THE CHINESE UNIVERSITY OF HONG KONG

Micro-Module Courseware Development Grant

Scheme 3: eLearning Pedagogy Research

<u>Final Report (2015-16)</u>

Report due 31 January 2017
Please return by email to The Ad hoc Committee on Planning of eLearning Infrastructure
<u>mmcd@cuhk.edu.hk</u>

PART I

Project title: <u>Micro-Modules for Improving Engagement and Problem Exploration Skills</u>

Principal supervisor: <u>Professor Lam Ching-man; Professor Leung Suk-man, Grace</u>

Co-supervisor(s):   <u>Professor Chang Ching-wen; Ms. Cheung Man-sze, Cecilia; Dr. Yuan Rui</u>

Department / Unit: <u>Department of Social Work</u>

Project duration: <u>From February 2016 to January 2017</u>

Date report submitted: <u>31 January 2017</u>

1. Project objectives

Is the project on track to meet its objectives?

> This project was designed to produce two micro-modules for flipped classroom learning. The first micro-module focused on the essential components in the beginning phase of case intervention. The second micro-module was on client engagement and problem exploration. Students were expected to gain knowledge and skills to work with individuals and families in social work practice.

> The objectives of the project were as follows: (1) identify basic intervention skills and essential components in the beginning phase of casework intervention; (2) appreciate good practices and (3) acquire basic skills for client engagement and problem exploration.

> Overall speaking, all the project objectives were met.

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

> The micro-modules were in line with our teaching goal, there was no change in the overall aims and directions of the project.

Has the project created any impact as expected?

Traditionally, social work educators believe that face-to-face classroom learning is the best way to train up social work practice skills. However, our Department is trying to use online learning in practice skills training. The shift in pedagogy goes with the learner-centred principles that students are expected to take up an active role in learning and can learn at their own pace. In this project, students were required to go through the micro-modules before class.

We believed this project had created some long-term impacts. It promoted interactive learning by increasing students' involvement in the learning process. Moreover, the real-life case illustrations in the micro-modules had demonstrated to students on the complexity of client's situation in real life.

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.

Two micro-modules were produced for flipped classroom teaching. Micro-module I (MM I) was about essential elements conductive to casework practice and Micro-module II (MM II) was about client engagement and problem exploration. They were used in the course *SOWK2210 Social Casework*, and *SOWK5995 Social Work Field Laboratory*.

The two micro-modules were presented in video clips format, supplement with quiz and open-ended questions. Before the lecture, students were required to watch the video clips to review the key concepts, respond to the open-ended questions, and complete the pre- and post-assessment quiz. The course instructors were able to check students' understanding on the key concepts through the open-ended questions and quizzes. In the lecture, course instructors then facilitated students' learning through further clarification on the concepts, in-depth discussions and role plays.

Have the research design, methodology and timeline been changed/adjusted?

There was no change in the research design, methodology and timeline.

Kirkpatrick's evaluation model (1977, 1979) has been adopted as the evaluation framework for outcome measurement. The framework involves four domains:

1. Student reactions: students feedback to the video clips, their learning experiences and their satisfaction level (by online feedback questionnaire immediately after video viewing);
2. Learning: change results from learning (pretest-protest assessment by quizzes – before and after the video viewing);
3. Behavior: students' performance (students self-evaluation, performance in in-class role play and discussion, feedback from course instructor and tutors);
4. Results/outcomes (including adding items on how students rate the introduction of flipped classroom into this course, research assistant discuss and collect feedback from students in the last class session).

The timeline of the project is as follows:

Date	Major deliverables
February – April 2016	Preparation: • Literature review • Preparing scripts • Selecting actors and other ground works • Developing evaluation instruments
May – July 2016	• Video I: Essential components in the beginning phase of case intervention (case illustration and interview episodes) • Study guides • Online quiz and open ended questions about what are essential in case intervention and why; common errors of beginning workers, Q & A
July – August 2016	• Video II: Client engagement and problem exploration (role play and demonstration) • Study guides • Online quiz on client engagement and problem exploration skills, role and style of worker, facilitating factors in the beginning phase etc.
September – December 2016	• Trail implementation of the two micro-modules in the course SOWK 2210 Social Casework and SOWK5995 Social Work Field Laboratory, courses offered in the 1st term of 2016-17, taught by Professor Chang Ching-wen and Ms. Cheung Man Sze, both are the project team members.

