How to Implement Unconventional Teaching Tools and Reduce Passive Teaching Moments without Losing Academic Validity in Global Health

Pedagogiskt docenturarbete

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Introduction

Global Health is a relatively young and innovative academic discipline that is not limited to the medical field, but also involves the study and understanding of socio-cultural, environmental, legal, and economic aspects. For these reasons, there is not a single and comprehensive definition.

For the purpose of this paper, I will adopt the description of Koplan et. on Global Health, as “an area for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide”.¹

Over the past three decades, the interest in Global Health has increased in academia, which has led to the development of several programs dedicated to the teaching of this subject around the world.²-⁴ In Sweden, the universities of Göteborg, Linköping, Lund, Stockholm, Umeå and Uppsala propose an elective curriculum in Global Health for medical students.

The first elective Global Health Program for medical Students at the Linköping University started in March 2021. According to general trends, the program embraced a multidisciplinary and multi-professional approach in order to give a comprehensive overview of this academic field². Purpose of this program was to introduce medical students to this subject, increasing their competence and awareness, and eventually stimulating their research interest. The initial planning included 4 weeks of lectures, workshops, and a field experience at the Moi University in Eldoret, Kenya, but because of the Covid-19 pandemic, the entire course was given remotely, by Zoom, including virtual visits in Eldoret. Despite distance learning, the feedback from the first student cohort was very positive, although most of them suggested implementing the use of podcast or movies as teaching tools and indicated to prefer active discussion over passive lectures. I must admit that my first reaction to these suggestions was highly skeptical, as I assumed that an unorthodox approach could diminish the academic value of the proposed curriculum. However, my skepticism was based on my own prejudices and not on scientific evidence.

Feedback given by the students can be a powerful tool to improve their learning gains when used by who was the recipient of the feedback to adapt pedagogical strategies to the needs of the students.⁵ Therefore the aim of this paper was to investigate suitability of students’ suggestions (implementation of podcast or movie as teaching tools and of active discussion over passive lecture), and to identify feasible implementation strategies that could contribute to develop and improve global health pedagogy in Linköping.

Podcasts and movies as teaching tools

The use of digital resources is already widespread among the young generations of students, which simplify its implementation.⁶ It has been previously shown that blending videos with more traditional teaching moments increases students’ knowledge and competence⁷, and extracurricular online
resources can be considered handy and cost-effective learning tools, as complement to lectures and seminars. Furthermore, the Covid-19 pandemic has certainly contributed to spread the use of podcasts for pedagogy, worldwide. However, as observed in Nigeria, lecturers can be skeptical regarding the “ability of podcast towards enhancing classroom pedagogy and boosting students' academic performance”. Furthermore, as previously pointed by Wiplfli et al., it is challenging to develop new educational curricula that include digital media technologies, and “requires extraordinary effort from faculty not traditionally awarded for such work”. A viable way to overcome the skepticism of the most traditional among educators is to systematize search and choice of podcasts, to verify their quality level. To the best of our knowledge, there are no academic guidelines that can help during the selection process of podcast as teaching materials, and no database with peer reviewed digital resources. In order to select online content with quality evidence, Lin et al. propose to nominate an editorial board that includes experts in the academic field of interest, to monthly identify blog/podcast of high-quality, scoring content accuracy, educational utility, evidence-based medicine, and referencing. I appreciate Lin’s proposal and retain that it could be implemented at national level by choosing members of the editorial board among global health educators at the Swedish Universities that offer this type of curriculum. A national board could guarantee a minimum standard level of the digital resources used for global health pedagogy in Sweden, minimize local bias in the selection of the sources, facilitate exchanges among departments, and the feasibility of the process.

