

Exploring Artificial Intelligence Series: (2) Enhancing Students' Self-directed Learning Capabilities and English Reading and Writing Skills at the Primary Level

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Workshop Objectives

1. To enhance teachers' knowledge and understanding of the **basic concepts of Artificial Intelligence (AI)** in relevance to English Language learning at the primary level;
2. To explore **effective AI tools and strategies** that can be adopted in primary English **reading** and **writing** activities while promoting self-directed learning;
3. To provide insights on how to integrate AI into the **reading** and **writing** curriculum through **holistic planning**;
4. To raise **teachers' awareness of and provide solutions** to address the **limitations** of and **concerns** about the use of AI (e.g. aspects of media and information literacy); and
5. To enhance **teachers' capacity in integrating AI** into the design of learning, teaching and assessment activities to promote **self-directed learning** and enhance students' **reading** and **writing** skills.

Introduction

Artificial Intelligence

- a set of **technologies**
- a variety of **advanced functions**
 - to read and see
 - understand
 - translate spoken and written language
 - analyze data
 - make recommendations

ChatGPT ~~=~~
Artificial
Intelligence

ChatGPT

(or any other Large Language Models)

• Generative Pre-trained Transformer

- Predict + Summarise
- Produces human-like texts
- E.g., ChatGPT 4o
 - April 2023
 - 45TB of text data
 - 60% Websites
 - 16% Books
 - 3% Wikipedia ...

No way to tell how it will
respond

English Language Learning Motivation

- **Motivation** is a key driver of engagement and achievement in language learning (Ryan & Deci, 2020).
- It influences learners' willingness to persist in technology-mediated language learning tasks (Du & Mo, 2022).

How can AI influence learning motivation?

- **Personalised Learning & Feedback:**

Some GenAI-supported tools provide tailored content and real-time feedback, fostering autonomy and confidence (Wei, 2023).

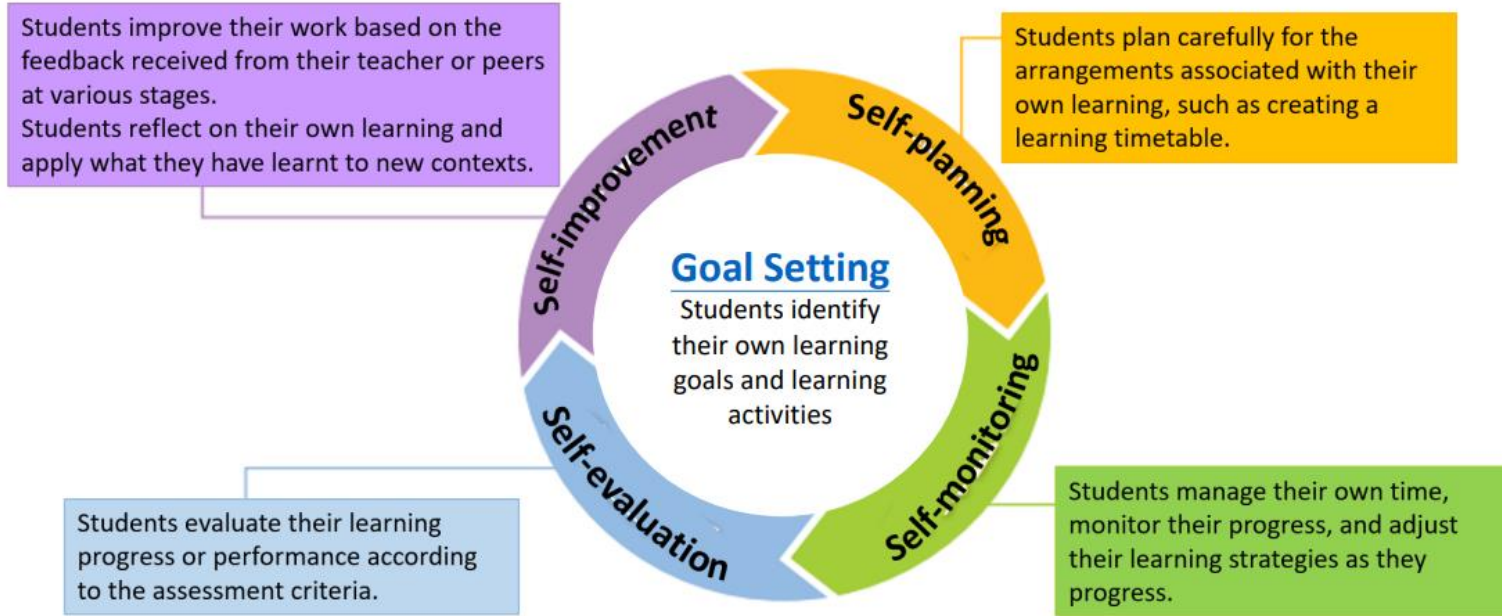
- **Learning Enjoyment:**

Some GenAI-supported platforms integrate game-like features, increasing perceived enjoyment and intrinsic motivation (Hong & Tai, 2024; Lam & Tsang, 2025; Jeon, 2024).

