

THE CHINESE UNIVERSITY OF HONG KONG

Micro-Module Courseware Development Grant

Interim Report (March 2015)

Report due 31 March 2015.

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PART I

Project title: e-Learning of reading and presentation skills

Principal supervisor: Prof. Au Wing Ngor Shannon

Department / Unit: School of Life Sciences

Project duration: From January 2015 to August 2015

Date report submitted: 31 March 2015

**1. Project objectives**

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

**Yes. Our work aligns with the objectives set in our proposal.**

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

**No. Only the sequence of micro-modules 1 and 2 is swapped as we consider this re-arrangement will fit the course schedule and content better.**

**2. Progress on process, outcomes or deliverables**

*What have been accomplished so far?*

**We have constructed three micro-modules “Information search skills for life science students”, “Elements of a scientific paper” and “Reading and understanding a scientific paper”. Each micro-module includes core content, relevant web links and a “Try this” exercise.**

*Have any obstacles been encountered and what are the remaining tasks to be finished?*

**As there was some delay in the recruitment of a part-time research assistant, the project was started in mid of January 2015. The content of the first three micro-modules were just forwarded to ITSC for their assistance to update our e-learning platform. The remaining task is to preview and confirm the details in the web site once it is available.**

*Is the project still on time for completion (which includes preparation of the final report) on or before the grant expiry date?*

**It is anticipated that we will complete the remaining two micro-modules and the final**

**report on time.**

### **3. Evaluation Plan**

*Have you altered your evaluation plans?*

**No. However, since the course will be started in the first term of 2015-16, evaluation of student's engagement in learning critical reading and presentation skills, and peer assessment can only be done after submission of the final report. Nevertheless, we will invite our senior students who have taken BCHE3090 for their feedback when the web site is available.**

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

**Evaluation of the first three micro-modules has not been initiated yet. This will be performed when the web site is available.**

### **4. Dissemination** (reports, websites, video links, products, etc.)

*Provide a listing of project outputs to date.*

**Three micro-modules to be uploaded to e-learning platform**

<http://www.bch.cuhk.edu.hk/learnbiochem/module6.html#>

**Please refer to the attached write-up for the details. Currently, materials for the micro-modules are being processed by ITSC staff. We will inform MMCD Committee once it is ready for preview.**

# THE CHINESE UNIVERSITY OF HONG KONG

## Micro-Module Courseware Development Grant

### Short Write-up (March 2015)

Project title: e-Learning of reading and presentation skills

Principal supervisor: Prof. Au Wing Ngor Shannon

Department / Unit: School of Life Sciences

Amount granted: \$96,000

#### **1. A brief description of the micro-modules and a URL or web link of your MMCD output.**

We have created three micro-modules, each will need about 20 minutes for viewing and exercises. Since there is some delay to submit the materials to ITSC for uploading, a web link for preview is not available currently. A brief description for each micro-modules is listed below, please refer to the attached for details.

##### ***Micro-module 1: Information search skills for life science students***

This part introduces the use of Google Scholar and PubMed in information search, and databases for life sciences. In addition, different formats of citation in publications and reference management with RefWorks (which can be accessed through our library) are included. Self-exercise for students to practice their understanding and applications of these resources are also designed.

##### ***Micro-module 2: Elements of a scientific paper***

This part describes different types of scientific papers and their structures. A self-test exercise is created to help students to understand the differences between different types of research papers.

##### ***Micro-module 3: Reading and understanding a scientific paper***

This part describes the basic steps for an effective reading of scientific papers. Students will also be guided through a list of questions when making critical comments on the research papers. A self-test exercise for students to practise their skills in critical thinking is included.

#### **2. Name of tool(s) that you have used to create the micro-modules and a brief evaluation of the tool(s)**

For the above three micro-modules, the content are mainly established by using Microsoft Word. Formatting of self-test exercise is assisted by ITSC staff. We will apply Camtasia for screen casting to demonstrate the key points in presentation skills in micro-module 5. A tutorial on the use of Camtasia has been arranged by ITSC.

#### **3. What flipped classroom activities have been conducted and how your MMCD output can be used to support flipped classroom activities.**

The micro-modules will be implemented for BCHE3090 in the first term of 2015-16 and therefore no flipped classroom activity was conducted in the past three months. We propose to arrange the following flipped classroom activities that will align with the course schedule.

***Activity 1 (Micro-module 2):*** Small group discussion focusing on the common structure and the organizational differences among reviews/perspectives and letters/articles.

***Activity 2 (Micro-module 3):*** Small group discussion on skills for effective reading and paper reviewing.

***Activity 3 (Micro-module 4):*** Workshop on writing a scientific paper and use of language.

***Activity 4 (Micro-modules 1-5):*** Small group presentation on a review paper and a research paper. This will test the student engagement in learning throughout all micro-modules. Peer assessment will also be implemented.

