Factors influencing teaching aging-related concepts in secondary schools

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Factors influencing teaching aging-related concepts in secondary schools

by

Rose Awuor Mwonya

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Department: Family and Consumer Sciences Education
Major: Home Economics Education

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INTRODUCTION

In 1900, only 4 percent of the population was elderly, compared to over 12 percent in 1985. By the year 2030, the elderly will represent almost 18 percent of the U.S. population (National Council on the Aging, 1986). With the proportion of older persons increasing yearly, it has become important that those concerned with academic curricula respond appropriately by expanding their teaching spectrum to include the study of aging (Griffin, Hughston, & Ritchey, 1979).

The need for education about aging is related to the needs of older people (Schwartz & Peterson, 1979; White House Conference, 1971). The 1971 White House Conference identified nine areas of concern for the elderly population, which included adequate and appropriate income, transportation, housing, education, nutrition, health care, retirement roles and/or activated employment, and spiritual well-being (White House Conference, 1971). In addition, at the 1981 White House Conference concern was expressed for the special needs of minority, low-income, rural elderly who are or will be frail or disabled. Issues related to these needs were discussed including access to services, private and public sector roles, sources and methods of financing services, and the role of older Americans themselves in influencing change (White House Conference, 1981). If the needs identified are not met or the issues resolved, the result is a complexity of problems that may burden not only the older individual, but his/her family and society in general.

One method of attempting to meet these needs is by increasing a deeper understanding and respect for the process and problems of aging to future
generations (Hoot, 1981). However, little attention is currently being given to teaching about aging or to integrating this content area into public school curricula (Frymier, 1979; Owen & Impson, 1984; Spitze, 1977). Youth have been identified as having inadequate information about aging and the elderly (Compton, 1979). For example, Ralston (1985) found in a statewide study that there were low levels of knowledge in five major areas, including biology of aging, demographics of aging, personality traits and interests of older people, competence/effectiveness of older people, and services for older people.

In addition to low knowledge in specific areas of aging, there is some evidence that youth have stereotypic notions and misconceptions about aging and older persons although findings have been mixed (Kahana & Kahana, 1970; The National Council on Aging, 1981; Wass, Fillmer, & Ward, 1981). For example, studies clearly reveal negative attitudes toward aging by youth (Hickey & Kalish, 1968; Kastenbaum & Durkee, 1964; Thomas & Yamoto, 1975), while other studies generally indicate favorable attitudes toward aging by this group (Ivester & King, 1977; Lane, 1964; Lester, 1982; Trent, Glass, & Crockett, 1979).

Introducing planned learning experiences on aging at all levels of the school curricula would increase formation of informed positive attitudes toward aging and older people (Lyon, Newman, & Vasudev, 1985; Wass, Fillmer, & Ward, 1981). Home economics has been identified as one of the most practical program areas for teaching about aging (Ralston, 1978). The needs of the elderly can be addressed in courses such as nutrition, housing, clothing, family relationships, and consumer education (Griffin, Hughston, & Ritchey, 1979; Wolgamot, 1971).

Education about aging, however, is not prevalent in home economics at the
secondary level, although leaders in the field and legislative mandates have emphasized its importance (Kister, Smith, & Hughes, 1984). Reasons given for this lack of aging education in home economics include inefficient and inadequate administrative support, limited resources and materials for teaching the subject, little knowledge teachers have about aging, and the fact that aging is relatively a non-traditional topic (Hoot, 1981; Owen & Impson, 1984; Riddick, 1985; Frymier, 1979).

Whether or not a teacher incorporates new concepts such as aging is related to the theory of innovation. Innovation is defined as something new, deliberately introduced to improve some aspects of the education process. There are various factors that have been identified as influencing the adoption of an innovation. For example, various authors argue that the adoption of an innovation is influenced by years of education, favorable attitudes toward the innovation, knowledge about and experience with the new idea, administrative support, availability of resources, and adequacy of preparation such as preservice and inservice training (Barnett, 1953; Huberman & Miles, 1984; Rich, 1985).

No previous work could be identified using the innovation theory in relation to teaching about aging. Thus, the major purpose of this study is to examine factors influencing teaching about aging by vocational home economics teachers. Attitudes toward older people is one of the factors to be explored in this study. Because of the argument that attitudes toward older people may be multidimensional (Fishbein & Ajzen, 1975; Kilty & Feld, 1976), a secondary purpose of the study will be to identify the underlying dimensions of Kogan's Attitudes Toward Old People Scale, an instrument that has been used extensively in attitudinal research.
Definitions

**Aging-Related Concept**
Any key idea, topic, or main thought about growing old and/or older people.

**Innovation**
An idea or practice perceived as new by an individual or individuals. It is deliberately planned and intends to bring about improvement in relation to desired objects (Rogers & Shoemaker, 1971).

**Vocational Home Economics Education**
The total program of offerings at the local and state levels which is composed of one or both types of instructional programs: consumer and homemaking education (unpaid employment in the occupation of homemaking) and occupational home economics education (paid employment in home economics occupations) (Department of Public Instruction, 1985).
EXPLANATION OF THE ALTERNATE DISSERTATION FORMAT

This research will be presented in the alternate dissertation format approved by the Graduate College at Iowa State University. The alternate format allows for the inclusion of manuscripts that have or will be submitted to refereed scholarly journals for possible publication.

The dissertation begins with an introduction and review of literature which provide the background for the research project. The body of the dissertation includes two manuscripts.

The first manuscript, "Factor Analysis of the Kogan Attitudes Toward Old People Scale," identified dimensions of attitudes in this instrument and was written for a professional journal such as the Journal of Gerontology. The second manuscript, "Factors Influencing Teaching about Aging in Secondary Schools," uses the innovation theory as a basis for the examination of variables related to teaching aging-related concepts by vocational home economics teachers in secondary schools. The second paper also was written for submission to the Journal of Gerontology, but would be suitable for Educational Gerontology as well.
REVIEW OF LITERATURE

The main purpose of the present study is to examine factors influencing teaching about aging by vocational home economics teachers. Literature reviewed for this chapter is included in two main sections. The first section focuses on aging education in secondary schools, including need for teaching about aging in secondary schools and curricula on aging in secondary schools. The second section addresses innovation theory as related to teaching about aging with attention given to an explanation of the innovation theory and factors related to teaching aging as an innovation in secondary schools.

Aging Education in Secondary Schools

Need for teaching about aging in secondary schools

Recently, there has been increased interest in the area of aging as an academic subject at the secondary level. This section will address the need for teaching about aging, focusing on demographic trends, societal perceptions of aging and older people, and policy recommendations for teaching about aging.

The elderly are becoming one of the most rapidly growing minorities in America (Hoot & Lumsden, 1981). Recently, The National Council on Aging (1986) reported that in 1985 28.5 million or 12 percent of the United States population was 65 years of age or older compared to 3.1 million or 4 percent in 1900. The older population is expected to continue to grow in the future. For example, by the year 2030, the number of individuals living in the U.S. is expected to increase to 64.6 million or 18 percent of the population. According to the Population
Reference Bureau (1985), this remarkable change in population is challenging teachers to prepare children not only for fostering relationships with the current cohort of elderly but also for preparing them for their own aging.

In addition to demographic trends, the perception that American society has of older people is another reason for education about aging. It has been argued that America is a youth centered society and that media seem to reflect society by sending the message that it is the young who have all the fun, who are busy doing important things, and who are living happy lives (Ansello, 1978; Rich, Myrick & Campbell, 1983; Storey, 1977). The elderly people, on the contrary, are viewed as passive, unproductive, unhappy, and lonely.

Research on attitudes of youth toward older people partially supports these societal values. For example, studies have indicated that young adults have negative attitudes toward and have formulated myths and stereotypes about older people (Harris & Associates, 1975; Hickey & Kalish, 1968; Kastenbaum & Durkee, 1964; O'Connell & Rotter, 1979; Thomas, 1980; Thomas & Yamoto, 1975). However, other studies have generally indicated favorable attitudes toward aging by young people (Ivester & King, 1977; Lane, 1964; Lester, 1982; Trent, Glass, & Crockett, 1979). These mixed results suggest that there are no consistent trends in attitudes toward the elderly by young people. However, whether positive or negative, beliefs about the elderly can affect young people's behavior toward older people, and, more importantly, influence social policies and the types of services provided.

Many organizations, agencies, and professionals have recommended the need for education about aging to the American population. For example, as a result of the White House Conferences on Aging (1961, 1971, 1981) it was recommended that
education about aging be provided to the public so that at the society level there can be a better understanding of the nature of the aging process, the needs and interests of older people, and the positive contributions they can make. According to The National Council of Aging (1981), there is a need to encourage elementary and secondary school teachers to facilitate an understanding of aging process through providing programs for youth where they would assist in delivering services to elderly persons and engage in discussion of intergenerational issues.

In regard to teaching about aging, the American Home Economics Association, the American Vocational Association, and Home Economics Education Association (1979) stated jointly that greater consideration be given to the economic, social, cultural conditions, and needs of special audiences including older Americans. In addition, Kister, Smith, and Hughes (1984) reported that the Perkins Vocational Education Amendment Act of 1984 mandates that teachers in vocational home economics programs include outreach programs that would give special considerations to traditionally underserved populations including the elderly.

In addition to various organizations, leaders in the gerontology profession also have pushed for education about aging. Peterson (1976) believes that public education about aging can modify attitudinal behaviors of middle aged and older people and improve general attitudes toward older people. Moreover, education about aging, delivered through preservice and inservice education, can assist professionals and paraprofessionals in their work with older people.
Summary

Literature reviewed in this section addressed aging education in secondary schools. Specifically, literature reviewed focused on need for teaching about aging, including demographic trends, societal perception of aging and older people, and policy recommendations. The elderly population is projected to be 64.6 million (18%) of the total U.S. population in the year 2030. In addition, American society because of its youth orientation perceives older people as passive, unproductive, unhappy, and lonely. Research on attitudes of youth toward older people partially supports these societal values, although there are some studies that indicate positive attitudes toward the elderly by young people.

Because of the demographic trends as well as societal values toward older people, various organizations and individuals in the gerontology profession recommend that the American population be made to understand the nature of aging process, the needs and interests of older people, and the positive contributions older people can make.

Innovation Theory as Related to Teaching about Aging

Innovation theory

Social scientists, according to Barnett (1953), view the theory of innovation as a process by and the conditions under which people devise new additions to their culture. Many factors have been assumed to be influencing the possibility for innovation. Innovations are usually made possible when considerations are given to the accumulation of ideas, state of knowledge, and materials with which
to work. Ideas are accumulated by building upon the past and result in the state of knowledge that an individual may have. These factors provide the depth of personal knowledge and experience. In addition, resources and training enhance the possibility that an innovation will occur.

