Instructional Techniques and Environmental Considerations in Family Life Education Programming for Midlife and Older Adults*

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We review the theory and practice of education with midlife and older adult populations and empirically address two theoretically guided research questions: (a) What are older adults’ preferences for instructional strategies and techniques in programs? (b) What environmental considerations (e.g., lighting) do older adults perceive as important in influencing their attendance, participation, and satisfaction with programs? Data were collected from and compared among 264 adults representing four age groups: 50-64 (midlife), 65-74 (young old), 75-84 (old old), and 85 and over (oldest old). Recommendations for family life education practices with older adults are addressed.

Current demographic trends suggest that members of the “baby boom generation” (i.e., those born between 1946 and 1964) are making the transition into later life in large numbers (Morgan, 1998). Compared with other age groups, baby boomers are generally considered one of the fastest growing cohorts in the United States. Midlife and older Americans (i.e., aged 50 and over) are part of a unique demographic phenomenon called the “50–50–50 principle,” which refers to the fact that every 50 seconds another 50 baby boomers celebrate their 50th birthdays (Gonyea, 1998). Demographic projections estimate that by 2030 the number of people aged 50 and over will reach 127 million (about 36% of the population; U.S. Census Bureau, 2000). These projected trends indicate that the baby boom generation will dominate the elderly population.

An operating principle among family life educators is that individuals of different ages have different needs in terms of family life education programs (Arcus, Schvaneveldt, & Moss, 1993). As a rapidly growing cohort, older adults pose two specific challenges to family life educators: (a) understanding how cognitive and physiological development influence environmental considerations associated with program design and implementation, and (b) understanding what instructional approaches are needed to be effective in affecting older adults’ participation and learning. Arcus (1993) advocated that older adults receive more attention from family life educators seeking to establish and address the educational needs and learning environments of older populations. She suggested that a significant educational gap in the field of family life education is the narrow focus on the study of individuals and families, with limited attention being given to the educational principles influencing them across the life span. Furthermore, Arcus and Thomas (1993) suggested that little consideration has been given to the specific characteristics of family life education audiences.

Educational programs specifically targeted for older adults began after 1950 as an extension of existing adult higher education programs (Hiemstra, 1998). In characterizing adult education over the past 20 years, there has been a notable increase in the number of educational programs for older adults, with these programs moving beyond recreational activities. Programs are offered in a variety of settings, are experiencing increased participation rates, and often are focusing on contributions to life and self-fulfillment (Manheimer & Moskow-McKenzie, 1995). Some of these existing programs could be loosely characterized as a category of family life education (e.g., as defined by Avery & Lee, 1964, or Tennant, 1989); however, as previously stated, there has been limited attention given to the specific family life education needs of older adults through these programming efforts (Arcus, 1993). The main purpose of family life education is to build strengths within families by helping individuals and families “learn about human growth, development, and behavior in family settings throughout the life cycle” (National Commission on Family Life Education, 1968, p. 211), with the primary goal of “strengthening and enriching individual and family well-being” to its fullest potential (Thomas & Arcus, 1992, p. 4).

In general, family life education for older adults integrates more practical and life experiences than do educational efforts typically discussed for older adults in higher education. Family life education for older adults is worthy of consideration because it provides needed assistance to those who are struggling with later life transitions such as shifting roles within their family, becoming the primary caregivers of grandchildren, the death of a spouse, changing health and wellness issues, retirement, sexuality, increased divorce and remarriage, the lack of available positive role models for successful aging, and the overall negative societal attitude toward older people. There is an expanding societal need for family life educators to design and implement programs that promote growth as older adults negotiate their changing family structure and roles, but that also address the changes and challenges they are facing on an individual level. According to Arcus (1993), “there is no shortage of issues and transitions where family life educators could be of assistance” to older adults and their families (p. 187).

Therefore, our twofold purpose is to review briefly the theory and practice of education with midlife and older adults and to empirically address the following theoretically guided questions: (a) What are older adults’ preferences for instructional strategies and techniques in family life education programs? (b) What are the environmental considerations (e.g., time of day, lighting) that older adults perceive as important in influencing their attendance, participation, and satisfaction with family life education programs?

