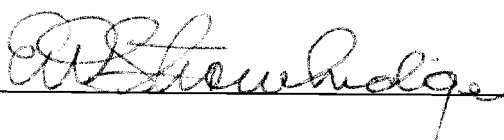


AN ABSTRACT OF THE THESIS OF

Brynn Heintz Lawler for the degree of Doctor of Philosophy
in Educational Foundations presented on May 2, 1988.

Title: Evaluation of the Effect of a Literature-Based
Unit Designed to Enhance the Attitudes of Primary
Grade Children Toward the Elderly

Abstract approved: _____



This research investigated the effect of a literature-based unit on subjects' in primary grades attitudes toward the elderly and aging. The experiment followed a pretest/posttest design; covariates derived from three separate survey portions were compared with respective postmeasure scores.

Other research on young children's attitudes toward aging suggests that ageist attitudes may begin when children first perceive distinctions of age and learn expectations for old age; thus, as the proportion of elderly people in our society continues to increase, so does the need for accurate information and realistic attitudes toward aging.

Both experimental and control subjects responded to an attitude survey in Fall, 1986. Of the 201 children in this sample, slightly more than half had limited contact with persons age 65 and over. Experimental subjects

participated in a six-lesson unit; subsequently, experimental and control groups were post-tested.

Comparison of scores from pre and post measures indicated no statistically significant differences in attitude scores; neither the treatment, grade level, nor the interaction of these variables were associated with significant differences.

Subjects' responses to surveys were also examined for qualitative information. Of 368 statements obtained through the evaluative portion, approximately one-quarter described old age in positive terms, while 51% characterized old age as being unpleasant. The mode for two-thirds of the measures in the Likert-type scale was the neutral option, but there was strong positive agreement with socially desirable statements. Percentages for selected descriptors in the semantic differential portion were ranked, and comparisons drawn between preferred-item descriptors and generalizations derived through the other two survey portions.

A research limitation was that reliability of the attitude survey instrument was low.

Possible explanations for the quantitative results of the research include the experimental treatment itself, instrumentation, and immaturity of subjects.

The conclusion: Participation in the "Learning About Elderly People" unit alone did not significantly affect this sample's attitudes toward the attitude object. A

partial reason may be that the unit lacked sufficient opportunities for experiential input, provided either through intergenerational contact or increased duration of the unit.

EVALUATION OF THE EFFECT OF A LITERATURE-BASED
UNIT DESIGNED TO ENHANCE THE ATTITUDES OF
PRIMARY GRADE CHILDREN TOWARD THE ELDERLY

by

Brynn Heintz Lawler

A Thesis
Submitted to
Oregon State University

in partial fulfillment of
the requirements for the
degree of
Doctor of Philosophy

Completed May 2, 1988

Commencement June 1988

APPROVED:

Major Professor 

Dean of School of Education 

Dean of Graduate School 

Date thesis is presented May 2, 1988

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
Statement of the Problem	1
The Hypotheses	1
Design	1
Justification	2
Literature as a Tool	3
Significance of the Study	3
Oregon's Recognition	4
Constraints	6
Assumptions	6
Definition of Terms	7
RELATED LITERATURE AND RATIONALE	10
Attitude Formation and Change	10
Components of Attitude	11
Review of Literature - Fishbein	12
Review of Literature - Rosenberg	13
Attitudes Toward the Elderly	14
What Gerontology Confirms	15
Young People's Attitudes Toward Old Age	16
What Have We Learned?	20
A Starting Point	21
A Reaffirmation of Research Assumptions and Constraints	22
Educational Materials on Aging	23
Ameliorative Action	24
METHODOLOGY	26
Research Design	26
The Instrument	27
Development of the Instrument	27
The DELPHI Technique	29
The DELPHI Process	30
The Sample	32
Procedure	34
Treatment of the Data	37
RESULTS AND DISCUSSION	40
Procedure for the Experiment	40
Hypotheses	42
Data Collection	42
Preparation of the Data	44
Frequency of Contact Survey	45
FREQ Results	45
Reliability	46
Results of Statistical Testing	47

TABLE OF CONTENTS

	<u>Page</u>
Qualitative Data	51
The Evaluative Statements	52
The Likert-Type Scale	55
The Semantic Differential	58
Summary	62
 SUMMARY, DISCUSSION AND CONCLUSIONS	 63
Discussion	67
The Treatment	68
Instrumentation	69
The Respondents	70
Conclusions	73
Suggestions for Further Study	75
Summation	79
 REFERENCES	 81
 APPENDIX	 87
1 - The DELPHI Panel	87
2 - The Instrument - Likert-Type Scale	88
3 - The Instrument - Semantic Differential Scale.	92
4 - Directions for Raters	94
5 - List of Literature included in "Learning About Elderly People"	95
6 - Letter of Approval for Literature Selection - Children's Literature	96
7 - Letter of Approval for Literature Selection - Gerontology	97
8 - A Sample Lesson From "Learning About Elderly People"	98
9 - Frequency of Contact Survey	100
10 - Table of Pre Post Means by Treatment Group and Grade	101

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1.	Design Treatments	26
2.	Analysis of Covariance Layout	33
3.	Proposed Cell Sizes	34
4.	Control and Experimental Subjects Responding to Pre and Post Surveys by Grade Level	43
5.	Estimate for Frequency of Contact With Elderly	46
6.	Ancov Table for Results of Evaluative Scale by Treatment and Grade	48
7.	Ancov Table for Results of Likert-Scale by Treatment and Grade	49
8.	Ancov Table for Results of Semantic Differential Scale by Treatment and Grade	50
9.	Analysis of 368 Evaluative Statements	54
10.	Percentage Item-by-Item Responses to PRE LIKE and LIKE Measures	57
11.	Semantic Differential Data	59
12.	Modes for Rater-Assigned Evaluative Statement Scores	73

EVALUATION OF THE EFFECT OF A LITERATURE-BASED UNIT
DESIGNED TO ENHANCE THE ATTITUDES OF
PRIMARY GRADE CHILDREN TOWARD THE ELDERLY

CHAPTER 1

INTRODUCTION

Statement of the Problem

The major intent of this research was to determine if a specific literature-based, author-developed unit focusing on themes relating to aging and the elderly could significantly affect children's attitudes toward these topics.

The Hypotheses

Two major questions were fundamental to this research: (a) whether primary school-aged children's *ATTITUDES* toward the elderly and aging could be *POSITIVELY AFFECTED* by participation in an educational unit based upon presentation of cognitively and affectively appropriate literature, and (b) whether such a literature-based unit would be effective with *FIRST*, *SECOND*, and *THIRD* grade youngsters.

Design

For the purpose of research, experimental subjects participated in a first-through-third grade unit introducing them to cognitively and affectively appropriate literature and extension activities. A control group was

also designated. Both groups were pre-tested and then later post-tested. Analysis of covariance was the statistical technique utilized to test the hypotheses. When a significant difference was found, a Tukey's W multiple comparisons test was computed.

Justification

A human lifetime of three to four score years is now commonplace, yet research suggests that both adults and children in our society hold negative and stereotypic attitudes toward elderly people (Rick, Myrick & Campbell, 1983) and the aging process. Such perceptions are obviously a problem when we consider both demographic projections for the increased proportion of elderly persons in our society and the increase in individual life expectancy. Simply, our attitudes affect our behavior (Fishbein, 1966) and elicit a self-fulfilling prophecy influencing both our responses toward old people we encounter, as well as our ability to deal with our own aging (Hickey, Hickey & Kalish, 1968; Jones, 1977; Seltzer & Atchley, 1971).

Geronotologists and educators are aware that ageist attitudes present social problems that need to be addressed and corrected. As a result, research continues to attempt measurement of (a) attitudes toward old age that are currently held by society in general and by young people in particular, and (b) assessment of the impact of programs that are intended to affect attitude change. Still, little

has been reported of research attempts to measure young children's perceptions of aging or attitude toward the elderly. And it seem undeniably worthwhile to help children develop realistic and healthy attitudes regarding life during one's elderly years. Therefore, educators and researchers also must develop and evaluate curriculum materials that accurately and sensitively portray aging as a natural part of life (John, 1977).

The present research is distinguished from other studies as it is specifically concerned with (a) the attitudes of young, school-aged children (first through third grades), and (b) investigates the effect of a literature-based unit of subjects' attitudes.

Literature as a Tool

Literature is recognized as one of the primary socializing agents for young, school-aged children (Ansello, 1978). Consequently, when judiciously selected, it can be used as an educational and entertaining resource to help youngsters build cognitive and affective associations between characters they'll meet in print, and their own expectations. In this way, teachers may help to positively affect students' attitudes toward the aged and aging (Seefeldt, et. al., 1978).

Significance of the Study

The principle purpose for this entire investigation

was to organize and evaluate an educational unit accurate in content and easily usable in a variety of classroom environments, so that teachers might systematically include positive, age-related education in the elementary curriculum.

Data to assess the effect of this treatment was collected from children attending elementary schools in a limited geographic area. However, because the educational unit was intended to have general application--i.e., dealing with universal content, currently available literary materials, and fairly traditional classroom methods--the research may be replicated to provide a broader base of data collection, and strengthen the analysis in terms of inferences.

Oregon's Recognition

Beyond our appropriate personal, social and ethical concerns for assisting children in development of positive attitudes in this regard, Oregon educators also have legal motivation for addressing aging as a viable curriculum topic. Specifically,

Oregon law requires provision of resources for supplements to materials if textbooks or curricular material are found to have discriminatory impact on the basis of race, national origin, religion, sex, age, handicap or marital status (O.R.S. 659.150 and O.A.R. 581-21-046(6)).

The present investigation began with an interest in understanding ageist attitudes prevalent in our society, and perpetuated, in fact, by our school media. For example, basal readers are known to be one of the primary socializing agents for school-aged children, yet descriptive research (Ansello, 1976) documents age discrimination through both the "invisibility" of elderly characters in commonly used texts (Kingston & Drotter, 1981), and the stereotypic or negative treatment of those who are represented. The attitude toward older people traditionally expressed in children's literature and school texts, unfortunately, seems to perpetuate the trend toward inter-generational separateness (Peacock & Talley, 1984).

The unit under study was developed to supplement traditional curricular materials, many which may indeed have a discriminatory impact regarding age. By contrast, careful selection of appropriate literature--that is, literature depicting both the strengths and needs of older characters--formed the basis of this first-through third grade unit.

A final point is that classroom-based research related to social issues--in this case, the area of children's attitudes toward the elderly--serves at least three functions: (a) testing the theory that children's attitudes in this regard can be affected/shaped; (b) assessing the utility of this educational unit, as it is implemented, and

(c) directing attention specifically to the need for curricular units that address this social issue.

Constraints

The research is influenced by the following constraints:

1. Data in the form of attitudes-toward-the-elderly-scores were collected from a relatively small sample of children in primary grades.
2. Research was conducted within schools in a limited geographic area.
3. The construct *attitudes* describes subjective phenomena which must be operationalized for research.
4. Instrumentation and treatment were constrained because subjects were pre-readers and early readers.

Assumptions

This study was based upon the following assumptions:

1. All experimental respondents cooperatively participated in the instructional unit when it was presented.
2. Subjects responded to the attitude surveys to the best of their abilities.
3. *Attitudes* predispose an individual to respond in a consistently favorable or unfavorable way.
4. Schools are a primary socializing environment.

5. Books are a major resource in the education/ socialization of school-aged children.

Definition of Terms

1. *Affectively appropriate literature* is defined here as that which presents accurate, sensitive characterization of elderly persons. Themes may deal with the needs, problem-solving abilities, social relationships, and/or satisfactions experienced by elderly. A gerontologist and an expert in children's literature endorsed the selection included in the unit "Learning About Elderly People."
2. *Analysis of covariance* is a form of analysis which tests for significant differences among adjusted post-measure mean scores using the F-ratio.
3. An *attitude* is a learned predisposition to respond to an object or class of objects in a consistently favorable or unfavorable way.
4. *Cognitively appropriate literature* in this context was stipulated to involve content, vocabulary, sentence structure and illustrations suitable for children in both preoperational and concrete operational stages of mental development. The literature included in the unit was judged appropriate by a gerontologist and an expert in children's literature.

5. *Content validity* is the representativeness or sampling adequacy of the content relevant to the topics of a measuring instrument.
6. *Covariate* refers to the initial (pre) measurement as it is used in analysis of covariance.
7. The *DELPHI Panel* for this research was a group of nine early childhood educators who independently considered the appropriateness and content validity of the attitude survey instrument.
8. The *DELPHI technique* is a method for eliciting estimates of reasonableness and plausibility from an independent panel of experts.
9. *Elderly* is a relative term stipulated here to signify persons sixty-five years of age or older.
10. The *F-ratio* is a distribution used in analysis methods. It requires independent random samples, drawn from two normal populations with equal variances, and where repeated samples produce a ratio of S_1^2 / S_2^2 (the F-ratio).
11. The *Hoyt-Stunkard ANOVA Method* is a procedure for estimating the reliability coefficient and standard error of measurement from a summary score derived from a questionnaire.
12. *Operational* refers to a period of cognitive development (about ages seven to eleven) in which the child perceives and comprehends distinct

elements of the environment, begins to make generalizations based on data, and understands conditions that distinguish objects into classes, but the child does not yet comprehend the totality of environments nor abstractions.

