

## CROSS-INSTITUTION COLLABORATION IN CHINESE MEDICINE EDUCATION: CHALLENGES AND IMPLEMENTATION

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### Abstract

Chinese medicine shows its characteristics in various aspects including health services, research and education. Globalization also takes place in this profession with the increasing cultural interflow between the East and the West. Cross-institution collaboration is increasingly popular among institutions in higher education. The benefit brought from the cross-institution collaboration might possibly fit students in the globalization changes.

Across-institution and region collaboration teaching projects have been initiated by the University of Hong Kong and the Chengdu University of Traditional Chinese Medicine. A Chinese medicine topic was selected and delivered with Problem-based learning. Blended learning was adopted in teaching and learning activities allowing students to interact with students from other institutes in online components. The experience shows possible ways in achieving the collaboration including flexible design, early resources identification, standardizing the differences and communication supported with advanced technology. Blended learning and asynchronous learning are suggested in the pedagogical design for cross-institution collaboration teaching projects. It gives both flexibility and feasibility in implementing the teaching and learning activities.

The experience shows both challenges and benefit in implementing cross-institution collaboration teaching projects. This experience might bring a positive atmosphere in education advancement and further collaborative initiatives from different institutions.

**Keywords:** Chinese Medicine Education, Cross-institution and Region Collaboration, Online Problem-based Learning

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### 1. Introduction

In the 21st century, information literacy skills in clinical is obviously valuable to achieve evidence based practice, but healthcare providers often lack the skills (Carter-Templeton, Patterson & Mackey, 2014). A resource-rich learning environment supported with information technology will be desirable for enriching students to face the challenges in the technology-accelerated world. Globalization is also a challenge toward the healthcare industry, but current students lack sufficient cultural competence. Opportunity in cultural exposure could enable students to better meet the challenge (Lu, Tsai & Tseng, 2014).

Cross-institution collaboration has been mentioned as a long-term trend. It can often be seen in the students' exchange between institutes. Collaboration in teaching activities might not be

common due to physical barrier. The recent pedagogical changes show possibilities to overcome these problems with the help of advanced technology.

An online problem-based learning (PBL) method in cross-institutional level is explored and implemented with a reasonable amount of effort and readily available resources.

This is a cross-institution teaching project with a prospective and innovative design. The aims are developing online learning environment with innovative technology and exploring possible global learning opportunities in Chinese Medicine education.

Students from the University of Hong Kong (HKU) attend PBL classes with students from Chengdu University of Traditional Chinese Medicine (CDUTCM) in Moodle.

## 2.Challenges

### Students' background

Students might show differences in various aspects in cross-institution teaching project. Firstly, language barrier is a major problem. It might impose difficulties in communication with students and teachers from other institutions. Also, students might find difficulties in adapting learning environment with different languages layout. Secondly, it is inappropriate to assume young people already know how to use technology for learning. Students might come from different socio-economic background which might be magnified in cross-institution teaching activities. Students might experience different degrees of limitation in using technology for learning. Thirdly, students with different cultural background might show different preference in learning style. Adapting new learning style in a short period of time might not be welcome among students.

### Institution administration

There was study successful in finding the possibility to engage students from different culture in a PBL experience with information technology. Organizing time, technology and bandwidths are mentioned to be the challenges (Lajoie et al., 2014).

Cross-institution teaching project requires great effort in contact and liaise between different parties within the institution and between institutions. If no additional time is allocated for the task, it could be the major barrier for teachers to participate in the collaboration.

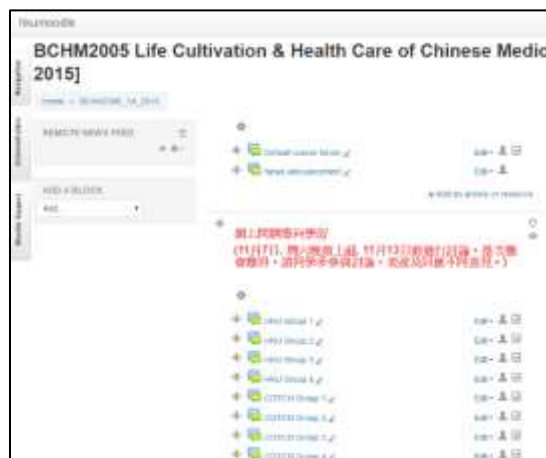
Also, technology is not limited to the capacity of teachers, but the organizational structure of the institutions. Teachers might experience difficulties in adapting technology in teaching and learning without sufficient technical support. The cooperation between execution and administration is likely to be one of the key elements for the success in cross-institution teaching projects.

