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Online Simulations Enhance Learning and Class Relationships Through Shared Embodied Experiences

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This article details the use of simulations to enable embodiment and affect in learning and teaching. It explains how simulation was successful as an asynchronous learning task for Master of Education students studying current approaches to student wellbeing while situated in a number of countries. Online simulations as part of a universal design of learning provide a personalized yet shared experience for students regardless of geography, resulting in rich, reflexive online discussions that can build the supportive relationships that promote learning, even in times of crisis.

Keywords: social emotional learning, student wellbeing, simulation pedagogy, trauma informed practice, embodiment, reflexivity

INTRODUCTION

Student Wellbeing: Current Approaches is a subject of a master's level degree specialization of student wellbeing in Melbourne, Australia. The subject aims to develop critical reflexive skills for teachers' personal and organizational practices by familiarizing them with current evolutions in the field. Students learn to analyze contextual factors to consider when drawing on the evidence base to inform their practice. At the time of the teaching innovation discussed in this chapter, Australia had just come through the worst bushfire season in history and a number of students were working in affected areas. Classes also included international students from China and other Asian countries who were among the first to experience isolation conditions due to the COVID-19 pandemic. Sensations, affect and emotion inform learning and teaching practices in ways that can be below the surface of conscious thought (Scheer, 2012). Working reflexively to be more aware of trauma and its effects can assist with strategies for reading students and their needs (following Nguyen & Larsen, 2015), disrupting the unquestioned patterns of replicating injustices (Dobia & Roffey, 2017) as well as the self-care requirements of the teacher in practice (Jennings et al., 2019).

INNOVATION

When the university closed and teaching shifted online, there was still a need to inform the learning with awareness of affect in practice. This requires strategies to continue with the reflexive work on affective embodiment. Research into implementation science indicates that teaching for student wellbeing and other social emotional learning is most effective when embedded in collaborative learning (Cahill et al., 2018). Therefore, the best activities for this subject were debates, guided discussions, games, role-plays and micro-teaching as these allow university students to experience and practice collaboratively. This work often requires scaffolding skills for students who may be unfamiliar or uncomfortable with these teaching techniques. Reading the bodies and words of the students, the lecturer is assisted in identifying when students may require further support and this work in turn, allows teachers to gain more skill and familiarity with these important teaching approaches for their own practice.

When teaching online, simulations provide shared learning experiences (Bobstock, 2018) regardless of where students are in the world (Frydenberg & Andone, 2018), stimulating cognitive processing while engaging learner capabilities, knowledge, beliefs, and affect (Moreno & Mayer 2007; Moreno, 2010). Following this research base, developing simulation activities online offered the opportunity to create a collaborative learning space, moving beyond substitution of the previous in-person pedagogy, to provide the advantage of new virtual environments for shared experiences (following Cochrane et al., 2014 on SAMR framework). Figure 1 provides an overview of one of the modules. Informed by universal design for learning (following Houston, 2018), choices in the means of engagement with and evi-

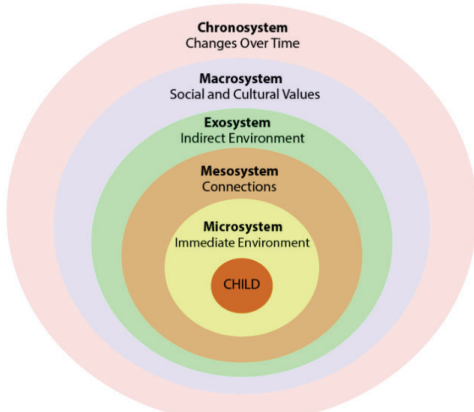
dence of learning was essential in the construction of each of the four (f2f seminars would have been 6 hours each) modules in the subject. There was one hour and a quarter synchronous ZOOM session, a recorded lecture, and then students were invited to engage with the module (see Figure 1).

You will choose two of five options (you can do all if you would like). Please complete these by the 14 April. Please share your work on the Discussion board. You will find it in the menu on left of the screen. There is a link in here for week 3 asynchronous tasks and threads under here for each of the five options.

