

THE CHINESE UNIVERSITY OF HONG KONG

Micro-Module Courseware Development Grant

Final Report (December 2015)

PART I

Project title: Micro Modules for Students' Self-learning and Teachers' Internal Training in PE Programmes

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Department / Unit: Physical Education Unit

Project duration: From January 2015 to December 2015

Date report submitted: 30th December 2015

1. Project objectives

The project is on track to meet its objectives.

The objectives have not changed:

To enhance teaching and learning of physical education (PE) skill courses through innovative uses of self-developed on-line micro module courseware.

- For project 1, video links of skills in different sports are selected and uploaded to the intranet of PE Unit. Teachers would play videos during lessons or post some video links on Blackboard for students' self-learning. Students would watch the videos themselves with teachers' instructions and guidance in class or out of class. Such practice would facilitate students' learning as the videos would let students understand more about different skills in sports.
- With videos of different exam skills demonstrations provided on the webpage of PE Unit, project 2 would help students identify clearer learning objectives and mimic good demonstrations of various sports skills. Thus, students could foresee the learning outcome (major skills) of the course.
- Project 3 focuses on internal lecturer training since videos of different staff development workshops and peer teaching observations would be uploaded and shared among the teachers. Thus, an easily accessible teaching resources depository would be formed.

2. Process, outcomes or deliverables

The number of micro modules produced

	Contents of the micro modules	No. of micro modules		
		Required PE Course	Elective PE Course	Subtotal
(1) Project 1	Video links of different sports skills	254	31	285
(2) Project 2	Exam skills demonstration of different PE courses	88	8	96
(3) Project 3	Teaching resources depository			
	3a) Peer Teaching Observation	20		20
	3b) Staff Development Workshop	12		12
		(1) + (2) + (3)		413
		Total:		413

- The nature of the deliverables has not been changed.
- The year of 2014-2015 was a development phase for the micro modules produced, 2014-15 Term 2 and 2015-2016 Term 1 were periods of application and evaluation. We have collected feedback from students and teachers for further modifications and editing of the micro modules. Therefore, the project end date had been extended from Aug 2015 to Dec 2015.
- Overall, the project was completed satisfactorily
- For the details of the deliverables and courses that have used the micro modules, please refer to Part IV and Appendix 1 of this report.

3. Evaluation Plan

- Our evaluation plans have not been altered except the completion date. A self-evaluation questionnaire was distributed to teachers before and after the project as planned. Feedback from teachers and students was also collected so as to evaluate if teaching and learning are enhanced with the application of eLearning.
- **Evaluation results**
Feedback was received from 14 focus groups (women's basketball class) in semester 2 (2014-15). Both teachers and students had positive comments on the micro-modules and reflected that they have facilitated their teaching and learning. (please refer to our

interim report for details) With reference to their opinions, some adjustments were made to the micro modules afterwards.

Twenty-one out of 145 classes in semester 1 (2015-2016) were randomly selected to evaluate the effectiveness of the e-learning project 1 and 2 from 16 to 27 November 2015. 443 respondents (81.6% response rate; 60.9% female; n=270) from PE classes of different activities namely, physical conditioning, volleyball, tennis, squash, badminton, table tennis and yoga, returned the questionnaires. 255 respondents (58.0% female; n=148) had visited the video links related to their course subject skills and examination demonstrations. They responded in five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

In Project 1, the vast majority of the respondents agreed that most of the links were easy to access (4.1 ± 0.8), informative (4.0 ± 0.7), met their expectations (4.1 ± 0.7), and could help them enhance the knowledge of the courses (4.0 ± 0.8). They reported similar results in Project 2 that most of the links were easy to access (4.1 ± 0.8), met their expectations (4.0 ± 0.8), and could help them understand the requirements of the practical examination (4.1 ± 0.7).

For Project 3, lecturers reported that this platform not only provided a quick and valuable reference for their teaching, but also let them to review it at their own convenience time.

Moreover, the workshops also enhanced their knowledges for different sports skills. However, they suggested improvements of the video quality production by shooting at different angles and without obstacles.