13. *Preoperational* denotes a period of cognitive development (about ages two to six) in which the child learns properties of elements as a prerequisite to processes of classification.
14. *Primary school-aged children* are elementary school youngsters enrolled in first, second and third grades.
15. *Random assignment* is utilized in an attempt to control extraneous variance.
16. *Reliability* is a term denoting consistency, accuracy or precision of a measuring instrument.
17. *Treatment* in the context of this research refers to subjects' participation in the educational unit under study.
18. *Tukey's W* procedure is a pairwise comparison test utilized in multiple comparisons analysis. The method requires that estimates of the population means have equal variances. While Tukey's W method is most simplistic with equal sample size, it is possible to accommodate unequal cell size conditions (Courtney, 1984, p. 359).

CHAPTER 2

RELATED LITERATURE AND RATIONALE

Attitude Formation and Change

A discussion of attitude change is dependent on comprehension of the processes of attitude formation, which in turn is explained via classical and instrumental learning theories (Doob, 1947; Staats & Staats, 1958), even extending back to consideration of the neonate. As the newborn first receives and responds to sensory stimuli in the environment, concept formation begins; through a process of classical conditioning the neonate learns a meaning to associate with a particular stimulus. When stimulus exceeds a neutral threshold, the experience is either positive or negative. These meanings are primary associations that at some point may be linked through higher-order-conditioning. This model of concept formation is repeated--initially in haphazard fashion--and eventually refined and elaborated by the infant, and helps to explain concept learning in a general fashion.

The response to a specific stimulus is learned through instrumental or operant conditioning as described by behavioral psychologists, and is dependent upon the particular reinforcement schedule experienced by the individual. This serves partially to explain why individuals may, as is

frequently observed, exhibit markedly different response(s) to what was intended as equivalent stimulus.

Components of Attitude

Given this learning model, one may proceed to Fishbein's (1966) hypothesis: with every concept learned, an associated attitude is also being learned. Attitudes are typically conceptualized as having three components. The belief or cognitive component is comprised of concepts and, as discussed above, is learned through classical and higher-order-conditioning. A second, the evaluative or affective component, is explained as a summation of the intensity of positive or negative associations, also classically conditioned. A third, the response component, is understood in terms of operant conditioning.

It is the response component that is in effect responsible for interest in attitudes and attitude measurement as a dominant concern of psychologists in the 20th century. In fact, when in 1935 Allport concluded, after reviewing one hundred different definitions of the construct attitude, that "investigators basically agreed that an attitude is a learned predisposition to respond to an object or class of objects in a consistently favorable or unfavorable way" (Fishbein, 1966, p. 477), it was this very assumption that made the construct *attitude* worthy of study. And the considerable research that preceded and followed Allport's study of definitions has affirmed that attitudes--as

predispositions to respond--are persistent and often difficult to change.

Review of Literature - Fishbein

Fishbein (1966) further asserts that for attitude change to occur, one must associate a new concept or piece of information with a new behavioral response. If the attitude elicits a response that is positively or negatively reinforced, it strengthens that attitude. If the same response is not reinforced, it weakens that attitude. However, an attitudinal response that is both reinforced and not reinforced on an irregular schedule is neutralized.

This variation in individuals' response reinforcement histories serves to explain the lack of predictability between observable/measured attitudes and overt behaviors, thus suggesting the importance of systematic reinforcement if either, or both, a predictable attitude change, or attitude change on a major scale are desired product(s).

Fishbein also explains two other aspects that affect attitudes. One is the perceived instrumentality of the attitude object in obtaining a desired goal or in blocking an undesirable outcome; a second is the importance or strength of affect for that goal. According to Fishbein, to be efficient in attempts to effect attitude change, one may either introduce new information regarding the instrumentality of the attitude object in goal attainment, or one

may introduce information that changes the amount of affect an individual feels towards that specific goal.

Review of Literature - Rosenberg

Rosenberg (1960), a Yale researcher interested in attitude change, hypothesized that manipulation of inconsistency between the belief and evaluative components of attitude--to the extent that it exceeds an individual's tolerance for inconsistency--will bring one of three possible results. The individual will: (a) attempt to avoid or ignore the inconsistency-producing communication; (b) attempt fragmentation of the cognitive and affective components and thereby relieve conflict; or (c) accommodate the original inconsistency-producing stimulus.

Further, Rosenberg asserts that two elements influence the effectiveness of a persuasive campaign. The first is identification of, and focus on, the most easily influenced population, a population consisting of those individuals who already experience some degree of attitude inconsistency and are more easily pushed beyond their tolerance level.

In the context of present research, this population consisted of primary school-aged children, and as Piaget explained, children's cognitive development makes them increasingly capable of decentering, and therefore receiving and valuing information from many differing--at times conflicting--perspectives. It follows, therefore, that

children's attitudes regarding many issues are likely to be formative and inconsistent. Theoretically, then, with appropriate manipulation of cognitive and affective components of attitude, and with systematic reinforcement of specific behavioral responses, children's attitudes should be predictably malleable.

Rosenberg's second hypothesis concerns the communication to be used in the persuasive campaign. Educators are well aware of the importance of both materials and environment. These enhance or limit effectiveness when communicating information to students. Indeed, a major role of the educator involves selection, preparation and presentation of materials that result in cognitive and affective communication. In fact, when appropriate curricular materials are unavailable, teachers feel ill prepared to address subjects--even those they feel are worthy of study. For example, thirty-four percent of teachers responding to an extensive survey of Florida public schools said they would like to teach about aging (Frymier, 1979), yet the study of aging is not typically a part of curricula in public schools at any level. The reasons typically given: (a) aging is a non-traditional subject; (b) materials and resources are inadequate, and (c) teachers are not prepared or do not feel prepared (Wass, Fillmer, & Ward, 1981).

Attitudes Toward the Elderly

An area ignored by society in general and consistently

overlooked but education suggests an overall attitude. For example, the invisibility of elderly persons in both the outside social environment and the school curricula can be identified as an indication of a general attitude toward older people. In fact, in recent years considerable research (Ansello, 1978; Bell and Stanfield, 1973; Kogan and Shelton, 1962; Tuckman, Lorge and Spooner 1953) documents both a pervasive negative attitude associated with old age and an ageist attitude toward elderly people in our culture. It has become apparent that societal leaders and educators need to address these negative attitudes as a social problem which merits further study and correction.

What Gerontology Confirms

Gerontology, a relatively recently developed social science, is frequently involved in assessment of attitudes related to aging and the elderly. Such studies report negative attitudes on both counts, and indicate that these negative attitudes may serve to explain many of the individual, physical, and social problems experienced by persons in their later years (Kart, 1985; Kimmel, 1980).

While individuals who have more direct contact with older people are less negative in their attitudes towards aging (Tuckman & Lorge, 1953), another fact that complicates the aging problem is that we are an age-segregated society (Russell, 1979), children having little contact

with persons over age sixty-five other than grandparents. When queried, young subjects tend to attribute fewer negative characteristics to members of their own family (Bekker & Taylor, 1966), and subjects report having positive attitudes towards their grandparents. The possibility for transfer is clear, yet, these positive feelings toward individual family members are not necessarily generalized to other old people. Repeated positive contacts with a variety of elderly persons would be more influential.

Even though demographic studies document an increased proportion of older people in our society (an increase that is expected to continue), children are more isolated from older people than ever before (Barnum, 1877), and without personal contacts children are less likely to have accurate perceptions of age (Russell, 1979).

Young People's Attitudes Toward Old Age

Gerontologists and sociologists concerned with the effects of misinformation and these negative attitudes, and aware of the processes in attitude formation, have also seen the necessity of studying children's attitudes as a potentially realistic focus for widespread and long-term correction of these problems. But children as young as three years of age have negative attitudes about old people (Rich, Myrick, & Campbell, 1983), and being afraid of the idea of growing old themselves, they are determined to avoid old age (Seefeldt, Jantz, Galper, & Serock, 1971).

Ultimately, many of these negative attitudes persist through adulthood and influence adult behaviors and approaches to growing older (Hickey, Hickey, & Kalish, 1968; (Seltzer & Atchley, 1971). As one researcher suggests, "If we expect negatives, losses, and inabilities with aging, growing older will be dreaded" (Ansello, 1978, p. 118).

A study of latency-aged children (8-10 year-old), indicated that although youngsters have negative perceptions of the aging process, they have "generally positive attitudes toward elders, and would go to elders with their classroom problems" (Marks, Newman & Onawola, 1985, p. 98). This research utilized a 53-item questionnaire which consisted of open-ended and closed-ended questions, and a semantic differential scale.

Researchers from Roosevelt University in Chicago expressed concern that the methodology of an attitude study may bias results, and therefore recommended non-directive methods that yield qualitative data. Their study involved a sample of fourth and fifth grade students who were asked to write essays on what the phrase "an old person" meant to them. These researchers developed and "exhaustive listing of the cognitive categories represented," however, despite the variety of categories derived from examination of the essays, the main frequency distribution range was over the same few topics. This implied that subjects had a limited

knowledge of the elderly. Data revealed that one-third of the children in this study conceptualized old people in terms of physical problems or appearance. In addition, it was reported that the "Behavioral Descriptions" category was very positive, which is "consistent with the Hickey et al. (1968) study, which found that children were three times more likely to see the elderly's behaviors as positive than as negative" (Dobrosky & Bishop, 1986, p. 437).

In another study with children of similar age, Fillmer (1984) found that fourth, fifth and sixth graders not only stereotyped the elderly, they also reported that they preferred to associate with younger people, rather than older people.

Quite recently, intergenerational programs have attempted to provide opportunities for active contact between young and old people and thereby dispel the "stereotypical image of physical degeneration" (Corbin, Kagan & Metalcorbin, 1987, p. 403). A study, that attempted to evaluate a seven-day program which involved sixth-graders and senior citizens in discussion, dance and song, reported as the most outstanding and unexpected finding that "the children's global affective perceptions of the older visitors grew *less* positive as the program progressed" (Corbin et al., 1987, p. 407). Subjects noted more negative rather than positive physical and psychological characteristics of the elderly participants as exposure increased.

The stereotypical image of physical degeneration does not appear to be a uniquely American perception. A recent cross-cultural study (Seefeldt & Keawkungwal, 1986) analyzed the attitudes of children (ages 7-12) in Thailand toward the elderly. When Thai children were asked to recount what they knew of elders, their comments focused on physical and behavioral characteristics such as they "have no teeth," "walk slow," and "no longer do hard work." The authors concluded that Thai children view young people more positively than old people, and that living area (rural or urban) was not significantly related to attitudes toward the elderly.

In contrast to children in the Thai culture, American youngsters grow up in a typically age-segregated society; however, in a sample of 213 adolescents, only 7 did not have some degree of contact with anyone age 65 or older. These high school students were part of a study to assess adolescents' knowledge of aging in 1985 compared with students' knowledge in 1978. Subjects responded to the "Facts on Aging Quiz" (Palmore, 1977), which consists of 25 items in a true/false format. Comparison of responses from 1978 and 1985 testings yielded nearly identical percentages of errors to individual items. The results indicated that students continue to be uninformed or misinformed about aging and older adults (Steitz & Verner, 1987).

Murphy-Russel et al. (1986) investigated the influence of three different instructional procedures (discussion,

direct contact with the attitude object, and educational filmstrip) on undergraduate students' attitudes toward the elderly. The research findings were twofold. First, pretest attitude scores were slightly positive as measured by the OP (Attitudes Toward Old People Scale, Kogan, 1961), and therefore, not consistent with previous research that "documented the negative attitudes of the United States' population toward elderly people" (Murphy-Russel et al., 1986, p. 247). Second, each of the three instructional methods used was effective in creating positive attitude change, and the most effective approach appeared to be the one which provided direct contact with the elderly.

After reviewing the available literature regarding young people's attitudes toward aging and old people, it is clear that variability in factors such as: (a) research methodology, and (b) subjects' maturity, sources for cognitive input, and/or opportunities for satisfying intergenerational experience markedly influence research results.

While it is possible to see relationships between the orientations and findings of the studies that have been reviewed, comparison of research with greater commonality in both methodology and orientation would increase our ability to draw pertinent generalizations about young people's attitudes in this regard.

What Have We Learned?

Gerontologists have presented disturbing and sometimes

conflicting data, raising the question, then, how young people can learn accurate information about old people and learn new behavioral responses that are necessary for healthy attitude development; for, to recall Fishbein, without cognitive and affective input, and without opportunities to respond in new ways, the existing (predominantly) negative attitudes will persist.

The more one delves into research literature related to problems associated with aging, the more increasingly clear it becomes that we need to start with young children while their attitudes and expectations are forming, and help them to develop accurate and healthy attitudes in this regard. Knowing where to start gives us an indication of how to proceed.

A Starting Point

A place to begin is Rosenberg's suggestion that effective persuasion has two important aspects. We have already identified primary school-aged children as a population experiencing a degree of attitude inconsistency, and, therefore, a group easily pushed beyond an inconsistency-tolerance level. Now we must consider the kinds of communications--both material and environmental--that will be most persuasive.

