HKU Faculty of Dentistry students teach secondary school science

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A team of students from the HKU Faculty of Dentistry hosted interactive workshops this year at two local secondary schools to teach science by introducing concepts in oral microbiology and dentistry, using a problem-based learning approach.

Supervised by Dr C Jaya Seneviratne (Research Assistant Professor in Oral Biosciences), the Faculty students (Ms Shirley CC Kot [BDS VI], Mr Chao Ji [BDS V], and Mr Chu-hang Leung [BDS IV]), held practicals and small-group tutorials for 55 Form 1 and 2 students at the Good Hope School and the Immaculate Heart of Mary College.

“Science is taught in Hong Kong secondary schools mainly by means of traditional lectures and textbooks,” says team leader Shirley Kot. “Our team wanted to convey knowledge of biological science by using dental-related real-life examples in a hands-on and fun way.”

Using a problem-based learning technique, the BDS students led discussions on scenarios about the oral health of two fictitious characters, 12-year-old Jenny and her father, to gain interest and to encourage feedback and ideas. Follow-up practical sessions included measuring the acidity of popular drinks, testing the effect of chewing gum on saliva flow, and observing mouth bacteria under a microscope. The results were then discussed in relation to tooth decay and gum disease.

According to questionnaire replies, about 70% of participants said the workshops aroused their interest in science and about 80% said they were inspired to learn more about oral health. “What we showed is that oral microbiology and dental examples are very useful in learning secondary school science,” says team mentor, Dr Seneviratne. The Hong Kong Federation of Youth Groups, which helped organise the events at the two schools, said the project was “very meaningful” and “very good service to the community”.

Titled Bridging Dentistry with Secondary School Science in Hong Kong, this Knowledge Exchange Project was supported by the HKU Knowledge Exchange Fund 2011-12, granted by the HKSAR University Grants Committee to HKU.