Barnett (1953) further argues that innovations may be initiated at different times and places and under different societal conditions. The initiation of an innovation may be discouraged when attitudes toward the innovation are not positive. Thus, change may not occur because of certain attitudes existing in a society. In some societies, there is an expectation that change will occur, although this expectation is limited to selected aspects of culture. For example, societies tend to show distinctions between adult and child patterns of behavior in regard to change. Generally, the younger the person, the more flexible and receptive to change. Also formal education in a society may have a main effect on change. Over a period of time, education weans people away from their former allegiances. Moreover, those who get the most formal education become the advocates of changes in a society.

The innovation theory has been applied to various disciplines. For example, in applying the innovation theory to agriculture, Brown (1981) points out that the theory of innovation includes communication of new ideas and the spread of technical innovations such as fertilizers and machines into the agricultural sector. Historically, agricultural innovations resulted from problems identified by consumers. Agricultural innovations depend, according to Rogers (1983), on the amount of knowledge about the innovation the consumer (e.g., the farmer) might have. This knowledge also includes information about how an innovation functions.
or works. Acquisition of this knowledge requires some type of education, either formal or nonformal.

According to Rogers (1983), the role of a change agent in agricultural or other innovations is to create ease in understanding, implementing, and accepting the knowledge. An individual may go through five stages in accepting a new idea. These stages are: 1) knowledge - the extent to which an individual is exposed to the existence of an innovation and gains some understanding of it; 2) persuasion - the extent to which an individual forms a favorable or unfavorable attitude toward the innovation; 3) decision - extent to which the individual engages in activities that lead to a choice to adopt or reject the innovation; 4) implementation - extent to which the individual puts an innovation to use; 5) confirmation - extent to which an individual seeks reinforcement for an innovation decision already made.

In economic history perspective, according to Brown (1981), innovation is viewed as a continual process whereby society and the form and function of the innovation are modified throughout the life of innovation. These changes affect the innovation as well as the consumer market. For example, as a technological innovation, the computer has gone through almost yearly changes since commercially available. Although still called a computer, it is hardly recognizable as the offspring of the computer thirty years ago. Because of the change in form and function of the computer, the demand has increased affecting the consumer market.

Generally a new technology cannot fulfill its potential without complementary technologies. Sometimes the complementary technologies are such that knowledge and/or skill can be transferred or adapted from other innovations. For example, the increased productivity of the American railroads from 1840 to 1940 was a
result of accumulation of small innovations and relatively modest design changes which brought about more powerful locomotives and better transportation which benefitted the majority of the population.

In applying the innovation theory to social sciences, Downs and Mohr (1976) point out that innovation in social sciences has emerged as the conceptual tool for attacking of practical social problems. For example, studies document the adoption of innovations in society such as family planning in Indonesia (Sujono, 1974) and in Chile (Fuller, 1974). Brown (1981) states that generally all members of a society do not adopt an innovation simultaneously and some never adopt. A comparison of adopters and non-adopters of a given innovation generally would reveal systematic differences in economic, social, locational, and demographic characteristics of each group. For example, large cities are more likely to include more early adopters than rural areas because urban residents will have higher levels of information.

Innovation theory applied to education

In education, according to Lipitt (1967), diffusion of an innovation is a different process than in agriculture, industry, and other related sectors. In these sectors, the innovation is usually something concrete like machine, seed, drug, insecticides, etc. Educational innovations, in comparison to other innovations, are less concrete and often the benefits are not readily tangible. For example, the ultimate benefits of an innovation such as the inclusion of global education concepts may not be as easy to determine as the impact of insecticides on pest control. Moreover, implementation of an educational innovation requires various levels of support on the part of the innovator. For
example, teachers are the key figures in the final implementation of innovations and yet they feel helpless without new arrangements in terms of space and time, instructional materials or equipment, administrative support, and development of specialized skills through training associated with innovation.

Mort (1964) argues that schools that show high innovation adaptability are those in which teachers are more highly trained in and receptive to the educational innovation, and where administrators provide active support rather than remain neutral. Rogers (1983) points out that innovations occur in schools where teachers have relatively higher socio-economic status and are generally younger. In addition, Rogers (1983) suggests that early adopters of innovations are those teachers who attend out of town meetings, read professional journals, and contact several sources before making judgments.

In the literature, there appears to be three major assumptions to be considered regarding educational innovations. First, it matters little if the idea is objectively new as measured by lapse of time since first use of discovery. It is the perceived or subjective newness of the ideas or disciplines that makes the phenomenon an innovation. Second, changes in education systems are made only for the sake of change and are not made in a haphazard manner. Therefore, an innovation in education requires deliberate purposeful planning. Finally, in order for implementation to take place, educational innovations require teachers to change attitudes, relationships, and roles. These assumptions are reflected in the definition of innovation used in this study. An innovation is defined as an idea or practice perceived as new by an individual or individuals. It is deliberately planned and intends to bring about improvement in relation to desired objects (Rogers & Shoemaker, 1971).
Factors related to innovations in secondary schools

Implementation of innovations in secondary schools are influenced by various factors such as background characteristics; attitude toward, knowledge of, and experience with an innovation; teacher preparation; and teaching resources (Coombs, 1968; Herman, 1973; Nicholls, 1983). These factors will be discussed in relation to the literature on innovations as well as in regard to the possible effect each factor might have on teaching about aging as an innovation. In addition, interaction of factors will be examined in relation to teaching about aging in secondary schools.

Background characteristics. Age, educational level, years of teaching, and place of residence are the background characteristics to be discussed. Age has generally been hypothesized to be related to innovative behavior, that is younger people are thought to have more favorable attitudes toward change and are more likely to adopt a new idea than older people (Barnett, 1953; Rogers & Shoemaker, 1971). For example, Greens, Rich, and Nesman (1985) conducted a study to investigate the relationship of age to adopting new practices. Data were collected from a group of Guatemala farmers (n=723) who were categorized into three age groups: young, middle-age, and old. Findings from analysis of variance showed that younger farmers were more likely than their older counterparts to adopt new practices when economic status was controlled. However, in relation to teaching about aging as an innovation, different results may be found. It can be argued that teachers who are older are more likely to understand the importance of and concerns related to aging and therefore would likely teach the subject.
With regards to education, it appears that better educated teachers are more likely to implement an innovation than the less educated teachers. According to Loubser and Fullan (1970), education is perhaps the most important characteristic having an effect on change. The better educated are more favorable to change and, therefore, are more likely to see change as increasing satisfaction in their responsibility than the less educated. Olmstead (1971) conducted a study to identify the extent to which information concerning Home Economics Learning Packages (HELPs) was implemented and the characteristics of the persons (n=111) demonstrating selected diffusion behaviors. Results of a Duncan's Multiple Range Test revealed that teachers with higher educational levels adopted innovations more than their counterparts who did not have similar qualifications. This suggests that teachers with high levels of education might be more likely to teach aging related concepts than teachers with less education.

Years of service has been assumed to be related to acceptance of change in industry. It has been argued that the longer workers have been in service, the more likely they will develop vested interest in their responsibilities and will be ready to become involved in new technologies and changes in the work place (Loubser & Fullan, 1970). Likewise, years of teaching have been speculated to be related to teaching of innovations. For example, Spector (1984) conducted a case study of five teachers to find out factors influencing their willingness to change behaviors in order to comply with the role demands of implementing a new course. Results of a content analysis revealed that satisfaction with years of teaching was related to willingness to implement a new course. The result of this study suggests that willingness to implement an innovation such as teaching about aging may be related to previous years of teaching.
Place of residence pertains to teachers living in either urban or rural areas. Little research examines the relationship of place of residence to implementation of an innovation (Fullan & Pomfret, 1977). Beliefs and attitudes are influenced by the culture in which individuals live (Barnett, 1953). Chitambar (1973) writes that differences between rural and urban people do exist and that the differences are due to the unique rural environment that influences the personalities and lives of rural people. For example, because rural people generally live in small communities which are generally sparsely populated, social interaction tends to be face to face, informal and personal. In addition, cohesiveness and unity are common traits in rural areas due to similarity of experience. Bradshaw and Blakely (1979) point out that the lack of educational resources has limited economic and social growth in rural areas which affects the adoptability of innovations by rural communities. In contrast, people in urban areas may be used to changes and are, therefore, more supportive of innovations. This suggests that teachers from urban areas may be more willing than those from rural areas to start new programs or to incorporate new concepts such as those related to aging.

**Attitudes.** There is evidence that one's attitude toward an innovation might affect its implementation (Fishbein & Ajzen, 1975; Triandis, 1971). For example, Brown and McIntyre (1982) conducted a study of science teachers (n=86) in Scotland to determine factors influencing the introduction of new concepts into curricula for biology, chemistry, and physics. Results of the study showed that teachers with positive attitudes toward the new concepts indicated readiness for implementation of the innovation. In addition, Yuen (1985) also reported that industrial education teachers with positive attitudes toward using microcomputers
supported implementation of microcomputers in industrial education. This suggests that vocational home economics teachers with positive attitudes towards the elderly are more likely to teach aging than those with negative attitudes.

Knowledge. Knowledge and understanding of new concepts are important in implementation of innovations (Barnett, 1953). Compton (1979) conducted a study to secure information pertinent to instruction on aging as an innovation within secondary home economics programs. Data were collected from randomly selected secondary home economics teachers (n=100) in Florida. Knowledge of aging, which included a test of physical, mental, and social aspects of aging, was used for the study. Results showed that a positive relationship existed between adoptive behavior and knowledge of aging. Those who were less knowledgeable about aging were less likely to include instruction on aging in their classrooms.

Experience. Literature on experience with the elderly focuses primarily on contact between middle-aged children and their older parents. This literature points out that adult children and their parents see each other often at least once a week (Cantor, 1979). Cantor (1979) documented that when adult children lived near older parents, the older parents chose their children over friends and neighbors for contact and support. Litwak (1980) indicates that older people live in close proximity to their adult children and receive an array of assistance from them. Even if the adult children do not live close to their parents, other forms of interaction and assistance giving can occur. This suggests that contact between younger and older people can take various forms. It can be argued that teachers who interact with older persons by visiting, providing or receiving help,
and/or sharing some activities together may be sensitized to needs of the elderly and through these experiences may be motivated to include aging-related concepts in the curriculum.

**Availability of resources.** Availability of teaching resources has been associated with an implementation of an innovation. For example, Huberman and Miles (1984) sought to determine the process by which new practices were generated, adopted, and implemented in 146 schools in the U.S. Availability of resources was identified as a factor which tended to increase interest in the initial use of an innovation. In addition, Cox (1983) and Brown and McIntyre (1982) pointed out that support from the principal and other central office personnel may facilitate the acquisition of resources, facilities, and funding required for the implementation of new practices. Fullan and Pomfret (1977) documented lack of adequate materials, time, and other facilities as barriers to implementation. This same general trend regarding resources appears to be true for teaching about aging as an innovation. For example, Hoot and Lumsden (1981) found that elementary and secondary school teachers (n=500) were integrating aging related concepts in public school curricula as long as teaching materials were available.

