

**Developing Students' Self-directed
Learning Capabilities:
Exploring the Use of Artificial
Intelligence in the Primary English
Classroom
- Event 5**

Exploring the Use of AI in the Primary English Classroom

Exploring the Use of AI in the Primary English Classroom

TERMINOLOGIES

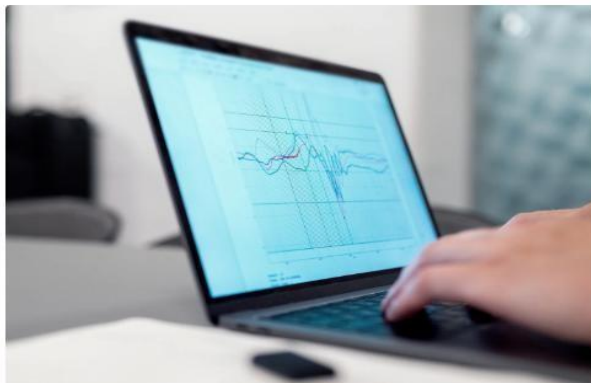
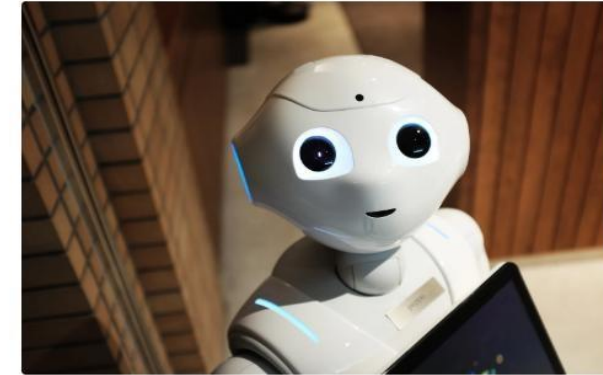
Speak the language of the future education



WHAT IS ARTIFICIAL INTELLIGENCE?

According to Britannica, “Artificial intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings.” (Link)

Artificial Intelligence (AI) is good at helping people solve routine challenges. A dominant technique in developing effective AI is Machine Learning (ML). ML is used to develop AI by getting computers to do something without being programmed with super-specific rules. ML can help machines recognize patterns and adjust to unique situations, like providing translation services in a variety of languages.



WHAT IS GENERATIVE AI?

According to a report from McKinsey, “Generative artificial intelligence (AI) describes algorithms (such as ChatGPT) that can be used to create new content, including audio, code, images, text, simulations, and videos.” (Link)

Generative AI can be used meaningfully by teachers and students in many ways. For example, Generative AI can also be used to create personalized learning experiences for students. By analyzing student data such as their learning style and performance history, generative AI can create customized learning materials that are tailored to each student's individual needs.

Source: <https://aied.talic.hku.hk/teaching-and-learning/terminologies/>

Exploring the Use of AI in the Primary English Classroom

- ‘GenAI has garnered growing interest in recent years, driven by advances in machine learning and natural language processing. One of the most promising developments in this field is large language models (LLMs), such as ChatGPT, Gemini, Copilot, and Claude, which have demonstrated an impressive ability to generate coherent and contextually relevant content across diverse topics. These generative AI models hold considerable potential for transforming teaching and learning by facilitating the creation of personalized educational resources, providing assistance in lesson planning, fostering critical thinking, and enhancing teacher productivity. However, integrating these technologies into the classroom also presents challenges and concerns, such as the risk of biases in the models, the necessity of ensuring ethical and responsible use, and the importance of detecting AI-generated content.’ (p.253)

Source: Cordero, J., C Cordero-Castillo, A. (2025). Exploring the Potential of Generative AI in Education: Opportunities, Challenges, and Best Practices for Classroom Integration. In L. Deligiannidis, S. Amirian, F. Shenavarmasouleh, H. R. Arabnia, C F. Ghareh Mohammadi (Eds.), *Foundations of Computer Science and Frontiers in Education: Computer Science and Computer Engineering* (pp. 252-265). Springer Nature Switzerland.

Exploring the Use of AI in the Primary English Classroom

- ‘The notion of machine teachers is broadly defined as “a technology that plays a meaningful role during an interaction with humans in helping them engage in affective, cognitive, and behavioral learning through various ways” (Kim et al., 2020, p. 1904). These technologies can take many forms, such as voice AI, chatbots, or robots, and can perform a wide range of functions in an instructional setting, including tutoring, grading, or delivering lecture (Kim et al., 2021).’ (p.2)

Source: Kim, J., Kelly, S., C Spence, P. R. (2025). Machine Teachers in the Classroom: How Self-Efficacy Shapes Student Perceptions of Human-AI Collaboration in AI-Based Education. *Communication Studies*, 1-20.