- **Autonomy & Self-directed Learning Skills:**

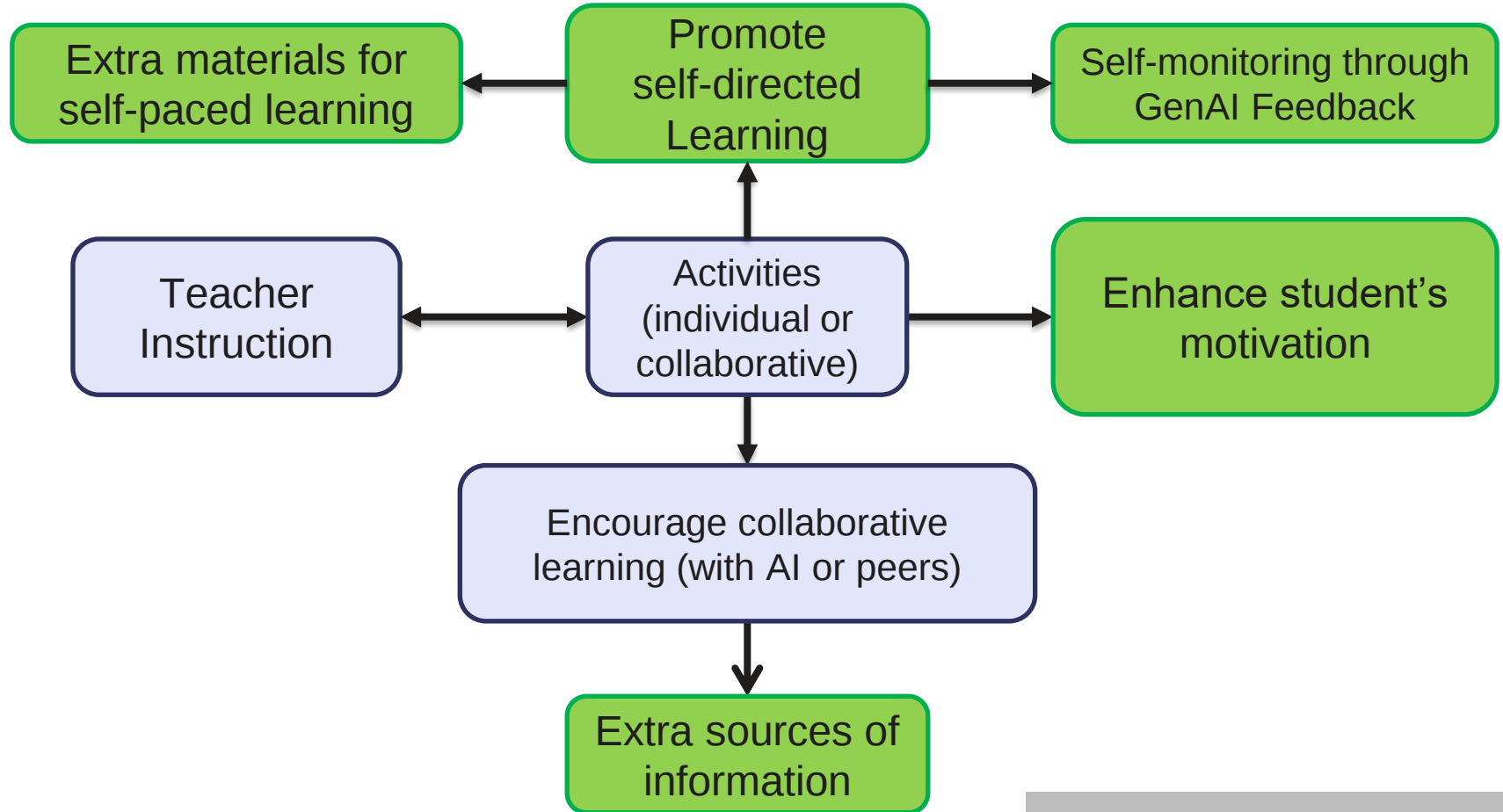
GenAI supports goal-setting and self-paced learning, promoting self-directed learning strategies (Wei, 2023; Yuan & Liu, 2025).