John (1977) suggested several foci that should be addressed in planning appropriate communications about old

age. First is his contention that "warm, sensitive relationships can span generations" (John, 1977, p. 524). Second, children need to see old age as a part of the total life cycle. Third, fears about aging can be dispelled with accurate and realistic information. Next, knowledge about contributions of old people helps to make positive associations with aging. Also, learning about vigorous and contributing older people helps a child develop a "more positive picture of the total life span that will hopefully be available to him or her" (John, 1977, p. 525). And, finally, he writes, the elderly frequently "demonstrate values and ideals that have survived the tests of time" (John, 1977, p. 525) In short, older people can be inspirational.

A Reaffirmation of Research Assumptions and Constraints

Given these suggestions for appropriate communication content, the present research is based on Barnum's assumptions that: (a) schools are a primary socializing environment; (b) teachers are trained to be skillful at communicating with children, and (c) books--texts and otherwise--are a major resource for instilling the attitudes, social concerns, and skills valued in our society (Barnum, 1977).

However, as has already been explained, teacher attitudes and lack of appropriate materials may limit the inclusion of topics related to old age in curriculum, and

may handicap attempts to help children develop realistic and healthy attitudes. In Allen's 1978 survey of social studies curriculum coordinators, for instance, it was revealed that ninety-seven percent of survey respondents believed that children have both considerable misinformation and negative attitudes about elderly people. Allen's subjects also believed that education was capable of correcting this situation and sixty-two percent believed that if curriculum materials were available, they would be used.

Educational Materials on Aging

The practical problem, however, is that appropriate materials are not always available. Research describes, for instance: (a) the invisibility of elderly characters in commonly used texts (Ansello, 1977 and 1978): (b) the fact that elderly are seldom presented as main characters (Kingston & Drotter, 1981), and (c) the observation that, when represented, old people are often so weakly characterized or stereotypically included in illustrations as to further the image that they are bland, insignificant and lifeless (Robin, 1977). To emphasize this perspective Ansello (1978) describes picture books as a "staple" socializing medium of most K-3 classrooms, yet contends that children may indeed be learning negative stereotypes of old age through their literature.

Ameliorative Action

While schools and teachers cannot be made totally responsible for development of more positive attitudes toward aging, they can "provide children with information and experiences that will enable them to challenge society's stereotypes of the elderly and develop realistic, accurate attitudes of aging and the aged" (Seefeldt, et al, 1978, p. 123). Teachers can model an appreciative, loving attitude toward old people, and an accepting and understanding attitude that portrays aging as a natural part of the life process. Teachers can carefully select materials that describe both the strengths and the needs of people in their later years (Blue, 1978).

Since the mid 1970s, and coincident with attention to problems and satisfactions associated with aging, there has grown greater interest in literary expression to describe the later years. Fortunately now, there are many delightful, sensitive and realistic books available for use with young children. A teacher with an attitude that regards old people and aging positively can develop a classroom environment receptive to communications that are informative, influential and successful (John, 1977). Cognitively and affectively appropriate materials describing the elderly and aging will be well received. And if a teacher is both gracious and farsighted enough to invite a healthy and active elderly person to attend special classroom

events, and/or to help with occasional activities, the increased opportunity for first-hand intergenerational experience will enhance the desired communications and responses that are agents of attitude change (Seefeldt, Galper, Serock and Jantz, 1978).

Wass, Fillmer & Ward (1981) believe that with some persuasion, inservice, and access to teaching materials, the majority of teachers would be willing to teach their students about aging. With provisions for new information and adjustments that encourage new responses, teachers can be instrumental in positive attitude change for both young and old.

CHAPTER 3

METHODOLOGY

Research Design

The intent of this research was to access attitudes that young, school-age children have toward aging and the elderly, and to investigate the utility of a specific, literature-based unit in affecting subjects' attitudes.

This study was planned as an experimental design that contrasted the pre and posttest measurements of attitudes for control and experimental groups of first, second, and third graders. The following design matrix illustrates this 3 X 2 factorial design.

Table 1. Design

Grades	Treatments	
	Control	Experimental
First		
Second		
Third		

Analysis of covariance was the technique used to determine whether there was a statistically significant difference in respondent attitudes-toward-the-elderly scores as a result of the educational unit under study. Should a difference be shown, a Tukey's W test was to be computed to ascertain where difference(s) existed.

The Instrument

The data relative to children's attitudes toward aging and the elderly were collected through the use of an instrument developed for surveying subjects in primary grades. The same instrument was utilized for both pre and post measures. It consisted of three formats--a one-item evaluative response, a twelve-item Likert-type scale, and a seven-item semantic differential. Scores for separate portions of the survey were to be treated as a single cumulative score.

Development of the Instrument

The instrument used to measure subjects' attitudes toward old age was constructed precisely for this purpose. The maturity level of respondents dictated that: (a) formats for the instrument, vocabulary and sentence structure were uncomplicated, and (b) test length was brief. Specifically, the formats and items were adapted from three other non-standardized instruments prepared for similar purposes. One was the "Children's Attitudes Towards the Elderly" or CATE, developed by Jantz, Seefeldt, Galper, and Serock (1977). However, administration time (15 minutes per subject) made use of the CATE impractical for present research. The second, a story writing and semantic differential device constructed by Thomas and Yamamoto (1975) was inappropriate for the present research with young subjects,

as it required that respondents have considerable writing skill. A third, the "Children's Perceptions of Aging and Elderly" or CPAE, developed by Rich, Myrick, and Campbell (1983), was not available, but reportedly consisted of a twelve-item Likert-type scale. Development of the instrument used in the present research was influenced by the three previously described survey tools.

Reliability for the instrument was computed using the Hoyt-Stunkard ANOVA Method, a procedure for estimating the reliability coefficient and the standard error of measurement from a..."summary score derived from a questionnaire, or for that matter from a test, in which no single alternative is considered the only correct response" (Hoyt & Stunkard, 1952, p. 756). The matrix is shown as follows:

Items	Respondents						
	1	2	3.....j.....180.....	Total			
1	Y_{11}	Y_{12}	Y_{13}	Y_{1j}	Y_1	180	Y_1
2	Y_{21}	Y_{22}	Y_{23}	Y_{2j}	Y_2	180	Y_2
3	Y_{31}	Y_{32}	Y_{33}	Y_{3j}	Y_3	180	Y_3
i	Y_{i1}	Y_{i2}	Y_{i3}	Y_{ij}	Y_i	180	Y_i
k	Y_{k1}	Y_{k2}	Y_{k3}	Y_{kj}	Y_k	180	Y_k
Total	$Y_{.1}$	$Y_{.2}$	$Y_{.3}$	$Y_{.j}$	$Y_{.}$	180	$Y_{..}$

Each Y_{ij} represents the score judgmentally assigned by the j th subject to the i th component. The reliability coefficient is derived according to the formula:

$$\frac{\text{MS respondents minus MS error}}{\text{MS respondents}}$$

(Hoyt & Stunkard, 1952).

A DELPHI panel consisting of nine experienced classroom teachers (see Appendix) was utilized to establish content validity for this instrument.

The DELPHI Technique

DELPHI is a method of eliciting estimates of reasonableness and plausibility from a panel of experts, who are assumed to be objective and able to "take into account new or discrepant information, and construct logically sound deductions about the future based upon a thorough and disciplined understanding of particular phenomena and how they relate" (Weaver, 1971, p. 269). DELPHI operates--as does traditional round-table discussion--on the principle that several heads are better than one. However, an advantage with DELPHI as opposed to a traditional group discussion is, that the latter process is often influenced or dominated by dynamics of social interaction and/or persuasion. The DELPHI method, on the other hand, stipulates that panel members remain anonymous while functioning independently, thus assuring that judgments are rational and not a compromised result of "the bandwagon effect of majority opinion" (Cyphert & Gant, 1971, p. 272).

Originated in the 1940's at the Rand Corporation, DELPHI was intended as a forecasting tool to establish a

plausible sequence of scientific and technological events as speculated by a panel of experts (Weaver, 1971). The DELPHI method has since served as a communication process for industry, business and education (Soukup, 1983). In the early 1970's, the DELPHI technique was deemed to have three promising educational applications:

(a) a method for studying the process of thinking about the future, (b) a pedagogical tool or teaching tool which forces people to think about the future in a more complex way than they ordinarily would, and (c) a planning tool which may aid in probing priorities held by members and constituencies of an organization (Weaver, 1971, p. 271).

In the mid 1980's, the use of a DELPHI panel was recognized as an appropriate and expedient method for establishing the content validity of a research instrument (Courtney, 1986).

Specific to this research, the advantages of DELPHI--being a direct, efficient, and inexpensive organization for consensus of rational judgments from a panel of experts (Soukup, 1983)--served to justify the appropriateness of this method for validation of the survey instrument.

The DELPHI Process

The First Round of DELPHI consisted of a panel of nine early childhood educators: professionals who have been teaching children in grades K - 3 in a public elementary school system for at least four years. (A panel of six to

nine is considered to be appropriate and workable for the DELPHI process (Courtney, 1986)).

Members were asked to consider response format, content, and wording separately, and indicate whether items were: (a) appropriate and should be retained; (b) inappropriate and to be rejected, and/or (c) modifiable (and, if so, how). Since the instrument was brief and uncomplicated, all modifications suggested by the DELPHI were incorporated into the second version of the instrument. These included: (a) the addition of an individual evaluative response to be tape recorded; (b) the selection of items for the Likert-type scale (twelve from the original eighteen), and (c) selection of antonyms for the semantic differential (seven from the twelve).

Round Two with the DELPHI Panel was scheduled for August/September, 1986. DELPHI members were again asked to retain, reject, and/or suggest modifications for items. Round Two with DELPHI resulted in total consensus regarding both the appropriateness and content validity of the instrument.

The DELPHI Panel was also asked to assign a weight to each item in a "modified Thurstone method" so that the scale could be considered as having "equal appearing intervals," thus permitting the cumulative scale score to be treated as a single dependent variable (Courtney, in class, 1986). In this determination, the value most frequently

selected by panel members was designated as the weight for the respective item. In case of a tie, the mean of the selected values was computed, rounded to the lower value, and then defined as the weight for that item.

The final instrument was field tested September, 1986. A sample of five students selected by a first-grade teacher at a local elementary school participated in the field test. These youngsters had no difficulty with either the activities or vocabulary incorporated in the instrument. A logical inference, therefore, was that the survey tool was appropriate for use with students in even the lowest experimental level.

The Sample

This study utilized groups of children, grades first through third, attending public elementary schools in Linn and Benton counties. It was hypothesized that the diversity of cultural groups and socioeconomic backgrounds found in these communities would be reflected in the samples, and that adequate sample size would spread these interactive kinds of errors across all treatment groups (Courtney, 1986).

While it does not seem entirely reasonable to generalize from the small sample of a field study to the population of primary school-aged children as a whole, statistical methods are available for determining an adequate sample size, such that one may have reasonable confidence

in the statistical findings of research. One such "rule-of-thumb method" (Courtney, 1984) considers degrees of freedom in analysis of variance, and stipulates that the ratio between the error term and other sources of variation in the model may be 10:1. This condition of acceptability was met in the proposed research, as illustrated below:

Table 2. Analysis of Covariance Layout

Source of Variation	df
Treatment	1
Grade	2
Interaction	2
Error	173
Total	178

The final determination of sample size is, of course, dependent upon availability of subjects in field settings. In the context of the present study, it was feasible to involve six primary grade classrooms in the experimental treatment and three as the control, resulting in an N of no less than one hundred eighty (180) subjects. As class size varied, cell size was unequal for both experimental and control groups; however, analysis of covariance was able to accommodate this condition.

The expected N for each cell is illustrated in the proposed sample matrix:

Table 3. Proposed Cell Sizes

Grades	Treatments	
	Control	Experimental
First	N = 20	N = 40
Second	N = 20	N = 40
Third	N = 20	N = 40
	N = 60	N = 120

A research concern of no less importance than adequate sample size is that data be obtained from samples which have been randomly drawn from clearly defined populations (Courtney, 1986). In this study, the assumption for randomization of respondents was met since: (a) schools typically use random assignment for student/class placement, and (b) classes were randomly designated for control or experimental groups.

Procedure

The study was conducted Fall term, 1986. During the first session, respondents in both control and experimental groups were surveyed regarding their attitudes towards aging and elderly people. The post measure was administered following completion of the experimental treatment. The entire experiment was conducted during regular school hours, and within usual school environments.

A six-week pre/post interim provided a lapse of time brief enough to reasonably avoid validity problems due to subjects' maturation, participant mortality, or influences of historical events, and yet enough time to overcome the threat of experience effecting test-retest situations (Courtney, 1986). During this interval, the control group was not involved in any experimental context. The experimental group, however, participated in six sessions of approximately forty minutes each.

These treatment sessions, led by an adult presentor, included presentation of cognitively and affectively appropriate literature, and planned extension activities. Books included in the unit lesson (see Appendix) were endorsed by a gerontologist and an expert in children's literature. Subjects were involved through discussion and creative writing or art activities that encouraged exploration and expression of their beliefs and concerns regarding elderly people and their own aging.

