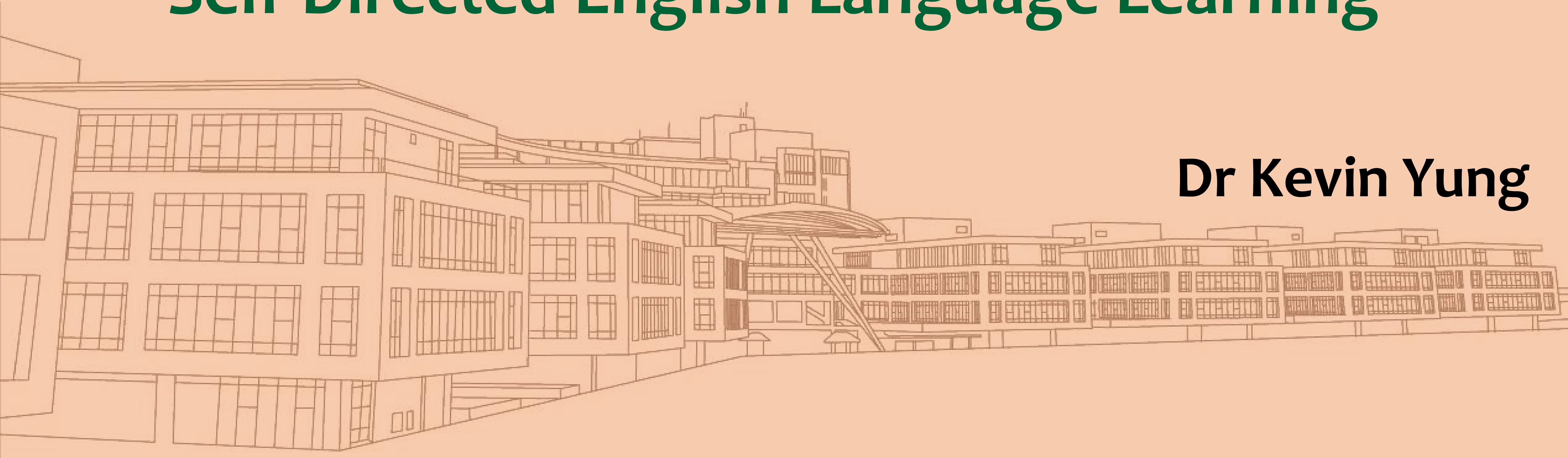
香港教育大學
The Education University of Hong Kong

Department of Curriculum and Instruction
課程與教學學系

Exploring the Use of Artificial Intelligence for Self-Directed English Language Learning



Dr Kevin Yung

香港教育大學
The Education University of Hong Kong

Dr YUNG, Wai Ho Kevin 容煒灝 博士

Associate Professor	Department of Curriculum and Instruction
Associate Co-Director	Academy for Educational Development and Innovation

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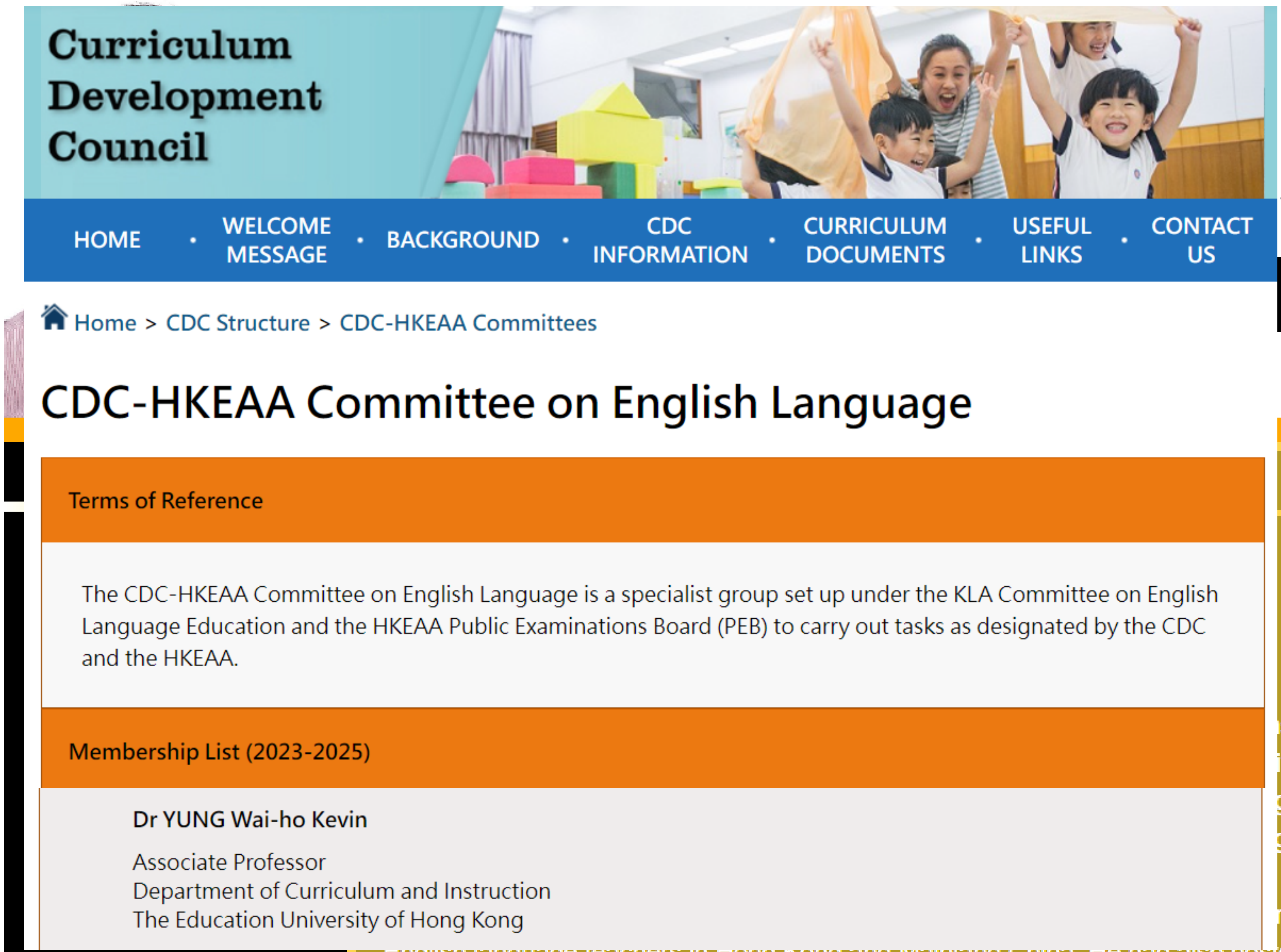
PERSONAL PROFILE

- BA in English Studies and Fine Arts, The University of Hong Kong
- MA in Applied Linguistics, The University of Hong Kong
- PGDE (Secondary), The Open University of Hong Kong
- PhD in Education, The University of Hong Kong

Dr Kevin Yung is an Associate Professor at the Department of Curriculum and Instruction. He is currently the Department's Associate Head in International and Local Engagement. Kevin received his Ph.D. degree at the University of Hong Kong with a focus on senior secondary students' second language selves in shadow education, i.e. private supplementary tutoring. Prior to joining the Education University of Hong Kong, he was a Lecturer at the Centre for Applied English Studies at the University of Hong Kong, where he was awarded an M.A. in Applied Linguistics with overall Distinction and taught English for academic and specific purposes.

Actively serving the community, Kevin has been involved in assessment work for various units of the HKSAR Government. He is a trainer for English language teachers in Hong Kong and Mainland China. He had also hosted a radio programme *English in News* at RTHK for six years. In research, Kevin is interested in the washback of shadow education and high-stakes assessment in the secondary school curriculum. He has recently completed an ECS project funded by the Research Grants Council exploring senior secondary school students' agency in learning English in shadow education. He is currently leading a GRF project investigating underprivileged secondary students' English learning motivation in fee-free supplementary tutoring, and a GRF project about multilingual ethnic minority students' experiences in shadow education.


Curriculum Development Council
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Home > CDC Structure > CDC-HKEAA Committees

CDC-HKEAA Committee on English Language

Terms of Reference

The CDC-HKEAA Committee on English Language is a specialist group set up under the KLA Committee on English Language Education and the HKEAA Public Examinations Board (PEB) to carry out tasks as designated by the CDC and the HKEAA.

Membership List (2023-2025)

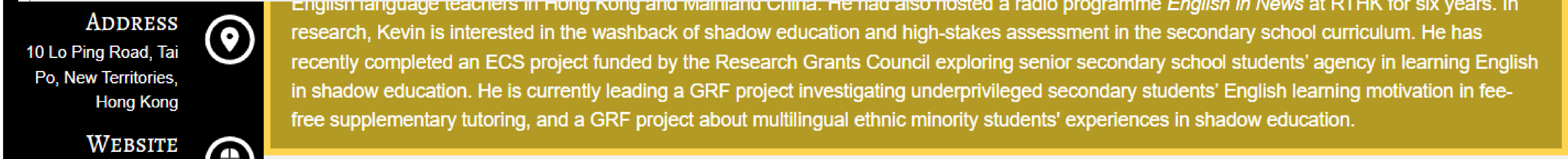
Dr YUNG Wai-ho Kevin

Associate Professor
Department of Curriculum and Instruction
The Education University of Hong Kong

容煒灝 博士

Research areas:

- Shadow education
- Language learning motivation
- Learner autonomy
- Curriculum and assessment
- AI-enabled language learning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Global attention on the integration of AI in education

UNICEF – Enhance Children's Digital Literacy

- Children's schooling, social welfare and future job opportunities may depend on how well they understand the digital world around them (UNICEF, 2025).

