

AMA's Teaching Team brings technology-enabled Active Learning to HK secondary classrooms



Riding on the success of its “Developing Active Learning Pedagogies and Mobile Applications in Tertiary STEM Education”, our project team of Pedagogic & Active Learning Mobile Solutions (PALMS) enlarges its beneficiary group and brings the technology-enabled active learning pedagogies to the secondary school mathematics education. On 19 June 2020, Dr. Fridolin Ting (right), the leader of AMA’s PALMs project and Teaching Fellow, and Dr. Raymond Sze (left), Associate Professor of Department of Applied Mathematics met media to demonstrate and explain how this project supports active learning development in the mathematics secondary school classroom. Ms. Wong (middle), a Mathematics teacher of one of the participating schools also joined and shared her teaching experience with the support of PALMS Team members.

Entitled “Developing Active Learning Pedagogies and Mobile Applications in Secondary School Mathematics Education”, this project has been approved by the Quality Education Fund (QEF) of the Education Bureau of Hong Kong. With an aim of promoting active learning pedagogies in junior secondary school mathematics education, our PALMS team will invite at least 8 secondary schools to participate in this 2-year project. It’s expected to benefit at least 40 teachers and over 4000 secondary students of Form 1 to Form 3. By meeting and discussing their teaching needs with mathematics teachers, the team will develop relevant active learning lesson plans for chosen classes. They will also go to school and support teachers on integrating active learning lesson plans with technology. These lesson plan would include PALMS’ new and improved active pedagogies with their related mobile applications, scheduled to be implemented in classes in January 2021.

About the QEF project

This new approved QEF project originated and is an extension of the 3-year UGC Triennium Teaching and Learning Project entitled “Developing Active Learning Pedagogies and Mobile Applications in Tertiary STEM Education”, led by PolyU in collaboration with HKU, CUHK and HKBU. Its objectives are:

- Increase students’ overall learning outcomes in Mathematics secondary school education through active learning, e.g., conceptual understanding, motivation, collaboration, academic performance and lifelong learning.
- Explore and develop active learning pedagogies to increase student engagement in Math secondary school education.
- Develop an online platform to promote and encourage wider adoption of active learning among Hong Kong Math instructors.
- Adapt existing or develop new mobile applications to enhance active learning.
- Use and improve quantitatively rigorous and valid methods to evaluate the impact of active learning strategies on student learning in Math education.

Under this project, the following new and improved active pedagogies with their related apps would be adapted to lesson plans tailor for the junior secondary students:

- A new fun and collaborative, problem-based learning and peer assessment teaching method utilizing online whiteboards (IOWBs);
- Interactive in-class activities using YoTeach!, a PALMS developed backchannel chatroom and drawing app;
- Gamified problem-based learning through Badaboom!, a Kahoot!-like platform which can implement math expressions and equations.

Media coverage

Headline News - shorturl.at/dACLY

HK Economic Times - shorturl.at/cVX67

Sky Post - shorturl.at/kvDHP

Enquiry:

E-mail: palms.hk@polyu.edu.hk

Website: www.palms.polyu.edu.hk