Overall, was the project completed satisfactorily?

We are satisfied with the work progress and outcomes and the project has been completed satisfactorily, with all the deliverables completed.

3. Evaluation Plan

Have you altered your evaluation plans?

The evaluation was conducted according to our plans.

*Does your evaluation indicate that you have achieved your objectives?*

Multiple methods were used for evaluation including:
1. Online feedback questionnaire to collect students' feedback on learning experiences and their satisfaction level. The score range was from 1 to 5, with higher scores indicated higher levels of satisfaction and helpfulness;
2. Pre- and post-assessment quiz to test students' acquisition of knowledge. The score range was from 0 to 4, higher quiz scores reflected better grasp of the knowledge;
3. Course evaluation to collect students' views on the flipped classroom experience. The score range was from 1 to 5, with 1 indicated strongly disagree and 5 indicated strongly agree. The higher the score, the better the results.
4. Number of login times to the web.

A. Results on Module I: Essential components (n = 19):
1. Online feedback questionnaire
   The mean score on the satisfaction item was 3.89 (SD: 0.88); on the helpfulness item was 4.11 (0.74). The results indicated that 57.9% of the users were satisfied with the Module I and 79% of the users found the module helpful to their learning. Overall online feedback to the module was very positive.
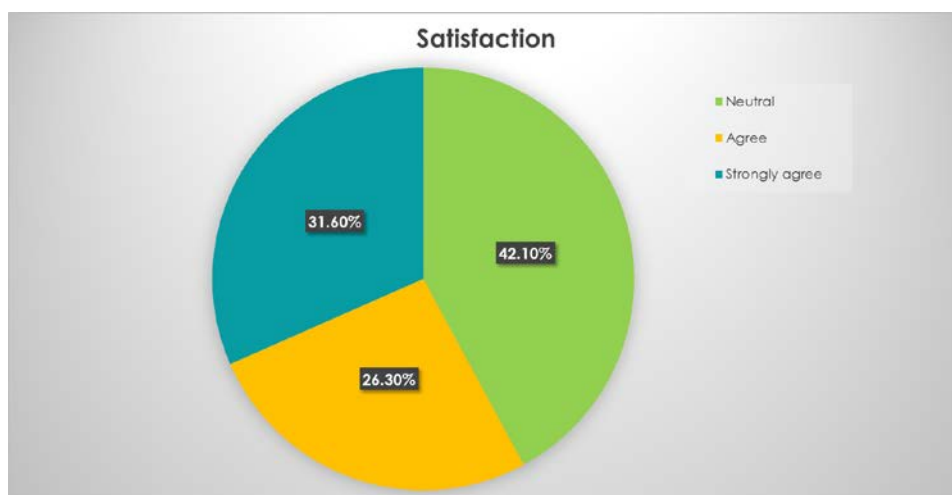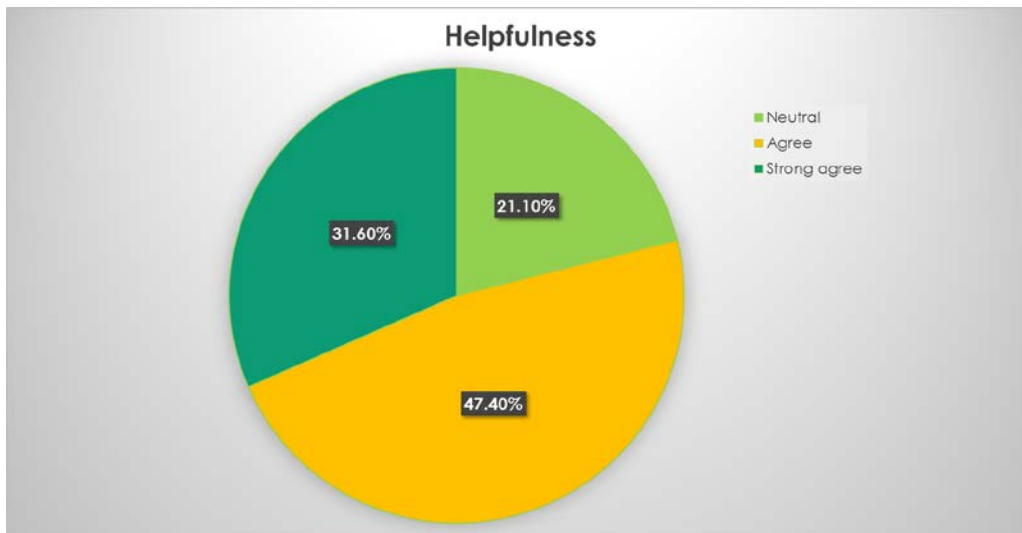
2. Pre- and post-video watching quiz