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The Theory of Adult Education

To better understand the practice of adult education, adult educational and developmental theories can guide family life educators in addressing the relevant needs of this underserved audience (Arcus, 1993). The theory of adult education suggests that unique instructional techniques and environmental considerations affect older adults’ interest and participation in family life education (Knowles, 1980). According to Arcus (1993), programs that fail to take into consideration these critical older adult processes by primarily relying on learning theory developed for younger populations are at risk of being ineffective and irrelevant.

Adult Education Terminology

Within the adult education field, there are several terms used to define and describe education for older adults: educational gerontology, gerontological education, andragogy, and geragogy. Currently, there does not seem to be a clear consensus among scholars on the definitions of these terms; however, there is consensus that the concepts provide relevant perspectives for understanding the techniques and environmental considerations that are essential for working with older adults as family life educators.

Educational gerontology can be defined as “the study and practice of instructional endeavors for and about the aged and aging” (Peterson, 1990, p. 3). According to Peterson, three major areas encompass educational gerontology: (a) instructional techniques for older people, (b) instruction for general and specific audiences about older people, and (c) instruction for people who will work with older people. A closely related concept is gerontological education, which is used most often to refer to the process of teaching gerontology (Zych, 1992). Despite their relatedness, scholars prefer to use the term educational gerontology instead of gerontological education to refer to all aspects of learning for older adults (Glendinning & Battersby, 1990; Zych).

Andragogy is the art and science of helping adults learn (Knowles, 1980). Andragogy is a learner-driven, task-oriented approach to learning. It assumes that adult learners are self-directed, possess a vast reservoir of life experiences that are a rich source for learning, and are interested in programs designed to enhance knowledge and skills associated with topics relevant and applicable to their personal lives (John, 1988).

Geragogy, a term used as early as the 1950s (Glendinning, 1992), refers more to educational theory and practice for older adults (Battersby & Glendinning; 1992; Moody, 1985). Geragogy encompasses research and theory on human development, teaching and older adults, and learning and older adults (Battersby, 1987). According to Girton (1995), the main goals of adult education should include expression of one’s life experiences, focusing on the present life situations and identifying those challenging aspects of one’s life that can be controlled and changed.

Theoretical Implications for Family Life Education

Although there is a clear need for more work in developing adult educational theories, some theoretical principles are relevant for family life education. First, it is well accepted that older adults should be used as resources in the planning and implementation of educational programs and that the learning should be learner driven (Brubaker & Roberto, 1993; Girton, 1995; Hiemstra, 1980).

Second, there is a great deal of diversity among older adults. Brubaker and Roberto (1993) recognized that ethnicity, gender, geographic location, family context, and age are factors that contribute to the heterogeneous nature of this population. The rich pasts, previous knowledge, different skills, and varied experiences of older adults also contribute to diversity. This diversity should be recognized and individuals acknowledged for their unique knowledge, traits, and experiences. In turn, these factors should be considered in planning and implementing programs.

Third, education for older adults should be empowering (Glendinning & Battersby, 1990; Moody, 1987). This may occur in several ways. Education could be a vehicle for social change (Moody), or it could be a way to gain control and power of one's life through the adjustment to technological change or to greater self-fulfillment (Glendinning & Battersby).

Fourth, Brubaker and Roberto (1993) suggested that family life education programs for older adults should promote learning pattern continuity in the later years. For example, it may be that the individual has never been a joiner (i.e., he or she has not participated in structured programs or organizations); therefore, he or she would benefit more from written materials than from a structured program. Another guideline Brubaker and Roberto suggested was to help older adults identify ways that they have been successful in coping with change in the past and to use those same techniques as they continue to face the changes associated with growing older.

Fifth, Wolf (1991) offered some tips for responding to older learners: (a) remove stereotypes and belittling attitudes from the learning environment; (b) develop a greater understanding and appreciation for all human development, including your own; (c) explore the processes by which learners achieve integrity; and (d) adopt learning methods and curricula that enhance the learning potential of older adults.

