

THE EFFECT OF UTILIZING OLDER PERSONS IN THE CLASSROOM
UPON ELEMENTARY STUDENTS'
ATTITUDES TOWARD AGING

By

BETTY J. TOWRY

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1986

ACKNOWLEDGMENTS

This has truly been a God-directed journey in love. So many dear and wonderful people have shown me love through sharing their encouragement, strength, and inspiration. Dr. Hannelore Wass has given me every support possible throughout my doctoral program. Her wisdom, love, and enthusiasm have made all the difference in keeping me going. Dr. Linda Crocker has cleared my vision, shared her intellect and her laughter, and strengthened my faith. Dr. Don Avila started the journey with me and has been near every step. Dr. Paul Fitzgerald has been visible and supportive at the important points along the way. I am grateful to each of these individuals in making this moment a reality.

My family and friends have remained supportive, even through the crazy times. They continue to love me, pray for me, and encourage my growth. Such lessons of love I have learned from them! Grandmother and Grandaddy have been a very important part of my journey. And Mother and Daddy have been and remain close, giving me a gentle push (as needed) to get around the next bend.

Every member of my Central Florida Community College family has also been a part of this process. Very special thanks go to Dolores, Jan, Joan, Linda, and Rose Marie for supporting me through it all. They have worked as my guardian angels! Wayne has helped me grow by walking with me and sharing his faith and love. Linda has earned her heavenly halo through an outpouring of love unlike any other person I have known.

Finally, this journey could not have been completed without the support of Dr. Henry Goodlett. He has made a very powerful and lasting impression on my life, forever changing me and the person I am. My prayer is that I may fulfill the dreams he has inspired.

1 Corinthians: 13

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGMENTS.....	ii
LIST OF TABLES.....	vi
ABSTRACT.....	vii
CHAPTER	
I. INTRODUCTION.....	1
Purpose.....	4
Need for the Study.....	5
Definitions of Terms.....	9
Organization of the Report.....	11
II. REVIEW OF THE LITERATURE.....	12
Research Findings on Attitudes Toward Aging and the Aged.....	12
Assessment Procedures Examining Aging Attitudes.....	19
Education Projects on Aging.....	30
Summary.....	42
III. METHODS AND PROCEDURES.....	43
The Curriculum Unit on Aging.....	43
The Spelling Lesson Activities.....	45
Design of Study.....	45
Hypotheses.....	48
Research Design.....	49
Instruments.....	49
Experimental Procedures.....	51
Analyses.....	56
IV. RESULTS OF THE STUDY.....	57
Descriptive Statistics.....	58
Effects of Instructional Strategies.....	60
Summary.....	71

	<u>Page</u>
V. SUMMARY, CONCLUSIONS, LIMITATIONS, RECOMMENDATIONS, AND IMPLICATIONS.....	73
Summary.....	73
Conclusions.....	77
Limitations.....	78
Recommendations.....	79
Implications for Research and Practice.....	82
APPENDIX A. SAMPLE FROM THE CURRICULUM UNIT ON AGING.....	84
APPENDIX B. THE SPELLING LESSON ACTIVITIES.....	97
APPENDIX C. MODIFIED TUCKMAN-LORGE OLD PEOPLE QUESTIONNAIRE.....	101
APPENDIX D. KNOWLEDGE SURVEY.....	108
REFERENCES.....	112
BIOGRAPHICAL SKETCH.....	126

LIST OF TABLES

	<u>Page</u>
3-1 Number Of Students In Each Class And Treatment Condition.....	46
4-1 Pre- And Posttest Means And Standard Deviations By Treatment Group and Test Administered.....	59
4-2 Reliability Estimates Computed By The Kuder-Richardson Formula 21.....	61
4-3 Adjusted Posttest Means And Standard Error Of The Mean By Treatment Group And Instrument Administered.....	62
4-4 Results For Modified Tuckman-Lorge Old People Questionnaire (TL).....	64
4-5 LS Means And Differences* Between Pairs Of LS Means For The Groups.....	66
4-6 Results For The Knowledge Survey (KS).....	67
4-7 Results For The Attitude Test (AT).....	69
4-8 Slopes And Intercepts For Regression Of Posttest on Pretest Score For Each Class-Within-Treatment.....	72

Abstract Of Dissertation Presented to the Graduate
School of the University of Florida in Partial
Fulfillment of the Requirements for the Degree of Doctor
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Betty J. Towry

December 1986

Chairperson: Dr. Hannelore Wass
Major Department: Foundations of Education

Literature review indicates that programs involving intergenerational contact or prepared materials on aging can increase young persons' knowledge and positive attitudes regarding aging and the elderly. Comparison of these approaches are lacking. Combining academic skills and aging facts would enhance schools adoption of such curricula. A curriculum unit on aging combined with academic skills was developed expressly for this study.

Twelve fourth grade classrooms were randomly assigned to one of the following conditions: instruction on aging from an older volunteer; instruction on spelling from an older volunteer; instruction on aging from the regular classroom teacher; no special treatment for a control condition. Three classrooms were nested in each condition. All students were pre- and posttested, using

a modified version of the Tuckman-Lorge Old People Questionnaire, a knowledge survey, and an attitude test designed by the experimenter.

Test data were collected for 381 students with increases in pre- and posttest raw scores observed on all three tests for treatment groups. A separate analysis of covariance (ANCOVA) was used to test for significance. Pretest scores were covariates with independent variables being treatment and classroom nested within treatment.

A significant difference ($p < .05$) among treatments and the control group on the modified Tuckman-Lorge Old Person Questionnaire was found. Post-hoc comparisons indicated that an older person teaching spelling was significantly different than the control group in attitude gain.

No significant differences among the four groups were found on the locally developed knowledge survey. A significant interaction occurred between pretest level and treatment effect on the locally developed attitude test. Pretest and posttest regression lines for the groups indicated that the control group and the treatment with the classroom teacher teaching about aging scored lower on the posttest than treatments utilizing the older persons. Differential treatment effects were observed

depending upon students' initial attitudes toward older persons. Results indicated that the presence of an older person in the classroom had a positive impact on student attitudes toward the elderly. Further, the presence of the older person was more important than what the person taught.

CHAPTER I INTRODUCTION

Perpetuation of negative stereotypes related to aging is a serious problem which faces older persons. Some research findings notwithstanding, (Thomas & Yamamoto, 1975), many studies have shown that old people are perceived as past-bound and that old age is viewed unpleasantly. These perceptions are particular evident when considering children and youth (Ansello, 1978; Arnoff & Lorge, 1960; Hickey & Kalish, 1968; McTavish, 1971; Seefeldt, Galper, & Serock, 1977). Further, a lack of knowledge about and contact between older and younger persons has been found to support the development of prejudice and promote discrimination (Marks & Newman, 1985; Nusberg, 1980; Page, Olivas, Driver, & Driver, 1981) and children who are isolated from contact with older people have less accurate perceptions of old age (Long, 1982). Havighurst (1974) found that typically children's first contact with older persons is through their grandparents. Yet, many children live away from their grandparents and older relatives with no chance for a loving relationship to exist. Teachers and parents have voiced concern that this life experience is

unavailable for many children in today's society (Atwood, 1975; Pribble & Trusty, 1981).

Attitudes which develop in childhood influence one's life and can cause an individual to act in consistent ways toward people, objects, situations, or ideas (Brubaker & Powers, 1976; Green, 1981; Mussen, Conger, & Kogan, 1969; Thomas, 1981). Furthermore, attitudes formed early in life remain relatively stable as a person grows older (Klausmeier & Ripple, 1971; Seltzer & Atchley, 1971). Thus, Jantz, Seefeldt, Galper, and Serock (1977) proposed that because attitudes are developed during childhood and influence later behavior, concern about aging education is all important for today's children as their attitudes will affect us all.

With the increasing emphasis on accountability, the attitudes that schools are promoting must be examined (Moramarco, 1978). Education should not allow important values to be unintended outcomes of school curriculum (Khan & Weiss, 1973). The more positive children's attitudes toward the elderly, the more completely they will live their own lives. When people are able to identify with older persons, stereotyping may be avoided. However, the educational system isolates students from the realities of human growth and maturation and

children do not really understand the normal aging process or what older people are like (Harris, 1975; Jantz et al., 1977).

The concept that children need to be made aware of their own status in relation to the process of aging is one which is found in several investigations (Bennett, 1976; Jacobs, 1969; Jantz et al., 1977; Looft, 1971; Lorge, Tuckman, & Abrams, 1954; Seefeldt et al., 1977; Serock et al., 1977; Sheehan, 1978). If children are to recognize their own position in the aging process and realize that old age can also be a fulfilling time of life, they will need exposure to a range of elderly persons. Several authors (Bailey, 1976; Kawabori, 1975; Wass, Fillmer, & Ward, 1981) maintain that schools have a responsibility to develop such age awareness in their students, and Bennett (1976) and Marks & Newman (1985) recommend that contacts between the young and the old should be initiated early in the educational process.

Research literature provides many examples of how intergenerational contact and related materials support children's development of more accurate knowledge of and positive attitudes toward aging and the elderly. There is a lack, however, of evidence as to what method is most effective with children in creating improved attitudes

and more accurate knowledge regarding old people. Research is lacking on the manipulation of presentation of information on aging in the elementary classroom in relation to the development and improvement of attitudes toward the elderly and aging. This is the purpose of the present investigation.

Purpose

It was the purpose of this study to compare the effects of three different instructional approaches in the classroom setting on students' attitudes toward old people. Specifically, fourth grade students participated in one of three treatment groups or one control group. The classrooms were randomly assigned to the following conditions: receiving instruction on aging from an older volunteer; receiving instruction on spelling from an older volunteer; receiving instruction on aging from the regular classroom teacher; no special treatment for a control condition. The relative effectiveness of these treatments in achieving gains in attitudes and knowledge were investigated through an analysis of covariance design.

The following research questions were posed:

1. Is there a significant difference among the adjusted posttest means of the four groups on the modified Tuckman-Lorge Old People Questionnaire?

2. Is there a significant difference among the adjusted posttest means of the four groups on the attitude test designed by the experimenter?

3. Is there a significant difference among the adjusted posttest means of the four groups on the knowledge survey?

If significant differences ($p < .05$) among the groups were detected, post-hoc comparisons among each possible pair of adjusted group means were conducted.

Need for the Study

Census projections have shown individuals age 65 and older as doubling between 1976 and 2020, topping out at approximately 45 million (Kart, Metress, & Metress, 1978). Educators must consider how to involve older persons in the curriculum and related activities.

Providing today's young with healthy attitudes concerning older persons is an important but often neglected goal (Long, 1982). Educational efforts to prepare young people for and/or familiarize them with the aging process

are lacking. Margaret Mead (1970, p. 19) stated, "A concomitance to the fear of aging is a fear of the aged. There are far too many children in American who are badly afraid of older people because they never see any."

Utilizing the elderly (65 years and older) in the classroom setting could provide potential advantages while improving intergenerational relationships and attitudes of students, teachers, and elderly involved. According to Rosow (1967), the most important influence in the aging process is found in the younger generations, not the elderly. Rosow suggests that it is persons other than the elderly who determine the role of the older person in society. Tuckman and Lorge, who completed the majority of early studies regarding attitudes toward aging, found in a 1958 study that personal contact with a variety of old persons can influence individuals' attitudes more positively as compared to persons whose acquaintances lack depth and are of a restricted nature.

Older persons can benefit from such involvement through increased activity, stimulation, and enhanced opportunities for personal growth (Hunter & Linn, 1981; Linden, 1975; Monk & Cryns, 1974). In fact, Downey (1974) found that self-esteem and self-worth of the older person can be renewed by the elderly participating in

volunteer programs. Participating in school programs could fulfill older persons' needs for social interaction, problem solving, and decision making while improving children's attitudes about aging and the aged (Baggett, 1981; Baumhoner & Jones, 1977; Glass & Knott, 1982; Merrill, 1961). Blau (1956) and Leslie, Larson, and Gorman (1973) proposed that the process of assimilation is important in reducing differences between groups of people. Using older volunteers is one method by which negative attitudes and stereotypes could be challenged. Merrill (1961) found that such assimilation occurs more quickly when group contacts are face-to-face and personal. Merrill recommends that increased success can be achieved if opportunities begin early in life, thereby decreasing the age segregation in society. Baggett (1981) and Hauwiller and Jennings (1981) suggest, however, that in providing only informal interactions, the desired results of improved attitudes may not be achieved.

Glass and Knott (1982) and Triandis (1971) have proposed that there are three basic strategies to change attitudes. These include discussion with peers, direct experience with attitude objects, and increased information or knowledge. Schools, as transmitters of

culture, provide the ideal setting for confronting stereotypes and myths regarding aging and the aged. Seefeldt et al. (1981) suggest that schools be specific concerning attitudes perpetuated by the institution and develop strategies for teaching about aging.