The mean score of pre-assessment was 1.21 (SD: 0.54) and the post-assessment mean score was 2.79 (SD: 1.09). A Wilcoxon Signed-Ranks Test indicated that post-assessment quiz scores was much higher than the pre-assessment quiz scores, the improvement was statistically significantly ($Z = -3.62$, $p = .00$).

B. Results on Module II: Client engagement and problem identification (n = 61):

1. Online feedback questionnaire

The mean score on the satisfaction item was 4.03 (SD: 0.73), and the mean score of the helpfulness item was 3.98 (0.72). The results indicated that 75% of the students were satisfied with the Module II and 74% considered the module helpful for them to acquire the knowledge and skills.
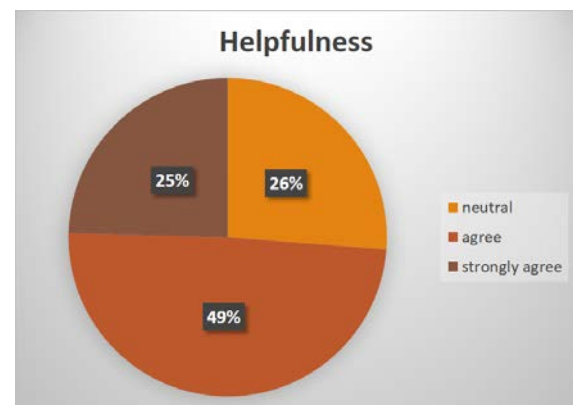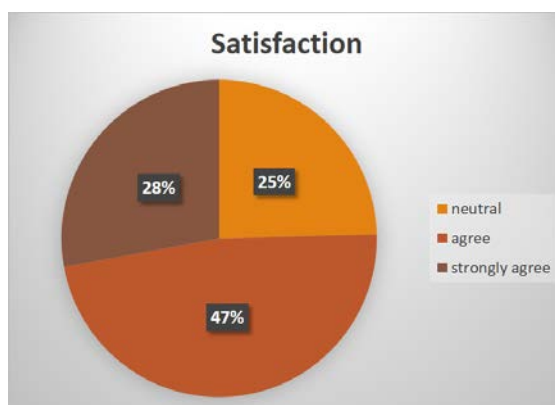
Students' satisfaction and helpfulness on Module II   (n=61)

2. Pre- and post-assessment quiz

The mean score of pre-assessment was 2.80 (SD: 0.98) and the mean score of

5

post-assessment quiz was 3.02 (SD: 0.97). The results indicated that students were greatly improved in the areas of knowledge and skills after viewing the video, the improvement is statistically significant [Paired-samples t-test, $t(60) = -1.98$, $p \leq .05$].

C. Results on the course evaluation (n = 60)

The course evaluation result is shown in the table below. Five out of eight items had a mean score of 4 and above. The results indicated that having quizzes in the micro-modules were conducive to learning ($M = 4.16$) and the online materials were helpful for social work practice (M=4.09). The item, "I will use the videos for revision in the future" with the lowest score ($M = 3.69$). A possible explanation might be the students consider that they had acquired the knowledge and skills and therefore without the need to revisit the micro-modules.

