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Intergenerational Forum to Enhance Students’ Engagement and Learning Outcomes: A Community-Based Participatory Research Study

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ABSTRACT
The Intergenerational Forum (IF) is an innovative intervention that engages students in conducting community-based participatory research (CBPR). This set of guided learning opportunities is designed to improve college students’ understanding of aging and health issues in their communities. In this study, a total of 252 mentoring hours were provided in kind by 78 students. The majority of these youth volunteers were aspiring health professionals who had received intensive academic and field training to strengthen their interpersonal skills and ability to build meaningful one-on-one relationships with vulnerable populations. Additionally, these student volunteers were at higher risk for mental health issues. Findings revealed that as a result of IF, students were able to improve their knowledge and attitudes toward working with older people. Students were able to combine ideas from courses when completing this IF assignment. Particularly, levels of active and collaborative learning were enriched by engagement with people representing different economic backgrounds, political views, and religious beliefs. Major themes emerged in students’ narrative data revealed their learning outcomes in the areas of self-awareness, empathy, empowerment, and new perspectives about ageism.

KEYWORDS
Community-based participatory research; information technology; intergenerational learning; mentoring; student engagement

According to the U.S. Census Bureau (2014), people age 65 and over represent 13.6% of the population (39.6 million). By 2030, there will be about 88.5 million older adults, more than twice the number in 2000. In addition, the population age 85 and over could grow from approximately 5.5 million today to 19 million by 2050. With this population shift, health care providers face growing demands to formulate policy and provide services that enhance the physical, mental, and social well-being of older adults and their family members.

Older adults are at a higher risk for social isolation because of their diminished vitality, declining health, and shrinking resources. Social isolation is a phenomenon that currently affects approximately 20% of older adults (Findlay, 2003). With the older adult population rising, it is expected that the
percentage of older adults experiencing social isolation will increase as well. Research suggests that individuals who experience weak social integration are at an increased risk for morbidity, mortality, and poor mental and/or physical health (Berkman & Glass, 2000). This phenomenon already affects a portion of the adult population and if left without a community-based intervention could evolve into an epidemic.

The increase in the number of older adults coincides with an increase in ubiquitous technologies like the Internet. Health service utilization increases with older age. Meanwhile, though technology adoption rates of older adults are increasing, older adults still lag significantly behind younger generations in technology use. According to the Pew Research Internet Project (2014), 60% of those aged 65 and older are online, but just 18% would feel comfortable learning to use new technology devices by themselves. Research has identified a digital divide in older adults’ use of health information technology (HIT) that is caused by lower socioeconomic status and poor health status (Choi & Dinitto, 2013). HIT can provide a diverse array of online resources for low-income elders to manage their health problems and maintain social connections. Inequalities in the use of HIT may be due to a lack of accessibility to the skills needed to use technology.

Older adults are the most frequent and heaviest users of health services in the United States. Yet, there are too few health care professionals trained in gerontology and geriatrics to meet the needs of the aging U.S. population (Institute of Medicine, 2008). Researchers identified the prevalence of ageism as a primary barrier, and with a rapidly aging population such ageism is likely to become increasingly problematic. According to Levy (2001), negative age stereotypes are closely associated with implicit attitudes—that is, behaviors and feelings that are thought to be outside of our conscious awareness and control. These implicit attitudes can infiltrate our thinking and modify our behaviors. Consequently, gerontological services are currently experiencing problems in recruitment, and these personnel shortages are only expected to worsen in the coming decades (Wang & Chonody, 2013).

Previous research also suggests that implicit age bias can be reduced by exposure to pro-old exemplars (Cullen, Barnes-Holmes, Barnes-Holmes, & Stewart, 2009). This finding suggested that educating the associated workforce is essential. Educators have identified many challenges to increasing students’ interest in working with older adults (Lee, Collins, Mahoney, McInnis-Dittrich, & Boucher, 2006). Such challenges include students’ reluctance to work with older adults due to lack of knowledge and preparation (Lee & Waites, 2006).