Exploring the Use of AI in the Primary English Classroom

- ‘The review of literature highlights diverse topics related to GenAI usage in language learning classrooms. Evidence on GenAI’s effectiveness across language learning areas shows that **its benefits largely depend on factors such as learner proficiency, instructional design, and implementation strategy** (Yang C Li, 2024). To balance GenAI’s potential with its limitations, a comprehensive approach is necessary, including systematic reviews that synthesize existing evidence for effective practices and offer clear guidance for addressing concerns, including **academic integrity, content reliability, and sociocultural representation** (Lai C Lee, 2024).’ (p.337)

Source: Lee, S., Choe, H., Zou, D., C Jeon, J. (2026). Generative AI (GenAI) in the language classroom: A systematic review. *Interactive Learning Environments*, 34(1), 335-359.

English Language Education Key Learning Area

English Language Curriculum Guide (Primary 1 - 6) (2025)

3.3.4 Promoting e-Learning and Information Literacy (p.46)

- Create an IT-friendly environment
- Provide room for professional capacity building
- Make use of a range of e-resources and e-learning tools to motivate students
- Use e-assessment

English Language Education Key Learning Area

English Language Curriculum Guide (Primary 1 - 6) (2025)

3.3.4 Promoting e-Learning and Information Literacy (p.46)

- Work closely with the teacher-librarian and information technology co-ordinator to create a favourable learning environment for teachers and students
- Provide students with opportunities to apply information technology skills to process and create multimodal texts
- Heighten students' awareness of the accuracy, reliability and judicious use of information and new technologies

English Language Education Key Learning Area

English Language Curriculum Guide (Primary 1 - 6) (2025)

3.3.4 Promoting e-Learning and Information Literacy (p.47)

- Guide students to identify the bias and stereotypes conveyed in texts
- Design learning activities and projects that require students to evaluate, extract, organise and synthesise information and ideas from a number of sources, and create new ideas of their own
- Promote ethical use of information and respect for intellectual property rights

English Language Education Key Learning Area

English Language Curriculum Guide (Primary 1 - 6) (2025)

4.10 Adopting e-Learning within and beyond the English Language Classroom (p.98)

- Leverage information technology to enhance learning, teaching and assessment through e-learning and promote information literacy

Supporting Students' Development of Self-directed Language Learning

English Language Education Key Learning Area

English Language Curriculum Guide (Primary 1 - 6) (2025)

4.13 Learner Independence and Self-directed Learning (p.103)

- Help students develop enabling skills, metacognitive skills and SDL skills
- Create opportunities for students to make choices or decisions in their learning
- Develop language learning tasks or activities that may involve the use of e-learning platforms
- Help students set realistic learning goals
- Help students develop a positive attitude towards self-assessment and peer assessment
- Help students consolidate their learning
- Help students improve their work

What is self-directed learning?



Source: Integrated self-directed learning approach to school-based STEAM development

Organised by Centre for Information Technology in Education, Faculty of Education, The University of Hong Kong, funded by Quality Education Fund

<https://instem.cite.hku.hk/introduction-of-in-stem/>

SDL Indicators	Description
Goal setting	Students identify own learning goals & learning activities
Self-planning	Students regulate and plan for the detailed decisions and arrangements associated with own learning, such as planning, creating outline of schedule
Self-monitoring	- Students self-manage their own time - Students monitor own repertoire of learning strategies - Students adjust own learning pathway as they progress
Self-evaluation	- Students are aware of the assessment criteria - Students critically evaluate work according to set criteria
Revision	- Students revise their work based on the feedback received from their teacher or peers at various stages - Students reflect on their own learning and apply what they have learnt to new contexts

Major Principles and Considerations for Integrating AI to Support Students' Development of Self-directed Language Learning Skills within and beyond the Classroom

I - Integrity

M - Mindful use

P - Privacy protection

A - Access for all

C - Cognitive growth

T - Tech health awareness

Dos

Do choose age-appropriate and privacy-compliant tools.

Do balance screen time with offline activities.

Do ensure equitable access.

Do align AI use with curriculum goals.

Do actively guide and supervise AI use regularly.

Do involve parents when using Generative AI tools in primary classrooms.

Do provide clear instructions and boundaries for AI use.

Don'ts

Don't use platforms that fail to comply clearly with child data protection laws.

Don't overuse screens.

Don't assume all students have equal access.