**Project Implementation** This is a teaching development project initiated by HKU. Students and teachers from HKU and CDUTCM participate in a new teaching and learning activities called Cross-institution Online Problem-based learning (COPBL). The activities will be conducted in both face-to-face and online.

Picture 1: Students attend face-to-face meeting in CDUTCM



Picture 2: Students attend online meeting in the Moodle



### 3. Experience from implementation

#### Flexible design

Our design of the cross-institution teaching project provides high degree of flexibility in terms of administration, resources and pedagogy.

The curriculum and course structure varies greatly between institutions. The involvement of this cross-institution teaching project is usually a 2 lessons. In our design, the period of the implementation is flexible enough to suit the curriculum and course structure in both institutions. Also, different institutions might provide different learning environment and resources. Compatibility of web tools or learning management system is one of the important considerations in our design in order to suit different physical settings.

“Modular Object-Oriented Dynamic Learning Environment” (Moodle) is a Learning Management Systems (LMS). Students and teachers need only a browser to participate in a

Moodle course. Different learning resources including text, audio and video could be delivered through Moodle. It offers chat and forum module which allow discussion between students and teachers. The quiz module examines students' different learning process and outcome with various types of questions. The survey module gathers data which is useful in assessing and stimulating learning in online environments.

The Moodle is affordable to accommodate most of the teaching and learning activities. These activities could take place with different devices including desktop, laptop and mobile devices with the support of internet connection. The barrier of physical devices in term of cost and spatial requirement could be lowered.

It might not easy to determine the timeline of the project without good communication between teaching staffs from both institutions. The semester date varies greatly between institutions. There is difficulty encountered during setting the implementation period of the project. Course content and course progress are the major concerns in inserting cross-institution Online PBL in the course. After compromising with these factors, we decided to make it less content-specific but articulating with the learning outcomes of the course in both institutions.

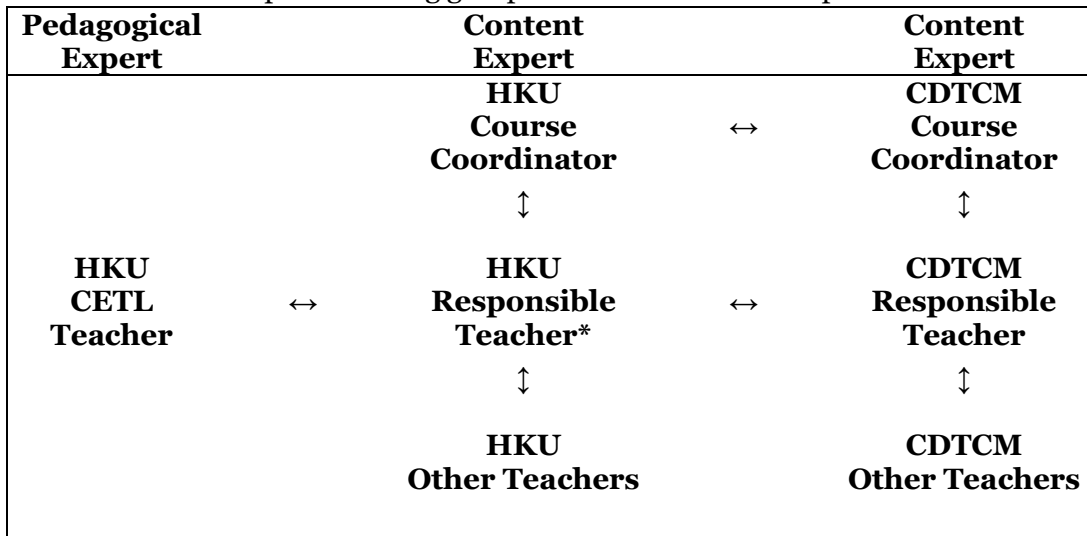
### **Early Resources identification**

Resources are immediately identified and evaluated after the design completed. One of the major issues in our design is allowing students and teachers from other institutions to use the Moodle from HKU. Technical support is sought from information technology department immediately. Finally, guest accounts are available for students and teachers from other institutes. They are also able to use all functions in the Moodle from HKU.