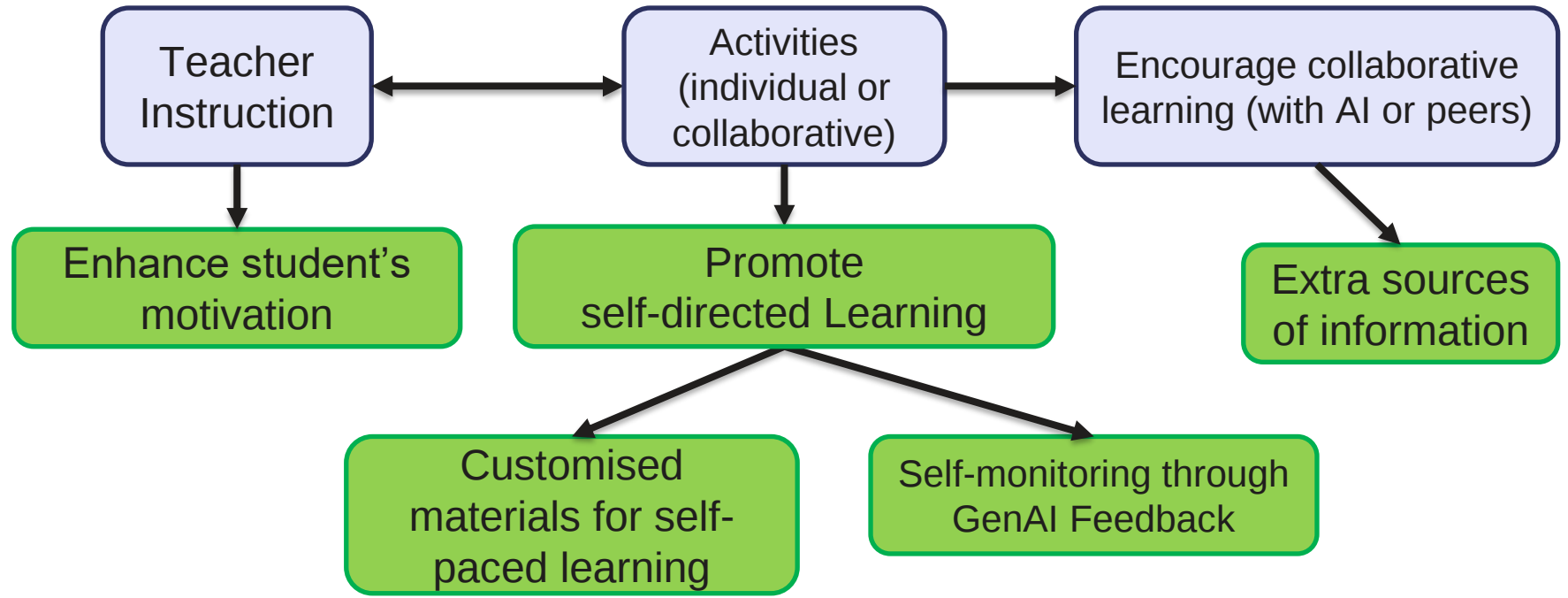
Self-directed Learning



A translated figure, adapted from: *Primary Education Curriculum Guide* (Figure 4.2, Section 4.2.6) (CDC, 2024)

