first pair. If you think Old People are Very Good place an X on the first line under Very. If you think Old People are A Little Good place an X on the second line under A Little. If you are not sure, place an X on the middle line under Not Sure. If you think Old People are A Little Bad place an X on the fourth line under A Little and if you think Old People are Very Bad place an X on the last line under Very.

Old People

		Very	A Little	Not Sure	A Little	Very	
1.	Good	_____	_____	_____	_____	_____	Bad
2.	Unpleasant	_____	_____	_____	_____	_____	Pleasant
3.	Strong	_____	_____	_____	_____	_____	Weak
4.	Unfriendly	_____	_____	_____	_____	_____	Friendly
5.	Happy	_____	_____	_____	_____	_____	Sad
6.	Slow	_____	_____	_____	_____	_____	Fast
7.	Pretty	_____	_____	_____	_____	_____	Ugly
8.	Dull	_____	_____	_____	_____	_____	Exciting
9.	Clean	_____	_____	_____	_____	_____	Dirty
10.	Cruel	_____	_____	_____	_____	_____	Kind
11.	Wise	_____	_____	_____	_____	_____	Foolish
12.	Hated	_____	_____	_____	_____	_____	Loved
13.	Generous	_____	_____	_____	_____	_____	Stingy
14.	Active	_____	_____	_____	_____	_____	Passive
15.	Dishonest	_____	_____	_____	_____	_____	Honest

IV.

For some of these next questions you will just need to write a few words. For some others Mark an X next to the answer you want to make.

1. Who is the oldest person you know?

2. How old do you think this person is?

3. How do you think this person feels to be old?

4. Do you have grandparents? _____Yes _____No

   (If you do not, do not answer the next four questions.)

5. How often do you see your grandparents?
   (Check the one that is correct.)

   _____Almost every day _____Almost every week _____Almost every month

   _____Summers _____Once or twice a year

6. What do you do with your grandparents when you are with them?

7. How often do you talk to your grandparents on the telephone?

(Check the one that is correct.)

_____Almost every day _____Almost every week _____Almost every month

_____Summers _____Once or twice a year

8. a) Are your grandparents old? _____Yes _____No

b) What are the ages of (1) your grandmothers? _____ _____
(2) your grandfathers? _____ _____

9. Do you have great-grandparents?

_____Yes _____No

(If you do not, do not answer the next four questions.)

10. How often do you see your great-grandparents?

_____Almost every day _____Almost every week _____Almost every month

_____Summers _____Once or twice a year

11. What do you do with your great grandparents when you are with them?

12. How often do you talk to your great-grandparents on the telephone?

(Check the one that is correct.)

_____Almost every day _____Almost every week _____Almost every month

_____Summers _____Once or twice a year

13. Are your great-grandparents old?

_____Yes _____No

14. What do you think an old person could do with you in your classroom?

For each one mark an X next to Yes if you think an old person could do this with you or mark an X next to No if you think an old person could not do this with you.

Do you think an old person could:

a. Teach you	Yes_____	No_____	I don't know_____
b. Help you with your work	Yes_____	No_____	I don't know_____
c. Become your friend	Yes_____	No_____	I don't know_____

15. If an old person came to your classroom what do you think they might do with you?

    For each one mark an X next to Yes if you think an old person would do this with you or mark an X next to No if you think an old person would not do this with you.

    Do you think an old person might:

    a. Be mean to you Yes_____ No_____

    b. Teach you the wrong answers Yes_____ No_____

    c. Just get in your way Yes_____ No_____

    d. Bore you with uninteresting stories. Yes_____ No_____

16. Why do you think an old person would like to come to your classroom?

    a. To teach children Yes_____ No_____ I don't know_____

    b. To help children Yes_____ No_____ I don't know_____

    c. Because they like children Yes_____ No_____ I don't know_____

    d. Because they feel useless Yes_____ No_____ I don't know_____

    e. Because they are lonely Yes_____ No_____ I don't know_____

    f. Because they have nothing else to do Yes_____ No_____ I don't know_____

17. Would you like having an old person in your classroom as a helper?

    Yes_____ No_____ I don't know_____

18. Would you go to an old person if you had a problem during school time?

    Yes_____ No_____ I don't know_____

19. Do you think an old person might need help in getting used to your classroom?

    Yes_____ No_____ I don't know_____

20. If you said Yes, what kind of help might they need?

21. Would you be willing to provide this help?

    Yes_____ No_____ I don't know_____

V.

