Using Digital Tools to Train Health Emergencies Personnel in Fragile Contexts

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Abstract. The Leadership in Emergencies learning programme, launched in 2019, was designed to strengthen the competencies of World Health Organization (WHO) and Member State staff in teamwork, decision-making and communication, key skills required to lead effectively in emergencies. While the programme was initially used to train 43 staff in a workshop setting, the COVID-19 pandemic required a new remote approach. An online learning environment was developed using a variety of digital tools including WHO's open learning platform, OpenWHO.org. The strategic use of these technologies enabled WHO to dramatically expand access to the programme for personnel responding to health emergencies in fragile contexts and increase participation among key groups that were previously underserved.

Keywords. Emergency, fragile contexts, training, World Health Organization

1. Introduction

The response to complex health emergencies such as the COVID-19 pandemic and 2014-2015 Ebola outbreak in West Africa requires strong leadership from governments and health institutions. The Leadership in Emergencies learning programme is designed to strengthen the competencies of World Health Organization (WHO) staff and colleagues in Member States in teamwork, decision-making and communication, key skills required to lead effectively in emergencies. The programme was launched in 2019 and initially used to train 43 staff in person who were working in health emergency contexts.

While in-person learning had been the standard approach used for leadership training, the COVID-19 pandemic required learning to be conducted remotely due to travel and health restrictions. Furthermore, training needed to be delivered to hundreds of professionals rather than dozens whilst ensuring that participants could still benefit from peer-to-peer learning and mutual support during a time of stress and uncertainty. How could the efficacy for in-person learners be transferred to an online environment and adapted to the unique requirements of leadership training in health emergencies? And how could accessibility be provided to learners working in ongoing global emergencies? The aim of this paper is to explore how WHO approached these challenges and the initial results achieved through the strategic adaptation of digital tools to expand access to learning in fragile contexts.

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2. Methods

To address the training requirements, an online learning environment was developed on the OpenWHO.org learning platform to host and administer the Leadership programme. The environment contained all learning materials, learner assignments and supplementary learning that had been re-purposed from existing workshop materials for use in online classes. To enhance access, this learning environment was available on desktop and mobile and accessible in areas of low bandwidth.

The curriculum was then redesigned from a five-day workshop to twice-weekly online sessions conducted using Zoom—16 one-hour sessions in total—with each session consisting of a mix of expert-led presentation, peer-learning activities in virtual breakout rooms and group discussion. During a protracted health emergency, deployed staff are unable to leave the affected area, and in-person learning is often unfeasible. This multi-week schedule enabled training to coexist with learners' professional duties and to direct peer-learning aspects of the course to situations as they arose in the workplace, enhancing course applicability and effectiveness for participants. A half-hour 'soft close' was added to each session, allowing continued discussion and debate, and enabling participants to network and build relationships based on their shared experience.

To ensure the programme was fit for purpose, further innovations were made to foster development of skills specific to leaders in health emergencies and enhance applicability of new knowledge and competencies to on-the-ground needs.

First, in recognition of the specific effects of stress on the learner's ability to integrate new information [1], particularly those currently deployed in ongoing health emergencies, the training team integrated individual coaching into the Leadership curriculum. Conducted via teleconferencing, this coaching serves both to ensure training participants strengthen their leadership competencies and provide learners with an opportunity to discuss, analyse and share their feelings, thoughts and expected fears in their daily work with a neutral party to support their professional development.

Second, existing table-top training exercises conducted in person were redeveloped and conducted as online training exercises using specialized software tailored to WHO needs. These virtual real-time exercises provide learners with the opportunity to practice newly developed leadership skills using real-life emergency scenarios with a live feed of information including social media and news-related content to simulate the minute-to-minute developments of an emergency.

Third, the wealth of knowledge and experience possessed by course participants and the benefits of mutual sharing were highlighted as a vital resource for a wide group of learners during and upon completion of the Leadership programme. To ensure this knowledge and experience was made available through peer-to-peer learning, the training team introduced a social media based 'community of practice' to provide a blend of self-paced and face-to-face online training supported by an active, sustainable peer learning network. This community of practice established on LinkedIn allows learners to share and strengthen their knowledge and skills from the programme beyond the bi-weekly sessions and provides a medium to network and provide mutual support.