**Teacher preparation.** Teacher preparation (i.e., preservice and inservice training) is reported to have a relationship to implementation of innovations (Crowther, 1972; Lukas & Wohlleb, 1973). For example, Guskey (1985) examined whether or not teachers (n=96) who receive inservice training were more willing to implement instructional practices than those without inservice training. Results
of a t-test revealed that teachers with inservice training were significantly more willing to implement the innovation than those without inservice. In another study, Pepple (1983) examined the effect of three inservice strategies on teacher implementation of new curriculum materials (n=222). Results of product moment and canonical correlation analysis indicate that teachers who had inservice workshop instruction had a higher implementation rate than those who had no inservice workshop instruction.

Yuen (1985) found that trade and industrial teachers who had training in using microcomputers were more in favor of using microcomputers in industrial education than those who did not have training. Church and Foster (1984) also studied microcomputer topics that might be of value as part of the instructional programs for teachers (n=150) in secondary vocational agriculture. From the findings of the study, inservice training was recommended to enhance knowledge of microcomputer usage in agriculture. These findings suggest that teaching about aging may be implemented if teachers are taught aging-related concepts during preservice and/or inservice education.

Interaction of factors. The literature reveals that factors related to teaching about aging as an innovation also are related to each other. Studies indicate that age, education, experiences with and knowledge of older people affect attitudes toward older people. Thorson, Whatley, and Hancock (1974), in their study of practitioners (n=59) who provide services to the aged, found that younger and better educated respondents had significantly more positive attitudes toward the aged than those who were older and who had lower education levels. Beck and Fromm (1981) point out that teacher's negative attitudes toward the
handicapped may be due to lack of experiences with individuals with handicaps. This suggests that teachers' experiences with the elderly may influence their feelings toward older persons. Finally, findings of a study conducted by Harris (1979) to determine secondary school home economics teachers' knowledge of aging revealed that teachers' knowledge of aging had a positive relationship to teachers' attitude toward the aged.

Studies also show that educational level and aging-related training influence knowledge about older people. Findings of a study conducted by Harris (1979) to find out a group of practitioners' level of knowledge on aging revealed that better educated groups had more knowledge about aging than their less educated counterparts. In regard to training, Yuen (1985) reported that computer training increased industrial education teachers' use of computers. This suggests that training in aging-related concepts may influence teachers' knowledge about aging.

Summary

The theory of innovation is a process by and the conditions under which people devise new additions to their culture. Innovations are made possible when considerations are given to the accumulation of ideas, state of knowledge and materials with which to work. The initiation of an innovation may be discouraged when attitudes toward the innovation are not positive. The theory of innovations includes communication of new ideas and the spread of technical innovations. There are five stages an individual may go through in accepting a new idea. These include knowledge, persuasion, decision, implementation, and confirmation.

Innovation theory in the social sciences emerged as the conceptual tool for attacking practical societal problems. In education, innovations are less con-
crete and often the benefits are not readily tangible. Implementation of an innovation in teaching requires new arrangements in terms of space and time, instructional materials or equipment, administrative support, and development of specialized skills through training associated with innovation. Research shows that implementation of innovations in secondary schools is influenced by the teachers' background characteristics; attitudes toward, knowledge of, and experience with an innovation; teacher preparation; and teaching resources.
SECTION I: FACTOR ANALYSIS OF KOGAN'S ATTITUDES TOWARD OLDER PEOPLE SCALE

Introduction and Purpose

Since the 1950s, an extensive amount of research has been conducted on attitudes toward the elderly (Aaronson, 1966; Austin, 1985; Axelrod & Eis dorfer, 1961; Baker, 1984; Bennet & Eckman, 1973; Brubaker & Powers, 1976; Drake, 1958; Greens, 1981; Kahana & Kahana, 1970; Kogan, 1961a, 1961b; McTavish, 1971, 1982; Tuckman & Lorge, 1952a, 1952b, 1953, 1958; Wernick & Manaster, 1984). Previously, the majority of the instruments used in these studies explored general perceptions and attitudes toward older people (McTavish, 1971; Greens, 1981). However, today many of these instruments are being questioned because they tend to rely on generalized perceptions of the elderly rather than on specific attitudes or behavioral dimensions. For example, McTavish (1982), in his review of 18 instruments measuring perceptions of older people, states that few developers and users of scales attempt to identify the concept or concepts they intend to measure. Rather, reference is made to an unspecified conceptual domain such as perceptions or "attitudes" with little indication of greater conceptual clarity.

One instrument that has been used extensively in attitudinal research is Kogan's Attitude Toward Older People Scale (OPS) (Kogan, 1961a). This scale has been used in several studies (Chandler, Rachal, & Kazelskis, 1986; Glass & Knott, 1982; Gordon & Hallauer, 1976; Ivester & King, 1977; Murphy-Russell, Die, & Walker, 1986; Ralston, 1985; Riddick, 1985; Silverman, 1966; Taylor & Harned,
and is considered one of the better instruments because of its extensive use which allows for comparisons between studies (McTavish, 1982). What is surprising is that this instrument has been used as a general measure of attitudes when what is being measured is not clearly known. Moreover, no attempt has been made to identify underlying dimensions in the OPS (McTavish, 1982) even though it is clear that the instrument is measuring more than one dimension. As pointed out by Kilty and Feld (1976), when correlated the 34 items of the OPS range from very low (.09) to moderately high (.70), suggesting that the instrument does not exhibit a single attitudinal dimension.

Multidimensionality of attitudes toward any object, including the older people, would be expected. Fishbein and Ajzen (1975) pointed out that many investigators have defined attitude as a complex multidimensional concept which can be empirically determined. Although attitudes can be measured globally, dimensions may be identified that represent interpersonal intentions with respect to a person or set of persons. For example, the elderly could be viewed multi-dimensionally in terms of their accumulated knowledge, their physical ability, or their social interaction, among others. Considering the continued emphasis on attitude research in relation to older people, yet the lack of clarity in instrumentation, the purpose of this study was to identify the dimensions of the OPS.

Although identification of dimensions of the OPS has not been pursued by previous researchers, Kilty and Feld's (1976) work is somewhat related to the present study. In their research, eight items of the OPS, along with other scales, were used to construct a set of 45 belief statements which were factor analyzed. Four factors emerged from the analysis with only two items from the OPS
loading on a factor. The two items, "You can count on finding a nice residential neighborhood when there is a sizeable number of old people living in it" and "Most old people are very relaxing to be with," loaded on the factor titled, "Positive Reactions to Older People." Interestingly, two of the factors emerged unipolar causing the researchers to note that positive and negative reactions to older people seem to have nothing to do with each other.

Method

Instrument

As a part of a larger study, a questionnaire was developed using a variety of standard scales and items. Included in the questionnaire was the OPS, a 34-item Likert-type scale consisting of short statements that measure attitudes toward old people with respect to both norms and individual differences, stereotypes of old people, and misconceptions about older people (McTavish, 1982). The OPS includes a range of topics including residential patterns, discomfort in associating with old people, cross generation relations, dependence, older people's cognitive style, personal appearance, and personality (Kogan, 1961a). A 7-point response mode was used ranging from strongly agree (coded as 7) to strongly disagree (coded as 1). Although in the initial development of the instrument, Kogan (1961a) used a response option of 1 to 4, several researchers have used a 7-point scale (Thorson, Whatley, & Hancock, 1974; Thorson, 1975; Thorson & Perkin, 1976). The overall coefficient alpha reliability estimate for the OPS was .40. Items were also developed to determine respondents' background characteristics (i.e., age, educational level, years of teaching, and place of residence). The
questionnaire was reviewed by individuals with expertise in gerontology to assess usability.

Sample and data collection

The population for the study was 391 vocational home economics teachers in the state of Iowa. A list of vocational home economics teachers was secured from the state consultant for home economics. Because most high schools employed just one or two home economics teachers and to ensure an adequate sample for data analysis the total population was used in the study.

Questionnaires were mailed in November, 1986 to all the vocational home economics teachers identified. Follow-up letters were mailed to all non-respondents two weeks and four weeks after the questionnaires were mailed. A total of 305 questionnaires were returned, indicating a response rate of 78 percent. Questionnaires from 300 teachers provided usable data for the study.

Respondents were Caucasian females with a mean age of 39.8 (S.D.=9.5) and an age range of 22 - 67. The majority of the sample had bachelor's degrees (81 percent) and lived on farms or in rural communities (67 percent). The respondents had taught an average of 13 years.

Data analysis

Descriptive statistics including frequencies, percentages, and means were calculated for all items on the questionnaire. The 34 items on the OPS were factor analyzed using the principal components method with varimax rotation.
Results

The factor analysis yielded four major dimensions in the OPS. Items were placed into factors based upon size of factor loading and rationality of fit. In determining the factors a minimum factor loading of .40 was used (Mumaw and Nichols, 1972) along with a reliability estimate of .65, which is recommended for research purposes (Gronlund, 1981). The two-item factor which concerned "old people seldom complaining about the behavior of the younger generation" and "capability of old people to make new adjustments based on demands of the situation" yielded factor loadings of .49 and .39, respectively. However, the coefficient alpha reliability estimate for this factor was .37 which was far below the recommendation of Gronlund (1981). Thus, this factor was omitted.

The remaining factors identified are presented in Table 1. The items of the first factor include some of the stereotypical negative behaviors of older people such as spending too much time prying into the affairs of others and giving unsought advice; boring others by their insistence on talking about the good old days; being irritable, grouchy, and unpleasant; and constantly complaining about the behavior of the younger generation. This factor had a coefficient alpha reliability estimate of .73. The second factor was related to attractiveness of older people and included three items with factor loadings ranging from .54 to .79. Items included in this factor were "most old people can generally be counted on to maintain a clean attractive home;" "most old people seem to be quite clean and neat in their personal appearance;" and "most old people are cheerful, agreeable and good humored." The coefficient alpha reliability estimate for this factor was .76.
The third factor dealt with wisdom of old people and included two items with factor loadings of .62 and .54, respectively. Items included in this factor were matched negative/positive statements: "It is foolish to claim that wisdom comes with old age" and "people grow wiser with the coming of old age." Coefficient alpha reliability estimate for this factor was .58, a little lower than the reliability recommended by Gronlund (1981). However, because this factor included only two items that loaded fairly high, it was decided to include the factor in the study. As shown in Table 2, of the 34 items of the OPS, 22 did not cluster.

Discussion

The purpose of this study was to identify the underlying dimensions of the Kogan Attitude Toward Old People Scale, given that most research on attitudes and perceptions of the elderly has relied on instruments that attempt to measure general perceptions rather than focusing on specific attitudinal dimensions (Green, 1981; McTavish, 1982).