In conclusion, the videos would facilitate students' learning by letting them understand various sports skills and provide good demonstrations of various sports skills for practice and examination. Thus, students could foresee the skill-related learning outcomes of the course. Moreover, lecturers indicated their knowledges were broadened by visiting the archived workshops and peer teaching observations.

● 4. Dissemination, diffusion and impact

Examples of dissemination

a) MMCD Output - Project 1

Video links related to different sports skills are uploaded to the intranet of PE Unit. Teachers would play videos during the lessons or post these video links on Blackboard for students' self-learning.

b) MMCD Output - Project 2

Videos of different exam skills demonstration are put on the webpage of PE Unit and can be accessed with CUHK student or staff accounts. Central Authentication and Directory Service from ITSC has been sought.

c) MMCD Output - Project 3

Edited videos of staff development workshops and peer teaching observation are uploaded to the intranet of PE Unit. PE Unit teachers could access and share them via an index page on the PE Unit intranet.

(Please Use Internet Explorer to open the links)

- To access the MMCD Output of project 2, students can click "Course Notes & Assessment Schemes" (課程筆記及考試標準), which are on the pages of "Physical Education Required Course" (體育必修科) on PE Unit website with the following URLs:
 - i) http://www.cuhk.edu.hk/peu/req_c_c.htm (Chi)
 - ii) http://www.cuhk.edu.hk/peu/req_c.htm (Eng)
- To access the MMCD Output of project 1, 2 and 3, PE Unit teachers can visit the PE Unit intranet with the following URL:
<http://www.cuhk.edu.hk/peu/Intranet/security.htm>
- Please refer to Appendix I for the detailed list of MMCD output.

d) Poster Presentation in the "Teaching and Learning Innovation Expo 2015"

In order to share the experiences of implementing eLearning projects with the CUHK colleagues, a poster representation was delivered in the "Teaching and Learning Innovation Expo 2015", which was jointly organized by CLEAR and ITSC, on 16th December 2015.

Examples of impact

Flipped classroom activities have been conducted when students have extended their learning out of class by watching the relevant videos themselves with teachers' guidance or

instructions.

The micro-modules like the video links of sports of project 1 and exam skills demonstrations of project 2 have been uploaded to the intranet of PE Unit. Teachers would play video links of sports during lessons or select and upload relevant video links on Blackboard for students' self-learning. Students could identify the learning outcome of the course by watching different exam skills demonstrations themselves. Although the content of the micro modules cannot be adapted to other disciplines directly, the ways to conduct flipped classroom activities so as to facilitate teaching and learning can be as references to other disciplines.

PART II

Financial data

Funds available:

Funds awarded from MMCDG	\$ 93,993.00
Funds secured from other sources (please specify _____)	\$ <u>N/A</u>
Total:	\$ <u>93,993.00</u>

Expenditure:

Item	Budget as per application(HK\$)	Approved Budget(HK\$)	Expenditure (HK\$)	Balance (HK\$)
1) Student helper fee	\$53,000.00	\$44,591.90	*\$12,687.50	\$31,904.40
2) Adobe Premiere Pro CS6 (Editing software)	\$1,901.10	\$1,901.10	\$1,901.10	\$0.00
3) Video recorder	\$7,500.00	\$7,500.00	\$7,500.00	\$0.00
4) Media hosting service of ITSC	\$40,000.00	\$40,000.00	\$40,000.00	\$0.00
5) Hardware and cost of maintenance#	N/A	N/A	\$30,036.50	-\$30,036.50
Total:	\$102,401.10	\$93,993.00	\$92,125.10	\$1,867.90

*Since a huge number of videos had to be edited but student helpers were not often easily available to do so. Thus, some videos were edited by the IT support staff of PE Unit.

Expenditure item 5) was not included in the proposal. It has been added due to the additional needs during the running of the project. For example, a digital camera was purchased for shooting the teaching demonstration from multiple angles.

