

Professional Development Programme

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

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Event 3: 11 February 2026

Event 3: Key Focus

- To expand English teachers' repertoire of pedagogical knowledge to enhance secondary students' **listening** skills development and their **self-directed language learning capabilities** through integrating **the use of artificial intelligence (AI)** in the secondary English classroom

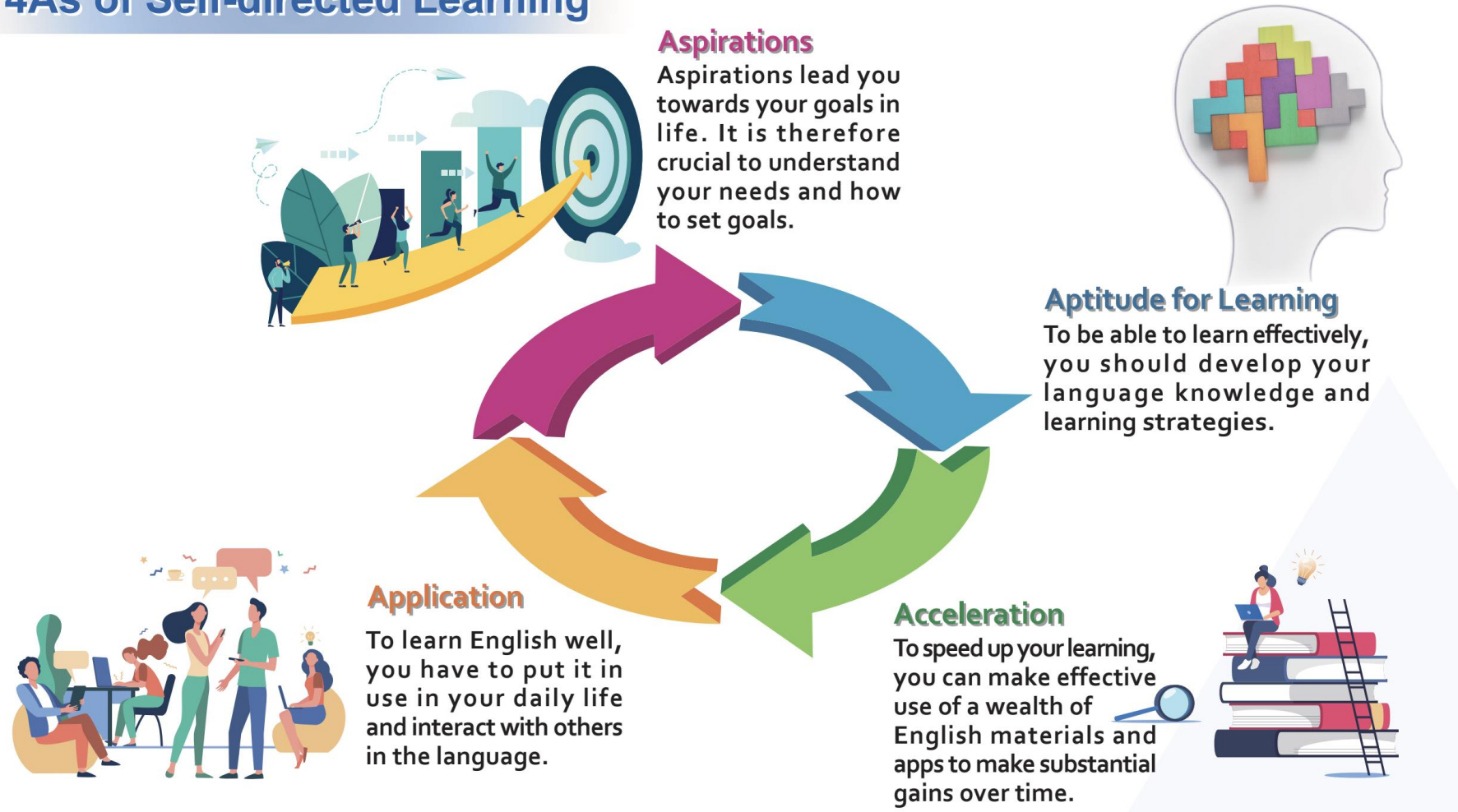
Brainstorming and Sharing

- How do you usually teach listening? How do your students usually practise listening?
- How have you equipped your students for self-directed listening?
- Have you demonstrated to or taught your students how AI can be integrated into self-directed listening practice?