The results of this study indicate that some commonality exists in the OPS, with three major dimensions emerging from the factor analysis. The first factor, described as attitudes toward behavioral characteristics of older people, included seven negatively stated items and had a relatively high reliability (r=.73). The second factor, which also consists of negatively stated items, was described as attitudes toward attractiveness of old people and also had a fairly high reliability (r=.76), considering the number of items. Both of these factors emerged as unipolar which supports Kilty and Feld's (1976) work. The third factor, wisdom of older people, had only two items and, as expected, a much lower reliability (r=.58). In contrast to the previous factors, the third factor
emerged as a bipolar. As shown in Table 2, most of the items (22 out of 34) did not cluster demonstrating that a majority of the items in the OPS were uncorrelated. This suggest that there may be some dimensions in the OPS that, at the present time, are only represented by one item. Further work is needed to identify items for these as well as other dimensions of attitudes toward older people. These additional dimensions could be included in a "perception profile" or a classification of attitudes. Such a profile might help to determine the breadth or comprehensive nature of attitudes toward older people.

With refinement, the three factors identified may be used by future researchers in attitudinal research. Refinement generally centers around reliability and adequacy in number of items. Factor 1, because of the number of items and the relatively high reliability, may be used as is, although the negative direction of the items may cause response set problems. Factor 2, even though its reliability is adequate, will need additional items because it is generally recommended that, in development of scales, about 8 to 10 items be used. Finally, Factor 3 will also need additional items to increase reliability as well as to ensure adequacy of number of items for the scale.

Other uses of dimensions identified in the OPS may focus on attitudes toward older people by specific populations and the relationship of the characteristics of these populations to the identified dimensions. For example, considering the present study, the characteristics of teachers need to be explored in relation to different and adequate dimensions of attitudes. Research has shown that teachers who are younger, better educated, and have knowledge about the elderly have more positive attitudes towards the elderly than their counterparts (Harris, 1979; Thorson, Whatley, & Hancock, 1974.) It will be important to determine whether
these relationships hold when dimensions of attitudes are investigated. Moreover, given the literature that suggests that societal attitudes toward older people are shifting to a more positive stance (Austin, 1985; Tibbits, 1979), studies will be needed that differentiate which attitudinal dimensions are indeed positive.

In conclusion, this study has shown that the OPS is not unidimensional and that using the total summed score of this instrument, which has been common practice, should be avoided in the future. As is also pointed out in this study, in order to truly measure attitudes toward older people, continued consideration of the multidimensionality of OPS as well as other instruments is necessary. The immediacy of this situation is demonstrated by the fact that researchers (Chandler, Rachel, & Kazelskis, 1986; McTavish, 1982), perhaps frustrated in their attempts to find appropriate measures to study attitudes toward older people, have called for the development and/or refinement of attitudinal instruments.

References


Table 1. Factors identified in the Kogan Attitudes Toward Old People Scale

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>Attitude toward behavioral characteristics of older people</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Most old people spend too much time prying into the affairs of others and giving unsought advice.</td>
<td>.593</td>
</tr>
<tr>
<td></td>
<td>Most old people bore others by their insistence on talking about the good old days.</td>
<td>.572</td>
</tr>
<tr>
<td></td>
<td>Most old people are irritable, grouchy and unpleasant.</td>
<td>.524</td>
</tr>
<tr>
<td></td>
<td>There is something different about most old people; it's hard to figure out what makes them tick.</td>
<td>.487</td>
</tr>
<tr>
<td></td>
<td>Most old people are constantly complaining about the behavior of the younger generation.</td>
<td>.484</td>
</tr>
<tr>
<td></td>
<td>Most old people make excessive demands for love and reassurance.</td>
<td>.483</td>
</tr>
<tr>
<td></td>
<td>Most old people tend to let their homes become shabby and unattractive.</td>
<td>.469</td>
</tr>
<tr>
<td>II.</td>
<td>Attitudes toward attractiveness of older people</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Most old people can generally be counted on to maintain a clean attractive home.</td>
<td>.794</td>
</tr>
<tr>
<td></td>
<td>Most old people seem to be quite clean and neat in their personal appearance.</td>
<td>.643</td>
</tr>
<tr>
<td></td>
<td>Most old people are cheerful, agreeable, and good humored.</td>
<td>.540</td>
</tr>
<tr>
<td>III.</td>
<td>Attitudes toward wisdom of older people</td>
<td></td>
</tr>
<tr>
<td></td>
<td>It is foolish to claim that wisdom comes with old age.</td>
<td>.621</td>
</tr>
<tr>
<td></td>
<td>People grow wiser with coming of old age.</td>
<td>.544</td>
</tr>
</tbody>
</table>
Table 2. Items that did not cluster in the Kogan Attitudes Toward Old People Scale

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>When you think about it, old people have the same faults as anybody else.</td>
</tr>
<tr>
<td>Most old people need no more love and reassurance than anyone else.</td>
</tr>
<tr>
<td>It would probably be better if most old people lived in residential units with people of their own age.</td>
</tr>
<tr>
<td>Most old people are very relaxing to be with.</td>
</tr>
<tr>
<td>If old people expect to be liked, their first step is to try to get rid of their irritating faults.</td>
</tr>
<tr>
<td>Most old people make one feel ill at ease (uncomfortable).</td>
</tr>
<tr>
<td>Most old people get set in their ways and are unable to change.</td>
</tr>
<tr>
<td>Most old people tend to keep to themselves and give advice only when asked.</td>
</tr>
<tr>
<td>It would probably be better if most old people lived in residential units that also housed younger people.</td>
</tr>
<tr>
<td>You can count on finding a nice residential neighborhood when there is a sizable number of old people living in it.</td>
</tr>
<tr>
<td>Most old people are capable of new adjustments when the situation demands it.</td>
</tr>
<tr>
<td>In order to maintain a nice residential neighborhood it would be best if too many old people did not live in it.</td>
</tr>
<tr>
<td>Old people should have more power in business and politics.</td>
</tr>
<tr>
<td>There are very few exceptions but in general most old people are pretty much alike.</td>
</tr>
<tr>
<td>Most old people are really no different from anybody else; they are as easy to understand as younger people.</td>
</tr>
<tr>
<td>One of the most interesting and entertaining qualities of most old people is their accounts of their past experiences.</td>
</tr>
</tbody>
</table>
Table 2. (Continued)

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most old people would prefer to continue working just as long as they possibly can rather than be dependent on anybody.</td>
</tr>
<tr>
<td>Most old people should be more concerned with their personal appearance; they are too untidy.</td>
</tr>
<tr>
<td>Old people have too much power in business and politics.</td>
</tr>
<tr>
<td>One seldom hears old people complaining about the behavior of the younger generation.</td>
</tr>
<tr>
<td>It is evident that most old people are very different from one another.</td>
</tr>
<tr>
<td>Most old people would prefer to quit work as soon as pensions or their children can support them.</td>
</tr>
</tbody>
</table>
SECTION II. FACTORS INFLUENCING TEACHING ABOUT AGING
IN SECONDARY SCHOOLS

Introduction and Purpose

Over the past years, there has been a growing need for teaching about aging as an academic subject at the secondary level. This need is based on demographic changes showing increased numbers of elderly in the population (Zopft, 1986), the generally stereotypical perceptions of aging and older people held by American society (Ansello, 1978; Rich, Myrick, & Campbell, 1983; Storey, 1977), and research that shows youth's attitudes toward older people reflect these societal values (Harris & Associates, 1975; Hickey & Kalish, 1968; Kastenbaum & Durkee, 1964; O'Connell & Rotter, 1979; Thomas, 1980; Thomas & Yamoto, 1975).

Although the need for teaching about aging is well-documented, there is little evidence that teachers are including aging-related concepts in their teaching. Various curriculum materials, however, have been developed for state and local communities to assist teachers in instruction on aging (California State Department of Education, 1978; Cameron, 1976; Instructional Material Laboratory, 1980; Ralston, Alexander, & Mwonya, 1986), demonstrating that gerontologists and education specialists have recognized the need for teaching about aging. The extent to which this need has been recognized by secondary teachers is not known, but there is general agreement that aging education at the secondary school is a relatively new phenomenon and would, therefore, be considered an innovation (Compton, 1979).
Innovation theory postulates that the adoption of new ideas is influenced, among others, by a person's background, experiences, knowledge, attitudes, training, and resources (Barnett, 1953). Using this theoretical framework, the purpose of this study was to examine factors influencing teaching about aging in secondary schools. Specific factors investigated in the study were teacher's background characteristics (age, educational level, years of teaching, and place of residence); knowledge of, attitudes toward and experiences with older people; teacher preparation; and teaching resources.

Theoretical Model

According to Barnett (1953), the theory of innovation is a process by and the conditions under which people devise new additions to their culture. While used in fields such as agriculture to explain the communication of new ideas and the spread of technical knowledge, in the social sciences innovations are seen as the conceptual tool for attacking practical social problems (Downs & Mohr, 1976). In education, innovations can be defined as ideas or practices perceived as new that are deliberately planned and intend to bring about improvement in relation to desired objects (Rogers & Shoemaker, 1971).

Teaching about aging in secondary schools can be considered an innovation because it is the perceived newness of an idea that makes the phenomenon an innovation (Rogers & Shoemaker, 1971). Historically, aging has been known to be a process that all living organisms go through. Although gerontology has become a disciplinary area in higher education, it was not until a few years ago that the need for education about aging began to be emphasized at the secondary level (Schwartz & Peterson, 1979; White House Conference, 1971).
There are various factors that might influence the implementation of an innovation. Barnett (1953) points out that depth of personal knowledge, experience, resources and training may enhance the possibility that an innovation will occur. In arguing that not all members of a society will adopt an innovation, Brown (1981) contends that social, locational, and demographic characteristics such as age, educational level, and place of residence might influence the adoption of an innovation.

In relation to teaching about aging as an innovation, teachers who are older, who have higher educational levels, who reside in urban areas, and who have taught longer will be more likely to teach aging-related concepts. It can be argued that teachers who are older would understand the importance of concerns related to aging and, therefore, would be more likely to teach the subject. In terms of educational level, teachers who have obtained an advanced degree are more likely to implement an innovation than teachers who have a bachelor's degree (Loubser & Fullan, 1970; Olmstead, 1971). With regard to place of residence, Bradshaw and Blakely (1979) point out that the lack of educational resources has limited economic and social growth in rural areas, suggesting that teachers in rural communities may be less likely to adopt an innovation. Finally, in relation to years of teaching, research shows that the longer workers have been in service, the more likely they will develop vested interest in their responsibilities and will be ready to become involved in new technologies and changes in the work place (Loubser & Fullan, 1970; Spector, 1984).

There is evidence that one's knowledge of, attitudes toward and experience with an innovation, such as teaching about aging, might affect its implementation. Compton (1979), in his study to identify characteristics of teachers who provide
instruction on aging in secondary school programs, found that a positive relationship existed between adoptive behavior and knowledge of aging. In terms of attitudes, research shows that teachers with positive attitudes toward new concepts indicate readiness for incorporating them in the curriculum (Brown & McIntire, 1982; Yuen, 1985). Considering the multidimensionality of attitudes (Fishbein & Ajzen, 1975; Kilty & Feld, 1976), it may be important to explore the relationship of different dimensions of attitudes toward older people to teaching aging-related concepts.