Course evaluation results (n=60)

	Mean
The quizzes (showing correct answers) were conducive to my learning.	4.16
The online videos with an average of 20-minute duration were appropriate.	4.15
I believe that the material I learned from the online videos will be useful to my social work practice.	4.09
The online video enabled me to bring insight into class discussion.	4.04
The online videos were stimulating.	4.00
I felt prepared for the class after I watched the videos.	3.97
The online videos were interesting.	3.90
I will use the videos for revision in the future.	3.69

D. Number of login times

The number of login times was used as an indicator for students' participation in the eLearning system. Results in the following table indicated that some students login for more than once to learn from the micro-modules.

	Total Number of Students in Class	Number of login times
SOWK 2210 Social Casework	55	64
SOWK 5995 Social Work Field Laboratory	8	11

4. Dissemination, diffusion and impact

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

1. Blackboard - The two micro-modules were uploaded to Blackboard for students to watch before class in September 2016.
2. Faculty sharing – Session presentation with the title "A Flipped Classroom for Social Work Education" on 9 Dec 2016.
3. Teaching and Learning Expo 2016 – Poster presentation with the title "Flipped classroom – Can it help to equip social work students with practical skills?" on 16 Dec 2016.
4. Faculty sharing on "The Flipped classroom experiences in social work education", a sharing session jointly organized by CLEAR, Faculty of Education and Faculty of Social Science on Feb 15, 2017.

Please provide examples of impact: how the research results/outcomes/findings can be extended to other disciplines.

The project was presented in the faculty sharing session at which the project details and research results were disseminated to colleagues of other departments within the Social Science Faculty. Similarly, the project was presented in the poster session in the Teaching and Learning Expo 2016. The project was shared and discussed with colleagues within the University.

In the forthcoming sharing session on Feb 15, 2017, the flipped classroom experience in social work will be sharing with colleagues at Faculty of Social Science and Faculty of Education.

Please describe how the research results/outcomes/findings may support the University's strategic aims in promoting eLearning.

This course-based eLearning micro-modules favorably support the University's strategic aims in institutional advancement in eLearning. Specifically: (1) Through the application of flipped classroom, students were equipped with the prerequisite knowledge and the basic skills required for placement and future practice. (2) Students could access the available online resources according to the learning needs that helped strengthening students' abilities to conduct beneficial independent learning on the internet.

PART II

Financial data:

Funds available:

Funds awarded from MMCDG $ 132,500

Funds secured from other sources $ 0
(please specify＿＿＿＿＿＿＿＿＿＿＿＿＿＿)

Total: $ 132,500

Expenditure:

Item	Budget as per application	Expenditure	Balance
Staff cost • Rank: part-time research assistant * CUPSB point 11 @ 20,755 • Number: 0.5 • Duration: 7 months • Salary per month: CUPSB point 11 @ 20,755 * 1.05 * 0.5 = 10,896.375 * *An experienced research assistant familiar with basic concepts in social casework and with IT skills is needed to adequately perform the duties.*	76,275	58,205	18,070
General expenses • Production of two video clips Miscellaneous expenses	51,225	50,326	899
Expense on evaluation Data input of students' evaluation forms		0	
Dissemination of research findings • Attending conference Journal publication	5,000	0	5,000
Miscellaneous			
Total	**HK$132,500**	108,531	23,969*

• As at Jan 25, 2017, the surplus will be used up by end of project with payment for RA salary in Jan and the committed expenses on video shooting

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*
  - Real-life case illustrations to enhance students' knowledge and skills on case assessment and intervention.
  - Mini lectures for the dissemination of key concepts.
  - Pre- and post-assessment in which students can gain from immediate feedback on their learning.
  - Build-in assessment with 5 marks allocated to encourage students to watching and completing micro-module questions.

- *Difficulties encountered and remedial actions taken, if any*
  - Technical problem – lost data on 1st micro module due to technical problem. No remedial actions could be made because it was hard to motivate students to revisit the micro-modules.

