

**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](mailto:mmcd@cuhk.edu.hk)

**PART I**

Project title: Flipped Teaching for Excellence in Methodology Training for Teachers of English in Primary and Secondary Schools

Principal supervisor: Prof. Morris Jong; Prof. Paul Sze

Co-supervisor(s): Dr Tom Chan; Mr. Allen Ho; Mr. Eric Luk

Department / Unit: Department of Curriculum and Instruction; Centre for the Advancement of IT in Education; English Language Teaching Unit

Project duration: January 2015 - August 2015

Date report submitted: 31 August 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 project progressed according to the planned schedule. The original objectives have not been changed.

**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?*

A total of 8 micro modules were produced and put on a dedicated online portal (<http://caite.fed.cuhk.edu.hk/projects/english-flipped/>), according to the original plan.

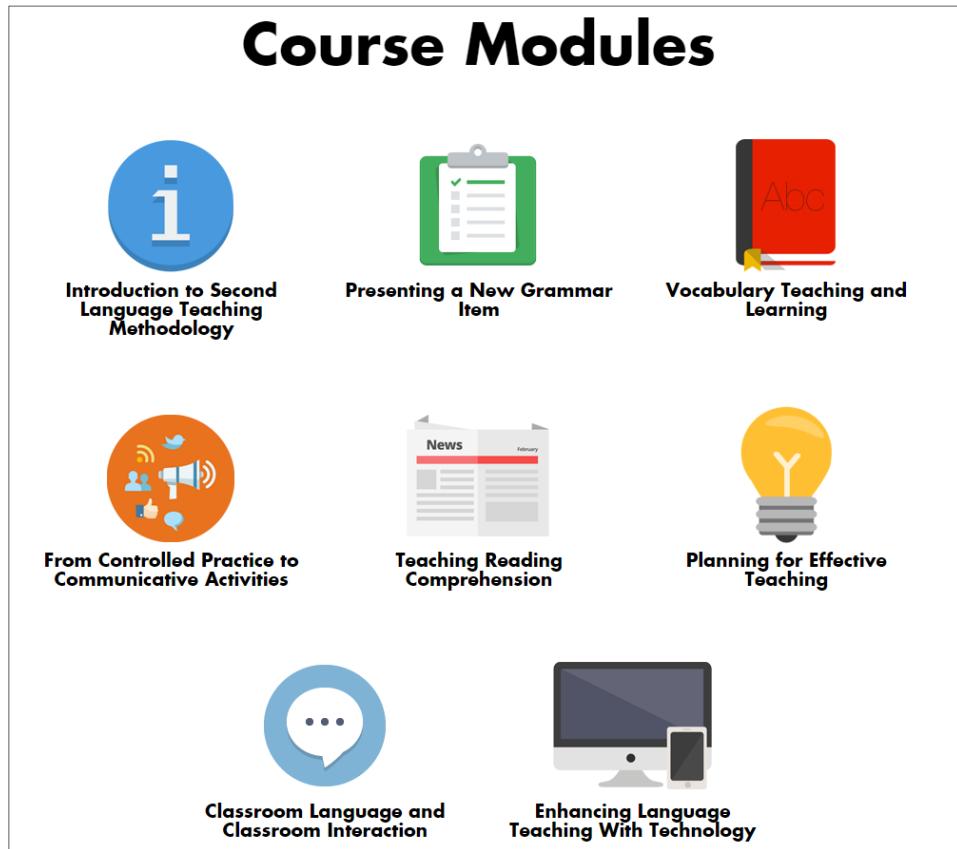


Figure 1. Eight Micro Modules

The screenshot shows a web browser displaying the online portal. The header includes the logo for CRI CAITE and navigation links for Home, About, Course Modules, and Our Team. The main content area has a green background and displays the title "Introduction to Second Language Teaching Methodology". Below the title, there is a brief description: "To provide an overview of various second language teaching approaches and the one adopted in the official curriculum in Hong Kong." A navigation bar below the title includes "Pre-class Video", "Activity 1", "Activity 2", "Activity 3", "Activity 4", "Activity 5", "Activity 6", "Activity 7", and "Post-module Quiz". A link "To Explore Further" is also present. A video player window is embedded in the page, showing a video of a man speaking. The video player interface includes controls for play, volume, and progress.

Figure 2. Online Portal

The 8 micro modules will be used in the following courses from September 2015:

- PGDP5002 Fulltime: SCT: Primary English Language Teaching Methodology (1)
- PGDP5102 Fulltime: SCT: Primary English Language Teaching Methodology (2)
- PGDP5002 Part-time: SCT: Primary English Language Teaching Methodology (1)
- PGDP5102Part-time: SCT: Primary English Language Teaching Methodology (2)

The micro modules may also be used in the following courses:

- PGDE5102: SCT: Secondary English Language Teaching Methodology
- ELED4880: Information and Multimedia technology in English Language Teaching
- ENLT6805: Information and Communication Technology in English Language Teaching

The 8 micro modules will be implemented in full swing from September, 2015. The first 3 draft modules were tried out on PGDP5102 Fulltime, before the students broke off for Teaching Practice 2015.