With regard to experience, the literature shows that adult children who lived near older parents see each other at least once a week (Cantor, 1979), and provide an array of assistance for them (Litwak, 1980). This suggests that contact between younger and older people can take various forms. It can be argued that teachers who interact with older persons by visiting, providing or receiving help, and sharing some activities together may be sensitized to needs of elderly and through these experiences may be motivated to include aging-related concepts in curriculum.

Teaching resources and teacher preparation also may influence teaching about aging. Hoot and Lumsden (1981) found that elementary and secondary school teachers integrated aging-related concepts in public school curricula when teaching materials were available. In addition, teachers who have received inservice training have been found to be more willing to implement instructional practices than those without inservice training (Church & Foster, 1984; Guskey, 1985; Pepple, 1983; Yuen, 1985).

Finally, literature reveals that factors related to innovation are also related to each other. Thorson, Whatley, and Hancock (1974) found that younger and better
educated researchers than those of older age (Harriss, 1979) study revealed that there is evidence that the traits of aging (Yuen, 1981).

The present study tests the relation between background characteristic (intelligence), teacher preparation (frequency of contact with older people, and other people) behavioral, wisdom of resources (availability resources).
educated respondents had significantly more positive attitudes toward the aged than those who were older and had lower education levels. Beck and Fromm (1981) point out that teachers' negative attitudes toward the handicapped may be due to lack of experience with the handicapped, suggesting that teachers' experiences with the elderly may influence their attitudes toward older persons. Harris' (1979) study to determine secondary home economics teachers' knowledge of aging revealed that teachers' knowledge of aging had a positive relationship to education level and to teachers' attitude toward the aged. Lastly, there is evidence that training in aging may influence teachers' knowledge about aging (Yuen, 1985).

The path analysis model (Figure 1) was specifically used in this study to test the relationship between teaching aging-related concepts and teachers' background characteristics (age, educational level, years of teaching, place of residence), teacher preparation (preservice, inservice), experience with older people (frequency of contact, assistance to older people, assistance received from older people, and sharing activities with older people), attitudes toward older people (behavioral characteristics of older people, attractiveness of older people, wisdom of older people), knowledge of older people, and teaching resources (availability of teaching resources, administrative support for teaching resources).
HYPOTHESED PATH ANALYSIS MODEL

- Age
- Educational Level: B.S. < M.S.
- Years of Teaching
- Place of Residence: Urban, Rural
- Teacher Preparation: Preservice, Inservice
- Experience with Older People
  - Frequency of contact
  - Assistance to older people
  - Assistance from older people
  - Activities with older people
- Attitudes toward Older People
  - Behavioral characteristics
  - Attractiveness of older people
  - Wisdom of older people
- Knowledge of Older People
- Teaching Resources
  - Availability of teaching resources
  - Administrative support for teaching resources
- Teaching Aging-Related Concepts

Figure 1. Hypothesized Path Analysis Model
Method

Instrument

A questionnaire was developed using a variety of standard scales and items. The Kogan Attitudes Toward Old People Scale (OPS) was used to determine attitudes of respondents toward older people. The 34-item device includes short statements that measure attitudes toward older people with regards to both norms and individual differences, stereotypes of old people, and misconceptions about old people (McTavish, 1982). The OPS includes a range of topics including residential patterns, discomfort in association with old people, cross generation relations, dependence, older people's cognitive style, personal appearance and personality (Kogan, 1961). A 7-point response mode was used ranging from strongly agree (coded as 7) to strongly disagree (coded as 1). Because of the multidimensionality of attitudes toward older people (Kilty and Feld, 1976) and the fact that no attempt has been made to identify the underlying dimensions of the OPS (Mwonya, 1987), the items of OPS were factor analyzed yielding three major dimensions: behavioral characteristics of older people, attractiveness of older people, and wisdom of older people. The coefficient alpha reliability estimates were .73, .76, and .58, respectively. Table 1 shows the items and means for each factor. For information regarding factor analysis of OPS, see Mwonya (1987).

Knowledge of older people was determined by 23 true/false items from Palmore's Facts on Aging Quiz (Palmore, 1977, 1980). This instrument contains empirically validated factual statements concerning older people and the aging process, including basic physical, mental, and social facts about the aged and some of the most commonly held misconceptions concerning older people. The instrument had a coefficient alpha reliability estimate of .43 which is consistent with previous
studies (Palmore, 1980). While this reliability estimate is low, Palmore (1980) points out that this occurs because several items have a low item-to-total correlation with most people getting one set of items wrong and another set right. If these items were omitted from the quiz, the test's item reliability would be improved, but then some of the most basic facts and most frequent misconceptions would be omitted. Palmore (1980) recommends inclusion of all items in order to cover the range of basic facts and frequent misconceptions. An undecided response category was incorporated to prevent forced responses and guessing (Courtenay and Weidemann, 1985). Total knowledge was determined by summing the correct answers which were coded as 1 (possible range of scores was 0-23).

To determine experiences with older people, items were developed regarding frequency of contact, assistance given to and received from older people, and activities shared with older people. To obtain a measure of frequency of contact, respondents were asked to identify older persons (i.e., relatives, friends, neighbors, etc.) with whom they had had regular contact (i.e., through visits, letter writing, telephone calls) and to indicate the extent of contact with those persons (i.e., daily, weekly, bi-monthly, monthly, bi-yearly, and yearly, coded 6 through 1, respectively). A frequency of contact score was determined by summing responses for extent of contact for each older person indicated (possible range of scores was 0-60).

For the other experience questions, a list of 9 items was developed for each of the following categories: assistance received from older people (e.g., advice, money, gardening, house repair), assistance given to the older people (e.g., cooking, yard work, car repair, transportation, nursing care), activities shared with older people (e.g., watch television, visit, talk on telephone). Responses
were coded 1 if the task or activity took place and 0 if it did not. The sum of responses for each category was computed (possible range of scores was 0-9).

The last part of the questionnaire contained items to determine whether or not aging-related concepts were being taught and whether or not respondents had preservice or inservice preparation for teaching about aging, with each of these items coded 1 for yes and 0 for no. In addition, a list of seven resources for teaching about aging was developed (e.g., books, periodicals, films, etc.) and respondents were asked to indicate the availability of these resources (frequently, somewhat, and not available, coded 3 to 1, respectively). These responses were summed to create an availability of resources score (possible range of scores was 0-21). Administrative support for teaching resources was determined by the following item: "To what extent does your school administration provide funds for aging-related curriculum materials, media, etc.?” with responses ranging from strongly supports, coded as 5, to no support, coded as 1.

Sample and data collection

The population for the study was 391 vocational home economics teachers from a midwestern state. Vocational home economics teachers were chosen because of the mandate through the vocational legislation that outreach to older population and accompanying aging education be included in vocational home economics curriculum (Kister, Smith, & Hughes, 1984). Because most high schools employed just one or two home economics teachers and to ensure an adequate sample for data analysis, the total population was used for the study. A list of these teachers was secured from the state consultant for home economics.
Questionnaires were mailed in November, 1986 to all the vocational home economics teachers identified. Follow-up reminder letters were mailed to all respondents two weeks and four weeks after the questionnaires were mailed. A total of 305 questionnaires were returned, indicating a response rate of 78 percent. Questionnaires from 300 teachers provided usable data for the study.

Respondents were Caucasian females with an age range of 22-67. The majority of the sample had bachelor's degrees (81%) and lived on farms or in rural communities (67%). The respondents had taught an average of 13 years and 65% had taught aging-related concepts. Nine percent had had preservice education on aging and 28% had had inservice education on aging. Descriptive data for all variables used in the study are presented in Table 2.

**Hypotheses and data analysis**

Three empirical hypotheses were formulated to test the path model. The first hypothesis was related directly to teaching aging-related concepts in secondary schools. The remaining hypotheses were related to attitudes toward older people and knowledge of older people and the interaction of these variables with other variables in the path model. These hypotheses were stated as follows:

1. There is significant relationship between the criterion variable, teaching aging-related concepts, and the set of predictor variables: teaching resources, attitudes toward older people, experience with older people, knowledge of older people, teacher preparation, and background characteristics.

2. There is a significant relationship between the criterion variable, attitudes toward older people (i.e., attitudes toward behavioral
characteristics, attractiveness and wisdom of older people), and the set of predictor variables: experiences with older people, knowledge of older people, and background characteristics.

3. There is significant relationship between the criterion variable, knowledge of older people, and the predictor variables of preservice and inservice education.

For the path analysis, a multiple regression analysis procedure was used in which the six sets of variables were allowed to enter the regression analysis one set at a time. First, the criterion variable, teaching aging related concepts, was regressed on the six sets of independent variables. The regression analysis was repeated for interaction variables (attitude toward older people and knowledge of older people) which subsequently became dependent variables in the analysis. The independent variables were entered in hierarchical order as indicated by the hypotheses. The correlation matrix for the variables is presented in Table 3.

Results

Table 4 presents the significant independent variables, beta coefficients and $r^2$ for the three multiple regression analyses. In the first analysis inservice education was significantly related to teaching aging-related concepts, indicating that teachers who received inservice education were teaching aging-related concepts. This factor, however, only explained 3% of the variance. No other variables were significantly related to teaching aging-related concepts.
In the next analyses, attitudes toward older people was related to several variables. First, attitudes toward behavioral characteristics of older people was related to knowledge about older people, assistance received from older people and educational level. Respondents who had positive attitudes toward behavioral characteristics of older people, had higher knowledge scores, had received assistance from older people and had higher educational levels. Second, attitudes toward attractiveness of older people was related to assistance received from older people, with those having positive attitudes toward the attractiveness of older people receiving assistance from them. Finally, attitudes toward wisdom of older people was related to age and years taught indicating that respondents who had positive attitudes toward wisdom of older people were younger and had more years of teaching. For these analyses, 6%, 2% and 5%, respectively, of the variance was explained.

In the final analysis, knowledge of older people was related to the two teacher preparation variables. Specifically, knowledge of older people was related to preservice and inservice education. Respondents with higher knowledge levels had received preservice education on aging, while respondents who had low knowledge levels had received inservice education on aging. These variables explained 4% of the variance.

