

THE CHINESE UNIVERSITY OF HONG KONG

Micro-Module Courseware Development Grant

Scheme 3: eLearning Pedagogy Research

Interim Report (2015-16)

Report due 31 July 2016.

Please return by email to mmcd@cuhk.edu.hk

PART I

Project title: Evaluation of the Effectiveness Of e-Learning Modules in the Bioethics Curriculum in MBChB Programme: Knowledge Enhancement and Long-Term Impact in Clinical Practice

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Department / Unit: JC School of Public Health and Primary Care / CUHK Centre for Bioethics

Project duration: From February 2016 to January 2017

Date report submitted: 31 July 2016

PART II

1. Project objectives

Is the project on track to meet its objectives?

Have the objectives been changed as a result of the experience of working on your MMCDG project?

The goal of the project is to evaluate the newly launched blended e-learning modules of CUHK-Columbia bioethics curriculum. The specific objectives of the evaluation project to be achieved by the mid-term are to (1) develop measures and finalise the evaluation survey questionnaire and (2) pilot test the survey among the first cohort of MBChB students enrolled in the course. By the end of July, we have successfully accomplished the two proposed objectives. The psychometric properties of the measures were examined. The preliminary results of the pilot survey were used for refinement and validation. Thus, in response to the queries, our project is on track to meet the objectives. The objectives have not changed.

2. Progress on process, outcomes or deliverables

What have been accomplished so far?

Have any obstacles been encountered and what are the remaining tasks to be finished?

Is the project still on time for completion (which includes preparation of the final report) on or before the grant expiry date?

Provide a listing of project outputs to date.

Blended e-Learning Course. While conducting this evaluation study, the faculty members at Columbia University and CUHK developed the materials for the blended e-learning course materials and in-classroom tutorials. The courseware consists of seven modules, where each module of the course spans two weeks, consisting of various pedagogical methods including

asynchronous e-learning and online group discussion (week 1) and in-class lecture and group discussion (week 2). Students are expected to watch the online video and do the readings before attending the in-classroom lecture, tutorial, and discussion. Sample courseware video could be found on the link of: <https://youtu.be/825WmWWtiVc>. The courseware was successfully delivered in the academic year of 2015-16.

Pilot Evaluation Survey. At the end of the course, we conducted a pilot evaluation survey including measures of assessing attitudes towards the courseware among 56 students enrolled in the class. The measures were reliable in the sample (Cronbach alpha=.97). About half (46%) were males; 64% were Year 1 students; and 77% had not taken any class related to Bioethics prior to the course.

Figure shows the respondent students' attitude towards bioethics e-learning courseware. The majority found the content of e-learning content was easy to understand (79%), and the quality was appropriate (64%). Over 70% students found bioethics e-learning courseware helpful in acquiring more knowledge in bioethics (79%) and supportive in online learning (77%). The courseware helped improve critical thinking (70%) and problem-solving skills (68%). Importantly the students valued flexibility account of integrating e-learning platform in the schedule (75%) and exploring knowledge initiatives (73%). About 20% students found it difficult to discuss the assignment with peers actively.