Further recruitment requires providing an innovative educational learning environment focused on producing competent practitioners in gerontological social work such as the Hartford Partnership Program for Aging Education (HPPAE). The HPPAE grant provided 11 graduate social work institutions with aging-related social work courses/seminars and a strong network between
social work programs, field instructors, and aging-related agencies (Lawrance, Damron-Rodriguez, Rosenfeld, Sisco, & Volland, 2007). Through providing a unique perspective on aging to the HPPAE students, HPPAE found a 43% increase in aging-related field placements, 80% of the MSW graduates worked in the age-related field after graduating (Birkenmaier et al., 2009).

Young millennial learners—the generation born between 1981 and 1999—lack extensive life experiences, and so it is often challenging for them to understand what it takes for an individual to survive adverse life events and health disparities. Millennials are the largest, most educated, and most diverse generation (Lancaster & Stillman, 2002). Since millennial learners demand that what they learn be relevant and applicable, theoretical materials alone are unlikely to convey knowledge effectively. Millennials have unique learning preferences and bring a different level of fluency and set of expectations around community and training. They reject passive, lecture-style teaching and expect and demand interactive, engaging learning activities with clearly defined processes, goals, and benefits (Messineo, Gaither, Bolt, & Ritchey, 2007). The defined parameters of these activities are continually reinforced by striving for incessant feedback (Elam, Stratton, & Gibson, 2007).

These millennials are also transition-aged youth who are entering college and living away from home for the first time in their lives. According to the American College Health Association (2014), they can be at risk for various mental health issues: During the preceding month, 65.8% of college students felt exhausted (not from physical activity); 37.5% felt very sad; 36.1% felt very lonely; 25.9% felt that things were hopeless; and 15.8% felt so depressed it was difficult to function as a student (Dinger, Brittain, & Hutchinson, 2014).

Prevalence rates of depression among U.S. college students have been reported to be as high as 22% (Geisner, Neighbors, & Larimer, 2006). Suicide is the second leading cause of death in this population. The heaviest drinking of any period in the lifespan occurs during the college years, and college students are at peak lifetime risk of diagnosable alcohol disorders (Dawson, Grant, Stinson, & Chou, 2004). Heavy drinking by college students has been associated with unplanned sexual activity, poor academic performance, vehicle-associated injuries, sexual assault, physical assault, and criminal activity (Doumas, Turrisi, Coll, & Haralson, 2007). Moreover, a decline of resiliency among these youths has been problematic, since many more students than in the past come to campus already on medication for mental illness. They can benefit from having good role models who have gone through many life challenges. The university community is in need of an integrated approach to behavioral health care that can thread together various community-based services and unlikely allies to help transition-aged youths strengthen resiliency.

Developed by the first author, the Intergenerational Forum (IF) is an innovative intervention that engages aspiring health care professionals in conducting community-based participatory research (CBPR) that is, in part,
generated by and therefore of interest to community organizations. Methods for achieving the objectives of the IF involve, primarily, offering educational opportunities with older adults in the classroom, research interviews at senior centers, and intergenerational exchanges via student-led tutorials of HIT use. These guided learning opportunities are designed to address and explore individual assumptions about aging and its intersection with multiple diversity issues. Each learning activity is designed to improve students’ understanding of aging and health issues in their communities, provide them with an outlet to reflect on their biases about the elderly, and enhance their perspectives on health care services and needs of family caregivers.

The purpose of the IF program is to create an active learning environment focused on producing intergenerational relations and community engagement, thus building a culture of health. This study examined the efficiency and effectiveness of the IF program with a focus on fostering social connections between millennials and vulnerable low-income older adults. To this end, this study used formative and summative assessments to examine whether millennial learners improved their levels of cultural competence and understanding of aging as a result of conducting the proposed CBPR.

Three research questions are assessed by this study: Will the IF, using the CBPR approach, positively impact millennial learners’ (1) engagement in the learning process, (2) knowledge and attitudes toward working with older adults, and (3) cultural competence.