How GenAI tools help us in English language teaching



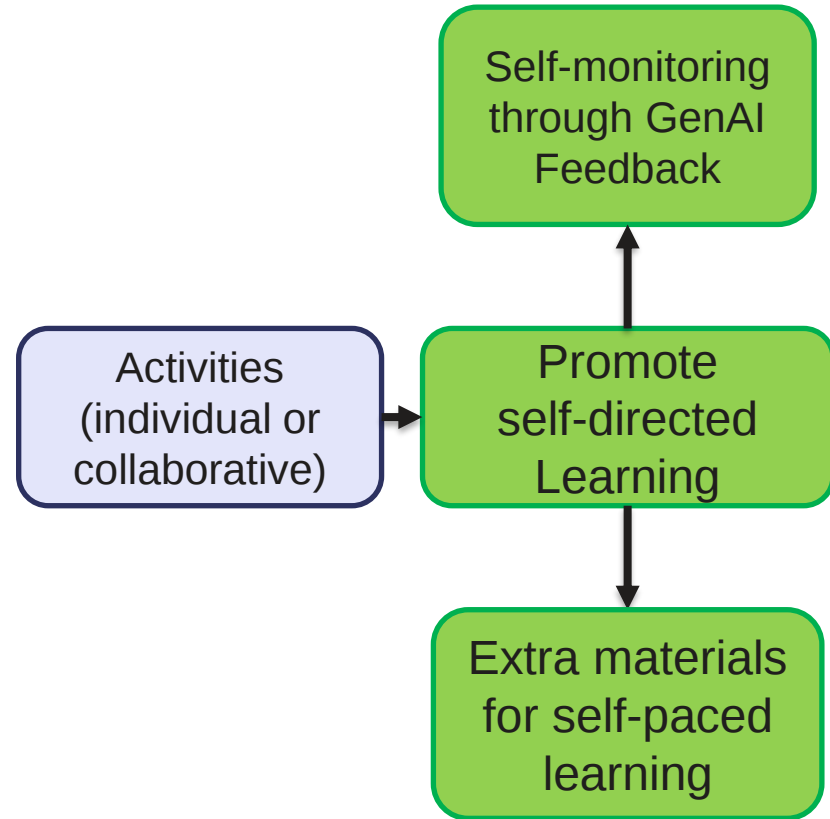


Some ideas being used in some schools

- **Reading Practice - Grammar**
- **Customisation:** provide customised and interactive practice tailored to your students' needs.
- **Learner's choice:** allow students to pick the kind of practice / exercise that fits their interest
- **Immediate feedback:** students get feedback on their answers with GenAI highlighting their strengths and suggest areas for improvement

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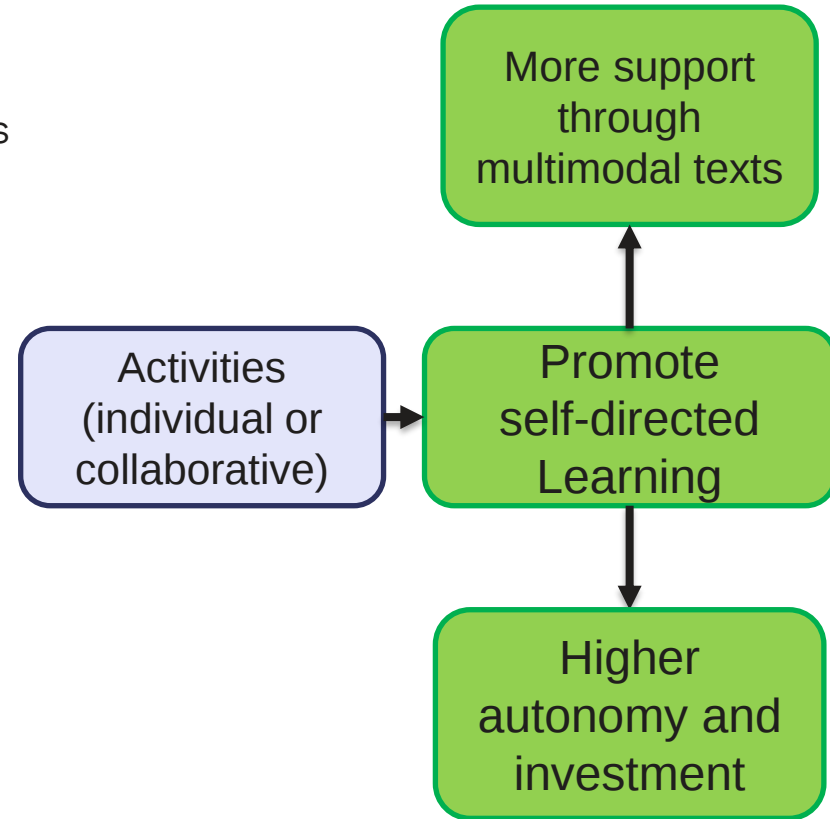


Some ideas being used in some schools

- **Writing support – Image GenAI**
- **Motivation** through visuals: Lower primary students use GenAI images to spark interest in writing.
- **Rich detail & context:** Images provide more information and ideas on a chosen topic.
- **Prompt-writing practice:** Teachers guide students in crafting effective prompts, reinforcing English language skills.
- **Learner autonomy:** Students create their own images, fostering ownership and creativity.
- **Higher investment:** Personalized visualizations increase engagement and commitment to their writing tasks.

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Some ideas being used in some schools

- Reading Practice + Grammar
- AI-supported Writing
- Including Image GenAI

We will cover these today.

Paid service 😞

Note: VPN is not
needed when
purchasing from
Google HK resellers

- Using Gemini **NotebookLM** to create materials that is within your own “data base”
- Other similar platforms included *Logically* and *Elephas*

Ethical issues and concerns

What NOT to do...

