CPCE Centre for Pedagogic Research

CPCECPR e-Book 2026

THE HONG KONG POLYTECHNIC UNIVERSITY 香港理工大學
COLLEGE OF PROFESSIONAL AND CONTINUING EDUCATION 專業及持續教育學院
HONG KONG COMMUNITY COLLEGE 香港專上學院
School of Professional Education and Executive Development 專業進修學院
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CPCECPR e-book

The purpose of the CPCECPR e-Book is to promote contemporary pedagogical research topics within CPCE. Special thanks to all the TREF Awardee who share their project summary and research findings. Hopefully this book could encourage and inspire colleagues and students to engage in pedagogical research.

By CPCECPR Research Personnel Student Sub-committee, Dr Macy Wong and Dr Pat Chan

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Taking the Shortcut?
A Dual Process of Student's Intentions to AI-giarism

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Artificial intelligence (AI) has improved convenience and innovation in learning experience in which AI can assist students by expanding their access to existing knowledge from various disciplines, increasing efficiency in information search and analysis, improving critical thinking, and making learning more personalized (Rios et al., 2025). Since AI tools provide great efficiency in task completion, students in higher education frequently fall into misuse of AI tools to complete academic tasks. Such plagiarism traps, now evolving into an academic misconduct, known as AI-giarism (Toker & Akgun, 2025). As this problem intensifies, institutions increasingly query: Why do students fall into this inappropriate behaviour? This research identifies how students with a shortcut mentality (Schei et al., 2024) lead to academic procrastination (Alt & Boniel-Nissim, 2018; Wang & Li, 2024) and increased perception of benefits of using AI tools (Susnjak & McIntosh, 2024; Mills et al., 2023), finally result in unethical intention of using AI tools in an inappropriate manner (Susnjak & McIntosh, 2024; Enwereuzor, 2024; Rettinger & Kramer, 2009). This study uses dual process theory to explain the underlying process with two decision-making routes: A behavioural path (Type 1 processing) and a cognitive path (Type 2 processing) (Evans & Stanovich, 2013). Structural equation model of SmartPLS was used to validate the measurement and structural models. In addition, PROCESS Model 4 was employed to test for mediation analysis. Our results showed that shortcut mentality had positive impact on AI-giarism intention, both directly and indirectly via academic procrastination, supporting the behavioural (Type 1) route. Nevertheless, the cognitive path of shortcut mentality through perceived benefits was not supported. It did not influence perceived benefits and the indirect effect was non-significant. This result demonstrated that emotion-driven behaviour plays more essential role than rational evaluation in AI misuse behaviour. These findings offer theoretical contribution by extending dual process theory to academic dishonesty in digital and Ai context. For higher education institution and educators, findings show that interventions should emphasise more on improving emotional coping mechanisms and self-regulation, instead of focusing on rational warnings and threats.

Keywords:
Dual Process Theory, Shortcut Mentality, Academic Procrastination, Perceived Benefits, Intention to AI-giarism

References

Alt, D., & Boniel-Nissim, M. (2018). Links between adolescents' deep and surface learning approaches, problematic internet use, and fear of missing out (FoMO). Internet Interventions, 13, 30–39.

Enwereuzor, I.K. (2024). Dispositional greed and knowledge sabotage: The roles of cutting corners at work and ethical leadership. Current Psychology, 43, 1325–1339.

Evans, J.S.B., & Stanovich, K.E. (2013). Dual-process theories of higher cognition: Advanc-ing the debate. Perspectives on Psychological Science, 8(3), 223–241.

Mills, A., Bali, M., & Eaton, L. (2023). How do we respond to generative AI in education? Open educational practices give us a framework for an ongoing process. Journal of Applied Learning and Teaching, 6(1), 16–30.

Rettinger, D., & Kramer, Y. (2009). Situational and personal causes of student cheating. Research in Higher Education 50(3), 293–313.

Rios, T.C., Solis, J.B., Perez, R.J., & Aquije, M.M. (2025). Systematic review of critical thinking using artificial intelligence. Edelweiss Applied Science and Technology, 9(3), 990–1001.

Schei, O.M., Møgelvang, A., & Ludvigsen, K. (2024). Perceptions and use of AI chatbots among students in higher education: A scoping review of empirical studies. Education Sciences 14(8), 922.

Susnjak, T., & McIntosh, T.R. (2024). ChatGPT: The end of online exam integrity? Education Sciences, 14(6), 656.

Toker, S. & Akgun, M. (2025). Reducing AI plagiarism through assessment of higher-order cognitive skills. Innovations in Education and Teaching International, 62(5), 1665–1681.

Wang, L., Li, W. (2024) The impact of AI usage on university students' willingness for autonomous learning. Behavioral Sciences, 14(10), 956.

