THE CHINESE UNIVERSITY OF HONG KONG

Funding Scheme to Support Pedagogical Research
supported by the Teaching Development and Language Enhancement Grant for 2022-25

Project Title: Evaluating the factors for positive teacher-student and student-student relationships in Higher Education

Principal Supervisor(s) and Unit(s):
Professor LEE Wing Yan Vivian, Centre for Learning Enhancement And Research

Project Objectives

This study investigates how positive teacher-student relationships enhance students' motivational beliefs in higher education, and how these beliefs subsequently increase emotional, cognitive, and behavioral engagement. By analyzing the connections between relationships, beliefs, and engagement, the project seeks to provide insights using the Situated Expectancy-Value Theory framework.

Implementation and Deliverables

This multi-faceted project involved a thorough literature review, online surveys conducted with 1,074 students, qualitative interviews, teacher workshops on using AI to foster positive relationships, and the development of informative micro-modules. The research findings have been disseminated through academic publications, conference presentations, and a comprehensive final report detailing the implementation, outcomes, and recommendations of the study.

Outcomes and Achievements (including Impact on Teaching and Learning)

Positive teacher-student relationships, characterized by active engagement, clear guidance, and inclusive environments, are crucial for enhancing academic experiences and outcomes of both undergraduate and postgraduate students. Quantitative data corroborates qualitative insights, with over 80% of students reporting high commitment, closeness, and complementarity with faculty. However, 18-19% students lack emotional engagement, 15-18% show weaker behavioral engagement, and 10-14% do not fully employ cognitive strategies. To support these disengaged students, the institution could implement targeted interventions, such as providing more engaging learning environments, offering tutoring and study skills workshops, and fostering a stronger sense of community. Identifying and addressing the root causes of disengagement with tailored support could help teachers to develop strategies to promote more widespread engagement.

Evaluation

The project collected comprehensive survey data from 1,074 undergraduates, revealing largely positive student-teacher relationships, peer connections, and motivation. However, it also identified a significant 15-20% minority of disengaged students, suggesting areas for improvement. To strengthen teacher engagement, the team should increase communication, offer incentives, and highlight how findings can directly benefit teaching practices.

Dissemination, Diffusion and Sharing of Good Practices

This project disseminated its processes and outcomes through comprehensive student surveys and interviews, teacher workshops, micro-modules, conference presentations, peer-reviewed journal publications, and sharing of best practices for building positive teacher-student relationships.

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Funding Scheme to Support Pedagogical Research
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Project Title: Pedagogical Research on Universal Design for Learning in Teaching and Learning at CUHK

Principal Supervisor(s) and Unit(s):
Professor LEE Wing Yan Vivian, Centre for Learning Enhancement And Research

Project Objectives

This project investigates inclusive pedagogy at CUHK by assessing students' and teachers' perspectives on UDL implementation. Findings will inform training, resources, and policies to enhance accessibility, aligning with CUHK's 2025 Strategic Plan for inclusive education.

Implementation and Deliverables

From April to August 2024, the team designed teacher/student surveys using validated tools. After ethics approval (SBRE-23-0941) and pilot testing (July-August 2024), data collection occurred from September 2024 to January 2025. Findings were disseminated through conferences, manuscripts, micromodules, and videos.

Outcomes and Achievements (including Impact on Teaching and Learning)

Initial findings were presented at CUHK's T&L Expo (Dec 2024), shared in workshop (Dec 2024), and will be presented at an international conference (Aug 2025). The team drafted two English manuscripts for Q1 submission. Videos, based on research findings, are in preparation.

Evaluation

The project successfully achieved KPIs: 3 conference presentations, 2 manuscripts (English/Q1). Micromodules are underway using research findings to enhance CU inclusive pedagogy. Earlier faculty collaboration during the design phase could have enhanced buy-in and preemptively addressed implementation challenges, though valuable feedback was still obtained during the project.

Dissemination, Diffusion and Sharing of Good Practices

The project shared findings locally (CUHK Expo 2024) and internationally (EARLI 2025), with manuscripts submitted to Q1 journals. Workshops and micromodules now support CUHK educators in implementing inclusive pedagogy based on research evidence.

