

Innovation Network for STEAM Mature, AI Ready Talents (IN-SMART)
Informed Consent Letter: Principal

September 17, 2025

Dear Principal,

The Centre for Information Technology in Education, the University of Hong Kong (CITE) has been funded by the Quality Education Fund to conduct the project “Innovation Network for STEAM Mature, AI Ready Talents (IN-SMART)”. We would like to invite you and your school to participate in the project and associated data collection activities. The project is a one-year project from 1/9/2025 to 31/8/2026. The project involves integrating AI learning elements and Self-Directed Learning (SDL) in STEAM-related subjects in the upper primary (P4-P6) and lower secondary (S1-S3) levels.

This project aims to support schools in adopting an integrated SDL approach to STEAM education by establishing a scalable school network to facilitate project teachers to integrate AI learning elements into STEAM teaching and learning. It will provide support to teachers for developing their capacity in self-directed STEAM learning design, particularly in integrating AI learning elements into STEAM curriculum innovations to facilitate students to integrate and apply knowledge and skills across the disciplines relating to STEAM education, to exercise their self-direction in investigation or innovation, promote their digital and AI literacy, as well as nurture their entrepreneurial spirit. The project will foster networks for integrating AI learning elements and SDL in STEAM education to support sustainable school development.

To achieve the purposes described above, we would like to seek your consent to:

- (1) Participate in the following activities and data collection as the principal of the participating school:
 - A pre-project and post-project online survey (~20 minutes) and a pre-project and post-project interview (~45 minutes, with audio recording) about the development and progress of self-directed learning, STEAM education innovations, and multilevel leadership in your school. The surveys and interviews will be conducted at the beginning and end of the school year;
 - Allow audio recording during all project activities (including post-lesson observation debriefing discussions and leadership circle meetings); and
 - Allow photography and video recording during all project activities organized by the project, including award presentations and yearly dissemination events;
- (2) Conduct the following data collection activities related to the project at your school:

- Students participating in the project will complete a pre-project and post-project online questionnaire about SDL-STEAM (~20 minutes each) and an assessment of digital and AI literacy (~60 minutes each). These will be implemented in your school within the project implementation period;
 - Teachers participating in the project will complete a pre-project and post-project online questionnaire (~20 minutes each), and its implementation in your school within the project implementation period;
 - A pre-project and post-project focus group interview of teachers participating in the project in your school (~45 minutes, with audio recording) about the project outcomes, implementation issues, and effectiveness of project activities;
 - Provide access to the teaching and learning data and their analysis of your school hosted on e-learning platforms;
 - The team members of the project will conduct co-design with participating teachers and post-lesson observation debriefing discussions (audio recording);
 - Lesson observations (photography and video recording) will be conducted in designated classrooms. If students do not agree to be video recorded, arrangements will be made to exclude them from the camera or to blur their images;
 - After lesson observations, the team members will conduct student focus group discussions (~20 minutes, audio recording). The purpose is to understand the effectiveness of the co-designed curriculum units through the project activities and to collect curriculum documents and resources created by teachers for implementing the project at school;
 - With participants' consent, samples of students' work and related products arising from the project, and online student data will be collected; and
 - Allow the project team to collect teachers' reflective log (for resource schools only).
- (3) The learning designs and curriculum materials developed by teachers, selected samples of student work, and some of the materials presented during the project workshops and events will be displayed on the project website for the dissemination of good practices from this project and teacher professional development. Associated workshops include in-person or online network activities, such as five theme-based workshops, one STEAM-specific workshop, one project-review workshop, and optional technical training for teachers to introduce key project frameworks, facilitate the sharing and discussion of IN-SMART learning designs, and address other STEAM-related educational ideas. The project team will consult teachers from the respective schools before publishing the materials.

It is anticipated that this project will have the following benefits for the participating

schools:

- (1) Teachers participating in this project will:
 - Gain theoretical understanding, pedagogical knowledge, and skills about SDL and digital and AI literacy, its implementation and assessment within STEAM related subjects;
 - Learn about e-Learning design for integrating AI learning elements and SDL in STEAM-related subjects and to use the LDS and iLAP platforms (with iLAP available to subscribers only) in designing, implementing, and assessment; and
 - Enjoy teamwork and peer learning through project activities such as co-planning and peer-lesson observation involving teachers within and beyond their own school.
- (2) Students in the participating classes will have the opportunity to take part in curriculum units specifically designed for fostering SDL skills in STEAM-related subjects with AI learning elements, which is one of the most important 21st century skills. They will also develop associated competence in problem solving, mathematical thinking, digital and AI literacy, and scientific inquiry.
- (3) School principals and other school leadership team members will have opportunities to develop their leadership capacity through peer learning and knowledge sharing with school leaders in other project schools during leadership circle meetings, inter-school lesson observations, and debriefing discussions.
- (4) Building multilevel leadership capacity through networking, mentoring, and leadership hubs.

The data collected through these activities will be used solely for the purpose of academic research and teacher professional development, and to achieve the above project goals. Any information collected in this study will be kept strictly confidential. Data collected will be archived after all personal identifiers are removed, all the electronic data collected will be stored in a secure, password-protected server. The identifier matching file will be encrypted and kept separately for five years after the project end date. Only authorized personnel would have the password to access the file. All anonymized data will be kept forever. Participants have the right to review the records of data they contributed and to request erasure of parts or the whole of those records if desired.

Your participation is voluntary. This means that you can choose to stop at any time without negative consequences. If you have any questions about this project, please feel free to contact Dr Cong Liu at 3917-5807. If you have questions about your rights as a research participant, please contact the Human Research Ethics Committee, HKU at

3917-5267 (HREC ref. No: EA250499).

Please complete the reply slip and send it back to Dr Cong Liu (email: conglc@hku.hk)
on or before 03/10/2025.

Thank you very much for your attention.

Yours faithfully,



Professor Nancy Law
Chair of Learning Sciences and Technology, Faculty of Education
Deputy Director, Centre for Information Technology in Education
University of Hong Kong

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Informed Consent Letter: Principal

Reply Slip

By signing this form, you are verifying that you have read the attached letter about research participation in the project.

I **agree/ do not agree*** to participate in and support the implementation of the following project activities and data collection:

- (1) Participate in the following activities and data collection as the principal of the participating school:
 - A pre-project and post-project online survey (~20 minutes) and a pre- and post-interview of (~45 minutes, with audio recording) about the development and progress of self-directed learning, STEAM education innovations, and multilevel leadership in your school. The surveys and interviews will be conducted at the beginning and end of the school year;
 - Allow audio recording during all project activities (including post-lesson observation debriefing discussions and leadership circle meetings); and
 - Allow photography and video recording during public events organized by the project, including award presentations and yearly dissemination events;
- (2) Conduct the following data collection activities related to the project at your school:
 - Students participating in the project will complete a pre-project and post-project online questionnaire about SDL-STEAM (~20 minutes each) and an assessment of digital and AI literacy (~60 minutes each). These will be implemented in your school within the project implementation period;
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Name of School: _____

Name of Principal: _____

Principal's Signature: _____ Date: _____

Please send this consent form back to Dr Cong Liu (email: conglc@hku.hk) on or before 03/10/2025.

* Please delete where inappropriate