Application Details

FY18 Innovations in Teaching With Technology Awards: Application Review

Application Title: Enhancing Public Health Training through Real-Time, International, Collaborative Education using a Health Equity approach

What do you intend to do?:

In 2008, the World Health Organization's Commission on the Social Determinants of Health (SDH)1 noted "social injustice is killing people on a grand scale." The report provided clear evidence that conditions of daily life – where people are born, live, work, and play - are creating health inequities among populations living in the same country, and those living in different countries. These conditions are shaped by local and global power and politics. Health inequities are disparities between groups of people that are not based on biology, and therefore are considered to be unfair and unjust, and preventable. As an example, the infant mortality rate (IMR), or the number of children who die by the age of 5 years, is 2.4 per 1,000 live births in Iceland to 152.5 per 1,000 live births in Guinea-Bissau2. And within the USA, the IMR for African American infants is 14.3 per 1,000 live births versus 5.7 per 1,000 live births

for white infants.3 Since the seminal report on the SDH, the evidence around the social determinants of health and social determinants of equity has grown. Yet, the evidence has not led to effective action; the scope of inequity continues to increase globally. The Lancet Commission on the 'political origins of health inequity' confirmed, "The norms, policies, and practices that arise from global political interaction across all sectors that affect health are what we call global political determinants of health."4

The Lancet Commission report on "Health professionals for a new century: transforming education to strengthen health systems in an interdependent world" 5 has clearly stated that health professions education has not evolved enough over the last 100 years to tackle the complex and intractable issues that affect our local and global societies today. The report calls for a shift from informative learning to transformative learning. A theory of transformational learning points to the importance of changing frames of reference through a disorienting experience, critical reflection, and a supportive social context that facilitates critical discourse. A more recent review of the evidence around transformative learning states: "One of the most powerful tools for fostering transformative learning is providing students with learning experiences that are direct, personally engaging and stimulate reflection upon experience."6

Photovoice is a technique that combines transformative learning principles with the objective of enhanced consciousness to injustice and inequities7. Drawing on qualitative and community-engagement practices, photovoice is an image-elicitation and groups dialogue technique that is used to deepen understanding of issues and concerns. It is unique among image-elicitation techniques in that all the images are participant generated. In effect, the photographs document the participants' lived experience of a chosen theme/issue. The photographs are

then subjected to an iterative and inductive group analytic process that generates further insights about the theme. Using the SHOWED process8, participants work their way from a concrete discussion of photos to an abstract discussion of how the underlying concept in the photo applies to the photo assignment. Photovoice has been used across ages, countries, and various demographics to engage participants in in-depth conversations about complex issues of health, social justice, and inequity. Photovoice is highly congruent with empowerment activities and is often lauded as a way to give voice to marginalized groups. Our proposed global photo-voice project is expected to provide the transformative learning experience described above by contrasting the various ways that health inequities are experienced, and the meanings of those experiences, across multiple continents and cultural contexts.

We live in an increasingly globally connected world. Conditions and situations in one continent can affect conditions in another. Decisions taken in one country can severely affect other countries. Global economics, politics, war, trade, health affect everyone to a greater or lesser extent. This is perhaps most recently evident by the flow of Syrian migrants across their borders in neighboring countries and across the Atlantic; and in the Recent Ebola outbreak. A recent seminar at the College of Public Health indicated other aspects of this interconnection. Photo journalist Sean Gallagher highlighted the interactions between consumerism in rich countries of the Global North and environmental and work conditions in countries of the Global South9. And more locally, it is evident in efforts to establish the US-Mexico border wall and to repeal the Deferred Action for Childhood Arrivals (DACA) program. However, these global determinants are insidious and also affect areas less obviously. For example, farmers in rural Iowa are clearly affected by decisions about global trade, such as the North American Free Trade Agreement10.

