THE CHINESE UNIVERSITY OF HONG KONG

Final Report

for Projects Funded by
Teaching Development and Language Enhancement Grant for 2016-19 Triennium

PART I: Summary of project

1. Title: Scenario-based eLearning module for Inter-Professional Ethics Education

2. Name(s) of project supervisor(s) and unit(s) involved:

	Name	Post	Unit/ Department
Principal Supervisor(s)	Carmen W. H. Chan	Professor	Nursing
Co-supervisor(s):	Gigi Cheuk Chi Ling Ka Ming Chow	Professional Consultant Assistant Professor	Nursing

3. Project Duration: from __1 September 2018__ to _28 June 2019__

4. Theme/ Category of the project:

(a)

	Global Citizenship and Social Enterprisingness		Innovation and Design	x	Internationalization at Home		Others (please specify)

For projects that have indicated the themes, please refer to the themes stated in the original proposals, and specify if there is any change. If no themes have been indicated before, please do so now if applicable.

(b)

	academic advising		assessment		curriculum design	
✔	eLearning (including multimedia learning, technology-enhanced learning)		experiential learning		general education	
	language education		outcomes-based approach (OBA)		pedagogy	
✔	professional development		quality assurance	✔	student learning and experience	
	survey research and evaluation	x	teaching and learning activities		Others (please specify)	

Please refer to the categories stated in the original proposals, and specify if there is any change. If no categories have been indicated before, please do so now if applicable, and select up to three in the order of relevancy.

5. Project objectives:

- summary of original project objectives and changes to it, if any (in one paragraph)

This project aimed to examine the effects of a scenario based eLearning module for inter-professional ethics education on ethical issues, communication and collaboration skills, and positive learning experiences of undergraduate students from health-related disciplines.

6. Activities, processes and outcomes:

A non-randomised control group pretest-posttest design was adopted. Convenience sampling was used to recruit undergraduate students from the Faculty of Medicine. 34 participants in the intervention group received scenario base eLearning module for inter-professional ethics education for three weeks while 83 participants in the control group received the plain-text eLearning materials only.

For the intervention group, students was assigned into group of 4-5 for small group discussion on the online platform. After viewing the scenario-based video clips, students were expected to discuss ideas and thoughts within their group and then summarize and post their ideas on online discussion platform, with at least one posting per scenario. They were expected to share ideas and viewpoints from the perspective of their own discipline, and then come up with a consensus of an approach to handle the ethical dilemma. Each group should then read and comment on another group's idea.

For the control group, 83 students were given the plain-text scenarios and discussion questions for self-study during the designated access period. Students then posted their ideas and thoughts on the online discussion platform with at least one posting per scenario but they were not expected to form discussion group.

Upon completion of the scenario-based eLearning module, students would be able to (1) be familiar with medical ethical issues in day-to-day practice, (2) examine common ethical dilemmas within the context of healthcare practice, (3) identify different approaches to ethical decision-making, (4) apply ethical principles and theories in analysing the dilemmas, and (5) demonstrate effective communication and collaboration skills in an inter-professional team.

7. Deliverables: (please provide details here and fill in the summary statistics in the tables in Part IV)

- measurement of deliverables/ outcomes **against the key performance indicators**

- **accomplishment of project objectives, University Themes, institutional strategic plan and priorities/goals**

The evaluation plan included the use of (1) pre-test and post-test of self-administered validated instruments measuring inter-professional communication and collaboration skills and positive learning experiences; (2) post-test only: direct observation measuring students' understanding of ethical issues, and (3) post-test only: user statistics.

Inter-professional communication and collaboration were measured by a 5-point Likert scale of 30-item TeamSTEPPS Teamwork Attitudes Questionnaire (T-TAQ), which covers five aspects: (1) team structure, (2) leadership, (3) situation monitoring, (4) mutual support, and (5) communication. Its high reliability (Cronbach $\alpha \geq 0.7$) and good construct independence (coefficient ranged from 0.36-0.63 between constructs) were established in healthcare organisation (Baker et al, 2010).

Positive learning experiences were measured by a 35-item student engagement questionnaire focusing on eight subscales of capability including (1) critical thinking, (2) creative thinking, (3) self-managed learning, (4) adaptability, (5) problem solving, (6) communication skills, (7) interpersonal skills and groupwork, and (8) computer literacy, and nine subscales of teaching and learning environment including (1) active learning, (2) teaching for understanding, (3) feedback to assist learning, (4) assessment, (5) relationship between teachers and students, (6) workload, (7) relationship with other students, (8) cooperative learning, and (9) coherence of curriculum. It had good psychometric properties in Hong Kong undergraduate students (Kember & Leung, 2009).