3. Results

The key challenge in redesigning the Leadership in Emergencies programme was to develop a sustainable approach to online learning that both provided accessibility to

learners located in ongoing health emergencies, particularly fragile contexts, and ensured learning was directly applicable to real-world challenges faced daily. The resulting programme was implemented by strategically selecting from a menu of digital tools to make the training fit for WHO's purpose. We tailored existing and proven technologies, including OpenWHO.org for self-paced learning, Zoom lectures and breakout rooms for interactive sessions, telecommunications for remote coaching, a specialized online platform for training exercises and LinkedIn for communities of practice.

The use of these adaptable technologies enabled us to dramatically expand access to the programme and increase participation among key groups that were previously underserved. As of December 2022, the programme has reached a milestone of 294 leaders trained since it was launched in 2019. WHO increased the representation of women trained through the Leadership programme from 29% of participants in 2019 to 49% in 2022. The redesigned programme is also more inclusive of junior staff and trainers from different regions, expanding the diversity of expertise and perspectives across the programme. The number of participants from low- and middle-income countries increased 3.7-fold from the 2019 face-to-face programme to the 2022 digital curriculum. In addition, the programme's increased scalability and inclusivity provides a low-carbon alternative to the considerable impacts of travel, accommodation and facilities necessary to host in-person training, with an estimated 90% reduction in energy and carbon emissions.

4. Discussion

4.1. Democratizing Learning

Previous decades' research on educational parity and digital divide (i.e., the gap in education technology opportunities between learners from different backgrounds) has demonstrated that educational parity can be fulfilled if careful considerations are given to learners' backgrounds. The digital divide includes two divides: "one of access and one of usage" [2]. Evidence thus far has shown that usage and access to computers are more probable for affluent learners [3]. However, learning technologies, in particular, new broadcast media (e.g., film, Internet access, personal computers and Web 2.0 platforms) have bridged gaps between learners in more and less privileged environments [4].

Provision of access to digital technologies is key to support learners with different backgrounds, digital literacy and skills [5]. In the design and development of the Leadership in Emergencies programme, careful consideration was taken to deploy simple technologies and structures to remove barriers to learning across the world, in particular for those in difficult contexts. Steps taken to close the digital divide include providing the programme in multiple languages, with low-bandwidth and offline access to key content, and different formats of materials aligned with universal design for learning. The effort to provide equitable learning did not merely consider socioeconomic status, but cultural differences, age and gender, as "equality and non-discrimination are key principles of the international human rights' regulatory framework" [5]. To reduce barriers associated with learning, it is important to ensure that digital technologies and content are equally accessible to all learners, regardless of their geographical and other associated challenges.

4.2. Connectivist Approach

Improved learning access and employing sound pedagogy in the Leadership programme were key enablers in democratizing learning. Rather than the common instructivist approach (i.e., the instructor assembles knowledge in the form of artefacts) in online learning, a connectivist approach (i.e., learners construct knowledge guided by an expert instructor) is employed in WHO course design and technology selection. Further, learning continues after knowledge transfer through coaching and communities of practice. Whereas massive open online courses (MOOCs) have aimed to democratize learning by enabling anyone to access learning opportunities, they have downplayed the critical need for independent learning [6] and WHO has recognized that not all learners can be active agents in their learning journey. Thus, WHO invested in coaching and communities of practice in which learners can connect with experts and peers, exchange ideas and learn from one another, in addition to acquiring knowledge from courses. One limitation is that the initial results of the digitalized programme have focused on design and access; future work could also seek to evaluate the impact of the expanded participation on emergency response efforts across the globe.

5. Conclusion

Given that learners may feel isolated in online learning environments, fostering a sense of community is essential to share knowledge and challenges [7]. WHE has strived to provide a Leadership in Emergencies programme that focuses beyond learning outcomes on creating a learning journey for personnel working in fragile health emergency contexts through a democratized, connectivist approach. Results following the launch of the digitalized programme provide evidence that online technologies can deliver an accessible and inclusive environment to learn new knowledge and skills [8]. The redesigned programme has been made fit for purpose by strategically adapting proven tools and technologies to provide access to learning that is directly applicable on the ground for personnel deployed in challenging emergency contexts.

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