**Methods**

**Participants and settings**

This study took place in a public university in a southeastern U.S. city that was selected as only one of a few cities to establish Google fiber technology. Simultaneously, in a list evaluating social mobility—the ability of a person to move up the economic ladder—in 50 cities, the city ranked at the bottom representing extremely low social mobility (Chetty, Hendren, Kline, & Saez, 2014).

As an urban research university in the region, its student body is increasingly racially and ethnically diverse, with 44% of students identifying as a member of a minority group that is typically underrepresented on college campuses. Approximately 43% are first-generation college students. Consequently, many students lack significant financial support from their families and are to a large extent self-supporting. In 2014, 42% of students attending full time reported working more than 20 hours per week.

Lower-division undergraduate students enrolled in a course titled Human Behaviors in Social Environment II (HBSE II), taught by the first author, took part in the CBPR project. HBSE II focuses on models, theories, and knowledge for practice related to families and other small group systems,
organizations, communities, and society. This introductory course was designed to inform students of the roles social workers play in working with mezzo and macro systems and ways in which those systems enhance or impede the way these individuals’ and families’ needs are met.

Demographic profiles of IF participants are presented in Table 1. The majority of students were single (82.1%), women (85.9%), and in their 20s, with a mean age of 24.09 (SD = 6.93). About half of the students identified as White. Others reported their racial backgrounds to be African American (20.5%), Native American (11.5%), Asian American (3.8%), and multiracial (12.8%). Fourteen percent of participants reported having a Hispanic ethnic heritage. Students’ religious backgrounds were somewhat diverse, including Protestant (48.7%), no religious affiliation (15.4%), Buddhist (12.8%), and Catholic (11.5%). Most students (64.1%) self-reported as spiritual.

### Procedures

The IF was designed to contain a two-phase program of guided learning opportunities to promote intergenerational exchange between millennium
learners and older adults. First, college students visit senior centers to conduct community needs assessments, and then a panel of selected older adults is invited to share their life histories in the classroom setting, creating a forum where college students can listen and ask questions. Students conduct face-to-face research interviews with 55 older adults with diverse cultural backgrounds at two local senior centers. All research participants were cognitively intact English speakers, as identified by the service providers. Those identified by service providers as having noticeable hearing and/or cognitive impairment were not interviewed.

The youth volunteers were aspiring health professionals who had received intensive academic and field training to strengthen their interpersonal skills and build meaningful one-on-one relationships with vulnerable populations. For the purpose of this particular research interview, the author produced a brief video tutorial about how to work with older adults via Canvas, the online course management system. This tutorial introduced tips about cultural sensitivity to communicate with older people and effective methods for tutoring older adults. Students were instructed to review this video prior to their visit to senior centers.

This research proposal was approved by the Institutional Review Board for Research with Human Subjects at the research team’s university. Student respondents were cautioned that there were no “correct” answers to the survey questions, that participation was voluntary, and that responses were anonymous.

During the needs assessment older adult were asked about their use of Internet (e.g., various types of Internet sources, frequency of use, accessibility of Internet, any challenges of using the Internet). The research team also used standardized scales such as e-health literacy, self-efficacy, and attitudes toward computer and technology.

Our preliminary findings indicate that one of the hardest challenges older adults face today is lack of accessibility to the skills needed to use information technology and consequent social isolation. In the second phase of this project, students had the opportunity to volunteer in lieu of class time and play an active role in providing technology tutorials for older adults about using the Internet and social media (e.g., WebMD, Facebook, and Twitter). College students were paired with 55 low-income seniors for one-on-one technology tutorials. In this study, a total of 276 mentoring hours were provided in kind by 78 students (on average 3.5 hours per student).

**Measurements**

Multiple measures were used to document key variables discovered by the implementation of the IF program and to assess the effects of the program on the students under study. Survey instruments were administered to assist in
the identification of factors that may explain the effectiveness or ineffectiveness of the implemented activities. The completed battery of instruments was converted to an online format utilizing the Qualtrics survey tool. During the 2014, 2015, and 2016 spring semesters, the surveys were administered at the beginning and again at the end of each semester to capture pre- and post outcomes in the following three domains.