Discussion

The purpose of this study was to examine factors influencing teaching aging-related concepts in secondary schools, using innovation theory as a basis. Findings from this study show that only inservice education significantly
influenced teaching aging-related concepts, and this factor explained a small portion of the variance (3%). It appears that, for this study, innovation theory does not explain the teaching of aging-related concepts as an innovation in secondary schools (Barnett, 1953; Brown, 1981; Loubser & Fullan, 1970). Moreover, it is clear that other factors need to be identified that may be related to teaching aging-related concepts. Psychological dimensions of a particular population may be an area to be explored. For example, East (1980) has argued that the conservatism and dogmatism found in home economists, including home economics teachers, may hinder their openness to people and new ideas, thus encouraging traditionalism, closed mindedness, stereotypic beliefs and preference for less change. These personality characteristics could possibly affect the adoption of an innovation. Another factor that might need to be explored is the teaching load of public school teachers. With the amount of teacher burnout associated with workload and teacher-student ratio in classrooms (Gold, 1985), it is questionable how much time teachers would be willing to devote to new innovations such as teaching aging-related concepts.

The model proposed for this study showed some interesting interaction relationships among variables. It was hypothesized that attitude toward older people would be related to experience with older people, knowledge of older people and background characteristics. Three attitudinal dimensions were investigated: behavioral characteristics of older people, attractiveness of older people and wisdom of older people. Results of this study support the hypothesis. However, there was a differential in the relationships of the independent variables across the three attitudinal dimensions. For example, attitudes toward behavioral characteristics was related to knowledge of older people, assistance received from
older people and educational level, while attitude towards wisdom of older people was related to age and years of teaching. These results indicate that attitudes are viewed in different dimensions and that there are different factors associated with these dimensions. The findings support the argument that attitudes toward older people are multidimensional rather than unidimensional and that factors related to attitudinal dimensions may differ (Fishbein & Ajzen, 1975; Kilty & Feld, 1976). There was, however, one variable that was common in two of the attitudinal dimensions. Assistance received from older people was related to attitudes toward behavioral characteristics of older people and attitudes toward attractiveness of older people. This may suggest that older people's ability to contribute to younger people influences how they are perceived.

It was also hypothesized that knowledge of older people would be related to the two teacher preparation variables, preservice and inservice education on aging. Results showed that those who had preservice education had more knowledge about older people. In contrast, results also indicated a significant negative relationship between inservice education and knowledge of older people, with those receiving inservice education on aging having lower levels of knowledge about older people. These results may indicate that those persons who receive inservice education may still be feeling inadequate in their knowledge of older people, thus they may continue to pursue more knowledge through inservice education. On the other hand, it may also mean that the inservice education which has been conducted is superficial and lacks the depth needed to acquire knowledge about older people. This explanation may be the most viable, considering that teachers normally only have a few days a year allotted for inservice. Creative inservice models, perhaps
with independent study components, may be needed to help teachers develop depth in their knowledge about older people.

Finally, it should be emphasized that this study only examined variables in relation to whether or not aging-related concepts were being taught. Future researchers need to examine predictor variables in relation to quality of instruction on aging. Specific items might be devised that could accurately determine the type and depth of aging-related content. A replication of this research using a more precise measure of teaching about aging could provide different results than were seen in the present study.

In conclusion, this study focused on determining factors influencing teaching about aging in secondary schools using innovation theory as a basis. Results of the study indicate that innovation theory may not be the appropriate theoretical model to explain teaching about aging, although a replication of the study using a different measure for teaching about aging is recommended. In addition, other factors such as psychological characteristics and teaching load variables might need to be explored in relation to teaching about aging. Perhaps the most interesting findings were related to the interaction variables. Future studies may need to further investigate differential relationships of variables across different attitudinal dimensions as well as explore and clarify the relationship of inservice education and knowledge of older people.

References


Ralston, P.A., Alexander, T., & Mwonya, R.A. (1986). Enhancing intergenerational contact. Iowa Department of Public Instruction, Des Moines, IA.


Table 1. Items, means, and standard deviations for factors in Kogan Attitudes Toward Old People Scale

<table>
<thead>
<tr>
<th>Factor and Item</th>
<th>Factor Means</th>
<th>S. D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Attitude toward behavioral characteristics of older people</td>
<td>2.46</td>
<td>.81</td>
</tr>
<tr>
<td>Most old people spend too much time prying into the affairs of others and giving unsought advice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most old people bore others by their insistence on talking about the good old days.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most old people are irritable, grouchy and unpleasant.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is something different about most old people; it's hard to figure out what makes them tick.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most old people are constantly complaining about the behavior of the younger generation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most old people make excessive demands for love and reassurance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most old people tend to let their homes become shabby and unattractive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Attitudes toward attractiveness of older people</td>
<td>5.31</td>
<td>.96</td>
</tr>
<tr>
<td>Most old people can generally be counted on to maintain a clean attractive home.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most old people seem to be quite clean and neat in their personal appearance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most old people are cheerful, agreeable, and good humored.</td>
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<td></td>
</tr>
<tr>
<td>III. Attitudes toward wisdom of older people</td>
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<td>.77</td>
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<tr>
<td>It is foolish to claim that wisdom comes with old age.</td>
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<td></td>
</tr>
<tr>
<td>People grow wiser with coming of old age.</td>
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Table 2. Means and standard deviations for factors used in model.

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<td>.81</td>
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<tr>
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<td>.96</td>
</tr>
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Table 3. Correlation matrix

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<th>PL RES</th>
<th>PRESER</th>
<th>INSER</th>
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<th>ATT 2</th>
<th>ATT 3</th>
<th>KNOW</th>
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<td>-.017</td>
<td>-.079</td>
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<td>.129</td>
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<td>1.000</td>
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<td>.222</td>
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<td>-.184</td>
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<td>.051</td>
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<td>-.034</td>
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<td>.050</td>
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<td>-.035</td>
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<td>.038</td>
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<td>-.009</td>
<td>-.014</td>
<td>.003</td>
<td>.061</td>
<td>.001</td>
<td>.140</td>
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</table>
*Guide to Table 3 abbreviations*

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>AGE</td>
<td>Age</td>
</tr>
<tr>
<td>EDUC</td>
<td>Educational level</td>
</tr>
<tr>
<td>YRS TCH</td>
<td>Years of teaching</td>
</tr>
<tr>
<td>PL RES</td>
<td>Place of residence</td>
</tr>
<tr>
<td>PRESER</td>
<td>Preservice education</td>
</tr>
<tr>
<td>INSER</td>
<td>Inservice education</td>
</tr>
<tr>
<td>ATT 1</td>
<td>Attitudes toward behavioral characteristics of older people</td>
</tr>
<tr>
<td>ATT 2</td>
<td>Attitudes toward attractiveness of older people</td>
</tr>
<tr>
<td>ATT 3</td>
<td>Attitudes toward wisdom of older people</td>
</tr>
<tr>
<td>KNOW</td>
<td>Knowledge of older people</td>
</tr>
<tr>
<td>AST GIV</td>
<td>Assistance given to older people</td>
</tr>
<tr>
<td>ACT SHA</td>
<td>Activities shared with older people</td>
</tr>
<tr>
<td>AST REC</td>
<td>Assistance received from older people</td>
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<td>TCH ARC</td>
<td>Teaching aging-related concepts</td>
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<td>CONTACT</td>
<td>Frequency of contact</td>
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</table>
Table 4. Summary of multiple regression analyses for teaching aging-related concepts, attitudes toward older people and knowledge of older people

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Significant Independent Variable(s)</th>
<th>Beta Coefficients</th>
<th>R²</th>
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<tr>
<td>Teaching Aging-Related Concepts</td>
<td>Inservice education</td>
<td>.164*</td>
<td>.03</td>
</tr>
<tr>
<td>Attitudes Toward Older People</td>
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<td>- Behavioral Characteristics</td>
<td>Knowledge of older people</td>
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<td></td>
<td>Assistance received from older people</td>
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<td></td>
<td>Educational level</td>
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</tr>
<tr>
<td>- Attractiveness of Older People</td>
<td>Assistance received from older people</td>
<td>-.130*</td>
<td>.02</td>
</tr>
<tr>
<td>- Wisdom of Older People</td>
<td>Age</td>
<td>-.362***</td>
<td>.05</td>
</tr>
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<td></td>
<td>Years of teaching</td>
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<tr>
<td>Knowledge of Older People</td>
<td>Inservice education</td>
<td>-.156**</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Preservice education</td>
<td>.139*</td>
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</tbody>
</table>

*p<.05.
**p<.01.
***p<.001.
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The major purpose of this study was to examine factors influencing teaching about aging by vocational home economics teachers. Attitudes toward older people was one of the factors explored in the study. Because of the argument that attitudes toward older people may be multi-dimensional (Fishbein & Ajzen, 1975; Kilty & Feld, 1976), a secondary purpose of the study was to identify dimensions of Kogan's Attitudes Toward Old People Scale, an instrument that has been used extensively in attitudinal research.

To achieve the objectives of the study, a questionnaire was developed using a variety of standard scales and items. Specifically, the Kogan Attitudes Toward Old People Scale (OPS) was used to determine attitudes toward old people; Palmore's Facts on Aging Quiz was used to determine knowledge of older people; and a variety of items were developed to determine experience with older people, teacher preparation, teaching resources and background characteristics (age, educational level, years of teaching and place of residence). The questionnaire was reviewed by individuals with expertise in gerontology to assess content validity and usability.

The population for the study was 391 vocational home economics teachers in the state of Iowa. A mailed questionnaire was sent to all of the teachers identified, and questionnaires from 300 teachers provided usable data for the study.
Dimensions of the Kogan Scale

Factor analysis techniques were used to identify the underlying dimensions of the OPS. Results yielded three dimensions: attitudes toward behavioral characteristics of older people, attitudes toward attractiveness of older people and attitudes toward wisdom of older people. Factors were identified based upon the size of factor loading (.40 and above) and rationality of fit. These factors had coefficient alpha reliability estimates of .73, .76, and .58, respectively. Of the 34 items of the OPS, 22 did not cluster.

Factors influencing teaching about aging

Innovation theory was used as the theoretical framework for this part of the study. According to Barnett (1953), innovation theory concerns a process by and conditions under which people devise new additions to their culture. The theory postulates that the adoption of new ideas is influenced, among others, by a person's background, experiences, knowledge, attitudes, training and resources. Using this framework as a basis, a path analysis model was used to test the relationship between teaching aging-related concepts and selected factors. Multiple regression analysis procedures were used to analyze the data. The following are the hypothesis formulated for the study and a summary of the findings:

1. There is significant relationship between the criterion variable, teaching aging-related concepts, and the set of predictor variables: teaching resources, attitudes toward older people, experience with older people, teacher preparation, and background characteristics. The findings showed that only teacher preparation (specifically inservice
education) was related to teaching aging-related concepts, indicating that teachers who received inservice education were teaching about aging. This factor explained 3% of the variance. Because only one factor was related to the criterion variable and because this factor explained only a small portion of the variance, this hypothesis was rejected.

2. There is a significant relationship between the criterion variable, attitudes toward older people (i.e., attitudes toward behavioral characteristics, attractiveness and wisdom of older people), and the set of predictor variables: experiences with older people, knowledge of older people and background characteristics. The findings showed that attitudes toward behavioral characteristics of older people was related to knowledge of older people, experience with older people (i.e., assistance received from older people) and educational level. Attitudes toward attractiveness of older people was related to experience with older people (i.e., assistance received from older people). Attitudes toward wisdom of older people was related to age and years taught. These factors explained 6%, 2% and 5%, respectively, of the variance. Because the factors identified were those that were hypothesized to be related to the criterion variable, the hypothesis was accepted.