The Practice of Family Education With Older Adults

Family life education practice with older adults should include attention to factors such as the cognitive and physiological abilities of older adults, how they can influence attitudes about the learning environment, and what instructional strategies older adults prefer as delivery systems in educational programs.

Cognitive and Physiological Factors Affecting Older Adults

The influence of cognitive and physiological changes in older adulthood presents unique educational and learning environment challenges for the family life educator to consider when working with older adults. Changes that may influence older adults are innate aspects of intelligence (Glass, 1996), psychomotor speed (Schaie, 1989), sensory acuity and perception associated with hearing (e.g., presbycusis effects on pitch and volume) and sight (e.g., far- vs. nearsightedness, increased lens opacity, decreased adjustment to light; Glass; Peterson, 1983), memory functioning such as speed of information retrieval (Browning, 1995), high levels of fatigue and anxiety (Hayslip & Kennelly, 1985; Labouvie-Vief, 1990), motivation, expected learning pace, and anxiety (Hayslip & Kennelly; Peterson), and interference in managing multiple tasks (Twitchell, Cherry, & Trott, 1996). Some of the factors that may contribute to these changes are health status, institutionalization, environment, ed-
ucation level, socioeconomic status, and diet (Hayslip & Kennelly; Labouvie-Vief; Schaei).

Arcus (1993) stated that declines associated with the aging process influence the ability of older persons to fully engage in family life education activities. Understanding how these factors influence adult learning is important to meeting the educational needs of older adults (Arcus). However, Wass and Olejnik (1983) concluded that family life education program planners should assess individual differences among older adult students, focusing on their unique abilities, needs, interests, and goals, but that planners do not need to be overly concerned about cognitive and physiological deficiencies among this population of learners. Although some older adults may experience some cognitive decline, many individual differences exist, and any decline experienced may not be enough to affect daily functioning and performance on routine learning tasks.

Learning Environments and Older Adults

Family life educators need to rethink and expand traditional perspectives of creating a learning environment (Arcus, 1993). Morris, Cooper, and Gross (1999) suggested that “where” the participants learn is an important variable to consider because it affects the participants’ learning and satisfaction with their experience. According to Morris et al., factors to consider in the selection and preparation of an adult learning environment are location accessibility, comfortable seating, lighting, close lavatory accessibility, room temperature (e.g., mid- to upper 70s), conducive areas for mobility (e.g., safe stairs, safe floor coverings, and limited obstacles), acoustics, and a location with reduced levels of interruptions and distractions. Because of changes in eyesight, hearing, health conditions, reduced mobility, reduced bladder capacity, and increased fatigue that often accompany the aging process, these variables may be particularly critical for effective family life education with older adults (Glass, 1996; Peterson, 1983).

Technology and Other Instructional Approaches With Older Adults

Arcus (1993) indicated that family life educators must adapt curricula and programs appropriately to meet the learning needs, interests, and characteristics of particular audiences. She further noted that educators should give serious attention to the educational possibilities that emerge from a diverse assortment of traditional strategies (e.g., discussion, lecture, visual aids) and new educational technologies such as computers, the Internet, and other electronic instructional media (e.g., video, television).

Although the research on computer anxiety and attitudes with older adults has yielded mixed results, older adults experience more anxiety and more negative attitudes toward computers than younger adults (Baack, Brown, & Brown, 1991; Laguna & Babcock, 1997). Yet, exposure to computers and training in basic computer skills may result in more positive attitudes, greater motivation to learn, and reduced anxiety levels (Baack et al.; Dyck & Smith, 1996; Morris, 1994). Older adults trail other groups in terms of computer ownership; however, they have experienced a tenfold increase in computer ownership in the last 14 years, and their growth in In-ternet usage has exceeded that of any other cohort (National Telecommunications and Information Administration [NTIA], 1998).

