

Development of a Massive Open Online Course (MOOC) on Tropical Parasitology at the Kilimanjaro Christian Medical University College

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Rationale for MOOCs

- Internet increasingly available in resource-limited settings
- Expand access to educational materials
- Topics optimally taught by faculty with greatest familiarity and experience
- Conceived as a complement, not a replacement, for didactic teaching

Methods

- November 2013 Duke University CIT calls for MOOC development applications; KCMU College/ MEPI faculty develop proposal on tropical parasitology
- December 2013 KCMU College application selected for \$10,000 support from CIT, supplemented by MEPI resources
- CIT provided expertise in MOOC development, instructional design, filming, editing and implementation
- KCMU College/MEPI faculty developed content including field filming and clinician interviews
- Launched through Duke Coursera website February 9, 2015

Video Recording Studio



Morphology: medium to large size, brownish or greyish in colour

- long wings extending beyond tip of abdomen

Anopheles distinctive characteristics

- Rest on upright surface at an angle of about 45 degrees
- Legs with speckled appearance



Field Recording



Field Recording



Course Content

- 13 modules (malaria, protozoa, cestodes, trematodes, nematodes and ectoparasites)
- Each module followed by a quiz
- Comprehensive final exam
- Passing students receive a certificate
- Required for all KCMU College medical, nursing and laboratory technology students

Tropical Parasitology Viewers

- 8177 viewers; 117,721 lectures downloaded, exams and quizzes completed 19,578
- 171 countries
- Continents: North America 35%, Europe 25%, Asia 17%, Latin America 11%, Africa 10%
- 40% from LMIC
- 50% had MD, PhD, nursing or MS degrees

Viewer Feedback

- 95% found the exercises extremely, very or moderately valuable in learning
- 92% extremely, very or moderately stimulating
- 93% extremely, very or moderately likely to recommend to a friend or colleague
- 775 Discussion Forum posts

Future Plans

- Revise course July 20, 2015; include more field filming and clinician interviews
- Video-recording facility utilized by faculty and students to prepare resource materials
- New MOOC's?

Conclusions

- MOOC successfully developed through a MEPI partnership
- Tropical Parasitology filled a content void and was rapidly disseminated
- SSA faculty have important knowledge and experiences to share, and should be encouraged

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