



## NCUE Internship Program, Department of Biology

National Changhua University of Education, Taiwan is glad to announce a TEEP@AsiaPlus program, aimed to provide a 6-month high quality internship for students interested in digital learning and cognition. The internship, sponsored by the Ministry of Education Taiwan, will begin from 31st July to 31st January 2018 and includes a hands-on workshop and a special topic research of the field of study includes **Game-based Science Learning** (Dr. Meng-Tzu Cheng; [mtcheng@cc.ncue.edu.tw](mailto:mtcheng@cc.ncue.edu.tw)) and **Cognition and Learning** (Dr. Wen-Chi Chou; [chouwenchi@cc.ncue.edu.tw](mailto:chouwenchi@cc.ncue.edu.tw)).

The internship carries **a stipend of 15,000 New Taiwan Dollar/month for 6 months, with a possibility of enrolling in degree programs on science education.** On-campus dormitory is possible with advance reservation. Students are invited to send her/his résumé **by 31st July 2018** directly to the principle investigator whose field of study one wishes to pursue.

Field of Study ↓↓↓

Dr. Meng-Tzu Cheng's ([mtcheng@cc.ncue.edu.tw](mailto:mtcheng@cc.ncue.edu.tw)) research interest mainly focuses on how educational technology, especially video games, can be effectively used for engaging students in learning. As her background is in biology, she is particularly interested in designing games for learning about biology. Her lab has created several games for middle school students to learn about scientific concepts of human immunology, biological evolution, and so forth, as well as gotten patents on these innovative designs. Her current work is to develop games for fostering scientific inquiry abilities of students. She believes that learning is not the consequences but the processes of gaming, so she has always been making efforts in investigating the impact of the interactions between players and game mechanisms on student science learning through serious gaming. In addition to video games, recently, students in her lab are also interested in the use of educational card/board games, which can be easily designed without the need of programming skills.

The research interests of Dr. Wen-Chi Chou's ([chouwenchi@cc.ncue.edu.tw](mailto:chouwenchi@cc.ncue.edu.tw)) biology and cognitive laboratory are using EEG and eye tracker to explore the brain dynamic changes and eye movement behaviors during the biological learning and the construction of scientific concepts. We use a mobile eye-tracking device to record a subject's point of gaze and focused on using eye movements to explore students' science learning in a digital learning environment. In addition, we use the Electroencephalogram (EEG) device to collect the signals and use the EEGLAB toolbox for the MATLAB® platform to investigate the brain dynamics during scientific concept construction and reconstruction. We hope that the results of such research will help us to obtain a better understanding of the complicated cognitive mechanisms involved in the science learning process in the future.