<http://www.bch.cuhk.edu.hk/learnbiochem/module6.html#> (to be updated)

Micro-module	Content to be covered	Web resources to present the content (~20 minutes of viewing and exercises for each micro-module)
Information search skills for life science students	Introduction	<ul style="list-style-type: none"> <li>Text to provide an overview of this micro-module and list the learning objectives</li> </ul>
	6a.1 Google Scholar & PubMed search techniques	<ul style="list-style-type: none"> <li><b>Google Scholar</b> (with common search operators: quotes, asterisk, OR, dash)                             <ul style="list-style-type: none"> <li>6a.1.1 Setting up preferences on Google Scholar</li> <li>6a.1.2 Saving references from Google Scholar to RefWorks</li> </ul> </li> <li><b>PubMed</b> <ul style="list-style-type: none"> <li>6a.1.3 Using MeSH to create a targeted PubMed search</li> <li>6a.1.4 Saving references from PubMed to RefWorks</li> </ul> </li> <li><b>Test yourself – Search Google Scholar and PubMed:</b> Suppose that you are interested in the role of thyroid hormone receptors in thyroid cancer, and would like to search the literature for reviews published in 2010 and onward. Conduct a search on Google Scholar and PubMed using their advanced search feature. What search terms would you enter/generate?</li> </ul>
	6a.2 Life sciences databases & resources	<ul style="list-style-type: none"> <li><b>Subscription-based databases:</b> BIOSIS Citation Index, ProQuest Science Journals, Scopus</li> <li><b>NCBI databases and resources:</b> Bookshelf, Nucleotide, BLAST</li> <li><b>Test yourself – Search an NCBI database:</b> Search the NCBI Nucleotide database for the full-length sequence of polymerase basic protein 2 of any strain of the influenza A virus. What search terms would you use?</li> </ul>
	6a.3 Citation styles	<ul style="list-style-type: none"> <li>6a.3.1 <b>In-text citations:</b> (CSE Style) Name-year, numbered</li> <li>6a.3.2 <b>Reference list:</b> For articles, books and book chapters. Vancouver style, plus styles preferred by <i>Biochemical Journal</i>, <i>Biochemistry</i>, <i>EMBO Reports</i>, <i>Endocrinology</i>, <i>FEBS Letters</i>, <i>Genome Biology</i>, <i>Genome Research</i>, <i>Journal of Endocrinology</i>, <i>Molecular and Cellular Biology</i>, <i>Molecular Endocrinology</i>, <i>Molecular Systems Biology</i>, <i>Neuroscience</i>, <i>PLoS ONE</i></li> <li><b>Test yourself 1 – Spot the errors:</b> Identify the deviations of the given referencing styles from a defined format</li> <li><b>Test yourself 2 – Find and compare:</b> Retrieve an article recently published in the <i>Journal of Virology</i>. Compare the referencing style used in the journal to the styles shown in the previous section. Which style is the one used in the <i>Journal of Virology</i> most similar to?</li> </ul>
	6a.4 Reference management with RefWorks	<ul style="list-style-type: none"> <li>6a.4.1 Building and organizing references</li> <li>6a.4.2 Exporting a reference list</li> <li>6a.4.3 Using RefWorks with Word: Inserting citations, footnotes and a reference list using Write-N-Cite</li> <li>6a.4.4 Editing a RefWorks output style: the Online Style Editor</li> <li>6a.4.5 Get started now: A call for action to have students to open their RefWorks account, save a citation of the articles/books they find useful, and try Write-N-Cite on Word</li> </ul>

Interim Report: Micro-modules Courseware Development Grant - e-Learning of reading and presentation skills

Micro-module	Content to be covered	Web resources to present the content (~20 minutes of viewing and exercises for each micro-module)
Elements of a scientific paper	Introduction	Text to provide an overview of this micro-module and list the learning objectives
	6b.1	Why do we read scientific papers? Text to give the reasons why undergrad and postgrad students should read papers
	6b.2	Types of scientific papers: Text and graphics to introduce the distinction between reviews/perspectives and letters/articles
	6b.3	Organization of a scientific paper: A picture of the first page of an article to show the typical format, with text to describe the individual sections of a paper
Reading and understanding a scientific paper	6b.4	<b>Test yourself:</b> Students to be given excerpts of titles and abstracts, and to match a title to its abstract and decide if they are taken from a review/perspective or a letter/article
	Introduction	Text to provide an overview of this micro-module and list the learning objectives
	6c.1.	Reading a paper fast and effectively: Text and graphic to give a quick and step-by-step guide to reading and understanding a scientific paper
	6c.2.	Reading critically: A list of questions to ask oneself while reading different parts of a paper
6c.3.	<b>Test yourself:</b> Current exercise featuring 5 “green/black tea papers” to be expanded, i.e. 2 additional papers from other fields to add to the mix	