The use of movies in medical teaching precedes historically that of podcasts. The innovative concept of “cinemeducation”, as fusion of the words cinema and medical education, was invented in 1994 by Alexander, who claimed that the view of selected movies could capture students’ attention, engaging them intellectually and remaining as pictorial imprint in their memory. Indeed, as explained by Blasco et al., “in the clinical setting, the life histories of patients are a powerful resource in teaching. Similarly, when the goal is promoting reflection that includes both cognitive and emotional components, life histories derived from the movies are well matched with the student desires and expectations”. In teaching psychiatry as example, movies have been used as didactic complement to explain a range psychiatric diagnosis, such as “Beautiful mind” (2001) for schizophrenia, and “Rainman” (1988) for autism. In more recent years, Baños et al. listed some practical advice for using movies in medical education, such as warning that students can mistake this form of teaching with entertainment. He therefore proposes “treating film sessions like any other, traditional teaching activity”, defining a priori educational goals and pre-selecting few questions for the discussion. He also recommends avoiding box office hits that have probably already been seen, preferring lesser known films that can stimulate curiosity and attention among students, not limiting the search in the English language. He suggested searching for movies appropriate for the defined objectives among the existing film archives for medical education. Finally, he suggests educators watching the movie before
to propose it for students and to select one that is not too long and complex because it might confuse them instead of helping them.

We sympathize with the concept of “cinemeducation” and would like to introduce it among the teaching instruments of the curriculum in Global Health. We believe that the careful selection process of movies, as described by Baños, could help to use films as complementary and convenient teaching instrument to those traditional, stimulating the discussion.

However, implementing new teaching tools simultaneously in several universities is doubtless challenging because of logistical and organizational differences. Furthermore, although the proposal seems reasonable, the readiness to implement it on a large scale depends on resource availability and on effectiveness of the strategy to be implemented. For these reasons, a pilot-project at one university would be necessary to test feasibility and effectiveness of new didactic instruments.

My proposal to implement the use of podcasts as teaching tools at the Global Health Program for medical Students at Linköping University

I suggest using podcasts as complementary material to deepen themes covered during the course and to stimulate critic discussion, since they have frequently a simpler narrative than scientific articles and they can analyze aspects of a topic from a different point of view than those faced by academical lectures. I propose to include the selection of podcasts suitable as course material among the course assignments. Since there are no peer-reviewed podcasts and their scientific evidence is unverified, the students must receive precise instructions on how to do the research and dedicated time for doing that.

<table>
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<th>Course assignment A</th>
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<td><strong>Goal:</strong> Selection of one podcast that will be discussed by the students in the last course week.</td>
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<td><strong>Choice of the topic:</strong> During the weeks prior to the course, the faculty will choose a topic based on its relevance for the purpose of the course and inform the student about the topic in the first course week. Examples of topics could be inequity in health care, global burden of diseases, neo-colonialism in research.</td>
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<td><strong>Selection process, groupwork:</strong> Students will be divided in groups of 3 to 5 (dependently on the number of course participants). Each group will search for podcasts fitting the topic of interest and score them, on a 5-points Likert scale, according to following criteria:</td>
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<td>- Content: Relevance for the topic to investigate</td>
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<td>- Impact: Improvement of in-depth knowledge of the topic</td>
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<td>- Accuracy: Verifiable correctness of claims</td>
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<tr>
<td>- Structure: Clarity of the presentation, appropriateness of the language</td>
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<td>- Significance: Generalizability of claims</td>
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The podcast that obtains the highest score within a group, will be reviewed by faculty members and, if it will be considered adequate, it will be proposed for the other students, during the second week.

**Selection process, individual work:** Each student will listen to all podcasts selected by the groups and score them, as above. The podcast with the highest score will be item of discussion during the fourth week.

**Discussion:** Faculty members will moderate the discussion on the items covered by the podcast, using the criteria listed above as a guide.

