

# INTEGRATING VISUAL ARTS INTO STEM EDUCATION IN HONG KONG

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## Abstract

The Hong Kong Special Administrative Region's (HKSAR) *2015 Policy Address* (HKSAR, 2015) and *2016 Policy Address* (HKSAR, 2016) announced the implementation of STEM education in Hong Kong. The HKSAR government provided one-off grants of HK\$100,000 (approximately US\$12,900) to each primary school and HK\$200,000 to each secondary school in 2016 and 2017, respectively, to support school-based STEM education (Tang, 2017).

It has now been 7 years since the release of these policy documents and resources to promote STEM education. As a visual arts teacher educator, I believe that moving from STEM to STEAM education can provide students with powerful and authentic learning opportunities. The Arts not only helps visualize the students' creative thinking process but also cultivates their willingness to modify their creative products, just like the persistence of artists and scientists in achieving perfection.

The author has been teaching the Nurturing Creativity Through Visual Arts Activities course at the Education University of Hong Kong (EdUHK) since 2015, which has incorporated STEAM elements since 2017. I designed teaching activities focused on guiding preservice teachers to experience how to transform what they want to "teach" into STEAM-related inquiry learning activities. Through a virtual STEAM teaching project, my teaching team developed these STEAM teaching activities into multiple STEAM teaching units, and conducted trial teaching with preservice teachers in 3 primary and 3 secondary schools in Hong Kong. Participating teachers pointed out that these STEAM teaching materials are highly feasible to implement in schools. Participating primary and secondary school students said they have never learned such comprehensive inquiry activities and found the exercises very interesting.

After soliciting opinions from teachers and students of the participating schools and modifying the instructional design, the project team used the Google site to produce several online teaching materials. The project team shared these STEAM online teaching units with primary and secondary school teachers in Hong Kong through an online platform. This poster presentation will share the STEAM teaching units through QR codes, the survey results of the STEAM teaching units sharing session, and reflections on the significance of STEAM education.

This sharing will provide QR codes on the poster to share the STEAM teaching units designed by the team, the survey results of STEAM teaching materials sharing session, and reflections on the significance of STEAM education.

**Keywords:** *STEAM education, visual arts, virtual teaching project, inquiry learning.*

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## References

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