In Dialogue with Nature (the course code is abbreviated as UGFN) adopts the classics reading approach to cultivate scientific literacy for the undergraduate students in the Chinese University of Hong Kong (CUHK). UGFN is one of the two compulsory courses in the General Education Foundation (GEF) Programme specially designed for the four-year curriculum in CUHK. Beginning from 2012, it became compulsory for all approximately 4000 students per year. Distributed over two regular semesters and summer semester each year, the students are put into approximately 180 classes of maximum 25 students concurrently run by over 15 full-time and part-time lecturers.

While UGFN has been successful in helping students to attain the objectives, it is of concern that, students often reported that they would need to know more background knowledge to facilitate their reflections. As a 3-unit course, each week, a 1-hour session of lecture and a 2-hour session of interactive tutorial are dedicated for each of the 11 classics within UGFN syllabus. However, teachers and students often reported that the 1-hour lecture is insufficient to provide necessary background knowledge for the students to handle the specific classic text on their own. It is common that most of the time in the 2-hour interactive tutorial is used not for the discussion of the core questions but for the comprehension of the textual meaning of the classic.

Our project aims to flip the classroom for UGFN1000. In the last three years, the team has developed over 160 micro-modules and has structured them as a supplementary courseware on the KEEP platform with a YouTube-like interface. So far, it has over 1000 users in this new platform, after it is launched for one and a half year. It is evidenced that the courseware has effectively increased certain aspects of the quality of the discussions in the tutorials.