In 1981, during the third White House Conference on Aging, the United States Congress reaffirmed the Older American Act which identifies several objectives related to the aged and the American belief about the dignity of the individual. The need for aging education was also a concern of the two previous White House Conferences on Aging in 1961 and 1971. These conferences developed specific recommendations concerning education about aging for children and youth in school. The problem remains that attempts to develop such programs occur only if there is interest and support in local school districts (Johnson, 1982). Furthermore, those who undertake development of such programs in the future need the results of empirical studies to guide their decisions about content, learning activities, and roles to assign to older volunteers in classrooms.

Definitions of Terms

Terms used in this study are defined as follows:

Attitude Test (AT) - Fourteen statements developed by the experimenter and used to identify students' perceptions about aging and the aged. This test was the last section on the modified Tuckman-Lorge Old People Questionnaire and was administered in a pre-posttest sequence.

Curriculum Unit on Aging - Eight curriculum exercises lasting 30 to 45 minutes in length which were developed by the experimenter. The exercises incorporated required state and county basic skills instruction into information and activities about aging and older persons.

Knowledge Survey (KS) - A test based on the curriculum unit on aging, designed by the experimenter, to determine what old age-related concepts students understood.

Tuckman-Lorge Old People Questionnaire (TL) - The modified 36-item version of the Tuckman-Lorge Old People Questionnaire (1954) was first used by Olejnik and LaRue (1981) in assessing children's attitudes toward old people. The TL was used in a pre-posttest design to examine students' attitudes.

Marion County Basic Skills Continuum - Based on required skill instruction by the Florida Department of Education, Marion County Public School System developed an expanded skill program for all levels of the school curriculum. The skill continuum for fourth grade was used in developing the curriculum unit on aging.

Regular Classroom Teacher - A reference to the regularly assigned teacher for each classroom. In three classrooms or treatments, the regular classroom teacher taught the curriculum unit on aging.

Retired Senior Volunteer Program (RSVP) - A volunteer program for any person 60 years of age and over who wants to be involved in various types of community service. This agency assisted in the recruitment of volunteers for this study.

Spelling Activities - Eight different activities based on the spelling words required for study in three different classrooms (treatment group 2) were designed by the experimenter. The exercises were the same for all three classrooms, but the spelling words in each school's spelling textbook varied.

Organization of the Report

The remainder of this dissertation is organized into four chapters and appendices. Chapter II provides an overview of the research related to attitudes toward aging, instruments used in analyzing attitudes on aging, and specific educational project results which have involved children, aging education, and elderly volunteers relevant to this study. Chapter III includes the study design and methodology, the development of instrumentation, and materials used. The data analyses and results are presented in Chapter IV. In Chapter V, a summary, study limitations, and recommendations for further investigation are presented.

CHAPTER II REVIEW OF THE RELATED LITERATURE

This chapter presents a review of the professional literature relating to children's attitudes toward old people and documented educational projects involving children and the elderly. The initial section deals with research findings concerning attitudes toward old people with a focus on children's perceptions. The second section identifies the various instruments that have been used in analyzing attitudes toward the aged and those assessing children's attitudes toward the elderly are examined. The final section addresses specific educational programs and projects which have involved children and older persons.

Research Findings on Attitudes Toward Aging and the Aged

The important influence in the aging process is found in younger generations, not in the elderly. It is the youth who shape attitudes as they go through their own aging process. As Borges & Dutton (1976), Cameron (1971), and Rosow (1962) have proposed, it is persons other than the elderly who determine the role of the older person in society. Tuckman and Lorge (1953a), found in an early sample that individuals had limited

experience and lacked accurate knowledge about aging. What was known came from the subjects' observations of others or through their own aging. Subjects in the study characterized old age as a time of poor health, economic insecurity, loneliness, and failing physical and mental processes. In a later study, Tuckman and Lorge (1958) discovered that interpersonal contacts with old persons could influence individual's attitudes in a positive way. This was found in comparison to persons whose contacts lacked depth and were restricted.

Research has indicated that attitudes and stereotypes develop early in life and remain fairly stable (Carp, 1967; Havighurst, 1974; Klausmeier & Ripple, 1971; Seltzer & Atchley, 1971; Thomas & Yamamoto, 1975). Attitudes and stereotypes that relate to aging and the aged influence behaviors directed toward older people and influence the development of an individual's self concept (Hendricks & Hendricks, 1977). Because growing older is irreversible and unavoidable negative attitudes about aging and maturation can be very damaging. Neugarten (1976) believes stereotypes about aging create a fear of aging and this can lead to ageism and hostile feelings between age groups. Research has demonstrated that children's general attitudes toward the elderly as a group are not positive and literature

reviewed reports a general rejection or prejudice against old people.

McTavish (1971) noted that considerable diversity of results and opinions on attitudes toward aging can be identified through social gerontology literature. General observations found in his evaluation of 300 research articles were that persons have different opinions about old age; that perceptions of younger persons are very important as they play a significant role in determining the position and status of older persons; that there is discrepancy between traditional cultural ideas about aging and actual behavior toward the aged, with research generally only examining attitudes; and that there is an idea of "usefulness" involved in perceived social roles which relates to individuals having positive or negative attitudes toward aging and older persons. McTavish, concluding his review, stated that stereotyped views of the elderly were prevalent and that perceptions included old people as being generally ill, tired, not sexually interested, mentally slower, forgetful, and less likely to participate in activities (except for religion), isolated during this period of life, and unproductive and deficient (all with varying emphasis).

Gail Sheehy in Passages (1976), explained how people are studied to understand human development. "It's far easier to study adolescents and aging people. Both groups are in institutions (schools or rest homes) where they make captive subjects" (p. 10). This example of stereotypic belief presented as fact is found in a national best seller. Attitude research has been encouraged by the belief that attitudes are an influential aspect of the total social and cultural environment (Bader, 1980; Hendricks & Hendricks, 1977). This influence can be so pervasive that Neugarten (1970) believes that policy issues concerning older Americans have been influenced by underlying ageism. The assignment of sameness in characteristics, status, and consequences to a group which is actually very heterogeneous causes the aged to be viewed as being all the same, put into one group and seen as being one type--old (Binstock, 1983).

Evaluating the effects of external factors, Butler (1974) and Havighurst (1968) identified the importance of a supportive environment in successful aging. Personal concepts of achievement, productivity, and independence, which are affected by age, were found to consistently predict attitudes toward old age in studies completed by Collette-Pratt (1976). Kuypers and Bengstrom (1973)

identified a social breakdown syndrome by which older people are believed to become less competent in meeting role expectations, ultimately creating a self-fulfilling prophecy for the individuals themselves. Other factors which can influence old age are education on aging attitudes and the opportunities generally accompanying educational activities (Thorson, 1975). Tuckman and Lorge (1952) found that as individuals become less able to function autonomously, there is a tendency to believe and act out (to a greater degree) the misconceptions and stereotypes of old age. Data suggest that individuals who believe old people should be in old age homes, are difficult to get along with, etc., may have these attitudes due to their personal perceptions of themselves or their acquaintances.

Additional external factors considered by Ivester and King (1977) showed that a majority of rural adolescents in their study had positive attitudes toward the elderly. The authors concluded that rural children may have more contact with the elderly than the urban children used in the comparison group. This supports the finding of Tuckman and Lorge in their 1958 study that individuals with contacts among a variety of aged persons will have more positive attitudes toward aging and the aged. Butler and Lewis (1976) believe that a feeling of

kin relatedness may be necessary in one's personal orientation as a significant human being. Adams (1971), Sussman (1976), and Gordon and Hallauer (1976) focused on the importance of family linkage for elderly persons. Havighurst (1974) and Kivnick (1983) suggested that the life-cycle value of a meaningful relationship between a child and an elderly person is crucial in childhood and without it, the individual might miss the value of such a relationship two generations into the future.

Studies that include children and youth (Britton & Britton, 1969; Cabot, 1961; Dodson & House, 1981; Drevenstedt, 1976; Frost, 1981; Galper et al., 1981; Kahana & Kahana, 1970; Lane, 1964; Lorge et al., 1954; Hickey, Hickey, & Kalish, 1968; Hickey & Kalish, 1968; Seefeldt et al., 1977) suggest that the concepts of old age and old people are meaningful and ones about which young respondents hold distinctive, identifiable perceptions. Negatively stereotyped views found in this research describe the elderly as tired, uninterested, slower, ill, feeling sorry for themselves, and less happy. Thomas and Yamamoto (1975) found that while children held superficial attitudes about the elderly, the stories written by the children showed that they understood the life cycle. Even in Treybig's (1974) study of young children aged 3, 4, and 5, there were identifiable

negative views expressed regarding the elderly. These children also expressed great concern about not wanting to grow old.

In 1986, Murphy-Russell, Die, and Walker used three different instructional procedures with undergraduate students in attempting to improve attitudes toward aging. There were three workshop sessions in the series with each single session lasting approximately one hour. The first session consisted of discussion about the students' results on Palmore's Facts on Aging Quiz (Palmore, 1977). The second session involved an interview with an elderly couple and the third session was an informational filmstrip which debunked common myths about aging and the aged. The three techniques were considered individually with the total workshop series being as effective in creating attitude change as the single treatment sessions. With the short length of time involved in the study, the authors' major recommendations focused on utilizing the elderly in the classroom setting.

Porter and O'Connor (1978) taught a psychology of aging course which gave factual information about aging and gave college students the opportunity to have more personal contact with an older class resource person. The study reported more positive attitudes about the elderly as a result of the course. In 1976, Gordon and

Hallauer had college students enrolled in an adult development course to participate in a visitor program at a health facility for older persons. The researchers found that the course alone changed students' attitudes, but those who participated in both the course and the visitor program had a more significant attitude change. In examining a sample of individuals who experienced only the visitor program, no significant change was reported. However, Olejnik and LaRue (1981) found that adolescents' attitudes toward old persons became less negative after two months of daily contact.

Glass and Trent (1980) and Trent, Glass, and Crockett (1977) found a positive attitude change in adolescents were exposed to the three basic strategies to change attitudes (Glass & Knott, 1982; Triandis, 1971). The adolescents were given the opportunity to discuss the aged with their peers, have direct contact with elderly persons, and increase their knowledge about older persons. While attitude change was reported, neither study evaluated the effectiveness of the individual methods.

Assessment Procedures Examining Aging Attitudes

Techniques involved in developing measurement devices to assess attitudes toward aging and the aged vary greatly. Several Likert-type scales of attitudes

toward old people have been documented (Axelrod & Eisdorfer, 1961; Eisdorfer, 1966; Hickey & Kalish, 1968; Kirschner, Lindbom & Paterson, 1952; Kogan, 1961; McTavish, 1970; Silverman, 1966; Tuckman & Lorge, 1952, 1953a, 1953b). The semantic differential approach has been used in several other studies (Eisdorfer & Alrocchi, 1961; Knapp & Moss, 1963; Kogan & Wallach, 1961; Rosenkranz & McNevin, 1969) and also content analyses approaches (Britton & Britton, 1969; Coe, 1967; Golde & Kogan, 1959; McTavish, 1970; Neugarten & Gutmann, 1958). Numerous other procedures, such as the Q-sort (Newfield, 1970), the Gough Adjective Rating Scale (Aaronson, 1964), and the Age-Appropriate Attitude Technique (Kastenbaum & Durkee, 1964; Sadowski, 1978) have been documented. Findings from these studies show a generally negative tone regarding attitudes toward aging and old people.

The use of questionnaires to assess aging attitudes includes the Tuckman-Lorge Old People Questionnaire (1953a) which consists of 137 statements about old people. The questionnaire is divided into 13 categories relating to various aspects about the aged. This clustering of items in specific content areas can create questions as to the meaningfulness of scores computed for the clusters (due to response-set effects). Subjects respond with "yes" or "no" as to whether they

agree with the statement or not. Tuckman and Lorge attempted to correct possible respondent-set problems by having subjects estimate the percentages of old people possessing various characteristics. Subjects were asked to estimate the percentage of old people whom they thought possessed certain characteristics. Axelrod and Eisdorfer (1961) found that 96 of the 137 items have stimulus-group validity.

Following the work of Tuckman and Lorge, Golde and Kogan (1959) attempted to test the hypothesis that attitudes toward old people are measurably different from those involving "people in general." Sentence completion procedures were used so that paired experimental items and control items could be constructed. A comparison of the experimental and control forms yielded statistically significant differences for the majority of items. There was a large amount of ambivalence in the attitudes of younger subjects. The young subjects viewed their own aging negatively or could not conceive of it and did not interact with old people. The researchers suggested that if the younger subjects believe the older generation is old fashioned and narrow-minded, their interpersonal relationships with older persons probably reflect these views (Golde & Kogan, 1959). Sadowski used the Age-Appropriate Attitude Technique (AAAT) developed by

Kastenbaum and Durkee (1964) and found support for conclusions drawn by Golde and Kogan (1959); that a majority of subjects unfavorably evaluated the past-boundness of the aged stimulus person presented in the AAAT.

