The Global Health e-Academy Initiative

Facilitating access to MOOCs in Global Public Health

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Massive Online Open Course (MOOC) « Concepts and Methods in Epidemiology »

Created in 2014 by the Cnam,

First MOOC on epidemiology in French (subtitles in English)

Hosted by the national platform France Université Numérique (FUN)

Organization:

HDR 6- week course (videos)

HDR 5 Hangouts facilitated by the teacher

HDR 1 final exam: online and free (multiple choice questions)

HDR Optional pedagogical activities: exercises, readings, case-studies

HDR Paid certification (60€) since 2016 : online or face-to-face supervised exam (partnership with AUF).
MOOC Epidemiology
Stats on the students

Students characteristics 2014-2016
- Gender: 50% - 50%
- Age group: 25 - 35 ans

Bachelor: 15%
Doctorat: 30%
Master: 40%
Autre: 15%

Number of students 2014-2016
- 2014: 3000 students
- 2015: 3400 students
- 2016: 3800 students

Final exam results 2014-2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Students Taking the Exam</th>
<th>Grades</th>
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<tbody>
<tr>
<td>2014</td>
<td>451/2986 (15%)</td>
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<tr>
<td>2015</td>
<td>592/3411 (17%)</td>
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<tr>
<td>2016</td>
<td>467*/3825 (12%)</td>
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*Including 90 who paid 60€ for the certificate (19%)

Grades (out of 20)
- Excellent: 18-20
- Very good: 16-18
- Good: 14-16
- Fair: 12-14
- Just ok: 10-12
- Fail: grades <10
MOOC Epidemiology

Geographic distribution of students 2015-2016*

Top countries Africa
- Guinea
- Algeria
- Morocco
- Burkina Faso
- Cameroon
- Ivory Coast
- DRC
- Senegal
- Tunisia
- Benin
- Mali
Further use of MOOC in Epidemiology

- Request to use the MOOC for teaching public health at the Faculty of Medicine in Phnom Penh, Cambodia, and Beijing University, China

- Used for selection of Master of Public Health students from Africa
Global Health MOOC mapping (n=282)

MOOCs in Public Health
Total number: 282

- Epidemiology (8)
- Biostatistics (20)
- Surveys (2)
- Social research
- Prevention (2)
- Health education (1)
- Health regulations (2)
- Health policy (4)
- Healthcare systems (6)
- Health economics (3)
- Ethics (4)
- Healthcare evaluation (1)

Typical MPH curriculum

- Elective courses
  - Global Health
    - sometimes included in different parts of the core curriculum
- Core courses
  - Methods in Public Health
    - Surveys
    - Social research
  - Health promotion
    - Health education
    - Health regulations
  - Health policy and management
- Additional recommended competencies
  - Communication, leadership, critical thinking, interdisciplinarity, systems thinking
Integrated into teaching programs, MOOCs:
- Complementary to traditional courses for the transmission of basic concepts or to illustrate a theme (e.g., numerous MOOCs on emerging viruses are available worldwide)
- Facilitate active pedagogy; students follow the course on their own and devote more time to group work, case studies, projects «flipped classroom»

Advantages:
- Easy and free access (internet)
- Fast-growing production
- Broad subject and disciplinary fields
- Adapted to continuing education

Risks:
- Superficiality
- Dispersion
- Uncontrolled quality
Proposal: The Global Health e-Academy

- Develop the portal « Global Health e-Academy »
- Identify newly produced MOOCs in global health
- Develop partnerships between universities for elaborating MOOPs, and integrating them in teaching curricula
- Support the production of MOOCs in resource-limited countries

**FACULTY**
- Select MOOCs for their own teaching programs
- Develop their own MOOCs to complement existing material

**STUDENTS**
- Get credits through MOOCs or MOOPs
- Rate MOOCs as « Tripadvisor »

**International Consortium**
Universities, Research institutes

Free access
Potential partners for the Global Health e-Academy

- London School of Hygiene and Tropical Medicine
- Cnam Institut Pasteur Centre Virchow-Villermé – Paris Descartes
- Université de Tunis
- Université Cheikh Anta Diop, Dakar
- Addis Ababa University
- Université Houpouët-Boigny, Abidjan
- Université Yaoundé I
- Université du Ghana
- Harvard T.H. Chan School of Public Health
- Hong Kong University
- ARISE network in Africa (Harvard T.H. Chan School of Public Health)
- Université Houphouët-Boigny, Abidjan
Massive Online Open Programs (MOOPs)

- Combination of MOOCs on methods (epidemiology, biostatistics,...) and public health themes (One Health, mother-to-child health...)

- May give a certificate delivered by one/several universities from the consortium

- Example of a MOOP in Global Health:
  1. Concepts et méthodes en épidémiologie (FR; Cnam; FUN) + Fondamentaux en biostatistiques (FR; CVV; FUN)
     or:
     Health in numbers: Quantitative methods in clinical and public health research (EN, Harvard T.H. Chan SPH; edX)
  2. Readings in Global Health (EN; Harvard T.H. Chan SPH; edX)
  3. Improving the health of women, children and adolescents: from evidence to action (EN; London School of Hygiene and Tropical Medicine; Future Learn)
  4. Global Health at the Human-Animal Ecosystem interface (EN; University of Geneva, Institut Pasteur, University of Montreal, CVV; Coursera)
Points for discussion

- **LEGAL**: Re-use of existing MOOCs for delivering diplomas or degrees?

- **ACCESSIBILITY**: How to overcome bandwidth issues in resource-limited countries?

- **EXAM organization**: Online? At the university? Cost of the certificate?

- **PARTNERSHIPS**: What public/private alliances or partnerships in order to implement the Global Health e-Academy?