1- Brofenbrennar instructional video

Using PowerPoint show, Zoom, or just your iPhone and some paper (hint: your can put your smartphone between tins in a stack and use it as a document camera), make a Bronfenbrennar diagram and identify different tensions risks and possible interventions at each level for a student you have worked with or are working with.

Bronfenbrenner's Ecological Systems Theory



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2-Create your own Loopy

LOOPY LINK- <https://ncase.me/loopy/>

We explored Loopy in the synchronous ZOOM session. It is an example of visualising the nature of systems and how they interact. We looked at this example in the picture below. (ALTERNATIVE TEXT: TWO CYCLES ARE PICTURED THAT INDICATE THE RELATIONSHIPS BETWEEN ANXIETY AND DEPRESSION AND THE WAY IN WHICH BEING ACTIVE AND DOING THINGS IS CENTRAL TO MOTIVATION AND DEMOTIVATION, and accepting and fearing mistakes.)



3. Participate in one discussion group with guided questions on the readings

See discussion board for more details

4. Do individual responses to the readings through a series of questions

See discussion board for more details

5. Play through the following game based simulation to consider what the ramifications for wellbeing in are circumstances of disadvantage. There are

Figure 1. Asynchronous Module 1.

Embedding online simulations and games with opportunities for shared reflexive discussions provides a way back to embodiment and emotion and helps to meet the pedagogical requirement of collaborative learning. Simulations provide opportunities to walk in the shoes of others, be reflexive together in discussion, and to also explore the potential of the embodiment of affect in learning that we all experience in playing through the simulations. I embedded existing simulations as optional learning spaces, seeking out free, internationally available resources that would provide opportunity to explore different perspectives and experiences students could explore and then discuss, in terms of reflection on content, and also in terms of possible learning materials for their own teaching. In light of the affective response expected (Moreno, 2010), it was important to flag that the circumstances explored within the simulations might indeed be difficult and close to some current lived experiences. Figure 2 provides an example of such an activity. This was the fifth choice in the module above (in Figure 1) which studies ecological impacts, risks and protective factors for student wellbeing, problematizing some of the systemic factors which impact on student wellbeing in school communities.

ASYNCHRONOUS TASK: Simulation

Play through the following game-based simulation to consider what the ramifications for wellbeing are in circumstances of disadvantage. PLEASE NOTE, we are all experiencing incredibly quickly changing circumstances and this simulated experience is designed to demonstrate some of the systemic difficulties people face during economically challenging and precarious times. This may not be a helpful learning activity if you are feeling current concerns so please consider if this is the right choice for you right now or consider some self-regulation strategies for emotional responses to this simulation. As we have read, simulations have strong impacts on embodied and emotional responses in learning environments and it is important that we know our students and provide support when using them in our teaching.

Play through <http://playspent.org/>

Post your response to this game as a discussion below. We will reflect on this and other activities in our next synchronous session. You may, but do not have to respond to the posts of others.

Figure 2. Sample Simulation Task.

Other simulations used in the remainder of subject delivery included opportunities to explore student anxiety: <https://ncase.me/anxiety/> and developing strategies for building resilience in a community: <https://developingchild.harvard.edu/resilience-game/>.

RESULTS

The available choices for asynchronous activities included annotated videos, questions, systems models (another popular choice using a free online tool) and different reading group discussions. Students were asked to do two, but several did all the activities. Just over 90% of students chose a simulation activity each week. Online discussions developed into deep systemic analysis. Despite being given the choice of whether or not to respond to the reflections of others, almost all the students did.

