"It allows inclusion to happen instead of labeling"



The concept of binding Science, Technology, Engineering and Mathematics (STEM), has emerged recently. But how can it truly benefit our society? Wong Chi Ping, Desmond, a year 3 engineering student, along with Wong Kwong Yat, Felix, Yeung Tsz Lok and Yu Shing Chit, Alvin joined Samsung Solve for Tomorrow 2018, a competition which looked for youngsters in Hong Kong acquiring the knowledge and designing innovative tools to address the needs of students with Special Educational Needs (SEN).



As a team, they designed a learning mobile app, Future Warriors. The main objective is not only to help students to overcome the challenges arising from their special education needs, but also for other students to learn new knowledge in a fun and attractive way. One of the minigames allows SEN students to learn Chinese characters more easily. In the eye-catching card battle game, portions of Chinese characters are visualized and students need to combine them to form a word to activate corresponding functions, such as "attack" and "heal". Inspired by common card battle games in daily life, Desmond discovers that after playing for a long time, one can decide which cards to play by reflection action in a shorter time. This becomes the core idea of the game. Students who have dyslexia can then both memorize the characters well and understand their meaning. Another game, which is cooperative coding, requires players to construct programs graphically and intuitively to control how the characters walk in the maze and unlock different achievements. For autistic students, who may tend to excel at mathematics and logical reasoning but not good at communicating, will then be encouraged to communicate with other players to play better with the incentive of winning the game. This encourages not just autistic students to speak out proactively, but also increase inclusiveness among the society; allowing people to learn from each other instead of labeling.

In the future, more mini-games will be added,



which can tackle the needs for students with different kinds of special educational needs. With the insights gained from the HKU International STEM symposium, Desmond was able to utilize the game engine to well construct a meaningful and effective learning platform.

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