

THE CHINESE UNIVERSITY OF HONG KONG

Micro-Module Courseware Development Grant

Final Report (August 2015)

Report due 31 August 2015.

Please return by email to The Ad hoc Committee on Planning of eLearning Infrastructure
mmcd@cuhk.edu.hk

PART I

PART I

1. Project title: Development of a general issue enquiry templates and cases on environmental and public health issues for prospective Liberal Studies teachers in forms of eLearning micro-modules
2. Principal supervisor: Professor Lau Kwok Chi
3. Department / Unit: Department of Curriculum and Instruction
4. Project duration: From January 2015 to August 2015 (extended to 30 Dec 2015)
5. Date report submitted: 27 Dec 2015

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 objectives of the project have not changed. A framework and template will be developed to enhance the capability of the undergraduate preservice LS students on issue analysis and using issue enquiry approach in classroom teaching. Eight cases on environmental and public health issues (modules 5 and 6 of the LS curriculum) will be developed.

2. Process, outcomes or deliverables

Please specify the number of micro modules produced, and the course(s) (with course codes and titles) that have used the micro modules in Part IV, and provide more detailed descriptions in here.

Have the nature of the deliverables been changed?

Have you adjusted your timeline?

Overall, was the project completed satisfactorily?

Overall the project was completed according to the plan. An issue analysis framework and

template were developed. Eight micro-modules were made to guide the students to analyze eight issues on environmental and public health problems (Table 1). The development of the modules had involved five LS education undergraduate students, who worked with the supervisor of the project in the whole process.

The project was originally aimed at LSED2110 to enhance the issue enquiry capacities of the undergraduate preservice LS teachers. Since the course LSED2110 was suspended in 2015-16, the framework was instead tried out in EDUC4040 Teaching Practice, where the students did teaching practice at schools with the support of the framework from Nov to Dec 2015.

The students were first introduced to the framework and learned its use in class. Powtoon videos had been produced to teach the students how to use the framework. The eight micro-modules were uploaded to an online LS learning Platform and each module guided the students step by step to complete the analysis of an issue about environmental or public health problem. The students were asked to adapt the existing issues or create their own for their teaching practice. An online discussion forum among students and teacher allowed exchange of ideas while the students were teaching at schools.

Table 1 Micro-modules for issue analysis

1.	Should Hong Kong use wind energy as a main source of electricity supply?
2.	Should the tobacco tax be raised further in Hong Kong?
3.	What fuel mix for electricity generation should Hong Kong use?
4.	Should Lung Mei Beach at Tai Mei Tuk be built?
5.	Should HPV vaccine be made mandatory in Hong Kong?
6.	Should Hong Kong implement solid wastes charges?
7.	Should Hong Kong adopt opt-out organ donation?
8.	Should Hong Kong implement plastic bag levy?

3. Evaluation Plan

Have you altered your evaluation plans?

What monitoring data did you collect?

Does your evaluation indicate that you have achieved your objectives?

One LS educator from the Faculty of Education and three students of the course were invited to comment on the framework and its use in classroom. There exists difficulty to survey the students since they completed the teaching practice in early December 2015 and had yet to do their assignments and exams until the end of December.

Dr Kelvin Mak, a LS educator from Faculty of Education, gave the following comments: The analysis framework provided some clear guidance for teachers and students to conduct issue enquiry independently. The steps in the analysis framework allowed students logically deduced the problem and provided well-informed solution to it. The framework also aligned with many critical ideas in teaching Liberal Studies. To name a few examples, "actor analysis" built up enquiry foundation for stakeholder analysis; "problem analysis" and "alternatives" nurtured our students to give constructive comments and solutions to the

problem; "effectiveness analysis" and "argument analysis" reminded our students to evaluate all solutions critically. All parts were consistent with the goals and objectives of learning Liberal Studies. In summary, the analysis framework was a great tool for teachers and students to conduct issue enquiry, especially to the issues related to government policy and its implementation.

Students may encounter some difficulties when using the framework.

1) Students should be aware this framework is most suitable for studying policy issues. Other issues, like social or moral issues, may not be appropriate to use.