Institutional rules do not permit me to share their contributions, but from my teaching notes, in synchronous sessions students referenced their learning from the simulations and continued their online discussions. Students were able to talk about the limitations of the ‘characters’ they played in the simulation. They were able to draw relevant insight into understanding some of the challenges they were experiencing with disadvantaged families, and observations about the differences that would likely exist in the different safety nets in schools in their countries. They also shared and reflected, unprompted, the different ways that culture informs the way people are likely to seek help (Dobia & Roffey, 2017). Students remarked that simulations allowed for a visceral embodied reaction, which added to the learning, increased empathy and understanding to disrupt unchallenged beliefs in practice (following Scheer 2012) and discuss some self-care for their own wellbeing (following Mulcahy, 2012).

Despite the challenges included in COVID-19 related circumstances and the unexpected online teaching and learning, simulation allowed students to develop essential relationships with the lecturer, each other and their learning (Alshahrani, Ahmed and Ward, 2017). Moreover, they developed critical skills around choosing simulations that would and would not be appropriate for their own work with students online, identifying the boundaries of emotional experiences and reflexivity (following Scheer, 2012) at different stages of child development. In online learning, using simulation in teaching student wellbeing was successful in both modelling collaborative learning, and developing new critically informed skills to determine the usefulness of particular simulations for the educators' own teaching contexts.

IMPLICATIONS

All teaching includes embodiment and feelings that help the student and the lecturer to meaningfully synthesize learning and the place it holds in their being and place in the world (Mulcahy, 2012; Stoltz, 2015) and is important to academic outcomes and inclusivity (Alshahrani, Ahmed, & Ward, 2017). These relationships and feelings are transformed in the context of online learning (Freeman et al., 2013). The physical distance between students and lecturers in education can create a feeling of separation (Frydenberg & Andone, 2018). It is less likely that students will disclose needs for support in less personal online relationships (Houston, 2018), and therefore students are often less likely to receive needed accommodations, including additional language support, in online learning subjects (Barnard- Brak & Sulak, 2010; Houston, 2018). The opportunity to share with other students, and discover, practice and learn together and from each other is also less available. In planning for using simulations the following steps will be helpful to follow:

1. Working from the learning objectives for the subject, consider where skills will benefit from the lived experience of 'walking in the shoes' of another (following Cahill, 2013).
2. Use search terms that describe that experience, along with 'simulation' to find a suitable simulation. For example, 'simulation teach* poverty' yielded the example above.
3. Play through the simulation several times. Consider what emotional responses are likely and whether there are specific descriptions you should provide for your students so they can decide whether or not to participate (Bostock, 2018).
4. Provide clear instructions on how students should use the simulation, including what the specific outcome you would like the students to achieve (Barnard-Brak & Sulak 2010). If there are questions you would like them to answer, or evaluation criteria you would like them to follow, include them before the students access the simulation. In the case of the example above, the students were encouraged to also note their emotional and embodied responses, as these were of interest to the subject learning outcomes (Mulcahy, 2012).
5. Offer an immediate opportunity to write or record a reflection that can be shared with other students (Houston 2018). Provide prompts for this reflection that are aligned with the evaluation or questions you want them to answer (Barnard-Brak & Sulak, 2010). Encourage students to respond to the findings of others (Bostock, 2018).

In building classroom community and relationships, simulations provide experiential learning and allow students a shared experience despite physical distance. There are several things to be aware of in implementing simulations into teaching. Figure 2 provides a reminder of the things to consider in using simulations in order to care for your students.

1. Simulations invoke embodied responses that are affective and can result in strong emotions (Frydenberg & Andone, 2018). When playing through to test the simulation, consider what likenesses there may be to the lived experiences of the students and to offer a description of the virtual setting and experience and where possible offer choice in activities that will provide students an opportunity to consider the same issue, but in other formats such as readings or videos (Houston, 2018).
2. Including shared reflections of the affect and embodiment in simulation activities brings students closer to the learning, the educator and each other (Mulcahy, 2012, Bostock, 2018). It creates a community of practice where each student brings their own experience and expertise from working through the same virtual scenario as the others.
3. Teacher educators are provided with valuable formative feedback on student learning in monitoring and participating in these discussions (Barnard-Brak & Sulak, 2010).
4. Offer opportunities for reflexive practice (following Scheer, 2012), and encourage students to think critically about the functionality, positives and concerns that emerge in their simulation experiences. This provides opportunity for them to build critical skills for choosing such materials in their own practice. It also helps to disrupt unquestioned patterns in their current practices which might be replicating systemic injustices, challenging assumptions about their students (Dobia & Roffey, 2017).