As ChatGPT $\neq$ AI, never rely it for the following purposes...

(a) Finding factual information

1. ChatGPT is prone to make up facts...

(b) Calculation

1. No actual calculation process within the language model
2. Need to go through the calculation step by step

Ethical issues and concerns

- Avoid Over-Reliance on GenAI
- GenAI should support, **not replace**, human judgment and creativity. Over-dependence can hinder **critical thinking and authentic language use** (Yuan & Liu, 2025).
- Teach Students About Bias and Misinformation
- AI models learn from large datasets that may contain **biases**. Educators must **raise awareness of bias** and encourage **fact-checking** (Hong & Tai, 2024).

Let's stop and think

Let's set some goals for
the next session focused
on practical skills.



01

Reading-focused



Planning a reading lesson

Think about the approaches we have in teaching **reading**.

Bottom-up Approach

- Learners build meaning by decoding letters, sounds, and words step by step
- word recognition, reading aloud
- Strong for early literacy and accuracy
- Can neglect meaning-making and higher-order comprehension

Genre Approach

- Reading is taught through awareness of text types, structures, and purposes
- Analyzing fiction vs. non-fiction texts, teaching text organization
- Builds functional literacy and academic skills
- May be abstract for beginners without strong language base

Planning a reading lesson

Bottom-up Approach

Genre Approach

Consider these questions after knowing what they are:

1. Which one fits better with GenAI tools?
2. Which one fits better with enhancing student's self-directed learning skills?

Both are equally great choices. Everything depends on your creativity!

Teaching Reading: A traditional lesson

1. Introduction (5 minutes):

1. Introduce the topic of film reviews.
2. Ask students if they have seen any of the films mentioned in the article and briefly discuss their opinions.

2. Reading Activity (10 minutes):

1. Ask students to open the book to the pages of the article.
2. Read the film reviews together as a class, with different students taking turns reading aloud.
3. Discuss the main points of each review: plot summary, special effects, and personal opinions.

3. Discussion (10 minutes):

1. Write key questions on the board:
 1. What is the plot of each film?
 2. What did the reviewers like or dislike about the films?
 3. How did the reviewers feel about the actors or special effects?
2. Discuss these questions as a class, encouraging students to share their thoughts.

Bottom-up
Approach?

Genre
Approach?

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Genre
Approach!

Teaching Reading: A traditional lesson

4. Writing Activity (15 minutes):

1. Distribute printed worksheets with prompts for writing a film review.
2. Students complete the worksheets with given details.

5. Sharing and Feedback (10 minutes):

1. Pair students up and have them exchange their written reviews.
2. Each student reads their partner's review and provides feedback.
3. Volunteers can share their reviews with the whole class.

6. Review and Conclusion (5 minutes):

1. Summarize the key points of writing a good film review.
2. Encourage students to watch films and write reviews as practice.
3. Collect the worksheets for further assessment.

What can
GenAI do to
enhance
this lesson?

Teaching Reading: An AI-supported lesson

1. Introduction (5 minutes):

1. Introduce the topic of film reviews.
2. Ask students if they have seen any of the films mentioned in the article and briefly discuss their opinions.

2. Interactive Reading Activity (15 minutes):

1. Using an online AI-supported interactive presentation tool (e.g., Wayground), read the film reviews together as a class, with different students taking turns reading aloud.
2. Discuss the main points of each review: plot summary, special effects, and personal opinions with interactive activities.

3. Discussion (10 minutes):

1. Write key questions on the board:
 1. What is the plot of each film?
 2. What did the reviewers like or dislike about the films?
 3. How did the reviewers feel about the actors or special effects?
2. Discuss these questions as a class, encouraging students to share their thoughts.