This increase in computer ownership and usage has implications for family life educators. Computer-literate older adults feel more empowered and use computers to improve their productivity, for entertainment, to increase socialization opportunities, for education, for emergency response, and to assist with daily tasks such as health monitoring, medication compliance, and shopping (Dyck, Gec, & Smith, 1998; Lawhon, Ennis, & Lawhon, 1996; Timmerman, 1998).

Although the Internet is a new vehicle for family life education, there are a number of sites designed to enrich family life (Elliott, 1999). Web sites and distance learning may help family life educators reach people who are less able to participate in traditional family life education programs (Elliott). The Internet can also provide opportunities for peer learning through learning groups or discussion boards (Clark, Heller, Rafman, & Walker, 1997).

Computer-assisted instruction (CAI) is another avenue for family life education with older adults—one highly compatible with many of the principles of geragogy, such as the self-pacing nature, active learner participation, and immediate reinforcement or repetition (McNelly, 1991). Older adults experience difficulty due to the size of the text on the screen, the complexity of software, the mouse, and determining which pull-down menus to use to initiate asynchronous or synchronous eLearning instructional applications, such as video vignettes (Hutchinson, Eastman, & Tirrito, 1997). These barriers can be addressed or adapted to meet the needs of older computer users (Jones & Bayen 1998; Hutchinson et al.).

In sum, the use of computer technologies like the Internet and CAI offer family life educators new opportunities to rethink assumptions about how people learn and to reconsider how to provide family life education (Smith, 1999). We empirically assess participants’ interest in these and other instructional strategies, but the effectiveness of the strategies is not measured. The effectiveness of instructional techniques can only be measured through good evaluative studies of family life education programs employing these techniques.

Methods

Data were from the same sample of adults aged 50 and over used in Ballard and Morris (this issue). Four age groups were noted: 50–64, 65–74, 75–84, and 85 and over. A random sample of 250 were selected for inclusion from each group.

Booklets were mailed to 1,000 members with a postage-paid return envelope. The mailing occurred at the beginning of November, and it was anticipated that many respondents may have seasonally migrated to warmer climates (e.g., Bennett, 1993; Summers & Hirschl, 1985), potentially reducing responses. In an effort to bolster responses, incentives were used, as well as a follow-up with a reminder postcard after the initial mailing plus a written reminder in the winter issues of the newsletter.

Sample Characteristics

The response rate and detailed description of the sample appear in Ballard and Morris (this issue). Of the 264 respondents, overall the sample is best described as predominantly female (n = 184), on average 71 years of age (range 51–98 years, SD = 11.27), married (61%), parents (91%), and grandparents (81%). They were well-educated (52% had at least some college), retired (68%), and owned homes (76.6%).

Instrumentation

To facilitate the completion of the survey by older participants with potential vision problems, the survey was printed in
12-point, Courier New font with a combination of single, one and one half, and double spacing (Bourque & Fielder, 1995). Questions were printed in a vertical format to minimize confusion over the item and the corresponding responses (Bourque & Fielder), and leaders (i.e., dotted lines) were used to facilitate the connection of questions with answer choices (Salant & Dillman, 1995; Bourque & Fielder). The questions were printed in boldface and the answer choices in a regular font in an effort to guide the respondent through the questionnaire (Salant & Dillman).

Instructional techniques. To ascertain respondents’ interest in and receptivity to newer methods of family life education (e.g., Internet, television) versus more traditional instructional techniques (e.g., lecture, discussions), respondents were asked to indicate how helpful they would find a given method of receiving information. Respondents rated 15 teaching techniques using a 4-point, Likert-type scale, ranging from very helpful to not at all helpful. These 15 items were subjected to an exploratory factor analysis that resulted in three factors: Group Instructional Strategies, Independent Use Strategies, and Computers. Cronbach’s alphas for these three factors were .87, .84, and .88, respectively. A .4 criteria and varimax rotation were used. The specific instructional strategies in each of the three factors and their loadings are listed in Table 1.

Environmental issues. A 4-point, Likert-type format measured the importance of nine environmental factors (e.g., time of day, lighting). Responses ranged from very important to not at all important. Additionally, other questions were asked about topics such as the ease of reading different font styles and sizes, computer access, Internet access, and computer literacy.