Tri-Modal Hybrid Learning in Hong Kong: Assessing Its Efficacy in Business Education through Student Engagement and Performance

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Post-COVID has witnessed significant shifts in the educational landscape, particularly in teaching and learning, through the adoption of hybrid learning environments. This learning approach combines traditional face-to-face classroom methods with online digital platforms (Hapke, Lee-Post & Dean, 2021). Indeed, these changing educational environments can be regarded as smart learning environments (SLEs) (Hwang & Fu, 2020). They benefit from using advanced technologies, offering flexibility and accessibility to both students and educators (Martín, Alario-Hoyos, & Kloos, 2022).

Although this hybrid setup accommodates different learning styles and prepares students for a digitally integrated world, higher education institutions (HEIs) should be mindful that implementing these changes does not negatively affect learning (Williamson, Eynon & Potter, 2020). It is worth noting the key challenges of this rapid transformation, including the coordination among teachers and students, the communication among and between students and teachers, collaboration within student groups, and the integration and utilisation of new technological tools (Chang & Fang, 2020). Apart from managing the challenges associated with the implementation of hybrid learning environments, it is equally important to consider student engagement and performance. These elements are critical to the effectiveness of hybrid learning models and to educational success.

Given the preferences of students to choose hybrid learning and recognising that this modality is inevitable in HEIs in Hong Kong and globally, adding the urgency to boost engagement to increase student retention and success. The present study aims to provide valuable insights into student engagement and performance in hybrid teaching and learning based on the direct experiences of teachers and students. To date, there is little research into the application of hybrid learning in the Hong Kong context, where student engagement is a rather challenging pedagogical issue (Bond, et. al., 2020; Frick, Birt & Waters,

References

Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., & Kerres, M. (2020). Mapping research in student engagement and educational technology in higher education: A systematic evidence map. International journal of educational technology in higher education, 17, 1-30.

Chang, C. L., & Fang, M. (2020, June). E-Learning and online instructions of higher education during the 2019 novel coronavirus diseases (COVID-19) epidemic. In Journal of Physics: Conference Series (Vol. 1574, No. 1, p. 012166). IOP Publishing.

Frick, H., Birt, J., & Waters, J. (2020). Enhancing student engagement in large management accounting lectures. Accounting & Finance, 60(1), 271-298.

Hapke, H., Lee-Post, A., & Dean, T. (2021). 3-in-1 hybrid learning environment. Marketing Education Review, 31(2), 154-161.

Hwang, G. J., & Fu, Q. K. (2020). Advancement and research trends of smart learning environments in the mobile era. International Journal of Mobile Learning and Organisation, 14(1), 114-129.

Martín, A. C., Alario-Hoyos, C., & Kloos, C. D. (2022). Smart Groups: A system to orchestrate collaboration in hybrid learning environments. A simulation study. Australasian Journal of Educational Technology, 38(6), 150-168.

Williamson, B., Eynon, R., & Potter, J. (2020). Pandemic politics, pedagogies and practices: digital technologies and distance education during the coronavirus emergency. Learning, media and technology, 45(2), 107-114.

Visualizing Gender:
Using AI-Generated Images to Foster Empathy and Critical Thinking in Sexuality Education

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Sexuality and gender education in Hong Kong continues to operate within a narrowly defined curriculum that marginalises diverse gender experiences and reproduces heteronormative assumptions (Kwok & Lee, 2018; Tao & Chung, 2022). This project responds to these pedagogical gaps by investigating the potential of AI-generated images as a multimodal resource for fostering empathy and critical thinking in tertiary sexuality education. Drawing on visual pedagogy (Rogoff, 2002; Tavin, 2007; Giroux, 2004), multimodality theory (Kress & van Leeuwen, 2006), and empathy research (Batson, 2009; Strauss et al., 2016), the project integrates AI tools such as Midjourney into classroom practice as ethically considered, creative instruments for representing gender-sensitive topics including misgendering, body shaming, and gender stereotyping. Rather than relying on real-life depictions that may risk re-traumatisation or representational harm, AI-generated visuals offer a stylised yet emotionally resonant medium through which students can engage with complex gender experiences in more accessible and affectively meaningful ways. Scholars have established that visual narratives function as "empathy bridges" (Batson, 2009; Riess, 2017), synchronising cognitive and emotional processing to deepen perspective-taking and moral engagement (Ewoldsen et al., 2012), while multimodal forms of meaning-making support more holistic comprehension of gender-related concepts (Rose, 2016; Serafini, 2014). The absence of such resources in Hong Kong's formal curriculum has been shown to foster discomfort, shame, and relational confusion among students (Cassar, 2017; Quinlivan, 2013), and to inhibit the development of civic imagination necessary for social justice advocacy (Nussbaum, 1997). Over an eighteen-month period, the project pursues five interrelated objectives: to examine the pedagogical affordances of visual and multimodal texts, including comics and graphic narratives (Chute, 2010), in gender and sexuality education; to integrate AI image-generation tools ethically into tertiary classroom contexts; to cultivate empathy through guided visual analysis and discussion; to develop students' critical digital literacy by encouraging interrogation of algorithmic bias and dominant gender ideologies embedded in AI outputs; and to produce a suite of transferable teaching resources, including a curated image library, teaching guide, and sample discussion activities. By bridging affective engagement with critical reflection, this project seeks to contribute to more inclusive, ethically grounded approaches to gender and sexuality education in the Hong Kong higher education context.

