Adapting to the New Normal During the COVID-19 Pandemic: Innovative Approaches in Virtual Teaching and Research towards Youth Engagement

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Despite a growing number of immigrants and refugee (IR) youth, limited knowledge exists concerning the challenges that these youth face that can impact their health. We aimed to address this knowledge gap by conducting summer education programs for IR youths to increase their knowledge of health and wellness. Due to the epidemic of COVID-19, we transitioned to online learning, which required us to come up with creative ways to engage the students. We utilized tools including a virtual human library, simulations, and games to meaningfully engage learners. We learned that diversified and interactive learning activities are essential for participant engagement, and a virtual environment provides the opportunity to connect with diverse individuals. However, online learning may have reduced accessibility for students who do not have the suitable technology or environment. In the future, we will address this limitation by making asynchronous study materials available for students.

The COVID-19 pandemic has led to a large disruption in traditional education and research practices. As a group of students and researchers who work to empower youth in health advocacy by leading education programs and engaging in discussions with youth, it was necessary for us to transition from in-person meetings to online engagement. This paper discusses the various strategies and tools that our group has been using for facilitating an engaging online learning environment and conducting research to study the different challenges faced by immigrant and

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refugee youth. We discuss how different online tools were chosen and utilized to effectively engage with youth and obtain their feedback regarding what they gained from the program and how the program can be improved. We adopted three innovations – a virtual human library, simulations, and game-based learning – and delivered them using Zoom, breakout rooms, PowerPoint and Kahoot. We hope that the findings of our paper will help individuals to build their repertoires of tools for community-engagement education and research involving youth.
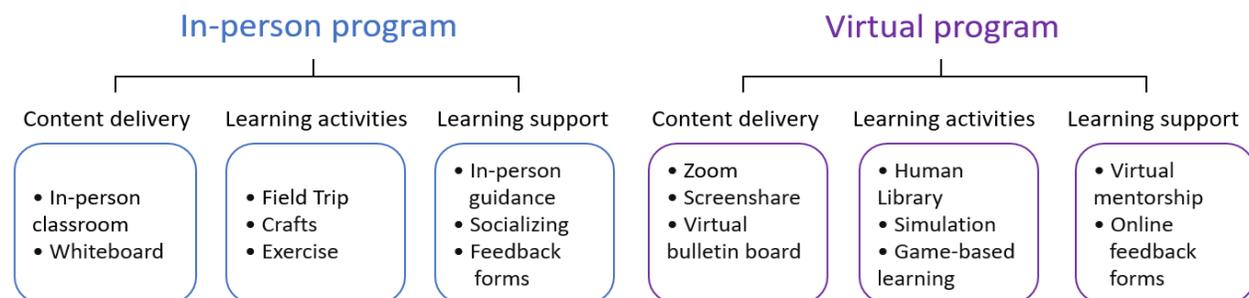
The Program

The RISE (Refugee and Immigrant Student Empowerment) for Health and Wellness is a team of students and staff at the University of Calgary whose objective is to advance immigrant and refugee health through community engagement. To do this, our team leads summer education programs every year for immigrant and refugee youths (14-18 year olds) to increase their knowledge of health and wellness. Increase in health knowledge is assessed through pre- and post-program surveys that asks students to report their level of understanding on specific topics in health (e.g., health research, social determinants of health, and nutrition). Examples of learning activities that are typically part of the in-person summer program include a field trip to the local homeless shelter and a mini-symposium where students present their health research projects to their friends and families. We collect feedback from students and conduct a focus group with the youth participants to better learn about the impact of our program and the challenges that immigrant and refugee youth face.

Pandemic-Related Challenge and Adaptations

Due to the suspension of in-person gatherings, our education sessions had to be delivered entirely online. This required us to come up with creative ways to engage the students. We explored and utilized a variety of virtual tools to adapt our methods of content delivery, learning activities, and learning supports that form the framework of effective teaching (Oliver, 1999). In particular, we utilized simulations, human libraries, and game-based learning as tools to meaningfully engage learners by promoting conversations and collaborations that are essential for effective learning (Northrup, 2002). Figure 1 provides an overview of these adaptations. The sessions were carried out using Zoom video conference and small breakout rooms to promote active discussion and involvement (Simon, 2018).