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Funding Scheme to Support Pedagogical Research
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Project Title: Evaluating the Impact of Overseas Exchange Programmes: A Survey Study on the CUHK Business School

Principal Supervisor(s) and Unit(s):
Dr. KU Kei Tat, Fred, Department of Decisions, Operations and Technology

Project Objectives

The project aimed to evaluate the educational impact of CUHK Business School's structured overseas exchange programme, comprising MGNT 2511 (pre-departure) and MGNT 2512 (post-departure). It focused on understanding how the programme contributes to students' academic growth and intercultural competence.

Implementation and Deliverables

Survey instruments were designed and administered in Terms 1 and 2 of 2024–25 via Webform. A total of 273 valid responses were collected in Term 1. Data collection for Term 2 is ongoing. Preliminary findings were disseminated through presentations at the T&L Innovation Expo 2024 and the INDEX Symposium 2025. Enhancement recommendations for MGNT 2511/2512 will be finalised by July 2025.

Outcomes and Achievements (including Impact on Teaching and Learning)

The project demonstrated measurable gains in students' cultural adaptability and application of business knowledge in global settings. Recommendations have been drafted to further integrate reflective learning into the curriculum, aligning with CUHK's goals in global engagement and experiential learning.

Evaluation

The project met its KPIs in data collection and dissemination. Survey participation exceeded targets in Term 1, and the tools proved effective for tracking student development.

Dissemination, Diffusion and Sharing of Good Practices

Survey frameworks and course enhancements have been shared across CUHK and are being considered for adoption in other experiential learning programmes. A faculty-wide workshop and publication are planned to extend the impact.

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Funding Scheme to Support Pedagogical Research
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Project Title: Bridging the Gap Between Academia and Industry: The Problem-Based Learning (PBL) Corporate Projects at CUHK Business School

Principal Supervisor(s) and Unit(s):

Dr. KU Kei Tat, Fred, Department of Decisions, Operations and Technology

Project Objectives

The project aims to enhance the effectiveness of Problem-Based Learning (PBL)-informed corporate projects at CUHK Business School by: (1) identifying barriers to faculty involvement, (2) investigating factors affecting student engagement, (3) evaluating the impact of PBL on student learning outcomes and career readiness, and (4) disseminate good practices to boarder community.

Implementation and Deliverables

Key activities included a literature review, faculty interviews, and a student survey conducted via CUHK Webform. An international conference was organised with over 40 local and overseas educators from 9 regions participating. Eight dissemination events—including peer consultation workshops, interdisciplinary seminars, and a student-led symposium—were organized. The project produced a Faculty Onboarding Manual and a good practices summary to support broader adoption.

Outcomes and Achievements (including Impact on Teaching and Learning)

The project successfully advanced pedagogical practices by engaging faculty and students in authentic, industry-linked learning. Students reported improved confidence in applying business knowledge to real-world challenges. Faculty interviews identified practical strategies for facilitating PBL. Project insights were prominently featured in the INDEX Symposium 24/25, reinforcing CUHK's leadership in experiential learning.

Evaluation

Original KPIs were largely met, including the completion of seven faculty interviews, organization of workshops, and ongoing collection of student survey responses. The evaluation suggests strong alignment with CUHK's themes of experiential education, interdisciplinary collaboration, and teaching innovation.

Dissemination, Diffusion and Sharing of Good Practices

The project's outcomes have been shared through conferences workshops, public presentations, and international academic exchanges with partners such as SMU, Sabanci University, and Coventry University. Good practices identified—such as peer consultation and structured feedback loops—are being integrated into future experiential courses.

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Funding Scheme to Support Pedagogical Research
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Project Title: Investigating a Demand Model of Entrepreneurship Education for Academic Entrepreneurship

Principal Supervisor(s) and Unit(s):
Dr. NG Wing Fung Frank, Department of Management

Project Objectives

This project develops Demand model of entrepreneurship education programme. We offered a new online certificate series in entrepreneurship and provided mentorship from industry and investment sector professionals to the entrepreneurial teams. We aim to enhance participants' entrepreneurship skills and knowledge and to support the growth and development of their ventures.

Implementation and Deliverables

This project implemented the Demand model of entrepreneurship at The Vice-Chancellor's Cup of Student Entrepreneurship (VCCE) and Deep Tech Lab (DTL). We offered a new online certificate series in entrepreneurship, and provided mentorship from industry and investment sector professionals to the teams.