References

Batson, C. D. (2009). These things called empathy: Eight related but distinct phenomena. In J. Decety & W. Ickes (Eds.), The social neuroscience of empathy (pp. 3–15). MIT Press.

Cassar, J. (2017). Challenges in teaching gender and sexuality in conservative cultures. Sex Education, 17(6), 666–680.

Chute, H. (2010). Graphic women: Life narrative and contemporary comics. Columbia University Press.

Cocchiglia, L. (2023). Bias in the machine: A critical look at gender representations in AI-generated images. Journal of Digital Culture and Education, 15(1), 55–70.

Elkins, J. (2003). Visual studies: A skeptical introduction. Routledge.

Ewoldsen, D. R., Foy, D., & Biocca, F. A. (2012). Narrative persuasion and entertainment: Explaining the role of transportation into narrative worlds. Communication Theory, 22(3), 239–260.

Giroux, H. A. (2004). Cultural studies, public pedagogy, and the responsibility of intellectuals. Communication and Critical/Cultural Studies, 1(1), 59–79.

Kress, G., & van Leeuwen, T. (2006). Reading images: The grammar of visual design (2nd ed.). Routledge.

Kwok, D. K., & Lee, A. K. Y. (2018). Inclusion of LGBT+ topics in Hong Kong's secondary school curriculum: Teachers' perspectives. Sex Education, 18(5), 489–504.

Lu, Y. (2022). AI, bias, and the reification of gender norms: Critical perspectives on synthetic media in education. New Media & Society, 24(12), 2561–2580.

Noble, S. U. (2018). Algorithms of oppression: How search engines reinforce racism. NYU Press.

Nussbaum, M. C. (1997). Cultivating humanity: A classical defense of reform in liberal education. Harvard University Press.

Quinlivan, K. (2013). Exploring pedagogies in sexuality education: Listening to teachers' stories. Sex Education, 13(3), 307–317.

Riess, H. (2017). The science of empathy. Journal of Patient Experience, 4(2), 74–77. https://doi.org/10.1177/2374373517699267

Rogoff, I. (2002). [Still missing from the methodology document — this was cited in the abstract but not included in the reference list provided. Could you check the full citation?]

Rose, G. (2016). Visual methodologies: An introduction to researching with visual materials (4th ed.). Sage.

Serafini, F. (2014). Reading the visual: An introduction to teaching multimodal literacy. Teachers College Press.

Strauss, C., Taylor, B. L., Gu, J., Kuyken, W., Baer, R., Jones, F., et al. (2016). What is compassion and how can we measure it? A review of definitions and measures. Clinical Psychology Review, 47, 15–27. https://doi.org/10.1016/j.cpr.2016.05.004

Tao, W. Y. K., & Chung, S. (2022). Breaking the silence: Unpacking students' journeys in sexuality discussions in Hong Kong classrooms. Sex Education, 1–9. https://doi.org/10.1080/14681811.2022.2128101

Tavin, K. (2007). Eyes wide shut: The use and uselessness of visual culture studies in art education. Art Education, 60(1), 40–45.

Enhancing Student Research Engagement through Course-Based Undergraduate Research Experiences (CURE) Model in Service Learning for Community Elderly

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Introduction and Project Background

Nurturing undergraduate students' interest and competence in research is essential for both academic development and professional preparation, particularly in health-related disciplines. However, traditional lecture-based teaching may offer limited opportunities for students to engage in authentic research. The Course-Based Undergraduate Research Experience (CURE) model provides a structured yet flexible pedagogical framework that integrates genuine research activities into coursework, allowing students to participate meaningfully in knowledge generation while acquiring core research and transferable skills.

The teaching research project titled "Enhancing Student Research Engagement through Course-Based Undergraduate Research Experiences (CURE) Model in Service Learning for Community Elderly", supported by the CPCE Teaching Research / Excellence Fund (TREF), applies the CURE model within a credit-bearing service-learning course. The project is situated against the backdrop of rapid population ageing in Hong Kong, where increasing longevity is accompanied by a growing number of older adults living alone, social isolation, and rising prevalence of chronic conditions such as hypertension and diabetes. These challenges place considerable demands on primary healthcare and community support systems.

Our existing service-learning course seeks to address these issues through community engagement, physical exercise programmes, and home visits for older adults. By embedding the CURE model into the course design, this project aims to enhance student research engagement while generating evidence on elderly healthcare needs that is directly relevant to community practice.

Project Objectives

The project has five key objectives:

1. **To increase undergraduate student participation in research activities embedded within community service for older adults;**
2. **To equip students with foundational research skills through hands-on, supervised fieldwork;**
3. **To enhance students' understanding of the healthcare and social challenges faced by elderly individuals, particularly those living alone;**
4. **To foster collaboration among students, faculty members, and community organisations;**
5. **To evaluate the pedagogical and community impact of student-led research activities.**

Project Design and Implementation

Since February 2026, 40 undergraduate students enrolled in SEHS4699 Practices in Health Promoting have been recruited to participate in this ongoing project. The course has been revised to incorporate core CURE principles, including student-led inquiry, collaborative project work, ethical research conduct, and reflection on research findings.