USA – Implement GenAI Effectively and Safely in Secondary Education System

- North Carolina Department of Public Instruction (2024) provides comprehensive guidelines and high-quality resources to different stakeholders in the secondary education system (e.g., leadership and vision for school leaders, curriculum and assessment for teachers, and reminders regarding data privacy and cybersecurity).

Canada – Utilise GenAI to Cultivate Learning Creativity in Secondary Classrooms

- The Government of Canada's guide suggests that incorporating Generative AI into secondary education can improve student achievement by enabling tailored learning experiences and cultivating students' creative thinking in an early stage (Attard-Frost et al., 2024) .

Global attention on the integration of AI in education

Greece – Enhancing Content and Language Integrated Learning via GenAI

- The AsasaraBot project integrated foreign language learning (English/French) with historical content on the Minoan Civilization, demonstrating AI's potential in subject-integrated language learning (Mageira et al., 2022)

South Korea – Employ Customised AI Chatbots in the Secondary English Curriculum

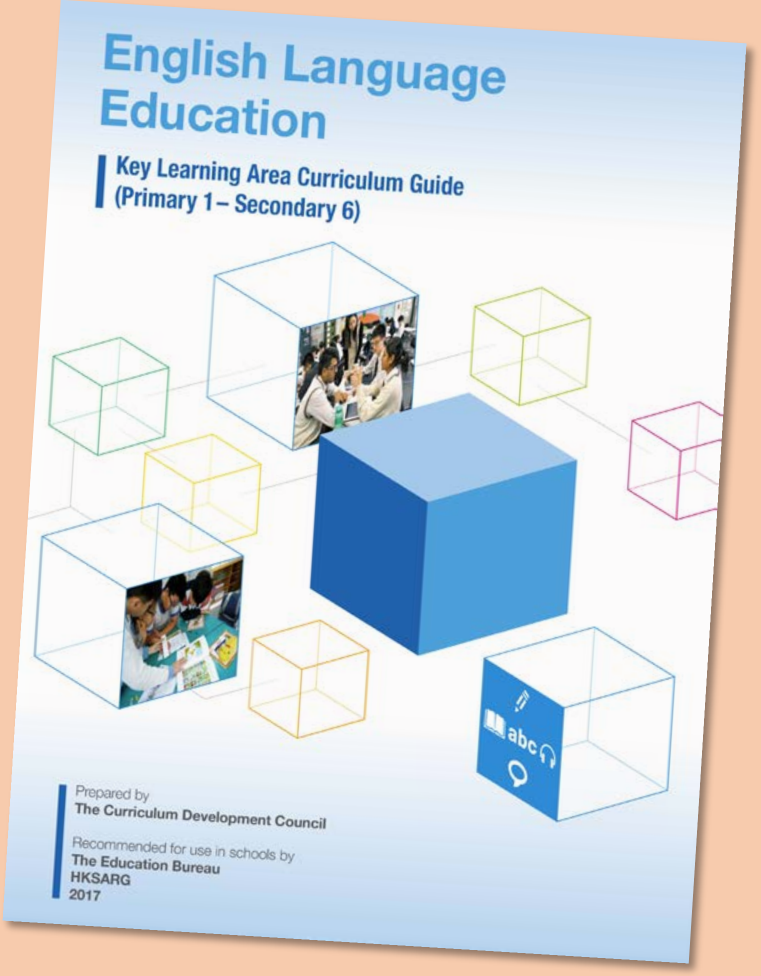
- Kim's team (2019) combined the secondary notebook and national curriculum evaluation guidelines with AI chatbots, Google Assistant and Alexa, and found that these customised chatbots supported students to achieve high accurate rate in vocabulary and grammar.

China – Strengthen AI Education through Designated School bases in China

- In 2024, China's Ministry of Education designated 184 schools as AI education bases to promote AI learning in secondary education (The State Council of The People Republic of China, 2024)

Overall aims of the English Language Education KLA curriculum

- to provide every student of English with further opportunities for extending their knowledge and experience of the **cultures of other people** as well as opportunities for **personal and intellectual development**, **further studies**, **pleasure** and **work** in the English medium
- to enable every student to prepare for the **changing socio-economic demands** resulting from advances **in information technology**; these demands include the **interpretation**, **use and production of materials for pleasure**, **study** and **work** in the English medium.


English Language Education

Key Learning Area Curriculum Guide
(Primary 1 – Secondary 6)

Prepared by
The Curriculum Development Council

Recommended for use in schools by
The Education Bureau
HKSARG
2017

Source: EDB https://www.edb.gov.hk/en/curriculum-development/kla/eng-edu/curriculum-documents.html

GenAI upgrade timeliness (Nov 2022 – Jan 2025)

2022

Nov 2022
- ChatGPT3.5

2023

Feb 2023
- ChatGPT Plus (Turbo)

Mar 2023
- ChatGPT 4 + Plugin
- Bard (Gemini)

May 2023
- Bing (AI innovation)

July 2023
- Copilot

Aug 2023
- ChatGPT Enterprise
- 智普清言

Sep 2023
- EdUHK released ChatGPT3.5 for students

Oct 2023
- Bing Chat Enterprise
- 千问 Qwen
- KIMI
- 豆包

Nov 2023
- GPTs (customisation)

Dec 2023
- Gemini 1.0
- Copilot for Sales

2024

Jan 2024
- Copilot Pro
- GPT Store & ChatGPT Team plan
- 秘塔

Mar 2024
- Copilot Scenario Library
- Copilot Success Kit

April 2024
- Gemini 1.5 Pro (Public)
- Copilot educational resources

May 2024
- GPT-4o
- Gemini 1.5 Flash
- 千问 2.5

31 May 2024
- EdUHK upgraded ChatGPT-4 to GPT-4o for students (limited)

June 2024
- Gemini 1.5 (2M context window)

July 2024
- GPT -4o mini

Sep 2024
- Copilot Studio
- DeepSeek-V2.5

Oct 2024
- Copilot GCC

Nov 2024
- Security Copilot
- DeepSeek-R1-Lite

1 Nov 2024
- EdUHK released ChatGPT-4o in replacement of ChatGPT 3.5 for students

Dec 2024
- Canva in GPT-4o
- Gemini 2.0
- Gemini 2.0 Flash
- DeepSeek-V3

2025

Jan 2025
- DeepSeek-R1 (public)

香港教育大學
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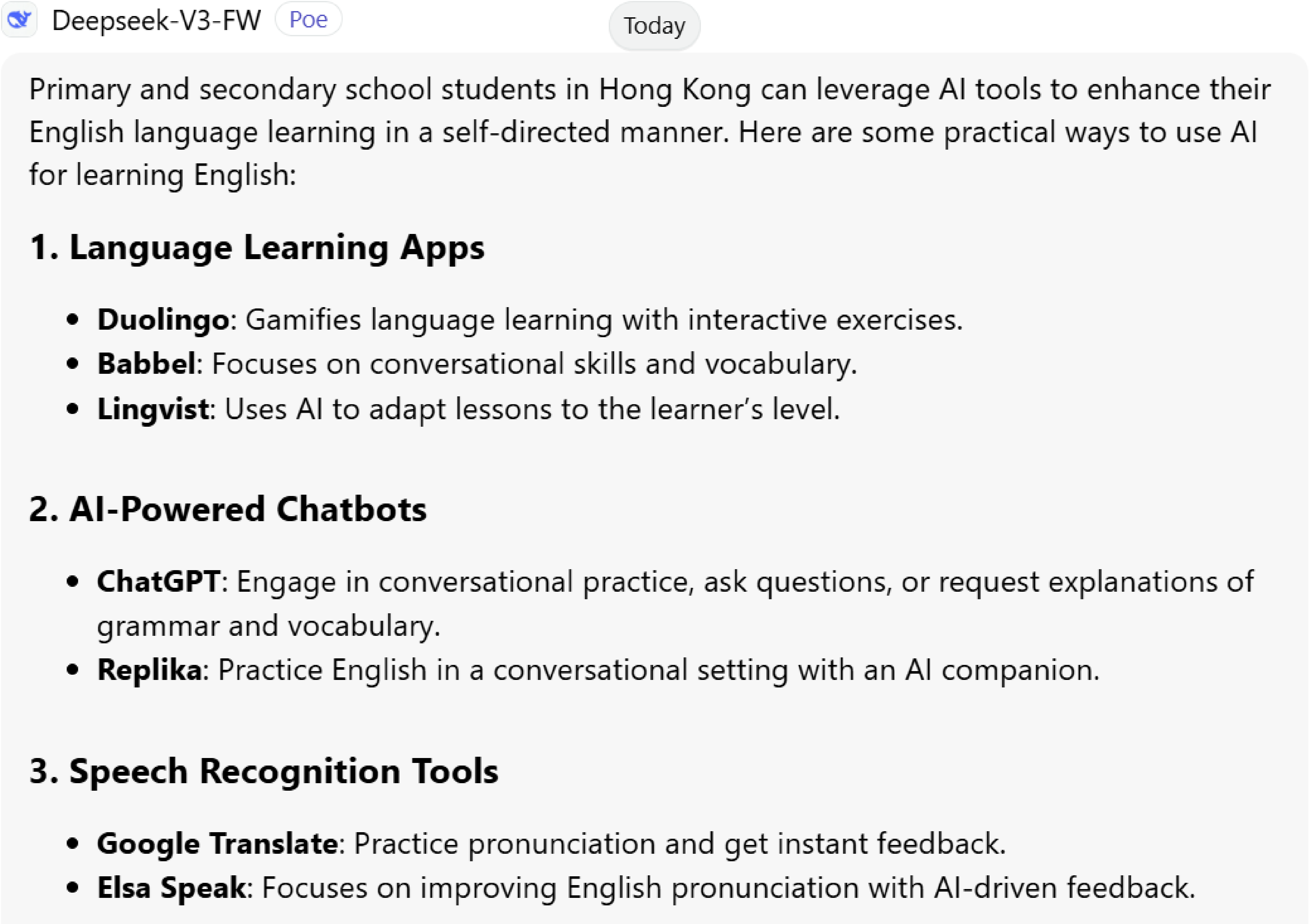
Created by Dr Kevin Yung and Ms Amy Wang at C&I, EdUHK | updated on 6 Feb 2025

- How can primary and secondary school students in Hong Kong **use AI to learn English language by themselves**?



