The Impact of Incorporating Ageing Simulation Games into a Module on Social Gerontology

Dr HONG Song-lee
Department of Social Work

Introduction

One of the biggest challenges when it comes to teaching gerontology in social work is having to overcome the negative impression undergraduate students have of older adults and ageing. If left unchecked, such negative perceptions often jeopardise the quality of social work graduates and ultimately professionals within gerontological practices. Such students exhibit disinterest in and prejudice towards working at nursing homes, older adult daycare centres and the like. Particularly obvious would be students’ tendency to rate their interest in geriatric or gerontological practice as low compared with other areas of social work such as mental health, child welfare, health, and family services (Fredriksen-Goldsen, Hooyman & Bonifas, 2006). Nevertheless, with the dramatic increase in Singapore’s ageing population and a rising demand for such services, social work students will likely encounter older adults whether they practice in gerontological fields or not. As such, gerontological educators must provide opportunities for undergraduate students to learn about the diverse challenges of working with older adults which stem from the stigma and misconceptions associated with ageing.

Recent trends in gerontological education have thus underscored the importance of developing and employing teaching methods designed to increase undergraduate student interest in and attention to issues related to ageing.

Benefits of using ageing simulation games in gerontology-specific courses

Incorporating ageing simulation games in gerontology-specific courses has been effective in providing students with more structured opportunities to experience the functional, physical, and environmental challenges older adults have to contend with. According to Pacala, Boul& Hepburn (2006), such active learning techniques allow students to develop their attitudes and abilities as they relate to working with older adults. In particular, this simulation technique has led to students showing much higher levels of enthusiasm for and satisfaction with ageing courses that provide experiential learning opportunities (Pacala, Boul& Hepburn, 2006). Unlike traditional instructional methods where learners passively receive information, ageing simulation games, according to many gerontological educators, offer several advantages as learning tools in such courses (Evans, Lombardo, Belgeri &
Fontane, 2005; Schmall, Grabinski & Bowman, 2010; Tumosa & Morley, 2006). By providing physiological, psychological, and socio-cultural contexts of ageing and its related implications for individuals, families, and societies, these tools:

(1) motivate and stimulate students’ learning by appealing to their interest in and enthusiasm for games;

(2) involve students in the learning process by promoting the act of discovery;

(3) privilege progressive and responsive thinking over the passive reception of information;

(4) bring simulated real-world settings and experiences into the classroom;

(5) allow students to experience, from older adults’ perspectives, late-life changes, adaptations, and loss;

(6) encourage students to analyse their personal attitudes and beliefs about ageing by stimulating their behavioural responses to the simulated circumstances of older-adult life;

(7) improve students’ cognitive learning and information retention by effectively influencing their long-term memory of the ageing experience; and

(8) strengthen students’ process skills by providing insight into communication, decision-making, problem-solving, strategising, planning, and allocating resources.

Objectives of Using Ageing Simulation Games in a Social Gerontology Module

Through the elective module SW4208 “Social Gerontology” and the ageing simulation game, I endeavoured to (1) increase social work students’ interest in working with older adults beyond graduation; (2) enhance their positive attitudes toward older adults; (3) improve their gerontological knowledge; and (4) reduce their anxieties about ageing.

Teaching Method

Of the total number of third- and fourth-year social work students enrolled in SW4208, thirty-nine participated in the study of ageing simulation games. Learning activities which have been designed for the module included discussions about gerontological interventions and their impact on older adults’ wellbeing, which were geared towards increasing students’ awareness and understanding of gerontological issues. A total of 13 three-hour seminars were conducted weekly during one semester.

Implementing the ageing simulation games in SW4208

The ageing simulation games consisted of three sessions, which were introduced during Week 5, after I had covered the biological and psychological theories of ageing during my lectures in Week 4. The ageing simulation activities were held at this time to enhance students’ understanding of these theories through active learning strategies which give them a direct experience of the ageing process.

continued on the next page ...
Each session held in Week 5 is explained in detail below:

**Session I (Total: 1 hour 25 minutes)**

Instructions were conveyed to the students before they participated in the games (which took about 25 minutes). The class divided themselves into teams, and each team comprised three students. In each team, Student A played the role of the older adult and wore the specially designed equipment (Figure 1).

Meanwhile, Student B’s role in the activity would be to facilitate Student A’s experience by asking about his or her feelings, perceptions, intentions, and concerns. Detailed instructions on the daily situations an elderly adult would typically experience were given to all the teams. This is so that students could experience the older adults’ changes in sight, hearing, touch, and dexterity while in the classroom (Figures 2 and 3). Student C recorded observations and would draft narrative descriptions of Student A’s behaviour throughout the role-play. The role-play in a classroom would take about 1 hour.