What are some ways you would describe Young People.

Below are 15 questions. For each question place an X on one of the five lines that tells what you think about Young People.

Look at the first question. If you think Young People are Very Good place an X on the first line under Very. If you think young people are A Little Good, place an X on the second line under A Little. If you are not sure place an X on the middle line under Not Sure. If you think young people are A Little Bad, place an X on the fourth line under A Little and if you think young people are Very Bad place an X on the last line under Very.

Now do this for all the questions.

Young People

		Very	A Little	Not Sure	A Little	Very	
1.	Good	_____	_____	_____	_____	_____	Bad
2.	Unpleasant	_____	_____	_____	_____	_____	Pleasant
3.	Strong	_____	_____	_____	_____	_____	Weak
4.	Unfriendly	_____	_____	_____	_____	_____	Friendly
5.	Happy	_____	_____	_____	_____	_____	Sad
6.	Slow	_____	_____	_____	_____	_____	Fast
7.	Pretty	_____	_____	_____	_____	_____	Ugly
8.	Dull	_____	_____	_____	_____	_____	Exciting
9.	Clean	_____	_____	_____	_____	_____	Dirty
10.	Cruel	_____	_____	_____	_____	_____	Kind
11.	Wise	_____	_____	_____	_____	_____	Foolish
12.	Hated	_____	_____	_____	_____	_____	Loved
13.	Generous	_____	_____	_____	_____	_____	Stingy
14.	Active	_____	_____	_____	_____	_____	Passive
15.	Dishonest	_____	_____	_____	_____	_____	Honest

APPENDIX B

CHILDREN'S VIEWS ON AGING (CVOA)

1. Boy Girl

2. At what age is a person an old person? _____

3. Who is the oldest person you know? _____

4. How old do you think this person is? _____

5. How do you think this person feels to be old? _____

6. Do you think growing old is

   (a) a good thing to happen

   (b) a bad thing to happen

   (c) not good or bad

7. How do you think it feels to be an old person? Do you think it feels

   (a) good

   (b) bad

   (c) not good or bad

8. Circle the one that tells where you think you learned the most about old people.

   (a) T.V.
   (b) friends
   (c) parents
   (d) movies
   (e) grandparents
   (f) books
   (g) school
   (h) somewhere else

(Now, imagine that you are an old person.)

9. What do you think you will be like when you are old? Do you think this will be

   (a) a good thing

   (b) a bad thing

   (c) not good or bad

10. How do you think you will feel when you are an old person? Do you think this will feel

    (a) good

    (b) bad

    (c) not good or bad

11. Now imagine some of the things you will do when you are an older person. Do you think doing these things will be

    (a) a good thing

    (b) a bad thing

    (c) not a good or a bad thing

12. Circle the one that tells where you think you learned the most about becoming or growing old.

(a) T.V.	(e) grandparents
(b) friends	(f) books
(c) parents	(g) school
(d) movies	(h) somewhere else