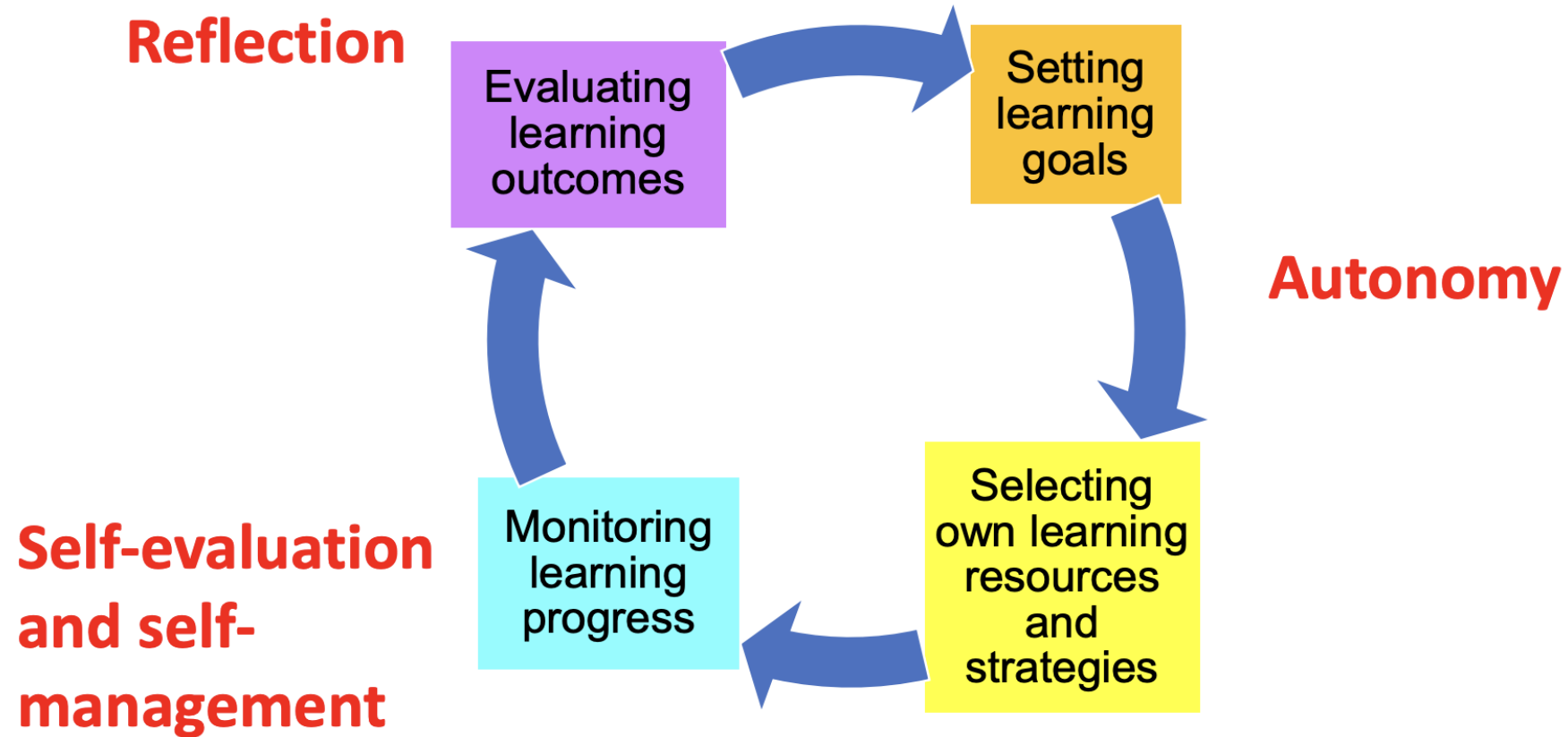
A Quick Recap

4As of Self-directed Learning

4As of Self-directed Learning



4-stage Model of Self-directed Learning



4-Step Prompt Crafting Framework



Define the goal and persona

- *What do I want to achieve, and who should the AI be?*



Contextualise & constrain

- *Who is this for? What is the scenario? What specific details, format and boundaries do I need?*



Refine with examples (optional but powerful)

- *Can I show the AI exactly what I want?*



Iterate and interrogate

- *How can I improve the result based on what I got?*



Self-directed Listening Practice

HKDSE 2025 3A: Candidates' Performance

Missing multi-part information

Difficulty identifying relationships in meaning

Inability to interpret precise phrases or nuanced meaning

Weak vocabulary recognition

Difficulty with paraphrasing or synonyms

Cognitive overload during extended listening

Resource Materials

Set 2

**Resource
Materials Set 2**

**Pre-
listening**

**While-
listening**

**Post-
listening**

Learning Objectives

- By the end of the lesson, students will be able to:
 - a) identify and explain what **precise meaning** means in listening tasks (e.g., qualifiers, contrasts, conditions, comparisons)
 - b) use **strategies** to improve answer precision
 - c) use **text-based AI** (e.g., DeepSeek) **to generate precision-focused micro-listening tasks** and receive feedback
 - d) set **a SMART SDL listening goal** for the next 2 weeks