- *The role of other units in providing support, if any*
  - ITSC – Provided technical support on using Articulate Storyline 2 to add questions into the videos.
  - CLEAR – Provided technical support in producing the video and aminations for the mid-term and final evaluations.

- *Suggestions to CUHK, if any*
  - *NIL*

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: Flipped classroom

                 Keyword 2: Micro-module

Keyword 3: Client engagement

Keyword 4: Problem exploration

(Least relevant)   Keyword 5: Social work

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)
(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) **Tools / Services:**   *If you have used any tools or services for the project, please provide names of the tools or services in here.*   ITSC – Provided technical support about on the use of Articulate Storyline 2.   CLEAR - Provided technical support in producing the video and aminations for the mid-term and final evaluations.
(d) **Pedagogical Uses:**   *If any flipped classroom activities have been conducted, please provide information in here. If relevant, please indicate how your project output can be used to support flipped classroom activities.*   The micro-modules were presented in video clips format, supplement with mini-lectures, quiz and open-ended questions. Students were required to watch the video clips before lecture to preview the key concepts that would be covered in the coming lecture. The course instructors deepened students' learning through in-class discussions and role plays.

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. Blackboard, facebook), please specify.			
Course Code/ Target Students	**Term & Year of offering**	**Approximate No. of students**	**Platform**
SOWK2210	1st term 2016-2017	55	Blackboard

SOWK5995	1st term 2016-2017	8	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)	2
(b) In workshop/retreat organized for CUHK teachers (e.g. CLEAR workshop, workshop organized by other CUHK units)	*Please insert no*
(c) In CUHK ExPo jointly organized by CLEAR and ITSC	1
(d) In any other event held in HK (e.g. UGC symposium, talks delivered to units of other institutions)	*Please insert no*
(e) In international conference	*Please insert no*
(f) 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	1 (Teaching and Learning Expo 2016)
(f) A chapter in a book accessible internationally	*Please insert no*
(g) A paper in an referred journal	*Please insert no*
(h) Others (please specify)	*Please insert no*

3. A one-page brief write up

Please provide a one-page brief write-up of no more than 500 words and a short video.

This project aimed to produce two micro-modules for flipped classroom learning. The first micro-module focused on the essential components in the beginning phase of case

intervention. The second one was on client engagement and problem exploration. It was expected to equip students with the essential knowledge and skills at the beginning phase of casework in the social work practice. Moreover, we hope that students could develop their independent learning attitude through engaging in the eLearning.

The components of the two micro-modules included: mini lectures, video clips, quiz and open-ended question, survey on the satisfaction and helpfulness of the modules that were used in two courses, namely SOWK2210 Social Casework and SOWK5995 Social Work Field Laboratory in 2016-17 term 1. Students were required to watch the video clips before lecture to preview the key concepts that were going to cover in the coming lectures. The course instructors deepened students' learning through in-class discussions and role plays.

Kirkpatrick's evaluation model (1977, 1979) was adopted as the evaluation framework for outcome measurement. The micro-modules obtained positive feedback. Statistical significant differences were observed in the pre- and post-assessment quiz. Students showed more correct answers in the post-assessment quiz than in the pre-assessment quiz. The quizzes embedded in the micro-modules were conducive to students' learning. Correct answers were shown to students after the completion of the post-assessment quiz, the immediate feedback to students' performance was helpful for learning. Students were generally satisfied with the two micro modules and they commented that the modules were helpful to their learning.

In sum, students appreciated this learning experiences and the micro-modules had contributed to their learning. Use of flipped classroom allowed more space for in-class activities that deepened students' learning. Finally, the eLearning material produced can be used for teaching in the future.

Please find the video report of this project in the following link:
https://drive.google.com/open?id=0BzcGChgoAkABNlM3VEN3dlBwY1U

Please find the Micro-module I in the following link:
https://drive.google.com/open?id=0BzcGChgoAkABUkd3c1YyRUZzdms

Please find the Micro-module II in the following link:
https://drive.google.com/open?id=0BzcGChgoAkABNmtEXzBLVjZjZGs