As with other classroom-based research, there was both a research requirement to maintain consistency of treatment throughout experimental units, and a professional responsibility to accommodate specific and immediate needs of individual subjects and groups involved. In order to assure that treatment was consistent across experimental units, the following stipulations were met:

1. Literature, being the core of the educational unit under study, was specifically selected on the

basis of explicit or implicit theme dealing with either strength of character in elderly people, and/or their competence in problem solving; these variables set the affective tone for the treatment.

2. Selected literature was presented to all three levels.
3. The same literature was presented to all experimental groups during a one-week time span.
4. A single presenter administered both treatment for all six experimental groups, and pre and post surveys for all nine--experimental and control--research units.
5. Sessions adhered to lesson plans specifying objectives, extension activities, and materials.
6. Presentation of major content followed a written script (see Appendix).
7. Individualization of verbal, written and iconic responses on the part of subjects was expected and accommodated; still, every effort was made to be consistent in presentation of literature, structuring of activities, management of class interactions, and response to individual reactions.

At this point it is useful to restate a major purpose behind this entire project, that being, development and evaluation of an educational unit for grades first through third, that may be consistently used to provide accurate

and sensitive education regarding persons in their elderly years. Such a program must utilize currently available materials, provide an adequate teacher's manual, and employ practical classroom procedures. This particular unit was specific regarding lesson objectives and plans; the intent was that these lessons could be readily conducted in primary classrooms by early childhood professionals. Through use of the suggested literature, planned lessons, and prescribed materials, research evaluating the effect of the treatment may be replicated.

Treatment of the Data

Because the major purpose of this research was to determine whether there was a statistically significant difference in subjects' attitudes-toward-the-elderly-scores following treatment, the following hypothesis was tested:

H1 : There is no significant difference in attitude scores between the control and experimental groups. $H1 : \mu_c = \mu_e$

A second question addressed by this research was the existence of a statistically significant difference in scores between subjects at the first, second, or third grade level. Thus the following hypotheses were also tested:

H2 : There is no statistically significant difference in attitude scores between the first, second, or third

grade subjects. $H_2 : \mu_1 = \mu_2 = \mu_3$

H_3 : There is no statistically significant interaction difference between the means for treatment and grade levels.

Data for these determinations were in the form of pre and post survey scores associated with participation in either control or experimental groups. The variables to be contrasted were as follows: Control Pretest, Control Posttest, Experimental Pretest, and Experimental Posttest. The levels to be tested were First, Second and Third grades.

An analysis of covariance test was the statistical technique utilized to determine whether there was significant difference in scores as a result of the educational unit under study. This statistical technique, which combines analysis of variance and regression, is appropriate for situations where it is impossible to control all variables in the study (Courtney, 1984). Analysis of covariance tests for significant differences among post-measure mean scores using the F-ratio. A high correlation between the covariate and post measurements increases the effectiveness of this analysis technique in controlling experimental error. The covariate "adjusts the group means on the basis of individual differences which may still be present following random assignment or selection of subjects to groups" (Courtney, 1986, p. 124).

In order to utilize analysis of covariance certain assumptions must be met. These are as follows: (a) normal distribution; (b) random assignment; (c) linear regression with equal slopes; (d) interval scale data, and (e) a rational need to adjust post-measure means (Courtney, 1984, p. 466).

The analysis of covariance test employs the following statistical model:

$$Y_{ij} = \mu + \alpha_i + \beta(X_{ij} - \bar{X}) + \epsilon_{ij}$$

where, μ is a fixed constant representing the overall mean, α_i represents the treatment effect, $\beta(X_{ij} - \bar{X})$ is an adjustment of post-measure means, and ϵ_{ij} is a residual (error) variable (NID, 0, σ^2) (Courtney, 1984, p. 466).

The following analysis of covariance table, where total degrees of freedom equals $kn - 2$, illustrates the computing sequence.

Analysis of Covariance Arrangement
(Two-way Fixed Model)

Source of Variation	Adjusted			
	df	S	MS	F
Treatment	1	A	A/1	MSA/MSD
Grade	2	B	B/2	MSB/MSD
Interaction	2	C	C/2	MSC/MSD
Error	173	D	D/173	
Total	178			

"If men define situations as real, they are real in their consequences."

Thomas & Thomas
The Child in America, 1928, p. 1104

CHAPTER 4

RESULTS AND DISCUSSION

The purpose of this research was to determine whether a literature-based unit on aging significantly affected children's attitudes toward aging and the elderly. This investigation involved pre and post surveys of a sample of youngsters in first, second and third grades in public schools in Linn and Benton counties of Oregon.

Procedure for the Experiment

Research was conducted Fall of 1986, with subjects in both control and experimental groups responding to the pre survey (see Appendix), which was administered during the first weeks of school.

The survey instrument utilized with both groups was specifically constructed for subjects with limited reading skills, and it was validated by DELPHI Panel members who considered both content and format. The Hoyt-Stunkard method was used to test reliability of the final instrument and, though brief, it consisted of three formats: an evaluative response (EVAL); (b) a Likert-type scale of twelve statements (LIKE), and (c) a seven-item semantic differential (SD).

The evaluative portion was administered to subjects individually. For each group, an area outside the classroom was utilized and subjects were dismissed from their room to meet with the interviewer. Each subject was told to "think about someone who is old." Then the interviewer asked, "how does (that person) feel about being old?" and the subject's response was tape recorded.

The Likert-type and semantic differential portions of the survey were administered to whole class groups. The researcher and the classroom teacher monitored the group to assure that subjects understood and followed directions, and were keeping place on the instrument.

In weeks following the pre survey, parents or guardians of subjects in control and experimental groups were contacted through a written survey which was sent home with the youngsters. Adults were asked to estimate the frequency of their child's contact with the elderly persons during the twelve months preceding the time of survey. A sample form is included in the Appendix section.

Teachers were conscientious about the survey and when necessary sent additional forms home. The overall return rate for FREQ surveys was 96.5%.

During the fall of 1986, subjects in experimental groups also participated in "Learning About Elderly People," the six-session unit that is the object of this study. Lessons adhered to prepared plans which included a storytime, discussion, and follow-up activity. Post survey

sessions were scheduled subsequent to completion of the educational unit.

Subsequent to the 6 week treatment period, subjects in both the control and experimental groups then responded to the post survey, which again consisted of evaluative, Likert-type and semantic differential sections.

Hypotheses

The following three hypotheses were tested:

H1: There is no statistically significant difference in attitude scores between the control and experimental groups. $H1: \mu_C = \mu_E$

H2: There is no statistically significant difference in the attitude scores between the first, second and third grade levels. $H2: \mu_1 = \mu_2 = \mu_3$

H3: There is no statistically significant interaction difference between the means for treatment and grade levels.

Data Collection

In experiments using pre and post surveys, it is not always possible to have subjects present on both occasions; such was the case here. In addition, as it was not possible to anticipate all events in the field setting, there were several instances when unexpected school

functions made it impossible to administer the entire survey to each group in a single, scheduled session. Therefore, the number of subjects present for sections of the survey varied. Table 4 illustrates the number of subjects in each group who were present and correctly completed a portion of the survey. C_1 , C_2 and C_3 represent control groups at first, second and third grade levels, respectively. E_1 , E_2 and E_3 denote experimental groups at first, second and third grade levels, respectively.

Table 4. Control and Experimental Subjects Responding to Pre and Post Surveys by Grade Level

ORIGINAL N									
PER CELL	PRE	EVAL	PRE	LIKE	PRE	SD	EVAL	LIKE	SD
C1	19	19		19		19	16	16	17
C2	21	20		20		20	17	18	18
C3	22	21		22		22	22	22	22
Sub total	62	60		61		61	55	56	57
E1	43	37		41		41	39	38	38
E2	49	48		49		49	49	42	42
E3	47	45		46		45	42	40	41
Sub total	139	130		136		135	130	120	121
Total	201	190		197		196	185	176	178

Due to the large proportion of subjects who did not complete one or more portions of the survey, it was necessary to treat scores for the evaluative, Likert-type and semantic differential portions of the survey as

distinct variables, rather than to combine scores--as originally intended--for all portions as one dependent variable. Therefore, three measures (PRE EVAL/EVAL, PRE LIKE/LIKE and PRE SD/SD) were used to test each hypotheses.

Preparation of the Data

When presentation of the unit and the resulting data collection were complete, the researcher began transcribing tape recorded PRE EVAL and EVAL responses of both control and experimental groups. These statements were grouped by classroom so that raters would have to consider no more than twenty-five statements.

Adults who served independently as raters, were not told if statements they were reviewing were from pre or post surveys; this was to avoid biasing raters through a Halo effect. For each statement, they were merely directed to assign numerical values on a 1 - to - 5 (most negative to most positive) scale (see Appendix).

As described in the Methodology section, the average of values assigned by the five raters was utilized as the score for an evaluative statement.

To accommodate statistical processing, the following data were transferred to opt scan sheets: (a) FREQ survey information; (b) scores for PRE EVAL and EVAL responses, and (c) subjects' item-by-item responses to PRE LIKE, LIKE, PRE SD and SD portions of the survey.

It was also necessary to recode negative statements in

the Likert-type scale such that a response indicating disagreement with one of the negative statements would result in a positive attitude score. Specifically, scores for statements b, d, f, g, i and k were reversed during computer processing.

Frequency of Contact Survey

Following completion of the pre survey, frequency of contact with the elderly information was gathered from subjects' parent or guardian. Adults were asked to consider the twelve months immediately prior to the survey and estimate a "frequency of contact with the elderly" score for their child. Respondents were to use the following values to indicate their FREQ estimate:

- 4 = very regular (daily)
- 3 = frequent (weekly)
- 2 = occasional (holidays and other)
- 1 = very little (seldom)

FREQ Results

A full 96.5% of the FREQ surveys were returned. From these, an adjusted percent score was computed for each group, summed for levels, and totaled for all 192 responses. Table 5 illustrates the results of this survey in adjusted percentage totals.

Table 5. Estimate For Frequency Of Contact With Elderly

FREQ	Grade Levels			
	First	Second	Third	Total
4	10.0	17.9	10.8	13.0
3	28.3	34.3	36.9	33.3
2	43.3	32.8	29.2	34.9
1	18.3	14.9	32.1	18.8

Reliability

The Hoyt-Stunkard (1952) procedure was used to determine reliability of the instrument by statistically analyzing the degree of internal consistency for items on the survey. The guidelines below are included to facilitate interpretation of the reliability reached using this instrument.

.95 to .99 very high: rarely found

.90 to .94 high

.80 to .89 fairly high: adequate for individual measurement

.70 to .79 rather low: adequate for group measurement but not very satisfactory for individual measures.

below .70 low: entirely inadequate for individual measurement, although useful for group averages and school surveys (Harris, 1968, p. 23).

Reliability coefficients for the survey instrument were computed with the standardized item alpha (SPSS User's Guide, 1983) of +.44 for the PRE LIKE, +.54 for the LIKE,

+ .63 for the PRE SD and + .64 for the SD.

Considering the above guidelines, one must conclude that reliability for the instrument was low; however, it provided data about subjects' attitudes at distinct points in time. In reality, any data--cognitive and/or subjective--gathered from young subjects must be considered tentative, though still providing researchers and educators with general information about children's understanding and outlook.

Nonetheless, the low reliability of the survey instrument is a limitation in this research.

Results of Statistical Testing

Analysis of covariance was used to test the following hypotheses: (H1) for statistically significant difference between attitude scores derived from control and experimental groups; (H2) for statistically significant difference between attitude scores collected from first, second, and third grade levels, and (H3) for statistically significant interaction difference between mean scores from treatment and grade levels. Pre test values were used as covariates. Results of the statistical testing will be presented separately for the evaluative, Likert-type and semantic differential measures.

The following table illustrates results from the statistical comparison of pre and post mean scores for the evaluative measures. (see Appendix 10 for Means)

Table 6. Ancov Table for Results Of Evaluative Scale by Treatment and Grade

Source of Variation	df	ss	ms	F	Ho Decision
Treatment	1	1.22964	1.22964	.07	retain
Grade	2	8.36937	4.18468	.24	retain
Interaction	2	15.43955	7.71978	.44	retain
Error	156	2721.18972	17.44352		

Statistical analysis of PRE EVAL and EVAL scores indicated that retention of the three original research hypotheses was appropriate. First, statistical comparison of pre and post scores derived from control and experimental groups resulted in a computed F which was less than the tabular value; therefore, the original hypothesis regarding treatment effect was retained. Second, the F value which resulted from comparison of pre and post measure mean scores for the three grade levels was less than the tabular value; thus, Hypothesis 2 was retained. Third, the test for interactive difference between treatment and grade levels resulted in a computed F less than the tabular F value; hence, Hypothesis 3 was also retained.

Table 7 below illustrates the results of statistical testing for the Likert-type measures (see Appendix 10 for Means).