Outcomes and Achievements (including Impact on Teaching and Learning)

30 ventures completed the entrepreneurship education programme. Overall, the teams had developed better capabilities and resources for their startups in the programme; mentorship in both programmes achieved satisfactory results.

Evaluation

Overall, the project met its objectives satisfactorily, contributing to the key areas of Research and Innovation in CUHK 2025.

Dissemination, Diffusion and Sharing of Good Practices

The online course series is available on KEEP. This course was introduced in Teaching and Learning Innovation Expo 2024. Additionally, we have written two HKEJ column articles to introduce and advocate our project.

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Funding Scheme to Support Pedagogical Research
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Project Title: Non-Local Students in CUHK: Exploring their Pedagogical Needs and Adaptation to the University and Beyond

Principal Supervisor(s) and Unit(s):
Professor KING Ronnel Bornasal, Department of Curriculum and Instruction

Project Objectives

Currently, non-local students make up 27.7% of CUHK's total student population and 13% of its undergraduates. Given their distinct academic needs and adaptation challenges, increased support is essential. This study aims to understand non-local students' academic needs; examine their learning experiences and adaptation across courses and faculties; explore how these experiences shape their university adjustment; and provide evidence-based recommendations to enhance their academic integration.

Outcomes and Achievements (including Impact on Teaching and Learning)

The project has developed an assessment tool for non-local students, three micro-modules, and a dedicated website for both teachers and students, effectively disseminating best practices. The preliminary findings were presented at the Positive Education Symposium at CUHK in June 2025. Upcoming initiatives include a workshop in September 2025 to present research findings to more CUHK faculty and students. The results will also be shared at an international education conference, and an English manuscript is being prepared for submission to a higher education journal in December 2025.

Evaluation

The project has successfully achieved its established objectives, aligning with CUHK's Strategic Plan 2021-2025. Key Performance Indicators (KPIs) have been used to track stakeholder engagement and dissemination efforts, including the development of a project website and the organization of a workshop. Improvements in assessment methods have been made based on feedback from the workshop.

Dissemination, Diffusion and Sharing of Good Practices

The project will disseminate its findings to CUHK faculty and students through a workshop, fostering increased support for non-local students at both university and faculty levels. Additionally, it seeks to expand the impact of its research through participation in international academic conferences and publication in peer-reviewed journals.

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Funding Scheme to Support Pedagogical Research
supported by the Teaching Development and Language Enhancement Grant for 2022-25

Project Title: Enhancing Course Project Learning: Investigating Student Approaches and Introducing PBL and PjBL Pedagogies

Principal Supervisor(s) and Unit(s):
Professor CHUN Ka Wai Cecilia, Centre for Learning Enhancement and Research
Professor LEE Pak Ching Patrick, Department of Computer Science and Engineering
Dr. KAM Ho Chuen Calvin, Department of Computer Science and Engineering
Dr. QURESHI Umair Mujtaba, Department of Computer Science and Engineering

Project Objectives

The project aimed to investigate students' project approaches (structured, unstructured, or mixed) in one semester, and introduce PBL and PjBL pedagogies in the next semester to equip students with systematic methods and observe their impact on learning outcomes. No significant changes were made to the objectives during implementation.

Implementation and Deliverables

The project was implemented in two phases.

- Phase 1 investigated students' approaches to individual projects in the DLCT course (Semester 2, 2024) using a comprehensive survey, establishing a baseline for comparison.
- Phase 2 introduced PBL and PjBL pedagogies in Semester 1, 2025, with instructional materials (Word doc, presentation, video) circulated to students. New survey responses were collected and compared to Phase 1 to assess the impact on learning outcomes.

The DLCT course, mandatory for first-year students across eight CUHK faculties, serves ~4,000 students annually, presenting unique challenges due to diverse academic backgrounds.

Deliverables

- A comprehensive survey tool to assess students' project strategies.
- Learning analytics reports comparing student performance and approaches across both semesters.
- Enhanced curriculum design incorporating PBL and PjBL pedagogies.
- Evidence-based recommendations for improving project-based learning practices in the DLCT course.