Palmore (1977) developed a questionnaire that was short (25 items), using only factual statements documented by empirical research. Designed to cover basic physical, mental, and social facts about aging, it included common misconceptions regarding the development process. The quiz can be used to measure the amount of accurate information and anti-age bias of subjects by analyzing missed items which involve stereotypes. In using the quiz, Palmore introduced the notion that respondents have preconceived biases which influence how they interpret statements about older people. Pilot tests of an alternate form of Facts on Aging Quiz (Palmore, 1981) indicate that FAQ can be used in measuring bias and the effects of educational experiences in gerontology. Findings with this instrument are similar to the results on the original FAQ. Most misconceptions involve negative views of old age (Palmore, 1981). The data, which examine only adults, confirm that the average person has more anti-aged than pro-aged bias.

In 1978, the FAQ (Palmore, 1977) was used by Allen in three grades in three Florida public schools and two university classes (for a comparative college sample). Using Palmore's procedure for determining positive and negative bias demonstrated that all subject groups showed a negative tendency with middle schoolers the least biased and high schoolers the most. On some knowledge dimensions, increased age and education level showed higher error rates in information about the elderly. Based on the data collected in Allen's study, it was demonstrated that students lack accurate information about older people. The findings associated with youngsters who have contact with an older person living in the same household are somewhat ambiguous. The data that Allen gathered, suggests that direct contact with dependent elderly living in the household may convey an unrealistic depiction of the aged in general.

Hickey et al. (1968) studied the perceptions of third graders in both private and public schools. The young children produced stereotypic stories describing old people as having ambulatory problems, being lonely, bored, and inactive. The researchers also examined perceptions of adult ages with third grade, junior high, senior high, and college students by a 20-item questionnaire of both evaluative and descriptive items.

It was found that the young people perceived differences between adult age groups. Results demonstrated that the older the adult, the less pleasant the image young respondents held.

In order to better assess children's age-related biases, the Children's Attitudes Toward the Elderly (CATE) by Jantz et al. (1977) was developed to analyze behavioral and knowledge components of attitudes. The assessment items are based on four measurement techniques, including a modified word association with open-ended questions, a semantic differential format, a picture series, and a final subtest based on Piagetian concepts using three conservation tasks (designed to determine the levels of cognitive development concerning concepts of age). The individually administered CATE has some limitations which may influence results. Although a majority of the older population are women, the pictures used in the CATE picture series are all men. A large number of children could have a grandmother who is the only older person that they know and with whom they have interacted. If the picture series were more reflective of older persons with whom children have experience, the subjects might respond differently to questions that are asked. The CATE also has limited scoring procedure for some items. In response to the question asking children

to describe an old person, the tester is directed to code responses such as grey hair, wrinkles, or walking with a cane as negative responses. These characteristics are not only apparent to everyone, but are real possibilities in the aging process. This type of response is factual, not necessarily negative and reflects the children's knowledge of changes involved in aging (Baggett, 1981).

In using the CATE to study behavioral and knowledge components of attitudes, Jantz et al. (1977) found that children gave old persons negative qualities such as sick, ugly and sad; with positive characteristics of rich, friendly, wonderful, and good. As children grew older, their knowledge increased, but children of all ages had little general knowledge of the aged in affective terms. When reporting physical descriptions or behavioral reactions, students comments remained generally negative (Jantz et al., 1977). The subjects reported few contacts with the elderly outside of family members. Jantz et al. concluded that the 180 children in the initial sample (from nursery school age through sixth grade) had minimal opportunity to interact with the elderly and that because of this lack of contact, children believed stereotypic characteristics of old people and viewed their own aging as negative.

James (1980) followed up on the study by Jantz et al. and examined the relationship between second grade children's association with an older affiliated family member, reading achievement, and attitudes toward the elderly. Based on the Affiliated Family Questionnaire (completed by the parents) and the student response to the CATE, children's attitudes toward the elderly showed that subjects with older affiliated families had more accurate knowledge of the elderly and described the older persons less often in physical terms. When physical descriptions were used, they were less negative (James, 1980).

Fillmer (1982) used pictures to elicit children's attitudes toward old people. Children from selected elementary classes from the various grade levels were shown pictures of a young man (age 22-28) and an old man (age range 60 years and older). Subjects were asked to tell whether the person was sick or healthy, ugly or pretty, rich or poor, happy or sad, friendly or unfriendly (all six questions required only a yes or no answer). More negative adjectives were used to describe the older stimulus person. Fillmer believes that children's stereotypes of the elderly should be considered by educators and that the elderly hurt themselves because their own attitudes toward aging

create a self-fulfilling prophecy. Bossert (1980) also used photographs and added a profile description. The students evaluated the stimulus person in the picture and Bossert measured social distance and personal attraction. Students maintained different expectations for younger and older stimulus persons (regardless of the same profile information) concerning levels of activity and similarity of beliefs.

Lang (1980) focused on interviews, word tests, and teacher ratings of children's math and reading skills in examining children's attitudes toward the aged. Lang found that a grandparent is an important figure in the child's life and that grandparents have a positive influence on children. A relationship was found between school performance and frequency of contact with grandparents, suggesting that attention children receive from their grandparents is related to school performance.

Fossbender (1980) attempted to determine if attitudes and behavioral intentions were related by using the Old People Scale (Kogan, 1961) and a behavioral intention scale. Students' attitudes were found to be related to student sex, location of residence, self-reported average, and how many old persons the student knew. The students' behavioral intentions toward old people were found to be related to student sex, frequency

and nature of interaction with old people, self-reported grade average, and number of aged persons known (Fossbender, 1980). Supporting the findings of Fossbender's research, Leslie, Larson, and Gorman (1973) proposed that the process of assimilation is influential in reducing perceived differences between age groups. Utilizing school volunteers was a recommended method for effectively challenging negative stereotypes.

Merrill (1961) also reported that assimilation occurs more readily if group contacts are face-to-face and personal as this provides for better communication and allows individuals to more easily share beliefs and ideas. Merrill suggested that if these opportunities occur early in life, age segregation could be decreased, supporting the involvement of older persons in elementary classrooms.

In a study addressing the extent of age-based attitudes of children from 8- through 10-years old, Marks and Newman (1985) utilized the Children's View on Aging Questionnaire (COVA). The COVA was designed by researchers and consists of open-ended and close-ended questions and semantic differential scales. The COVA measures the cognitive, affective, and conative (intended actions based on attitudes) aspects of children's attitudes. The researchers suggest that children's

attitudes do not represent a single unidimensional concept which is either good or bad in regards to aging. Children were found to have positive general perceptions of old people, but negative perceptions of the aging process. Based on the results of the study, however, the researchers could not prove that having old persons in the schools would improve students' attitudes toward aging and/or learning. The study did suggest that constructive interactions between older people and children in schools would reduce the children's knowledge deficits about aging and contribute to the development of more positive attitudes.

Education Projects on Aging

Projects have been attempted within school systems to examine and modify students' attitudes toward aging. To assess the extent to which aging education was included in the Ohio public schools, Russell (1979) surveyed a sample of school personnel. The data indicated that aging, when taught, was more often part of the secondary school program. Respondents believed aging to be a nontraditional subject with inadequate materials or resources and little teacher training. Based on the information collected, Russell found that the limited efforts to teach about aging were not systematic or supported by school administrators.

Conversly, Hoot (1981) found that Texas elementary teachers were more likely to teach about aging, but that the instruction on aging lacked effectiveness due not being systematically implemented in the curriculum program. Speulda (1973) addressed the problem of restricted resources in public schools in Dallas and Oregon where children's attitudes changed in a positive direction as a result of organized instruction. Speulda recommended that appropriate instructional units need to be developed as materials in this field have very limited availability and are not generally useful at the elementary or secondary school levels. Zigmarmi, Trusty, and Wood (1978) point out the importance of teacher inservice prior to any curricular implementation. Saxe (1977) designed a manual to help teachers create programs to teach about aging. The manual contains rationale for aging education, recommendations for curriculum planning, and sample teaching units.

Havighurst (1974) felt that children's first contact with the aged is generally pleasant but a negative image emerges as the child grows older and has less consistent interaction with older persons. As the interaction becomes more impersonal, elderly persons are stereotyped as a group, becoming a social burden opposing change. Ramoth (1975); Holtzman, Beck, and Coggan (1978); and

Immorlica (1980) identified an increasing need for factual information about the aging process and that the omission of this content area would allow erroneous myths about the aged to continue.

Olejnik and LaRue (1981) found that adolescents' attitudes toward persons over the age of 60 were improved by two months of daily intergenerational contact. Sixth through eighth graders expressed more positive perceptions of the aged and fewer negative stereotypes after the researchers set up unstructured daily contact between the two age groups during the social setting of lunchtime. To measure perceptions of the aged, items from the Tuckman-Lorge Old People Questionnaire (Tuckman & Lorge, 1953a) were adapted for the study.

Comparing pre- and posttest results, both males and females showed less negative and fewer stereotypic perceptions about the elderly after the treatment program. There was a significant change in the percentage of affirmative responses, especially regarding physical characteristics and reported feelings of insecurity of older persons. Younger students changed more following the contact period than did older students in the study (Olejnik & LaRue, 1981).

Britton and Britton (1969) and Kastenbaum and Durkee (1964) found that respondents were able to assess

chronological ages of adults based on physical characteristics. Other research indicates that chronological age is frequently associated with stereotypic behavior expectations (Aaronson, 1966; Altrocchi & Eisdorfer, 1962; Neugarten, Moore, & Lowe, 1965; Silverman, 1966; Traxler, 1971; Tuckman & Lorge, 1953b). Since physical age cues are consistently and immediately on display, a stranger's perceived age may affect any subsequent interaction, with possibly a significant influence on the formation of personal impressions.

Baggett (1981) considered the effect of interaction in overcoming stereotypes. The importance of the relationship between children and elderly was found to be a factor in determining satisfaction of elderly volunteers working with adolescents. The foster grandparent program encourages such interaction as it is basically a one child to one elderly person activity. It involves children who are mentally retarded, multi-handicapped, or institutionalized. Several studies have cited the importance of the child-to-older person relationship which challenges age related stereotypes (Cardwell, 1972; Gray & Kasteller, 1970; Hoyer & Kasteller, 1973; Saltz, 1971).

The Generational Dialogues Program film series was used in a study by Davis (1981). The films involve arousal of curiosity and the development of commonalities between the generations, the exploration of the old age experience, and the students' personal identification with the process of aging. Using the CATE Semantic Differential Test (Jantz et al., 1977), Davis had four fifth grade classes as treatment subjects with film/tape dialogues and one fifth grade class served as the control group (having on the test). The children experiencing the treatment (i.e., the films and intergenerational dialogues) were reported to be more comfortable, familiar, and curious about the elderly. These students also increased in the reported percentages of old people with whom they spoke and interacted.

A major study by Seefeldt et al. (1981) examined the effectiveness of an aging curriculum in encouraging positive attitudes toward the elderly and the aging process. Two teachers at each grade level from kindergarten through sixth grade were selected, with one class randomly assigned to the control group and the other to the treatment group. The program was implemented over a period of six weeks and involved direct lessons on the aging process and several lessons which involved activities. Children's attitudes were

pre- and posttested using the CATE. Indication was that positive attitudes were encouraged through the curriculum, but it did not, however, significantly alter children's negative attitudes about their own aging. The authors suggest that the curriculum be redesigned and implemented over a longer period of time to change these negative perceptions.

The Counteracting Age Stereotyping with Young Children Project attempted to intervene in the early development of negative stereotypes toward aging (Hauwiller & Jennings, 1981). This project took place in selected sites across Montana. It allowed teachers working with children in second, third and fourth grades to develop methods of instruction integrating concepts of aging into classroom materials. Another effort at developing an aging curriculum was a structured program called Children Learning About Aging. Project CLASP is funded by ESEA Title IV and is committed to aging education for fourth through eighth grades; based on the need for all persons to know and understand aging and better prepare for its arrival (Pini, 1981).

The Gerontology Research Institution Program (GRIP) was developed and implemented in the Dallas Public School System in 1970. Its goals included determining the concepts held by elementary and secondary students about

aging, the effectiveness of instructional activities, and the age/grade level significant to later attitudes concerning aging (Speudla, 1973). Research on the GRIP project indicates that children know very little regarding the process and problems associated with aging. Through learning activities, students' attitudes improved in both acceptance of and interest in older persons. Older citizens who served as resource persons also reported their involvement in the project was enriching.

Winnetka Public Schools in Illinois developed the Project for Academic Motivation: Older Adult Volunteers in Schools (1968). The program was funded by a grant which established school volunteer programs with individuals over 60 years of age. The project began as a research inquiry on academic underachievers and extended beyond the original referral for motivating underachievers because of the involvement of older adults.

