Zoom Around the World: Using Videoconferencing Technology for International Trainings

Abstract
This article describes an innovative model of educational programming used by our team of U.S. Extension educators for an international development project in Burundi, Africa. Our team designed a model to provide ongoing professional development trainings at a distance using Zoom, a videoconferencing platform. Over a 2-year period, we conducted 18 Zoom trainings with Burundian educators. On the basis of participant evaluation data and the literature, we present key principles for using distance technology in international development projects. Given the current economy and budget cuts in Extension, videoconferencing provides an opportunity for Extension to remain engaged internationally.

Keywords: international development, videoconferencing, professional development, school gardens, Africa

Introduction
For years, Extension educators have traveled to other countries to assist in international development projects and to train others in new skills (Glenn & Wingenbach, 2015; Kock, 2010; Lockett, Moore, & Wingenbach, 2014). Traveling to a new country to teach and share knowledge with others can be an exciting way for Extension educators to develop valuable intercultural skills that benefit their daily roles. However, international opportunities are often limited, expensive, and time consuming, qualities that keep many from getting involved in such endeavors (Harder, Lamm, & Vergot, 2010). Further, Extension educators may need to rely on local translators and may not be able to travel to countries that are deemed too dangerous. Distance technology presents an opportunity for Extension educators to become engaged in international projects while minimizing these challenges. In this article, we describe an innovative model of educational programming used by our team of U.S. Extension educators for an international development project in Burundi, Africa, and we share strategies.
for how videoconferencing technology such as Zoom can successfully support Extension's sustainable involvement in international development.

**Background**

Located in the heart of Africa, Burundi is the second poorest country in the world (Headrick, 2016). After devastation by a civil war that left families without homes or ways to feed their children, more than 81% of Burundi’s families live on less than $1.25 a day (United Nations International Children's Emergency Fund, 2013). Children go to school hungry and spend the day in classrooms with no electricity or running water, few supplies, and no lunch. On the basis of a needs assessment (Deen, Scanga, Wright, & Berahino, 2017), our multidisciplinary team of faculty, staff, and volunteers from Washington State University partnered with a Burundian nongovernmental organization (NGO) to design a 4-H program addressing food insecurity. The program uses the U.S. Agency for International Development/U.S. Department of Agriculture Cultivating Learning with School Gardens curriculum (Crave et al., 2009), which trains teachers how to use gardens as a classroom teaching tool (Smith, Wright, Hrcirik, & Deen, 2017).

**Review of the Literature**

Distance technology has been used successfully in national and international higher education (Ritzel, 2010; Rudd & Rudd, 2014), international health sciences (Alnemary, Wallace, Symon, & Barry, 2015), and disaster response social work (Wyatt & Silver, 2015). One study demonstrated that groups participating in face-to-face and videoconference trainings rated both the in-person and virtual experiences highly and that learning outcomes were consistent across both delivery modes (Miller et al., 2008).

**Application**

Due to political unrest, our team of U.S. Extension educators was unable to conduct in-person trainings for Burundian educators. Thus, we designed an alternative model for providing monthly hour-long professional development trainings for Burundian NGO staff using Zoom, a videoconferencing platform (https://zoom.us) that offered the low-cost and user-friendly features that best fit our needs. The training model included short and relevant theme-based lessons that incorporated experiential learning activities and were conducted in English. Figure 1 outlines the training agenda.

**Figure 1.**
Burundi 4-H Zoom Training Agenda Template
Over a 2-year period, educators conducted 18 trainings. After a year, one U.S. team member facilitated a virtual focus group with U.S. and Burundian participants to gather feedback about the overall experience of participating in the Zoom trainings. Open-ended questions included "What are the strengths of/challenges to the Zoom trainings?" and "What would you like to keep doing/do differently?"

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Results

U.S. and Burundian participants in the Zoom trainings reported that the meeting format was easy to use, helped everyone remain engaged with the project, and allowed for ongoing, timely, and relevant professional development. Participants reported that the trainings helped build relationships and increased cultural knowledge and empathy for one another. Because the Burundian participants had regular opportunities to give updates on life in their country and the status of the project, U.S. participants were better able to develop their cultural understanding of Burundian life and local needs (Ritzel, 2010; Wyatt & Silver, 2015).

As a result of the Zoom trainings, Burundian NGO staff facilitated six 2-day teacher trainings reaching 25 Burundian educators from four primary schools. School gardens have been successfully planted and harvested at the four schools, and teachers now use the gardens and the Cultivating Learning with School Gardens curriculum to teach students about plant health, pests, and the environment. At the end of the school year, NGO staff conducted evaluations. Students and teachers reported learning about the importance of adding nutrients to the soil using manure, the value of planting in rows, and the difference in plant watering needs. Teachers reported that students were taking produce home to share with their families and starting gardens at home.

Recommendations and Conclusion

On the basis of the literature, Zoom participant feedback, and U.S. facilitator observations, we present the following key principles for using distance technology in international development projects:

- Educators need to be aware of the participants' learning environments when designing trainings (Porcaro & Carrier, 2014) and of the participants' levels of comfort with technology (Miller et al., 2008). Participants must have access to a computer and reliable Internet connections and must be trained in the technology used.

- Educators and participants must have a mutual language with which to communicate.

- Educators and participants must first establish trust and mutual objectives (Meyer, Bond-Barnard, Steyn, & Jordaan, 2016; Porcaro & Carrier, 2014).

- Educators and participants should have a general knowledge of cultural norms, should be continually aware of cultural context, and should not impose their ways of doing things on each other (Wyatt & Silver, 2015).

- Educators need to be organized, purposeful, and consistent. They should consider time differences when scheduling meetings; email the agenda, assignments, and Zoom link at least 2 weeks in advance; send reminder emails; and develop a system of communicating between meetings (Porcaro & Carrier, 2014).

- Participant and program needs should determine the content of the training.

- Educators should incorporate processes that empower participants to take ownership of their learning (Zimmerman, 2000).

Delivering ongoing professional development trainings to an international audience using videoconferencing has many benefits. Given the current economy and budget cuts in Extension, videoconferencing provides an opportunity for Extension to remain engaged internationally. Although in-person training remains key for
developing relationships, the cost is prohibitive to long-term involvement. Videoconferencing offers a sustainable, low-cost model and a symbiotic learning environment where all partners benefit from the cultural experience.

References


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