To examine the relationship between research intensity and learning outcomes, students were divided into four groups with different durations of community engagement: one group (n = 10) conducted a 10-week community survey, two groups (n = 20) conducted 5-week surveys, and one group (n = 10) undertook a 2-week survey. Prior to fieldwork, all students completed ethical considerations when working with vulnerable populations, informed consent, data privacy, and strategies for effective engagement with older adults, including those with potential cognitive impairment.

Students conduct community-based data collection through home visits and community centre activities, under the supervision of academic staff and in collaboration with the community partner. These activities allow students to integrate theoretical knowledge with real-world practice while contributing to ongoing community health initiatives.

Pre-Community Activities Student Questionnaire: Baseline Findings

Before commencing community engagement, students completed a Pre-Community Activities Student Questionnaire designed to assess their baseline knowledge, confidence, ethical awareness, expectations, and readiness for research-related service learning.

Overall, results indicate that students entered the project with generally positive attitudes towards service learning and community engagement. Mean ratings suggest moderate to high self-perceived understanding of elderly health needs, common chronic conditions, and the concept of service learning. Students also demonstrated a good grasp of the goals of the CURE model and its role in linking research with authentic learning experiences.

With regard to research skills, students reported moderate confidence in conducting research activities and collecting data, highlighting the importance of structured supervision and progressive skill development. Ethical awareness was a notable strength across the cohort, with consistently high ratings for the importance of informed consent, voluntary participation, privacy, confidentiality, and safeguarding of vulnerable participants.

Students primarily were expected to develop communication skills, research competencies, teamwork, and a deeper understanding of elderly healthcare needs. While most did not report major concerns, some expressed apprehension about communicating effectively with older adults, handling unexpected health issues, or encountering reluctance from community participants. These findings informed the refinement of ongoing training, on-site supervision, and reflective discussions throughout the course.

Survey on Elderly Community Residents' Healthcare Needs

The Survey for Data Collection on Elderly Community Residents serves both research and pedagogical purposes. It targets Hong Kong residents aged 60 or above living in the community, with particular attention to those living alone.

The survey examines multiple domains, including living arrangements, district of residence, healthcare access and utilisation, barriers to care (e.g. cost, distance, waiting time, and information gaps), experiences with primary healthcare providers, chronic disease status, self-rated health, and desired services such as preventive care, chronic disease management, rehabilitation, and mental health support. Additional sections explore social participation, mobility, daily functioning, and sources of assistance.

For students, administering this instrument provides practical experience in ethical data collection, interviewing techniques, and engagement with older adults. For the community, the survey is expected to generate data that can inform service planning, outreach strategies, and future health promotion initiatives.

Ongoing and Planned Evaluation

The project adopts a longitudinal and multi-source evaluation approach. A post-community activities student questionnaire will be administered at the end of the 10-week service-learning period to examine changes in research confidence, ethical awareness, and perceived learning outcomes.

In addition, students maintain reflective journals to document their experiences, challenges, and learning gains. Feedback from community partners and elderly participants will be collected where appropriate to assess perceived benefits and areas for improvement from the community perspective.

Preliminary Significance and Conclusion

Although data collection is ongoing, preliminary findings suggest that integrating the CURE model into service learning is both feasible and educationally valuable. Baseline data show strong student motivation and ethical awareness, alongside clear needs for experiential learning in applied research and community communication.

By positioning students as active contributors to socially meaningful research, this project bridges teaching, research, and community service. It demonstrates the potential of CURE-informed service learning to enhance undergraduate research engagement while generating insights into the healthcare needs of older individuals living alone. The project will inform future curriculum development, pedagogical research, and community health

Generative AI as a Catalyst
and Scaffold for Creative Ideation in Design Education for Novice Students

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This research investigates the multifaceted role of Generative Artificial Intelligence (GenAI) in supporting creative ideation within design education. Existing studies present contrasting perspectives: Fleischmann (2024) reports that 80% of student participants perceive GenAI as a tool that enhances creativity and inspiration, whereas Wadinambiarachchi et al. (2024) highlight potential drawbacks, such as increased fixation on initial ideas and diminished fluency, variety, and originality during individual design tasks. These studies employ diverse experimental methodologies, including time-constrained tasks with participants from various disciplines and levels, revealing that the context and manner of GenAI utilization critically influence ideation outcomes.

Moreover, research by Kim and Maher (2023) and Lin et al. (2025) demonstrates that semantically close GenAI images and sketch-based tools like Inkspire can foster more diverse and iterative idea exploration while reducing fixation, especially when used collaboratively. Vartiainen and Tedre (2023) further suggest that GenAI can stimulate critical discourse and externalize vague ideas in collaborative, educational settings. Collectively, these findings emphasize that the impact of GenAI on ideation is highly dependent on its application mode, and that exploring new strategies—particularly for collaborative ideation—is essential, given that real-world design processes are inherently social.

