MEETING INTERGENERATIONAL NEEDS THROUGH SERVICE LEARNING

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This service-learning project provided a venue for university students majoring in business administration to learn about the successful aging process while contributing to a positive quality of life for retirees living in a Continuing Care Retirement Community (CCRC). The project provided the retirees an opportunity to learn computer skills that helped them engage in desired leisure time and business activities. Student insights into the teaching experience and the learning outcomes of the retirees are reported. The positive response of students and retirees to the service-learning project reinforces the benefit of out-of-classroom experiences in preparing students for future employment.

The concept of successful aging is drawing increased attention as the growth of older populations is rapidly accelerating. According to the U.S. Census Bureau, the segment of the U.S. population that is experiencing the greatest rate of growth consists of those persons 65 years of age and older (Hetzel & Smith, 2001). In 2000, approximately 35 million American’s were in this age group. This represents 12% of the United States’ population and a 12% increase since 1990. From 1990 to 2000, the population 85 years and older increased from 3.1 million to 4.2 million, resulting in 1.5% of the total population being 85 years of age or older. Even though the number of people in the oldest of the old age group has increased, the percentage of people 85 years of age and older who lived in nursing homes decreased from 24.5% in 1990 to 18.2% in 2000 (Hetzel & Smith, 2001). It is anticipated that the number of people over 65 years of age will increase to over 70 million in the next 20 years, and the

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population over 85 years will be nearly 19 million by 2050 (Merck Institute of Aging, 2004). With nearly 75% of people over 65 years of age considering themselves to be in good, very good, or excellent health (Federal Interagency Forum, 2004) and the increase in the number of years of life after retirement, researchers and health care providers are interested in determining the factors that contribute to successful aging.

**Successful Aging**

In a model developed by Rowe and Kahn (1997), successful aging is viewed as a combination of the absence of disease, maintenance of capabilities, and active engagement with life. The concept of active engagement in life is multifaceted with interpersonal relations and productive activity being the two most important components.

While most people experience minor cognitive decline (usually mild memory loss) after the age of 70, many people maintain full cognitive functioning with no recognizable changes. Studies have shown that maintaining a high level of physical and cognitive functioning is considered part of the successful aging process (Charbonneau-Lyons, Mosher-Ashley, & Stanford-Pollock, 2002). Recent reports, based on a longitudinal study, revealed that significantly fewer symptoms of depression were reported by elderly individuals who were computer users than those who did not use computers (Medical News Today, 2005).

As healthy senior citizens retire, they seek meaningful ways to spend their time that will be enjoyable as well as intellectually stimulating. Pursuing life-long learning activities, participating in memory training exercises, engaging in physical activity, and remaining socially active are all important in keeping the mind functioning as effectively as possible (Institute for the Study of Aging, 2001).

Improved health status, greater geographic mobility, and the increased wealth of many older citizens have contributed to people seeking new living options after they retire (Reeder, 1998). As the number of people who live well past retirement has increased, new options have become available to meet the needs of the “active elderly” and to help them maintain a high level of cognitive vitality. Continuing Care Retirement Communities (CCRCs) offer a broad spectrum of services and opportunities, a variety of residential options, and a full continuum of healthcare services. People living in a CCRC have the freedom to shape their own retirement lifestyle and the opportunity to maintain a high level of independence. The
settings are relatively free from unwanted disturbances and offer residents a feeling of safety and security.

**Computer Use and the Elderly**

Activity patterns for the various population groups are tracked by federal government agencies. One area of growing interest focuses on how people across the lifespan access and use technology as a means of communication. In a study conducted to examine the feasibility of providing Internet and e-mail access to members of a retirement community, it was found that teaching older adults to use computers was feasible. The study also revealed a decrease in loneliness in those who participated in computer classes over a 4-month period of time (White et al., 1999). Increasing the number of older people who have computer literacy skills can be useful not only as a means to increase communication, but also as a way to maintain and enhance brain function and cognition.

