



跨院校資優教育協作 開拓更廣闊空間

香港城市大學與香港資優教育學苑於去年（2017年）暑假展開了 TAE 計劃，以跨院校協作模式推動資優教育。香港城市大學協理學務副校長（大學策略）何敏賢教授憶述，其構思源自資優孩子們在某學科表現卓越，但往往不清楚在大學學習的過程裡怎樣才能更發揮自己的優秀潛能。以數學尖子為例，他們知道自己可以朝數學方面發展，卻不理解數學課程在大學裡是甚麼一回事。在這種已知和未知的情况下，便有可能窒礙了他們的長遠發展。

何敏賢教授表示，「作為教育工作者，我不停探究在中學和大學的階段可以怎樣為資優孩子們增值？因此，我萌生了跨院校協作的概念，希望為他們提供更多資訊，從而幫助他們作出正確的選擇。城大在教學資源上較為豐富，設備先進，與資優學苑協作，正好為資優生們提供一個理想的平台，讓他們更清楚了解不同學科的知識要求和發展前景，以配合自己的才能、興趣和長處。」

提供更多選擇

去年約三十位資優學苑學員參加了城大與資優學苑首次合辦的 TAE 計劃——「定格動畫入門」及「3D 模型展示數學之美」課程。城大與資優學苑專家，為計劃注入情意教育元素，希望讓這群學生的潛能和創意得以展現，同時亦學會管理情緒。目前，第一階段的課程經已完成。現在已經進入第二階段，讓學生有較長時間參與教授們的學術研導項目 (Academic Project)。

城大數學系韓耀宗教授指出，數學有助學生找出宇宙的架構。「透過此項活動，我希望可以讓學生感受到數學的奇妙。數學具藝術性，可以很美；學生編寫電腦程式，利用 3D 打印實驗室製作模型展示數學之美，藉此提高他們對數學的興趣，得到更大的滿足感之餘，更可以燃點起熱情去學習更深的理論。」

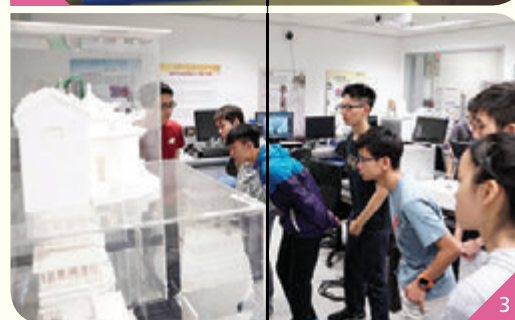
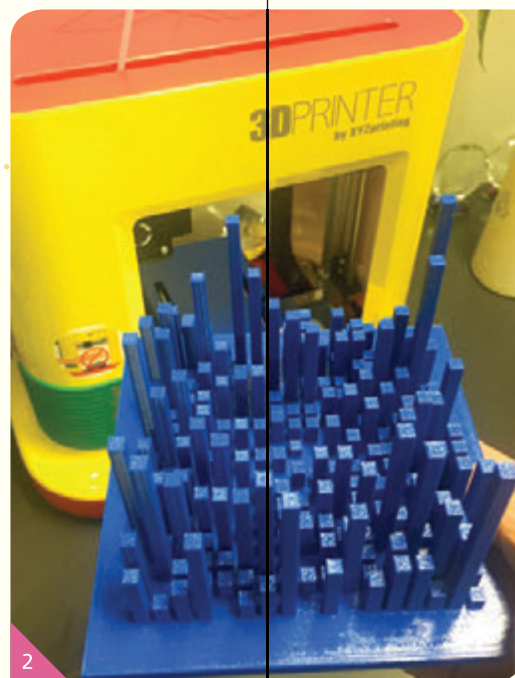
城大創意媒體學院高級特任講師梁曉明先生表示，「動

畫製作是一個『探索』過程，當中涉及所謂靈感，創作構思，需要透過攝影以至後期電腦製作來完成。動畫製作是一項實驗與實踐並重的活動，希望學生可以享受整個過程，從中發掘趣味。而動畫製作不單強調創意，在製造過程之中，更需要有慎密的心思，在細節上掌握恰如其分，這種技巧可運用於其他學科之上。」

未來動向

何敏賢教授說，「經過了去年於暑假期間舉辦的先導計劃，我們希望今年（2018年）開始把計劃延展至數個月，即由今年的 4 月至 7 月。此外，由兩個項目再增多四個項目，包括：數學與遊戲 (Math and Games)、英語探秘 (What's inside English?)、太陽能汽車 (Solar Car Day Camp)、貿易工作坊 (Trading Workshop)。我們希望跟資優學苑合作，總結現有的經驗，特別是怎樣滲入情意教育元素於培育資優生的課程中，開拓成為開放式資源平台 (Open Source)，再跟其他院校一起協作，促進本港資優教育的發展。」