Results and Discussion

Environmental Considerations

Overall, the 9 environmental issues received high ratings, indicating that environment is an important consideration. The mean response for each issue is in rank order by overall mean

and separated by gender appear in Table 2. A t test revealed gender differences for 3 of the 9 issues. Comparisons by gender showed significant differences in the ratings of proximity to the bathroom, time of day, and convenient parking. Women more than men indicated that a learning environment near a bathroom, t(229) = 2.036, p = .043 (two-tailed), d = .31; the time of day, t(240) = 2.47, p = .014 (two-tailed), d = .27; and convenient parking, t(239) = 2.26, p = .025 (two-tailed), d = .27 were important. Although bladder capacity is reduced with age (Glass, 1996; Peterson, 1983), no gender differences were noted in the literature. In regard to time of day, many women may have an interaction of home and family and work responsibilities that would affect the time of day that they could attend programs.

Comparisons by age using analysis of variances procedures revealed some expected results regarding selection of workshop time schedule and site. Midlife adults (50–64) rated the time of day as more important than did the old old (75–84), F(3, 242) = 3.26, p = .022, suggesting again that many participants require times that do not interfere with work. Concerning site selection, older participants reported locations without stairs and with reduced levels of background noise more educationally appealing. The oldest old (85+) rated a location with no stairs significantly higher than did midlife adults, F(3, 235) = 3.69, p = .013. Additionally, when compared with the old old, the oldest old rated a minimum of background noise as being significantly more important, F(3, 232) = 3.56, p = .015. Hearing loss is common in later life, and reduced background noise, raised voice volume, lowered voice pitch are recommended to accommodate these changes in hearing (Glass, 1996; Peterson, 1983).

In summary, environmental issues were important to all age groups examined here. For example, the presence of comfortable chairs, convenient parking, and good lighting were ranked highest, supporting other research that found these things to be important in a family life education setting (Morris et al., 1999). Knowles (1980) suggested that an “adultlike setting” is preferred over a typical school classroom setting. Initially, setting issues might not influence the decision to participate in a program because not all participants will be aware of the environment before the first session. These considerations may be important, however, in determining continued or future participation and may influence satisfaction with the program.

Instructional Strategies

The mean ratings for the 15 instructional strategies are listed in Table 3. Although there was little variability with these ratings, the strategies that received the highest ratings reflect instructional strategies that individuals use on their own, such as
Table 3
Ratings of Instructional Strategies Ranked by Mean

<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>M</th>
<th>SD</th>
</tr>
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<tbody>
<tr>
<td>Newsletter</td>
<td>3.35</td>
<td>.77</td>
</tr>
<tr>
<td>Brochures or pamphlets</td>
<td>3.22</td>
<td>.80</td>
</tr>
<tr>
<td>Self-help books</td>
<td>3.20</td>
<td>.85</td>
</tr>
<tr>
<td>Television</td>
<td>3.19</td>
<td>.78</td>
</tr>
<tr>
<td>Magazines</td>
<td>3.12</td>
<td>.83</td>
</tr>
<tr>
<td>Videos</td>
<td>3.03</td>
<td>1.00</td>
</tr>
<tr>
<td>Learning from others of same age</td>
<td>3.03</td>
<td>.92</td>
</tr>
<tr>
<td>Lecture</td>
<td>2.80</td>
<td>1.02</td>
</tr>
<tr>
<td>Discussions</td>
<td>2.78</td>
<td>.98</td>
</tr>
<tr>
<td>Support groups or small-group interaction</td>
<td>2.48</td>
<td>1.04</td>
</tr>
<tr>
<td>Visual aids (e.g., charts, handouts, overhead transparencies)</td>
<td>2.26</td>
<td>1.05</td>
</tr>
<tr>
<td>Journal writing</td>
<td>2.10</td>
<td>.91</td>
</tr>
<tr>
<td>Computer program for home use</td>
<td>2.08</td>
<td>1.20</td>
</tr>
<tr>
<td>Computer program used in classroom setting</td>
<td>2.00</td>
<td>1.09</td>
</tr>
<tr>
<td>Internet (World Wide Web)</td>
<td>1.92</td>
<td>1.16</td>
</tr>
</tbody>
</table>

newsletters, brochures, and self-help books, supporting the gerontological principles of self-paced and self-directed learning.