Two months after the beginning of the project, it was decided that a dedicated online portal would be created to house the 8 micro modules. This is to make access to the modules easier, and so that some of the in-class activities can be carried out at the computer.

The timeline has not been adjusted.

Overall, the project was completed satisfactorily

### **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?*

As mentioned above, the 8 micro modules will be implemented in full swing from September 2015. Nevertheless, the first 3 draft modules were tried out on PGDP5102 Fulltime. Evaluation and monitoring plans and data consisted of the following:

For each of the 3 draft modules, students were required to view a pre-class video, after which they would log in to Blackboard and answer a post-viewing quiz. This took place before the follow-up class session.

Data from Blackboard showed that (1) the students all accessed the pre-class videos, often for more than once; and (2) they performed very well in the post-viewing quiz, generally scoring an average of 90% and above of the quiz items correct.

During the ensuing class session, questions were asked from time to time that related to the content of the pre-class videos. Students responded actively and were able to give correct and sometimes insightful answers to the in-class questions.

As a result, little time needed to be spent on PPT presentations by the course instructor during class. There was much more time for in-class activities, which progressed

efficiently as students already had the requisite subject matter knowledge. The in-class activities focused on deeper understanding and practical application.

After the 3 draft modules, a questionnaire was conducted with the pilot group to tap their thoughts on the Flipped Classroom model of learning.

*Table 1. Pilot Evaluation*

Question	Strongly agree	Agree	Disagree	Strongly disagree
Flipped Classroom is an effective way of teaching and learning.	18.2%	81.8%	0	0
Viewing the pre-class video is an effective way to prepare for a class session.	36.4%	63.6%	0	0
The module web page design is clear.	45.4%	54.6%	0	0
I like the Flipped Classroom mode of learning.	27.3%	72.7%	0	0

The above sources of data indicate that the objectives of the project have generally been achieved.

#### **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.*

Dissemination	Web Access: <ul style="list-style-type: none"> <li>• Project website (an online portal):  <a href="http://caite.fed.cuhk.edu.hk/projects/english-flipped/">http://caite.fed.cuhk.edu.hk/projects/english-flipped/</a></li> <li>• Project introduction webpage:  <a href="http://caite.fed.cuhk.edu.hk/research_dev.php#flipped">http://caite.fed.cuhk.edu.hk/research_dev.php#flipped</a></li> </ul>
	Presentations: <ul style="list-style-type: none"> <li>• Will participate in CUHK Teaching and Learning Innovation Expo 2015 (Dec 2015), exhibiting a project poster and give a presentation.</li> <li>• Will organize a seminar/workshop at Faculty of Education, CUHK in May 2016 to share our design and implementation experience.</li> </ul>

	<ul style="list-style-type: none"> <li>• Will present our design and implementation experience in annual meetings of various ICT in Education SIGs (Special Interest Groups) in a number of academic/professional communities, such as IEEE Education Society Technical Community on Learning Sciences, American Educational Research Association (AERA), Asia Pacific Society for Computers in Education (APSCE), Global Chinese Society for Computers in Education (GCSCE), etc.</li> <li>• Will present the evaluation results in a number of academic conferences, such as, IEEE International Conference on Advanced Learning Technologies, International Conference on Computers in Education, Global Chinese Conference on Computers in Education, etc.</li> </ul>
	<p>Publications:</p> <ul style="list-style-type: none"> <li>• Expo and conference proceedings.</li> <li>• A journal paper (to be confirmed).</li> </ul>
Diffusion	All dissemination events mentioned above will be open for all faculty staff at CUHK, as well as teachers from other local and overseas institutions. All project results / process / outcomes / deliverables disseminated will be useful references for tertiary teachers who plan to adopt the flipped classroom approach in practice.
Impact	The micro modules of this project have been developed in such a way that on top of the target student groups, parts of each module can also be used in other related courses. For each micro module, a pre-class video was produced. The pre-class video aims to prepare students for the upcoming class session. It provides them with the requisite subject matter knowledge, so that students come to class prepared. A post-viewing quiz was created for each micro module, which students would complete on Blackboard, the university's learning management system. For each module, a set of in-class activities were designed. These in-classroom activities relate to the content of the pre-class video. Occasionally, the instructor may still have additional subject matter to convey in class, but most of the time, the students can quickly embark on the in-class activities. The in-class activities were designed with two features in mind: (a) they would stimulate deeper, or higher-order thinking; and/or (b) they enable to apply the subject matter learnt from the pre-class video in designing their own teaching. The pedagogical paradigm adopted in this project will be a useful reference for tertiary teachers in other disciplines when they are designing and implementing their flipped teaching strategies for teaching their courses.