Primary and secondary school students in Hong Kong can leverage AI tools to enhance their English language learning in a self-directed manner. Here are some practical ways to use AI for learning English:

1. Language Learning Apps

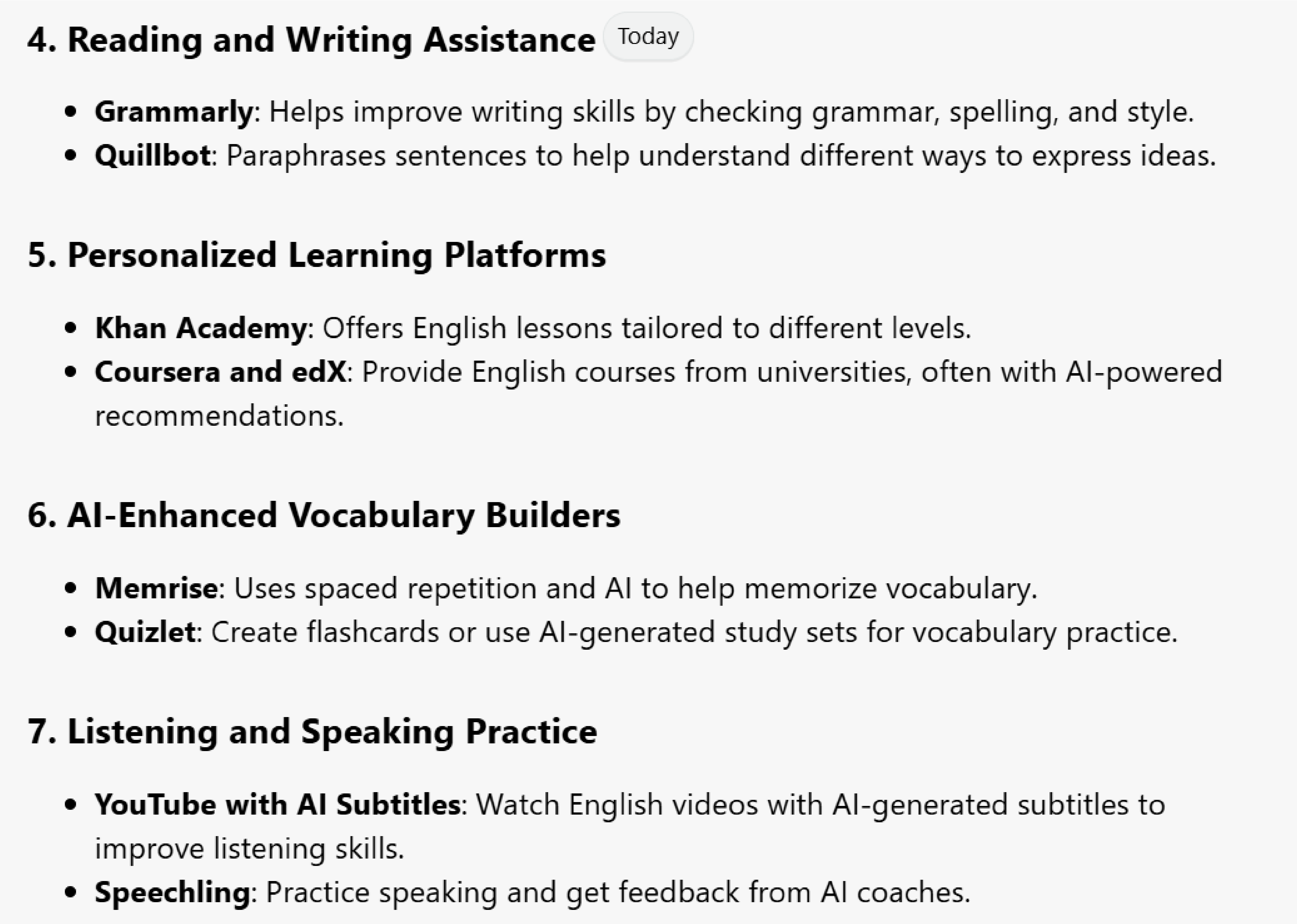
- **Duolingo**: Gamifies language learning with interactive exercises.
- **Babbel**: Focuses on conversational skills and vocabulary.
- **Lingvist**: Uses AI to adapt lessons to the learner’s level.

2. AI-Powered Chatbots

- **ChatGPT**: Engage in conversational practice, ask questions, or request explanations of grammar and vocabulary.
- **Replika**: Practice English in a conversational setting with an AI companion.

3. Speech Recognition Tools

- **Google Translate**: Practice pronunciation and get instant feedback.
- **Elsa Speak**: Focuses on improving English pronunciation with AI-driven feedback.



4. Reading and Writing Assistance

- **Grammarly**: Helps improve writing skills by checking grammar, spelling, and style.
- **Quillbot**: Paraphrases sentences to help understand different ways to express ideas.

5. Personalized Learning Platforms

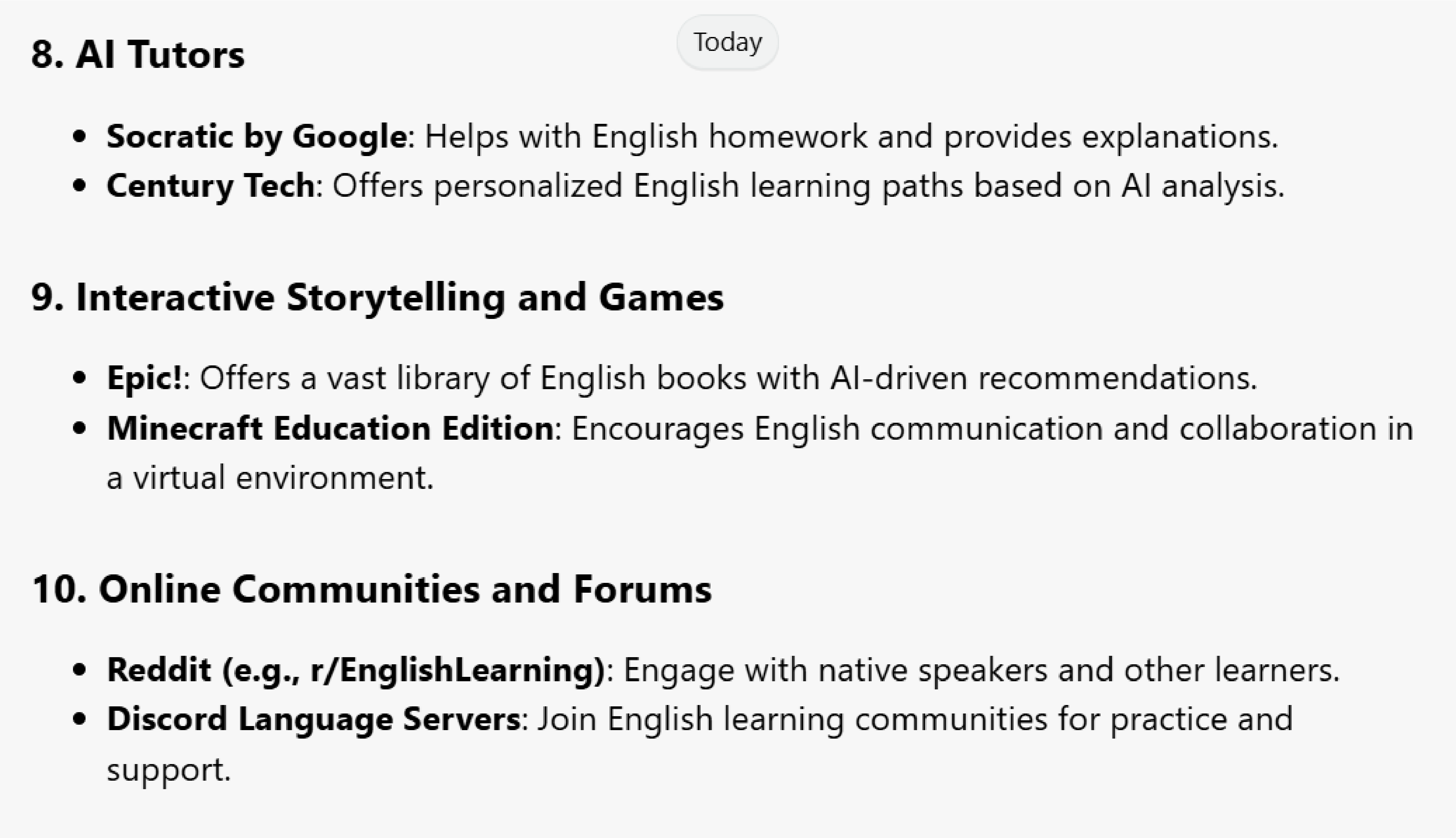
- **Khan Academy**: Offers English lessons tailored to different levels.
- **Coursera and edX**: Provide English courses from universities, often with AI-powered recommendations.

6. AI-Enhanced Vocabulary Builders

- **Memrise**: Uses spaced repetition and AI to help memorize vocabulary.
- **Quizlet**: Create flashcards or use AI-generated study sets for vocabulary practice.

7. Listening and Speaking Practice

- **YouTube with AI Subtitles**: Watch English videos with AI-generated subtitles to improve listening skills.
- **Speechling**: Practice speaking and get feedback from AI coaches.