Figure 2. Reminders and considerations in the use of simulations.

FUTURE RESEARCH

Further study is required into the reasons why students chose this and other simulations as a preferred learning activity and identifying how the successes in this teaching and learning can be replicated across other teacher education. This example only used materials that were accessible in all the countries that students were in and were free, but in-teacher training this emerging area of pedagogy, as well as the further enhancements of virtual reality hardware offer opportunities for reflexive embodied practices to be studied further.

References

- Alshahrani, S., Ahmed, E., & Ward, R. (2017). The influence of online resources on student-lecturer relationship in higher education: A comparison study. *Journal of Computers in Education*, 4(2), 87-106.
- Barnard-Brak, L., & Sulak, T. (2010). Online versus face-to-face accommodations among college students with disabilities. *American Journal of Distance Education*, 24(2), 81-91.
- Bostock, J.R. (2018). A Model of Flexible Learning: Exploring Interdependent Relationships Between Students, Lecturers, Resources and Contexts in Virtual Spaces. *Journal of Perspectives in Applied Academic Practice*, 6(1), 12-18.
- Cahill, H., Coffey, J., Lester, L., Midford, R., Ramsden, R., & Venning, L. (2013). Influences on teachers' use of participatory learning strategies in health education classes. *Health Education Journal*, 73(6), 702-713.
- Cahill, H., Kern, M.L., Dadvand, B., Walter-Cruikshank, E., Midford, R., Smith, C., Farrelly, A. & Oades, L. (2019). An Integrative Approach to Evaluating the Implementation of Social and Emotional Learning and Gender-Based Violence Prevention Education, *International Journal of Emotional Education*, 11(1), 135 - 152.
- Chapman, A. (2015). Wellbeing and Schools: Exploring the Normative Dimensions. (K. Wright & J. McLeod (Eds.) *Rethinking Youth Wellbeing*. Springer, 143-159.
- Cochrane, T., Antonczak, L., Keegan, H., & Narayan, V. (2014). Riding the Wave of BYOD: Developing a Framework for Creative Pedagogies. *Research in Learning Technology*, 22(1).
- Dobia, B & Roffey, S. (2017). The Aboriginal Girls Circle: Principles and Processes for Empowerment. (eds. E. Frydenberg, A. Martin & R. Collie) *Social and Emotional Learning in Australia and the Asia-Pacific: Perspectives, Programs and Approaches*. Singapore: Springer Nature, 313-334.
- Freeman, H., Patel, D., Routen, T., Ryan, S., & Scott, B. (2013). *The virtual university: The internet and resource-based learning*. Routledge.
- Frydenberg, M., & Andone, D. (2018). Enhancing and Transforming Global Learning Communities with Augmented Reality. *Journal of Information Systems Education*, 29(1), 37-44.

- Houston, L. (2018). Efficient Strategies for Integrating Universal Design for Learning in the Online Classroom. *Journal of Educators Online*, 15(3).
- Jennings, P.A., Doyle, S., Oh, Y., Rasheed, D., Frank, J. & Brown, J.L. (2019). Long-term impacts of the CARE program on teachers' self-reported social and emotional competence and well-being. *Journal of School Psychology*, 76, 186-202.
- Mulcahy, D. (2012). Affective assemblages : Body matters in the pedagogic practices of contemporary school classrooms. *Pedagogy, Culture and Society*, 20(1), 9-27.
- Scheer, M. (2012). Are emotions a kind of practice (and is that what makes them have a history)/ A Bourdieuan approach to understanding emotion. *History and Theory*, 51(2), 193-220.
- Stolz, S. A. (2015). Embodied Learning. *Educational Philosophy and Theory*, 47(5), 474–487.