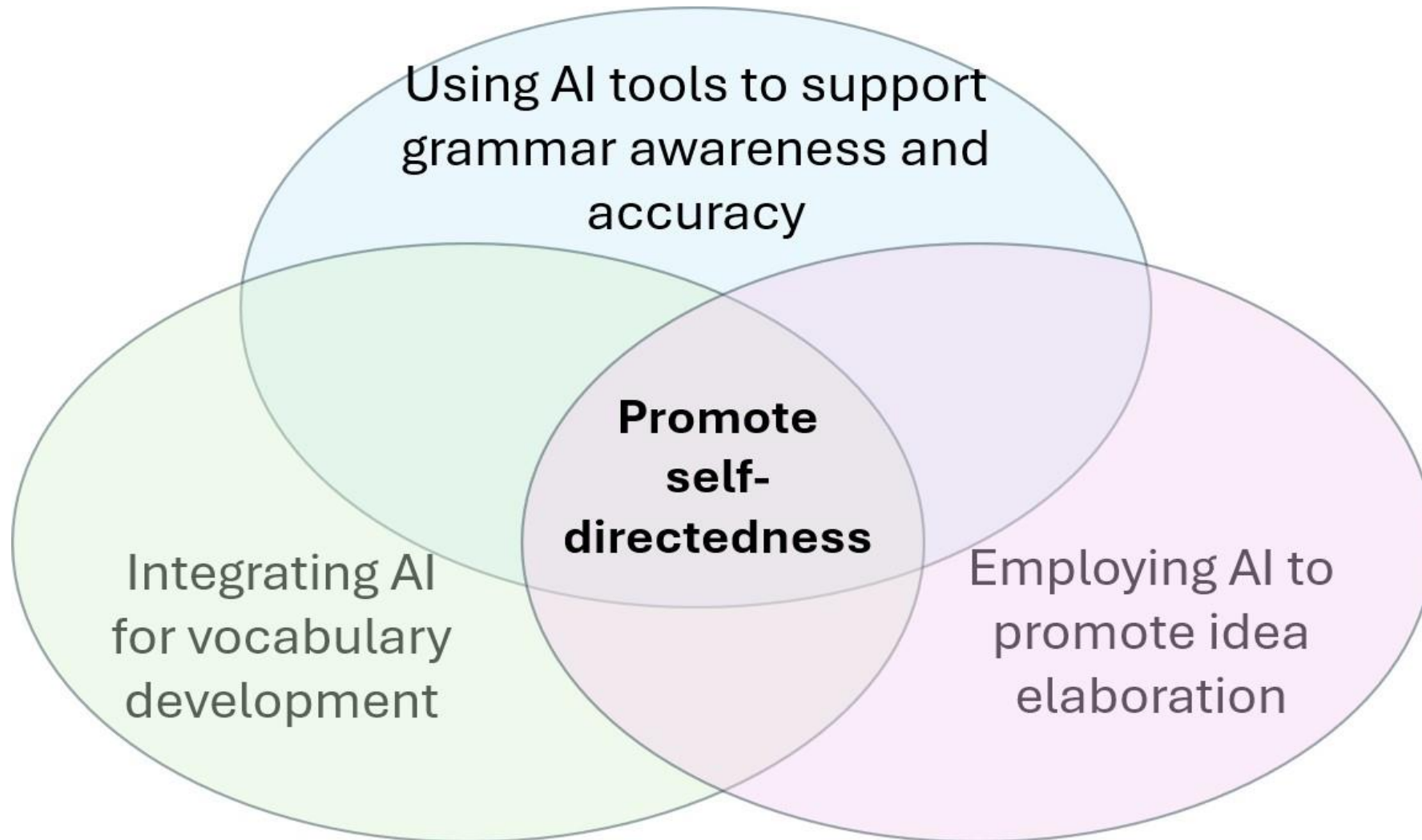
Don't use AI without clear learning goals.

Don't let AI replace human interaction.

Don't assume students understand the privacy implications of AI tools without guidance.

Don't leave students unsupervised during AI-based activities.

Integrating AI tools into Language Teaching and Learning



Integrating AI for Vocabulary Development

Using text-to-audio platforms to support reading and vocabulary development

Speaktor

<https://speaktor.com/>

- ✓ Promote self-paced learning
- ✓ Foster self-planning by allowing students to manage their own learning
- ✓ Enable personalised reinforcement beyond classroom time

Using AI tools to Support Grammar Awareness and Accuracy

Supporting grammar checking and editing with AI Tools

Quillbot

<https://quillbot.com/>

- ✓ Encourage students to identify and correct grammar errors independently
- ✓ Promote self-evaluation of grammar accuracy after AI-assisted editing
- ✓ Build confidence in self-editing before teacher feedback

Employing AI to Promote Idea Elaboration

Worksheet 1

Part A: Learn the names of threats to the Earth

Read the example sentences on the right side of the table, Match each example sentence with a threat from the box below. You may circle key words that help you find out the names of the threats.

littering	hunting	overfishing	deforestation
noise pollution	global warming	water pollution	
<u>Threats to the Earth:</u>	<u>Example Sentences:</u>		
	People catch too many animals. There are fewer left in the wild.		
	Fishermen take too many fish. The sea has almost no fish left.		
	Throwing rubbish makes the land and ocean dirty.		
	The Earth gets hotter and the ice at the North Pole melts.		
	Cutting down too many trees leaves animals without homes.		
	Dirty water makes the ocean unsafe for fish and sea animals.		
	Loud sounds from cars or machines make it hard for people to sleep.		