Statistical analysis of PRE LIKE and LIKE scores indicated that the appropriate decisions were to retain

Table 7. Ancov Table for Results Of Likert-Scale
by Treatment and Grade

Source of Variation	df	ss	ms	F	Ho Decision
Treatment	1	647.12176	647.12176	2.56	retain
Grade	2	113.56896	56.78448	.22	retain
Interaction	2	415.11793	207.55897	.82	retain
Error	162	41004.30487	253.11299		

all these hypotheses. Comparison of scores which tested for treatment effect resulted in a computed F less than the tabular value, statistically indicating that treatment had not significantly affected attitude scores. Further, comparison of mean scores from grade level units indicated no statistically significant difference between levels, which substantiated Hypothesis 2. Lastly, as analysis of data for the interaction variable resulted in a computed F less than the tabular value, Hypothesis 3, which predicted no statistically significant interaction effect was retained.

Results from the statistical comparison of PRE SD and SD scores are presented in Table 8. (see Appendix 10 for Means)

Statistical analysis of data from PRE SD and SD measures again supported the three original research hypotheses. When tested, the statistical comparison of pre and post mean scores collected from control and experimental

Table 8. Ancov Table for Results Of Semantic Differential Scale by Treatment and Grade

Source of Variation	df	ss	ms	F	Ho Decision
Treatment	1	272.22994	272.22994	.73	retain
Grade	2	300.75832	150.37916	.40	retain
Interaction	2	137.93928	68.96964	.18	retain
Error	163	60796.56071	372.98504		

groups resulted in a computed F which was less than the tabular value; thus, Hypothesis 1 which predicted no significant treatment difference was retained. Likewise, analysis determined that differences between scores from the first, second and third grade levels were not statistically significant, and therefore, Hypothesis 2 was validated. Finally, as the test for statistically significant interaction difference resulted in a computed F which was less than the tabular F value, Hypothesis 3 was retained.

In summary, results from statistical analysis of the data collected through three divergent survey portions consistently supported the original research hypotheses. Consequently, at least in terms of this available data, one must conclude that neither treatment nor grade level had a statistically significant effect upon attitude scores nor did interaction of these variables.

Qualitative Data

In addition to statistical comparisons of scores from control and experimental groups as a basis for evaluation of the unit, "Learning About Elderly People," a substantial outcome of the present study was the qualitative information gathered on subjects' attitudes toward aging and the elderly.

While description and analysis of the qualitative data gathered through pre and post attitude surveys goes beyond the original purposes of the present study, these data are of interest and do add breadth to the investigation; thus, it seems appropriate and worthwhile to report on the qualitative findings of this research.

Statistical analysis of pre and post surveys indicated that neither treatment nor grade level significantly effected subjects' attitudes toward the attitude object. Therefore, the qualitative analysis did not focus on distinctions between responses of control or experimental groups, nor was it concerned with the response variations of specific grade levels.

Qualitative data were handled separately and in a different manner for the three survey measures. (a) For the evaluative portion, descriptive words and/or topics in subject-generated statements were identified, tallied, and categorized; then, counts were converted to percent data. (b) For the Likert-type scale, percentages of responses

indicating either agreement, disagreement, or a some are/some aren't position regarding a given statement were calculated separately for pretest and posttest measures.

(c) Qualitative analysis of the semantic differential data involved ranking the frequency percentages for given descriptors selected in pre and then again in post measures. (d) Finally, findings from the item-by-item analysis of the three separate survey portions were compared and related to yield information useful to gerontologists and educators. Results of the qualitative study are presented and detailed in the following sections.

The Evaluative Statements

Subjects' evaluative responses were based upon their perceptions of old age. Specifically, subjects were asked to "think about" people when they're old, and then to verbalize how they (the subjects) imagined the people felt about being old. Responses were then tape recorded, transcribed, and examined for descriptive vocabulary or descriptive topics. The qualitative analysis, which was conducted subsequent to completion of all pre and post surveys, examined statements from both PRE EVAL and EVAL measures, given by both control and experimental subjects. And because statements were generated by subjects, they may be particularly accurate reflections of each individual's cognitive and affective position at the time of interviewing.

In total, 368 statements were analyzed. Of these, 20.7% were transitional or other, but the remaining statements clearly indicated the identification of a descriptive word or topic. For example, the word "happy" was identified as the descriptor in the following statement: "My grandma. I think she feels happy to be old, because she laughs a lot when I'm not even talking something funny."

Descriptor/topics were recorded and tallied, with similar descriptors arranged categorically and tallied. Nominal data were converted to percentage information. Table 9 completely summarizes the descriptor/topics.

In summary, from the universe of possible descriptors (apathetic to zesty) and/or topics (accomplishments to zealousness), subjects were clearly limited and predominately negative in their responses. Of the 368 statements, only 27% utilized positive descriptors and/or incorporated positive aspects of old age. For example, such statements included feeling good about grandchildren, retirement, and life's accomplishments. Another 19% of the statements included responses such as "I don't know," or "okay," and transitional statements that described the elderly as feeling "sad and glad," or "good and bad." Clearly, 2% of the evaluative statements reflected subjects' confusion--either chronologically or historically--with the term "old."

Conversely, a full 51% of the statements involved negative descriptors or characterized old age in terms of

Table 9. Analysis of 368 Evaluative Statements

Subjects (control and experimental) evaluative statements included the following descriptors/topics from the universe of possible descriptors:

<u>Descriptor/Topics</u>	<u>Percentage from 368 Statements</u>
<u>Positive</u>	
"happy"	12.8
"good"	6.2
grandchildren	3.3
"likes it", "pretty house", "retired", "lots of money"	2.7
"loved"	1.3
like themselves, "proud" of accomplishments and knowledge	<u>1.1</u>
Total % Positive	27.4
<u>Transitional</u>	
"sad and glad", "good and bad"	4.9
"okay", "don't mind"	<u>4.3</u>
Total % Transitional	9.2
<u>Negative</u>	
"sad"	10.3
concerned about death, "scared" to die, "wants to die"	8.7
"sick", "disease", "pain", "surgery", "disabled"	7.3
"doesn't like it"	7.3
"lonely"	6.5
"tired", "sleepy", "slow", "weak"	3.3
"weird"	2.4
"bad"	1.9
"mad"	1.4
"wants to live longer"	1.1
"no money"	<u>.8</u>
Total % Negative	51.0
<u>Other</u>	
"Washington", "Lincoln", "my dad"	1.7
Neutral, "don't know"	<u>9.8</u>
Total % Other	11.5

unpleasant aspects. These specific responses reflected knowledge subjects had derived from contact (however limited) with elderly individuals in each subject's personal environment. In 10% of the evaluative statements, "sad" was the exact word chosen to describe how (an) elderly person(s) feel(s) about being old. Another 9% of the PRE EVAL and EVAL responses dealt with aspects of death, or fear of dying. Categories for statements to the effect that an elderly person has poor health, "doesn't like it (old age)," or is "lonely" each constituted another 7% of the total.

The Likert-Type Scale

The Likert-type scale used in pre and post survey evaluations consisted of 6 positive and 6 negative statements. These were printed on response sheets, and subjects followed along as statements were read aloud by the researcher. The classroom teacher was also present to assist with monitoring the procedure. Respondents were asked to: (a) indicate agreement with a statement by filling in the circular nose on a correspondingly happy face; (b) indicate disagreement with a statement by marking the appropriate sad face, or (c) indicate that they felt that the statement was true in some instances and false in others by filling in the nose on the face with the straight mouth. A sample form is included in the Appendix to this report.

Subjects were frequently reminded that the responses given depended solely upon their opinion, and that the researcher was interested in learning about the individual thoughts of the subjects.

Table 10 illustrates the item-by-item percentages of responses for pre and post measures. The presentation of figures in Table 10 reflects recoding of positive and negative statements.

In 16 out of the 24 measures, the "some are/some aren't" response to a statement was the mode. Notable exceptions include strong agreement, in pre surveys and post surveys, with the following statements: (a) I like to be with old people (pre = 69.2%, post = 64.2%), (b) I like old people (pre = 75.9%, post = 63.6%), and (c) Old people like me (pre = 60.7%, post = 50.6%). These descriptions of interpersonal relationships are also expressions of socially appropriate relationships, and subsequent expectations.

In addition, and with only one exception, percentages of "some are/some aren't" responses increased for post measures, and choice of polar responses decreased. The inference here is that despite the fact that all-or-nothing judgments are easier than those requiring more discriminating consideration (Osgood & Tannenbaum, in Insko, 1967), sophistication of the entire group increased between pre and post surveys to the extent that subjects were even less inclined to agree that generalities about old age held true for all elderly people.

Table 10. Percentage Item-By-Item Responses To PRE LIKE
And LIKE Measures

- = negative response
0 = some are/some aren't responses
+ = positive response

Statement	Response	% PRE LIKE	% LIKE
a. Old people are smart.	-	4.6%	4.0%
	0	72.1%	69.9%
	+	23.4%	26.0%
b. Old people are tired.	-	51.8%	29.5%
	0	42.6%	68.8%
	+	5.6%	1.7%
c. Old people are friendly.	-	3.1%	1.2%
	0	42.6%	61.3%
	+	54.4%	37.6%
d. Old people do not like children.	-	10.8%	5.8%
	0	44.1%	59.0%
	+	45.1%	35.3%
e. I like to be with old people.	-	2.1%	2.3%
	0	28.7%	33.5%
	+	69.2%	64.2%
f. Old people want to be young again.	-	37.4%	26.0%
	0	55.4%	67.1%
	+	7.2%	6.9%
g. Old people are grouch.	-	8.7%	4.7%
	0	61.7%	71.9%
	+	29.6%	23.4%
h. I like old people.	-	1.0%	2.9%
	0	23.1%	33.5%
	+	75.9%	63.6%
i. Old people get sick.	-	45.6%	39.3%
	0	49.7%	54.3%
	+	4.6%	6.4%
j. Old people like to do things.	-	2.6%	4.0%
	0	54.6%	63.6%
	+	42.9%	32.4%
k. Old people are lonely.	-	20.9%	18.6%
	0	60.2%	71.5%
	+	18.9%	9.9%
l. Old people like me.	-	.5%	1.2%
	0	38.8%	48.3%
	+	60.7%	50.6%

Results of the FREQ survey indicated that 53.7% of these subjects had occasional to little contact with elderly people, with such contact typically occurring during holidays or at special gatherings. Still, the PRE LIKE and LIKE measures revealed that respondents felt strong agreement with the positive statements (c, e, h and l) above. This suggests that the intergenerational contacts these children do have, however limited, are positive, and that despite widespread negative perceptions of aging, expectations for intergenerational relationships are still positive for these children.

It follows, then, that increased first-hand experience with elderly persons who enjoy varying degrees of vitality, prosperity and life satisfaction would extend children's opportunities for cognitive input, affective associations, and behavioral change.

The Semantic Differential

Semantic differential responses were recorded as item-by-item data. The frequency of selection for given descriptors was then converted to percentage data. Table 11 below catalogs item-by-item percentages for selected descriptors in PRE SD and SD measures.

Ranking of these data from the semantic differential measures displays the following preferred-item descriptors: friendly, cheerful, wise, slow, weak, happy and healthy. Further and more detailed comparison of these descriptors

Table 11. Semantic Differential Data

Percentages for Descriptors Chosen by Control and Experimental Subjects in PRE SD and SD Measures.

Testing	Descriptors	
	friendly	/ mean
pre	96.9%	3.1%
post	97.7%	2.3%
	cheerful	/ grouchy
pre	90.8%	9.2%
post	86.6%	13.4%
	wise	/ foolish
pre	89.3%	10.7%
post	89.7%	10.3%
	slow	/ fast
pre	82.1%	17.9%
post	82.2%	17.8%
	weak	/ strong
pre	72.0%	28.0%
post	75.5%	24.3%
	happy	/ sad
pre	69.7%	30.3%
post	72.6%	27.4%
	healthy	/ sick
pre	60.1%	39.9%
post	56.3%	43.7%

with generalizations from the other two survey portions is also of interest.

Specifically, the descriptors "friendly" and "cheerful" are consistent with data from the PRE LIKE and

LIKE surveys, in which most subjects agreed that they like to be with elderly people (PRE LIKE = 69.2%, LIKE = 64.2%), like old people (PRE LIKE = 75.9%, LIKE = 63.9%), and are liked by elderly people (PRE LIKE = 69.2%, LIKE = 64.2%).

Furthermore, nearly 90% of the PRE SD and SD responses favored the descriptor "wise" over "foolish." And when given the statement, "Old people are smart," in the Likert-type portion of the survey, while 72% of the PRE LIKE and 70% of the LIKE marked the "some are/some aren't" responses, approximately one quarter of the PRE LIKE and LIKE responses agreed with the statement. Analysis of data from the evaluative measures reveals that 1% of the responses described elderly people as being "knowledgeable" or proud of themselves and their accomplishments. As one respondent put it, "They're a lot older and they've seen a lot."

Responding to both PRE SD and SD measures, 82% of the subjects selected the term "slow" as opposed to "fast," and about 75% chose "weak" instead of "strong." During evaluative testing, when selecting from the universe of possible descriptors, 3% of the statements given specifically described old people as "slow," "weak," "tired" or "sleepy." Still, 43% of the PRE LIKE and 32% of the LIKE responses were in agreement with the statement that "Old people like to do things."

