Assessing the impact of a global health MOOC/OER

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OE Global, Delft, April 24th 2018
285 million visually impaired people

(WHO, 2013)
Eye health human resources challenges

(Resnikoff et al, 2012)
Global Blindness MOOC/OER

- Essentials of planning and management for eye care services
- Accessible, acceptable and applicable content for a variety of eye care contexts
- OER to enable further local educational transformation
- Involvement of global experts in content development and mentoring

WEEK 1: THE BURDEN OF AVOIDABLE BLINDNESS

Introduction
An introduction to the 5 main course objectives and a chance to think about how you learn. There is also an opportunity to introduce yourself and meet fellow learners for the first time.
Image © LSHTM

1.1 WELCOME TO THE COURSE AND WEEK 1 VIDEO (02:06)
1.2 LEARNING WITH US ARTICLE
1.3 INTRODUCE YOURSELF DISCUSSION
## What happened?

<table>
<thead>
<tr>
<th>Category</th>
<th>Run 1 (Apr 15)</th>
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<tbody>
<tr>
<td>Joiners</td>
<td>3,544</td>
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<tr>
<td>Learners</td>
<td>2,183</td>
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<tr>
<td>Live in LMICs</td>
<td>69%</td>
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<tr>
<td>Work in Health/social care</td>
<td>81%</td>
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<tr>
<td>Completed ≥50% of course</td>
<td>744 (34%)</td>
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<td>Completed ≥90%</td>
<td>444 (20%)</td>
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<tr>
<td>Certificates/upgrades sold</td>
<td>143 (7%)</td>
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<td>Course rated as: “Excellent/Good”</td>
<td>96%</td>
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1 Pre-course survey (n=1,107) 2 Post course survey (n=214) 3 Datasets. All % shown are % of learners.
Learning experience & applicable knowledge

- “The training was very valuable and cross sharing of vast experiences so enriching.” Kenya
- “Good teaching materials to disseminate the knowledge to others to adopt” Bangladesh
- “I have learnt that only seeing patients in my clinic will never overcome the burden of blindness.” Burundi
- “I can now use planning principles, doing a SWOT Analysis and setting SMART objectives to start planning the delivery and evaluation of outreach programme.” Cameroon
- “I have learned how to systemeticaly analyze a complicated problem and address it. I have been involved in an outreach program in Honduras for the past 11 years, and I'm convinced that I can use what I've learned to try and make the program more effective.”
- “To me, the course played a very vital role as it empowered me with planning skills especially for Vision 2020 national and district planning [...] I have already started using the information on my daily activities as well as in planning.” Botswana
So what? Online survey after 1 year

94% working in eye care & 82% living in LMICs (n=139)

- Had participation led to career or educational benefits?
- Had the OER been used to support further teaching and learning?
- What impact had the course have on their practice as health providers, within the constraints of their health system?
88% reported educational benefit

- Gained credit/prerequisite for academic course/prog. (6%)
- Helped me prepare for an exam (11%)
- Gained a network to share experiences with (26%)
- Motivated me to seek further education & complete an application (37%)
- Stimulated me to apply knowledge & change practice (47%)
- Gained a new way to learn (55%)
- Gained new knowledge/insights in eye care (61%)
- Gained new knowledge/insights in planning services (68%)
- Supplemented existing skills & knowledge (69%)
72% reported career benefit

Enhanced my knowledge and skills for current work

Added a fresh perspective to my current work

Increased motivation at my current work

Received recognition for improvement

Received funding for a project

Found a new job or role in eye care

Received a promotion

Received a pay increase

Tangible benefit

Intangible benefit
70% reported re-use of materials

- Used in addition to own teaching materials: 50%
- Used materials to guide proposal writing: 47%
- Referred back to materials to refresh memory: 45%
- Asked colleagues who teach to use the materials: 21%
- Shared with students, colleagues or eye care team: 19%
- Adapted to create new teaching resources: 17%
- Used them to help develop a new course: 6%
85% had applied their learning
- 75% had experienced challenges

- Plan eye care services
  - 63%

- Calculate local cataract surgical rate
  - 59%

- Assess community eye care needs
  - 53%

- Improve surgical efficiency in the hospital
  - 52%

- Monitoring cataract surgical outcome
  - 27%

- Write clear objectives for change
  - 18%

- Implement a timeframe and budget
  - 18%

- Use of technology in eye care
  - 9%

- Engage with school vision health programmes
  - 50%

- Use WHO classification for vision to assess
  - 46%

- Examine requirements to improve use of cataract services
  - 42%

- Improve use of presbyopic correction
  - 36%

- Critically appraise articles using epi terms
  - 65%

Teach others about eye care...
61% gave a final comment

• “To me it was, a real refresher course, being one of the first graduates of the MSc course in 1994 and not having an opportunity or time to go for a refresher program. Useful. Need more of this” Ghana

• “I loved the forum and the discussions. The quizzes in the middle were a big help. Because of the course I am able to properly plan and structure an ideal eye unit …” Kenya

• “We deal mostly with low income group and their issues are almost same as I studied in course. The course motivated me for community eye health care awareness and we started working with schools to give them bases awareness, early eye screening.” Pakistan
The course had **widened participation** in public health eye care education by reaching a range of eye health professionals across many countries, especially in LMICs.