13. Do you have grandparents? ___Yes ___No

14. Are your grandparents old? ___Yes ___No

15. What are the ages of your grandmothers? _____ _____

16. What are the ages of your grandfathers? _____ _____

17. Do you have great-grandparents? ___Yes ___No

18. Are your great-grandparents old? ___Yes ___No

Do you think an old person could

19. Teach you ___Yes ___No ___I don't know

20. Help you with your work ___Yes ___No ___I don't know

21. Become your friend ___Yes ___No ___I don't know

Do you think an old person might

22. Be mean to you ___Yes ___No ___I don't know

23. Teach you the wrong things ___Yes ___No ___I don't know

24. Get in your way ___Yes ___No ___I don't know

25. Bore you with uninteresting stories ___Yes ___No ___I don't know

26. Do you think you could help an old person? ___Yes ___No ___I don't know

27. Would you want to help an old person? ___Yes ___No ___I don't know

Old people are

		Very	Not Sure	Very	
1.	Good	____	____	____	Bad
2.	Unpleasant	____	____	____	Pleasant
3.	Strong	____	____	____	Weak
4.	Unfriendly	____	____	____	Friendly
5.	Happy	____	____	____	Sad
6.	Slow	____	____	____	Fast
7.	Pretty	____	____	____	Ugly

	Very	Not Sure	Very	
8. Boring	____	____	____	Exciting
9. Clean	____	____	____	Dirty
10. Cruel	____	____	____	Kind
11. Wise	____	____	____	Foolish
12. Hated	____	____	____	Loved
13. Generous	____	____	____	Stingy
14. Active	____	____	____	Inactive
15. Dishonest	____	____	____	Honest

APPENDIX C

PALMORE FACTS ON AGING QUIZ (CHILDREN'S VERSION)

DIRECTIONS: Circle "yes" or "no" for each sentence.

Yes No 1. Most old people get confused and can't remember things.

Yes No 2. In old age one can usually not hear, see, taste, or smell as well as when one is younger.

Yes No 3. Most old people have trouble breathing.

Yes No 4. Most old people feel sad and miserable most of the time.

Yes No 5. Old people are not as strong as they once were.

Yes No 6. Many of the old people are living in nursing homes or homes for the aged/elderly.

Yes No 7. Older drivers have fewer accidents than younger drivers.

Yes No 8. Older workers cannot work as well as younger workers.

Yes No 9. Most old people are healthy enough so they can live in their own homes.

Yes No 10. Most old people cannot change.

Yes No 11. It takes more time for old people to learn something new.

Yes No 12. Old people cannot learn something new.

Yes No 13. Old people move slower than younger people.

Yes No 14. Most old people are much alike.

Yes No 15. Most old people say they are not bored.

Yes No 16. Most old people are alone and lonely.

Yes No 17. Older people on their jobs have fewer accidents than younger people on their jobs.

Yes No 18. Only a few of all the people are over the age of 65.

Yes No 19. Most doctors are not concerned with older people.

Yes No 20. Most old people are poor.

Yes No 21. Most old people work or would like to do some kind of work.

Yes No 22. As people get older they become more religious or they go to church more.

Yes No 23. Most old people say they are seldom angry or upset.

Yes No 24. Old people in the future will probably be poorer and not as healthy as the old people are today.

APPENDIX D

MY CHILD'S CONTACT WITH ELDERLY PEOPLE QUESTIONNAIRE

MY CHILD'S CONTACT WITH ELDERLY PEOPLE

1. These forms are being filled out by:
___Mother ___Father ___Both ___Other

2. Does your second-grade child have grandparents who are living?
___Yes ___No (If no, go to #3)

If yes, how often does he/she see them? (Check the one that is correct.)
___Almost every day ___Almost every week ___Almost every month
___Summers ___Once or twice a year

How often does your child talk to his/her grandparents on the telephone? (Check the one that is correct.)
___Almost every day ___Almost every week ___Almost every month
___Summers ___Once or twice a year

3. Does your second-grade child have great-grandparents who are living? ___Yes ___No (If no, go to #4)

If yes, how often does he/she see them? (Check the one that is correct.)
___Almost every day ___Almost every week ___Almost every month
___Summers ___Once or twice a year

How often does your child talk to his/her great-grandparents on the telephone? (Check the one that is correct.)
___Almost every day ___Almost every week ___Almost every month
___Summers ___Once or twice a year