While still lagging behind other age groups, the percentage of people 65 years of age and older who use the internet increased from 2% in 1996 and 15% in 2000 to 22% in 2004 (Fox, 2004). The internet use rate for Americans age 50–64 was 58%, for Americans age 30–49 it was 75%, and for those 18–29 years of age it was 77%. The online activities that were most frequently reported by those 65 years of age and older included searching for health and medical information (66%), conducting product research (66%), purchasing merchandise (47%), and making travel reservations (41%). In addition, 60% of the seniors visited government Web sites, 26% looked for religious or spiritual information, and 20% engaged in online banking (Fox, 2004). Computer technology has been shown to foster independence and improve the quality of life of the elderly (Kantner & Rosenbaum, 2003).

**Intergenerational Service-learning Projects**

Service-learning is a form of experiential education in which students become actively engaged in a community service-project that helps them connect theory to practice. Students increase their appreciation and understanding of concepts within an educational discipline by developing and implementing activities that address an identified community need. Through the sharing of skills, knowledge, and experiences, intergenerational service-learning projects can result in mutually beneficial relationships that are intellectually stimulating for both the young and old, and they can provide young people with
an opportunity to learn about the aging process (Goff, 2004; Brown & Roodin, 2001).

A variety of training programs have been developed to assist seniors in learning basic computer skills. Some seniors in South Carolina who volunteer to help pre–school and elementary school children receive 20–24 hours of computer skill training through the Foster Grandparent Program. Training is conducted through the Laurens County Literacy Program and is designed to ensure the seniors have the technology skills needed to assist young students with computer activities (Corporation for National & Community Service, 2001a). In Lubbock, Texas, The RSVP program teaches computer skills to over 300 senior citizens annually. Those who become proficient with their newly acquired computer skills take part-time jobs, volunteer with community organizations, and teach other senior citizens how to use the computer as instructors in the RSVP program (Corporation for National & Community Service, 2001b).

Colleges and universities have responded to the rapid shift in the population and have developed learning experiences that expose students to the needs of the fastest growing segment of the U.S. population. To meet the need of retirees who have decided to reenter the workforce, Johnson & Wales University in Rhode Island developed a service-learning program called the Slightly Older Students Computer Tutorial Program (SOS). Through SOS, university students serve as tutors for seniors who want to learn computer skills. The program utilizes university computer labs and focuses on teaching basic computer skills and the application of computer programs such as Microsoft Word, PowerPoint, and Excel (Corporation for National & Community Service, 2004).

Service learning experiences with the elderly are designed to increase the students’ overall understanding of the aging process and minimize beliefs in negative stereotypes of older people. It has been shown that college students who participate in intergenerational seminars have greater acceptance of the elderly and an increased interest in working in the field of gerontology. In a qualitative study, university students were recruited to participate in an intergenerational program that was developed to meet needs of seniors who were homebound or otherwise socially isolated. The students volunteered to visit seniors on a weekly basis to provide companionship and assistance in the home (Bullock & Osborne, 1999). The study found that both the volunteers and the participants benefited from the program and meaningful intergenerational relationships developed. The seniors experienced companionship and increased social interaction
through the program as well as receiving help with activities that were
difficult for them to complete independently. The student volunteers
gained wisdom, friendships, and new perspectives from the seniors as
well as an appreciation for the aging process.

In more traditional health and service-related career paths, such as
nursing and social work, students have clinical experiences as part of
many courses. It is not typical, however, to have “clinical” experi-
ences designed for students studying business administration to learn
about the aging process. Nevertheless, there is a need for business stu-
dents to have a good understanding of this population group since
many graduates of business administration programs seek and find
employment in the long-term care industry.

A PARTNERSHIP IS FORMED

The Continuing Care Retirement Community

The project took place in a CCRC that offers a full-range of services
for senior adults with a variety of residential living options including
an assisted living facility, a special care unit providing Alzheimer’s
and dementia care, and a nursing home for those who require daily
assistance with their care. The staff at the CCRC is actively engaged
in developing programs that will meet the requests and needs of the
people who live there. In recent years, many residents had expressed
interest in learning how to use computers. As a result of these
requests, the staff began to explore options for residents who wanted
to learn how to use computers.