Outcomes and Achievements (including Impact on Teaching and Learning)

- Phase 1 successfully identified students' project approaches via survey: 46.8% used no structured method, 27.9% mixed, and 25.35% PBL/PjBL, revealing critical gaps.
- Phase 2 is on track, with PBL/PjBL modules (Word doc, presentation, video) deployed on Blackboard (see attached folder). The finalized survey will be announced to DLCT teachers to boost participation, and an execution plan is ready for deployment.
- Impact analysis on problem-solving, creativity, and real-world application will conclude in June.

Evaluation

1. **Survey:** Achieve high response rates and classify student approaches (no structure, PBL, PjBL, or mixed). Phase 1 had 469 responses (25.24% rate): 46.8% no structure, 27.9% mixed, 14.9% PBL, 10.4% PjBL.
2. **Sharing Sessions:** Conduct ≥2 presentations; hold regular PI meetings and 2 DLCT team meetings.
3. **Publication: Awaiting** Phase 2 results.

Dissemination, Diffusion and Sharing of Good Practices

1. **Dissemination:** Phase 1 findings were presented to the DLCT team, revealing most students used unstructured (46.8%) or mixed (27.9%) approaches. Full academic dissemination awaits Phase 2 completion.
2. **Good Practices:** The two-phase framework (baseline → intervention) employed Blackboard-hosted resources (manual, slides, videos) to introduce learning pedagogies.
3. **Replication Strategy:** This replicable methodology, including standardized surveys and pedagogic materials, enables cross-disciplinary adaptation for structured learning integration.

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Funding Scheme to Support Pedagogical Research
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Project Title: Evaluating the Effectiveness of Virtual Reality (VR) Serious Game in Acute Medicine Teaching for Medical Students

Principal Supervisor(s) and Unit(s):
Dr. WONG Wai Tat, Department of Anaesthesia and Intensive Care

Project Objectives

The project aims to evaluate VR-based serious game modules for training medical students in acute life-threatening illness management. Key objectives include assessing knowledge advancement (Kirkpatrick Level 2) and behavioral changes during internships (Level 3) by correlating VR performance metrics with summative exam scores and post-graduation engagement with learning materials.

Implementation and Deliverables

Three VR case scenarios (cardiac arrest variants) were developed and tested with 240 final-year medical students. A fourth scenario (unconscious patient) was delayed due to technical complexity. Data collection is complete, with analysis expected by July 2025. Challenges in non-cardiac arrest scenarios and large-scale data analysis were addressed through project extensions and statistical support.

Outcomes and Achievements (including Impact on Teaching and Learning)

Preliminary results indicate VR's effectiveness in high-stakes medical training. The integration of VR into the MBChB curriculum has enhanced student engagement and provided measurable performance metrics. Early feedback suggests improved confidence in crisis management, though long-term behavioral impact requires further study.

Evaluation

The project met initial KPIs, focusing on Kirkpatrick Levels 2 and 3. Data analysis will validate correlations between VR training and academic/clinical performance. Lessons learned include the need for streamlined vendor processes and adaptive module development for complex scenarios.

Dissemination, Diffusion and Sharing of Good Practices

Findings will be presented at the 2026 Asia Pacific Medical Education Conference. Collaborations with CUHK's School of Biomedical Sciences, Nursing, and Medicine, as well as industry partners, aim to expand VR applications. The project serves as a model for scalable, immersive learning in medical education and beyond.

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Funding Scheme to Support Pedagogical Research
supported by the Teaching Development and Language Enhancement Grant for 2022-25

Project Title: Evaluation of Teacher-Student-Generative AI Connection in Metaverse Learning Space – New Mode Continuum in Health Professional Training

Principal Supervisor(s) and Unit(s):
Dr. TANG Mei Kuen Florence, School of Biomedical Sciences
Professor CHEUNG Pak Hang Peter, Department of Chemical Pathology
Professor LAM Wai Kei Jacky, Department of Chemical Pathology
Dr. KEE Francis, School of Biomedical Sciences

Project Objectives

The AIMS project aimed to enhance educational quality by integrating generative Artificial Intelligence (AI) into a Metaverse Simulation, promoting student-centred learning. Its objectives focused on empowering students to take active roles, promoting autonomy, critical thinking, and collaboration, while providing diverse resources for self-directed exploration and professional competence development.