To address the first research question, two subscales from the National Survey of Student Engagements (NSSE, 2012) were used to measure the level of active and collaborative learning and enriching educational experiences. Lower scores represent higher engagement.

To address the second research question, the Palmore Facts on Aging Quiz (FAQ, Parts 1 and 2) (1998) was used to measure students’ knowledge and attitude toward working with older adults. Part 1 of FAQ has 25 true/false items, while Part 2 has 25 multiple-choice items. Both scales assess general knowledge of the physical, psychological, social, and economic factors of aging and overall attitudes toward older adults. The NSSE and FAQ, Part 2, were added since 2015; hence, the discrepancies in sample size in Tables 2 and 3 were caused by this addition.

Lastly, the Diversity and Oppression Scale (DOS), developed by Windsor, Shorkey, and Battle (2015), was used to address the third research question. The DOS is a 25-item self-report measure of students’ understanding of diversity and oppression, based on the requirements of the Council of Social Work Education. Cultural competence is defined as the students’ ability to (1) understand oppression and its impact within their lives and the lives of others; (2) advocate for social justice; and (3) effectively serve the needs of culturally diverse client populations.

Two types of qualitative evidence were collected and analyzed. During this assignment, students were required to complete a learning log. A series of these logs was used to triangulate survey data. The instructor and teaching assistants recorded field notes on their observations of the students’ learning processes. Content analysis occurred to find out meaningful phenomena regarding students’ knowledge and attitudes toward working with older adults and families and regarding students’ learning engagement.

<table>
<thead>
<tr>
<th>Major Themes</th>
<th>n</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>Students’ engagements tutorial activities</td>
<td>58</td>
<td>86.6</td>
</tr>
<tr>
<td>Intergenerational exchanges</td>
<td>43</td>
<td>64.1</td>
</tr>
<tr>
<td>Knowledge of aging negative stereotypes</td>
<td>45</td>
<td>67.1</td>
</tr>
<tr>
<td>New perspectives about aging and learning</td>
<td>49</td>
<td>73.1</td>
</tr>
<tr>
<td>Cultural competency developing critical self-awareness</td>
<td>27</td>
<td>40.3</td>
</tr>
<tr>
<td>Extending empathy</td>
<td>35</td>
<td>52.2</td>
</tr>
<tr>
<td>Empowerment through technology</td>
<td>29</td>
<td>43.3</td>
</tr>
</tbody>
</table>
Data analysis

Both formative and summative evaluations were implemented to determine the activities’ impact on students’ cultural competencies and their attitudes toward and interest in working with older adults and to determine their engagement in learning. Descriptive statistics (frequencies, proportion distributions, mean, and standard deviation) were used to summarize the data. A paired t test was conducted to compare survey, presurvey, and postsurvey results. Cohen’s $d$ effect sizes (Cohen, 1988) were also calculated.

Qualitative content analysis was conducted on student reflection posts in an online discussion forum and nine sets of field notes taken by three research assistants. To analyze this qualitative data, the authors used open coding derived from the grounded-theory approach to examine the learning processes reported by social work students (Glaser & Strauss, 1967). While reading (and re-reading) the text, line by line, categories were generated through an “emic” process to capture experiences from the individual’s point of view (Denzin & Lincoln, 2005, p. 12).

