

**THE CHINESE UNIVERSITY OF HONG KONG**

**Micro-Module Courseware Development Grant**

**Scheme 3: eLearning Pedagogy Research**

**Final Report (2015-16)**

Report due 31 January 2017

Please return by email to The Ad hoc Committee on Planning of eLearning Infrastructure  
[mmcd@cuhk.edu.hk](mailto:mmcd@cuhk.edu.hk)

**PART I**

Project title: Evaluation of the effectiveness of eLearning

Principal supervisor: Wai Kit CHU

Co-supervisor(s): Cheuk Sing Jason YAM

Department / Unit: Department of Ophthalmology & Visual Sciences

Project duration: From February 2016 to January 2017

Date report submitted: 31 January 2017

**1. Project objectives**

*Is the project on track to meet its objectives?*

Yes.

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

No.

*Has the project created any impact as expected?*

Not yet but we will get some data to evaluate the effectiveness of eLearning in the near future.

**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.*

Seven videos demonstrating have been uploaded online:

1. Visual Acuity test
2. Pupil examinations and RAPD
3. Visual field by confrontation
4. Extra-ocular examination and cover test
5. Slit-lamp examination for anterior segment

6. Direct Ophthalmoscopy
7. Thyroid eye assessment

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

One original method was to compare the post-course test scores from those students watching the new eLearning videos with students watching the old videos during classroom teaching. However it is difficult to do direct comparison now because there are new exam questions designed for the students watching the new eLearning videos.

*Overall, was the project completed satisfactorily?*

Up to now, sixty-eight students have submitted questionnaires after watching the eLearning videos. And we expect there will be around fifty more questionnaires submitted by the end of this academic year. So yes the project has been completed satisfactorily.

### **3. Evaluation Plan**

*Have you altered your evaluation plans?*

We will not compare post-course test scores as there are new exam questions. However, we will still evaluate the eLearning by using questionnaires.

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

Yes. Students provided their feedbacks on our online videos. Now we know the preferred length of the video and the suitability of the contents from the students. This information will help us to improve our future eLearning material design.

#### 4. Dissemination, diffusion and impact

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

This project has been selected for oral presentation at the Medical Education Conference at The Chinese University of Hong Kong (March 10-11, 2017). The acceptance letter is attached with this report.

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

Our original aim was to use eLearning to free up some classroom teaching time. But from the questionnaires, some students told us they only watched the online videos during the classroom teaching. Some students had watched all the 7 videos before but they needed to watch them again during the classroom teaching. A better eLearning and classroom teaching schedule should be developed.

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

Some students reflected the videos are useful to them but it is difficult for them to follow the clinical skills in the videos. As most of the students watched the videos at home or in the campus but they preferred to practice the clinical skills with their classmates, we may need to encourage students to watch the videos in groups or develop online models for them to practice the clinical skills.

#### PART II

##### Financial data

Funds available:

Funds awarded from MMCDG	\$ 121,504
Funds secured from other sources (please specify _____)	\$ 0
Total:	\$ 121,504

Expenditure:

Item	Budget as per application	Expenditure	Balance
Staff Cost	121,504		

Total:			

### PART III

#### Lessons learnt from the project

*Please describe your way forward.*

After the completion of this study, more videos will be made to further enhance our eLearning system.

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

- *Key success factors, if any*  
The length of the video cannot be too long. It should be less than 10 minutes to engage student attention.
- *Difficulties encountered and remedial actions taken, if any*  
Some eye diseases could not be clearly demonstrated in the video by using actors without those diseases. We solved this problem by recruiting some actual patients to perform in the videos.
- *The role of other units in providing support, if any*  
N/A.
- *Suggestions to CUHK, if any*
  - *Example: what should be done differently?*  
It is better to carry out the project along with the academic year (September to May) as it will be easier follow the same class of students.

### 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: Ophthalmology
  - Keyword 2: Video
  - Keyword 3: Questionnaire
  - Keyword 4: eLearning

## 2. Summary

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

<b>Table 1: Publicly accessible online resources (if any)</b>
<p>(a) <b>Project website:</b> The videos have been uploaded to the faculty online teaching system, which is not publicly accessible.</p> <p><i>If a publicly accessible project website has been constructed, please provide the URL.</i></p>
<p>(b) <b>Webpage(s):</b> N/A.</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) <b>Tools / Services:</b> Two cameras were used, one was static for wide-shots and one was handheld for close-up shots.</p> <p><i>If you have used any tools or services for the project, please provide names of the tools or services in here.</i></p>
<p>(d) <b>Pedagogical Uses:</b> Students watched the online videos outside the classroom time. So the classroom time was freed up for face to face tutorial teaching. Approximately one hour could be freed up for tutorial teaching.</p> <p><i>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.</i></p>

<b>Table 2: Resource accessible to a target group of students (if any)</b>			
<p><i>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.</i></p>			
<u>Course Code/ Target Students</u>	<u>Term &amp; Year of offering</u>	<u>Approximate No. of students</u>	<u>Platform</u>
<i>Eg1. DEPTXXXX</i>	<i>1<sup>st</sup> term 2015</i>	<i>50</i>	<i>Blackboard</i>
<i>Eg2: Dept of xxxx</i>	<i>All 1<sup>st</sup> year students</i>	<i>40</i>	<i>facebook</i>
<b>Table 3: Presentation (if any)</b>			
<p><i>Please classify each of the (oral/poster) presentations into one and only one of the following categories</i></p>			<b>Number</b>
(a) In workshop/retreat within your unit (e.g. department, faculty)			1

(b) In workshop/retreat organized for CUHK teachers (e.g. 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 (e.g. UGC symposium, talks delivered to units of other institutions)	0
(e) In international conference	0
(f) Others (please specify)	0

<b>Table 4: Publication (if any)</b>	
<i>Please classify each piece of publications into one and only one of the following categories</i>	<b>Number</b>
(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 and a short video.*

Before starting the project, medical undergraduate year 5 students were asked to attend a one-week tutorial course at our department. They had watched some videos during the tutorial course time, which took about 3 hours. The videos were outdated and mainly focused on eye disease case examples.

In this project, we filmed seven videos to demonstrate some basic clinical eye checking skills. Videos were edited and uploaded onto the faculty eLearning website. Medical undergraduate year 5 students were asked to watch these videos before attending a one-week tutorial course at our department. Instead of watching the videos during the course, 3 hours of teaching time could be allocated to face to face teaching every week.

Questionnaires were collected from the students after they have watched the videos. There are 13 multiple-choice questions and 2 open-answer questions in the questionnaires. Up to now, sixty-eight questionnaires have been collected and fifty additional questionnaires are expecting to be collected by the end of the current academic year. This project was started from February 2016 till January 2017. However, it is difficult to follow the same class of students from the same academic year. It would be better to carry out the project along with the academic year (September to May) as it will be easier follow the same class of students.

The original aim of this study was to use eLearning to free up some classroom teaching time. But from the questionnaires, some students told us they only watched the online videos during the classroom teaching. Some students had watched all the 7 videos before but they needed to watch them again during the classroom teaching. A better eLearning and classroom teaching schedule should be developed.

Students provided their feedbacks on our online videos. Now we know the preferred length of the video and the suitability of the contents from the students. This information will help us to improve our future eLearning material design. Some students reflected the videos are useful to them but it is difficult for them to follow the clinical skills in the videos. As most of the students watched the videos at home or in the campus but they preferred to practice the clinical skills with their classmates, we may need to encourage students to watch the videos in groups or develop online models for them to practice the clinical skills.

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