Implementation and Deliverables

Implementation centered on advanced technologies: AI-powered tutors for adaptive self-revision, a 3D photogrammetric human body specimen library for interactive exploration, and a cell-based virtual environment connecting core knowledge areas. Students engaged with the AI-powered tutors and participated in self-reflection virtual spaces, which together promoted individualised learning, experiential practice, and social interaction.

Outcomes and Achievements (including Impact on Teaching and Learning)

The project achieved notable outcomes, transforming teaching and learning by supporting active, interdisciplinary, and innovative education. The integration of AI tutors, using the study of anatomy (head and neck) and physiology (reproductive systems) as examples, along with immersive 3D resources, enabled the learning process to incorporate adaptive analytics, enhance knowledge application, and promote learner autonomy. The platform facilitated flipped classroom activities and personalized interventions, advancing global readiness and sustainability in education.

Evaluation

Evaluation employed a KPI-driven framework, tracking deliverables such as avatar creation, peer group formation, and conference presentations. Stakeholder engagement was fostered through seminars and feedback sessions. Quantitative surveys indicated high student approval for AIMS features, particularly for interactivity and feedback. However, the evaluation process highlighted the need for more qualitative and outcome-based metrics to better capture learning impact and stakeholder satisfaction.

Dissemination, Diffusion and Sharing of Good Practices

Dissemination efforts were robust, with AIMS innovations integrated into CUHK's health education and will be shared through collaborations with CUHK-Shenzhen and HKU in the future. Best practices were promoted via webinars, conferences, and workshops, supporting sector-wide adoption and continuous improvement of immersive, AI-enhanced education.

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Funding Scheme to Support Pedagogical Research
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Project Title: Young Shennongs – Interactive Herbs (I-herbs) Learning
Principal Supervisor(s) and Unit(s):
Miss CHU Oi Yu, School of Chinese Medicine

Project Objectives

The project aims to enhance foundational Chinese Medicine education by integrating 3D scanning and AR technology to create an AR herb garden. This approach provides hands-on experience, expands resources, and introduces innovative teaching methods, offering a pioneering model for digital engagement in Traditional Chinese Medicine education.

Implementation and Deliverables

Students selected herbs and created 3D images for their projects, guided by lectures and a workshop. They built websites showcasing their work, presented at a conference, and received rewards. The school lab was redesigned with AR codes, and sharing sessions will be organized for Year 2 students to instruct Year 1 students on 3D scanning and website building.

Outcomes and Achievements (including Impact on Teaching and Learning)

We evaluated the pedagogy through collecting student feedback via questionnaires and interviews. The project met its objectives and aligned with university and UGC goals, by introducing AR and web-based learning. Students actively engaged and worked collaboratively and independently, reflecting a positive shift towards student-centered education and contributing to knowledge sharing.

Evaluation

The project aligned with its proposal, with minor delays in student sharing sessions. Despite technical issues, the project was deemed instructive and worthwhile. Student feedback highlighted increased motivation and participation but noted stress due to unsatisfactory 3D scanners. Year 2 students led website and 3D scanning tasks and shared results at a conference. By providing guidance to Year 1 students, the project is self-sustaining.

Dissemination, Diffusion and Sharing of Good Practices

We hosted a conference to share project insights, fostering collaboration at CUHK. Websites with 3D images are publicly accessible, benefiting future students. Results are shared with HKBU and will be documented in a report for industry distribution and potential academic publication.

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Funding Scheme to Support Pedagogical Research
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Project Title: Student-oriented E-Health Service Learning in Chinese Medicine for exploration of alternative medical care

Principal Supervisor(s) and Unit(s):
Dr. HUA Heyu, School of Chinese Medicine
Ms. HUNG Hing Yu, Ada, School of Chinese Medicine

Project Objectives

This project aims to enhance students' clinical skills through real-life teleconsultations with cerebral palsy patients, promote social responsibility through service-learning, integrate telemedicine into Chinese Medicine education, and demonstrate the relevance of Chinese Medicine in public health.

Implementation and Deliverables

The project combined lectures, in-person practice, and online follow-ups to equip students with hands-on experience in pediatric cerebral palsy care. Students designed and adjusted care plans under TCM mentors, presented outcomes, and learned through real consultations. The program bridged classroom learning with clinical practice, integrating telemedicine and enhancing student confidence in applying TCM in real-world settings.