8. AI Tutors

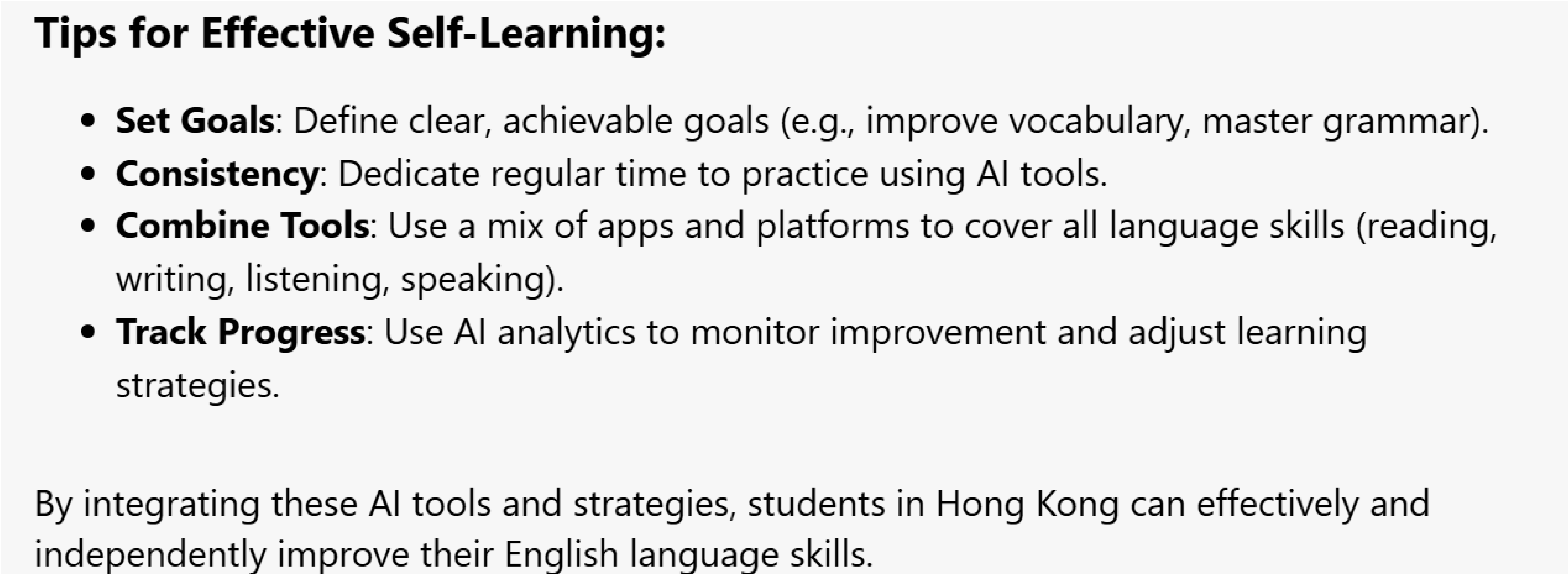
- **Socratic by Google**: Helps with English homework and provides explanations.
- **Century Tech**: Offers personalized English learning paths based on AI analysis.

9. Interactive Storytelling and Games

- **Epic!**: Offers a vast library of English books with AI-driven recommendations.
- **Minecraft Education Edition**: Encourages English communication and collaboration in a virtual environment.

10. Online Communities and Forums

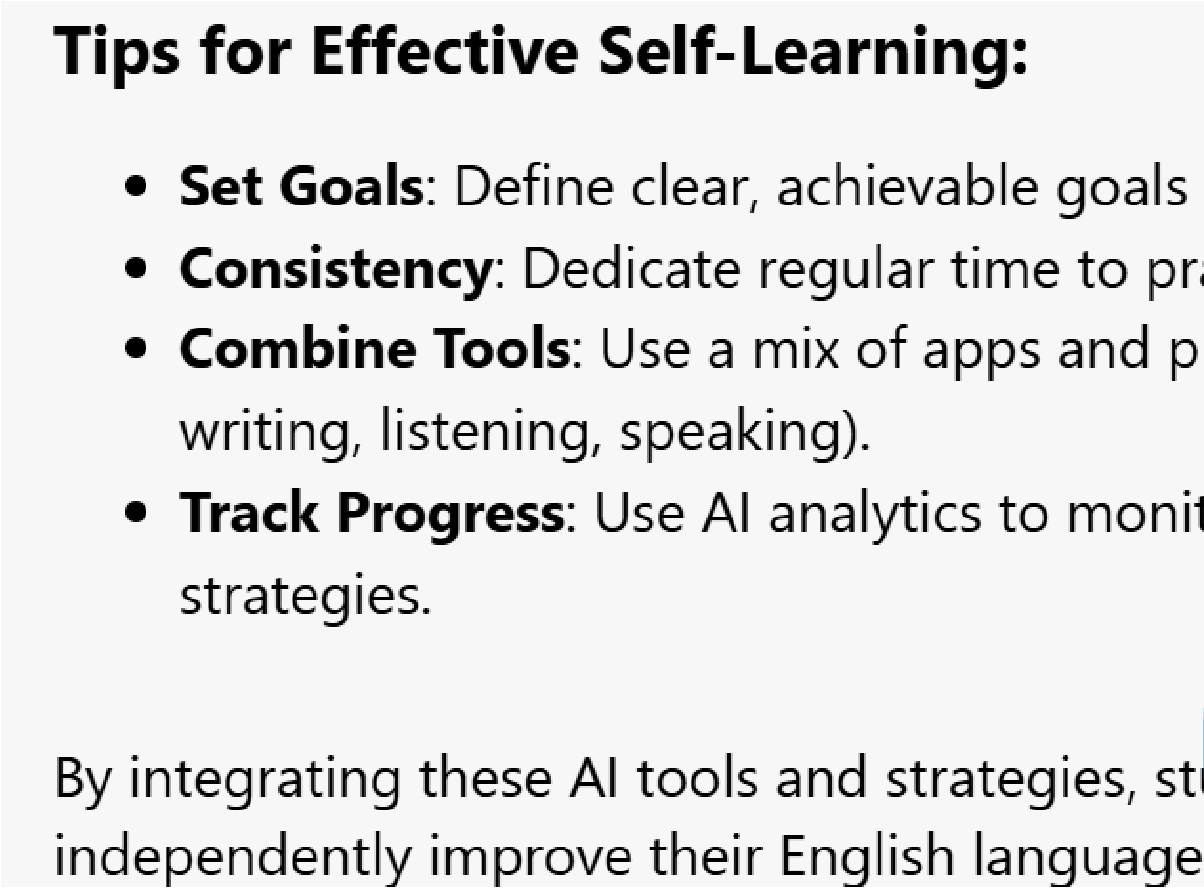
- **Reddit (e.g., r/EnglishLearning)**: Engage with native speakers and other learners.
- **Discord Language Servers**: Join English learning communities for practice and support.



Tips for Effective Self-Learning:

- **Set Goals**: Define clear, achievable goals (e.g., improve vocabulary, master grammar).
- **Consistency**: Dedicate regular time to practice using AI tools.
- **Combine Tools**: Use a mix of apps and platforms to cover all language skills (reading, writing, listening, speaking).
- **Track Progress**: Use AI analytics to monitor improvement and adjust learning strategies.

By integrating these AI tools and strategies, students in Hong Kong can effectively and independently improve their English language skills.