The Intergenerational Dialogues Project incorporates a film series, Growing Up--Growing Older. This series was developed through a grant from the Sears-Roebuck Foundation. Fifteen-minute films are suggested to be shown at the beginning of discussion periods. Aimed at developing positive attitudes, this project was initially part of research completed by Ethel Percy Andrus

Gerontology Center at the University of Southern California (in cooperation with AARP). This was the first in age-related projects developed for national use (Briley & Jones, 1982).

"The best way to avoid senile dementia is to find regular intellectual stimulation in the later years," stated Pfeiffer (in Downey, 1974, p. 36). Volunteering offers older persons increased involvement, stimulation, and enhanced opportunities for personal growth. Dewey (1971) found that self-esteem and self-worth are by-products of seniors being involved in volunteer programs. In addition, studies involving the School Volunteer program in Miami (Dade County Public Schools), the Foster Grandparents Project, and Project SERVE, have found that older volunteers gained by improved self-concepts and increased life satisfaction (Edna McConnell Clark Foundation, 1975; Gray & Kasteller, 1970; Sainer & Zander, 1971).

Sainer and Zander (1971) determined that certain conditions were important to seniors who volunteer. Their work in the Older Volunteers Community Service Project (SERVE: Serve and Enrich Retirement by Volunteer Service) indicated that older persons are willing to volunteer if the need was real and observable, appropriate volunteer assignments were made,

transportation needs were met, and there was consistent leadership available. Program reports indicated that in working with the elderly, brief, one-time contacts do not yield results in recruiting older volunteers.

Freund (1971) believes that school volunteer projects help the young and old to close the generation gap between the two age groups. The Dade County Schools study (1975) found that both senior citizens' and children's perceptions of each other changed through the volunteer experience. Older volunteers reported that they understood students much better as a result of their volunteering and the students felt they understood the old people through working with them in their roles as senior school volunteers.

The work of volunteers is becoming established due to the increasing number of healthy retired persons (Cull & Hardy, 1974). Many volunteers are becoming involved in school-related activities. "Because of the early retirement, better health care, and education, the senior citizen population is increasing yearly, and is a potent resource with the capacity to meet the needs of our schools" (Edna McConnell Clark Foundation, School Volunteer Program, 1975, p. 26). Older citizens want to share their talents if they are needed and valued. Senior volunteers can provide vital tasks toward the

schools' effectiveness and add an extra dimension to children's lives by sharing knowledge, experience, and talents. "Through the senior citizens' interaction with the youth . . . a greater understanding and respect between generations will evolve" (Edna McConnell Clark Foundation, School Volunteer Program, 1975 p. 28). Freund (1971) stated that, "one major change taking place in education is the increasing use of supportive personnel in schools" (p.205).

Seltzer and Atchley (1971) felt stereotypes concerning old people are learned early in life, are relatively enduring, and have consequences for both behaviors toward old people and the development of one's self-concept as an old person. Stereotyping of senior citizens has been shown to exist among young children and contact with senior volunteers may be a way of lessening the stereotyping. Lane (1964) has suggested that contact between senior citizens and school students is important, in fact, "contact with well-adjusted oldsters who view their later years as positive will aid the learner in modifying his concept of older persons as cranky, ill-tempered, and 'sour on life'" (p. 230). Given the chance to interact with older persons in an educational setting, children will have better

information to deal with the stereotypes society projects toward aging and the elderly (Seefeldt et al., 1977).

Off Our Rocker (an intergenerational volunteer program) is a project which gives older individuals the opportunity to be a "special friend" to elementary school children. The project strives to utilize older persons as an intergenerational volunteer; to challenge stereotypes about older persons and fulfill older persons' needs for stimulation. Baggett (1981) considered kindergarten through third grade students who were selected on the basis of their need for special one-to-one adult attention given through the Off Our Rocker project. The CATE was used to measure attitude change (only the first three sections were administered). There was a significant decrease found in negative responses to active things done with older people and a significant increase in positive attitudes toward the concept of "old."

The authors found an unexpected change in increased positive attitudes toward the aged shown by the control group and suggested it was due to the situation, the project's design, and the implementation of the CATE (creating study limitations). Further, Baggett (1981) believes that informal interactions alone may not contribute to desired results in attitude change. The

volunteers ended up being tutors in the class and the program had aimed for a broader concept with the older persons being active in the classroom rather than the traditional passive assistant. Baggett found that teachers were fearful that the elderly might become ill or possibly die in the classroom. He believed a program for sensitizing teachers to the potential value of older volunteers would reduce their fears.

A study by Lambert, Guberman, & Morris (1964) and data collected by Worthington (1973) found that community service agencies were reluctant to use aged persons as volunteers. Lambert et al. found that there are specific obstacles in using seniors as volunteers. One major difficulty is the cultural stereotype of the older person. Worthington (1973) suggested that an orientation or training program be completed for the older volunteers with additional efforts directed toward educating agencies on using the potential of older adults. Sainer and Zander (1971), in employing senior citizens as volunteers for Project SERVE, used Worthington's recommendations for orientation sessions and overcame the hesitation in community agencies' use of senior volunteers.

The studies of Rosenblatt (1966), Lambert et al. (1964), and Worthington (1973), support the finding that

older persons are willing to volunteer, but they are selective in the work they do. Older persons do not volunteer just to keep busy. Lambert et al. identified the factors of transportation, payment, times, job preferences, and emotional support as being influential for older persons volunteering in the community. All three studies stress the older persons' desires to volunteer if the jobs made them feel useful. Rosenblatt (1966) found that the older individual does not find just any job worthwhile.

Summary

The literature reviewed has shown that educational programs featuring intergenerational contact and programs using prepared materials on aging can increase young people's knowledge and positive attitudes regarding aging and the elderly. There has been a lack of research, however, which provides a direct comparison of these two approaches or a comparison of either of these approaches with a combination of intergenerational contact and a curriculum on aging in relation to children. Furthermore, there have been few documented efforts to combine learning about aging with specific academic skills. This combination could enhance the adoption of curricula on aging by schools. The present study was designed to

develop and test the effectiveness of such an integrated curriculum.

This study was designed to determine whether greater change in attitudes toward the elderly would be effected by (1) a curriculum on aging taught by an older volunteer, (2) an older volunteer teaching a classroom subject such as spelling, or (3) a curriculum on aging taught by a classroom teacher. A control group with no special instruction was also used.

Several instruments assessing attitudes toward old people were also reviewed here. A modified version of the Tuckman-Lorge Old People Questionnaire (Tuckman & Lorge, 1953a) developed in a study by Olejnik and LaRue (1981) was utilized. This questionnaire was chosen because it had been widely used in previous research. The study by Olejnik and LaRue (1981) simplified the wording to facilitate comprehension by young subjects. A locally developed knowledge survey and attitude test was also utilized.

CHAPTER III METHODS AND PROCEDURES

The perpetuation of negative attitudes toward old people is a serious problem that affects aged persons and the young. This study attempted to assess the effectiveness of involving an old person in a teaching capacity in the elementary classroom to improve children's attitudes toward aging and the aged. Two experimental conditions were considered which involved older persons teaching either a curriculum unit on aging or teaching spelling. In a third treatment condition, instruction on the aging unit was provided by the regular classroom teacher. A fourth group of students was used for comparison as the control group.

The methodology for the study is presented in this chapter. It includes a description of the curriculum unit on aging and spelling lesson activities that were used. In addition, the subjects are described, as well as the hypotheses, research design, instruments, procedures, and analyses of data.

The Curriculum Unit on Aging

The curriculum unit on aging consisted of eight lessons, each lasting approximately 30 to 45 minutes

each was developed for this study. After reviewing several educational programs on aging, the experimenter selected several topics upon which to build the unit on aging for this study. Each lesson also involved developing student skills as required for fourth grade students according to the 1983 Marion County Basic Skills Continuum and the Florida State Student Assessment testing program. Included were two activities in language arts, two in mathematics/computations, two in social science-related activities, one in health/science, and one involving a film which focused on relationships between children and older persons (of an affective nature).

Each lesson consisted of teacher directions, student worksheet answer key, and student worksheets (see Appendix A for each lesson). Students received copies of the worksheets during class sessions under the direction of either the RSVP volunteer teacher or the regular classroom teacher and discussions focused on the assigned topic. The lessons were conducted twice weekly at regularly scheduled times. Completed materials were collected from the students at the end of each class session. During the final session, "To Find a Friend" (a film provided through the Growing Up-Growing Older

program) was shown and students were allowed free discussion as well as completing a worksheet.

Spelling Lesson Activities

Eight spelling lesson activities, which involved the regularly assigned spelling words for the four weeks of the project, were designed by the experimenter (see Appendix B for sample lessons). Three separate sets of spelling activities were developed for the three classrooms assigned to this treatment condition. The activities used were the same, but spelling words had to be adjusted within each to make it appropriate for the particular classroom. Each spelling activity lasted approximately 30 to 45 minutes and was conducted by the RSVP volunteer teacher. Each student received a worksheet for each of the eight lessons which was completed during the class periods.

Design of Study

A total of 381 fourth grade students from 12 fourth grade classrooms at three elementary schools in Marion County, Florida, were included in this study. The three elementary schools were selected on the basis of the similarities in school populations, the willingness of school personnel to assist in the study, and the

availability of four fourth grade class groups. Each classroom group was heterogeneous with respect to the variables of sex, race, and achievement level. The three schools had similar student populations in regard to size of school, racial make-up, socioeconomic status of students, and comparable state and national test scores. From each of the three schools, three classes were selected for participation in the treatment conditions. Intact classes were randomly assigned to treatments. There were three schools with four classrooms in each. The assignment of classrooms to treatments was balanced so that each treatment group contained three classrooms, one from each school as shown in Table 3-1.

Table 3-1
Number Of Students In Each Class And Treatment Condition

Trt Level	1			2			3			4 (Ctrl)		
Class	C ₁	C ₅	C ₉	C ₂	C ₆	C ₁₀	C ₃	C ₇	C ₁₁	C ₄	C ₈	C ₁₂
n	30	33	29	29	33	32	30	36	30	33	34	32

Test data were available on 381 students with attrition of 21 subjects due to insufficient subject identification

on materials, absences (three or more) during treatment activities and/or testing procedures, and withdrawal from the school center. The fourth grade level was selected due to its relationship to the third and fifth grade Florida State Student Assessment Tests (having specific skills sequenced into the fourth grade program) and the Marion County Basic Skills Continuum (which identifies basic skills taught in the fourth grade). These two skill programs were combined in the aging curriculum unit so students would review and/or be exposed to skills which fourth grade classroom teachers are responsible to teach. The experimenter also had teaching experience at this grade level and was familiar with student needs and learning levels. The effort to combine academic skill work with aging information was to encourage the adoption of aging education as an integral part of the curriculum.

The sample of 381 fourth graders serving as subjects consisted of 52% female, 48% male, 92% white, 6% black, 1% Hispanic, and 1% Asian. Students in the sample ranged from 9 to 11 years of age with the mean age of 9.6 years.

The class groups were randomly assigned to one of three treatment and one control groups in each of the three schools.

Treatment Group 1 - The students received direct instruction on aging through the prepared curriculum unit on aging taught by an RSVP volunteer teacher.

Treatment Group 2 - The students received instruction on spelling through prepared spelling lesson activities by a RSVP volunteer teacher.

Treatment Group 3 - The students received direct instruction on aging through the prepared curriculum unit on aging taught by the regular classroom teacher.

Control Group 4 - The students served as the control group and received only the pre- and posttesting.

Hypotheses

The following null hypotheses were tested to address the research questions listed in Chapter 1. The .05 level of significance was used as the minimum for rejection of each null hypothesis.

H_0_1 : There will be no significant difference among the adjusted posttest means of the four groups on the Tuckman-Lorge Old People Questionnaire.

H_0_2 : There will be no significant difference among the adjusted posttest means of the four groups on the knowledge survey.

H_0_3 : There will be no significant difference among the adjusted posttest means of the four groups on the locally developed attitude test.

In using the analysis of covariance, the assumption is made that there is no interaction between covariate and treatment (i.e., between pretest and treatment). Therefore in each analysis, an additional hypothesis (homogeneity of regression line slopes) was tested for the four groups.

Research Design

The research design used in this study was a quasi-experimental-control group pretest-posttest design (Ary, Jacobs, & Razavieh, 1979). The experimenter worked with intact classes as it was not possible to use randomization procedures with individual students. Of those classes used in the study, each was randomly assigned to experimental and control conditions through the use of a table of random numbers.

Instruments

Three separate measures were used in this study. All pre- and posttesting was done in the classrooms by the regular classroom teachers. The three instruments in the

pre-test condition were administered one week prior to the initiation of treatments and one week following the treatment condition the posttesting was completed. Each assessment measure was read by the teacher using specific instructions and reading each item aloud.