Advocacy and action around issues of inequity are not possible without a deep understanding of the origins of these conditions, and the interconnectedness of human beings in their hopes, dreams, and plights. In an increasingly interconnected world, technology can enhance the environment for transformative education.11 Various platforms have been used to connect people and ideas. Our aim is thus to connect public health and other social science students across the globe in a critical discussion of social and structural determinants of health equity. We envision that schools of public health or health sciences at five academic institutions globally will enroll 10-15 students in an independent study. Each site will also have a faculty mentor. The students and faculty mentors will meet virtually in 'real time' around a set of readings which will establish the common base of understanding of health inequities, social and structural determinants of equity and health, and historical injustices in each site. This will be followed by the development of a common photovoice project to highlight common and differing inequities and their impact on wellbeing. The course will be open to upper level undergraduate students and graduate students.

The pedagogical challenge becomes to enhance understanding of the interconnectedness of experiences of and outcomes of inequity globally. The significance of this challenge lies in its

transformative learning potential and power, and once achieved, the ability of the students to advocate for and envision a world where equity and justice are possible.

The innovative application of technology in this case is the synergistic interaction of various technological platforms to enhance the transformative learning potential of this independent study. We intend to utilize platforms such as:

· ICON as a course management software connecting students into the physical "course" and allowing a space for discussion.

· Skype or Zoom to connect the team of learners together. We are leaning towards using skype as they have recently added a simultaneous translation option in 10 languages. We would like to test the effectiveness of this transition tool during this 'proof of concept' phase. · Flipgrid (https://info.flipgrid.com/): This app is mainly video based, allowing students to post

videos and then reply to each other with videos. · Harmonize: https://www.eduappcenter.com/apps/577: an image-based discussion forum, which would allow the uploading of pictures and commenting on them. · Microsoft Sway: https://sway.com/ - also an image manager · Microsoft Stream: https://stream.microsoft.com/en-us/ or equivalent to manage video streaming · Whatsapp: https://www.whatsapp.com/ a phone application that allows free calling, and individual and group messaging

· Blogging

· Others as we continue to explore options to enhance the educational experience and achievement of student learning objectives.

Decisions regarding which of the above to use will be made in coordination with the SITA and advanced IT staff (see more below).

In terms of a timeline, if awarded this grant

Spring AY 2017-2018

· Begin working with the SITA and IT staff and our partners to explore the combination of technology needed to support the objectives of students learning and a smooth student experience.

· In coordination/collaboration with our colleagues at partner institutions, finalize the course description, syllabus, and requirement.

· Advertise the course to students at all sites

Summer AY 2017-2018

· Develop the evaluation tools to measure student learning and the student experience

Fall AY 2018-2019

· Hire the GRA

Implement the course

· Evaluate the course

· Draw lessons learned in terms of best combination of technology to achieve our objective in a seamless experience

This will complete the work for this current proposal. However, it this project achieves its objectives, we hope to expand it beyond the CPH to other colleges at the University, and beyond our 4 current partners to others around the world. In order to do so, we would work to enhance the technology aspect based on lessons learned from this 'proof of concept' phase, and perhaps fully develop an app for the broader

aim of this project. As a result, we may apply again to this award in Fall 2018-2019 for the follow-up plan.

How will it improve student learning?:

What is the objective of this project: In short, our aim is to leverage technology to create a platform to connect public health students across continents, thereby providing novel perspectives and deepening discussions of health equity.

The specific learning objectives are:

· Describe systems of privilege and oppression

· Compare similarities and differences around issues of equity and social justice globally

· Demonstrate enhanced cultural humility

· Discuss social, structural, and political aspects of inequity

· Design case studies of inequities as a learning tool

· Explain our individual roles in preventing oppressive systems

The project is at its core a participatory engagement project. The course will be open to students who are interested, and will not be a required course. Even for the more 'didactic' early part of the course where readings will be discussed, we will used participatory techniques of team-based learning. Photovoice, which will take up the majority of the course time, is a community (here meaning students) based participatory method where students choose to take photographs of significance (here to social justice and equity) and share them and

discuss them with their peers. This process of sharing and reflection has transformative potential. In addition, the communication of the students across borders using various technological media will enhance the participatory engaged nature of this course. These technologies are comfortable to most of this generation of students, and we anticipate they will innovate in use of these platforms to enhance their and their fellow students' experience.

