## Learning by Engaging and Teaching (LET) Programme - Reflective Journal Leung Wang Chi

As one of the tutors of the Enrichment Programme for Young Mathematics Talents (EPYMT), I joined the LET Programme in 2015 which held a couple of rewarding activities. My duties include preparing the teaching materials for the tutorial sessions of a mathematics course. The students are mainly high school students with strong mathematical background and talented. I also needed to prepare quizzes and mark the scripts with other tutors. Throughout the threeweek intensive course, we made sure that students understood the challenging materials and tried our best to answer their questions. All these require good organizing and coordinating skills.

Meanwhile, the LET Programme provided a series of activities which aimed to boost our abilities. It started with a Teaching and Learning Workshop in June, where we learnt how to teach effectively and present our ideas clearly. This is essential to tutors as their main duty is to transmit knowledge to young talents. Rather than copying what there is on the lecture notes, tutors shed light from a different angle to enrich the students. When students encounter difficulties from the teaching materials, tutors need to utilize their presentation skills to paraphrase the complex ideas and pinpoint the common misconceptions. Despite the relevant knowledge of the course, I sometimes had difficulties mastering all the teaching materials. To compensate, my approach was to read through the notes weeks ahead so as to leave sufficient time to tackle the thorny parts. Luckily, all the problems were solved in advance and I gained new insights of the course.

In July, the LET Programme organized a Leadership Day Camp in Tai Po. Participants of the LET Programme challenged themselves through a number of water activities and learnt to canoe. On the one hand, the activities increased our confidence that we managed to accomplish the challenges imposed by the instructor. On the other hand, we improved our communication and leadership skills as the challenges required teamwork and mutual understanding. Although our duties as tutors were irrelevant to water entertainment, we could put into practice the interpersonal skills involved: Tutors in EPYMT do not work independently; instead they need to coordinate with each other to provide the best teaching. For example, they share the duties to attend the morning lecture, discuss the contents of the tutorials and draft the quizzes. These cannot be achieved by a single person but easily by a well-coordinated group. In the case of mine, I was very delighted to work with 9 other motivated tutors, who adhered to their duties and never delayed. What is more, the use of social media really helped when we needed to contact beyond the school time.

Besides the benefits of effective teaching, the LET Programme made me reflect on the nature of learning. Acquiring the direct knowledge and skills is no doubt fundamental, for instance understanding the materials of a course and practicing the demonstrations in the laboratory. Still, our abilities can be better suited with our duties through extra activities. Tutors need to present their ideas and cooperate with colleagues. Accordingly, my communication skills could be enhanced as I received mathematical training mostly in terms of literal reasoning rather than verbal discussion. The LET Programme presented us with challenges that required teamwork in the day camp, which was analogous to what happened in the tutoring. We did not train our communication skills by talking to each other repetitively, but indirectly through other activities. As one of the instructors in the camp said, "You learn through daily observation and practice." The activities indeed equipped us to be better tutors and organizers.