1. 香港城市大學數學系韓耀宗教授、協理學務副校長（大學策略）何敏賢教授及創意媒體學院高級特任講師梁曉明先生（從左至右）希望透過跨院校協作，為資優生提供更多選擇。
2. 同學在「3D 模型展示數學之美」課程中打印出來的作品。
3. 參加的同學都對打印出來的 3D 模型，甚感興趣。
4. 動畫製作是一個「探索」過程，當中涉及創作構思，需要透過攝影以至後期電腦製作才能產生成品。
5. 動畫製作不單強調創意，在過程中需要在細節上掌握恰如其分，這些技巧可運用於其他學科之上。



城大 TAE 計劃網址

Cross-institutional Collaboration Fosters Development of Gifted Education

City University of Hong Kong (CityU) joined hands with the Hong Kong Academy for Gifted Education (HKAGE) to launch the 'Talents, Aspiration and Excellence' (TAE) programme, which is a cross-institutional collaboration to foster gifted education development, in 2017. Prof. Samuel M.Y. Ho, Associate Provost (Institutional Initiatives), CityU, said the programme aimed to help gifted students who excel in certain subjects but do not have a clear picture on how to fulfil their potential in university education. For instance, gifted Mathematics students would probably like to pursue higher level of Mathematics knowledge in university. However, they might not know exactly the extent of Mathematics knowledge that covered in the university education. Such circumstances might jeopardise the long-term development of the gifted students.

Prof. Ho said, 'As an educator, I keep looking for ways to help gifted students further develop their talents in secondary school and in university. That's why I come up with the idea of cross-institutional collaboration. Through this initiative, we can offer the gifted students more information to help them make the right choice. CityU has richer educational resources and cutting-edge facilities. We provide a very ideal platform for gifted students to learn more about the knowledge requirements and prospects of different fields through the TAE programme. This will facilitate the students to choose their university majors that best fit their talents, interests and strengths.'

Provide More Choices

Around 30 HKAGE members attended 'Introduction to Stop Motion Animation' and '3D Model for Revealing the Beauty of Mathematics', TAE courses launched by CityU and the HKAGE, last summer. Instructors from CityU and the HKAGE incorporated affective education elements into the programme, aiming to help participants bring out their potential and creativity as well as managing their emotions.

The first phase of the programme concluded already. The second phase has just kicked off, allowing students to spend more time on the Academic Project with the instructors.

Prof. Benny Y. C. Hon, Department of Mathematics, CityU, said Mathematics helps students understand the creative pattern of the universe. He added, 'I hope students can see the wonders of Mathematics in the course. Mathematics is artistic and splendid,

and its beauty can be shown by a model made in the 3D printing laboratory. This exercise not only increases students' interest in Mathematics but also brings them a sense of satisfaction and motivates them to study advanced theories.'

Mr Leung Hiu Ming, Eddie, Senior Teaching Fellow, School of Creative Media, CityU, said, 'Animation is a media that delivers emotional experience. The creation process involves exploration of creativity, storytelling, visual arts & design, film and animation languages, craftsmanship and related production skills. It is a combination of science and art. I hope students can enjoy these diverse explorations. Animation production emphasises not only on creativity but also attentiveness to detail. Such skills can be applied to other subjects.'

Way Forward

Prof. Ho added, 'With the experience gained from the TAE pilot scheme held during last summer holidays, we plan to extend the programme duration to 4 months, from April to July in 2018. Besides, we will add another four courses, in addition to the existing two, including "Math and Games", "What's inside English?", "Solar Car Day Camp", and "Trading Workshop". We hope to work with the HKAGE and use our experience, especially those involving affective education, to develop an Open Source curriculum to facilitate further collaboration with other institutions in future to foster the development of gifted education in Hong Kong.'

1. (Left to right) Prof. Benny Y. C. Hon, Department of Mathematics, CityU, Prof. Samuel M.Y. Ho, Associate Provost (Institutional Initiatives), CityU, and Mr Leung Hiu Ming, Eddie, Senior Teaching Fellow, School of Creative Media, CityU, hoped to provide more choices for gifted students through cross-institutional collaboration.
2. The printed model made by student who joined the '3D Model for Revealing the Beauty of Mathematics'.
3. The participants found the 3D models interesting.
4. Animation is a creation process that involves exploration of creativity, storytelling, visual arts & design, film and animation languages, craftsmanship and related production skills.
5. Animation production emphasises not only on creativity but also attentiveness to detail. Such skills can be applied to other subjects.



CityU TAE Website