A modified version of the Tuckman-Lorge Old People Questionnaire (Tuckman & Lorge, 1953a) developed through a study by Olejnik and LaRue (1981) was utilized. To measure perceptions of the aged, a list of 36 statements were read to the students. Subjects were asked to respond to items as "true" or "false" according to whether they agreed with the statement (or not) as related to old people. This questionnaire was chosen because it has been widely used in previous research and because the stimulus-group validity of the instrument had been previously established (Axelrod & Eisodrofer, 1961). In the study by Olejnik and LaRue (1981), the wording of several items was simplified to facilitate comprehension by young subjects (see Appendix C). The measure, referred to as the TL, was administered as a pre- and posttest for all experimental and control groups.

A knowledge survey was developed by the experimenter for use in this study. The survey consists of 22 multiple choice items and is based on concepts presented

in the curriculum unit. The knowledge survey examines what aging information the students' understood following the curriculum unit on aging (see Appendix D). The measure, referred to as KS, was administered as a pre- and posttest to all experimental and control groups.

The third measure was a 14 item list of statements concerning attitudes toward old people and aging which was added to the modified Tuckman-Lorge Old People Questionnaire. These statements were developed by the experimenter to assess students' endorsement of personal interactions with people over 60 years old and to further examine the students' attitudes toward old people (see Appendix C, items 37-50). The statements, being part of the TL, were administered to all experimental and control groups as a pre- and posttest measure and is referred to as the AT.

Experimental Procedures

This study began in February of 1984. It encompassed 10 weeks and ended in April of 1984. After identifying the four classes in each of the three schools, classes were randomly assigned to experimental and control groups and pretested, using the modified Old People Questionnaire, the knowledge survey, and the second attitude test.

A pilot study had been conducted in September of 1983. The pilot study allowed the experimenter to administer all tests and curriculum unit on aging activities to determine the appropriateness of materials, timing of activities, effectiveness of instructions, and to work with fourth grade students directly. Data from this pilot study were used to identify areas needing minor modifications of directions and/or specific activities within the aging curriculum unit. It was also used in refining teacher instructions.

In January of 1984, school administrators were contacted by mail requesting permission to meet with them concerning the project. Once administrative approval was obtained, fourth grade teachers whose classrooms were involved in the study met with the experimenter to explain the study's general activities. In assigning classrooms for specific treatment groups, school administrative personnel were given the opportunity to make recommendations as to the appropriateness of the random selection of treatment groups. Upon assignment of a particular treatment, each teacher was given materials to review. The teachers teaching the unit on aging met weekly to make recommendations concerning completed activities and to prepare for the next sessions. Out of

the 12 fourth grade teachers involved in the study, two were male. One male was assigned to treatment two and one to the control group.

Each teacher who participated in the study received "county inservice points" which accumulate toward teacher certificate renewal. Point accumulation depended on attendance at all training sessions, the completion of study questionnaires and activities (such as assisting volunteers, written evaluations of study units and total study, and collection of data concerning student comments and responses). Teachers were awarded varying point totals (based on the extent of their participation) in the Marion County Schools inservice component for use of paraprofessionals.

Volunteers were recruited through the Ocala, Florida office of the Retired Senior Volunteer Program. Upon contacting the RSVP office and making a request for six volunteers, a mailout asking for interested persons was issued. There were no stipulations as to sex, age, race, or experience. Of the 12 individuals who responded, telephone contact was made to answer general questions regarding the study. Six female volunteers from (60 to 78 years of age) were invited to participate in the study after interviewing those individuals who responded to the

announcement for service openings. The six selected for the study were chosen based on interest, availability at specific times during the day and week, and available transportation. All six had grandchildren, were at least high school graduates, had been previously employed (two were still employed part-time), and four had been involved in education during their employment experiences.

The volunteers had three group sessions (involving all six volunteers), the first of which was a general information session, the second a training meeting concerning actual classroom activities, and the third an evaluation session after the classroom sessions were completed. During the first meeting, the overall study was reviewed and specific assignments were given as to school and treatment group. As much as possible, assignments were made to match the volunteers' schedules, transportation needs, and instructional interests. Questionnaires concerning background information were also completed during this first session. The second meeting related to specific duties with their assigned experimental group. Volunteers also met with the experimenter before each classroom presentation to review the class lesson (spelling and aging) to be sure that

materials were understood and all questions regarding the presentation were answered. The final meeting reviewed the project and discussion was held on the volunteers' reactions to assignments, lessons, students, and the overall study.

Each of the three schools in the project had school volunteer programs in operation and were organized to accept the RSVP volunteers on campus. The state of Florida encourages public schools to utilize volunteers and gives statewide recognition to those schools having exemplary volunteer activities. The volunteers who participated in this study were counted as part of the elementary schools' volunteer programs (one of the elementary schools received a state award for the program and the study volunteers were part of the individual school's project). All volunteers reported being well received and treated with courtesy and respect by students and staff alike.

One week prior to the beginning of the treatment sessions, the three test measures were administered by the classroom teachers to all groups. The treatment condition lasted for the next four weeks, and one week following the end of the treatments, the three test

measures were again administered by the regular classroom teachers to all groups.

Analyses

Based on its usefulness for controlling initial random differences between levels of experimental groups, the analysis of covariance (ANCOVA) was selected to analyze the data collected. The analysis of covariance controls for initial random differences among groups on the pretest and also reduces within-group variance on the posttest due to pretest differences. In this way it provides for a more powerful analysis of treatment effects.

Before applying ANCOVA, the homogeneity of regression slopes (no interaction between pretest and treatment) was tested. Other conditions of normality, independence, and equality of error variance were also assumed, but ANCOVA is considered to be fairly robust against slight violation of the latter three assumptions.

CHAPTER IV RESULTS OF THE STUDY

This study was an attempt to identify the effectiveness of intervention strategies in changing fourth grade elementary students' attitudes toward old people. The three strategies investigated include an old person teaching a curriculum unit on aging, an old person teaching a regular spelling lesson, and the regular classroom teacher teaching a curriculum unit on aging. Two attitude tests were used to examine students' attitudes and one knowledge test was used to identify concepts students learned through the curriculum unit on aging.

Students in the three experimental and one control groups were pre- and posttested using the modified version of the 1953 Tuckman-Lorge Old People Questionnaire (Olenjik & LaRue, 1981) and the two locally developed instruments, the 14-item attitude test and the knowledge survey. The knowledge survey was based on the concepts presented in the aging curriculum unit. Students in the four fourth grades at the three elementary schools were randomly assigned to the experimental treatments. Students assigned to Group 1 received instruction from an RSVP volunteer teacher in

the curriculum unit on aging; students in Group 2 received instruction on regularly assigned spelling lessons from an RSVP volunteer teacher; students in Group 3 received instruction in the curriculum unit on aging by the regular classroom teacher; and students in Group 4 served as the control group and received only pre- and posttesting.

Pre- and posttest data from the three measures used in the study were collected for 381 students. An analysis of covariance was used to test each of the null hypotheses at the .05 level. Pretest scores were used as covariates. Independent variables were treatment and classroom nested within treatment. Post hoc pairwise comparisons of groups means were completed where a significant treatment effect was found.

Descriptive Statistics

Table 4-1 presents the means and standard deviations for the three experimental and single control groups on the pre- and posttest measures. Specifically, the modified Tuckman-Lorge Old People Questionnaire (TL) and the two locally developed tests, the knowledge survey (KS) and the 14-item test on attitudes toward aging and the aged (AT). The Kuder-Richardson formula 21 was used as the reliability estimation procedure for each of the

Table 4-1

**Pre- And Posttest Means And Standard Deviations
By Treatment Group And Test Administered**

	Treatments				Control				
	1 (n=92)	2 (n=94)	3 (n=96)	4 (n=99)	Pre	Post	Pre	Post	
Test	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
TL	\bar{X}	13.44	16.26	10.57	15.74	14.16	14.11	14.06	13.21
	sd	6.59	7.62	7.09	7.70	6.50	8.93	6.18	7.07
KS	\bar{X}	14.94	16.24	13.76	15.09	14.16	15.07	14.06	14.01
	sd	4.20	5.97	6.20	5.03	5.05	7.03	5.90	5.83
AT	\bar{X}	11.45	12.25	9.68	11.36	11.09	10.95	11.34	11.09
	sd	4.48	5.42	5.01	4.52	4.29	5.79	4.46	4.86

three test measures. The reliability coefficients, which were considered adequate for this study, are provided in Table 4-2.

Table 4-3 presents the adjusted means and standard error of the mean for the three experimental and single control groups on the posttest measures. These scores are for the modified Tuckman-Lorge Old People Questionnaire (TL), the knowledge survey (KS) and the attitude test (AT).

Effects of Instructional Strategies

Three separate analyses of covariance were performed using the Statistical Analysis System (SAS) general linear models procedure on the Northeast Regional Data Center computer system at the University of Florida. One model was completed for the modified 1953 Tuckman-Lorge Old People Questionnaire (TL), the second for the knowledge survey (KS), and the third for the experimenter designed attitude test (AT).

The first analysis was for the modified version of the Tuckman-Lorge Old People Questionnaire (TL). The TL was administered to classrooms in the experimental groups and the control group. For the analysis of covariance, pretest scores on the TL were used as the covariate and

Table 4-2
**Reliability Estimates Computed By
 The Kuder-Richardson Formula 21**

Test	Treatments				Control			
	1	2	3	4	Pre	Post	Pre	Post
TL	.82	.86	.87	.81	.81	.91	.77	.89
KS	.76	.92	.93	.84	.83	.94	.88	.88
AT	.96	.99	.94	.96	.93	.99	.95	.96

Table 4-3

Adjusted Posttest Means And Standard Error Of
 The Mean By Treatment Group And Instrument
 Administered

Tests		Treatments			Control
		1 (n=92)	2 (n=94)	3 (n=96)	4 (n=99)
TL	\bar{X}	15.83	17.03	13.79	12.83
	sem	.78	.74	.79	.84
KS	\bar{X}	15.95	14.95	15.03	13.97
	sem	.64	.64	.59	.58
AT	\bar{X}	12.06	12.18	10.78	10.98
	sem	.53	.52	.49	.49

posttest scores were used as the dependent variable. The first hypothesis was of main interest.

H_0_1 : There will be no significant difference among the adjusted posttest means of the four groups on the modified Tuckman-Lorge Old People Questionnaire (TL).

As shown in the upper panel of Table 4-4, the interaction between subjects' initial attitudes toward old people determined by pretest scores, and the treatment had no significant effect on posttest scores ($F=.48$ with $p > .70$ at 3 and 8 degrees of freedom). Because of the nesting of classes within treatments, the mean square (MS) for the interaction of pretest with classes within treatments, $TC*CL(TRT)$, was used as the error term in constructing the F statistic. This result indicates that the assumption of homogeneity in slopes, required for the use of ANCOVA, was met.

The ANCOVA for the reduced model was utilized for further analysis. As shown in the lower panel of Table 4-4, the F test for the covariate remained significant at $p > .0001$ and a significant treatment effect was found at $p > .03$. The mean square for the nested class-within-treatment factor served as the error

Table 4-4

Results For Modified Tuckman-Lorge Old People
Questionnaire (TL)

<u>Source</u>	<u>DF</u>	<u>SS</u>	<u>F</u>	<u>PR > F</u>
TLPRE	1	5302.95	119.44	.0001
TRT	3	199.90	1.50	.2126
CS(TRT)	8	253.59	.71	.6793
TLPRE*TRT	3	103.21	.48	.7045
TL*CS(TRT)	8	572.12	1.61	.1202
ERROR	357	15850.71		

TLPRE	1	5736.75	127.61	.0001
TRT	3	903.61	4.52	.0390
CS(TRT)	8	532.74	1.48	.1623
ERROR	368	16544.07		

term in testing for a treatment effect. There was no significant effect due to classes within treatments.

The post hoc follow up of pairwise comparisons of adjusted posttest means (LS means) is displayed in Table 4-5. There was a significant difference found between treatment group 2 and control group 4 with $F(1,2)= 14.12$, $p > .01$.

H_0_2 : There will be no significant difference among the adjusted posttest means of the four groups on the Knowledge Survey (KS).

The second model included the knowledge survey pretest scores as the covariate and the knowledge survey posttest scores as the dependent variable. The upper panel of Table 4-6 displays the results of testing for the effect of interaction between student knowledge about aging, as determined by pretest scores, and treatment on posttest scores. The KS pretest treatment interaction was not significant ($F = 1.07$ with $p > .41$ at 3 and 8 degrees of freedom) supporting the assumption of homogeneity of slopes.

The ANCOVA for the reduced model revealed no significant effect of the treatment on posttest scores. There remained a significant covariate effect, but again the class-within treatment effect was not significant.