Outcomes and Achievements (including Impact on Teaching and Learning)

The service-learning project effectively bridged classroom knowledge with real-world clinical practice. With 94.1% of students affirming its relevance to practical learning and 76.5% gaining deeper understanding than from lectures alone, the project fostered strong skill development. Students enhanced communication, problem-solving, and social responsibility, showcasing its success in experiential education and civic engagement.

Evaluation

The project stayed aligned with its original aims, with minor adjustments for caregiver scheduling. Strong mentorship and telemedicine integration ensured success. Student skills improved notably, as shown in survey data. While feedback tools supported evaluation, future efforts should include standardized metrics and more structured caregiver input to enhance assessment accuracy.

Dissemination, Diffusion and Sharing of Good Practices

The project integrated clinical service, telemedicine, and service-learning into the Chinese Medicine curriculum. To sustain its impact, plans include publishing outcomes online, submitting an academic article, and distributing a community pamphlet. It has also been formally adopted into the fourth-year internship, ensuring long-term educational and community engagement benefits.

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Funding Scheme to Support Pedagogical Research
supported by the Teaching Development and Language Enhancement Grant for 2022-25

Project Title: Design Methodologies as Teaching Strategies for the International Collaborative Design Studios in the Guangdong-Hongkong-Macao Great Bay Area

Principal Supervisor(s) and Unit(s):

Professor CAI Jiaxiu, School of Architecture

Project Objectives

This project establishes international collaborative teaching frameworks to advance design methodologies in the Greater Bay Area. Through global expertise and redesigned studio pedagogy, it fosters interdisciplinary solutions and cultivates adaptable talent to address GBA's challenges while setting benchmarks for transformative, globally integrated education.

Implementation and Deliverables

Based on the Course ARCH 5131D, ARCH4115, URBD 5720, URBD 5734, and the 2025IFoU winter school led by the principal supervisor and co-supervisor, the deliverables consist of online learning resources (learning package), lecture, exhibitions, international workshops, and publications (a course booklet and a full conference paper).

Outcomes and Achievements (including Impact on Teaching and Learning)

This project reshapes cross-scale thinking in GBA through international pedagogy and mapping tools. Collaborative workshops with global think-tanks cultivate talent adept at translating systemic analysis into localized design, establishing a replicable framework for transformative, context-responsive architectural education

Evaluation

The accomplishment of the project in terms of KPIs is in line with the research plan in the proposal. In addition to meeting all the KPIs, more work is being conducted to increase the impact of the project's subsequent research.

Dissemination, Diffusion and Sharing of Good Practices

The project amply impacts on in-campus education, international cooperation, and communication between practice and research.

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Funding Scheme to Support Pedagogical Research
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Project Title: A Comparative Study of Sustainability Competence Evaluation of Tourism and Sustainable Development Goals (SDGs) Game-based Learning

Principal Supervisor(s) and Unit(s):
Professor CHAN Chung Shing, Department of Geography and Resource Management

Project Objectives

This project evaluates game-based learning's effectiveness in enhancing sustainability competence in tourism and SDG education. Using the EU's GreenComp framework, knowledge, attitudes, and behavioural intentions among CUHK and international students are assessed. Pre-post evaluations validate the game design and inform pedagogical innovation for sustainability education.

Implementation and Deliverables

The project involved online SDG-themed tourism games for CUHK and international students, with pre-post gameplay evaluations. Deliverables include a mixed-method evaluation protocol with a validated GreenComp-based questionnaire on the dimensions of knowledge, attitudes, and behavioural intentions, online game workshops with cross-institutional academic exchange, and survey-based learning outcome datasets on pedagogical innovation.

Outcomes and Achievements (including Impact on Teaching and Learning)

Game-based pedagogical innovation improved students' sustainability competencies, including educational values connecting key concepts with the gameplay experiences. Teachers noted higher engagement and deeper discussions in classroom workshops. The project strengthened international collaboration and refined pedagogical design, demonstrating the game's effectiveness in interdisciplinary sustainability education.