Learning **was applicable** at the local level.

OER content did support **further teaching and learning** at the local level.

**Limitations:**
- Self-selecting group of respondents
- Unable to link respondents with course data sets
- Questions listed potential pre-identified benefits for individuals
Further activity and ‘stories’ of impact

- New project with 3 partners localising the MOOC/OER
- More case studies from health workers, educators and institutions
- Influencing the LSHTM MSc PHEC

Impacts are complex and emergent
MOOC/OER: Constraints and enablers

- Lack of coverage or value creation
- Equity and inclusion considerations (Hodgkinson-Williams & Arinto, 2017)
The value creation framework (VCF)

Capturing “the learning enabled by community involvement and networking” (Wenger et al., 2011)

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<tbody>
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<td>Health worker or educator</td>
<td>Levels of access, activity, participation, connections &amp; interactions with people/resources</td>
<td>Information received</td>
<td>Implementation of advice &amp; solutions</td>
<td>Personal performance</td>
<td>Community aspirations</td>
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<td>Value and quality of above</td>
<td>Skills acquired</td>
<td>Reuse of products and tools</td>
<td>Organisational performance &amp; reputation</td>
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<td>Meta conversations about the network</td>
<td>Change in perspective</td>
<td>Use of social connections</td>
<td>Knowledge products as performance</td>
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<td>Inspiration</td>
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<td>Confidence</td>
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<td>Types and intensity of social relationships</td>
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<td>Manager</td>
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<td>Implementation of advice &amp; solutions</td>
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<td>Planner / policymaker</td>
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<td>Reuse of products and tools</td>
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<td>Use of social connections</td>
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<td>Innovation in practice</td>
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<td>Transferring learning practices</td>
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<td>Sponsor</td>
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### Global Blindness MOOC/OER VCF: Examples

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<td>Data on access, participation &amp; relevance of interactions (A)</td>
<td>“I can now [...] start planning the delivery and evaluation of outreach programme” (A)</td>
<td>“Global Blindness course has really help me a lot to run Vision 2020 Program” (C)</td>
<td>Received recognition for improvement (C, 15%)</td>
<td>“… am writing a proposal that will enable us do screening of university students before start of next academic year.” (C)</td>
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<td>“The training was very valuable and cross sharing of vast experiences so enriching.” (A)</td>
<td>“Good teaching materials to disseminate the knowledge to others to adopt” (A)</td>
<td>Shared the OER (C, 47%)</td>
<td>“Increase in CSR in 3 remote districts in Kenya” (D)</td>
<td>“started working with schools to give them bases awareness, early eye screening” (C)</td>
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<tr>
<td>“Access to quality CPD is limited and costly. This method allows study outside of the working day and without cost” (C)</td>
<td>Intend to pursue my interest in this subject by engaging with my national prevention of blindness committee (B, 55%)</td>
<td>“The course helped me to participate well in other futurelearn courses.” (C)</td>
<td>Outputs of the 3 course localisation projects (D)</td>
<td>Developing an OER course (D)</td>
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<td>Activity during the 3 course localisation projects (D)</td>
<td>“I am able to properly plan and structure an ideal eye unit.” (C)</td>
<td>Using content to teach outreach team (E)</td>
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<td>I applied to the MSc PHEC at LSHTM as a result of course</td>
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**Using VCF to develop quant & qualy instruments for assessing impact**

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Data sources: (A) Datasets from FL for run 1 (B) GB1 post course survey (C) 1 year later online survey (D) Stories shared by localising partners (E) Other informal stories shared with the LSHTM MOOC/OER team
In summary

- Follow up online surveys can highlight if a MOOC/OER is helping to bridge a known training gap.
- Now developing mixed methods approach to gain further insight into cycles of value creation, + constraints and enablers, for all stakeholders in our global health MOOCs/OER.

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<th>Cycle 1</th>
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<th>Cycle 3</th>
<th>Cycle 4</th>
<th>Cycle 5</th>
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Find out more
https://ICEH.lshtm.ac.uk/oer

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References

Laurillard, D. (2014). What is the problem for which MOOCs are the solution? | IOE LONDON BLOG.
Resnikoff, S., Felch, W., Gauthier, T.-M., & Spivey, B. (2012). The number of ophthalmologists in practice and training worldwide: a growing gap despite more than 200,000 practitioners. The British Journal of Ophthalmology, 96(6), 783–7.