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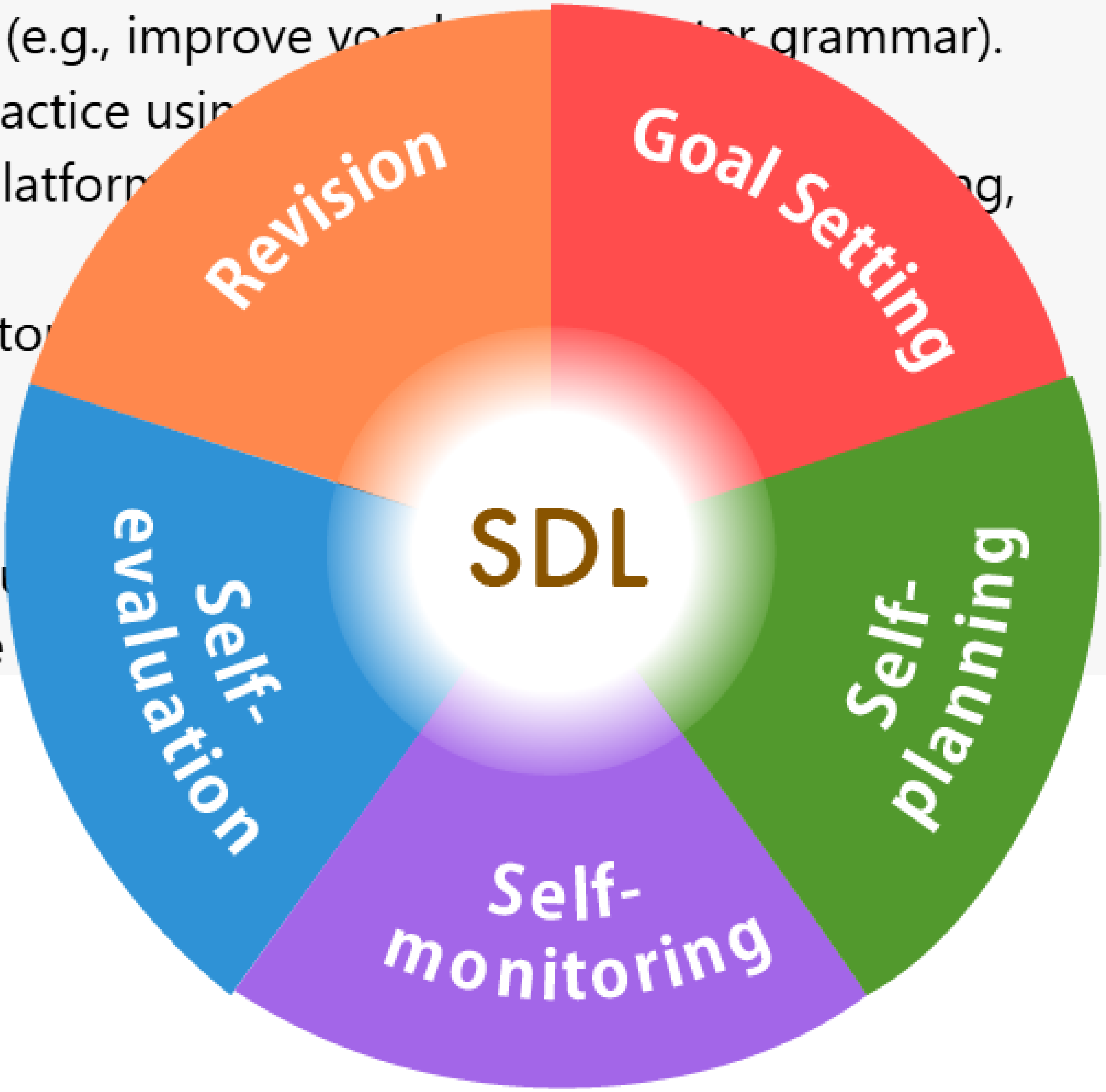
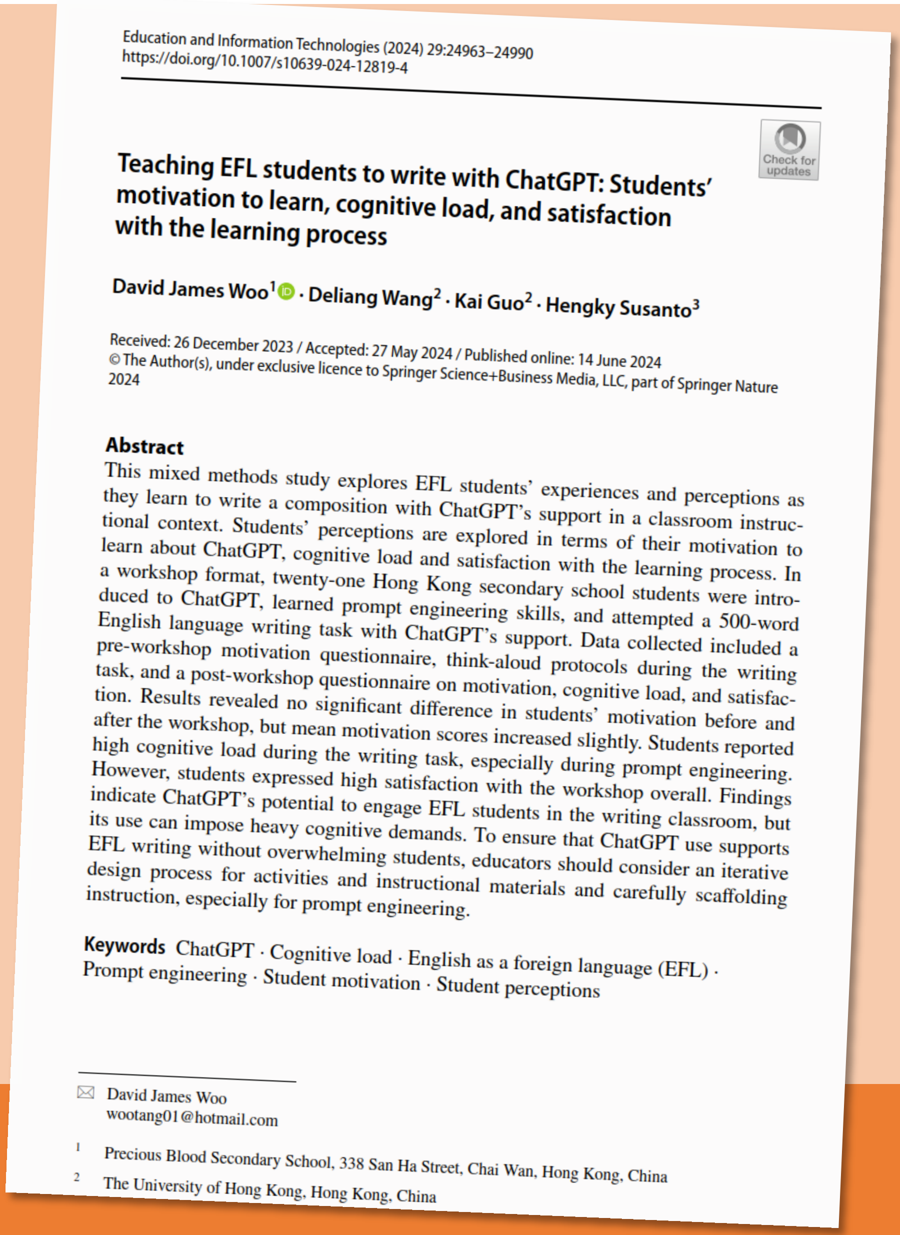

SDL
Goal Setting
Self-planning
Self-monitoring
Self-evaluation
Revision

Research on AI for Language Learning

- Woo et al. (2024) examine the use of ChatGPT in EFL writing instruction through a workshop involving 21 HK secondary school students.
- findings suggest that, while ChatGPT enhances student engagement and writing, its use can be **cognitively demanding**, especially for those unfamiliar with AI tools.
- Teachers should provide **structured scaffolding**, particularly in **prompt skills**, to support student adaptation and maximise learning benefits.



Education and Information Technologies (2024) 29:24963–24990
https://doi.org/10.1007/s10639-024-12819-4

Teaching EFL students to write with ChatGPT: Students' motivation to learn, cognitive load, and satisfaction with the learning process

David James Woo[1] · Deliang Wang[2] · Kai Guo[2] · Hengky Susanto[3]

Received: 26 December 2023 / Accepted: 27 May 2024 / Published online: 14 June 2024
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Abstract
This mixed methods study explores EFL students' experiences and perceptions as they learn to write a composition with ChatGPT's support in a classroom instructional context. Students' perceptions are explored in terms of their motivation to learn about ChatGPT, cognitive load and satisfaction with the learning process. In a workshop format, twenty-one Hong Kong secondary school students were introduced to ChatGPT, learned prompt engineering skills, and attempted a 500-word English language writing task with ChatGPT's support. Data collected included a pre-workshop motivation questionnaire, think-aloud protocols during the writing task, and a post-workshop questionnaire on motivation, cognitive load, and satisfaction. Results revealed no significant difference in students' motivation before and after the workshop, but mean motivation scores increased slightly. Students reported high cognitive load during the writing task, especially during prompt engineering. However, students expressed high satisfaction with the workshop overall. Findings indicate ChatGPT's potential to engage EFL students in the writing classroom, but its use can impose heavy cognitive demands. To ensure that ChatGPT use supports EFL writing without overwhelming students, educators should consider an iterative design process for activities and instructional materials and carefully scaffolding instruction, especially for prompt engineering.

Keywords ChatGPT · Cognitive load · English as a foreign language (EFL) · Prompt engineering · Student motivation · Student perceptions

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[2] The University of Hong Kong, Hong Kong, China

Research on AI for Language Learning

- 204 sophomore EFL learners in a Chinese university completed a critical thinking test, self-directed learning questionnaire and a writing task.
- significant correlations between **critical thinking skills**, **self-directed learning competence**, and **AI-assisted writing**.
- **self-directed learning** moderated the relationship between **critical thinking skills** and **AI-assisted writing**.
- **using AI-assisted tools critically and independently** in writing can mitigate the tendency to over-rely on these tools.

Thinking Skills and Creativity 52 (2024) 101524

Contents lists available at ScienceDirect

Thinking Skills and Creativity

journal homepage: www.elsevier.com/locate/tsc

Three-wave cross-lagged model on the correlations between critical thinking skills, self-directed learning competency and AI-assisted writing

Xiaolei Shen[a], Mark Feng Teng[b,*]

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[b] *Faculty of Languages and Translation, Macao Polytechnic University, Macau SAR, China*

ARTICLE INFO

Keywords:
Artificial intelligence writing
Critical thinking skills
EFL learners
Self-directed learning competency
Writing pedagogy

ABSTRACT

The impact of Artificial Intelligence (AI) on English writing is gaining prominence. This study aimed to examine the interplay between critical thinking skills, self-directed learning competency, and Artificial Intelligence writing by cross-lagged model, with the focus on the moderating role of self-directed learning competency on critical thinking skills and Artificial Intelligence writing. A total of 204 participants completed a critical thinking test, self-directed learning questionnaire and a writing task. The results revealed significant correlations between critical thinking skills, self-directed learning competence, and AI-assisted writing. However, the temporal correlations between critical thinking skills and self-directed learning exhibited a reciprocal pattern over three times, while the correlations between critical thinking skills, self-directed learning, and AI-assisted writing were unidirectional. Interestingly, the findings indicated that self-directed learning moderated the relationship between critical thinking skills and AI-assisted writing over two times, but not in the third time. These findings emphasized the pivotal roles of critical thinking skills and self-directed learning in AI-assisted writing among EFL learners. They also suggested that using AI-assisted tools critically and independently in writing can mitigate the tendency to over-rely on these tools.

1. Introduction

In English language learning, writing plays a pivotal role, necessitating the skill to structure compositions effectively and articulate coherent, substantial viewpoints on specified topics. However, the restricted metacognitive awareness among learners often results in their overlooking lexical and syntactical elements, ultimately culminating in less satisfactory writing outcomes (Teng, 2016, 2019; Teng et al., 2022). Consequently, learners in a foreign language may need to foster metacognitive awareness in developing a coherent and meaningful written discourse.