Wayground

<https://wayground.com/?lng=en>

Activity – MC questions

Activity - Drag and Drop

Target set of vocabulary

Threat to the Earth	Impact on animals	What humans need to do
Deforestation / Cutting down trees	The orangutans may lose their forest homes.	Humans ought to plant more trees and protect forest habitats.
Hunting	The elephants may disappear because people hunt them for tusks.	Humans should stop illegal hunting.
Overfishing	The sea turtles may have less food to eat in the ocean.	Humans must fish responsibly and protect marine life zones.
Noise pollution	The sea birds may be disturbed and unable to rest.	Humans must reduce loud noises near natural habitats.
Water pollution	The dolphins may get sick from dirty seas.	Humans should keep oceans clean and avoid dumping waste.
Broken coral reef	The clownfish may lose their colourful coral homes.	Humans ought to protect coral reefs and avoid damaging them.
Littering	The whales may eat plastic and die.	Humans must recycle properly and reduce plastic use.
Global warming	The polar bears may lose the ice they need to find food.	Humans should save energy and reduce carbon emissions.

The may disappear because people hunt them for their tusks.

The may lose their colourful coral homes.

The may lose the ice

Target set of vocabulary

Threat to the Earth	Impact on animals	What humans need to do
Deforestation / Cutting down trees	The orangutans may lose their forest homes.	Humans ought to plant more trees and protect forest habitats.
Hunting	The elephants may disappear because people hunt them for tusks.	Humans should stop illegal hunting.
Overfishing	The sea turtles may have less food to eat in the ocean.	Humans must fish responsibly and protect marine life zones.
Noise pollution	The sea birds may be disturbed and unable to rest.	Humans must reduce loud noises near natural habitats.
Water pollution	The dolphins may get sick from dirty seas.	Humans should keep oceans clean and avoid dumping waste.
Broken coral reef	The clownfish may lose their colourful coral homes.	Humans ought to protect coral reefs and avoid damaging them.
Littering	The whales may eat plastic and die.	Humans must recycle properly and reduce plastic use.
Global warming	The polar bears may lose the ice they need to find food.	Humans should save energy and reduce carbon emissions.

Activity - Fill in the blanks

The may disappear because people hunt them for tusks.

The may lose their ice they need to find food.

Employing AI to Promote Idea Elaboration

Part B: Make suggestions for humans using the modal verbs “should”, “ought to”, and “must”

hunting	overfishing	littering	global warming
cutting down trees/deforestation	water pollution	noise pollution	broken coral reef

Threat 1: _____

Your suggestion:

Threat 2: _____

Your suggestion:

Threat 3: _____

Your suggestion:

Wayground

<https://wayground.com/?lng=en>

**Now, choose three threats and
make your own suggestions.**

Activity - Open response

AI-supported sentence generation and idea development

✓ Correct ☰ Open Ended 40s time | 0 point

18. Select the first threat and give a suggestion with "should", "ought to", or "must".

Response

He should to using both sides of paperes.

✦ AI Evaluation

The task requires selecting an environmental threat from the given list and writing a reasonable suggestion starting with "Humans should/ought to/must" to reduce it, with grammar feedback. The student wrote "He should to using both sides of paperes." Issues: (1) Does not select a listed threat explicitly; implied threat could be deforestation, but "He" does not meet the required "Humans ..." starter. (2) Modal usage is wrong: should + base verb; correct is "should use," not "should to using." (3) Spelling: "paperes" should be "papers" or better "paper." (4) Article clarity: could be "both sides of the paper." A corrected, rubric-aligned version would be: "Humans should use both sides of the paper to reduce deforestation." Content is relevant but format and grammar deviate from requirements; thus partial credit is appropriate.

Wayground

<https://wayground.com/?lng=en>

- ✓ Encourage self-monitoring through comparing initial and revised versions of ideas
- ✓ Build students' confidence in expanding ideas through structured, guided writing tasks
- ✓ Foster reflective writing habits by responding to feedback and revising meaningfully

Disclaimer

- The AI tools presented today are for demonstration and sharing purposes only.
- Mention of specific tools does not constitute endorsement or promotion.
- Some tools may be commercial or paid, and participants are encouraged to evaluate suitability based on their own context.
- Always consider school policies, data privacy, and student needs when selecting tools.