AI-
supported
interactive /
customised
activities

Purpose

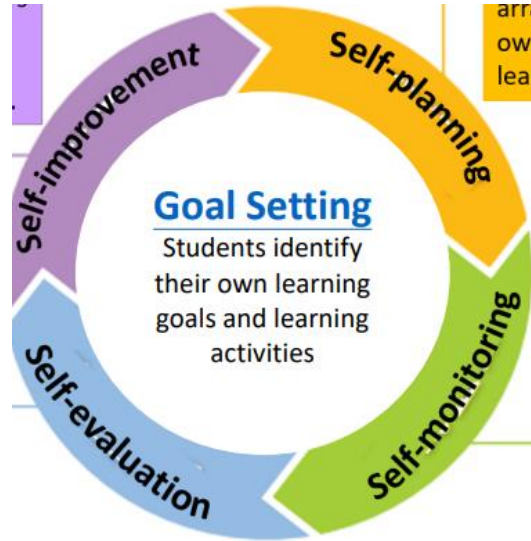
Form

Teaching Reading: An AI-supported lesson

AI-
supported
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Purpose

Form



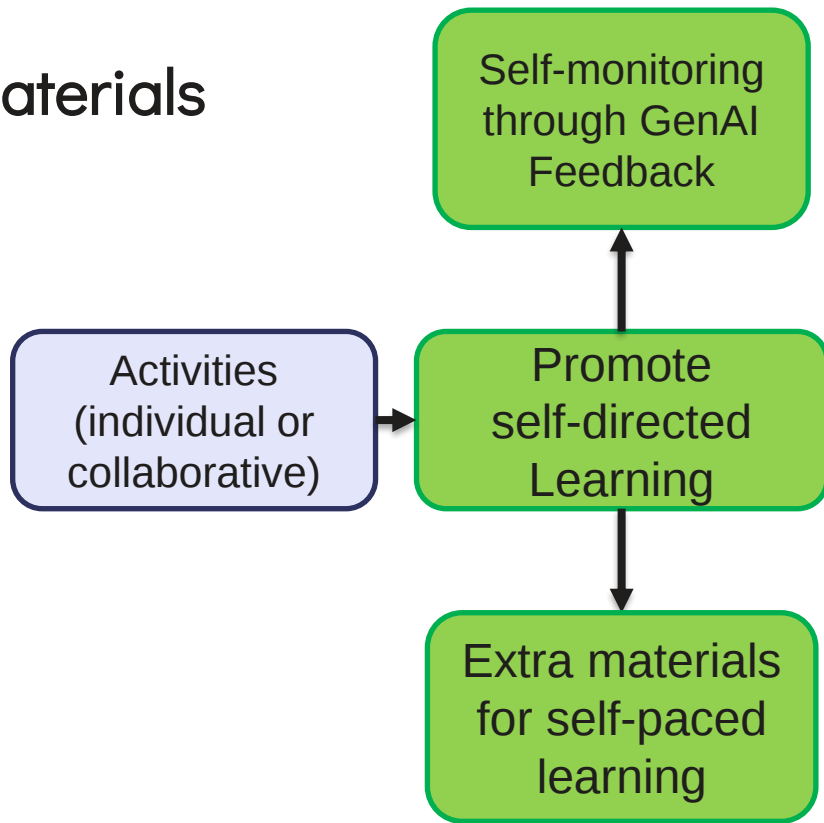
Some more ideas for you
within Wayground:

1. Set a **goal-setting task**
2. Set a **self-reflection task**
with the same statements
/ learning objectives

A translated figure, adapted from: *Primary Education Curriculum Guide* (Figure 4.2, Section 4.2.6) (CDC, 2024)

There is more to teaching reading...

- Extra reading comprehension materials



There is more to teaching reading...

- GenAI Reading exercise

There is more to teaching reading...

- **Generate questions directly from selected materials**

There is more to teaching reading...

- AI-supported actions to change the questions

There is more to teaching reading...

- GenAI feedback to students' answers

How about the Bottom-up approach?

- Interactive tasks from Padlet Arcade

How about the Bottom-up approach?

- Some of these functions are discontinued on 30 Jan...

Any other post-reading tasks?

Post-reading tasks usually involves some kind of **extensive learning tasks** from the main text.

Extra materials for self-paced learning

Another approach in post-reading tasks involves relating students to the text, or extend the use of context into their daily life.

Post-reading Tasks:

A short writing / reflection

GenAI-supported post-reading:

1. Teachers introduces the task after teaching reading
2. Students are asked to produce a reflection on the reading text
3. GenAI-images can be included as a kind of multimodal text in writing

Post-reading Tasks:

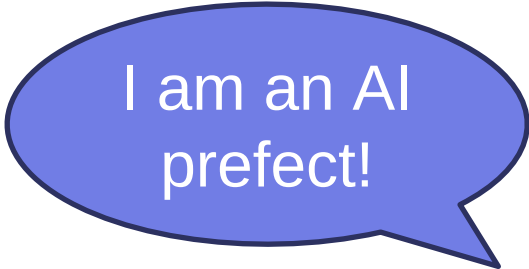
A short writing / reflection

- When creating GenAI images, students may not be able to generate a meaningful image on their first attempt.
- **It is important to teach students how to write effective prompts** before allowing them to try.
- **A clear prompt-engineering task** should be introduced prior to image generation.