## **PART II**

### Financial data

Funds available:

Funds awarded from MMCDG	\$ 90,000
Funds secured from other sources (please specify _____)	\$ / _____
Total:	\$ 90,000

Expenditure:

Item	Budget as per application	Expenditure	Balance
Staff Cost (Computer Assistant)		80,322	
Student Helpers		5,250	
Purchase: 1 Apple® iPad		4,428	
Total:		90,000	

## **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 micro modules will be implemented in full swing from September 2015.
  - Since the Flipped Classroom model of teaching and learning is currently also a major pedagogical development in primary and secondary schools, and since much of the Faculty of Education's work involves teacher training and professional development for primary and secondary teachers, the project result, i.e., the completed project online portal (<http://caite.fed.cuhk.edu.hk/projects/english-flipped>), will be made use of when introducing Flipped Classroom to schoolteachers
  - The key contribution of Flipped Classroom, as shown in the 3 draft micro modules is that students are prepared with the subject matter knowledge involved in the upcoming

class session, so that class time can be spent on higher-order activities. In the case of teaching methodology training for schoolteachers, more class time can now be spent on practical tasks and empower trainee teachers to apply what they have learnt in designing lessons and activities, and in micro-teaching-type activities.

- One major lesson learnt from the project is how much subject matter knowledge to include in the pre-class video. Initially, there was the temptation to cram as much content as possible into the video, and this resulted in videos which were very long in duration. In other words, there has been this ongoing decision making on how much content to present in the pre-class video, and how much to leave for the ensuing class session.
- Another concern during the project was how to produce instructional videos which were effective. For example, should the presentation be purely based on pre-made PPTs, images, PDFs, etc. Should it be in the form of a live lecture in a classroom? To what extent is it necessary to insert a ‘human’ element into the video? How much special effect (e.g., animation) should be used in the video? How much oral narration should be provided?
- In terms of technology, the production of the videos had experimented with 3 applications: Explain Everything; PPT with narration, and Screencast-o-matic. Each has its own strong points and limitations.

## **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: English Language Teaching Methodology

                          Keyword 3: e-learning

                          Keyword 4: Computer-assisted Language Learning

(Least relevant)      Keyword 5: ICT in 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:**

If a publicly accessible project website has been constructed, please provide the URL.

<http://caite.fed.cuhk.edu.hk/projects/english-flipped/>

**(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.

[http://caite.fed.cuhk.edu.hk/research\\_dev.php#flipped](http://caite.fed.cuhk.edu.hk/research_dev.php#flipped)

**(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.

<u>Course Code/ Target Students</u>	<u>Term &amp; Year of offering</u>	<u>Approximate No. of students</u>	<u>Platform</u>
PGDP5002+5102B	1st & 2nd term 2015	20	Project Online Portal & Blackboard
PGDP5002+5102H	1st & 2nd term 2015	20	Project Online Portal & Blackboard

**Table 3: Presentation (if any)**

Please classify each of the (oral/poster) presentations into one and only one of the following categories

(a) In workshop/retreat within your unit (eg. department, faculty)	Will be 1 (2015-16)
(b) In workshop/retreat organized for CUHK teachers (eg. CLEAR workshop, workshop organized by other CUHK units)	/
(c) In CUHK ExPo jointly organized by CLEAR and ITSC	Will be 1 (2015-16)
(d) In any other event held in HK (eg. UGC symposium, talks delivered to units of other institutions)	Will be 1 (2015-16)
(e) In international conference	Will be 1 (2015-16)
(f) Others (please specify)	/

<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	/
(b) Project leaflet	Will be 1 (2015-16)
(c) Project booklet	/
(d) A section/chapter in a booklet/ book distributed to a limited group of audience	/
(e) Conference proceeding	Will be 1 (2015-16)
(f) A chapter in a book accessible internationally	/
(g) A paper in an referred journal	May be 1
(h) Others (please specify) Poster	Will be 1 (2015-16)

### 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).*

This project aims to produce 8 micro modules that can be used in courses for training preservice and inservice teachers of English. Each module corresponds with one major topic in English language teaching methodology. The micro modules were designed in such a way that on top of the target student groups, parts of each module can also be used in other related courses. For each micro module, a pre-class video was produced. The pre-class video aims to prepare students for the upcoming class session. It provides them with the requisite subject matter knowledge, so that students come to class prepared. A post-viewing quiz was created for each micro module, which students would complete on Blackboard, the university's learning management system. For each module, a set of in-class activities were designed. These in-classroom activities relate to the content of the pre-class video. Occasionally, the instructor may still have additional subject matter to convey in class, but most of the time, the students can quickly embark on the in-class activities. The in-class activities were designed with two features in mind: (a) they would stimulate deeper, or higher-order thinking; and/or (b) they enable to apply the subject matter learnt from the pre-class video in designing their own teaching.

In order to enable students to access the 8 micro modules easily, one month into the project, it was decided that a dedicated online portal would be produced to house the 8 micro modules. The 8 micro modules, therefore, can now be reached at a special online portal (<http://caite.fed.cuhk.edu.hk/projects/english-flipped/>).

The first 3 draft modules were tried out with one group of students. Overall, the results were encouraging, in terms of the design of the modules itself, and also in terms of learning effectiveness.

The entire set of 8 micro modules will be implemented in full swing from September 2015.

Useful lessons have been learnt by the project team in terms of (a) how to design micro modules that adopt the Flipped Classroom model, (b) how to design and produce the resources needed, such as producing effective instructional videos pedagogically and in terms of technology. All in all, this project has affirmed the effectiveness of Flipped Classroom as a mode of delivering teaching and empowering learning.