Moreover, the shift of learning contexts from offline classrooms to online platforms during the COVID-19 pandemic have posed challenges regarding the advancement and the availability of technology-based tools essential for facilitating active participation in diverse learning activities (Hartwell & Aull, 2023; Segbenya et al., 2022; Song et al., 2022). Of particular concern of these challenges are the need to nurture motivation among distance learners within technology-based learning context (Kohnke et al., 2023). Therefore,

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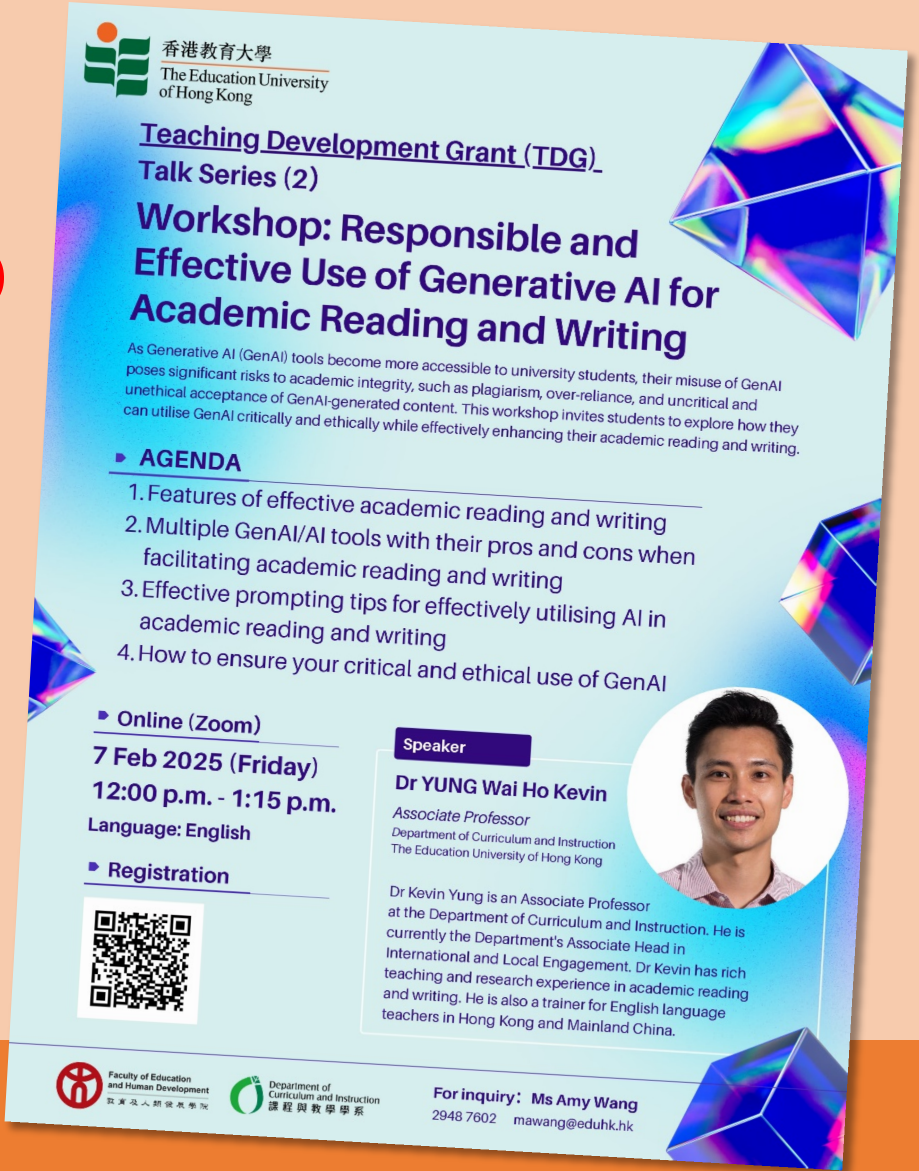
E-mail address: markteng@mpu.edu.mo (M.F. Teng).

https://doi.org/10.1016/j.tsc.2024.101524
Received 7 October 2023; Received in revised form 26 March 2024; Accepted 27 March 2024
Available online 28 March 2024
1871-1871/© 2024 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Research on AI for Language Learning

Survey (N = 325) and focus-group interviews(n = 48) with university students: **A GUIDE-S pedagogical framework**

- **Ground** students in the features of academic writing and raise their writing confidence **(a threshold of English competence)**
- Encourage students to **Utilise** a diverse range of GenAI tools for different purposes and make appropriate choices
- Lead students to **Inspect** the pros and cons of different GenAI tools for different purposes of academic reading and writing
- **Demonstrate** how to give proper prompts to GenAI
- **Establish** accountability for the ethical use of GenAI by requiring students' reports with continuous GenAI records
- The whole process should be **Student-centred**



香港教育大學
The Education University of Hong Kong

Teaching Development Grant (TDG)
Talk Series (2)

Workshop: Responsible and Effective Use of Generative AI for Academic Reading and Writing

As Generative AI (GenAI) tools become more accessible to university students, their misuse of GenAI poses significant risks to academic integrity, such as plagiarism, over-reliance, and uncritical and unethical acceptance of GenAI-generated content. This workshop invites students to explore how they can utilise GenAI critically and ethically while effectively enhancing their academic reading and writing.

AGENDA

1. Features of effective academic reading and writing
2. Multiple GenAI/AI tools with their pros and cons when facilitating academic reading and writing
3. Effective prompting tips for effectively utilising AI in academic reading and writing
4. How to ensure your critical and ethical use of GenAI

Online (Zoom)

7 Feb 2025 (Friday)
12:00 p.m. - 1:15 p.m.
Language: English

Registration

Speaker

Dr YUNG Wai Ho Kevin
Associate Professor
Department of Curriculum and Instruction
The Education University of Hong Kong

Dr Kevin Yung is an Associate Professor at the Department of Curriculum and Instruction. He is currently the Department's Associate Head in International and Local Engagement. Dr Kevin has rich teaching and research experience in academic reading and writing. He is also a trainer for English language teachers in Hong Kong and Mainland China.

Faculty of Education and Human Development
教育及人類發展學院

Department of Curriculum and Instruction
課程與教學學系

For inquiry： Ms Amy Wang
2948 7602 mawang@eduhk.hk

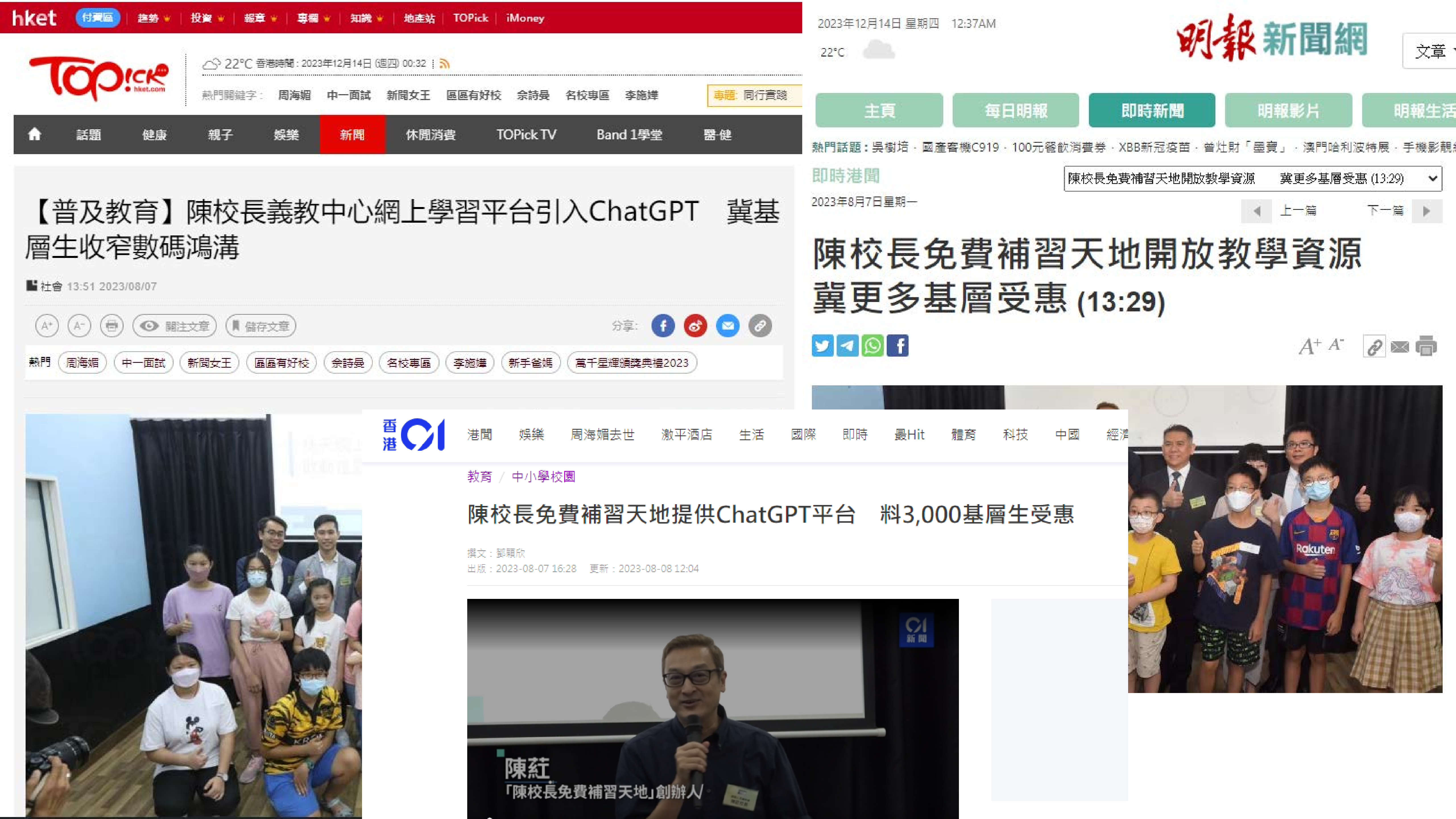
Research on AI for Language Learning

Promote adaptive and self-regulated learning

- Tailor learning to **students' readiness** and **interest** (Abusahyon et al., 2023; Tang et al., 2024)
- Increase **student engagement** and **self-regulated learning capacity** (AbuSahyon et al., 2023; Tai & Chen, 2024)
- Enable **interactive** instructional design (Woo et al., 2024)
- Cultivate **high-cognitive thinking skills** (e.g., creative thinking, critical thinking, questioning skills, and reflective thinking) (Ng et al., 2025; Tang et al., 2024)