Table 4-5

LS Means And Differences* Between Pairs Of
LS Means For The Groups

Treatment	LS Means (Std.Err.)	Treatments			Control
		1	2	3	4
1	15.68 .78	-	-1.13	1.67	2.91
2	16.81 .74		-	2.80	4.04**
3	14.01 .70			-	1.24
4	12.77 .69				-

* Difference was computed by row - columns

** Significant at .05 level

Table 4-6

Results For The Knowledge Survey (KS)

<u>Source</u>	<u>DF</u>	<u>SS</u>	<u>F</u>	<u>PR > F</u>
KSPRE	1	781.21	23.48	.0001
TRT	3	77.15	.77	.5129
CS(TRT)	8	355.92	1.34	.2238
KSPRE*TRT	3	140.27	1.07	.4162
KSPRE*CS(TRT)	8	351.04	1.32	.2327
ERROR	357	11880.07		

KSPRE	1	848.53	25.19	.0001
TRT	3	188.99	1.95	.1999
CS(TRT)	8	258.20	.96	.4686
ERROR	368	12396.10		

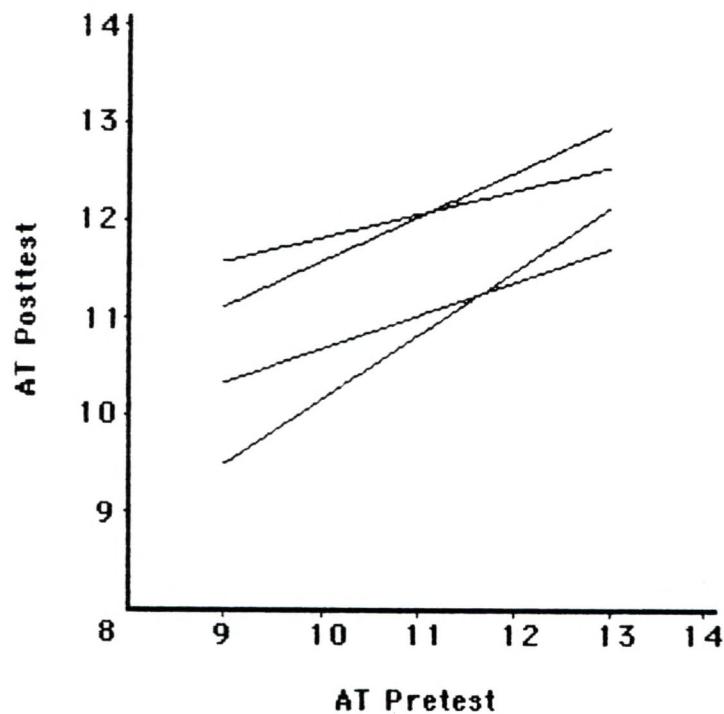
H_0_3 : There will be no significant difference among the adjusted posttest means of the four groups on the locally developed Attitude Test (AT).

The third model of analysis was for the locally developed attitude test (AT). The AT was administered to classrooms in the three treatment groups and the single control group. Pretest scores on the AT were used as the covariate, AT posttest scores were used as the dependent variable. As displayed in the upper panel of Table 4-7, a significant interaction between pretest level and treatment was found with $F = 5.38$, $p > .02$ with 3 and 8 degrees of freedom, indicating that the assumption of homogeneity of slopes was violated. Therefore, a standard analysis for ANCOVA on AT scores could not be done, and H_0_3 could not be tested.

To illustrate the nature of the significant interaction of treatment and pretest, Figure 4-1 displays four lines depicting the general relationship between pretest and posttest for each of the four treatment groups. Strictly speaking, these are only approximations of the regression lines, as the slope for each line was calculated by averaging the slopes of the three separate class-within-treatment regression lines and the

Table 4-7
Results For The Attitude Test (AT)

<u>Source</u>	<u>DF</u>	<u>SS</u>	<u>F</u>	<u>PR > F</u>
ATPRE	1	1369.61	59.56	.0001
TRT	3	185.89	2.69	.0451
CS(TRT)	8	120.65	.66	.7303
ATPRE*TRT	3	162.70	5.38	.0254
ATPRE*CS(TRT)	8	80.66	.44	.8976
ERROR	357	8209.58		



**Figure 4-1. Effect Of Treatment On Fourth Grade
Examinees At Different Levels Of
Pretest Scores**

intercepts were calculated in similar fashion (see Table 4-8). This approach was chosen for clarity after examining the 12 individual regression lines.

Summary

The effectiveness of three different teaching strategies, two of which involved older persons in teaching about aging or teaching spelling and one which involved the regular classroom teacher teaching about aging, in fourth grade classrooms to improve children's attitudes toward old people was investigated. Three separate treatment conditions were examined through the use of three testing instruments. Test scores were analyzed using the analysis of covariance. According to this analysis, there were significant differences among the adjusted posttest means of the four groups on the modified Tuckman-Lorge Old People Questionnaire. Post hoc analyses indicated a significant difference between attitudes of the control group and the group taught spelling by the older volunteer. There was no significant difference among adjusted posttest means on the locally developed knowledge survey. A pretest by treatment interaction occurred for the locally developed attitude test measure.

Table 4-8

Slopes And Intercepts For Regression Of Posttest
On Prestest Score For Each Class-Within-Treatment

Treatment Group	Class	Slope	Intercept
1	1	9.43	.22
	5	9.58	.22
	9	8.59	.35
2	2	5.38	.55
	6	8.15	.39
	10	6.75	.54
3	3	2.63	.71
	7	1.49	.83
	11	6.68	.43
4	4	5.66	.37
	8	7.13	.36
	12	9.57	.24

CHAPTER V
SUMMARY, CONCLUSIONS, LIMITATIONS,
RECOMMENDATIONS, AND IMPLICATIONS

Summary

This study examined the effectiveness of intervention strategies in changing fourth grade elementary students' attitudes toward old people. The three strategies investigated included an old person teaching a curriculum unit on aging, an old person teaching a regular spelling lesson, and the regular classroom teacher teaching a curriculum unit on aging. The three schools involved in the study were part of the Marion County Public School System in Ocala, Florida. Of the 12 classrooms participating in the study, one class from each school was randomly assigned to one of the three treatment groups or to the control group.

The total study lasted for eight weeks. During the first week, the students in the experimental and control groups were pretested using a modified version of the 1953 Tuckman-Lorge Old People Questionnaire (first used by Olejnik and LaRue in 1981) and a locally developed knowledge survey and attitude test. During weeks three through six, students in the experimental groups participated in one of the three treatment sessions.

Treatment 1 consisted of an RSVP volunteer teacher teaching a curriculum unit on aging which lasted for four weeks. Treatment 2 involved an RSVP volunteer teacher teaching the regular spelling lessons for a period of four weeks. Treatment 3 consisted of the regular classroom teacher teaching a curriculum unit on aging during the four week period. During week eight, students assigned to both the experimental and control groups were posttested utilizing the three test measures (the same as pretests).

The data collected through the three instruments were examined using an analysis of covariance to analyze the results of each test. Pretest scores served as covariates, with independent variables being treatment and classroom nested within treatment.

Three null hypotheses were tested at the .05 level of significance. The first null hypothesis to be examined focused on the determining if there were differences among the adjusted posttest means of the four groups on the modified Tuckman-Lorge Old People Questionnaire. The ANCOVA revealed a significant treatment effect. Post hoc pairwise comparisons of the adjusted posttest means showed a significant difference between treatment group 2 and control group 4. Overall,

the pairwise comparisons indicated that there were no significant differences due to what the older persons taught (i.e., the unit on aging or spelling) or between the older persons and the regular teacher. There was a significant difference between the older person teaching spelling (treatment 2) and the control group. Based on the ANCOVA, the null hypothesis related to the Tuckman-Lorge Old People Questionnaire was rejected.

The second null hypothesis concerned whether there were significant differences among the adjusted posttest means of the four groups on the locally developed knowledge test. The ANCOVA did not show a significant treatment effect, therefore the null hypothesis was retained.

The third null hypothesis was that there would be no significant difference among the adjusted posttest means of the four groups on the locally developed Attitude Test. The ANCOVA procedure showed a significant interaction between pretest level and treatment. Because of the violation of homogeneity-of-slopes assumption, the standard ANCOVA could not be used, and the hypothesis could not be tested.

Regression lines for the treatment groups were examined to clarify the interaction effects between

treatments and pretest scores. While interpretations are based on visual inspection of data and not on tests of statistical significance, the lines in Figure 4-1 show that the posttest scores were generally higher for treatment groups 1 and 2 (both taught by older persons) than for groups 3 and 4 (taught by the regular teacher and the control group). Moreover, differential effects were observed depending on the student's initial attitude toward old people. Considering those students who initially had low attitudes, the order of predicted posttest scores was $Y'_1 > Y'_2 > Y'_4 > Y'_3$, where Y' indicates the predicted posttest score and the subscript indicates the treatment group. If an individual initially had positive attitudes as measured by a high attitude pre-test score, the order of predicted posttest scores was $Y'_2 > Y'_1 > Y'_3 > Y'_4$.

It is interesting to note that for treatment groups 1 and 2, students with lower pretest scores (e.g., pretest scores less than 10) had higher posttest scores if taught about aging by an older person than if taught spelling by an old person. In contrast, students with higher pretest scores (e.g., above 11) had more positive posttest scores if taught spelling by older person than when taught about aging by an old person.

Conclusions

Based on examining the pre- and posttest mean scores, one general conclusion from this study is that the experimental treatments have a positive effect on students' attitudes toward aging as measured by the modified version of the 1953 Tuckman-Lorge Old People Questionnaire. A similar trend was observed on the locally developed attitude test, but interpretation of this effect was complicated by the presence of an interaction between students' initial attitudes and treatment.

In considering pairwise comparisons related to the first null hypothesis, the students receiving spelling instruction by an older person had significantly higher attitude scores on the modified Tuckman-Lorge Old People Questionnaire than the control group. There was an observed difference, though not at the level of significance, between treatments utilizing the older person teaching the unit on aging as compared to the control group. Another observed difference was between the older person teaching spelling as compared to the regular classroom teacher teaching the unit on aging. The one significant contrast and the consistent trend in the other comparisons of means may indicate that what the

older person taught is not as important as having an older person in the classroom to positively influence students' attitudes.

Limitations

The following limitations of this research study were recognized:

1. The population included in this study could have been affected by the schools having an on-going volunteer program in which individual volunteers serve as "teacher helpers." Students being exposed to older people who were working in this role may have affected treatment results.
2. The control group could have been affected by the pre- and posttesting as well as sharing information with other students about other treatment group activities that were occurring in their school. Further, the pretesting could have sensitized students to the content of the treatment. The results might not be found had the students not been pretested.
3. The experimental results may have been influenced by the treatment activities being unusual as compared to the regularly scheduled classroom routines. Positive attitudes might have been found due to the students' reactions to activities involved in the

treatments being more interesting than the usual classroom schedule.

4. The 1953 Tuckman-Lorge Old People Questionnaire is not a strictly standardized measure and a modified version of the questionnaire was used for this study. However, it was felt that the previous efforts to insure its validity were sufficient for the purposes of this activity.

5. The two instruments, the knowledge survey and the attitude test, which were designed by the experimenter, are not standardized measures and were developed solely for this study.

Recommendations

The following recommendations are made based on the results of this investigation:

1. Many students in elementary school could benefit from learning about aging while reinforcing academic skills simultaneously. With materials on aging which identify what academic skills are being taught, more schools and teachers could be motivated to incorporate curriculum on aging into their scheduled class time. Students could benefit by learning through application on age-related topics and enhance their academic skill development.

2. In teaching on aging, the curriculum program should be extended in length. The brievity involved in presenting the curriculum unit in this study should not be applied to a fully implemented program to teach about aging and the aged.

3. Implementing instruction on aging and involving older persons should occur at primary grade levels, beginning in kindergarten. In this way, attitudes toward aging and the aged would be more accurate, flexible, and accepting.

4. Continued research is needed to develop tests to assess children's attiudes toward aging and old people. Finely calibrated instruments which measure changes in attitudes, are specifically for use with children, and provide ease in test administration will be important for future study.

5. Future research should consider including qualitative information with the quantitative analysis to enhance the analyses used and supplement data collections.

6. Longitudinal studies are needed in order to assess lasting changes in attitudes. Strategies for improving children's attitudes toward aging and old

people should be studied in relation to their effectiveness over time.

7. A more diverse group of students might yield different results in incorporating other recommendations. The students in the three schools were not representative of the total population and by extending the number and types of students involved in the program, there might have been variation in the results obtained.

8. Older persons are stimulated by the use of their skills and experience. The RSVP volunteers were very dependable and involved in their responsibilities. Each enjoyed working with the children and reported favorable responses. Teachers were given some time to observe students during the time the older volunteers were working with the classroom groups. Through the use of older volunteers in the school setting, students, teachers, and older persons receive benefits from interacting with one another. The volunteers give of their time freely and have many talents to offer the schools.

9. Involving older persons in the schools will increase the possibilities of intergenerational contact and communication while extending the number of old persons to whom the children are exposed.

