

UGFN1000 In Dialogue with Nature and UGFH1000 In Dialogue with Humanity are foundation courses for all undergraduates. Students are required to read core texts before attending interactive tutorials to discuss some enduring questions about nature and humanity. In our experience, students are interested in reflecting on these questions. However, many of them find it difficult to have an in-depth discussion. This is mainly because they lack the prerequisite knowledge beyond the texts; they misunderstand the concepts; or they have an inadequate comprehension of abstract ideas and are unable to connect different texts.

In view of this, we have developed two micro-modules in this project to provide eLearning supplements for better learning and teaching. The micro-module, “Origin of Species”, was developed to flip the classrooms of UGFN. It consists of the two short whiteboard animations “Are transformation and evolution different?” and “What is the origin of species?” Another micro-module, “Ideal Society”, was developed to flip the classrooms of UGFH. It consists of the two short whiteboard animations “Why do we obey the laws?” and “What is socialism?” These animations have been tailor-made to explain essential knowledge and to clarify misconceptions that might arise. Instead of conventional video recordings of short lectures, whiteboard animations have been created to enrich the students’ learning experience. These consist of step-by-step illustrations with voiceover narrations to explain complicated and abstract ideas in an attractive and enjoyable way. The micro-modules are available online for students’ self-paced learning.

The micro-modules were used in the four UGFN and UGFH classes of the project members, which had 500 students, in the second term of the 2017-18 academic year. The effectiveness of the micro-modules was assessed by quiz and questionnaire surveys. According to the questionnaire survey, over 85% students agreed that whiteboard animations are more appealing than lecture recording and they raised students’ interest in the tutorial discussion. The quiz survey suggested that the animations are effective to equip students with the prerequisite knowledge before tutorial classes. This aligned with the questionnaire survey that over 90% students agreed the animations are helpful for their understanding of the texts, clarifying concepts and gaining knowledge before tutorials. In general, more than 96% students were satisfied with these animations. The results are encouraging.

The micro-modules will be full-launched to be used in all UGFN and UGFH classes starting from the first term of the 2018-19 academic year. Approximately 3800 students per term will be benefited from the micro-modules. In order to further enhance teaching and learning of UGFN and UGFH, more micro-modules with whiteboard animations will be developed in the future. At last, we would like to thank the IT Governance Committee for the generous financial support. We would also like to thank Office of University General Education for its support.

Short video:

https://gocuhk-my.sharepoint.com/:v:/g/personal/liming_cuhk_edu_hk/Eap0684vcV5PrvXwHYTKINsByKBK8TiN_H6c3FlbBchLvQ?e=bCnz33