**Session II (Total: 1 hour)**

Each team would then move the role-play activity from the classroom to a public area to experience changes in mobility and balance by climbing the stairs, walking along the sidewalks, crossing the road, going to the canteens, and searching the library. Student B would supervise Student A to ensure the latter’s safety in these settings. Student C would observe and record Student A’s behaviour during the process.

**Session III (Total: 35 minutes)**

In this session, students shared their reflections about their experiences inside and outside the classroom and completed the post-test survey. Finally, the class had to complete a group homework assignment (consisting of individual essays and a summary of each group’s debriefing) based on a review of their records of the role-play activity with their team-mates.
Measurement of outcomes and data collection
Using standardised instruments that have been validated, this study measured four key outcomes of this module:

- attitudes toward older adults using the University of California, Los Angeles (UCLA) Geriatrics Attitudes Scale (GAS) (Chua, Tan, Merchant & Soiza, 2008) and the Ageing Semantic Differential (ASD) (Polizzi, 2003);
- knowledge of gerontological concepts via Facts on Ageing Quizzes I and II (Palmore, 1998 and 2001);
- interest in working with older adults post-graduation (Olson, 2002; Snyder et al., 2008); and
- anxiety about ageing (Lasher & Faulkernder, 1993).

Students completed one questionnaire, which included all the instruments listed above, three times over the semester: (i) at the first class before the game (Wave I); (ii) during Week 5 when the games were performed (Wave II); and (iii) during Week 12 before the last class (Wave III). The questionnaire included standardised instruments and one open-ended question for students’ feedback. Students had fifteen minutes to complete this questionnaire.

Results
Quantitative findings: Analysis of data collected from the questionnaire
According to the results, students’ interest in working with older adults post-graduation changed because of their experience (Table 1). For instance, over the semester, the number of students who expressed doubt that they would like working with older adults professionally decreased from 28% to 13%; meanwhile, students who indicated they would like to work with older adults increased from 31% to 49%. We also noted positive changes in students’ interest at Wave II, soon after conducting the ageing simulation games. These changes were also more apparent than those that took place between Waves II and III (Table 2), suggesting that students’ positive responses were more pronounced with the first measurement at Wave I than with the last at Wave III. Overall, students’ interest in working with older adults increased, indicating that the differences between Waves I and III were significant, though the change from Wave II to III was comparatively minimal (Table 2).

continued on the next page...
Table 1. Students’ interest in working with older adults at practice after graduation as measured across three waves (n=39).

<table>
<thead>
<tr>
<th>Students’ Interest in Working with Older Adults in Practice</th>
<th>Measurement</th>
<th>Wave I N (%)</th>
<th>Wave II N (%)</th>
<th>Wave III N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wave I</td>
<td>Wave II</td>
<td>Wave III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>t score (df)</td>
<td>P value</td>
<td>t score (df)</td>
<td>P value</td>
</tr>
<tr>
<td>1: I would not like it</td>
<td>0(0)</td>
<td>0(0)</td>
<td>0(0)</td>
<td></td>
</tr>
<tr>
<td>2: I doubt I would like it</td>
<td>11 (28.21)</td>
<td>0.03</td>
<td>7 (17.95)</td>
<td>0.09</td>
</tr>
<tr>
<td>3: I am undecided as to whether I would like it</td>
<td>16 (41.03)</td>
<td>0.09</td>
<td>16 (41.03)</td>
<td>0.04</td>
</tr>
<tr>
<td>4: I would really like it</td>
<td>12 (30.77)</td>
<td>0.01</td>
<td>16 (41.03)</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Table 2. Paired t-tests on changes between Waves I & II, Waves II & III, and Waves I & III (n=39).

