Micro-modules Development for a Compulsory Science Core-text Course

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ABSTRACT

In Dialogue with Nature (UGFN1000) is a compulsory science core-text course in the Chinese University of Hong Kong. It requires students to read science-related classics and discuss core questions that arise from the readings which are related to enduring concerns of human.

To meet students' diverse needs, a set of text-based micro-modules was developed and implemented on Knowledge & Education Exchange Platform (KEEP). It aims to explain basic science concepts as well as provide related background knowledge for students to understand and reflect on the corresponding texts.

MICRO-MODULES

@ KEEP

Reading list of the course

Home page of the micro-modules

List of the short videos under a text (Text 8 as an example)

Types of videos:

a. Videos from recorded public lectures given by guest speakers

b. Videos recorded in ELITE studio

c. Videos on student discussion

CONTENT COVERAGE OF THE MICRO-MODULES

1. Necessary background knowledge

Explanation on Newton's Law (Text 3)

2. Historical background

Introduction on history of Chinese Science (Texts 9 & 10)

3. Knowledge extended from the core issue

Academic discussion on Needham question by Prof. Chen Fong Ching (Texts 9 & 10)

4. Alternative angles to approach the text

Micro-modules of peer interpretation and discussions

“Perhaps the lecture time was too short. After the lecture, (1) could make use of the micro-modules to gain a deeper understanding. In other words, it supplemented and deepened my understanding.”

“For instance, (regarding the text about) Newton, for people like me who had no science background, the micro-modules introduced some basic physics knowledge. That helped me understand the meaning of formulas when I read the text.”

“I watched some (videos) about Chinese worldview and Chinese medicine... I didn’t understand the text when I read it, watching the videos could help me comprehend the theory, so I could have a smoother discussion during tutorials.”

References

Kiang, N. and Cheung, “Teaching Science to Non-Science Students with Science Classics”, American Journal of Educational Research, 2015, 3(10), 1205-1217


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FEEDBACKS FROM THE STUDENTS

Social Science, Year 1

Biochemistry, Year 2

Social Science, Year 1