Building on these insights, this study adopts an action research approach within a real-life educational context to systematically explore how different strategic interventions of GenAI influence spontaneous ideation processes among novice design students. The research aims to compare individual and social use of GenAI, employing semiotic analysis (Lacković, 2020) to understand how ideas evolve through AI-inspired transformations.

The objectives are: (1) to implement and evaluate GenAI tools within specific design subjects to support creative ideation; (2) to assess the impact of these tools on students' ideation performance; (3) to explore students' perceptions and experiences of using GenAI as a scaffolding aid during ideation; and (4) to develop actionable recommendations for optimizing GenAI integration in design education to foster enhanced creative output.

Methodologically, the study involves design students engaged in GenAI-driven activities incorporated as routine class exercises. These activities will be guided by instructors based on tailored learning designs, emphasizing the enhancement of ideation rather than technical visualization skills. Data collection will include observational notes, student reflections, and semiotic analyses of generated ideas, enabling a comprehensive understanding of how GenAI influences creative processes. Ultimately, this research seeks to contribute practical insights into leveraging GenAI for collaborative and individual ideation, aiming to inform pedagogical strategies that enhance students' creative capacities in design education.

References

Fleischmann, K. (2024). Generative Artificial Intelligence in Graphic Design Education: A Student Perspective. Canadian Journal of Learning and Technology, 50(1), 1-17.

Kim, J., & Maher, M. L. (2023). The effect of AI-based inspiration on human design ideation. International Journal of Design Creativity and Innovation, 11(2), 81-98.

Lacković, N. (2020). Inquiry graphics in higher education. Springer International Publishing.

Lin, D. C. E., Kang, H. B., Martelaro, N., Kittur, A., Chen, Y. Y., & Hong, M. K. (2025). Inkspire: Supporting Design Exploration with Generative AI through Analogical Sketching. arXiv preprint arXiv:2501.18588.

Vartiainen, H., & Tedre, M. (2023). Using artificial intelligence in craft education: crafting with text-to-image generative models. Digital Creativity, 34(1), 1-21.

Wadinambiarachchi, S., Kelly, R. M., Pareek, S., Zhou, Q., & Velloso, E. (2024). The effects of generative ai on design fixation and divergent thinking. In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (pp. 1-18).

Exploring the Role of AI Literacy for Developing Business Student Readiness on Further Education and Employment

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Artificial intelligence (AI) has progressed throughout the twentieth century into sophisticated systems and algorithms capable of reasoning and adapting based on logic resembling that of humans. As a developing academic field, AI continues to reshape contemporary society and increasingly informs the competencies necessary for personal and professional achievement. The integration of AI technologies into educational curricula is essential for equipping students with the skills required to thrive in an AI-driven landscape. Consequently, careful curriculum development plays a critical role in enhancing students' foundational knowledge and preparing them for advanced study or career opportunities within this domain.

This project seeks to examine the extent to which AI literacy contributes to the preparedness of tertiary students in Hong Kong, with the potential to encourage their pursuit of industry roles or further academic study. Contemporary pedagogical strategies for teaching AI often employ real-world scenarios pertinent to students' daily experiences. In the present study, approximately 350 tertiary students in Hong Kong will be quantitatively assessed using partial least squares structural equation modelling to determine whether highlighting the relevance of AI increases motivation to engage with the discipline and influences subsequent academic and career decision-making. Furthermore, the research investigates whether students demonstrating greater confidence in AI perceive themselves as better prepared for related academic pursuits or employment opportunities.

Teaching Text Linguistics with ChatGPT:
Investigating Students' Anxiety and Performance of Learning Academic English with Generative AI

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Teaching Text Linguistics with ChatGPT (LC/TF/2023/025(E)) investigates whether generative AI can effectively support undergraduates applying knowledge about English for Academic and Specific Purposes (EAP/ ESP), with a focus on text linguistics. Building on frameworks that position GenAI chatbots as an adjunct instructor or virtual tutor offering personalised feedback, this study provides empirical evidence on its impact. Specifically, it examines how integrating GenAI into EAP/ESP instruction influences students' academic performance, learning experience, and anxiety.

Prior research shows complex links among EAP learning, motivation, and anxiety: anxiety often dampens motivation and performance, though in some cases it can be reframed as facilitating effort. Given this nuance, the project tests whether a GenAI-enabled, text-linguistics-oriented approach can reduce non-English majors' anxiety toward academic English and increase engagement.

The objectives include (1) Empirically evaluating GenAI efficacy as an educational facilitator for learning academic English and text linguistics; (2) Develop and trial an innovative instructional method that embeds GenAI as a virtual teaching assistant, and (3) Generate evidence-informed guidance for teaching academic literacy that leverages generative AI, linguistic concepts, and computer-assisted language learning. The study aims to inform institutional policy and classroom practice by clarifying when and how GenAI tools enhances learning while mitigating learner anxiety.