10. When using older volunteers, in-service programs are vital to the success of the project. The older volunteers in this study were anxious to know their exact responsibilities and what was expected. The follow up activities and regular support was very important to each individual.

11. Older persons should be utilized in a variety of levels within the schools. This could include in classrooms, the school office, the library, and other appropriate facilities or programs at schools. To have the older volunteers working only as a teacher's helper restricts their role and the perceptions of both students and school staff regarding the elderly.

Implications for Research and Practice

Longitudinal studies would be important and an appropriate next step in examining children's attitudes about aging and old people. With the appropriate instrumentation, classroom cohorts within schools could be followed in order to identify developmental patterns of aging attitudes and to determine effective strategies which influence children's attitude development regarding aging and the aged.

Study findings and the curriculum and instruments developed for this study have useful implications for

educational practice. The curriculum and instruments, which appear reliable, should be used in other settings and may have usefulness for other research efforts. The findings indicate that older persons may make a positive contribution to the elementary school curriculum when the goal is to affect attitudes toward aging. Furthermore, it does not seem especially beneficial to restrict the older volunteer to only teaching about aging. Schools should encourage interaction between older persons and children through involving old people in school volunteer programs, special projects such as this study, and as informational resources to teach on particular topics, including academic subjects.

The pretest treatment interactions detected for the third instrument in this study is a phenomenon that would also merit future investigation. It would be interesting to determine if this pattern of interactions occurs in future studies using other samples of students, teachers, and older volunteers.

APPENDIX A

A SAMPLE FROM THE CURRICULUM UNIT ON AGING

(A complete curriculum unit on aging is available for a nominal charge through the researcher. Write Post Office Box 373 - Ocala, FL - 32678 to order a copy of the materials.)

THE EFFECT OF UTILIZING OLDER PERSONS IN THE CLASSROOM UPON STUDENTS' ATTITUDES TOWARD AGING

South Ocala - Wards Highlands - Wyomina Park
Elementary Schools

RATIONALE

We all know something about aging, but often what we "know" is based on myths and stereotypes. These myths that concern aging are pervasive throughout our culture and are reinforced through our language, humor, and the media. Because of this, our society looks upon aging from a very negative view and expects those who are aged to behave according to stereotypes that we hold as truths. In our society, we also tend to separate people by age groups, particularly the young from the old, in housing, work, recreation, and other areas. The lack of contact between young and old strengthens and perpetuates these misrepresentations of aging. As a result of the socialization process, most Americans, especially the young, have false information and negative attitudes concerning older persons.

Because the children now being educated in our schools will be the most longeuous generation of Americans so far, it would be an injustice to let these attitudes go unchallenged. Individuals can influence how they will grow older and to let students continue with the perception that it is inevitably bad to grow old is to write off their futures - for both themselves and our society.

This experimental project is designed to dispute some of the prevailing myths about growing old, to provide students with more complete information and to assist in the development of more positive attitudes about aging and older persons. The unit will investigate the students' attitudes about aging by questionnaires and activities which assess their knowledge on particular topics relating to aging. The effect of using older volunteers and classroom teachers in teaching about aging will also be explored. A curriculum package has been formulated for this project and will be used for instructional purposes in the designated classrooms. Ultimately, it is hoped that students will begin to recognize older people as individuals who have their own ideas, values, and attitudes, many of which are similar to those of the students themselves.

DIRECTIONS FOR PROGRAM ADMINISTRATION

Prior to beginning the program utilizing the volunteers and the aging curriculum package, the knowledge test and the attitude questionnaire will be administered in each fourth grade classroom (including the control group). Instructions for using these materials are included in the teacher's guide. It will also be necessary to have the students complete the student information sheet. These activities will involve the regular classroom teacher through reading the directions accompanying each assessment and answering questions the students may have.

The attitude questionnaire, knowledge test and student information sheet must be administered the week before the older volunteers begin working in the classroom. (Estimated time for all preliminary activities: 25 to 30 minutes.) These activities will probably best fit into one's regular schedule by handling each separately, rather than during one time period.

There will be four conditions utilized in this program. The materials have been developed based on fourth grade skill requirements and involve eight lessons. The specific conditions include the following:

Classroom 1 - RSVP VOLUNTEER teaching the aging curriculum package

Classroom 2 - RSVP VOLUNTEER teaching the weekly spelling lesson

Classroom 3 - REGULAR TEACHER teaching the aging curriculum package

Classroom 4 - CONTROL GROUP with no special activities other than pre- and post-testing and student information sheet.

Classes will meet twice a week for at least thirty minutes each lesson. The eight topics will be covered in four weeks. After the completion of the lessons, the regular classroom teachers will administer the knowledge test and attitude questionnaire to the students in the week following the last session.

Each lesson in the curriculum package on aging addresses the fourth grade skills list that is part of the Marion County Basic Skills Continuum. The teacher's guide includes information pertaining to the specific skills that are included in the activities. Although these materials do not provide documentation of these skills, it may prove helpful in providing students practice on those identified.

After the project has been completed, teachers that are involved with the volunteers in the classroom and/or preparation will be awarded inservice points for the time spent in these activities. This will be given through component number 1-86-0147 of Marion County's inservice program.

THE UTILIZATION OF OLDER VOLUNTEERS IN THE CLASSROOM

Objective: To study the effects of aging education curriculum and utilization of older persons in the classroom setting on the attitudes and knowledge of elementary school children toward the elderly.

Design: Three elementary schools will be involved, with the focus being on fourth grade classrooms, there will be 3 "treatment" groups and one control group. The specific activities will be as following:

- | | | |
|----------------------|-------------------------------------|-----------------------|
| 1. RSVP volunteer | teaching aging curriculum package | pre- and post-testing |
| 2. RSVP volunteer | teaching regular spelling program | pre- and post-testing |
| 3. Classroom teacher | teaching aging curriculum package | pre- and post-testing |
| 4. Control group | no special activities-only observed | pre- and post-testing |

The volunteers and teachers will be involved in short weekly preparations on the lessons to be presented. Volunteers will also be in training specifically designed to enable them to work effectively with students.

*Teachers who are involved in this project will receive INSERVICE POINTS for working with the project volunteers.

*The schools utilizing this project may count the volunteers' service hours as part of their current school volunteer program.

The Curriculum Unit on Aging consists of eight 30 to 45 minute lessons. These lessons will be taught twice a week, lasting four weeks in the school.

The eight lessons include:

- 2 topics in the language arts/reading area
- 2 topics in the mathematics/computations area
- 2 topics in social studies related activities
- 1 topic in health/science area
- 1 topic involving a film focusing on the relationships between children and old persons

*Each lesson has been tied to the fourth grade skills list that is part of the Marion County Basic Skills Continuum. Additional skills from other grade levels are also included.

The class involving spelling instruction being taught by an RSVP volunteer will also meet twice a week for the same time period. The instruction will focus on the spelling words for each week and presented through dictionary use, word meanings, sentence construction and/or completion, word searches, and crossword puzzles.

The pre- and posttest will have two components. The first being a knowledge test which is part of the aging curriculum's focus and the second involving the students' attitudes toward elderly persons. All of the classrooms will have this test administered before the volunteers begin teaching and after the volunteers complete their instructional activities.

The RSVP program of Marion County has offered its services through the Ocala Vision Office. Several individuals have volunteered and every attempt will be made to find individuals who will be able to adjust to the school program.

Activities

(These are listed in the order of presentation.)

LESSON ONE	BEING WISE AT AN EARLY AGE!	Teacher Directions Student Worksheet
LESSON TWO	LIVING EACH DAY OF YOUR LIFE!	Teacher Directions Student Worksheet
LESSON THREE	AT A GOOD AGE!	Teacher Directions Student Worksheet
LESSON FOUR	LIFE AT ITS BEST!	Teacher Directions Student Worksheet
LESSON FIVE	LOOKING AT SOCIAL SECURITY	Teacher Directions Student Worksheet
LESSON SIX	WHERE DO PEOPLE LIVE?	Teacher Directions Student Worksheet
LESSON SEVEN	THE CYCLE OF LIFE	Teacher Directions Student Worksheet
LESSON EIGHT	THE GIFT OF TIME	Teacher Directions Student Worksheet

Index of Skills

This listing of skills is taken from the Marion County communication and mathematics skills continuum for fourth grade. Although this aging curriculum does not contain sufficient numbers of items to document mastery, the practice involved in each activity supports the development of required specific skills.

<u>Lesson</u>	<u>Area</u>	<u>Skill</u>
Being Wise at an Early Age!	R R W	C16 F29 G54
Living Each Day of Your Life	R R R R W	B10 C13 C15 C16 C23
At a Good Age!	R M M M M	C13 F47 F49 F50 Q111 (Exposure to Q115 higher level of diffi- culty)
Life at its Best!	R R W M M M	F25 F26 B15 E39 E40 E42
Looking at Social Security	R R W W W M	C15 F26 A 5 C23 H64 A 5

Where do People Live?	R	C16
	R	F26
	M	Q111
	M	Q115
The Cycle of Life	R	C15
	R	E23
	W	A 5
	W	B16
The Gift of Time	R	C13 (As relating
	R	C15 to the film
	R	E22 shown in
	R	E23 class.)
	W	A 5
	W	C23

R - Reading Skills

W - Writing Skills

M - Mathematics Skills

TEACHER DIRECTIONS

Being Wise at an Early Age

Materials needed: Dictionaries for each student (or copies for students to share)
Worksheet of vocabulary words

This exercise is to familiarize students with specific vocabulary terms that are related to aging. The following steps may be utilized in completing this lesson.

1. Distribute dictionaries to students. The students may need to share copies of the dictionaries if enough books are not available. If sharing books, try to limit the number of students to two students per dictionary.
2. Pass out a copy of the worksheet that accompanies this activity to each student.
3. Read the directions to the students. (The directions are also written at the top of the worksheet.) You may begin by saying:

For this worksheet, you will use your dictionary to look up each entry word and find out what it means. Write down each word's meaning. Look for the dictionary guide words on page where you find each entry word. Write the guide words in the space below the word's meaning.

Some of the words may not be in your dictionary. I will help you with the words that are not in your books. Let's do these together. When you find the meaning of the entry word, raise your hand. I will ask you what page the word is on in the dictionary. When everyone is on the right page, write down the meaning of the entry word. Next write the guide words that are listed on that page.

Now, the first entry word is elderly. Look up the word and then raise your hand when you find what page it is on in your dictionary.

4. Go through each word listed on the sheet. You may write the word's meaning on the blackboard to help students stay together. Go slowly so that everyone can find the correct page the word is on in the dictionary. The guide words are written at the top of the pages. After students have completed the first two or three words, they will understand better what is expected of them. Be sure to call on students who raise their hands to give the page number. Then after everyone turns to the correct page, the student can read the meaning for that word.
5. At the end of the sheet is a question concerning stereotypes. You may need to help the students get started by giving a stereotype that they will be able to use as a springboard for coming up with their own. This might include something like, "Old people are always hard of hearing," or "Old people are always sick." Stress the fact that a stereotype is not true of all people, but something others believe to be true even though there are no facts to support the idea. The directions on the worksheet are as follows:

Can you think of some stereotypes people have about elderly persons? Write your ideas on the lines below. You may use the back of this sheet if you know of several different stereotypes.

6. Ask the students to be sure that they have put their names on the papers. Give them time to attempt at least two stereotypes of their own about elderly persons (not using the one or two examples that you give in class). Then ask each student to place their name tags back into their folders and collect the folders and worksheets.

Please leave the student folders and tags in the classroom. Return the completed worksheets to the designated area for project use.

PLEASE write your comments concerning this lesson on the back of this direction sheet!

NameSchool

Being Wise at an Early Age!

Use a dictionary to look up each entry word and find out what it means. Write down each word's meaning. Look for the dictionary guide words on the page where you find each entry word. Write the guide words in the correct space.

1. elderly - _____

guide words: _____

2. gerontology - _____

guide words: _____

3. retirement - _____

guide words: _____

4. senior citizen - _____

guide words: _____

5. Medicare - _____

guide words: _____

6. Social Security - _____

guide words: _____

7. geriatrics - _____

guide words: _____

8. longevity - _____

guide words: _____

9. stereotype - _____

guide words: _____

10. discrimination - _____

guide words: _____

11. life cycle - _____

guide words: _____

Can you think of some stereotypes people have about elderly persons? Write your ideas on the lines below. You may use the back of this sheet if you know of several different stereotypes.

APPENDIX B - A SAMPLE SPELLING LESSON

Teaching Directions for Spelling - Lesson One

1. Have the students take their name tags out of their folders and wear the tags during your presentation.
2. Pass out their worksheets for lesson one.
3. Read the directions.

SCRAMBLED WORDS!!

Look at the words below. Each word is from your spelling list for this week. Can you figure out what the correct spelling is without looking at your book? Write the word correctly in the column marked UNSCRAMBLED WORDS.