In the semantic differential measures, the adjective "happy" was selected over the word "sad" on more than two-

out-of-three of the pre surveys and post surveys. This is consistent with analysis of the evaluative data. In PRE EVAL and EVAL measures, 27% of the evaluative responses included the term "happy" or "good" or dealt with positive aspects of aging, yet, the descriptor "sad" was the exact word chosen by subjects in 10% of the statements given.

For items dealing with the physical condition or health of elderly people, data from the Likert-type and semantic differential portions of the survey were inconsistent. When responding to the Likert-type item, "Old people get sick," less than 10% agreed with the statement, about 45% disagreed, and about half of the pre responses and post responses indicated that subjects thought some (old people) do/some don't "get sick." And on the PRE SD and SD items, about 60% of the subjects chose the term "healthy" as opposed to "sick." Nonetheless, 7% of the PRE EVAL and EVAL statements specifically dealt with sickness, surgery, pain and/or disabilities experienced by elderly people, and another 9% included comments about death or fear of dying. The following are examples that clearly reflect subjects' knowledge of the physical condition of a specific elderly individual: (a) "He had a heart attack and he had a 'disease'"; and (b) My grandpa died, and he told me how he felt before he died; he feeled kinda painful and stuff." Statements such as these invite speculation about the benefits of children having increased contact with a variety of elderly people in order to expand

their--the children's--perceptions and expectations about physical health and vitality during old age.

Summary

In this section, the processes for data collection and analysis were summarized, research results were presented, and comparisons of specific findings from separate survey portions were drawn to provide a base for final conclusions.

The major results were threefold. First, the original research hypotheses-- H_1 , H_2 and H_3 -- were judged acceptable. No statistically significant difference in attitude scores between control and experimental groups was found; there was no statistically significant difference in attitude scores between the first, second and third grade levels and there was no statistically significant interaction difference between the means for treatment and grade levels.

Second, results from the frequency of contact survey revealed that the majority of children in this sample had limited and infrequent contact with elderly people.

Third, analysis and comparison of qualitative data provided generalizations capable of helping educational efforts of early childhood professionals and gerontologists.

CHAPTER V

SUMMARY, DISCUSSION AND CONCLUSIONS

The primary purpose of this study was to determine whether participation in a "Learning About Elderly People" unit significantly affected subjects' attitudes toward old age and the elderly. A pre and post design was utilized to contrast scores for control and experimental groups. Subjects, who were first, second or third grade students attending public schools in Linn and Benton Counties of Oregon, were involved in data collection Fall term of 1986.

The survey instrument, which had been validated through the DELPHI technique, consisted of: (a) an evaluative response; (b) a Likert-type scale, and (c) a semantic differential.

Reliability for the Likert-type and semantic differential portions of the survey was analyzed using the Hoyt-Stunkard (1952) procedure. Although it was pointed out earlier that reliability was low in terms of cognitive considerations, coefficients computed for the Likert-type and semantic differential scales are considered more acceptable in areas of affective measurements; thus the survey may be considered to have greater reliability than originally stated. The instrument was useful for present research purposes involving group averages from a school survey (Harris, 1968).

Original hypotheses were threefold: (1) that there would be no statistically significant differences in

attitude scores between control and experimental groups; (2) that there would be no statistically significant difference in attitude scores between the first, second and third grade levels, and (3) that there would be no statistically significant interaction difference between the means for treatment and grade levels.

In order to test these hypotheses, scores from pre and post measures were contrasted through analysis of covariance. Data were considered separately for evaluative, Likert-type and semantic differential portions of the survey.

All three original hypotheses were retained, the implication being that results of statistical testing indicated neither participation in the experimental treatment nor grade level significantly affected subjects' attitudes toward the attitude object.

A concomitant finding of this research was related to the subjects' frequency of contact with elderly individuals. Parents or guardians of youngsters in this sample were asked to estimate a contact-frequency score for their child. Information from the FREQ survey was converted to adjusted percentage data. The majority of children in this sample had very limited contact with elderly people.

This research also provided qualitative information on subjects' attitudes toward the elderly and old age. Here

data were obtained and analyzed separately for the three portions of pre and post surveys.

Responses to the evaluative portion were generated by individual subjects; thus, it appears reasonable to comment that these statements may be particularly accurate reflections of each youngster's thoughts at the time of interviewing. This qualitative measure revealed that subjects were fairly consistent in statements describing their perceptions of how people "feel about being old." By a ratio of almost two-to-one, the descriptions focused on negative aspects of aging. Whether these statements reflected accurate comprehension of difficulties experienced by an elderly individual in the subject's environment, or simply information gleaned from other sources is impossible to verify; yet, it is worth noting that half of the responses dealt with negative attributes.

The data is especially interesting nonetheless, since we tend to evaluate our chances of success with the unfamiliar or in tasks with which we have no experience, by comparing ourselves to others. Regarding aging, therefore, as present research suggests that many youngsters equate it with images of sadness, sickness, loneliness and death, such descriptors have the tendency to become ingredients of self-fulfilling prophecy. Interpersonal expectations appear "to influence both the behavior of the person holding the expectation and the behavior of the person about whom the expectation is held," (Jones, 1977, p. 4).

The result increases the "probability that the expectation will be validated" (Jones, 1977, p. 5). Although not a new idea, it appears that "If men define situations as real, they are real in their consequences" (Thomas & Thomas, 1928, p. 1104).

Analysis of data in the Likert-type portion revealed that the dominant response was the "some are/some aren't" option. Actually, the percentage of these responses increased in post measure, thus possibly reflecting the increasing hesitancy of subjects to mark agreement with generalized statements about elderly people. This finding is consistent, however, with subjects' individually generated evaluative statements. Of these, nearly 80% of the statements were specific and based upon each subject's familiarity with and/or knowledge of an elderly individual with 27% citing positive aspects of old age, and 51% mentioning negative attributes. Approximately 20% of the evaluative responses were neutral: for instance, "I don't know" and "okay," or transitional statements, as exemplified by the phrase, "good and bad."

Exceptions were those reflecting considerable agreement with the following statements: "I like to be with old people," "I like old people," and "Old people like me." Each clearly suggests socially approved and desirable perspectives regarding relationships, and may be interpreted partially as resulting from subjects' interest in responding appropriately.

Analysis of the semantic differential portion of the survey provided a ranking of preference for given descriptors. Specifically, friendly, cheerful, wise, slow, weak, happy and healthy were selected over polarized options.

In summation, qualitative data from this research led to two useful generalizations: (a) subjects perceive elderly people as being likable and gregarious, and (b) the wide range in responses to items regarding physical circumstances associated with old age, and the subjects' hesitancy to agree with polarized descriptions of elderly people suggests that for these youngsters, perceptions of health during old age are based on knowledge gained through their intergenerational experiences rather than from stereotypes.

Overall, then, these children were aware of specific negative and positive attributes associated with the old age and aging of certain individuals. What subjects lacked was a broad and sustained experiential base for contacts with a variety of elderly.

Discussion

Quantitative results of the present research indicate that the treatment under study did not have a significant positive effect on subjects' attitudes as measured by the survey instrument. This section addresses possible

explanations, both those relating to the experiment and others concerned with instrumentation.

The Treatment

As explained in the literature review, the construct attitude is composed of cognitive, affective and behavioral components (Fishbein, 1966); thus, to increase overall effectiveness of a persuasive campaign such as the present educational unit, researchers must assertively manipulate all three aspects. With this in mind, one may consider the content and process of the experimental treatment, and reasonably conclude that the present treatment did not adequately manipulate all three components to affect statistically significant positive change in subjects' attitudes. Original rationale focused on a behavioral approach, however logistics in carrying out the study facilitated a move toward a cognitive approach. The unit did apparently address cognitive and affective components of attitude; literature included in "Learning About Elderly People" was endorsed by a gerontologist and an expert in children's literature; they considered content, vocabulary, theme and appeal for each book. Likewise, unit lesson plans included activities and materials familiar to youngsters in the grade levels involved. The lessons received strong positive reviews from cooperating classroom teachers who read plans and observed presentations. In addition, experimental subjects were cooperative,

interested and eager to participate. However, in the context of the experiment, subjects were not provided opportunities for contact with, and/or responses to the attitude object; thus, suitable opportunities for behavioral change were lacking. Logically then, to be consistent with both cognitive and behavioral approaches, increased attention to the behavioral component through intergenerational contact, and a strong, well-planned program of reinforcement, may be necessary to augment effectiveness of the unit.

Another factor influencing effectiveness may have been the relatively short duration of the educational unit under consideration. A unit of increased duration would: (a) permit presentation of more stories about elderly people, thereby increasing opportunity for cognitive and affective input, and (b) allow more time for subjects to accommodate the information presented in relation to their past and on-going experiential input.

Instrumentation

Instrumentation is another variable which may in part account for quantitative results of the present study. The survey instrument, though specifically constructed for research purposes and validated by DELPHI, must nevertheless be viewed as experimental, and perhaps requiring modification.

In any research, efforts to operationalize subjective

topics potentially limit validity; as examples, the use of fixed-format may force subjects' response, just as preselected vocabulary may amount to "putting words into their mouths or at the tips of their pencils" (Jones, 1977, p. 57). This may be particularly true for young respondents who have limited communication skills and vocabulary. The evaluative portion of the survey was included to diminish this hazard; still, the problem cannot be dismissed.

The Respondents

Further, despite use of formats that were utilitarian and meaningful while still being attractive for children, relative immaturity of the subjects clearly affected the reliability of responses. Directions for Likert-type and semantic differential portions of the survey were clearly presented, and subjects' comprehension was assured immediately preceding administration; yet, despite efforts to encourage reasonable responses to items in the Likert-type measure, individual subjects, finding all-or-nothing responses easier than more discriminating judgments (Osgood & Tannenbaum, in Insko, 1967), may have fallen into a response set. Also, youthful subjects may have been enticed into an attractive response pattern (all happy faces or happy-straight-sad-happy-straight-sad, etc.) and marked accordingly.

Finally, one must question the overall reliability of

the semantic differential portion of the survey. Although this "technique has been widely used as an attitudinal rating scale, its applicability to the rating by children" of the concepts of old age has seldom been investigated (Jantz, Seefeldt, Galper & Serock, 1977, p. 12). In the context of the present research, some respondents expressed concern that neither of the polarized words presented was appropriate. And while these youngsters complied with repeated directions to "think about people when they are old and choose the word that best describes" the elderly, one must question the reliability of respondents selecting a response from "categories that are (not) meaningful with respect to their particular expectations" (Jones, 1977, p. 3). Indeed, frustration may have caused purposeful disregard. In addition, as initial values were very high, there was little possibility for "improvement" or increase between pre and post scores.

Another possible instrumentation problem was the use of adult raters to assign values to evaluative statements. The method used in present research was a modification of Thurstone's (1928) procedure for rater assignment of values to statements at "equal appearing intervals." Here, however, raters assigned values with reference to a more narrow scale than the eleven points suggested by Thurstone, and the number of raters was considerably less than the 200-300 individuals involved in the Thurstone process. In essence, then, it is fair to say that a Thurstone-like

(Courtney, in class, 1986) procedure was followed in assigning values to statements.

Specifically, raters considered isolated statements in relation to a five point scale, and were without knowledge of individual respondents or their milieu of experience. This lack of definitive information--information that might otherwise have affected their perception of statements--forced them into simple judgments. And, as Osgood and Tannenbaum theorize, such judgments, while easier than those requiring more discriminating evaluation, tend to be extreme, with continuing pressure toward polarization (Zajonc, in Seudfled, 1971).

Thus, if in fact the raters themselves were, like so many Americans, afflicted with the negative stereotypes of aging, then it follows they may well have incorrectly perceived, and subsequently valued negative connotations from subjects' statements in an attempt to reduce their own level of dissonance through defensive misperception of the information (Insko, 1967) in printed attitude statements.

There is also the possibility that a halo effect (Courtney, 1982) biased raters. If, in fact, raters themselves perceived the existence of an ageist attitude in contemporary American culture, and subconsciously reasoned that these young subjects had also been influenced by this perceived attitude, rater bias may have affected ratings.

Data in Table 12 show the consistency with which the

mode score for evaluative statements was the lowest possible score.

Table 12. Modes For Rater-Assigned Evaluative Statement Scores

	C1	C2	C3	C123	E1	E2	E3	E123	ALL
PRE EVAL	3	9	3	3	12	3	3	3	3
EVAL	3	3	3	3	3	3	3	3	3

Conclusions

Persons who have lived long lives will most certainly enjoy varying degrees of vitality, prosperity and life satisfaction. It follows, then, that (a) increased and varied input (both cognitive and experiential) regarding old age would provide youngsters a broader perspective regarding the needs and strengths of elderly people, and (b) such a perspective would obviously provide a more realistic base for children's developing perceptions and expectations for their own so called "golden years."

Results of the present research verified that participation in the six-session "Learning About Elderly People" unit alone did not produce statistically significant "positive" attitudinal change for subjects in this sample, youngsters who typically had very limited contact with elderly people. Yet, it is reasonable to assume that: (a) this unit, when presented in connection with increased attention to the behavioral component of attitudes through

intergenerational contacts, and/or (b) a similar literature-based unit expanded in terms of quantity and/or duration, may significantly influence not only the subjects' perceptions of old age and attitudes toward elderly people but, ultimately, their own approach to aging. As this position is speculative, however, further research is warranted.