A t test using the three instructional strategies factors (i.e., group use strategies, independent use strategies, and computers) as the dependent variables revealed significant gender differences for only 1 of the 3 factors. Women indicated that independent use strategies (e.g., newsletters, brochures, etc.) were more helpful than did men, t(255) = 3.47, p = .001 (two-tailed), d = .47. Because family life education has traditionally been the woman's arena (Arcus, 1993), women may be more likely than men are to pick up brochures or to read newsletters that they receive. It may be that traditionally oriented men may see family life education as a woman's issue and therefore not utilize this mode of learning as often as women.

Significant age differences were determined through an analysis of variance using the four age groups as the independent variables. Significant age differences were found in group teaching techniques, F(3, 260) = 5.50, p = .001. Post hoc analyses revealed that midlife adults (50–64) rated group teaching techniques as more helpful than did the young old (65–74; p = .052), old old (75–84; p = .016), and the oldest old (85+; p = .002). Significant differences also were found for computers, F(3, 260) = 9.38, p = .001. Overall, younger groups rated computers as more helpful than did the older groups, with midlife adults rating them more helpful than the old old (p = .000) and the oldest old (p = .000). The youngest old also rated computers higher than the old old (p = .022) and the oldest old (p = .004).

Concerning midlife adults (50–64) being more interested in group teaching strategies (e.g., discussions, lectures), this finding may be a reflection of their higher educational level. They may have a higher comfort level with structured educational programs and be more receptive to participation in them. Individuals in the older age groups may be more intimidated and more uncomfortable with the idea of attending an educational program or may have an inaccurate idea of what it is like instead of education (Moody, 1987; Roberts & Morris, 1998). Also, older adults have not had the same opportunities for family life education in their early years that younger adults have had (Arcus, 1993), which may affect their receptivity and comfort level for family life education programming.

Concerning instructional strategies that involve computers, these techniques were rated the lowest of all the instructional strategies. Midlife adults were more interested in computers than those in other age groups. However, the young old also showed interest. This interest in computers as a mode of learning coincides with computer ownership. Forty-six percent of participants aged 50–64 owned a computer, compared with 34% of 65–74 year olds, 16% of 75–84 year olds, and 9% of those aged 85 and over. Thirty-five percent of participants aged 50–64, 27% of those 65–74, 14% of those 75–84, and 4% of those aged over 85 and over reported having access to the Internet. These statistics also coincide with national trends and in computer ownership (NTIA, 1998).

Although CAI has shown some promise as an effective instructional strategy for older adults (McNeely, 1991), this was not a highly rated strategy here. However, computer programs for home use may become more popular as more people purchase computers. Because our participants were interested in receiving information through strategies they use independently and on their own time, it may be that as more individuals purchase computers, become computer literate, and have access to the Internet, they will also become more interested in receiving information through this method.

**Summary and Implications of Findings**

Several findings from this study have obvious implications for family life educators who have an interest in addressing additional research questions or meeting the family life education needs of midlife and older adults.

*Environmental considerations of the facility used for programs are important to participants.* Arcus (1979) stated that adult learning patterns are influenced by the comfort of the learning environment. According to Ambrose and Lennox (1988) and Pribilovic (1985), the setting provided for adult education makes a difference in the success of the service to satisfy the consumer. Wagner and Cooper (1981) and Hunt, Hof, and DeMaria (1998) suggested that family life educators and facilitators invest in selecting and providing learning environments that support comfort and accessibility and that contribute to the overall learning ambiance to minimize interruptions and distractions during the education process.

