

Supplementary Material 7: Background on Education Research

We briefly summarise the most salient and relevant ideas from Eraut & Hirsh [9] on workplace-based learning and Kearney et al. [10] on mobile learning.

Workplace-based learning

Research in workplace-based learning allows for the categorisation of the varied nature of training in the workplace. Three categories are relevant to understand how CHWs can be engaged in training while working in their communities: (i) a work practice *within which* learning occurs (e.g. problem solving); (ii) a stand-alone *learning process* during work (e.g. being supervised); and (iii) a time-limited *learning activity* (e.g. giving/receiving feedback or engaging in reflection) on aspects of work practice. Each way in which work practices can support CHW learning were reviewed for each primary study.

Mobile learning

Research in mobile learning has critiqued simplistic conceptualisations of mobile learning as the ability to support anytime, anywhere learning. This ways of framing the use of mobile technologies is seen as particularly out-of-date as technology has developed to a point where authenticity, collaboration and personalisation can provide new insights into mobile learning practices [10]. The ways in which each of these three aspects supported CHW learning were reviewed for each primary study. As such, our framing draws on education researchers' commonly held view of mobile learning as a socio-cultural form of learning [45-48]. The key point is a focus on how technology supports the learner to produce new knowledge while interacting, often with others, within their environmental context. This way of thinking about the use of technology has aligns strongly with calls by medical educators for the implementation of socio-cultural theories [49] as they "offer a best-fit exploration and explanation" [50: 150] of learning and training for the workplace context. It is important to determine how this line of thinking is relevant for mHealth and CHWs.