In the early stage, teaching staffs from both institutions were identified and engaged in the project. It helps teachers to understand the new teaching methods. They are also provided enough time to be familiarized with new systems and arrangement.

Finally, a working group is formed to facilitate the communication of teachers from both institutes. The working group consists of different experts from both institutes. See Graph 1.

Graph 1: working group consists of different experts



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### Communication supported with advanced technology

Communication is one of the key in the success of cross-institution teaching projects. We also know that different institutions in different regions might fall in different time-zone or life style. It might not be possible for the workgroup always discuss in real-time.

Luckily, communication technologies have come to our life. Formal and informal communication could be achieved with the help of different mobile applications and web tools. For example, a discussion group has been set up in the WeChat, a mobile conversation application similar to the WhatsApp or Line. Texts, voice messages and files could be delivered in the discussion group. Both synchronous and asynchronous communication could be achieved with this mobile application.

Also, web tools allowing files sharing and editing are helpful in this collaboration. The Google docs allows each members to view and edit the documents in real-time. The Google drive allows sharing of teaching materials and documents. Due to the regional constriction, the connection of web tools from the Google might shows certain degrees of instability.

Technologies help members from different institutions and regions collaborate and contribute to the project anytime and anywhere.

### Standardizing the differences

Difference is another important key in the success of cross-institution teaching projects. But, differences could be a blessing or a curse. Differences in teaching methods are easily to be found while comparing different institutions. Also, differences in physical learning environment are always found due to the needs and resources availability of different institutions and regions.

It is important for members from different institutions to share their practice and resources availability at the beginning of the project. Also, different members should respect the differences from the others.

It might come to another difficulty that the project might be implemented differently in different institutions. We have compared and contrasted the teaching methods between HKU and CDTCM. We modify the teaching methods to suit the requirement of both institutes. Finally, we make a compromise on the implementation time. HKU students take classes at the morning and CDTCM students take classes at night on the same day.

#### **4. Benefit**

An online-PBL method in cross-institutional level implemented with a reasonable amount of effort and readily available resources. Students are able to enjoy student-centered learning with support from teaching staffs in the project. They are also able to have positive experience and outcome in PBL learning with the advantage of learning with technology and global exposure. They (students and teachers and teaching staffs can exchange more information about TCM and related culture from the activity.

We can see cross-institution teaching project could possibly increase the scale of the project in terms of resources and participants. Also, problems encounter in different institutions and regions could provide further improvement for the learning design.

2-way development could also been observed in the project. The experience and teaching methods shared from different institutes bring new ideas and practice. We can see both leading institute and participating institute benefited in the collaboration.

#### **5. Suggestion**

Cross-institution collaboration development could be achieved with this experience. Of course, policy and development strategy might bring different institutions in their own stand. We have two suggestions about the learning design in cross-institution collaboration.

##### **Blended learning**

Students might not be familiarized with new teaching systems and teaching methods. Face-to-face components are helpful in accommodating students for the changes. The online components could further bring students to interact with students from other institutions.

##### **Asynchronous learning**

We understand teaching and learning activities might take place in different time of a day in different institutes. Asynchronous learning provides flexibility for students to engage in the cross-institution education activities, especially interacting with students from other institutions. It also allow teaching staff to arrange cross-institution education activities, without affecting the original timetable of the course.

## Conclusion

The experience found in the project would be valuable for educators in designing and implementing new cross- institution education projects. The successful experience of using innovative technology in teaching and learning could bring a positive atmosphere in education advancement.

Moreover, this is a collaborative project between teaching staff in the School of Chinese Medicine & Centre for the Enhancement of Teaching and Learning in the University of Hong Kong and Chengdu University of Traditional Chinese Medicine. All participating parties are benefited from this collaboration through discussing the pedagogy and implementation. They are also able to learn and reflect on how to enhance students' learning experiences and how to evaluate the learning outcomes. It is a great opportunity to learn about teaching and learning practices of Chinese Medicine in Mainland China, which might provide implications for further collaborative initiatives.



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