Ethical Concerns

Even though GenAI tools are powerful and convenient, as professional English teachers we must pay close attention to the following:

1. Do the materials created by GenAI tools align with the learning objectives of your unit?
2. Do they infringe on any copyrighted materials during creation?
3. Are there any hallucinations in the output? Are the answers accurate?



I am an AI prefect!



02

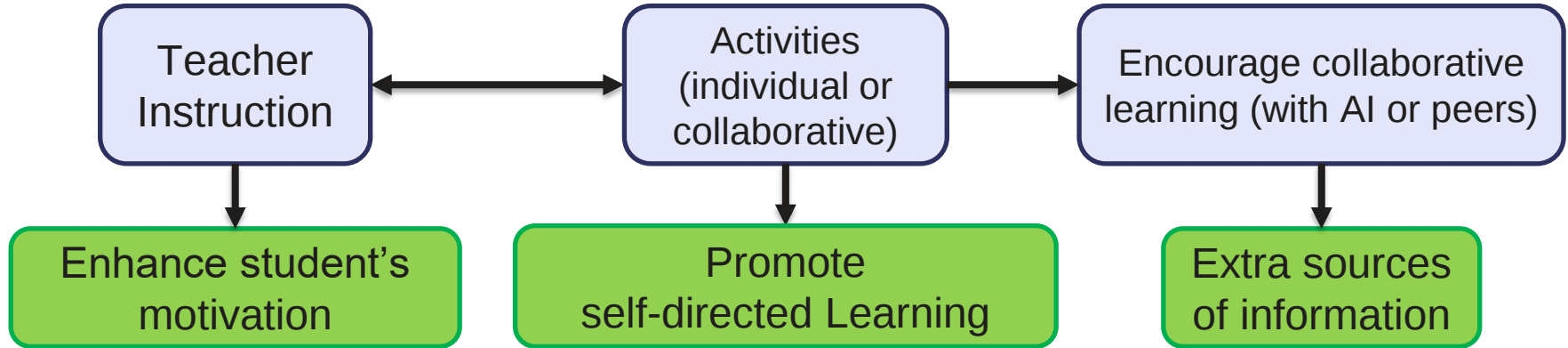
Writing-focused



Some more problems in teaching writing

Problem		Impact on Students
Low language proficiency	Struggles with grammar, vocabulary, and sentence structure	Produces short, error-filled texts
Lack of ideas/content	Difficulty generating ideas or organizing thoughts	Leads to repetitive or shallow writing
Overemphasis on accuracy	Focus mainly on grammar correction rather than meaning-making	Hesitant writing; creativity is suppressed
Large class sizes	Hard for teachers to give individualized feedback	Limited guidance; slower progress
Motivation & cultural issues	Writing seen as mechanical or irrelevant	Low engagement and minimal effort
Assessment challenges	Writing is subjective and keeping grading consistency is difficult	Students may feel feedback is unfair or unclear

While-writing tasks?



Are there any other ways to do an interactive writing task?

AI-supported Collaborative Writing

GenAI-supported writing:

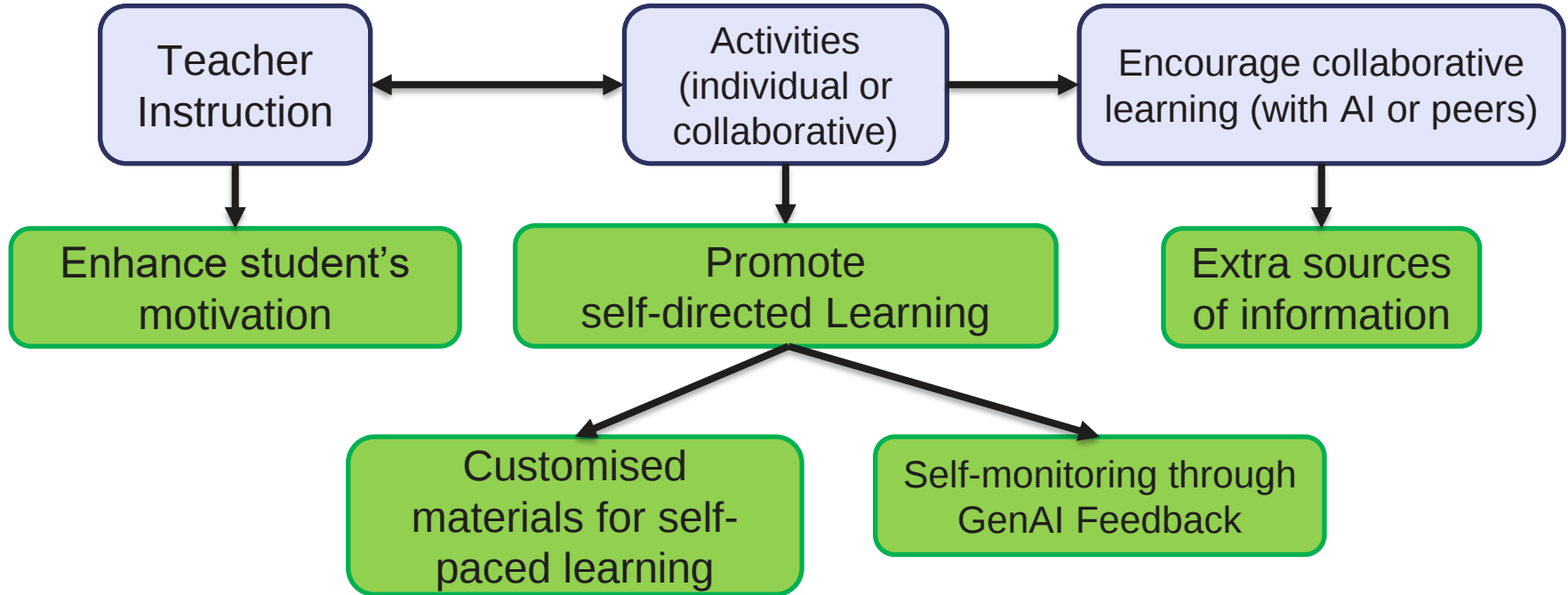
1. Transform a normal writing task onto Canva
2. Generate images to go with the writing using the embedded functions
3. Goal-setting, Self-reflection and Peer evaluation can be included