### Table 3. Presurvey and postsurvey of student engagement.

<table>
<thead>
<tr>
<th></th>
<th>Presurvey</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>During the current school year, about how often have you done the following?</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Combined ideas from different courses when completing assignments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connected your learning to societal problems or issues</td>
<td>55</td>
<td>1.75</td>
<td>0.82</td>
<td>1.43</td>
<td>0.53</td>
<td>0.46</td>
</tr>
<tr>
<td>Included diverse perspectives (political, religious, racial/ethnic, gender) in course discussions or assignments</td>
<td>56</td>
<td>1.61</td>
<td>0.85</td>
<td>1.46</td>
<td>0.54</td>
<td>0.21</td>
</tr>
<tr>
<td>Examined the strengths and weaknesses of your own views on a topic or an issue</td>
<td>56</td>
<td>1.63</td>
<td>0.62</td>
<td>1.54</td>
<td>0.54</td>
<td>0.15</td>
</tr>
<tr>
<td>Tried to better understand someone else’s views by imagining how an issue looked from his or her perspective</td>
<td>50</td>
<td>1.38</td>
<td>0.49</td>
<td>1.54</td>
<td>0.50</td>
<td>−0.32</td>
</tr>
<tr>
<td>Learned something that changed the way you understand an issue or a concept</td>
<td>56</td>
<td>1.63</td>
<td>0.62</td>
<td>1.50</td>
<td>0.50</td>
<td>0.23</td>
</tr>
<tr>
<td>Connected ideas from your courses to prior experiences and knowledge</td>
<td>56</td>
<td>1.48</td>
<td>0.63</td>
<td>1.50</td>
<td>0.54</td>
<td>−0.03</td>
</tr>
<tr>
<td><strong>During the current school year, about how often have you had discussions with people from the following groups?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People of a race or ethnicity other than your own</td>
<td>56</td>
<td>1.71</td>
<td>0.85</td>
<td>1.50</td>
<td>0.50</td>
<td>0.30</td>
</tr>
<tr>
<td>People from an economic background other than your own</td>
<td>56</td>
<td>1.91</td>
<td>0.86</td>
<td>1.41</td>
<td>0.53</td>
<td>0.70</td>
</tr>
<tr>
<td>People with political views other than your own</td>
<td>56</td>
<td>2.00</td>
<td>0.91</td>
<td>1.43</td>
<td>0.60</td>
<td>0.74</td>
</tr>
<tr>
<td><strong>Indicate the quality of your interactions with the following people at your institution:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>56</td>
<td>5.70</td>
<td>1.08</td>
<td>5.96</td>
<td>0.91</td>
<td>−0.26</td>
</tr>
<tr>
<td>Faculty</td>
<td>56</td>
<td>5.20</td>
<td>1.53</td>
<td>5.75</td>
<td>1.21</td>
<td>−0.40</td>
</tr>
<tr>
<td>Service providers in the community</td>
<td>55</td>
<td>4.76</td>
<td>1.84</td>
<td>5.39</td>
<td>1.19</td>
<td>−0.41</td>
</tr>
<tr>
<td>Service recipients or clients in the community</td>
<td>56</td>
<td>4.75</td>
<td>1.93</td>
<td>5.25</td>
<td>1.31</td>
<td>−0.30</td>
</tr>
</tbody>
</table>

Note. Items in boldface are statistically significant at the Bonferroni adjusted $p$ value of .003.

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Further coding and analysis on qualitative data were conducted using N Vivo 10 for Windows. As shown in Table 2, seven major themes emerged in the qualitative data analyses. Possible researcher biases have been rigorously evaluated using ongoing peer debriefing and intercoder reliability checks.

**Results**

*Engagements in learning*

As shown in Table 3, comparison of scores in student engagement showed six items increased from pre-test to post-test, although the differences were not statistically significant. Nine items showed decreases from the pre-survey to post-survey, with four of the items showing significant differences. A medium effect size was found for three items. Students were able to combine ideas from courses when completing this assignment \((t(55) = 3.42, p = .001, \text{Cohen's } d = 0.60)\). They also interacted with people from different economic backgrounds \((t(55) = 4.46, p = .000, \text{Cohen's } d = 0.70)\) and religious beliefs \((t(55) = 3.91, p < .001, \text{Cohen's } d = 0.74)\) from their own. A large effect size was found for only one item of engaging people with different political views \((t(55) = 5.104, p = .000, \text{Cohen's } d = 0.86)\).

In the qualitative analysis, two emerging themes related to student engagement were identified, including (a) tutorial activities and (b) intergenerational exchange

*Tutorial activities*

The second prevalent theme found in students’ journal entries was related to specific activities taught in the technology tutorials. Such activities included signing up for social media accounts, uploading photos, deleting junk e-mails, organizing e-mails, and installing new applications. Whereas older adults sometimes find technology to be an enigma, millennial learners have grown up with technology, and it is second nature to them.