2) The scale in evaluating the effectiveness, economic cost, and argument may be arbitrary from students to students, or issues to issues, that make it incomparable to each other.

Students have to be aware which analysis is most relevant to a particular issue.

3) The framework is highly relevant to analyzing the political feasibility of a policy. In reality, status quo may be one of the choices, if not the most popular choice, for the issue. Students may be aware status quo is also a possible choice for them.

In general, the students found the framework useful and can help them to clarify the issues in a clear and logical manner. However, since the framework differs significantly from those they ordinarily use - stakeholder analysis, some of them did not understand the framework well and use it competently. In the classroom teaching observed, some used the framework incorrectly. They need much more practice and assistance to conceptualize the framework and apply it in classroom. Another problem with the adoption of the framework is that the students were often asked to use the curriculum materials provided by the schools and therefore had limited room to use their self-developed issue using the framework. Some students also commented that the analysis using the framework was too demanding for the low ability students. It seems that they need help to learn to adapt it to cater for student diversity. One student who helped with project was found having a good grasp of the framework and could use it in the classroom satisfactorily. So it is crucial to have students involved in the development of the framework should they have good understanding of it.

In general, the objectives of the project had been met by producing the framework and eight micro-modules, which were used by the students of EDUC4040 in classroom. But the use of the framework was not very satisfactory due to students' inadequate experiences of using it and many practical constraints in school. Nevertheless, most students appreciated the role of the framework in helping them understand more what good issue analysis looks like and prepare the lesson.

4. Dissemination, diffusion and impact

Please provide examples of dissemination: website, presentations in workshops or conferences, or publications.

Please provide examples of diffusion: how the project results/process/outcomes/deliverables being used in your unit and other parts of CUHK or other institutions?

Please provide examples of impact: how the project results (micro modules) can be adapted to other disciplines.

The micro-modules were uploaded onto the platform for LS teaching practice (<https://mycuhk.sharepoint.com/sites/EDUC-TP/2015LS1>). Password and login account can be obtained by contacting Sally Lee (msleesally@gmail.com). They are shared among colleagues in the Faculty of Education who are engaged in LS education and a lunch seminar will be organized to introduce the framework to the colleagues so that they will adopt it in their own teaching.

A number of ways are being considered to disseminate the framework to inservice LS teachers, including a teacher seminar, link to the webpage of LS teacher Association. It is hoped that inservice teachers are engaged to further the framework and modules.

Powtoon videos are made on youtube for public access

<https://www.youtube.com/watch?v=NYDwldvIv1E> (Lung Mei beach 1)

<https://www.youtube.com/watch?v=s4OTXzoc-YE> (Lung Mei Beach 2)

<https://www.youtube.com/watch?v=xxHgcuTjVr0> (An introduction to issue analysis)

<https://www.youtube.com/watch?v=Rfoqx2Tus4w> Tobacco tax To Hang -need some revision

<https://www.youtube.com/watch?v=rJlmpoXugEk> (electricity energy source To Hang)

PART II

Financial data

Funds available: \$28000.

Funds awarded from MMCDG	\$	\$28000	_____
Funds secured from other sources (please specify _____)	\$	0	_____
Total:	\$	\$28000	_____

Expenditure:

Item	Budget as per	Expenditure	Balance
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	application		
Student helper	\$28000	\$13210	\$14790
Total:	\$28000	\$13210	\$14790

PART III

Lessons learnt from the project

Please describe your way forward.

Please describe any of the following item(s) accordingly:

- *Key success factors, if any*
- *Difficulties encountered and remedial actions taken, if any*
- *The role of other units in providing support, if any*
- *Suggestions to CUHK, if any*
 - *Example: what should be done differently?*

The framework and modules will be developed further by incorporating more the ideas of inservice LS teachers so that they would be more accepted and adopted by the teachers for use in classroom.

The main difficulty came from the course LSED2110 being suspended in 2015-16 so that there was not enough class time to make the students understand the framework and its use. This had made the use of the framework limited and not quite satisfactory in classroom.

PART IV

Information for public access

Summary information and brief write-ups of individual projects will be uploaded to a publicly accessible CUHK MMCDG website. Please extract from Part I the relevant information to facilitate the compilation of the publicly accessible website and reports.