The primary outcome of the present research became apparent after statistical analysis requirements of the initial problem and design had been completed; at this point the focus of the investigation became examination of the data for qualitative information. This study revealed a shift in survey responses toward the neutral. Specifically, review of pre and post data from the Likert-type scale clearly indicated that participants, irrespective of treatment group, became even less inclined to agree that generalizations about old age hold true for everyone. This shift to a neutral response reflects movement toward a less stereotyped position, one in which subjects may consequently be more inclined to maintain an open minded attitude regarding elderly individuals, as well as personal expectations for later life. This in turn suggested that a change in emphasis, from development of "positively" stereotypic attitudes, to a position actually quite different than the original research focus, might well be a more appropriate goal; the educational implication is that programs seeking to deal with attitudes toward the diverse

population we label as "the elderly," may be more correct to focus on development of neutral, open minded attitudes.

Suggestions for Further Study

Based on results of the current research and supporting information, the following recommendations seem reasonable:

1. Future research should be directed toward identifying children's sources of knowledge about aging and old age. The impact of such presentations--when modified to focus on accurate, non-stereotyped information--is a reasonable and practical research concern.

For instance, in the current investigation 53.7% of the subjects had occasional to very little contact with elderly persons, and yet 51% of the pre and post survey evaluative statements given by these youngsters were substantially concerned with negative aspects of aging. Thus, it could be argued that even without first-hand experiential learning, children are still picking up information related to old age, generalizations they glean from secondary sources are often negative.

The significance of this assumption is particularly troubling, given that social attitudes are formed at an early age. The first six years of life are especially important, although it is a mistake to regard early childhood alone as responsible for development of social attitudes (Allport, 1958). Recent research suggests

however, that most children have formalized and internalized perceptions and attitudes about elderly years by the age of eight (Rich, Myrick & Campbell, 1983).

Just which elements in early childhood environments are influential regarding perceptions of old age are, nonetheless, not so certain. It is well documented that presentations of elderly persons in children's literature and in other media are consistently stereotypic and negative. And in the "real world," it is documented that negative attitudes held by adults have the effect of self-fulfilling prophecy, thus influencing behaviors of individuals holding the expectation as well as attitudes and behaviors of others. Clearly, then, there is need for continued educational and gerontological research to determine children's sources for age-related information, and assist youngsters with development of realistic and healthy attitudes toward aging and old age.

2. There is need for refinement of a survey instrument appropriate for youthful subjects, yet with better accuracy, sensitivity and reliability. Specifically, the instrument must avoid a fixed format and preselected vocabulary that puts words into the mouths of respondents (Jones, 1977). It is also essential to recognize and reduce the possibility that those involved in research misconstrue the responses of subjects--especially those respondents who have limited communication skills and vocabulary--and indeed, perceive aspects of evaluation

where none were intended. There is also concern that reliability of the survey may be jeopardized simply by subjects immaturity and casual approach. Nevertheless, and despite difficulties surrounding construction of such an instrument, research of children's cognitive and subjective positions regarding aging is necessary, thus supporting the need for a survey tool.

3. Research should complement and accelerate efforts to (a) provide early childhood professionals with accurate information on aging and the changing expectations and lifestyles of elderly persons, and (b) develop curriculum materials that specifically address the diversity in strengths and needs of people who have lived long lives.

4. Another research objective should be implementation and subsequent evaluation of programs intended to complement cognitive information with opportunities for children to participate in intergenerational experiences. Considering that 53.7% of the children involved in this study had only occasional to very little contact with elderly persons, offering school-setting opportunities for positive intergenerational experience, and behavioral change, may be influential.

In American society, schools are in a unique position for affecting change. As an agent of the public's common goals, efforts by schools typically have positive sanction from community, and therefore can readily provide both data

and the "favorable conditions" (Amir, 1969, p. 338) for contact that may help correct stereotypes and affect attitude change. The effect(s) of intergenerational experiences within a school context is beyond the scope of data generated by the present study; the possible benefits from such contact are therefore speculative. However, school-sponsored, intergenerational programs are already functioning in communities throughout the country. Of these, those that are: (a) providing equal status contact between young and old participants; (b) positively sanctioned by the community; (c) intimate and continued over an extended period of time; (d) addressed to functionally important goals for both groups, and (e) pleasant and rewarding (Allport, 1958; Amir, 1969) figure to be most persuasive and positively affective.

The position that "contact leads to increased acceptance and generates receptivity for additional contact" (Levine, 1969, p. 1) is substantiated by studies of established and on-going intergenerational programs, ones in which participants at both ends of the life continuum report that they enjoy and look forward to a rewarding exchange.

5. The present study evaluating "Learning About Elderly People" should be modified to provide a behavioral component. For instance, substituting an "attractive" (Festinger, in Suedfeld, 1971) elderly individual or

individuals for the adult presenter, while still providing the "favorable conditions" for contact (Amir, 1969), may enhance efforts to affect attitudes. Based on the experience and results of the present study, it seems that intergenerational contact should precede presentation of the educational unit. Further, contact with a variety of elderly individuals is recommended.

6. An organization should be established to: (a) coordinate and train elderly volunteers, and (b) provide aging-related instructional resources, so that a variety of elderly role models may be brought into primary grade classrooms on a regular basis.

Summation

This study was conducted as a pretest/posttest experiment to contrast the attitudes of control and experimental subjects (first, second and third grades) relative to participation in a literature-based unit on the elderly. The majority of subjects in this sample had occasional-to-very-little-contact with old people. Analysis of covariance testing analysis of pre and post attitude survey scores indicated that not treatment, nor grade level, nor interaction of these variables had statistically significant "positive" effect on subjects' attitudes toward the attitude object. Reliability for the instrument was low, yet, acceptable for an attitudinal survey. The measures were useful as group averages, and provided data

for qualitative examination, yielding information which may assist educators in consideration of appropriate aging-related curriculum. Summary pages also included: (a) discussion of treatment, instrumentation and subject immaturity as possible explanations for quantitative results; (b) a conclusion which states that accurate input (both cognitive and experiential) may increase the likelihood that children develop realistic expectations for old age, and (c) suggestions for further research.

REFERENCES

- Allen, B.J. "Perceptions of the Need for an Aging Program in Florida Schools." Unpublished paper, Florida State University, Tallahassee, 1978.
- Allport, G. The Nature of Prejudice. New York: Doubleday, 1958.
- Amir, Yehuda. "Contact Hypothesis in Ethnic Relations." Psychological Bulletin, May 1969, 71, 319-342.
- Ansello, E.F. "Age in Ageism in Children's First Literature." Educational Gerontology, 1977, 2, 255-274.
- _____. "Aging: the Subtle Stereotype." Childhood Education, 1978, 118-122.
- _____. "How Older People are Stereotyped." Inter-racial Books for Children Bulletin, 1976, 7, 4-10.
- Barnum, P.W. "The Aged in Young Children's Literature," Language Arts, 1977, 54.
- Bekker, L.D., & Taylor, C. "Attitudes Toward the Aged in a Multi-Generational Sample." Journal of Gerontology, 1966, 21, 115-118.
- Bell, B.D. & Stanfield, G.G. "The Aging Stereotype in Experimental Perspective." The Gerontologist, 1973, Autumn Part 1, 341-344.
- Betzold, J. "Residents in the Giving Role." Innovations in Activities for the Elderly, New York: The Hawthorn Press, Inc., 1985.
- Blue, G.F. "The Aging as Portrayed in Realistic Fiction for children 1945-1975." The Gerontologist, 1978, 18, 187-192.
- Britton, J.O., & Britton, J.H. "Discrimination of Age by Preschool Children." Journal of Gerontology, 1969, 24, 457-460.
- Carstensen, L., Mason, S.E., & Caldwell, E.C. "Children's Attitudes Toward the Elderly: an Intergenerational Technique for Change." Educational Gerontology, 1982, 8, 291-301.
- Constant, H. "The Image of Grandparents in Children's Literature." Language Arts, 1977, 54, 33-40.

- Corbin, D.E., Kagan, D.M., & Mental-Corbin, J. "Content Analysis of Intergenerational Unit on Aging in a Sixth-Grade Classroom." Educational Gerontology, 1987, 13, 403-410.
- Courtney, W. Techniques of Research. Division of Continuing Education, Oregon State University, 1982.
- _____. Analysis. Division of Continuing Education Oregon State University, 1984.
- _____. Design for Research. Sanderling press, 1986.
- _____. Seminar: §Design for Educational Research. (Ed507K Class), July, 1986.
- Cyphert, F. R., & Gant, W. L. "The Delphi Technique: A Case Study." Phi Delta Kappan, Jan. 1971, 272-273.
- Dobrosky, B. J., & Bishop, J. M. "Children's Perceptions of Old People." Educational Gerontology, 12, 1986, 429-439.
- Dodson, A. E., & Hause, J. B. "'Realistic' Portrayal of Aging," McCarthy-Towne School, 1981.
- Dobb, L. W. "The Behavior of Attitudes." Psychological Review, 1947, 54, 135-156.
- Fillmer, H. T. "Children's Descriptions of and Attitudes Toward the Elderly." Educational Gerontology, 1984, 10, 99-107.
- Fishbein, M. "Attitude and the Prediction of Behavior." In S. Feldman (Ed.), Cognitive Consistency: Motivational Antecedents and Behavioral Consequents. New York: Academic Press, 1966.
- Frymier, R.J. "Aging in the Public Schools," Educational Gerontology, 1979, 4, 19-24.
- Harris, M.R. Some Methodological Suggestion for Constructing of an Objective Measurement Instrument, Madison: University of Wisconsin, Center for Cognitive Learning, 1968.
- Hickey, T., Hickey, L., & Kalish, R. "Children's Perceptions of the Elderly." The Journal of Genetic Psychology, 1968, 112, 227-235.
- Hickey, T., & Kalish, R. "Young People's Perceptions of Adults." Journal of Gerontology, 1968, 23, 215-219.

- Hoyt, C. & Stunkard, L.C. "Estimation of Test Reliability for Unrestricted Item Scoring Methods," Educational Psychological Measurement, Winter 1952, 12, 756-758.
- Inkso, C.A. Theories of Attitude Change. New York: Appleton-Century-Crofts, 1967.
- Jantz, R.K., Seefeldt, C., Galper, A., & Serlock, K. "Children's Attitudes Toward the Elderly." Social Education, 1977, 518-523.
- _____. "The CATE Children's Attitudes Toward the Elderly." University of Maryland, 1976.
- John, M.T., "Teaching Children About Older Family Members." Social Education, 1977, 5324-527.
- Jones, R.A., Self-Fulfilling Prophecies, Social Psychological, and Physiological Effects of Expertancies, New York: John Wiley & Sons, 1977.
- Kerlinger, F.N. Foundations of Behavioral Research. New York: Holt, Rinehart & Winston, 1974.
- Kart, C.S. The Realities of Aging. Boston: Allyn and Bacon, Inc., 1985.
- Kidwell, I.J., & Booth, A. "Social Distance and Intergenerational Relations." The Gerontologist, 1977, Vol. 17, No. 5.
- Kimmel, D.C., Adulthood and Aging. New York: John Wiley & Sons, 1980.
- Kingston, A. J., & Drotter, M. W. "The Depiction of Old Age in Six Basal Readers." Educational Gerontology, 1981, 6, 29-34.
- Knox, J., Gekoski, W. L., & Johnson, E. A. "Contact With and Perceptions of the Elderly." The Gerontologist, 1986, 26, 309-313.
- Levine, D. U. et al. Interracial Attitudes and Contact Among Black and White Students in a Metropolitan Area. Kansas City, Missouri: Center for the Study of Metropolitan Problems in Education, 15.
- Looft, W.R. "Children's Judgments of Age." Child Development, 1977, 42, 1282-1284.
- Marks, R., Newman, S., & Onawola, R. "Latency-Aged Children's Views of Aging." Educational Gerontology, 1985, 89-99.