4. Are there other elderly people that are close to your family?
___Yes ___No (If no, go to page 2)

If yes, are these elderly people related to your family?
___Yes ___No

How often does your second-grade child see this elderly person(s)? (Check the one that is correct.)
___Almost every day ___Almost every week ___Almost every month
___Summers ___Once or twice a year

How often does your child talk to this person(s) on the telephone? (Check the one that is correct.)
___Almost every day ___Almost every week ___Almost every month
___Summers ___Once or twice a year

APPENDIX E

COVER LETTER FOR PARENT PARTICIPATION

THE UNIVERSITY OF NORTH DAKOTA

THE CENTER FOR TEACHING AND LEARNING
Box 8158, University Station
Grand Forks, North Dakota 58202

Dear Parent(s):

Approval has been granted by the Grand Forks Public School District to conduct my doctoral research within its schools. Central to my study will be children's attitudes toward and their understanding of the elderly. The possible influence of children's contact with elderly people upon their perceptions and understandings will also be investigated.

It is you, as a parent, who has the most complete information about your second-grade child's contact with elderly people. That is why you are being asked to fill out the enclosed Form A, "My Child's Contact with Elderly People."

Another aspect of my study includes an examination of how children's perceptions and understandings of the elderly are similar to or different from those of their parents. Therefore, would you also complete the two enclosed forms, Form B and Form C. Form B, "Facts on Aging," will provide information you have about the elderly. Form C, "Kogan's Old People's Scale," will indicate how you feel about the elderly.

Much has been said about the "generation gap" in our society. Is this a result of an age-segregated society where the young appear to interact only with the young and the old appear to interact only with the old? The information which you provide and that which is obtained from your second-grade child is being collected and analyzed in an attempt to better understand how children see the elderly and what they know about them. Children are at one end of a generation and the elderly are at the opposite end of a generation.

No names will be identified in this study. Your anonymous participation is entirely voluntary. However, it is a fact of life that most of us will be classified as "elderly" someday. Is it important to better understand how children view the elderly and the aging process? I think it is.

Take a few minutes now and consent to participate in this study by completing the three (3) enclosed forms. Two sets of forms have been sent to you. This will allow both parents, where applicable, to respond individually if they choose to do so. Please return your completed forms to me in the enclosed stamped envelope by Wednesday, February 8th. If you have any questions about the study, you may contact me at home (746-1072) or at the Special Education Department at the University of North Dakota (777-2171).

Sincerely yours,

Theresa Haman
Doctoral Student
Elementary and Special Education

APPENDIX F

PALMORE FACTS ON AGING QUIZ FOR PARENTS

Facts on Aging*

DIRECTIONS: Circle "T" for true and "F" for false.

T F 1. The majority of old people* are senile (i.e., defective memory, disoriented, or demented).
T F 2. All five senses tend to decline in old age.
T F 3. Most old people have no interest in, or capacity for, sexual relations.
T F 4. Lung vital capacity tends to decline in old age.
T F 5. The majority of old people feel miserable most of the time.
T F 6. Physical strength tends to decline in old age.
T F 7. At least one-tenth of the aged are living in long-stay institutions (i.e., nursing homes, mental hospitals, homes for the aged, etc).
T F 8. Aged drivers have fewer accidents per driver than drivers under age 65.
T F 9. Most older workers cannot work as effectively as younger workers.
T F 10. About eighty percent of the aged are healthy enough to carry out their normal activities.
T F 11. Most old people are set in their ways and unable to change.
T F 12. Old people usually take longer to learn something new.
T F 13. It is almost impossible for most old people to learn something new.
T F 14. The reaction time of most old people tends to be slower than reaction time of younger people.
T F 15. In general, most old people are pretty much alike.
T F 16. The majority of old people report that they are seldom bored.
T F 17. The majority of old people are socially isolated and lonely.
T F 18. Older workers have fewer accidents than younger workers.
T F 19. Over fifteen percent of the U.S. population are now age 65 or over.
T F 20. Most medical practitioners tend to give low priority to the aged.
T F 21. The majority of older people have incomes below the poverty level (as defined by the Federal Government).
T F 22. The majority of old people are working or would like to have some kind of work to do (including housework and volunteer work).
T F 23. Older people tend to become more religious as they age.
T F 24. The majority of old people report that they are seldom irritated or angry.
T F 25. The health and socio-economic status of older people (compared to younger people) in the year 2000 will probably be worse or about the same as that of today's older people.