Technological interests and literacy needs presented by older mentees vary from using e-mail to exploring new applications. Via one-on-one tutorials designed to meet the learning needs of each senior mentee, college students tutored a variety of technology basics, ranging from applications to social media navigation and general tablet usage.

To illustrate, a millennial student tried to help a female senior sign up for Facebook in order for her to keep in touch with her children and grandchildren. “By doing this, we were able to find all of her children and grandchildren along with some others that she had noticed on their accounts and it made her very happy.”
A retired female teacher needed help synchronizing her Jawbone Fitness tracker with her phone. Her student mentor reflected in her journal about installing the application “so that she would be able to connect it when she brought the fitness tracker bracelet in to the next class.” The student also helped the senior to install a new music application, “Pandora,” which made the senior very happy.

During the process, numerous intergenerational exchanges were happening. Almost all older participants established e-mail and social media (e.g., Facebook, Twitter, Tumbler, and Pinterest) accounts assisted by college students. Some mentees actively used their social media tools to communicate with family and friends (e.g., exchanging an Easter message with an estranged grandson via Facebook). With help from students, a stroke patient was able to respond online to an op-ed in the newspaper. A former artist retrieved her lost paintings from the iCloud. These are just some of the success stories from senior participants and youth volunteers that they shared with pride.

Another student who was assigned to tutor a retired senior male engineer, who even had his own drone, reflected.

He is incredibly advanced; however he needed help troubleshooting one of his apps and after helping him he showed me how to use an app I did not have. I helped him with troubleshooting applications he already owned that recorded his blood sugar levels each day allowing him to track this aspect of his health. I love that he was utilizing apps for health upkeep purposes.

Intergenerational exchanges

Students appreciated the opportunities to hear life histories. Students noted that seniors seemed to be “excited” about visiting with students. One student wrote, “They shared about their love for the grandchildren and how they want to be an influence while they grow up.”

Some students were impressed with seniors’ “ability to share their life lessons” with them. From listening to the older adults’ stories, students commented that they learned that “life is really what you make out of it.” A student reported that her senior mentee “taught me about herself, her life, myself, and about how to live life.”

Students also learned that older adults can adapt to new living environments, including information technology. A student wrote, “I learned elderly were more accepting of technology than I had previously thought. [His] willingness to learn was an inspiration.” Another student observed that “resiliency is a strength that most elderly individuals obtain.” Another student, who was pleasantly surprised with “so much fun” she had working with older adults, reported, “I figured this would be one-way teaching but . . . we were both teachers and learners.” Three other students commented that their senior mentee was a “joy to be around,” so much so that they stayed an extra
hour to work with their particular mentees and even to follow up with them with some extra troubleshooting information after the sessions.

For both parts 1 and 2 of FAQ, the mean scores increased from pre-survey to post-survey (see Table 4). The difference between the pre-survey and post-survey mean scores was statistically significant, with large effect sizes (for AQ, $t(76) = −8.16, p = .000$, Cohen’s $d = −1.32$; for FAQ, $t(54) = −8.287, p = .000$, Cohen’s $d = −1.57$).

Analysis of the qualitative data revealed two major themes within this domain. First, students expressed their perceived stereotypes about aging and were able to develop new perspectives about aging and learning following their participation in the IF activities.

**Negative Stereotypes and Ageism**

Some students expressed initial concerns about whether and how they could communicate with seniors, since these two generations have “nothing in common.” Others also confessed they held stereotypical views about older people, including that elders are “poor,” “lonely,” “slow,” “grumpy,” “boring,” and “sleepy.”

Visiting senior centers and interacting with seniors appeared to help them to break down these stereotypes. One student wrote, “I was happy to see that not all adults are cynical and sad with old age . . . They are full of energy, which I did not expect.” Students also reflected about their surprise that seniors have “many gadgets in their possession” and “desire to learn about technology.” A student wrote, “They had a basic knowledge of computers and they just really wanted to add to their skills.”