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>Waves I &amp; II</th>
<th>Waves II &amp; III</th>
<th>Waves I &amp; III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t score (df)</td>
<td>P value</td>
<td>t score (df)</td>
</tr>
<tr>
<td>Gerontological Positive Attitudes (GAS)</td>
<td>2.20 (38)</td>
<td>0.03</td>
<td>1.75 (38)</td>
</tr>
<tr>
<td>Gerontological Negative Attitudes (ASD)</td>
<td>-1.97 (38)</td>
<td>0.05</td>
<td>-5.26 (38)</td>
</tr>
<tr>
<td>Gerontological Knowledge</td>
<td>3.65 (38)</td>
<td>0.00</td>
<td>7.72 (38)</td>
</tr>
<tr>
<td>Interest in working with older adults</td>
<td>3.13 (38)</td>
<td>0.00</td>
<td>1.40 (38)</td>
</tr>
<tr>
<td>Anxiety about ageing</td>
<td>3.05 (38)</td>
<td>0.00</td>
<td>-2.74 (38)</td>
</tr>
</tbody>
</table>

Note: *P <.05; **P <.01; ***P<.001

According to the paired t-test results in Table 2, the effect of the ageing simulation game seemed to increase the scores in the Gerontological Positive Attitudes (GAS). The scores for Gerontological Negative Attitudes (ASD) were also rather likely to change, but this change seemed to be influenced more by the module’s lessons than the games themselves because students’ changes between Wave I and III were much bigger than those between Wave I and Wave II. The Fact on Ageing Quizzes I and II that measured students’ gerontological knowledge was augmented by the module. Specifically, from the beginning of the class, students’ knowledge gradually increased, indicated by the mean scores of quizzes I and II across all three waves (mean=18.67, mean=19.97, and mean=24.31, respectively). These longitudinal changes were statistically significant as tested by paired t-tests (Table 2). Both class content and the ageing simulation games seemed effective at increasing students’ gerontological knowledge. Students’ anxieties about ageing increased slightly after the game but decreased by the end of class (Table 2).
Qualitative results: Analysis of students’ reflections from the essays

Meanwhile, students’ reflections on the ageing simulation game, as shown in their essays, also proved its educational effectiveness. Students observed that the ageing simulation game provided them with an “avenue to develop a greater appreciation” of the ageing process. They were able to experience “the many aches and pains” that come along with such simple tasks such as “buttoning a blouse or opening a canned drink.” The experience helped them become “more sensitive to the needs of older adults” whose “sensory skills are compromised.” In short, many of them reflected that “the ageing simulation was an eye-opening experience” and even helped some students empathise with their own grandparents. Most importantly, the ageing simulation game brought to light students’ “own personal bias toward older adults.” They became aware of how “easily agitated” they can get with older adults and recognised a need to “exercise patience and tolerance when dealing with older adults.”

Suggestions for a Future Trial

Based on the students’ short essays, three improvements were needed to implement the ageing simulation game successfully for future cohorts:

(1) **More equipment.** For this first run of the simulation game, students wore only half of the full set of ageing simulation equipment. As we did not have enough equipment that could be shared amongst the entire class, too many students were assigned to each team. Also, because there was insufficient time for students to exchange their roles, only one or two students in each group could experience the ageing simulation. For future runs of this activity, more equipment could be provided to ensure more students benefit from the experiential learning aspects of this activity.

(2) **More space.** We realised from this initial run that the classroom was too small to maneuver a wheelchair and to rotate the teams to play different games, which led to overcrowding within the confines of the classroom, causing disruptiveness and crowdedness throughout the process. A more spacious room is required to ensure fewer disruptions to the process for future cohorts. In addition, students gave feedback that for the role-play exercise, they preferred exploring public areas and real-life spaces.

(3) **More time.** At the end of this initial run, we concluded that a three-hour session was insufficient to complete all assignments; in particular, the simulation activity held outside the classroom (one hour) and the debriefing (20 to 25 minutes) should be extended.

In addition, future experimentation and any redesign of the ageing simulation games should include measures that ensure students’ safety as well as being able to accommodate the above comments which can help enhance the games’ educational effectiveness.

Conclusion

The findings from the study suggest that incorporating ageing simulation games into a Social Gerontology module can make a positive impact on social work students’ interest, attitudes and knowledge of older adults and gerontological issues. Given the unprecedented growth of the ageing population, increasing demand for such services and the current lack of gerontology education in Singapore, the study demonstrated the effectiveness of adopting experiential learning methods such as the ageing simulation games in fulfilling the learning outcomes for gerontology education.

*continued on the next page...*
Acknowledgement

I would like to thank CDTL for their financial support for this teaching project via the Teaching Enhancement Grant (TEG) (C134000025001).

References


About the Author

**Dr. Hong Song-Iee (pictured, right)** a social gerontologist, currently teaches the following modules in the Department of Social Work: SW4208 “Social Gerontology”, SW3213 “Working with Older Adults”, and SW5217 “Continuum of Care and Healthy Ageing”. She believes that gerontology education at the university level should inspire young students to develop an empathic understanding of older adults and empower their active learning through their own experience.