*The "aged" and "old people" are defined as those over age 65.

Form B

APPENDIX G

KOGAN'S OLD PEOPLE SCALES

DIRECTIONS: Check the one for each statement which is closest to how you feel.

1. It would probably be better if most old people lived in residential units that also housed younger people.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

2. Most old people are capable of new adjustments when the situation demands it.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

3. When you think about it, old people have the same faults as anybody else.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

4. Most old people make one feel ill at ease.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

5. Most old people need no more love and reassurance than anyone else.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

6. Most old people would prefer to continue working just as long as they possibly can rather than be dependent on anybody.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

7. Most old people would prefer to quit work as soon as pensions or their children can support them.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

8. In order to maintain a nice residential neighborhood, it would be best if too many old people did not live in it.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

9. Most old people are very relaxing to be with.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

10. Old people have too much power in business and politics.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

11. Most old people are really no different from anybody else; they're as easy to understand as younger people.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

12. It is foolish to claim that wisdom comes with old age.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

13. One of the most interesting and entertaining qualities of most old people is their accounts of their past experiences.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

Form C

14. Most old people should be more concerned with their personal appearance; they're too untidy.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

15. Most old people are cheerful, agreeable, and good humored.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

16. Most old people tend to keep to themselves and give advice only when asked.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

17. If old people expect to be liked, their first step is to try to get rid of their irritating faults.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

18. Most old people get set in their ways and are unable to change.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

19. Most old people spend too much time prying into the affairs of others and giving unsought advice.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

20. People grow wiser with the coming of old age.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

21. It would probably be better if most old people lived in residential units with people of their own age.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

22. There is something different about most old people; it's hard to figure out what makes them tick.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

23. One seldom hears old people complaining about the behavior of the younger generation.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

24. Most old people make excessive demands for love and reassurance.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

25. Most old people bore others by their insistence on talking about the "good old days."
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

26. Most old people can generally be counted on to maintain a clean, attractive home.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

27. Most old people seem to be quite clean and neat in their personal appearance.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

28. It is evident that most old people are very different from one another.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

29. There are a few exceptions, but in general most old people are pretty much alike.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

30. Most old people are constantly complaining about the behavior of the younger generation.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

31. You can count on finding a nice residential neighborhood when there is a sizeable number of old people living in it.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

32. Most old people tend to let their homes become shabby and unattractive.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

33. Most old people are irritable, grouchy, and unpleasant.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

34. Old people should have more power in business and politics.
___Strongly Agree ___Agree ___Undecided ___Disagree ___Strongly Disagree

APPENDIX H

FOLLOW-UP LETTER FOR PARENT PARTICIPATION

THE UNIVERSITY OF NORTH DAKOTA

THE CENTER FOR TEACHING AND LEARNING
Box 8158, University Station
Grand Forks, North Dakota 58202

February 8, 1984

Dear Parent(s):

A few days ago a survey questionnaire was sent home for you with your second-grade child. Many of the questionnaires have already been returned to me. Thank you. Your response is greatly appreciated.

Remember, no names will be identified in this study. Your voluntary participation in the study will help us better understand how your second-grade child views the elderly and the aging process.

If you have not yet had the time or opportunity to fill out the forms, I would like to encourage you to do so. Your input will provide a more complete understanding of your second-grade child's perception of the elderly.

Should you have any questions about the study, please feel free to contact me at home (746-1072) or at the Special Education Department at the University of North Dakota (777-2171).

Sincerely yours,

Theresa Haman
Doctoral Student
Elementary and Special Education

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