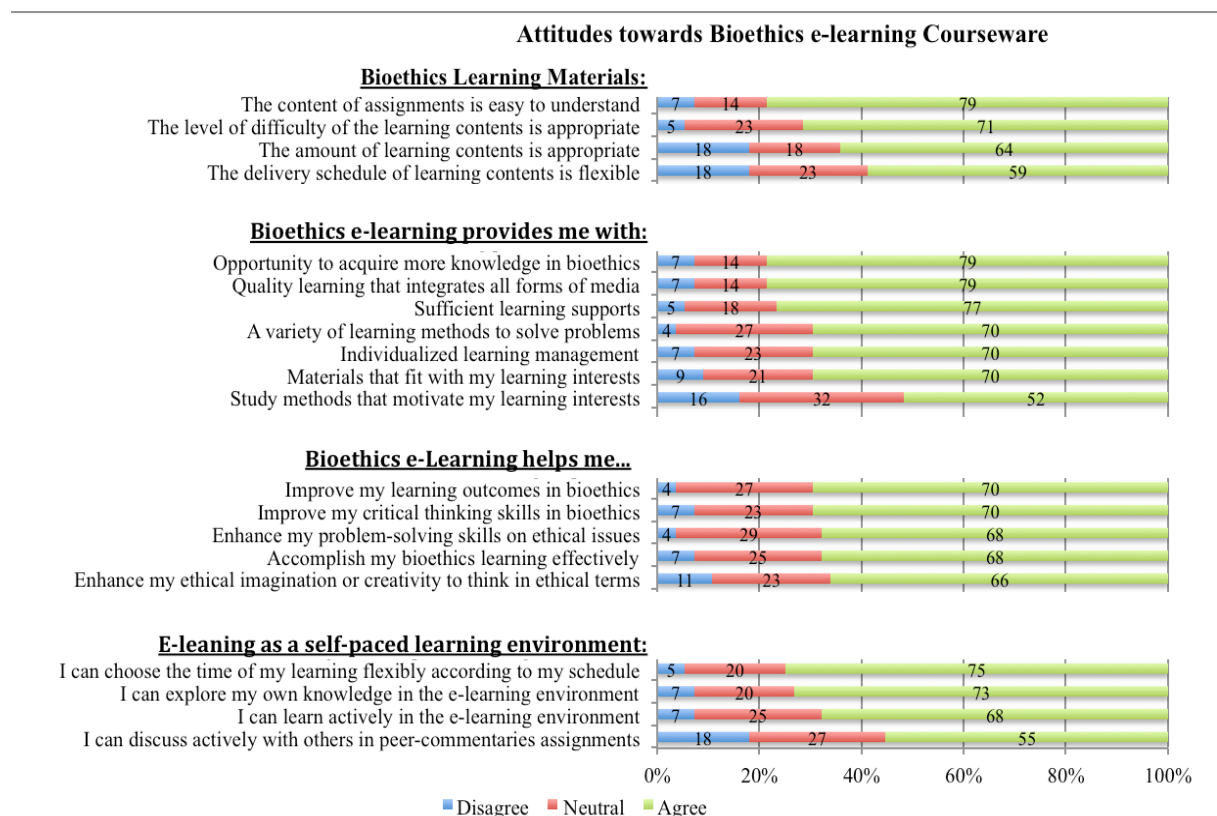


Figure 1 Attitudes towards Bioethics e-Learning Courseware

Focus Group Evaluation. Preliminary findings helped inform the development of sample questions for focus group. Table shows sample questions in exploring unmet needs of courseware that assist students in learning Bioethics.

- What do you think of the course? (Probe: in-person teaching; e-learning courseware)
- Have you encountered any difficulties in using the courseware?
- Did the courseware provide you sufficient learning material to complete the assignment?

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- In addition to the courseware, where do you get new information?
 - How do you find the learning experience incorporating e-Learning courseware in addition to in-person lecture?
 - What, if any, impact has the use of information technology had on your self-learning? (Probe: Motivated? Engaging? Helpful?)
 - How did you feel about the course to the extent enhancing your interest in bioethics?
 - What suggestions would you like to give to improve your learning experience make the courseware better?
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Obstacle. Originally, we planned to conduct focus group evaluation among MBChB students in summer time. However, due to MBChB curriculum schedules and summer activities, we were not able to conduct focus group. We will conduct focus group evaluations at the end of the fall semester. The following is the sample questions we designed for focus group evaluation.

3. Evaluation Plan

Have you altered your evaluation plans?

Does your evaluation indicate that you have achieved your objectives?

The project is currently implemented as planned. No plan is altered. The main evaluation phase will be conducted in the fall term among three cohort students: (1) Year 1: newly admitted students with no exposure to the e-learning module; (2) Year 2: exposed to the e-learning module in the past term; and (3) Year 3: no exposure to the e-learning module but exposed to traditionally taught bioethics. The project will be completed on time and achieve the proposed objectives.

4. Dissemination Activities (reports, websites, video links, products, etc.)

Provide a listing of dissemination activities to date.