The College of Business and Public Affairs

The College of Business and Public Affairs is part of a small, public,
liberal arts university located in rural South Carolina. The College of
Business and Public Affairs offers an undergraduate degree in busi-
ness administration. Many of the graduates in the health care man-
agement concentration of the program find employment in long
term care settings.

Informal discussions with students revealed a basic lack of knowl-
edge and understanding of the aging process and the cognitive and
physical abilities of older Americans. To help increase the students’
knowledge and understanding and to meet the needs of the residents
at the CCRC, a partnership was developed between the CCRC and
the university’s College of Business and Public Affairs. Using a ser-
vice-learning model, the students were integrated into the world
and activities of the elderly by teaching computer skills classes for people at the CCRC.

**The Process**

A special topics course was developed to give students the opportunity to plan, implement, and evaluate the service-learning project. The course objectives guided each of the student’s activities during the semester. Each student was expected to do the following:

1. Assess the computer skill level of each class participant.
2. Identify the computer skills that each class participant wanted to obtain.
3. Develop individual goals and objectives with each resident participant.
4. Assess resources available through the CCRC and the university to assist the participants in achieving their goals.
5. Develop schedule and timeline for meeting goals and objectives.
6. Implement a training program for each participant from the CCRC.
7. Evaluate the program from the perspective of the resident participants, the CCRC staff, and the university students.

In preparation for their teaching experience, the university students developed an assessment tool to determine the computer skill levels of the CCRC residents prior to and after the computer classes were held.

The administration at the CCRC opened and maintained a computer laboratory on their campus where computer classes were held. The computer laboratory, consisting of four computer stations and two printers, was open to residents 24 hours a day so they could practice their skills between class sessions and use the skills learned in everyday transactions.

This article describes the characteristics of the retirees who enrolled in the computer classes and report the pre- and post-skill levels of the participants. In addition, the learning outcomes of the college students and the impact that the project has had on the CCRC is presented. The data used for the review of learning outcomes were gleaned from the weekly e-mail reports and the end of semester reports that were submitted by the university students to describe their experiences.
RESULTS

Resident Profile

Age and Gender
During the first six semesters of the service-learning project, 77 retirees participated in the program. Of the retirees, 9 signed up for computer classes twice and 5 took the classes three times and 1 person took the class four times. The participants ranged from 69 to 93 years of age, with the average age of 82. Table 1 provides specific information about the age and gender of the retirees who participated. For those who participated in classes more than once, the table reflects their age at the time of the last class in which they were enrolled.

Profession or Primary Life Focus Before Retirement
All but 7 of the 46 women worked outside of the home at sometime prior to retirement age. Nearly all of the men held professional positions during their careers. Specific data were not collected on the level of education for each retiree. However, based on the job titles they provided, it appears that the majority of the men had a college education and the majority of the women had some type of education beyond high school.

Teaching and Learning Computer Skills
The university students were responsible for designing the curriculum and all materials needed to teach the computer classes. The faculty sponsor was available for consultation and arranged for the printing of all materials needed. The curriculum was designed so it could be delivered in 12 1-hour segments over a six-week period. A manual was developed by the university students that

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included step-by-step instructions on how to accomplish basic computer tasks. The manual included written explanations as well as pictorial guides to make it more useful to the class participants. Each class participant was given a manual that they could use to help them recall information needed to complete homework assignments or to practice their computer skills between class sessions.

A list of basic computer skills that all class participants would have the opportunity to learn was developed. The list included sending e-mail and e-mail attachments, using the internet, playing computer games, making electronic and printable greeting cards, and inserting clip art. Each participant also indicated the skills they were interested in as part of the preassessment process. Some individuals with more advanced computer skills also wanted to learn how to create and modify Microsoft Word documents, learn Microsoft Excel to manage finances, and to write newsletters. Individual classes were designed based on the interests of class participants; therefore, the curriculum for each class was unique. Some classes focused primarily on making greeting cards while others spent more time on e-mail or Word documents. Learning to use e-mail and the internet was a common interest for most class participants. Figure 1 illustrates the results of the pre- and postassessments of the class participants for which results were available.