Another was surprised at how interested older adults were in the same TV shows or movies that young adults were. In her journal, a student reflected, “We fail to realize that they are still humans with the need and want to continue learning. We have to remember that each of them are just like us, yet have more experiences and stories to tell.”

**New Perspectives About Aging and Learning**

As a result of participating in the IF activities, students were able to redefine aging as “not as much of a factor as willingness;” “not a limit to how much you can accomplish;” “not [a] barrier but just a milestone in life,” and “processes to perfecting your craft.” Another theme was that aging does

<table>
<thead>
<tr>
<th>Table 4. Facts on aging quiz</th>
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<td></td>
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<tr>
<td>FAQ Part I</td>
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<td>FAQ Part II</td>
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</tbody>
</table>
not stop learning. A student wrote, “Seniors are so eager to learn new things: their energy was wide opening to me. You never stop wanting to learn more.” Another student wrote in her journal:

Just because we get older we have to stop learning new things. Being stuck in the time period you were born in is not good. Always be willing to accept change even though it may seem a bit scary and hard at times, stepping outside of your comfort zone can sometimes lead to a positive outcome. I was able to work on my patience as well.

Cultural competency. As shown in Table 5, two subscales, the Cultural Diversity Self-Confidence/Awareness and the Diversity and Oppression subscales, showed increased mean scores from the presurvey to the postsurvey, whereas the Social Worker/Client Congruence and Social Work Responsibility in Cultural Diversity subscales showed decreases. However, none of them showed statistically significant differences.

From students’ reflection journals and online discussion posts, students’ learning outcomes on cultural competency were further categorized as (a) developing critical self-awareness, (b) extending empathy, and (c) empowerment through technology.

**Developing critical self-awareness**

Student mentors concurred that teaching older adults technology is just as helpful for students as it is for elders. Students reported that “I learned more about myself than I did the elderly.” This role as a mentor appeared to build the self-esteem and social connectivity of college students as reflected in the following comments: “I really enjoyed teaching: While helping them to learn new things, I was also teaching myself.” Experiencing mutual aid appeared to be valuable for broadening the horizons of college students. Another student wrote,

I’m a hands on learner so meeting and socializing with older individuals was a satisfying experience. Knowing that one’s actions can positively impact another person’s life was a great feeling for me. I felt good about my services after interviewing the elderly individuals and aiding them with their technology literacy.

<table>
<thead>
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<th>Dimensions</th>
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<th>Post</th>
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<tr>
<td>Cultural diversity self-confidence &amp; awareness</td>
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<td>4.47 0.62</td>
<td>0.25</td>
</tr>
</tbody>
</table>
Another student reflected,

I told myself I hope when I’m an elder that I am willing to receive help in areas I have little knowledge in. I also learned not to be so biased when it comes to helping older adults with technology because you’re never too old to learn.

**Extending empathy**

Students learned how challenging it was “to place in someone else’s shoes.” A student wrote, “I helped him complete what I thought was a simple task, however; it seemed to be complicated for him.” Another student who worked with a senior mentee with hearing impairment learned how to “listen and teach with patience.” A student who learned to extend empathy reflected in the following statement:

Although it was very frustrating trying to get the seniors to understand some stuff at times; I had to understand that using technology is something that is not a part of their generation and they may need extra help trying to understand how to use it … One day I will be in their shoes and I would want for someone to have that same patience with me.

Some students commented about there being a social phenomena in general that younger family members could introduce seniors to new technologies but fail “to spend enough time going over it at the pace the seniors felt comfortable with.” Such observations also led some students to pay attention to their own family. A student determined that “now when I visit my Grandparents I also have become more aware of their needs.” Another wrote in her journal:

Although they all love technology, one respondent spoke of the significance of making actual phone calls and visiting, rather than depending on just texting and social media. I also was reminded of the importance of staying in touch with the older members of my family.

