

TITLE RESEARCH PROPOSAL:

Influence of debriefing on transfer of learning from serious games to the real world

RESEARCH QUESTION (Max. 400 words):

Introduce the research question and explain clearly how it is embedded in the literature

Nowadays, an increasing amount of research is done to investigate games with a serious purpose, called “serious games”. Serious games are designed to both entertain and educate and also encourage behavior change (Blumberg et al., 2013). They are currently applied to many different areas including civic engagement and participation. In civic engagement, the goal is to educate and encourage people to participate in issues of public concern (i.e., urban planning and governance) (Ampatzidou et al., 2018; Bers, 2010). Neys and Jansz (Neys & Jansz, 2010) have investigated how serious games addressing political issues would impact their players. They found that playing a political game led to an increase of political engagement. In other words, the resulted learning of the game led to an increased interest in the issue that was used in the game. On top of that, they felt an increased need to tell people in their social environment about the issue. Despite the positive findings of serious games on political engagement, it remains unclear whether this learning will transfer to the real world. Research investigating this gap of knowledge in the area of civic engagement is still lacking and needs to be investigated.

Researchers have started investigating the gap of knowledge regarding transfer of learning from serious games to the real world by implementing a debriefing session after the game. Adding a debriefing session at the end of the game has been successfully used in the education to encourage students to reflect on what they have learned and encourage a deeper learning (Crookall, 2010; De Freitas, 2007). The debriefing session also has been successfully used in a serious game for business. In his study, Raybourn (2007) implemented a debriefing session to help players to strengthen their learning experience, improve their understanding and process the feedback.

Formulate the research question as adequately as you can, possibly together with sub-questions and hypotheses

The research question that will be investigated in this study will be the following:

To what extent does adding a debriefing session influence the transfer of political engagement from serious games to real world?

Based on the findings by Crookall (2010), de Freitas (2007) and Raybourn (2007) regarding the implementation of debriefing in several areas of application, it is expected that adding a debriefing session in serious games of civic engagement will stimulate and promote the transfer of learning to the real world.

Scientific and societal relevance (Max. 150 words):

Explain why your project fits the Innovation Sciences / Human-Technology Interaction domain. Elaborate on how this affects technology AND people, as well as how it connects or contributes to HTI science. If applicable, explain the societal relevance of your idea.

Investigating the transfer of learning from serious games of civic engagement to the real world will be extremely useful in the field of Human-Technology Interaction. This study will focus on how the changed behaviour and learning of an individual by a technology such as games will transfer to the real world. Games are technology that is becoming increasingly popular among people of various ages. Therefore, investigating the impact of serious games of civic engagement in the real world will be society and future research. If this research turns out well, it will create an opportunity to easily encourage people to engage and participate an important aspect of society (i.e., civic engagement) using the technology of games which is becoming increasingly popular among people of society.

Method (Max. 200 words):

Indicate HOW you are going to answer your research question. Describe for example what the (in)dependent variables are, what methodology you will use or develop. How are you going to collect your data? E.g., do you use interviews, and if so, who are you going to interview and what for? How will you analyze your data?

To answer the research question, a quantitative study will be performed in which the influence of a debriefing session on the transfer of learning of serious games in civic engagement to the real world will be investigated. This will be done in an experiment in which participants will play a serious game that promotes civic engagement either with or without a debriefing session afterwards.

The independent variable is debriefing (with debriefing session vs. without debriefing session) and the dependent variable will be the interest in the issue of civic engagement within the

game. To assess the interest in the issue of civic engagement, a questionnaire will be used with items that will rate the interest in the topic of civic engagement.

Participants will be randomly assigned to either the control or the experimental group to ensure that a randomized controlled trial is used.

To analyse the data, the software STATA will be used. To test for the effect of debriefing after playing the game on transfer of learning, a t-test will be performed.

References

Provide references of scientific articles and/or books that underlie the research proposal. Make complete references using APA style, 6th edition. (see: *Publication Manual of the American Psychological Association*).

Ampatzidou, C., Gugerell, K., Constantinescu, T., Devisch, O., Jauschneg, M., & Berger, M. (2018). All work and no play? Facilitating serious games and gamified applications in participatory urban planning and governance. *Urban Planning*, 3(1), 34–46. <https://doi.org/10.17645/UP.V3I1.1261>

Bers, M. U. (2010). Let the Games Begin: Civic Playing on High-Tech Consoles: *https://doi.org/10.1037/A0019490*, 14(2), 147–153. <https://doi.org/10.1037/A0019490>

Blumberg, F. C., Almonte, D. E., Anthony, J. S., & Hashimoto, N. (2013). Serious Games: What Are They? What Do They Do? Why Should We Play Them? In *The Oxford Handbook of Media Psychology* (pp. 334–351). www.gamesforhealth.org

Crookall, D. (2010). Serious Games, Debriefing, and Simulation/Gaming as a Discipline. *Simulation & Gaming*, 41(6), 898–920. <https://doi.org/10.1177/1046878110390784>

De Freitas, S. I. (2007). Using games and simulations for supporting learning. *https://doi.org/10.1080/17439880601021967*, 31(4), 343–358. <https://doi.org/10.1080/17439880601021967>

Neys, J., & Jansz, J. (2010). Political Internet games: Engaging an audience: *http://dx.doi.org/10.1177/0267323110373456*, 25(3), 227–241. <https://doi.org/10.1177/0267323110373456>

Raybourn, E. M. (2007). Applying simulation experience design methods to creating serious game-based adaptive training systems. *Interacting with Computers*, 19(2), 206–214. <https://doi.org/10.1016/J.INTCOM.2006.08.001>