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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

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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, Hrncirik, & 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

Date of Training
Time of Training (include time zones)
Zoom Link: https://zoom.us/j/xxxxxxxxx

Agenda Item	Description	Length of Time*
Welcome	Facilitator welcomes each person by name as he or she joins the call.	5 min
Country Update	Burundi partners present a short update on the country's political, social, or economic conditions.	10 min
Professional Development	U.S. educator presents on topic-related project (e.g., school gardening curriculum, 4-H methodologies, positive youth development, experiential learning) and includes application to Burundian culture. Allows time for questions.	20 min
Burundi 4-H Program Update	Burundi partners provide update on school garden activities, discuss upcoming events, and review recent program reports.	10 min
Upcoming Trainings	Facilitator collects feedback from Burundi partners on professional development training topics. Whole group discusses program needs and identifies upcoming training topics.	10 min
Next Meeting Date	Whole group schedules the subsequent meeting time and date before the end of the call.	5 min

Meeting Follow-Up: After the session, the facilitator sends an email to the participants with the meeting minutes and time, date, and Zoom information for the next meeting.

It is recommended that trainings are no longer than one hour (Zoumenou et al., 2015).

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?"

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

Alnemary, F. M., Wallace, M., Symon, J. B. G., & Barry, L. M. (2015). Using international videoconferencing to provide staff training on functional behavioral assessment. *Behavioral Interventions*, *30*(1), 73–86. doi:10.1002/bin.1403

Crave, M., Syverud, T., Connelly, J., Danz-Hale, D., Doyle, M., Frigm, G., . . . Maurer, J. (2009). *Cultivating learning with school gardens* (4th ed.). Washington, DC: U.S. Department of Agriculture. Retrieved from https://agricorps.org/school-garden-curriculum/

Deen, M. K., Scanga, L. H., Wright, K., & Berahino, C. (2017). Empowering youth and communities through 4-H school gardening programs: Results of focus groups in Burundi, Africa. *Journal of International Agricultural and Extension Education*, *24*(2), 122–136. doi:10.5191/jiaee.2017.24209

Glenn, A., & Wingenbach, G. (2015). Effects of the Junior Master Gardener's (JMG) curriculum on Guatemalan students' knowledge gain and attitude toward science. *Journal of International Agricultural and Extension Education*, *21*(2), 62–73. doi:10.5191/jiaee.2015.22205

Harder, A., Lamm, A., & Vergot, P. (2010). Explore your world: Professional development in an international context. *Journal of Extension*, *48*(2), Article 2FEA3. Available at: https://www.joe.org/joe/2010april/a3.php

Headrick, P. K. (2016). Top 10 poorest countries in the world. *The countries: Information about all countries.* Retrieved from http://www.thecountriesof.com/the-poorest-countries-in-the-world/

Kock, T. K. (2010). Using an active learning approach (the 4-H model) to stimulate social change: Youth and community development in the Republic of Kyrgyzstan. *Journal of Youth Development*, *5*(2), Article 100502PA003. https://doi.org/10.5195/jyd.2010.221

Lockett, L., Moore, L., & Wingenbach, G. (2014). A global worldview among Extension professionals: A case study of best practices for study abroad programs. *Journal of Extension*, *52*(4), Article 4FEA3. Available at: https://joe.org/joe/2014august/a3.php

Meyer, I. P., Bond-Barnard, T. J., Steyn, H., & Jordaan, J. (2016). Exploring the use of computer-mediated video communication in engineering projects in South Africa. *South African Journal of Industrial Engineering*, *27*(2), 60–71. http://dx.doi.org/10.7166/27-2-1298

Miller, P. A., Huijbregts, M., French, E., Taylor, D., Reinikka, K., Berezny, L., . . . Harvey, M. (2008). Videoconferencing a stroke assessment training workshop: Effectiveness, acceptability, and cost. *Journal of Continuing Education in the Health Professions*, *28*(4), 256–269. doi:10.1002/chp.192

Porcaro, D., & Carrier, C. (2014). Ten guiding principles for designing online modules that involve international collaborations. *International Journal of Education and Development Using Information and Communication Technology*, *10*(2), 142–150. Retrieved from http://ijedict.dec.uwi.edu/viewarticle.php?id=1755

Ritzel, D. O. (2010). International videoconferencing: A reaction to Burke et al. *American Journal of Health Education*, *41*(1), 62–64. Retrieved from http://www.shapeamerica.org/publications/journals/ajhe

Rudd, D. P., II, & Rudd, D. P. (2014). The value of video in online instruction. *Journal of Instructional Pedagogies*, *13*, 1–7. Retrieved from http://www.aabri.com/jip.html

Smith, S., Wright, K., Hrncirik, L., & Deen, M. K. (2017). Using the cultivating learning with school gardens curriculum in Burundi, Africa. *Journal of Extension*, *55*(4), Article 4TOT8. Available at: https://www.joe.org/joe/2017august/tt8.php

United Nations International Children's Emergency Fund. (2013). *Burundi statistics.* Retrieved from https://www.unicef.org/infobycountry/burundi_statistics.html

Wyatt, J., & Silver, P. (2015). Cross-cultural crisis intervention training via videoconferencing. *International Social Work*, *58*(5), 646–658. doi:10.1177/0020872815581062

Zimmerman, M. (2000). Empowerment theory. In J. Rappaport & E. Seidman (Eds.), *The handbook of community psychology* (pp. 43–63). New York, NY: Kluwer Academic/Plenum.

Zoumenou, V., Sigman-Grant, M., Coleman, G., Malekian, F., Zee, J. M., Fountain, B. J., & Marsh, A. (2015). Identifying best practices for an interactive webinar. *Journal of Family & Consumer Sciences*, *107*(2), 62–69. Retrieved from http://www.aafcs.org/resources/publications-products/journal-consumer-sciences