![Figure 1. Pre- and postassessment results related to computer skills.](image-url)
**Themes Emerge from Student Insights**

Students maintained journals about their teaching experience and e-mailed them each week to the faculty sponsor for the course. At the end of the semester, students submitted a final report that included an overview of their teaching experience, their impressions, and the value of the experience as they perceived it for the participants, the CCRC, the university, and themselves. The data, obtained from weekly journal submissions and final reports, were analyzed using the constant-comparative method described by Glaser and Strauss (1967) as a guide. Several themes emerged from the analysis.

**Theme 1: Developing Positive Relationships with the Elderly**

One of the goals of the project was to give students an opportunity to interact with the elderly so they could formulate their own opinions about the aging process and dispel negative impressions they may have had about working with older people. The following excerpts from journal entries illustrate how one student, who had limited previous exposure to the elderly, reacted to his experience.

I am really enjoying my time at [the CCRC]. I have a hard time only staying one hour. The residents are fun to be around and are easy to get along with.

After class, Mrs. L. invited me to go to her house “for a Coke.” So I went and we talked about her life as she grew up. I knew quite a bit about her since I was given the opportunity to read her memoirs as we edited them on her computer. She is really a neat lady and I consider myself privileged to have met her. She gave me a card when I left that thanked me for “going the extra mile.” I had a great time and I’m looking forward to seeing her again soon.

I feel that my experience teaching this computer class at [the CCRC] was extremely valuable to me. I must confess I was a bit nervous about how everything was going to work out, but everything went great. I have never interacted that much with senior citizens and it was an eye-opening experience for me. Mrs. L. and Mrs. S. were great and I feel that, if nothing else, I have gained two friends from this experience.

**Theme 2: Expanding Positive Social Experience**

One of the components of successful aging discussed by Rowe and Kahn (1997) was maintaining interpersonal relations and being
engaged in productive activities. The students' perception that being part of a social network and expanding positive social experiences was a benefit to the residents was another theme that emerged from the students’ journal entries.

This project is helping the residents of [the CCRC] gain computer skills but also is giving them an opportunity to socialize with someone who does not live or work at [the CCRC].

The residents learned the computer skills that they wished to learn. Many of them now look forward to sending e-mails and receiving e-mails from their families. The residents said that they enjoyed the opportunity to work with college students.

The residents enjoyed learning something new from a group of young adults. This also served as a social activity in which residents met others with common interests.

I feel the participants enjoyed my company as much as the knowledge about computers that I was sharing with them.

Theme 3: Developing Effective Teaching Strategies for Older Adults
Journal entries identified adaptations that were necessary to accommodate for sensory changes. One university student requested a different style mouse for one of her class participants who had hand deformities caused by arthritis. Another student shared the difficulty that one of the residents was having navigating the pointer to click on icons because of hand tremors associated with Parkinsonism. Other students commented on the need to increase the font size on the computer screens so the participants could more easily read the screen. Some students discussed the communication strategies that they used to accommodate for residents’ hearing loss. Several students commented about the difficulty class participants had remembering passwords. The need to present new information in small segments with frequent repetition was expressed by several students and highlighted in the following journal entry.

Week 3—I am starting every class by having the students check their e-mail. I feel like the repetition is going to help them remember better. If we didn’t check e-mail every class, I can’t imagine how they would be able to recall how to check it. They need consistent practice. E-mail is such a useful communication tool. If we complete the class and my students are able to go to their e-mail, open it, read it, and send e-mail to others, we will have accomplished a great deal.
Theme 4: Personal Growth

Other university students reflected about personal changes that they went through and skills they developed while teaching the computer classes. The value of patience was addressed more than any other concept in journal entries and final reports.

The experience has been meaningful. I learned how to exercise patience and to listen to my students. They did not all learn at the same pace and I was able to adapt to their learning capabilities.