If the students want to use their books, they may. When most of the children have finished, go over each word. Call on the children to give you the correct spelling for each word.

The sentences on the following page are optional, you may go on to the second page of the exercise. Ask the students to turn their sheets over.

4. Listen as I read you the following story. When the story is finished, use your spelling words to fill in each blank. Be sure to spell each word correctly.

Once upon a time, there was a good little _____ named Winifred. She lived in a very _____ forest, and there was only one _____ to get to her house. Every _____ she got, Winifred would sneak to the village that lay at the edge of the forest. Winifred loved to _____ the children magic tricks. The children liked her and were always glad to see her. The children were all fourth graders _____ would be in the _____ grade next year. All the adults in town were afraid of Winifred. The children laughed about this because it seemed silly that the grownups were _____. Winifred and the children would play together in a clear _____ in the woods. Sometimes they would do tricks for each other and then try to choose

_____ was best. Other times the children and Winifred would _____ wild flowers into a long _____ and hang the flowers in the trees. They even would play _____ to see who was fastest at _____ the _____ line. Winifred also had a magic ball that the children liked to _____ to each other.

When most of the students finish, read the story again and call on students to fill in the blanks with the correct words. See the teacher answer key for the correct answers.

5. The last section is optional, but if there is time left, ask the students to write a story using five words from the spelling list for this week. Then allow the students to read their stories to the class.
6. Take up the worksheets and their folders. Make sure each student returns their name tag to their folder before taking the folders up.
7. Return the folders and the worksheets to the designated area. Separate the worksheets into one group.

THANK YOU VERY MUCH!!

COMMENTS ON LESSON:

Name _____ School _____

Listen while you are read the following story. When the story is finished, use your spelling words to fill in each blank. Be sure to spell each word correctly.

Once upon a time, there was a good little _____ named Winifred. She lived in a very _____ forest and there was only one _____ to get to her house. Every _____ she got, Winifred loved to _____ the children magic tricks. The children liked her and were always glad to see her. The children were all fourth graders _____ would be in the _____ grade the next year. All the adults in town were afraid of Winifred. The children laughed about this because it seemed silly that the grownups were _____. Winifred and the children would play together in a clear _____ in the woods. Sometimes they would do tricks for each other and then try to choose _____ was best. Other times the children and Winifred would _____ wild flowers into a long _____ and hang the flowers in the trees. They even would play _____ to see who was fastest at _____ the _____ line. Winifred also had a magic ball that the children liked to _____ to each other.

Choose five words from the spelling list for this week and put them in your own story. Underline the words that come from the spelling list.

Which two words in your spelling list do you think are easiest to spell?

Which two words in your spelling list do you think are hardest to spell?

APPENDIX C - MODIFIED TUCKMAN-LORGE OLD PEOPLE

QUESTIONNAIRE AND ATTITUDE TEST

QUESTIONNAIRE

The attitude questionnaire will require the teacher to read each item. All of the statements are short and easy to read, however, teachers are encouraged to read each item twice to insure the students' comprehension. The following directions may be utilized in administering the questionnaire.

Please write your name at the top of your test sheet.
(Instruct students to use both first and last name.)

Now write in the name of our school on the line marked "School." (Teachers may write the name of the school on the blackboard for students to copy.)

Listen carefully while I read each of the statements listed on your sheet. As I read each item, circle TRUE if you agree with the statement. If you do not agree with the statement, circle FALSE. (Pause.) Let me repeat, if you think the statement is true, then circle TRUE on your worksheet. If you think the statement is false, then circle FALSE on your worksheet. Does everyone understand? (Please make sure that all students understand the directions.)

Now look at number one. MOST PEOPLE OVER 60 YEARS OLD WOULD LIKE TO BE YOUNG AGAIN. If you think that statement is true, then circle TRUE. If you think that statement is false, then circle FALSE. I will read number one again. MOST PEOPLE OVER 60 YEARS OLD WOULD LIKE TO BE YOUNG AGAIN. If you agree with that statement, circle TRUE. If you do not agree with that statement, circle FALSE. (Pause.)

Number two. MOST PEOPLE OVER 60 YEARS OLD LIKE TO KEEP BUSY. (Pause.) MOST PEOPLE OVER 60 YEARS OLD WOULD LIKE TO KEEP BUSY. If you agree with that statement, circle TRUE. If you do not agree, circle FALSE. (Pause.)

Does everyone understand what you are supposed to do on this questionnaire? (Pause.) Okay, we will work together on these. Please listen carefully and then mark your answer choice.

Number three. MOST PEOPLE OVER 60 YEARS OLD ARE AFRAID TO DIE. (Pause.) MOST PEOPLE OVER 60 YEARS OLD ARE AFRAID TO DIE. Mark your answer. (Pause.)

Continue through the questionnaire to the last item. Observe children to determine if they have questions or are not keeping up and attempt to clarify any statements that they do not understand.

When the questionnaire is completed, please collect the forms and turn these into the Elementary Learning Specialist. If you have any problems, please add your comments to this direction sheet.

THANK YOU!!!!!!!!!!!!!!

Comments:

Name

School

Directions: Listen carefully as your teacher reads each statement. Circle TRUE if you agree with the statement. Circle FALSE if you disagree with the statement.

1. Most people over 60 years old would like to be young again.
TRUE FALSE
2. Most people over 60 years old like to keep busy.
TRUE FALSE
3. Most people over 60 years old are afraid to die.
TRUE FALSE
4. Most people over 60 years old feel miserable most of the time.
TRUE FALSE
5. Most people over 60 years old are forgetful.
TRUE FALSE
6. Most people over 60 years old are a burden to their children.
TRUE FALSE
7. Most people over 60 years old fear death more than anything else.
TRUE FALSE
8. Most people over 60 years old like being with old friends rather than making new ones.
TRUE FALSE
9. Most people over 60 years old usually get money for food and clothes from their children.
TRUE FALSE

10. Most people over 60 years old are fussy about food.
TRUE FALSE
11. Most people over 60 years old think their future is hopeless.
TRUE FALSE
12. Most people over 60 years old feel tired most of the time.
TRUE FALSE
13. Most people over 60 years old have many friends.
TRUE FALSE
14. Most people over 60 years old are better off in old age homes.
TRUE FALSE
15. Most people over 60 years old are lonely.
TRUE FALSE
16. Most people over 60 years old worry about not having enough money.
TRUE FALSE
17. Most people over 60 years old have poor coordination.
TRUE FALSE
18. Most people over 60 years old like to play checkers or dominoes.
TRUE FALSE
19. Most people over 60 years old are old fashioned.
TRUE FALSE
20. Most people over 60 years old are a bother to others.
TRUE FALSE

21. Most people over 60 years old spend much time in bed because of illness.

TRUE FALSE

22. Most people over 60 years old spoil their grandchildren.

TRUE FALSE

23. Most people over 60 years old worry about their health.

TRUE FALSE

24. Most people over 60 years old walk slowly.

TRUE FALSE

25. Most people over 60 years old like to be helped across the street.

TRUE FALSE

26. Most people over 60 years old are hard of hearing.

TRUE FALSE

27. Most people over 60 years old interfere with what other people do.

TRUE FALSE

28. Most people over 60 years old feel sorry for themselves.

TRUE FALSE

29. Most people over 60 years old like religious programs on the radio.

TRUE FALSE

30. Most people over 60 years old are poor eaters.

TRUE FALSE

31. Most people over 60 years old get upset easily.

TRUE FALSE

32. Most people over 60 years old need glasses to read.

TRUE FALSE

33. I like to be with old people.

TRUE FALSE

34. When I am with old people, I feel good.

TRUE FALSE

35. I like to help people over 60 years old.

TRUE FALSE

36. I will be happy when I am 60 years old.

TRUE FALSE

37. It doesn't bother me to think about growing old.

TRUE FALSE

38. Most old people are set in their ways.

TRUE FALSE

39. Most old people would rather live with their children.

TRUE FALSE

40. Most old people grow wiser as they grow older.

TRUE FALSE

41. I do not enjoy being around old people.

TRUE FALSE

42. Most old people are pretty much alike.

TRUE FALSE

43. Most old people are grouchy and unpleasant.

TRUE FALSE

44. Most old people complain a lot about younger people.

TRUE FALSE

45. Most old people enjoy their lives.

TRUE FALSE

46. Most old people are not very neat.

TRUE FALSE

47. Most old people are wrinkled and do not look very good.

TRUE FALSE

48. A person of any age should live to the fullest and do all that he or she can.

TRUE FALSE

49. Most old people do not take care of themselves.

TRUE FALSE

50. I am glad that I am growing older every day.

TRUE FALSE

APPENDIX D - KNOWLEDGE SURVEY

-- Teacher Directions --

Knowledge Survey

The students will need to be told, before taking this knowledge survey, that they are not expected to know the answers to all the items. Explain to the students that the survey is only to see what information they do know in relation to these questions. Ask the students to do the best they can and to choose the answers they think are right.

Begin: Please write your name and the name of our school at the top of your paper. I am going to read each item on this worksheet and I want you to choose the answer you think is correct. When you choose your answer, put a check mark next to your answer choice. You are not expected to know all the answers. Just answer each item as best you can.

Listen carefully as I read each question. I will then read each answer choice. Check the answer you think is correct by putting a check mark in the space in front of the answer. Does everyone understand? (Pause.) Okay, now we will begin.

Number one: The word elderly means
_____ old or past middle age.
_____ to be worn out or tired.

Mark your answer choice.

(Monitor students to make certain that they are following directions. Read the questions slowly so that every student understands and can follow along with each item.)

Number two: A stereotype is a
_____ belief about a group of people that is not
true.
_____ a special way of making records.

Mark your answer choice.

Number three...

Continue to read each item and the answer choices. There may be a need to read items a second time if students do not listen or understand. Again, the students are not expected to know this information unless they have already completed the curriculum unit on aging. Please turn in the student papers and your comments to the Elementary Learning Specialist. Please add your comments and suggestions for changes/improvements to this copy!

THANKS!!!!!!

Name _____

School _____

KNOWLEDGE SURVEY

1. The word elderly means
 old or past middle age.
 to be worn out or tired.
2. A stereotype is a
 belief about a group of people that is not true.
 special way of making records.
3. A stereotype about an old person might be which of the following?
 All old people are mean and grouchy.
 Many old people live in Florida.
4. A person who has reached the age of retirement is called a:
 senior citizen.
 young adult.
5. If a person talks about how many years he has lived, he is talking about his
 longevity.
 retirement.
6. The branch of medicine that works mostly with old people is called
 geriatrics.
 oncology.
7. The life cycle for humans includes the time period of
 morning through night.
 birth through death.

8. Discrimination is when a person treats someone different because of a biased or prejudiced belief.

True

False

9. In order to grow older and remain healthy, it is important to

practice good nutrition.

eat a lot of food each meal.

10. Almost all elderly Americans are very poor.

True

False

11. A major part of Social Security is

retirement payments.

vacation money.

12. Workers pay into Social Security and so do the workers'

employers.

children.

13. A worker can retire and receive full Social Security payments at the age of

55.

65.

14. A person receives payments from Social Security when he retires until the time he

dies.

moves.

15. In which southern state do more old people live?

Florida

South Carolina

16. Exercise and staying active are not very important for people growing old.

True

False

17. Medicare is a program which provides

health care for the aged.

college courses for old people.

18. Retirement is when an older person chooses to no longer

work.

relax.

19. A person's age makes the biggest difference in what activities she or he is able to do.

True

False

20. If a person lives to be old, he will have more

experience in living.

unhappiness.

21. The body changes as a person grows older, but not all of these changes are negative ones.

True

False

22. When people reach 60 years of age, they do not like to do anything except sit down and relax.

True

False

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BIOGRAPHICAL SKETCH

Betty J. Towry was born in Ocala, Florida, where she attended elementary through high school. She received an Associate of Arts degree from Central Florida Community College and a Bachelor of Arts degree in psychology from University of Central Florida. Betty received a Master of Education degree at the University of Florida.

Following the completion of the master's program, Betty began teaching elementary school. She moved into county level administration and worked as testing specialist for the Marion County School System. During this time she also worked as an adjunct psychology instructor for Central Florida Community College.

Betty began teaching full-time at Central Florida Community College in psychology-related courses. She became involved in the testing program at CFCC and was appointed the Associate Dean of Program Planning and Review in January of 1985. In the fall of 1986, Betty was appointed Dean of Program Planning and Occupational Education at Central Florida Community College.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Hannelore Wass

Hannelore Wass, Chairman
Professor of Foundations of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Don Avila

Don Avila
Professor of Foundations of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Linda Crocker

Linda Crocker
Professor of Foundations of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Paul Fitzgerald
Paul Fitzgerald
Professor of Counselor Education

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December 1986

James Ulmer
Chairman, Foundations of Education

David C. Smith N
Dean, College of Education

Dean, Graduate School

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