*Independent-use instructional strategies received high ratings for their usefulness as a vehicle for receiving information.* Overall, participants were interested in family life education materials that they could use independently, such as newsletters. The PrimeLife for Seniors program sends out a monthly newsletter to its members, and its popularity may be reflected in these responses. Nonetheless, people are busy, and often it is difficult to commit to attend an evening or weekend program; a newsletter or brochure can be read at one's leisure.

*More print material relating to topics of interest for these age groups should be developed and made easily available.* This could include work places, senior centers, retirement communities, doctors' offices, community centers, or area businesses, such as grocery stores. When developing print materials for this population, font style and size should be considered. Participants in this study were asked if they were able to read Courier, Times New Roman, Arial font styles and 10-, 12-, and 14-point size fonts. Results indicated that materials using Times New Roman or Arial and font sizes of at least 12 points were desirable. In addition, certain colors such as dark green, blue, and violet should be avoided because the natural yellowing of the aging eye makes it difficult to see them (Peterson, 1983).

*Computers received low ratings in terms of their usefulness*
as an information source; however, when compared with older age groups, middle adults indicated more interest in this mode of learning. Middle adults also expressed more openness to instructional strategies involving groups. Although older adults may experience more anxiety and more negative attitudes toward computers than younger adults (Baack et al., 1991; Laguna & Babcock, 1997), greater efforts to expose and train basic computer skills can result in more positive attitudes about computers, greater motivation to learn, and reduced anxiety levels (Baack et al.; Dyck & Smither, 1996; Morris, 1994). Family life educators interested in enabling older adults to learn to access the vast resources available through technology should consider innovative ways of fostering user appeal and comfort with these vehicles.

Also, in addition to their interest in using computers as a delivery system, middle adults were the most receptive to group-oriented instructional strategies. Research that explores and evaluates how blending technology and the social connection needs of learners (e.g., synchronous learning) could be beneficial in addressing the family life education needs of older adults. Examples of synchronous learning environments include virtual classrooms, audio- or videoconferencing, Internet telephony, and two-way live broadcasts of lectures to students in a classroom. Greater understanding of these linkages could promote the goals of strengthening family life and adult generativity and reduce the social isolation and technophobia of adult learners.

Comparisons by age and gender support the idea of learning diversity within middle and older adults. Little research exists on the receptivity and effectiveness of different teaching techniques in family life education, particularly with middlelife and older adults. These results provide some insight into teaching techniques that might be effective with older adults. However, some teaching techniques that are not described here (e.g., reminiscence, life review, guided autobiography, peer learning, advance organizers) have been discussed in the literature as having the potential for use among older populations (Clark et al., 1997; de Vries, Birren, & Deutchman, 1990; Harvey & Jahns, 1988; Peterson, 1983; Merriam, 1990; Wolf, 1998).

Reminiscence (reflecting on the past or storytelling), life review (recollection and analysis of past historical experiences), and guided autobiography (a more structured type of life review) all have the potential to enhance older adults’ cognitive functioning and to improve life satisfaction by providing therapeutic value, fostering intergenerational communication within families, clarifying and understanding shifting family roles, and assisting with the search for a meaning in one’s life (de Vries et al., 1990; Malde, 1988; Merriam, 1990; Wolf, 1998). Other studies have shown that participants in programs based on a peer learning approach (an educational approach in which learners share the responsibility for planning, presenting, and actively participating in the learning activities) experience more enjoyment, mental stimulation, and overall satisfaction with the program (Clark et al., 1997; Strom, Strom, Fournet, & Strom, 1997). Advance organizers (e.g., outlines, notes, lists of facts, pre-junct questions, or concepts that help learners connect or remember information) can provide an organizing framework for older adults that can serve as a bridge between what is already known and new material (Harvey & Jahns, 1988; Peterson, 1983; Smith, 1996). Given the diversity of learning styles and preferences among older adults, these techniques are worth further exploration when planning and implementing family life education programs.

The limitations noted by Ballard and Morris (this issue) apply here because of our use of the same data source. These limitations include generalizability of the findings beyond the participants in the one senior program, and the concerns that the responses may not reflect those of the diversity of program participants due to the low response rate (27%).

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