AI-supported Collaborative Writing

GenAI-supported writing:

1. A quick and easy grammar checking tool
2. Can ask students to jot down the changes made onto their notebooks

AI-supported Guided Writing



Is there a way to do everything at once?

Can I make one?

- Absolutely yes!
- Use your creativity
- Use trial and error approach

Features of POE canvas app

- No coding knowledge needed
- Use your creativity – no limits!
- Extremely friendly user-interface
- Available on a website right after coding
- Available for free POE users (VERY IMPORTANT)

Prompt engineering

- **Tell the bot the following things:**
- Purpose
- Interface layout in words
- Functions
- Reference materials
- Use a cost-effective LLM base, like GPT5-nano

What to do if you're unsatisfied with the result?

- Let the GenAI work for you!

Tackling the common learner's problems

Problem		GenAI Tools for tackling the problems
Low language proficiency	Struggles with grammar, vocabulary, and sentence structure	Quillbot
Lack of ideas/content	Difficulty generating ideas or organizing thoughts	Canva + POE
Overemphasis on accuracy	Focus mainly on grammar correction rather than meaning-making	Quillbot
Large class sizes	Hard for teachers to give individualized feedback	Quillbot + Canva + POE
Motivation & cultural issues	Writing seen as mechanical or irrelevant	Canva
Assessment challenges	Writing is subjective and keeping grading consistency is difficult	POE

Data-driven Assessment for Learning

- Set a button for downloading the report after the writing tasks in PDF format
- Ask students to upload the file onto your choice of LMS (Google Classroom, Microsoft Teams or Canva)
 - Pay attention to **personal data protection**
- Teachers are encouraged to quickly read through the report to check for common mistakes / feedback
 - Create **a follow-up lesson or revision worksheet** with the data you collected (may use POE for help)

Other AI-Supported Tools You Might Be Interested In

Student-facing	Teacher-facing
Mentimeter (AI-enhanced) Facilitates class polls and Q&A to deepen comprehension of texts.	MagicSchool AI Creates prompts, quizzes, and differentiated reading/writing tasks
ReadTheory (AI-enhanced) Offers leveled passages with comprehension checks and adaptive feedback.	SchoolAI Provides personalized learning, and supports students by providing AI-powered lesson planning, assessments, and real-time insights
Grammarly EDU Supports grammar, vocabulary, and clarity in student writing.	Canva for Education + Magic Studio Helps students create multimodal texts (posters, reviews, reports) with AI-assisted design.

For exploring more AI tools...

There's An AI For That (TAAFT)

Conclusion

What did we learn?

1. We can tell **basic concepts of Artificial Intelligence (AI)** in relevance to English Language learning at the primary level;
2. We explored **effective AI tools and strategies** that can be adopted in primary English reading and writing activities while promoting self-directed learning;
3. We have better **teachers' awareness** of and **provide solutions** to address the **limitations of and concerns about the use of AI**
4. We have **teachers' capacity in integrating AI** into the design of learning, teaching and assessment activities

References

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