Evaluation

A mixed-method approach (surveys, interviews, observations) assessed learning outcomes using GreenComp with the dimensions of knowledge, attitudes, and behavioural intentions. Results showed high and increased scores in these dimensions, with significant enhancement in knowledge and behavioural intentions. These reflected students' greater sustainability awareness, a stronger sense of collaboration, and critical decision-making ability. Qualitative feedback confirmed engagement, while insights supported iterative improvements in game-based teaching strategies.

Dissemination, Diffusion and Sharing of Good Practices

Research findings were shared via workshops, academic publications, teaching and learning conference presentations, and collaboration forums. As good practices, both the board and online games were made available for adaptation by game sharing with CUHK staff, students, and external collaborators. Future plans include further open-access game dissemination to create and advance social impacts on game-based sustainability education.

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Funding Scheme to Support Pedagogical Research
supported by the Teaching Development and Language Enhancement Grant for 2022-25

Project Title: Enhancing Learning through Sleep: An Evidence-based Pedagogical Approach
Principal Supervisor(s) and Unit(s):
Professor LIU Xiaonan, Department of Psychology

Project Objectives

The project aimed to examine whether retrieval practice followed by sleep enhances memory retention, and to explore its application in classroom settings.

Implementation and Deliverables

In the lab phase, participants completed immediate and delayed tests following retrieval practice and sleep. The classroom phase involved students completing quizzes aligned to self-reported sleep times over five weeks. Deliverables included experimental data, performance measures, and student survey responses.

Outcomes and Achievements (including Impact on Teaching and Learning)

Lab findings showed improved memory performance after sleep, supporting the benefit of post-retrieval sleep. However, the classroom phase showed no significant differences in learning outcomes. Nonetheless, students reported increased awareness of the role of sleep in learning. The project promoted reflection on translating research into teaching practice.

Evaluation

Most project objectives were partially achieved. KPIs captured key insights, though challenges such as self-report limitations and scheduling variability were noted. Future work may involve longer interventions and objective sleep tracking tools for improved fidelity.

Dissemination, Diffusion and Sharing of Good Practices

Findings were presented at a formal academic conference and internal seminars. A manuscript is nearly ready for journal submission. Key practices such as piloting, adaptive study design, and the use of flexible digital tools were identified as valuable strategies for future replication.

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Funding Scheme to Support Pedagogical Research
supported by the Teaching Development and Language Enhancement Grant for 2022-25

Project Title: Exploring the Impact of Socially Engaged Art Theory and Practice on Asia Exchange Teaching and Learning Pilot Model

Principal Supervisor(s) and Unit(s):
Professor YIM Sui Fong, Department of Fine Arts

Project Objectives

The project aimed to develop a teaching and learning model combining workshops, exhibitions, and exchanges to help students internalize socially-engaged art theory and practice. It produced learning resources, established peer support groups, improved class attendance, enhanced student participation, adopted innovative teaching approaches, and established external collaborations.

Implementation and Deliverables

Activities included workshops, exhibitions, public talks, and a website. The project enhanced curriculum designs by assessing students' abilities and understanding of artistic skills and community-based practices. It provided real societal situations for students to react to and reflect on critically and artistically.

Outcomes and Achievements (including Impact on Teaching and Learning)

The exhibition and workshops were completed on July 16, 2024, with additional public talks held. The project saw high attendance rates and positive feedback from students, indicating significant personal and artistic growth. Students showcased their work publicly, improved their art learning experience, and gained insights from interactions with diverse audiences.

Evaluation

KPIs reflected the project’s effectiveness, with pre- and post-surveys demonstrating changes in students' attitudes and learning outcomes. Self-initiated activities, such as field recording workshops and cultural tours, further indicated the project's success.

Dissemination, Diffusion and Sharing of Good Practices

A mini website documenting the project was created, serving as an archive and a pathway to future impact cases. This effort in socially engaged art practice will be further developed in the department, providing reference examples for students and facilitating future teaching of public art. Additionally, students were encouraged to adapt state-of-the-art VR equipment to present their artwork.

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Funding Scheme to Support Pedagogical Research
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Project Title: Technical Design Clinic: Peer Learning Workshops for Architecture Students

Principal Supervisor(s) and Unit(s):
Dr. HO Tsz Wai Jimmy, School of Architecture

Project Objectives

- A regular open-door design clinic to be established and supported by students.
- Demonstration of the use of software by industry practitioners and students.
- Archival of problem-based solutions into tutorial videos.
- Trained up a group of postgraduate and undergraduate student partners and enhanced peer learning and peer interactions.
- Positive impact of peer-learning activities on students' digital competence.