To fulfil the objectives, two waves of surveys were administered to undergraduate students enrolled in two ESP subjects to examine changes before and after the introduction of a subject-specific chatbot (renamed as "PersuasionGPT") integrated into the courses. The first survey (T1), conducted at the beginning of the semester of Academic Year 2024/5, prior to the chatbot's deployment, captured baseline measures of students' AI usage, AI literacy, learning behaviours, self-efficacy, motivation, and course-related and AI-related anxiety. The second survey (T2), administered at the end of the semester, following sustained exposure to the chatbot, used the same core instruments to allow direct comparison across waves. The surveys provide a longitudinal, cohort-level view of how students' engagement with AI tools, confidence in using AI for academic purposes, perceptions of their own learning capabilities, and affective responses evolved following the introduction of a tailored chatbot designed to support learning in discipline-specific ESP contexts. The results corroborate those reported in a larger study with post-secondary students (n=304), in that there are strong correlations between the students' self-reported AI ability, independent learning and academic self-efficacy (Cheung et al., 2025).

In addition, five follow-up interviews with 13 students provided more detailed and nuanced perspectives from the students on AI use, and their self-efficacy and anxiety related to assignments. Across the interviews, students consistently frame the customised chatbot as a relevant, always-available assistant that boosts starting confidence, accelerates outlining/brainstorming, and supports genre and language work. This is provided they develop prompting skill and keep a critical, ethical stance. Anxiety appears to be alleviated mainly at initiation points, while discipline difficulty and assessment demands still drive overall stress. Equity concerns are moderated when a free, course-aligned bot is available, as most learning needs can be met without paid tiers. These findings substantiate the proposal's rationale for deploying a discipline-specific virtual teaching assistant and suggest concrete enhancements to training, assessment design, and support materials.

References

Cheung, L. M. E., Lo, O. T., & Shi, H. (2025). Exploring the relationships among perceived AI ability, academic self-efficacy and independent learning disposition in the tertiary contexts. Computers and Education: Artificial Intelligence, 100516. https://doi.org/10.1016/j.caeai.2025.100516

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Exploring the Multidimensional Role of Service-Learning Subject Teachers:

An Ethnographical Study in a Self-financed Institution in Hong Kong

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This study investigates the intersection of computer-assisted language learning (CALL) and service-learning (SL) in higher education, focusing on language educators' experiences of offering SL subjects to children and adults from underprivileged communities in Hong Kong. While research on SL has primarily centered on students' learning, this study addresses the understudied perspectives of faculty practitioners. The research explores how teachers integrate SL into language subjects, the role of digital technologies in language-based SL subjects, and the challenges faced by educators implementing innovative pedagogies. Using a qualitative approach, this case study examines four SL subjects offered by a self-financed tertiary institution in Hong Kong from 2022 to 2024. Content analysis was conducted on data including semi-structured interviews with SL proposers and teachers (N=5), SL subject artifacts (teaching plans, assessment guides, and subject deliverables), and teacher-researchers' autoethnographic accounts (N=2). The study aims to provide insights into the benefits and difficulties of combining CALL and SL, challenges and coping strategies, and the impact of emerging technologies like podcasting and generative artificial intelligence (GenAI) on language instruction. By exploring these aspects, this paper seeks to contribute to the understanding of inclusivity in language education and inform curriculum development for CALL practitioners engaged in service-learning initiatives.

With the rapid changes of technological advancement, CALL is inevitably undergoing redefinitions as well: at the turn of the millennium, the internet, World Wide Web, email communication, and multimedia related to the uses of computers in the language classroom gained scholarly attention (Gündüz, 2005); in the 2010s, mobile apps, social media platforms, blogging, and podcasting were foci of studies (Lim & Aryadoust, 2021); 2023 witnessed a sea change in education when Large Language Model (LLM) supported generative AI was made publicly available (Tafazoli, 2024), hence a surge of research on generative AI as a form of CALL.

References

Gündüz, N. (2005). Computer assisted language learning. Journal of Language and Linguistic Studies, 1(2), 193-214.

Lim, M. H., & Aryadoust, V. (2021). A scientometric review of research trends in computer assisted language learning (1977 – 2020). Computer Assisted Language Learning, 35(9), 2675–2700. https://doi.org/10.1080/09588221.2021.1892768

Tafazoli, D. (2024). Exploring the potential of generative AI in democratizing English language education. Computers and Education: Artificial Intelligence, 7, 100275. https://doi.org/10.1016/j.caeai.2024.100275

How do students process and adopt the messages generated by ChatGPT? An elaboration likelihood model