1. Keywords

Please provide five keywords (in the order of most relevant to your project to least relevant) to describe your micro-modules/pedagogies adopted.

- (Most relevant) Keyword 1: Liberal studies
 Keyword 2: issue analysis
 Keyword 3: blended learning

Keyword 4:

(Least relevant) Keyword 5:

2. Summary

Please provide information, if any, in the following tables, and provide the details in Part I.

Table 1: Publicly accessible online resources (if any)
<p>(a) Project website:</p> <p><i>If a publicly accessible project website has been constructed, please provide the URL.</i></p>
<p>(b) Webpage(s):</p> <p><i>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.</i></p>
<p>(c) Others (please specify):</p> <p>Powtoon videos on youtube</p> <p>https://www.youtube.com/watch?v=NYDwldvIv1E (Lung Mei beach 1)</p> <p>https://www.youtube.com/watch?v=s4OTXzoc-YE (Lung Mei Beach 2)</p> <p>https://www.youtube.com/watch?v=xxHgcuTjVr0 (An introduction to issue analysis)</p> <p>https://www.youtube.com/watch?v=Rfoqx2Tus4w Tobacco tax To Hang -need some revision</p> <p>https://www.youtube.com/watch?v=rJlmpoXugEk (electricity energy source To Hang)</p>

Table 2: Resource accessible to a target group of students (if any)			
<i>If resources (eg. software) have been developed for a target group of students (eg. in a course, in a department) to gain access through specific platforms (eg. Blackboard, facebook), please specify.</i>			
<u>Course Code/ Target Students</u>	<u>Term & Year of offering</u>	<u>Approximate No. of students</u>	<u>Platform</u>
EDUC4040	1 st term 2015	15	https://mycuhk.sharepoint.com/sites/EDUC-TP/2015LS1

Table 3: Presentation (if any)	
<i>Please classify each of the (oral/poster) presentations into one and only one of the following categories</i>	Number
(a) In workshop/retreat within your unit (eg. department, faculty)	0

(b) In workshop/retreat organized for CUHK teachers (eg. CLEAR workshop, workshop organized by other CUHK units)	0
(c) In CUHK ExPo jointly organized by CLEAR and ITSC	0
(d) In any other event held in HK (eg. UGC symposium, talks delivered to units of other institutions)	0
(e) In international conference	0
(f) Others (please specify)	0

Table 4: Publication (if any)	
<i>Please classify each piece of publications into one and only one of the following categories</i>	Number
(a) Project CD/DVD	0
(b) Project leaflet	0
(c) Project booklet	0
(d) A section/chapter in a booklet/ book distributed to a limited group of audience	0
(e) Conference proceeding	0
(f) A chapter in a book accessible internationally	0
(g) A paper in an referred journal	0
(h) Others (please specify)	0

3. A one-page brief write up

Please provide a one-page brief write-up of no more than 500 words or a short video (~2 minutes) (preferred).

The project is aimed at enhancing the issue enquiry capacities of the prospective LS teachers in the undergraduate education courses, particularly on the analysis of environmental and public health issues. First of all, a framework and template was developed to guide the issue enquiry process, including analysis of an issue, evaluation of evidence, integration of evidence, and drawing conclusion. With the template, students are guided to develop various reasoning skills such as critical thinking, logical reasoning, scientific reasoning, inference to the best explanation, proportionality, means-ends analysis.

Using the template, 8 cases on environmental and public health issues (modules 5 and 6 of the LS curriculum) were developed. The general pedagogical approach is issue enquiry, in which students are first given background information related to the issue and then guided to search for relevant information and then do the analysis individually or in groups. Supports will be given progressively during the process.

The template and the cases will be delivered online in forms of learning modules, which not

only provides students with the electronic templates for analysis, but also some background information, web resources and thinking tool. Also, forum is used to allow students to share ideas and resources, particularly the support from students with science background to those without science background.

Four student helpers were recruited from the LS education undergraduates to help develop the case and convert the materials to online platform. This also constitutes a valuable opportunity for them to learn about issue analysis and design of online learning.