Figure 1

Comparison of frameworks used for in-person education sessions and virtual education sessions

In-person program

Content delivery	Learning activities	Learning support
• In-person classroom • Whiteboard	• Field Trip • Crafts • Exercise	• In-person guidance • Socializing • Feedback forms

Virtual program

| Content delivery	Learning activities	Learning support
• Zoom • Screenshare • Virtual bulletin board	• Human Library • Simulation • Game-based learning	• Virtual mentorship • Online feedback forms

Virtual Human Library

One of the program objectives was to help the students understand how culture and ethnicity affect health. We aimed to introduce youth to individuals from diverse racial and professional backgrounds and create a safe discussion environment to identify stigma and biases. To do this, we facilitated a 'human library' (The Human Library Organization, n.d.), whereby students heard the lived experiences of the challenges surrounding culture and race from guest speakers of different backgrounds. Our guest speakers included a counsellor who works daily with immigrant and refugee families, an Indigenous artist and teacher, and an immigrant medical student from Africa. We stationed our speakers in individual virtual breakout rooms and students were split into the rooms, where they had the opportunity to engage with each speaker. Some of the discussed topics included mind-body connection in the Indigenous community, mental health in immigrant and refugee families, and challenges and benefits of the immigrant experience. After 30 minutes, students were rotated into a different room with a different speaker who shared their unique insights on the lesson topic. We felt that virtual breakout rooms worked even better than in-person for such a session because each discussion was able to take place in isolation without noise interference or the requirement of separate physical rooms. In post-session feedback forms, students reported that they learned how 'racism can come in different shapes and forms' and that in immigrant families, 'it's important to destigmatize mental health and let them know it's ok[ay] to seek help'.

Simulation-Based Learning

Simulation-based learning refers to the use of simulation software, tools, and games to enrich student learning by modeling a real-life situation (Aebersold, 2018). In our session that focuses on social determinants of health, we aimed to augment student understanding of the topic through experiential learning. We designed and conducted a simulation board game on PowerPoint to teach about social determinants of health. The game design was inspired by the board game "The Last Draw Straw!" (Reeve et al., 2008). Within small groups, each player took on a character profile with defined gender, social-economic status, and race. Students were led through different scenarios and the outcomes of actions were determined by their predefined character profile. For example, a given scenario would illustrate how socioeconomics can affect exposure to accidents in a poor/rich neighborhood. After the session, one student commented that she enjoyed the game as it 'gave insight into the many small and often forgotten ways that social determinants impact people's lives'.

Figure 2

An overview of the social determinants of the health simulation game
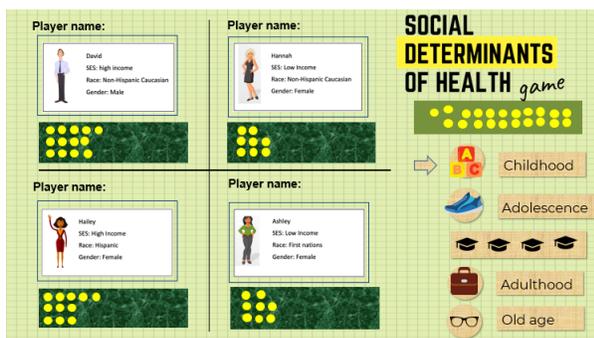
Note. Students gained or lost chips (movable yellow circles) based on resulting consequences which were listed on an event card. Students were led through different stages of life (childhood, adolescence, adulthood, and old age) and different sets of event cards corresponding to each life stage. The game was prepared by Suzie Lee and Whitney Ereyi-Osas.