We gave a poster presentation about our blended e-learning course of bioethics and the conceptual framework of our evaluations study at the 13th World Congress of Bioethics, held by the International Association of Bioethics on June 2016 Edinburgh, United Kingdom (see Figure 2). The presentation was entitled as “Blended e-Learning Bioethics Curriculum in Undergraduate Medicine in Hong Kong: Pedagogical Considerations and Challenges.” We enclosed the poster presentation in this report.



Blended e-Learning Bioethics Curriculum in Undergraduate Medicine (MBChB) Programme in Hong Kong: Pedagogical Considerations and Challenges



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Background

Bioethics is an essential component of medical education; it trains doctors to be committed to patients' welfare and provides them with a tool of how to deal with complexity and uncertainty in every-day clinical practices. Bioethics curriculum covers a wide range of ethical issues in biomedical sciences, clinical practices, medical professionalism, public health, and law and policy. With bioethics as a tool, students and clinicians are able to address ethical problems in everyday practice.

Blended e-Learning Bioethics Curriculum in MBChB Programme

- A structured, six-unit course with one unit corresponding to each of the six years for the MBChB programme at the Chinese University of Hong Kong (CUHK) in collaboration with MS in Bioethics Programme, Columbia University of New York City.
- Each course has 7 modules; 1 module consists of 2 weeks: e-learning (week 1) and classroom learning (week 2)
- Week 1 - Students engage in the following learning activities: reading → online lesson by Columbia faculty → online discussion among students facilitated by CUHK and Columbia tutors → selected students' online post of response to the case of ethical dilemma presented → all students' online reaction commentary to the written response
- Week 2 - Students attend the class additional short lectures of reviewing online lecture and current news of bioethics issues delivered by the lecturer and group discussion by tutors, who are lecturers and/or previously taught bioethics at CUHK
- In addition to reading and lecture, collaborative learning among classmates is emphasised.
- Each module consists of case-based discussion in the context of local and global biomedical science and medical practice.

Overview of Curriculum

Year	Course	Module
Pre-Clinical Year 1-3	<ul style="list-style-type: none"> • Historical and Philosophical Foundations • Critical Thinking and Tools of Ethical Analysis • Research Ethics 	<ul style="list-style-type: none"> • Foundational theories, concepts, and historical developments in bioethics • Introduction of philosophical thoughts in ethics • Introduction of medical and public health ethical principles • Ethical questions and conflicts that arise in biomedical research • Critical thinking skills for analysing and reconciling thorny ethical questions
Clinical Year 4-6	<ul style="list-style-type: none"> • Ethics, Medical Innovation, Emerging Biotechnologies • Healthcare Delivery and Policy, Doctor-Patient Relationship and Medical Professionalism • Clinical Ethics and Decisions at the Bedside 	<ul style="list-style-type: none"> • Genesis and potential resolution of ethical issues arising from the system of healthcare delivery • Ethical issues at the frontiers of biotechnologies and innovations and ethical issues surrounding commercial aspects of the biotechnology industry • Clinical ethics arising at the bedside: doctor-patient relationships; autonomy norm; patient capacity, refusal, surrogate decisions and advance care planning; withholding and withdrawal of life-saving technologies and medical futility; decision-making at end-of-life care; moral courage, and legal and ethical tools for confronting and resolving tensions.

Lessons Learned / Challenges to Be Addressed

- Providing quality bioethics education is challenging due to lack of time in medical curricula, qualified teachers, coordinated multidisciplinary scholarship, standardised assessment, and evaluation of the effectiveness of knowledge transfer in practice.
 - Bioethics also requires an innovative pedagogy to stimulate medical students' interest in learning moral reasoning.
 - Our curriculum utilises bioethics experts overseas to provide students with adaptive and collaborative learning. It expands the university's limited academic in bioethics teaching and research.
 - Yet, the reconstruction and decentralization of "western-centred" bioethics paradigm in the local context is needed
 - We are conducting an evaluation study of the effectiveness of the curriculum: (1) focus group discussion with students and tutors; (2) a longitudinal cohort study to assess knowledge and attitudes of bioethics, moral competency, ethical reasoning in clinical practices throughout 6 year course using standardised measures.
- * Study findings will be reported in future meetings of bioethics.

Acknowledgments / Contact

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