Only 23 students in intervention group and 55 students in the control group completed the intervention and post intervention questionnaires. By T-TAQ, the result showed a positive effect on overall inter-professional communication and collaboration skills in the intervention group after the intervention ($p<0.05$). Regarding to the positive learning experiences, there was a significant improvement in creative thinking among students in the intervention group after the intervention ($p<0.05$). The improvement was also significant when compared with the control group ($p<0.05$).

Direct observation were conducted by observing the discussion among intervention groups and control group on the online discussion platform. Students posted their ideas and thoughts actively on the online discussion forum, however, the observed interactions and discussion between students were low in both intervention and control groups. The number of posts in the intervention group (3.7 ± 2.5) was higher than that of control group (3.0 ± 0.5).

8. **Evaluation and Reflection:**
- summary of original evaluation plan and changes to it, if any
- **reflection**:

All the scheduled activities had been carried out as planned. In future, students from other institutions could be recruited in order to promote collaboration among students in the online discussion platform.

9. Dissemination/Diffusion and Sharing of good practices:

The teaching materials can be reused for the same courses in the future. An oral presentation was conducted in 2019 March Global Conference on Education with the following reference:

Chan, C. W. H., Ling G, Chow, K. M., Wong, M. M. H. (2019). *A scenario-based interactive eLearning module (SIEM) for interdisciplinary ethics education. 2019 March Global Conference on Education*, 28-29 March, 2019, Riverside, USA.

PART II: Lessons learnt from the project

In order to implement the project, the IT support staff were important to provide assistance on video shooting during the development of the eLeaning materials. It is important for the actors and actresses to be familiar with the content of the scenario so that the messages of the education content can be delivered accurately to facilitate learning of the students. After the project, the teaching materials can be reused for the same courses in the future. The approach of scenario-based eLearning can be expanded to other courses, with the teaching staff acting as ambassadors to present the teaching philosophy and changing process to staff in nursing and other programmes of the university.

PART III: Financial data*

(a) Funds awarded from TDLEG: $ _____

(b) Total expenditure: $ _____

(c) Surplus/ deficit (i.e. (a) – (b)) $ _____

In the case of deficit, please specify other
source(s) and amount of funding secured $ _____
(please specify_____)

* *Please attach the <u>final</u> financial statement of your project as provided by the Finance Office and make sure that the amount listed above tallies with the relevant information as included in the financial statement.*

PART IV: Information for public access

Brief write-ups of individual projects (should be submitted as a separate document, which will be attached to the University's Final Report for submission to the UGC) and other information under Part IV of this report will be uploaded to a publicly accessible CUHK TDLEG website.

1. Keywords

Please provide five keywords (in order of relevance to your project) to describe your project.

(Most relevant)   Keyword 1: Scenario-based learning

Keyword 2: eLearning

Keyword 3: Ethics education

Keyword 4: Inter-professional education

(Least relevant)   Keyword 5: Healthcare education

2. Summary statistics

Table 1: Publicly accessible online resources (if any)
(a) **Project website:**
If a publicly accessible project website has been constructed, please provide the URL
(b) **Webpage(s):**
If information of your project is summarized in a webpage (say a page in the department's or faculty's website), please provide the URL(s) in here
(c) **Others (please specify):**

Table 2: Resource accessible to a target group of students (if any)
If resources (e.g. software) have been developed for a target group of students (e.g. in a course, in a department) to gain access through specific platforms (e.g. CU Learning Management System (Blackboard), facebook), please specify.

Course Code/ Target Students	Term & Year of offering	Approximate No. of students	Platform
NURS3145 - Ethical and legal issues in Nursing The Nethersole School of Nursing	*Term 1 year 3*	*200*	*Blackboard*

Table 3: Presentation (if any)	
Please classify each of the (oral/poster) presentations into one and only one of the following categories	**Number**
(a) In workshop/retreat within your unit (e.g. department, faculty)	*Please insert no*
(a) In workshop/retreat organized for CUHK teachers (e.g. CLEAR workshop, workshop organized by other CUHK units)	*Please insert no*
(b) In Teaching and Learning Innovation ExPo jointly organized by CLEAR and ITSC	*Please insert no*
(c) In any other event held in HK (e.g. UGC symposium, talks delivered to units of other institutions)	*Please insert no*
(d) In international conference	1
(e) Others (please specify)	*Please insert no*

Table 4: Publication (if any)	
Please classify each piece of publications into one and only one of the following categories	**Number**
(a) Project CD/DVD	*Please insert no*
(b) Project leaflet	*Please insert no*
(c) Project booklet	*Please insert no*
(d) A section/chapter in a booklet/book distributed to a limited group of audience	*Please insert no*
(e) Conference proceeding	*Please insert no*
(f) A chapter in a book accessible internationally	*Please insert no*
(f) A paper in refereed journal	*Please insert no*
(g) Others (please specify)	*Please insert no*