My students taught me that patience is the essence of teaching and everyone has something to offer. Now I know how difficult it is for an instructor to teach a class that is made up of students with different skills and levels of knowledge.

This was an opportunity for me to see if I could handle working with older adults in hands-on activities. I did not know what to expect from the project, but I wanted to help them with things that they were interested in. I have always felt that I could not be a teacher because of my lack of patience but this project showed me that I could.

Theme 5: Making a Difference

For many students, the project was an avenue to demonstrate their responsibility as young adults in giving something back to the community. In their final reports, students described the positive responses they received from their class participants that reinforced the value of giving.

As a student, this was an experience that will never be forgotten. I have always been on the receiving side of learning but through this class I was able to be on the giving side.

It was very rewarding to see satisfaction in the residents’ faces as they learned about computers and to know that I may have made a difference to these residents.

Benefits to the Students

As part of their final reports, many of the students addressed ways in which the service-learning project was of personal benefit to them. These comments spanned academic benefits, emotional benefits, and benefits related to future employment.
This course would be valuable to any student at [the university]. It is so much more than a two hour course. It enriches your thought processes. It challenges you to be creative. The student has to develop communication skills that are clear, concise, and useful. This course demonstrates the trials and rewards of teaching. It is hard to put into words, but the experience is valuable on an academic and emotional level. This was a fantastic experience.

This experience helped me with organizational skills. I had to prepare notes and lessons before every class. It helped me learn how to keep myself on track, develop a plan and stick to that plan. I also had to learn to modify my plans quickly as unexpected situations came up during class.

It taught us the importance of being open-minded and that we must have patience, as it takes some longer to understand and apply skills than others. Some of us will get jobs working in settings for the elderly and this gave us a taste of what it is like to work with the older population.

This project was important to me because after graduation I want to be a nursing home administrator or open an adult day care center. This experience gave me an opportunity for some hands-on experience working with the elderly. I think I have improved my personal communication and interaction skills that I will need in the future.

**Impact on the CCRC**

The introduction of computer classes increased the activity options available to residents living at the CCRC. Due to increased use of the computer laboratory, several retirees have purchased their personal computers. So, they do not have to wait for a computer to become available in the computer laboratory when they want access to one. The CCRC also has had to improve the Internet service by making high-speed access readily available to all residents on campus. Residents became less patient about waiting on the dial-up connections as they used the Internet more frequently.

Changes in the behavior and attitude of some of the residents who participated in computer classes were observed by family members and staff at the CCRC. Staff reported that residents had new things to talk about and were proud of their accomplishments in the class. Some residents felt that they had not only made friends with the university students, but they were also taking classes and “attending [the] university” (K. Holmes, personal communication, June 8, 2005).

Unsolicited positive feedback was also received from family members of several residents who took the computer classes. One family
member was very excited that his mother had signed up for the computer classes. His mother had been somewhat of a recluse and the computer classes stimulated her mind and provided socialization time for her with her peers and the university students. She maintained her increased activity pattern after the computer classes were over. She did this by e-mailing family and friends and socializing during meal-time and at other functions with her new-found friends (K. Holmes, personal communication, June 8, 2005).

Staff also reported that it was not unusual to observe residents comparing notes on what they were doing in class and to hear them reflect on what they had learned. Many residents spent time outside of class practicing their new found-skills, and they would sometimes request help from staff who were in or around the computer lab if they needed assistance. The positive response of the residents to the computer classes—and the level of their accomplishments—reinforced the belief that that learning is important for people of all ages. In sharing their reactions to the class, the staff concurred that people of all ages can learn from one another, and the outcomes and accomplishments for the residents and the students were very positive.

CONCLUSION

The first four years of the service-learning project were a success from the viewpoint of the university students, the residents and staff at the CCRC, and the faculty at the university. The partnership will continue to ensure that the needs of university students and retirees are met. The project has supported the supposition that “Adult educators need to understand that just hearing information is the least effective way of learning. Hearing, and seeing is better. And hearing, seeing, and doing is best of all” (Langer, 2002, p. 895).

REFERENCES