Game-Based Learning

We utilized a platform called Kahoot (https://kahoot.it/) which can be used to generate gamified multiple-choice quizzes. It was used to test students' knowledge about the lesson topic at the beginning of the session, prompt participant participation, and allow students to recognize a knowledge gap that may motivate them to focus on the lesson. We found it helpful that the platform permits students to respond anonymously, providing the opportunity for them to participate without the fear or shame of answering questions incorrectly.

In addition to using a game, students were encouraged to draw and type their ideas onto the shared screen in prompting class discussions. For example, students were encouraged to circle their answers when given different choices on the screen and asked to describe the reasoning behind their answers. This gave way to interactive discussions. The annotation tool, which was built-in to Zoom, was used to complement teaching because it helped students visually engage with the lecture material, provide their insights, and allowed interaction with other students.

Reflections on Access and Participation

Our program engages immigrant and refugee youth, and it is important for us to consider the socio-economic constraints in online teaching and learning. Students may have technical constraints that may prevent them from engaging in online learning such as lack of stable internet access, or lack of conducive environment for learning at home (Lapitan et al., 2021). This highlights an important concern of equity in accessibility because we may have lost willing students who no longer register or fully engage in our program. We tried to address this problem by recording and sharing the sessions for participants to access later. In the future, we will also make asynchronous teaching materials (e.g., articles, videos, and podcasts) accessible to students along with recorded sessions. Participants also mentioned their need to socialize and connect with their peers during the sessions. To address their socialization needs, we will reserve time for interactive activities (i.e., sharing answers to an icebreaker question and games) that enhances meaningful engagement amongst participants. Despite limitations, our virtual program showed benefits: before transitioning to online, we heard feedback from students that commuting to class for the RISE program was very difficult. The transition to a virtual program eliminated the need for students to physically commute to class, which may have increased accessibility for students in general.

Conclusion

The pandemic pushed us to adopt new ways to carry out our learning program and research. In turn, this also provided us with a valuable opportunity to explore a variety of new tools and frameworks because we were obliged to develop creative solutions to overcome the limitations of virtual teaching. We learned that diversified and interactive learning activities are essential for participant engagement, and a virtual environment provides the opportunity to connect with students and speakers from different places. Students reported gaining new insights from engaging with different members of the community. When we transition back to an in-person program, we

hope to incorporate the newly adapted methods of games (*e.g.* Kahoot, Jeopardy, social determinant of health game) that facilitate virtual mentorship outside of class, and to bring in diverse guest speakers to meaningfully engage students and help promote growing understandings of health and wellness.

References

Aebersold, M. (2018). Simulation-based learning: No longer a novelty in undergraduate education. *Online Journal of Issues in Nursing*, *23*(2), 1–1. https://doi.org/10.3912/OJIN.VOL23NO02PPT39

Edmonston, B. (2016). Canada's immigration trends and patterns. *Canadian Studies in Population [ARCHIVES]*, *43*(1–2), 78–116. https://doi.org/10.25336/P64609

Lapitan, L. D., Jr., Tiangco, C. E., Sumalinog, D. A. G., Sabarillo, N. S., & Diaz, J. M. (2021). An effective blended online teaching and learning strategy during the COVID-19 pandemic. *Education for Chemical Engineers*, *35*, 116. https://doi.org/10.1016/J.ECE.2021.01.012

Northrup, P. T. (2002). Online learners' preferences for interaction. *Quarterly Review of Distance Education*, *3*(2), 219. https://www.learntechlib.org/p/95275

Oliver, R. (1999). Exploring strategies for online teaching and learning. *Distance Education*, *20*(2), 240–254. https://doi.org/10.1080/0158791990200205

Reeve, K., Rossiter, K., & Risdon, C. (2008). The Last Straw! A board game on the social determinants of health. *Medical Education*, *42*(11), 1125–1126. https://doi.org/10.1111/J.1365-2923.2008.03215.X

Simon, E. (2018). *10 tips for effective online discussions*. EDUCAUSE Review. https://er.educause.edu/blogs/2018/11/10-tips-for-effective-online-discussions.

The Human Library Organization. (n.d.). *The human library*. https://humanlibrary.org/about/

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Author Note

We have no known conflict of interest to disclose.