**Empowerment through technology**

College students were able to realize that “friendship, love and family are just as important to seniors as they are to younger adults.” The role of technology as communication tools was also noted in the following statement: “Technology is a way to bridge the gap between older adults and younger generations.” A student wrote that “some talked about how they felt lonely because their children were not in the same state as them. Learning how to use technology was a good thing to learn in order to solve this issue.” Another reflected,

I was able to learn that seniors are not necessarily oblivious to the technology filled world we live in today. They enjoy browsing the internet if they can and also like using the internet to maybe keep up with their grandchildren and possibly catchup with an old classmate.
Student reflections also included the theme that focusing on the strengths of senior clients is the basis of empowering them to step out and do things they desire, as stated in the following comments.

I think support groups and organized classes similar to our technology class will help. Using the skills we have we can set something up to that elders have the support of each other to learn technology skills and help each other as well. They all have similar struggles so they will be able to assist and relate.

Discussion

This project taught students to plan, implement, and evaluate a program, called *Intergenerational Forum* (IF), examining the importance of social capital in facilitating older adults’ learning and adoption of HIT. The IF program offers valuable opportunities for college students to help and learn from low-income older adults via panel discussions and student-led tutorials on using HIT and social networking services. The IF program appears to be a perfect opportunity to have college students mentor older adults. Student mentors help older adults overcome potential technology communication barriers, while refining their interpersonal skills and receiving community service credits in return.

Study findings indicated that as a result of IF, students were able to improve their knowledge and attitudes toward working with older people. Students were able to combine ideas from courses when completing this IF assignment. Particularly, levels of active and collaborative learning were enriched by engagement with people representing different economic backgrounds, political views, and religious beliefs.

In the quantitative analysis, improvement in students’ cultural competency was not observed. Lower postsurvey scores in social worker responsibility for cultural diversity and worker/client congruence might be attributed to the fact that the study sample was lower division, premajor social work students. It could have been the students’ first exposure to members of the aging population. However, major themes that emerged in students’ narrative data revealed learning outcomes in the areas of self-awareness, empathy, empowerment, and new perspectives about ageism. Students were also empowered by enthusiasm and resiliency presented by older adults that they mentored.

Since millennials prefer to learn in communities, in order to demonstrate the value of the aging process and community building, opportunities for active learning are essential. In this study, CBPR approaches were utilized to expand learning experiences and rejuvenate higher education’s civic mission. Faculty strengthened scholarship through collaborative community-based research, students discovered the value of pragmatic and service learning, and academic and civic leaders developed mutually beneficial partnerships.
that unite the community and the university (Brukardt, Holland, Percy, & Zimpher, 2004). Through community outreach, higher education institutions can create diverse bases of individuals able to leverage their cumulative resources, thus enhancing the universities’ avenues of community engagement.

Feedback from older adults and service providers was overwhelmingly positive and expressed heartfelt gratitude for what they had been able to learn about technology. The majority of senior mentees enjoyed having the opportunity for intergenerational interaction with college students. Older adults presented significant improvement between pretest and posttest in various outcomes such as e-health literacy, anxiety about technology, self-efficacy, self-confidence, social connections, and social capitals. This is prepared as a separate manuscript. The only criticism was a request to offer more and longer technology tutorials. In sum, the IF program produced a synergistic effect by improving older adults’ utilization of HIT and strengthening knowledge base and cultural competence among youths.

This study is limited in generalizability due to a small sample size, convenient sampling, and potential social desirability bias. The findings of this study will provide a preliminary base of knowledge about HIT needs and acceptable community-based interventions among older adults.

Considering the quantity of engagement and depth of interactions, this IF model can be extremely cost-effective. Intergenerational services should be extended to homebound seniors. Future studies should use more active outreach by providing transportation services to home-bound seniors who are at a great risk of social isolation.

To provide culturally responsive instructional models that would be sustainable and reproducible remained to be a great challenge. Developing an instructional manual can ensure that seniors in all sessions get the same IF program. Although group dynamics can be slightly different across different cohorts and sessions, volunteer training for college students can ensure positive results and outcomes across a wide range of programs and practices. In order to determine the extent to which IF program components adhere to established models, future research should incorporate a fidelity assessment with our instructive protocols. This fidelity assessment should be used to inform strategic planning, staff training, program development, and other quality improvement initiatives in the future.

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References