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**Active discussion and passive learning**

I agree with Berić-Stojšić et al., that global health education benefits from combining experiential and active learning with critical reflection. In my opinion, these components (active learning, experience and reflection) should be balanced without reflective moments completely overriding the theoretical learning, which provides students with the necessary skills to understand effects on health of environmental factors, pathogens agents, technologies, or financing. In fact, just as teaching global health requires specific competence, arguing upon this field in a scientific and meaningful way requires knowledge of background theories and facts, otherwise there is a risk that exchange of opinions during workshops would be led by feelings and clichés, rather than by evidence. In fact, it has been recently shown that, although the learning experience among global health students was positively affected by class discussion, the participation in class discussion was not correlated with their academic achievement. The question is which global health topics should medical students be taught in an elective four-week course as the topic is transdisciplinary, encompassing legal, economic, social and cultural aspects, as well as medical ones. Heveman et al. interviewed in-depth German Global Health educators to investigate their teaching approaches. One of the interviewees emphasized that “Global Health is a topic for the whole (medical) curriculum, and it is as cross-sectional as anatomy or physiology”. Another interviewee proposed “to bring global aspects into basically every clinical subject” to provide future physicians with the tools necessary to face the challenging of globalization on their medical duty. In fact, in a world where the population is constantly growing and mass migrations are recurrent, global health issues are not confined by geographical locations, but transcends nations’ borders. Houpt et al. facilitated the work of pedagogues, proposing three domains that should be covered by medical education curricula in high resource settings in order to provide competence needed to improve global health: global burden of disease, traveler’s medicine, and immigrant health. Although there is no consensus on how to teach global health in medical schools, the topics proposed by Houpt et al. have an indisputable place in the curriculum, together with the study of healthcare disparities among countries and tools to better face different cultures and healthcare systems.
My proposal on topics to be taught to facilitate a discussion based on scientific evidence at the Global Health Program for medical Students at Linköping University

I suggest including, as reading material the latest overview of the global burden of diseases and injuries\textsuperscript{21} and that of the Nordic countries\textsuperscript{22}, to get an overview of the current state of health in the world and to compare it to that of the North, identifying similarities and differences.

To limit the teaching lessons without diminishing the learning opportunities, I propose to include among the course assignments a brief scoping review focusing on topics of interest in Global health.

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**Course assignment B**

**Goal:** A group of 3-4 students will work together on an essay to provide an overview of the available research evidence on one topic, aiming to fill knowledge gaps.

**Choice of topics:** The course faculty will propose three topics that were not covered or just partially covered by the course during the first course week. Examples of topics are access to health care for immigrants in the western world, or health care provision in refugees’ camps. Each group of students will choose one among the proposed topics.

**Assignment outline:** Minimum number of words= 900. References= min 6, max 10. Language of the essay= English or Swedish. The scoping review will include following sections:

- Title: short and descriptive.
- Introduction: Background information with distinct research questions and a well-defined aim.
- Method: Explanation on how the papers included in the review were selected, with inclusion and exclusion criteria, and how the analysis was done.
- Results: One Figure that illustrates the selection of the papers. Presentation of findings.
- Discussion: Concise summary and critical discussion of main findings in the context of published literature. Interpretation of the findings. The limitations of the essay should be acknowledged, and future directions should be discussed in Conclusion, based on the findings of the scoping review.

Each student in a group must actively participate to the selection process of the papers, must read the selected papers, and contribute to the draft of the essay.

**Evaluation:** The students will present their essay for the entire course during the last week, as a separate didactic moment, followed by discussion led by faculty members. The course faculty will proofread and review the essays after the end of the course and give feedback to the students within three weeks from the end of the course. The students have further 3 weeks to make the opportune changes for passing the course.

Conclusions
• The implementation of innovative teaching tools, such as podcast, is feasible without diminishing the academic validity of the course, giving that the process of selecting material is rigorous and systematic, like any search for references in literature.

• To sustain evidence-based discussion it is fundamental to select appropriate course literature that provide current knowledge on the subject.

• Scoping review on selected topics can contribute to deepen knowledge of topics that are otherwise not covered, or only marginally by the lectures.
References