3. There is a significant relationship between the criterion variable, knowledge of older people, and the predictor variables of teacher preparation (preservice and inservice education). The findings showed that, as expected, knowledge of older people was related to preservice
and inservice education. These variables explained 4% of the variance.

The hypothesis was accepted.

Conclusions

There are two major conclusions of this study. First, as was predicted, attitudes toward older people is not unidimensional but reflects multiple dimensions, three of which were identified in the Kogan Attitudes Toward Old People Scale. Moreover, the study showed that these attitudes were differentially related to various characteristics of the respondents (i.e., knowledge of and experiences with older people, background characteristics). These findings are of major importance, both conceptually and methodologically. Conceptually, these results point out that how attitudes toward older people are identified may need to be re-thought. As suggested earlier, a "perception profile" or classification of attitudes may need to be developed that reflects the various dimensions of attitudes toward older people. With the current emphasis on society's attitudes toward older people changing to a more positive stance (Austin, 1985; Tibbits, 1979), it becomes extremely important to determine which attitude dimensions are truly more positive. With regard to methodologically concerns, this study demonstrates that a well-used instrument that supposedly measures attitudes toward older people should not be used as it has in the past. The OPS is not unidimensional and using the total summed score to determine "attitudes" is a practice that should be avoided. Future work needs to be done to refine the factors identified in the OPS, and to explore the use of the items that did not cluster in development of other attitudinal measures.
Regarding the second conclusion, it appears that teaching about aging-related concepts is not explained by the innovation theory. The fact that 67% of the teachers surveyed were teaching aging-related concepts raises the question of whether or not teaching about aging is truly an innovation. On the one hand, it may be that a simple "yes/no" response mode was not an appropriate way to determine whether or not aging was being taught. For example, those who taught aging concepts in a two-day unit and those who might have planned experiences over a three week period both would have answered "yes" to the question. On the other hand, perhaps teaching about aging is more pervasive than previously thought. Considering that outreach programs to the elderly were mandated in the 1976 amendments, it may be that these teachers have attempted to incorporate aging-related concepts in their curriculum. What may be of more importance is to assess the quality of the instruction and identify appropriate strategies for providing assistance to teachers. As shown in this study, inservice education was related to teaching about aging, although admittedly the relationship was not strong. However, this finding does suggest that extensive inservice may be the starting point for helping vocational home economics teachers in their attempts to provide instruction on aging.

Recommendations

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

1. That future research be conducted to attempt to explain factors related to teaching about aging. Some possible ideas for future studies are discussed below.
a. Use the same theoretical framework, but refine some of the measures used to determine the variables. For example, the criterion variable might utilize a response mode (e.g., 1 to 7 point scale) that measures the extent to which aging is taught. Also, the Palmore's Facts on Aging Quiz, although frequently used to determine knowledge about older people, might be revised as a multiple choice test before used in a subsequent study.

b. Because variables used in the path analysis model included individual characteristics of teachers, future studies might explore organizational characteristics (i.e., characteristics of schools such as administrative structure, inservice policies, etc.) that might influence teaching aging-related concepts.

c. Studies might be conducted that identify different stages of adopting innovations, and how teaching about aging fits into these various stages.

2. That studies be conducted that further explore the relationship of knowledge of older people to teacher preparation. This study showed that knowledge of older people was positively related to preservice education and negatively related to inservice education. Although the former finding was expected, the latter finding was puzzling and suggests that future research needs to be done to clarify the relationship between these variables.

3. That attempts be made to help groups, such as teachers, develop positive attitudes toward older people, particularly in terms of behavioral characteristics. This study showed that those who had
higher knowledge levels, had received assistance from older people and had higher educational levels were more positive in their attitudes toward the behavioral characteristics of older people. This suggests that helping teachers increase their knowledge levels concerning older people, encouraging interactions with older people, and generally providing opportunities for teachers to raise their educational levels will facilitate the development of positive attitudes. These suggestions are made with caution, considering the weak relationship shown between the variables discussed here; future studies will be needed to clarify these relationships.
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Ralston, P.A., Alexander, T., & Mwonya, R.A. (1986). *Enhancing intergenerational contact*. Iowa Department of Public Instruction, Des Moines, IA.


ACKNOWLEDGMENTS

The successful completion of this dissertation is more than an individual effort. To all those whose help made this program possible, I give my sincere thanks. To the lasting friendships I have formed while here at the University and in the U.S.A., by far one of the most meaningful aspects of my graduate education.

I am especially thankful to my committee for their continued encouragement, cooperation and willingness to advise while pursuing this degree:

To Dr. Penny Ralston, advisor and major professor, for providing major support in completing this program, and a positive development expected at graduation thereafter. I shall miss her friendship, warm guidance, inspirations, professional and scholarly approach to life, practical help, calm and reassuring advice when needed most.

To Dr. Sally Williams, for building in me the hope that it is possible to learn if one continues to seek for knowledge. Dr. Joyce Mercier for providing a true insight into gerontology program a basis for this project. Dr. Cheryl Hausafus for being ready and open to help me when I needed it most. Dr. Edward Powers for the expert advice on my work. Dr. Ruth Hughes for the cooperation. Dr. Richard Warren for the willingness to help with statistical procedures and provide flexibility in meeting my time constraints.

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To my parents who have been patiently waiting to see the end of this education.

To Kenya Government and U.S. AID Mission to Kenya for giving me the opportunity to study abroad.

To the Almighty God who has continuously provided control over it all.
APPENDIX A.

QUESTIONNAIRE, "MY VIEWS ABOUT OLDER PEOPLE"
Dear Teacher:

This study is being conducted by the Department of Home Economics Education at Iowa State University to find out your views about older people. Vocational home economics teachers in schools across Iowa are being involved. The results will be used to assist teachers in teaching about aging.

Your name will in no way be associated with your responses, and all responses will be kept in the strictest confidence. Your participation is voluntary, and you are free to withdraw from this study at any time. We appreciate your willingness to participate in the study.

You will notice that the term "older people" is frequently used in the questionnaire. For this study, older people is defined as those 65 years of age or older.

I. Attitudes Toward Older People

Directions: Please read each of the following statements carefully. Circle the appropriate response, using the following scale:

- If you strongly agree with the item, circle "7".
- If you strongly disagree with the item, circle "1".
- If you neither agree nor disagree with the item, circle "4". A score of "2" or "3" indicates the degree to which you disagree with the item; a score of "5" or "6" indicates the degree to which you agree with the item.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Neither Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
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<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

1. When you think about it, old people have the same faults as anybody else.
2. Most old people need no more love and reassurance than anyone else.
3. It would probably be better if most old people lived in residential units with people of their own age.
4. Most old people are very relaxing to be with.
5. If old people expect to be liked, their first step is to try to get rid of their irritating faults.
6. Most old people make one feel ill at ease (uncomfortable).
7. Most old people get set in their ways and are unable to change.
8. Most old people tend to keep to themselves and give advice only when asked.
9. It would probably be better if most old people lived in residential units that also housed younger people.
<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Most old people are constantly complaining about the behavior of the younger generation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. You can count on finding a nice residential neighborhood when there is a sizable number of old people living in it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12. Most old people make excessive demands for love and reassurance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13. Most old people are capable of new adjustments when the situation demands it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14. It is foolish to claim that wisdom comes with old age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. In order to maintain a nice residential neighborhood, it would be best if too many old people did not live in it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. Old people should have more power in business and politics.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17. There are very few exceptions, but in general most old people are pretty much alike.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18. Most old people are really no different from anybody else; they are as easy to understand as younger people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19. Most old people tend to let their homes become shabby and unattractive.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20. One of the most interesting and entertaining qualities of most old people is their accounts of their past experiences.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21. Most old people would prefer to continue working just as long as they possibly can rather than be dependent on anybody.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22. Most old people are irritable, grouchy and unpleasant.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23. Most old people seem to be quite clean and neat in their personal appearance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24. Most old people spend too much time prying into the affairs of others and giving unsought advice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25. Most old people bore others by their insistence on talking about the &quot;good old days.&quot;</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Statement</td>
<td>Strongly Disagree</td>
<td>Neither Agree Nor Disagree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>--------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>People grow wiser with the coming of old age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Most old people should be more concerned with their personal appearance; they are too untidy.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>There is something different about most old people; it's hard to figure out what makes them tick.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Old people have too much power in business and politics.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>One seldom hears old people complaining about the behavior of the younger generation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>It is evident that most old people are very different from one another.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Most old people would prefer to quit work as soon as pensions or their children can support them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Most old people can generally be counted on to maintain a clean, attractive home.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Most old people are cheerful, agreeable, and good humored.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**II. Knowledge of Older People**

Directions: For the items below, please circle "T" if you believe the statement is true or "F" if you believe the statement is false. If you are not sure or undecided about the answer, circle "U". For this quiz, the "aged" and "old people" are defined as those 65 of age or over.

<table>
<thead>
<tr>
<th>Statement</th>
<th>T</th>
<th>U</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>The majority of old people (past age 65) are senile (i.e., defective memory, disoriented, or demented).</td>
<td>T</td>
<td>U</td>
<td>F</td>
</tr>
<tr>
<td>All five senses tend to decline in old age.</td>
<td>T</td>
<td>U</td>
<td>F</td>
</tr>
<tr>
<td>Most old people have no interest in, or capacity for, sexual relations.</td>
<td>T</td>
<td>U</td>
<td>F</td>
</tr>
<tr>
<td>Lung capacity tends to decline in old age.</td>
<td>T</td>
<td>U</td>
<td>F</td>
</tr>
<tr>
<td>The majority of old people feel miserable most of the time.</td>
<td>T</td>
<td>U</td>
<td>F</td>
</tr>
<tr>
<td>Physical strength tends to decline in old age.</td>
<td>T</td>
<td>U</td>
<td>F</td>
</tr>
<tr>
<td>At least one tenth of the aged are living in long-stay institutions (i.e., nursing homes, mental hospitals, homes for the aged, etc.).</td>
<td>T</td>
<td>U</td>
<td>F</td>
</tr>
<tr>
<td>Aged drivers have fewer accidents per person than drivers under age 65.</td>
<td>T</td>
<td>U</td>
<td>F</td>
</tr>
<tr>
<td>Most older workers cannot work as effectively as younger workers.</td>
<td>T</td>
<td>U</td>
<td>F</td>
</tr>
</tbody>
</table>
10. About 50% of the aged are healthy enough to carry out their normal activities.