An Ongoing Research and Development Project

A project with an NGO to support **primary and secondary school students from low-income families** in Hong Kong through the use of **Generative AI** for **adaptive learning**



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22°C 香港時間：2023年12月14日 (週四) 00:32

熱門關鍵字： 周海媚 中一面試 新聞女王 區區有好校 佘詩曼 名校專區 李施嬅

專題: 同行實踐

話題 健康 親子 娛樂 新聞 休閒消費 TOPick TV Band 1學堂 醫·健

【普及教育】陳校長義教中心網上學習平台引入ChatGPT　冀基層生收窄數碼鴻溝

社會 13:51 2023/08/07

A⁺ A⁻ 關注文章 儲存文章 分享:

熱門 周海媚 中一面試 新聞女王 區區有好校 佘詩曼 名校專區 李施嬅 新手爸媽 萬千星輝頒獎典禮2023

2023年12月14日 星期四 12:37AM

22°C

明報新聞網

文章

主頁 每日明報 即時新聞 明報影片 明報生活

熱門話題：吳樹培 · 國產客機C919 · 100元餐飲消費券 · XBB新冠疫苗 · 曾灶財「墨寶」 · 澳門哈利波特展 · 手機影親

即時港聞

陳校長免費補習天地開放教學資源　冀更多基層受惠 (13:29)

2023年8月7日星期一

上一篇 下一篇

陳校長免費補習天地開放教學資源 冀更多基層受惠 (13:29)

香港01

港聞 娛樂 周海媚去世 激平酒店 生活 國際 即時 最Hit 體育 科技 中國 經濟

教育 / 中小學校園

陳校長免費補習天地提供ChatGPT平台　料3,000基層生受惠

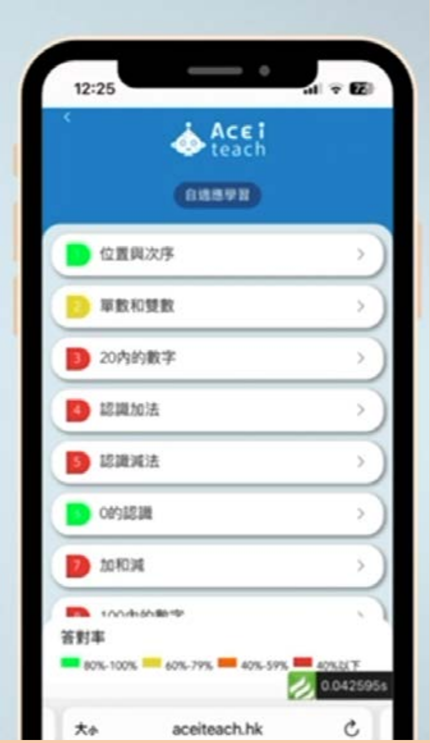
撰文：鄒穎欣

出版：2023-08-07 16:28　更新：2023-08-08 12:04

陳葒

「陳校長免費補習天地」創辦人

An AI-Enabled Adaptive Learning System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Aceiteach
自適應學習

- 1 位置與次序
- 2 單數和雙數
- 3 20內的數字
- 4 認識加法
- 5 認識減法
- 6 0的認識
- 7 加和減
- 100內的數字

答對率

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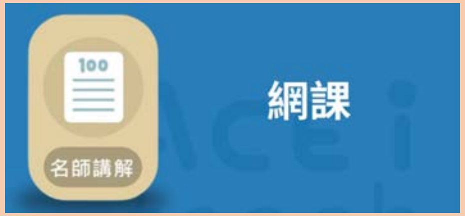
大小 aceiteach.hk



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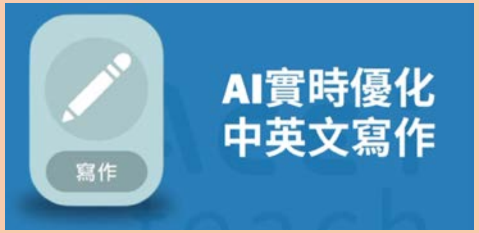
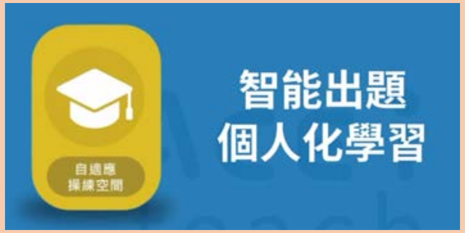
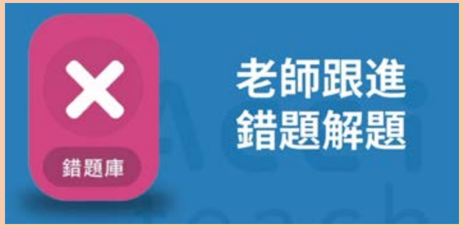