PART III

Lessons learnt from the project

- We did not have a team of professional video shooting crew to record the videos of different exam skills demonstrations (project2). So we have to spend a lot of time to recruit and train student helpers to do so. Moreover, student helpers were not easily available to do the post-production work like editing videos. Thus, extra workload was shouldered by our staff.
- Furthermore, our staff has been striving to coordinate with different parties so as to ensure the quality of the video content and visual effect. However, the quality of the videos is not perfect with limited budget and human resources. If full-time staff could be employed to share the workload of coordination and administrative work as well as dealing with the video shooting issues, it is believed that the quality of the micro-modules could be further enhanced.
- To restrict access to the exam skills demonstration of different PE courses of project 2 to CUHK students and staff only, Central Authentication and Directory Service from ITSC has been sought.

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: Sports skills
 Keyword 2: PE programme
 Keyword 3: Self-learning
 Keyword 4: Teaching and learning
(Least relevant) Keyword 5: Physical Education

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:** N/A

(b) **Webpage(s):** ([Please Use Internet Explorer to open the links](#))

Please refer to PART I(4) and Appendix I.

(c) **Others (please specify):**

Table 2: Resource accessible to a target group of students (if any)

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.

- **Target students:** all undergraduate students taking Physical Education courses (includes required and elective PE courses), mainly Year 1 students though there are some senior year students*

*All CUHK undergraduates are required to take Physical Education courses within their first study year

- **Term & Year of offering:** 2nd Term 2014-15 and 1st Term 2015-16 onwards
- **Estimated class size:** 20-28 students
- **Platform:** PE Unit website, PE Unit intranet and Blackboard
- Please refer to Appendix I for the detailed MMCD output list (including course codes and titles of the Physical Education courses).

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 (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

1

(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

To enhance teaching and learning of physical education (PE) skill courses through innovative uses of self-developed on-line micro module courseware, three projects were launched to promote students' self-learning and teachers' internal training in PE programmes from 1 Jan 2015 to 31 Dec 2015.

- For project 1, video links of skills in different sports are selected and uploaded to the intranet of PE Unit. Teachers would play videos during lessons or post some video links on Blackboard for students' self-learning. Students would watch the videos themselves with teachers' instructions and guidance in class or out of class.
- With videos of different exam skills demonstrations provided on the webpage of PE Unit, project 2 would help students identify clearer learning objectives and mimic good demonstrations of various sports skills.
- Project 3 focuses on internal lecturer training since videos of different staff development workshops and peer teaching observations would be uploaded and shared among the teachers. Thus, an easily accessible teaching resources depository would be formed.

Target students:	All undergraduate students taking Physical Education courses (includes required and elective PE courses) ^{Note 1}
Term & Year of offering:	2 nd Term 2014-15 and 1 st Term 2015-16 onwards
Estimated class size:	20-28 students
Platform:	PE Unit website, PE Unit intranet and Blackboard

Note 1: These students were mainly Year 1 students though there are some senior year students as all CUHK undergraduates are required to take Physical Education courses within their first study year.

MMCD Output

(Please Use Internet Explorer to open the links)

- To access the MMCD Output of project 2, students can click "Course Notes & Assessment Schemes" (課程筆記及考試標準), which are on the pages of "Physical Education Required Course" (體育必修科) on PE Unit website with the following URLs:
 - i) http://www.cuhk.edu.hk/peu/req_c_c.htm (Chi)
 - ii) http://www.cuhk.edu.hk/peu/req_c.htm (Eng)
- To access the MMCD Output of project 1, 2 and 3, PE Unit teachers can visit the PE Unit intranet with the following URL:
<http://www.cuhk.edu.hk/peu/Intranet/security.htm>

Please refer to Appendix I for the detailed MMCD output list (including course codes and titles of the Physical Education courses) and Appendix II for the interfaces of the three projects.

A self-evaluation questionnaire was distributed to teachers before and after the project as planned. Feedback from teachers and students was also collected. To conclude, the videos did facilitate students' learning by letting them understand various sports skills and provide good demonstrations of various sports skills for practice and examination. Thus, students could foresee the skill-related learning outcomes of the course. Moreover, lecturers indicated their knowledges were broadened by visiting the archived workshops and peer teaching observations. With the innovative uses of the on-line micro module courseware and application of flipped classroom activities, teaching and learning of PE skill courses could be enhanced.

Appendix I: MMCD Output List

Appendix II: Interfaces on the web of Project 1 to 3