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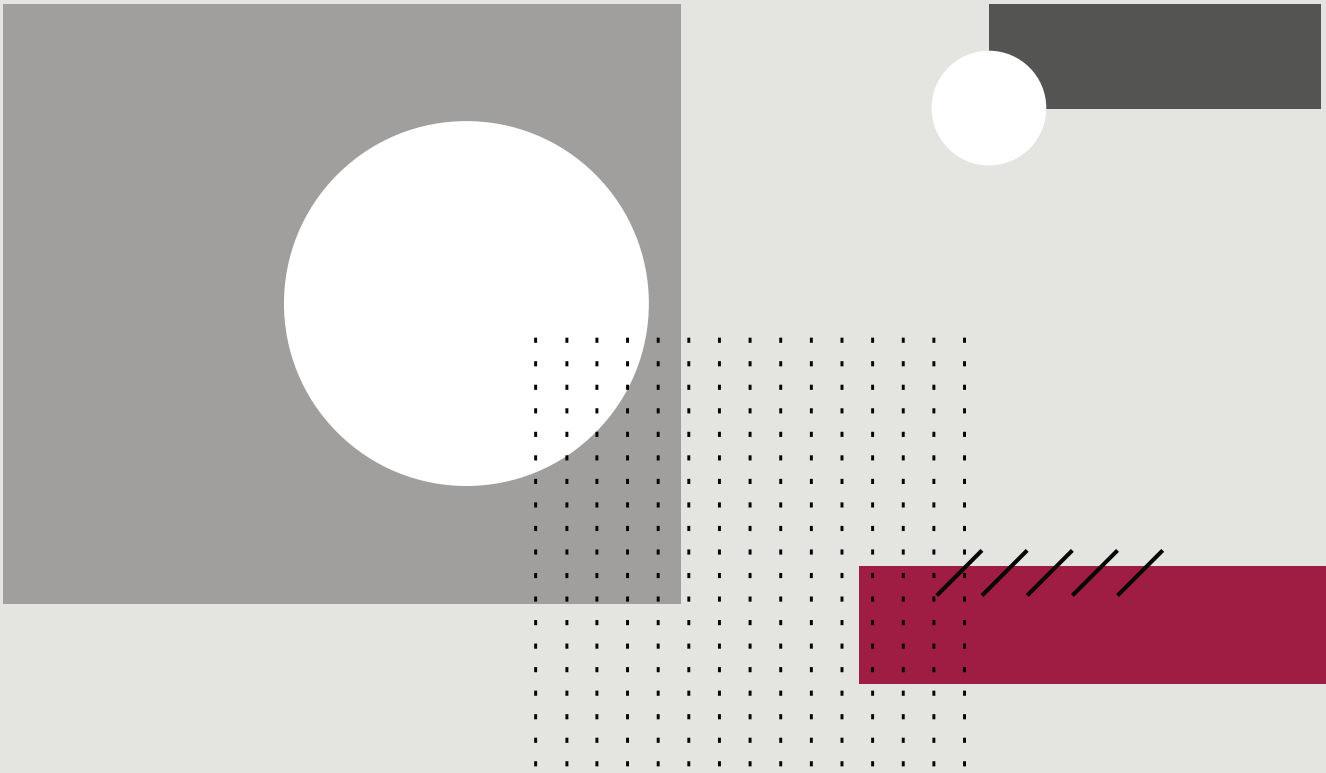
Generative pre-trained Transformer (GPT) models, such as ChatGPT, utilize vast datasets of digital content to craft humanlike text, impacting educational practices. Students might depend on ChatGPT for assistance with their studies, potentially leading to superficial learning and affecting their critical thinking skills. Moreover, ChatGPT's responses may contain inaccuracies, including fabricated citations and studies. This raises the question of how students process and trust the information provided by ChatGPT. Our study is guided by the Elaboration Likelihood Model (ELM), which posits that information processing occurs through either a central route—focusing on message accuracy and completeness—or a peripheral route—emphasizing source credibility and popularity. We hypothesize that these routes influence students' trust in ChatGPT and their intention to adopt AI-generated content. Additionally, we will explore how students' personal characteristics and the propensity to verify information via external searches affect their perceptions of credibility and adoption intentions. To investigate these dynamics, we will conduct a factorial experiment with 480 students from university, examining the central and peripheral routes' impact on trust towards ChatGPT and subsequent adoption intentions. Data will be collected through an online survey post-experiment and analyzed using SPSS ANOVA to test the influence of these factors on students' engagement with AI-generated content.

The Path to Adoption: Examining Satisfaction and Trust in Students' Use of AI-Generated Learning Materials

This research examines how the completeness of AI-generated content affects students' intention to adopt such content in an educational context, where information quality is consistently high. Study 1 involved a laboratory experiment with 85 participants who were randomly assigned to view AI-generated materials varying in completeness, either high or low. A serial mediation model was tested to explore whether satisfaction and trust explain the relationship between content completeness and adoption intention. Results showed that students exposed to highly complete content reported significantly greater satisfaction than those who viewed less complete content. Satisfaction strongly predicted trust, and both satisfaction and trust significantly predicted adoption intention. However, the direct effect of content completeness on adoption intention was not significant, suggesting a fully mediated process. Importantly, content completeness did not directly increase trust unless satisfaction was present, supporting a sequential path from completeness to satisfaction to trust to adoption intention. To validate these findings, Study 2 used a focus group with student participants, which confirmed that high content completeness enhances satisfaction, builds trust, and encourages adoption of AI-generated learning materials. Together, the two studies highlight the importance of delivering both accurate and complete AI-generated content to improve student acceptance, trust, and engagement in digital education environments.