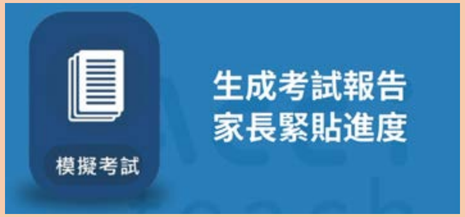
AI實時優化
中英文寫作



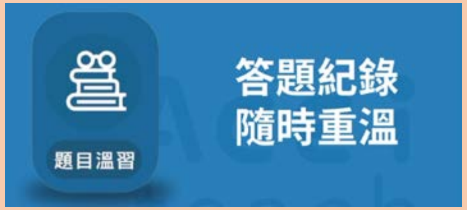
智能出題
個人化學習



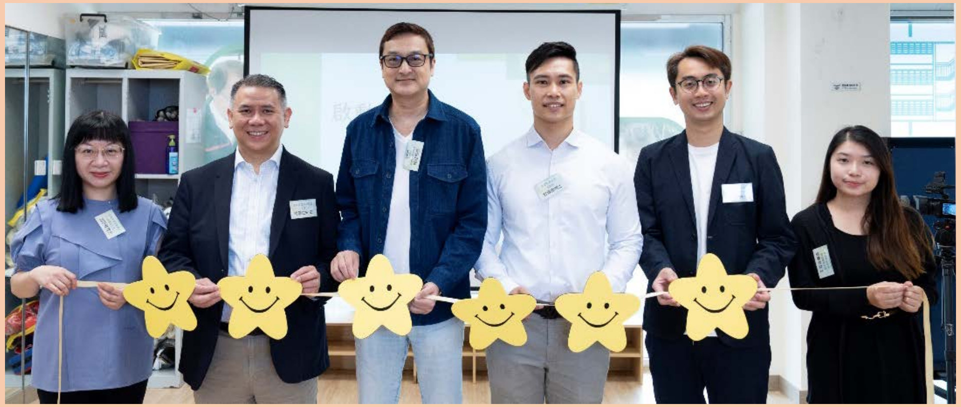
老師跟進
錯題解題



生成考試報告
家長緊貼進度

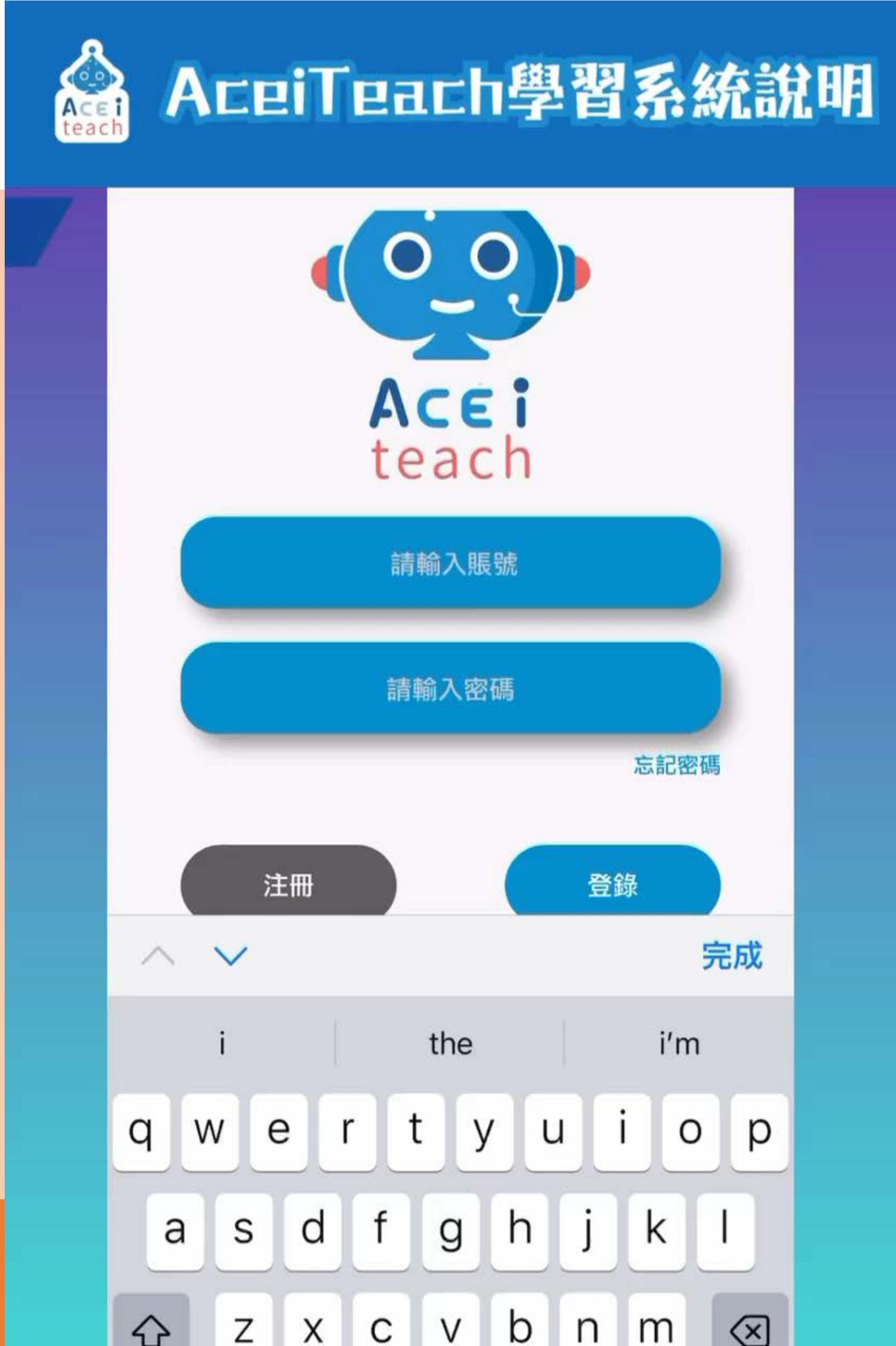


答題紀錄
隨時重溫



Project objectives:

- Develop **AI applications** that support students’ learning
- Promote **educational equality**, enabling students from low-income families to access extra learning support and resources
- Cultivate students’ **self-directed learning** abilities, enabling them to **study independently** outside of class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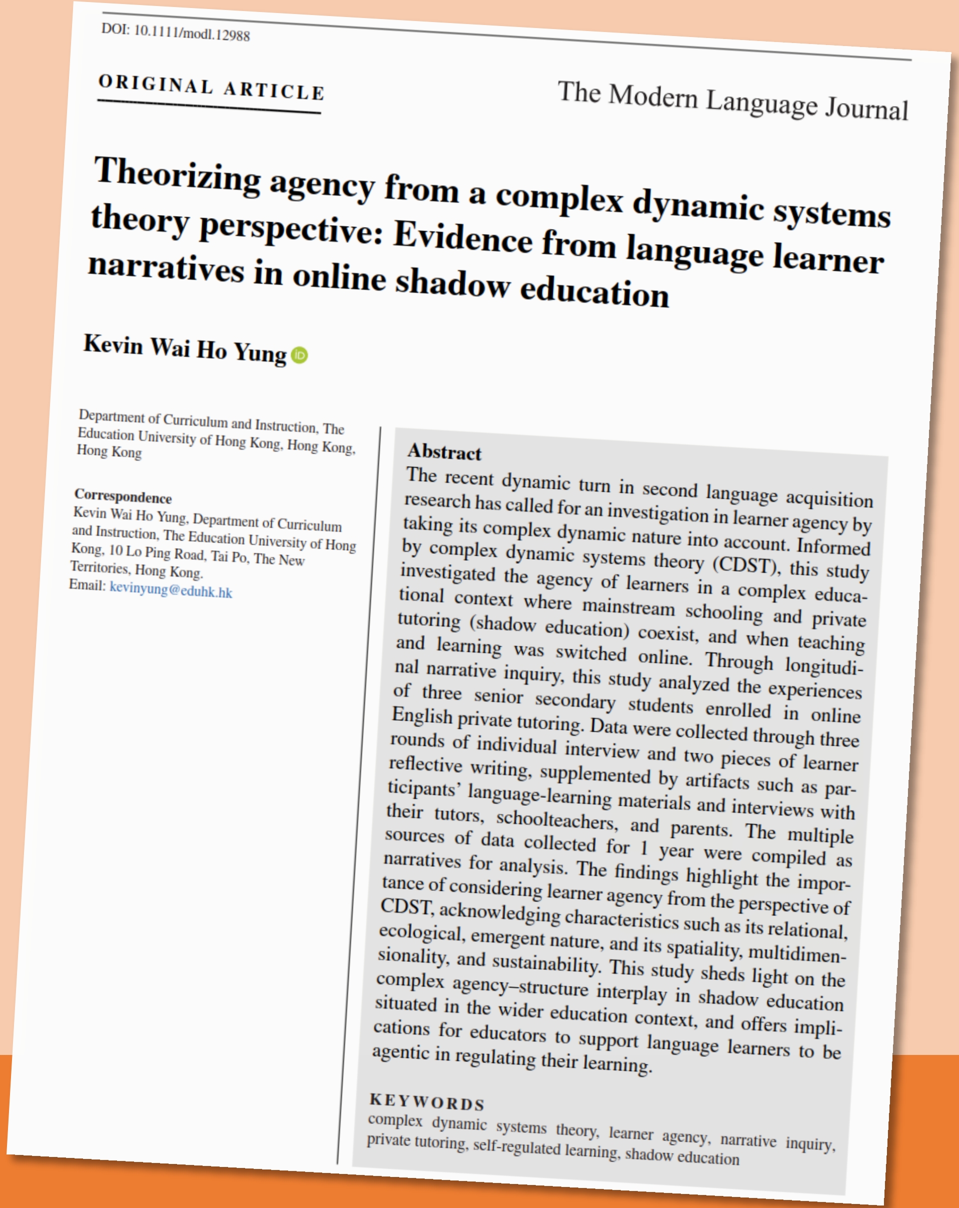
A Final Word

Teacher’s role: To support learners to be **agentic**

- Empower learners to **make choices**
- Encourage learners to **be reflective** in the learning process



DOI: 10.1111/modl.12988

ORIGINAL ARTICLE

The Modern Language Journal

Theorizing agency from a complex dynamic systems theory perspective: Evidence from language learner narratives in online shadow education

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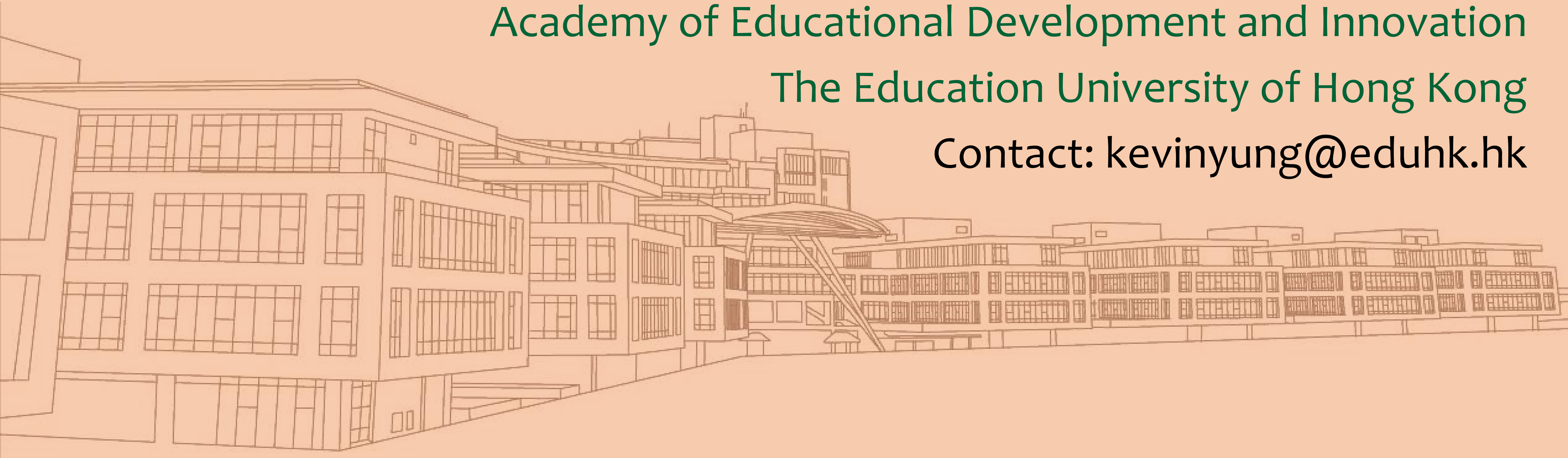
Abstract
The recent dynamic turn in second language acquisition research has called for an investigation in learner agency by taking its complex dynamic nature into account. Informed by complex dynamic systems theory (CDST), this study investigated the agency of learners in a complex educational context where mainstream schooling and private tutoring (shadow education) coexist, and when teaching and learning was switched online. Through longitudinal narrative inquiry, this study analyzed the experiences of three senior secondary students enrolled in online English private tutoring. Data were collected through three rounds of individual interview and two pieces of learner reflective writing, supplemented by artifacts such as participants’ language-learning materials and interviews with their tutors, schoolteachers, and parents. The multiple sources of data collected for 1 year were compiled as narratives for analysis. The findings highlight the importance of considering learner agency from the perspective of CDST, acknowledging characteristics such as its relational, ecological, emergent nature, and its spatiality, multidimensionality, and sustainability. This study sheds light on the complex agency–structure interplay in shadow education situated in the wider education context, and offers implications for educators to support language learners to be agentic in regulating their learning.

KEYWORDS
complex dynamic systems theory, learner agency, narrative inquiry, private tutoring, self-regulated learning, shadow education

Thank you!

Dr Kevin Yung
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