Implementation and Deliverables

- Recruitment of postgraduate champion students who are competent in a) digital drawing using AutoCAD, b) 3D modelling using Rhinoceros, c) image retouching and post-production using Adobe Photoshop and d) graphical layout using Adobe InDesign.
- Training session (four practitioners for the four digital media)
- Opening of Technical Design Clinic (Sep to Apr 2025) with video documentation
- Sharing session with other teachers and students

Outcomes and Achievements (including Impact on Teaching and Learning)

- More undergraduate and postgraduate students joined the initiative and additional student-led workshops on Artificial Intelligence tools are conducted on a weekly basis as a successful informal student engagement.
- Two champion students volunteered to develop extra video tutorials on Revit, a highly demanded BIM application in the industry) to supplement the current course curriculum.
- Fulfilment of University strategic plan 2025 on "Education" and "Student Experience" and "Strategic Area 3 — Information and Automation Technology" on AI research.

Evaluation

- Successfully organised training sessions for students, and the competence of digital skills has been reflected in the design projects.
- Enhanced interactions between students regarding the use of software are observed.
- Training sessions on various software skills were organized and welcomed by students.

Dissemination, Diffusion and Sharing of Good Practices

- Training sessions by the four practitioners were video recorded and uploaded online for future access (YouTube channel).
- Design clinic sessions conducted by champion students were recorded and uploaded online for future access (OneDrive platform).

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Funding Scheme to Support Pedagogical Research
supported by the Teaching Development and Language Enhancement Grant for 2022-25

Project Title: Enhancing Teaching and Learning Geography of China for Higher Education Sectors in Hong Kong

Principal Supervisor(s) and Unit(s):
Dr. GUO Chunlan, Department of Geography and Resource Management

Project Objectives

This project aims to enhance the teaching and learning Geography of China for higher education in Hong Kong. Specifically, it will (1) conduct a systematic review of teaching and learning Geography of China in higher education sector worldwide, including mainland China; (2) review and improve the syllabus of GRMD 3301 Geography of China; (3) develop new teaching and learning activities, such as virtual and face-to-face course field trips; (4) provide guides for teaching and learning Geography of China.

Implementation and Deliverables

This project has successfully implemented and delivered five key outcomes: (1) comprehensive teaching resource packages for GRMD 3301; (2) an impactful face-to-face Shenzhen field trip (February 2025); (3) an innovative virtual Sichuan field trip (February 2025); (4) strategic academic collaboration initiated with South China Normal University's Geography School (February 2025 meeting); and (5) international knowledge dissemination at the 2024 Geographical Society of China Congress.

Outcomes and Achievements (including Impact on Teaching and Learning)

This project has significantly enhanced the teaching and learning of Geography of China in Hong Kong higher education through four key outcomes: (1) a comprehensive systematic review that identified global best practices, (2) an improved GRMD 3301 syllabus incorporating innovative pedagogies, (3) newly developed virtual and physical field trips that increased student engagement, and (4) practical teaching guides that have been adopted department-wide.

Evaluation

To evaluate the updated syllabus's effectiveness, pre- and post-course surveys were conducted in January and April 2025 with 63 paired responses (82% response rate). Results showed statistically significant improvements ($p<0.05$) across all measured areas, particularly in human geography (+0.86 out of 5 points), rural development (+1.05), and overall understanding of China's geography (+1.03). Geographic technologies and regional development both improved by +0.72. While analytical confidence and data skills showed smaller gains, they remained significant ($p<0.01$). Narrow confidence intervals and high t-values confirmed that the syllabus successfully enhanced both conceptual knowledge and applied skills regarding China's geographical issues.

Dissemination, Diffusion and Sharing of Good Practices

The project has effectively disseminated its outcomes through curriculum implementation (updated GRM3301 syllabus), academic presentations (Geographical Society of China Congress 2024), and institutional collaborations (South China Normal University), with further knowledge sharing planned through a departmental meeting and journal submission. These activities demonstrate the successful institutionalization of project deliverables and good practices within our department and growing interest from external geography programs for potential adoption.