Deploying comics for fostering higher-order thinking skills in learning English as an additional language (EAL)

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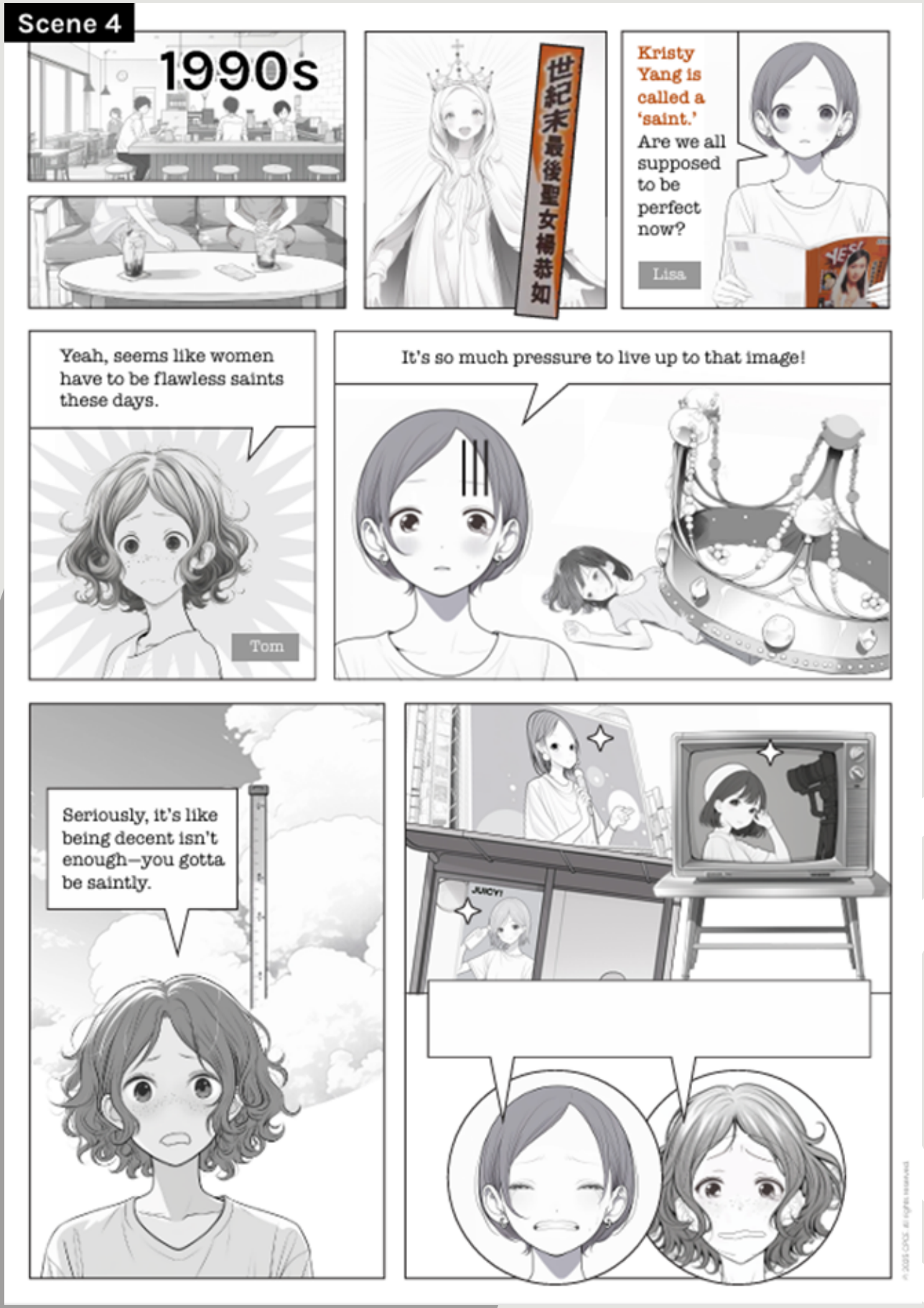
This study explores how short, tailor-made comics can help EAL students exercise critical thinking through group discussions and reflective prompts, building on an "inquiry graphics" design for learning (Lacković, 2020). First, the study shows a number of benefits, including active students' engagement in discussion, easier recall of key content, and focused practice of inference, perspective taking, comparison, analysis, and evaluation. Second, comics' multimodal affordances of images, text, and speech bubbles etc. are found to provide unique opportunities for learning design, especially the gamified element of "blank" speech bubbles, which ask students to provide their own solutions for character talk. Last, the identified challenges of using this approach in higher education are primarily limited class time for activities, the need for teacher preparation and the lack of skills to create comics.

References

Lacković, N. (2020). Inquiry graphics in higher education: New approaches to knowledge, learning and methods with images. Palgrave Macmillan.



This comic was created as part of the CPCE Teaching Research/Excellence Fund Project [SSHD-TF-2023-030(J)]: "Deploying comics for fostering higher-order thinking skills in learning English as an additional language (EAL)".

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