- Meadows, R. E., & Fillmer, H. T. "Depiction of Aging in Basal Readers of the 1960's and 1980's." Educational Gerontology, 1987, 13, 85-100.
- Miller, M. "Family Friends Program Reaches Disabled Children in Eight U.S. Cities." Perspective on Aging, 1986, Nov./Dec.
- Murphy, M.B. "Merging Needs and Resources: A Tight, Neat Fit." Perspective on Aging, 1986, Nov./Dec., 809
- Murphy-Russel, S., & Walker, J. L. "Changing Attitudes Toward the Elderly: The Impact of Three Methods of Attitude Change." Educational Gerontology, 1986, 12, 241-251.
- Newman, S. "Sharing Skills, Experience Skills, Experience Key to Interaction Between Young and Old." Perspective Aging, 1986, Nov./Dec, 6-7.
- Nishi-Strattner, M., & Myers, J. E. "Attitudes Toward the Elderly: An Intergenerational Examination." Educational Gerontology, 1983, 9, 389-397.
- Orzech, M.W. "Attitudes of High School Students Toward Three Selected Ethnic Groups As Affected by Participation in an Ethnic Studies Program." (Thesis, Ph.D, Oregon State University), 1974.
- Peacock, E. W., & Talley, W. M. "Intergenerational Contact: A Way to Counteract Ageism." Educational Gerontology, 1984, 10, 13-24.
- Pratt, F. "Aging Education Aim to Prepare Youth for Long Life." Perspective on Aging, 1986, Nov./Dec., 4-5, 27.
- Rhine, R.J. "A Concept-Formation Approach to Attitude Acquisition." Psychological Review, 1958, 65, 362-370.
- Rich, P.E., Myrick, R.D., & Campbell, C., "Changing Children's Perceptions of the Elderly." Educational Gerontology, 1983, 9, 483-491.
- Robin, E.P., "Old Age in Elementary School Readers." Educational Gerontology, 1977, 2, 275-292.
- Rosen, D.F. "How are Senior Citizens Portrayed in Basal Readers?" Kean College of New Jersey, 1983.
- Rosenberg, M.J. "Cognitive Structure and Attitudinal Affect." Journal of Abnormal and Social Psychology, 1956, 53, 367-372.

- _____. "A Structural Theory of Attitude Dynamics." Public Opinion Quarterly, 1960, 319-340.
- Russel, J.F., "Aging in the Public Schools." Educational Gerontology, 1979, 4, 19-24.
- SPSS Users Guide, New York: McGraw-Hill, 1983.
- Sartore, R.L. "Discussing Aging in School." Childhood Education, 1976, Nov./Dec., 86-88.
- Seefeldt, C., Jantz, R.K., Galper, A., & Serlock, K. "Children's Attitudes Toward the Elderly: Educational Implications." Educational Gerontology, 1977, 2, 301-310.
- Seefeldt, C., Keawkungwal, S. "Children's Attitudes Toward the Elderly in Thailand." Educational Gerontology, 1986, 12, 151-158.
- _____. "Using Pictures to Explain Children's Attitudes Toward the Elderly." The Gerontologist, 1977, 17, 506-511.
- Seefeldt, C., Galper, A., Serlock, K., & Jantz, R.K. "The Coming of Age in Children's Literature." Childhood Education, 1978, 123-127.
- Seltzer, M.M., & Atchley, R.C., "The Concept of Old: Changing Attitudes and Stereotypes." the Gerontologist, 1971, 11, 226-230.
- Soukup, M.A. "A Survey of Research Tasks Required by Secondary School Counselors, State Department of Education Professionals, and College and University Faculty in Oregon." (Thesis, Ph.D., Oregon State University), 1983.
- Staats, A.W., & Staats, C.K. "Attitudes Established by Classical Conditioning." Journal of Abnormal and Social Psychology, 1958, 57, 37-40.
- State of Oregon. Discrimination and the Oregon Educator. 1983.
- Steitz, J. A., & Verner, B. S. "What Adolescents Know About Aging." Educational Gerontology, 1987, 13, 357-368.
- Storey, D.C., "Gray Power: an Endangered Species? Ageism as Portrayed in Children's Books." Social Education, 1977. 528-533.
- Stub, H.R. The Social Consequences of Long Life. Springfield: C.C. Thomas, 1982.

- Suedfeld, P. ed Attitude Change; the Competing Views.
Chicago: Aldine-Atherton, 1971.
- Tanenbaum, M.H. "White House Conference on Aging, 1981."
U.S. Department of Education, 1981.
- Taylor, K.S. "Diverse Programs Nationwide Lead to
Beneficial Exchange." Perspective on Aging, 1986,
Nov./Dec., 10-13.
- Thomas, E.C., & Yamamoto, K. "Attitudes Toward Age: an
Exploration in School-Age Children." Int'l Journal of
Aging and Human Development, 1975, 6(2), 117-129.
- Thomas, W. I., & Thomas, D. S. The Child in America. New
York: Knopf, 1928.
- Thurstone, L.L. "Attitudes Can Be Measured." In M.
Fishbein (ed) Readings in Attitude Theory and
Measurement, New York: Wiley, 1967.
- Tuckman, J., & Lorge, I. "Attitudes Toward Old People."
Journal of Social Psychology, 1953, 37, 249-260.
- Wass, H., Fillmer, D., & Ward, L. "Education About Aging:
Rationale." Educational Gerontology, 1981, 7, 355-
361.
- Weaver, W.T. "The DEPHI Forecasting Method." Phi Delta
Kappan, 1971, 52, 267-271.

APPENDIX

APPENDIX 1


THE DELPHI PANEL




The following individuals participated on the DELPHI panel:


1. Mrs. Beauchamp.....First Grade
Jefferson Elementary, Corvallis
2. Mrs. Sekermestrovich...Second Grade
Jefferson Elementary, Corvallis
3. Mrs. Holloway.....Third Grade
Jefferson Elementary, Corvallis
4. Mrs. Creighton.....First Grade
Jefferson Elementary, Corvallis
5. Mrs. Carpenter.....Kindergarten
Wilson Elementary, Corvallis
6. Mrs. Farrow.....Third Grade
Periwinkle Elementary, Albany
7. Mrs. Amend.....First Grade
Periwinkle Elementary, Albany
8. Mrs. Crapper.....First Grade
Central Elementary, Albany
9. Mrs. Flores.....First Grade
Central Elementary, Albany




APPENDIX 2


THE INSTRUMENT - LIKERT-TYPE SCALE




 Old people are smart.

 Old people are tired.

 Old people are friendly.



Old people like to do things.



Old people are lonely.



Old people like me.





Old people do not like children.



I like to be with old people.



Old people want to be young again.





Old people are grouchy.



I like old people.



Old people get sick.



APPENDIX 3

THE INSTRUMENT - SEMANTIC
DIFFERENTIAL SCALE

strong

weak

sick

healthy

happy

sad

slow

fast

friendly

mean

foolish

wise

grouchy

cheerful

APPENDIX 4

DIRECTIONS FOR RATERS

Please give a numerical value to each of the following statements.

Indicate a value that you feel best places each statement on a continuum from 1 (highly negative) to 5 (highly positive).

Examples are provided.

He feels sad and lonely. (1)

She feels okay. (3)

He kinda likes to be a grandpa. (4)

Sometimes she is unhappy. (2)

He is really happy because he's had such a good life.
(5)

APPENDIX 5

LIST OF LITERATURE INCLUDED IN
"LEARNING ABOUT ELDERLY PEOPLE"

- DePaola, T. Now One Foot, Now the Other, G. P. Putnam's Sons, 1981.
- Douglas, B. Good as New, Lothrop, Lee & Shepard, 1982.
- MacLachlan, P. Through Grandpa's Eyes, Harper & Row, 1979.
- Skorpen, L. M. Mandy's Grandmother, The Dial Press, 1975.
- Wittman, S. A Special Trade, Harper & Row, 1978.
- Wittman, S. The Wonderful Mrs. Trumbly, Harper & Row, 1982.

APPENDIX 6

LETTER OF APPROVAL FOR LITERATURE SELECTION -
CHILDREN'S LITERATURE

A merged School serving Oregon State University and Western Oregon State College with graduate and undergraduate programs in Education.

September 24, 1986

Mrs. Brynn Lawler
Graduate Teaching Assistant
Elementary Education Department
Oregon State University
Corvallis, Oregon 97331

Dear Brynn:

Your selections of children's literature portraying the elderly for use in your unit for primary grade children is an interesting and useful one.

I would heartily endorse your selections as being both cognitively and affectively appropriate for children in these grades. I also feel that the elderly characters in the books do, indeed, portray "capable Problem-solvers."

Thank you for the list of books you are using with this project. Please accept my best wishes for success in your study.

Sincerely,

Pat

Patricia R. Gallagher
Professor of Elementary Education

APPENDIX 7

LETTER OF APPROVAL FOR LITERATURE SELECTION -
GERONTOLOGYProgram on
Gerontology

Corvallis, Oregon 97331-5102 (503) 754-3645

February 9, 1988

Brynn Lawler
28850 Hwy 34
Corvallis, OR 97330

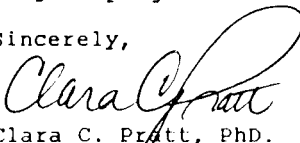
Dear Brynn,

It was great to hear of your progress on your dissertation. I am looking forward to learning more about the results of your study. Please send me at least the abstract and any manuscripts you submit for publication!

I do recall reviewing your the children's books that you used in your unit "Learning about the Elderly." At the time I felt that they presented a fine representation of aging and older persons. Thus I heartily endorse their use in your work.

If I can provide any further support to you on this project please feel free to contact me. Thanks for keeping me informed of your progress.

Sincerely,



Clara C. Pratt, PhD.
Director, Program on Gerontology
and Associate Professor, Human Development and Family Studies

APPENDIX 8

A SAMPLE LESSON FROM "LEARNING ABOUT ELDERLY PEOPLE"

Good As New

Story by Barbara Douglass and pictures by Patience
Brewster, Lothrop, Lee & Shepard, 1982.

Themes: Things can be repaired; problems can be solved.
Past experience can help when problem-solving.
Males and females are capable in non-traditional
roles.

Objectives: to think about problem-solving;
to discuss problem-solving, and how one
learns to fix things and/or solve problems;
to draw a picture and/or write a statement
about something that was broken and fixed, or
about a problem that was solved.

Materials: book, 8½ x 11" drawing paper for each child,
crayons and pens, pencil, one copy Good As
New cover page, four ½ x 9" strips spring
green construction paper, one 12 x 18" white
construction paper, folded for cover, glue,
stapler.

Length of lesson: 35 to 40 minutes

Lesson Sequence:

Anticipatory set: This is a story about a grandpa who
knows how to fix things, and about a
boy named Grady, and Grady's naughty
cousin named KC. Let's read the story
to find out what happens.

Input: Follow this questioning strategy.

"Some things in the story were broken and Grandpa
fixed them. What things were broken?"
Allow time for students to respond. (fire engine,
hose, sandbox, Grady's feelings, etc.)

"How did Grandpa know how to fix things?"
Allow time for students to respond. (past experience)

"Have you had something get broken, and someone fix it?"
Allow time for one or two responses.

"The rest of you can tell what was broken by drawing a picture and writing about it. We will put all the picture together into our own "Good As New" book.

Guided practice: Provide ample time for children to work independently. Check their progress and comment on diversity in their pictures.

Closure: As students finish their work, have them share their picture and read their story for the class.

Pages are compiled into a book to remain in class and be read and enjoyed again and again.

APPENDIX 9

FREQUENCY OF CONTACT SURVEY

PARENT SURVEY

October 20, 1986

Dear Parent:

I am a Doctoral Candidate at Oregon State University. Presently I am involved in research on children's attitudes toward the elderly and aging. Part of this research is a survey to find out how frequently children have contact with people over sixty-five years of age. These may be grandparents, family friends, neighbors, etc. Your response to the following question will be very helpful.

Please think back over the past twelve months. How much contact has your child had with (an) elderly person(s)? Please circle one of the following:

Very regular	frequent	occasional, holidays	very little
daily	weekly	and other	seldom

Your cooperation in this survey is greatly appreciated. Of course, your response will be confidential. If you have any questions, I will be happy to discuss this survey with you.

Again, I appreciate the time you have taken to respond. Thank you!

Sincerely,

Mrs. Brynn H. Lawler
Graduate Teaching Assistant
(757-2485 or OSU Elementary Education Office, 754-4841.)

APPENDIX 10

TABLE OF PRE POST MEANS BY TREATMENT GROUP AND GRADE

Evaluative Scale

Grade	PRE				POST			
	<u>Control</u>		<u>Evaluative</u>		<u>Control</u>		<u>Evaluative</u>	
	Means	Std Dev	Means	Std Dev	Mean	Std Dev	Mean	Std Dev
First	6.947	3.613	8.027	3.609	7.313	4.377	7.769	4.055
Second	7.950	3.410	8.438	4.533	7.765	4.381	8.634	4.705
Third	6.429	4.273	6.867	3.871	7.579	4.730	6.857	3.991

Likert-Type Scale

Grade	PRE				POST			
	<u>Control</u>		<u>Evaluative</u>		<u>Control</u>		<u>Evaluative</u>	
	Means	Std Dev	Means	Std Dev	Mean	Std Dev	Mean	Std Dev
First	138.526	14.218	134.024	19.724	130.500	17.626	138.474	23.088
Second	148.400	16.816	132.469	14.576	138.667	14.745	132.619	16.525
Third	134.636	12.982	131.826	25.574	129.789	10.042	131.800	15.054

Semantic Differential Scale

Grade	PRE				POST			
	<u>Control</u>		<u>Evaluative</u>		<u>Control</u>		<u>Evaluative</u>	
	Means	Std Dev	Means	Std Dev	Mean	Std Dev	Mean	Std Dev
First	81.150	30.561	83.756	19.506	84.176	21.761	82.553	23.328
Second	88.800	20.125	81.143	18.394	87.667	19.894	77.976	22.639
Third	69.773	18.372	84.600	17.998	75.632	19.056	80.854	18.113