11. Most old people are set in their ways and unable to change.

12. Old people usually take longer to learn something new.

13. It is almost impossible for most old people to learn new things.

14. The reaction time of most old people tends to be slower than reaction time of younger people.

15. In general, most old people are pretty much alike.

16. The majority of old people are seldom bored.

17. The majority of old people are socially isolated and lonely.

18. Older workers have fewer accidents than younger workers.

19. Over 15% of the U.S. population are now age 65 or over.

20. Most medical practitioners tend to give low priority to the aged.

21. The majority of old people have incomes below the poverty level (as defined by the Federal Government).

22. The majority of old people are working or would like to have some kind of work to do (including housework and volunteer work).

23. Older people tend to become more religious as they age.

III. Experiences with Older People

1. Contact With Older People

Please list below the first name(s) of older people with which you have regular contact. Contact may include face-to-face interaction or communication by telephone or correspondence (letters, cards, etc.). Indicate the age, frequency of contact and relationship you have with that person (e.g., mother, father, grandparent, aunt/uncle, spouse's relatives, neighbors, friends, etc.).
2. What kind(s) of assistance do you receive from older people? (Check all that apply.)

   ___ 1. advice
   ___ 2. money
   ___ 3. gardening
   ___ 4. cooking
   ___ 5. house repairs
   ___ 6. sewing
   ___ 7. yard work
   ___ 8. car repair
   ___ 9. child care
   ___ 10. other (please specify) __________________________

3. What kind(s) of assistance do you give older people? (Check all that apply.)

   ___ 1. advice
   ___ 2. money
   ___ 3. running errands
   ___ 4. gardening
   ___ 5. sewing
   ___ 6. cooking
   ___ 7. house repair
   ___ 8. yard work
   ___ 9. car repair
   ___ 10. transportation
   ___ 11. nursing care
   ___ 12. other (please specify) __________________________

4. What kind(s) of activities do you share with old people? (Check all that apply.)

   ___ 1. Watch television with older people.
   ___ 2. Have short visits with older people.
   ___ 3. Take a trip with older people.
   ___ 4. Do crafts/hobbies with older people.
   ___ 5. Write letters to older people.
   ___ 6. Receive letters from older people.
   ___ 7. Talk on telephone with older people.
   ___ 8. Attend church with older people.
   ___ 9. Attend clubs/organizations with older people.
  ___10. Take walks with older people.
  ___11. Other (please specify) __________________________
IV. TEACHING ABOUT AGING

1. How many years have you taught home economics? __________

2. What grade levels do you teach? (Check all that apply.)
   _____ 1. Grade 7
   _____ 2. Grade 8
   _____ 3. Grade 9
   _____ 4. Grade 10
   _____ 5. Grade 11
   _____ 6. Grade 12
   _____ 7. Other (please specify) __________

3. Do you teach aging-related concepts in your home economics program?
   _____ 1. Yes
   _____ 2. No (Skip to Q.5)

4. Please list aging-related concepts you teach for each home economics subject matter area.

   Individual and the Family
   ______________________________________
   ______________________________________
   ______________________________________

   Foods and Nutrition
   ______________________________________
   ______________________________________
   ______________________________________

   Consumer Education
   ______________________________________
   ______________________________________
   ______________________________________

   Housing, Home Furnishings and Equipment
   ______________________________________
   ______________________________________
   ______________________________________
Home Management and Family Resources

5. Do you advise a FHA Chapter?
   ___ 1. Yes
   ___ 2. No (Skip to Q.7)

6. Do you include aging-related activities in your FHA Chapter meetings?
   ___ 1. Yes
      If yes, explain briefly: _____________________________________________
      _____________________________________________
   ___ 2. No

7. To what extent do you feel you are prepared for teaching aging-related concepts in your home economics courses? (Check one.)
   ___ Very well prepared
   ___ Somewhat prepared
   ___ Not very well prepared

8. Which of the following could prepare you better for teaching about aging? (Check all that apply.)
   ___ 1. Credit courses
   ___ 2. Non-credit inservice workshops
   ___ 3. Curriculum materials
   ___ 4. Other (please specify) ___________________________________________
9. Please indicate the extent to which the resources listed below are available for you to teach about aging using the following scale:

- 3 = Frequently available
- 2 = Somewhat available
- 1 = Not available

1. Books
2. Periodicals (journals, magazines, etc.)
3. Films
4. Filmstrips
5. Videotapes
6. Curriculum guides
7. Speakers or resource persons
8. Other instructional materials (e.g., from Extension, business, community agencies)

10. To what extent does your school administration provide support for aging education in the following areas? Use the following scale:

- 5 = Strongly supports
- 4 = Usually supports
- 3 = Moderately supports
- 2 = Seldom supports
- 1 = No support

1. Give permission for field trips to visit older people (e.g., nursing homes, senior centers, etc.)
2. Give permission to have older people visit classroom.
3. Encourage inservice training on aging.
4. Provide funds for aging-related curriculum materials, media, etc.
5. Other (please specify)

V. Preservice Education On Aging

1. Did you ever receive formal training in aging/gerontology education while training for your bachelor's degree?

- 1. Yes
- 2. No (Skip to Part VI, Q.1)

2. Please list by titles courses taken on aging in your bachelor's degree program:
VI. Graduate Education on Aging

1. Have you had graduate courses in aging/gerontology?
   ___ 1. Yes
   ___ 2. No (Skip to Part VII, Q.1)

2. Please list by titles graduate courses on aging taken:

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

VII. Inservice Education on Aging

1. Have you attended inservice training on aging?
   ___ 1. Yes
   ___ 2. No (Skip to Part VIII, Q.1)

2. Please indicate the sponsor(s) of inservice training on aging you have received.
   ___ 1. Local school
   ___ 2. Area Educational Agency (AEA)
   ___ 3. Iowa Department of Education (i.e., Unified Conference)
   ___ 4. Universities in Iowa (ISU, UNI, U of I, etc.)
   ___ 5. Iowa/American Home Economics Association
   ___ 6. Others (please specify) ________________________________

VIII. Demographic Information

1. What is your age? __________________

2. What is your highest level of education?
   ___ 1. Bachelor's degree
   ___ 2. Master's degree
   ___ 3. Doctoral degree
   ___ 4. Other (please specify) ________________________________
3. In which of the following locations do you live?
   1. rural (farming)
   2. rural (non-farming)
   3. town (less than 5,000)
   4. city (5,000 - 50,000)
   5. metropolitan area (over 50,000)
   6. other (please specify) ________________________________

4. To which ethnic/racial group do you belong?
   1. White/Caucasian
   2. Black/Afro-American
   3. Asian American
   4. Hispanic American
   5. Native Indian American
   6. Other (please specify) ________________________________

THANK YOU!
APPENDIX B.

CORRESPONDENCE
November 10, 1986

Dear Teacher,

The Department of Home Economics Education at Iowa State University is conducting a study to determine factors influencing teaching about aging by vocational home economics teachers in the state of Iowa. This study is important because researchers and educational leaders have emphasized the need for incorporating aging education into secondary school curriculum. You have been selected as one of the teachers who can help give the information pertinent to this study. Enclosed you will find a questionnaire which we would like for you to complete. It will take you approximately 20-25 minutes.

We certainly hope you will agree to be part of this study, and will return the completed questionnaire to us by November 21, 1986. Your responses will be held in strictest confidence. The code number on the questionnaire will be used for clerical purposes only and will be removed at the completion of the study. If you have any questions about the study or want any additional information, please call Dr. Penny A. Ralston or Rose A. Mwonya at (515)294-6444.

Thank you in advance for your cooperation and assistance.

Sincerely,

Dr. Penny A. Ralston
Associate Professor

Rose A. Mwonya
Research Assistant

RM/bn

Enclosure
December 9, 1986

Dear Teacher:

We don't mean to bug you, but if you have not returned your questionnaire concerning your views about aging, please do so as soon as possible. Your questionnaire is needed in order to accurately identify factors related to teaching about aging in secondary schools.

If you have misplaced your questionnaire, please call Rose Mwonya at (515) 294-4757 and she will mail another one to you. Could we have your completed questionnaire no later than December 19, 1986? Thanks so much for your assistance and cooperation.

Sincerely,

Penny Ralston, Ph.D.
Associate Professor

Rose Mwonya
Graduate Assistant
January 22, 1987

Dear Teacher:

Several weeks ago, we sent you a questionnaire on your views about aging, and we have not received a response. Your input is needed in order to determine factors influencing teaching about aging by vocational home economics teachers. Results of this study will be used to help plan activities related to teaching about aging in secondary schools.

Won't you please take a few minutes to complete the enclosed questionnaire? If possible, we would like your response by February 6. If you have questions, please contact us at (515) 294-6444. We sincerely appreciate your assistance and cooperation, and look forward to hearing from you.

Sincerely yours,

Penny A. Ralston, Ph.D.
Associate Professor

Rose A. Mwonya, M.S.
Research Assistant

Enclosure
APPENDIX C.

APPROVAL FOR USE OF HUMAN SUBJECTS IN RESEARCH
INFORMATION ON THE USE OF HUMAN SUBJECTS IN RESEARCH
IOWA STATE UNIVERSITY
(Please follow the accompanying instructions for completing this form.)

1. Title of project (please type): Factors Influencing Teaching About Aging by Vocational Home Economics Teachers

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are properly protected. Additions to or changes in procedures affecting the subjects after the project has been approved will be submitted to the committee for review.

   Rose A. Mwonya 10/17/86
   Typed Name of Principal Investigator
   Date
   Signature of Principal Investigator

   220A MacKay Hall
   Campus Address
   294-6444
   Campus Telephone

3. Signatures of others (if any)
   Date
   Relationship to Principal Investigator

   Tommy A. Ralston
   Major Professor

4. ATTACH an additional page(s) (A) describing your proposed research and (B) the subjects to be used, (C) indicating any risks or discomforts to the subjects, and (D) covering any topics checked below. CHECK all boxes applicable.

   □ Medical clearance necessary before subjects can participate
   □ Samples (blood, tissue, etc.) from subjects
   □ Administration of substances (foods, drugs, etc.) to subjects
   □ Physical exercise or conditioning for subjects
   □ Deception of subjects
   □ Subjects under 14 years of age and/or □ Subjects 14-17 years of age
   □ Subjects in Institutions
   □ Research must be approved by another institution or agency

5. ATTACH an example of the material to be used to obtain informed consent and CHECK which type will be used.

   □ Signed informed consent will be obtained.
   □ Modified informed consent will be obtained.

6. Anticipated date on which subjects will be first contacted: 11 10 86
   Anticipated date for last contact with subjects:

7. If Applicable: Anticipated date on which audio or visual tapes will be erased and/or identifiers will be removed from completed survey instruments:

8. Signature of Head or Chairperson Date Department or Administrative Unit
   George G. Karas 11/10/86 Home Economics Educ.

9. Decision of the University Committee on the Use of Human Subjects in Research:
   △ Project Approved □ Project not approved □ No action required
   Name of Committee Chairperson Date Signature of Committee Chairperson

   George G. Karas 11/10/86