The achievement of course objectives will be measured directly through course assignments, such as reflections, short papers, and the photovoice projects. We will also measure perceived confidence of students in understanding of concepts such as justice and equity, and their determinants, and perceived power to change conditions through advocacy or other intervention. In addition, the impact of technology on that learning will be measured using mostly qualitative tools – either interviews or focus groups. Our intent is to gather in depth information on which technological platforms or tools were most useful and effective in connecting across continents, and in achieving session and course goals.

What resources will you need?:

This project is built on existing values, commitment and infrastructure. In particular, the Department of Community and Behavioral Health is committed to advancing social justice and equity, and many of its faculty members engage in research, practice, and teaching of these concepts through community-participatory efforts. More specifically, the department has established a Health Equity Advancement Lab (HEAL); a research lab that serves as a think tank for the faculty and students involved to ensure that health equity principles are followed and incorporated within the research they conduct at the University. HEAL trains students on foundational principles such as capacity building, sustainability, cultural humility, reciprocity & accountability, social justice, community-engaged research, and systems thinking. Involved students range from undergraduate to doctoral students and come from many

different disciplines and backgrounds. HEAL faculty will give their time to this project as part of their teaching loads.

The project also builds on the commitment of our partner institutions to concepts of social justice and equity. At each site, a faculty member has agreed to mentor students at their site, and engage together with us in co-learning around health equity. Their time is provided as part of their teaching loads at their own institutions or through some other mechanism (voluntary) but is not reimbursed.

We are considering this phase as a proof of concept period. With this in mind, we have

selected global partners whom we know well from previous joint project, who have the capacity (band width and equipment) to connect virtually, and who can use English as the primary language of interaction. On board – in addition to the Department of Community and Behavioral Health of the College of Public Health University of Iowa are:

· The Faculty of Health Sciences, American University of Beirut, Lebanon

· The James P Grant School of Public Health, BRAC University, Dhaka, Bangladesh

· College of Health Sciences, School of Public Health, Universidad San Francisco de Quito, Ecuador

· The School of Nursing, University of Victoria, British Columbia

However, we do anticipate that this 'course' will take some coordination across the various global sites and time zones. Therefore, we are requesting the support of a Graduate Teaching Assistant for 20 hours / week. The TA would manage the various tools, and people to facilitate smooth and effective interactions.

Most of the technological tools proposed in the first section are already available at the University of Iowa; therefore, no extra funds are needed for purchase of these platforms. As described earlier, the innovation lies in their combination for the best student learning experience. To facilitate this process, we will need the support of the Student Instructional Technology Assistant (SITA) of the Office of Teaching, Learning & Technology, ITS Campus Technology Services to help us choose which tools most meet our needs. In addition, we are requesting the support of more advanced IT staff to explore the integration and configuration of an 'application' that may make the student experience more seamless than the various separate platforms can. We do see this phase as a proof of concept phase, and therefore intend to learn about the most effective and user-friendly combination of tools to achieve the goals. The presence of an advanced IT staff during this phase will support that objectives and ensure that lessons learned are incorporated into the next phase – with potential development of a full 'application.'

We also hope to connect with other resources at the University of Iowa including the digital humanities initiative

What is your rough estimate of costs?:
Budget item Cost Justification

Graduate Teaching Assistant $ 16,749 20 hours / week of a graduate teaching assistant to

manage and support/run the course technology

SITA and Project Manager $ 5,000 To assist with Technology Evaluation of existing tools. This would include work that might involve licensing, training, purchasing, etc

Application Integration and Configuration $ 10,000 To support some application development and support that involves integration and configuration with ICON and 3rd party software

Qualitative data analysis $ 480 We will be taping some of the sessions where the decisions making about the theme of the photovoice projects takes place, as well as the analysis of photographs takes place. We will then be transcribing these sessions. This cost is for the transcription (assumes 8 hours of tape, each hour takes 3 hours to transcribe, @$20/hour for transcription).

Misc.

communication $ 2,000 Skype costs if needed (to connect to international partners or for the translation services) or other communication costs

TOTAL $34,229
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