**Precise
meaning
(e.g.,
qualifiers,
contrasts,
conditions,
comparisons)**

Locating details which support the main ideas from different parts of a text

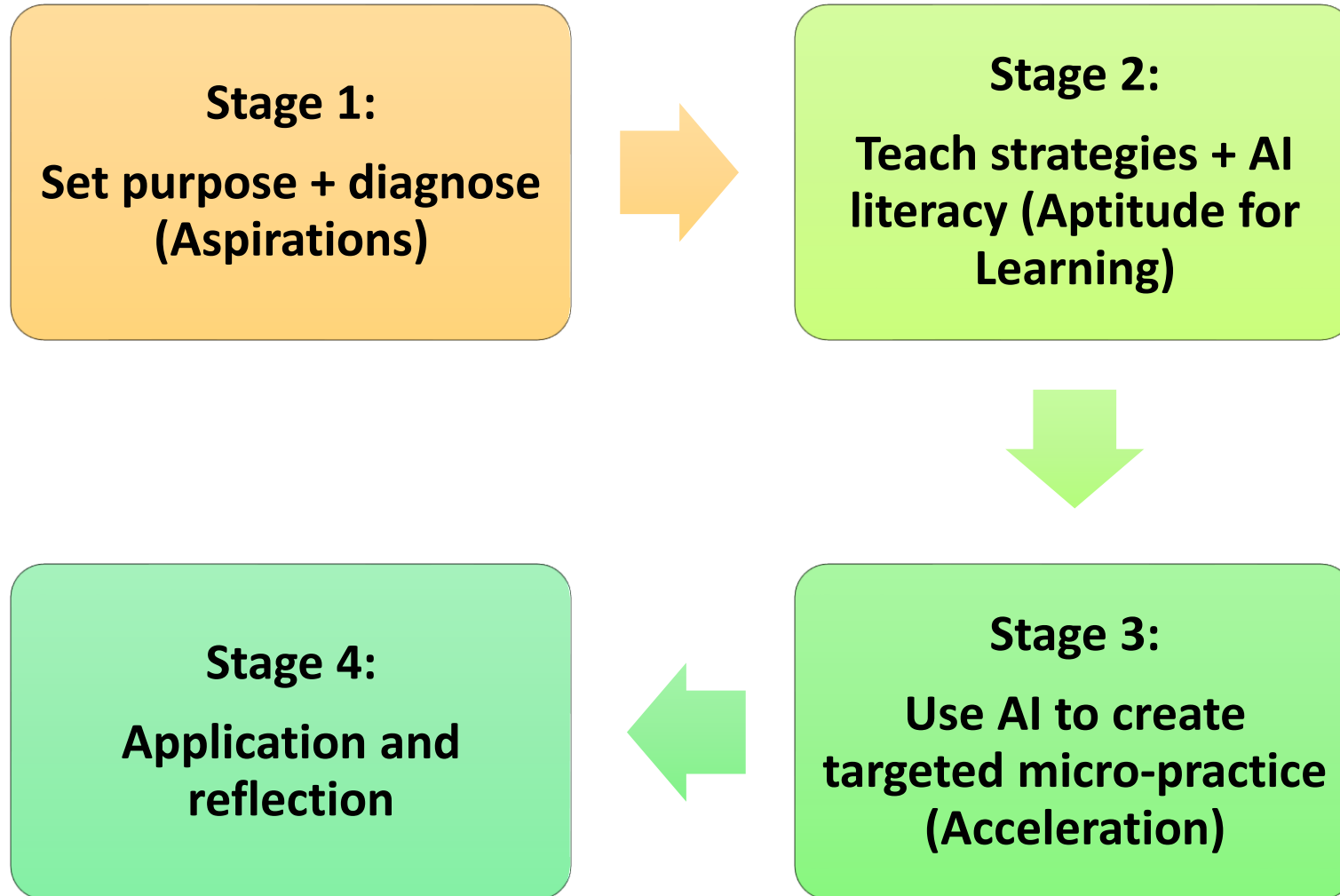
Identifying main ideas by using semantic and syntactic clues

Following the development of main ideas and make connections between them by using syntactic clues and knowledge of text structures

Deducing information and ideas by using semantic and syntactic clues

...

Lesson Overview



Date	
Theme of the practice	
My answer	
Correct answer	
What I missed	qualifier / contrast / condition / comparison / number / other: _____
My personal rule next time	

If your students need
some support on this...

Qualifier	Contrast / Opposition	Condition / Consequence	Similarity / Comparison	Number
- likely - generally - almost - for the most part - to a certain extent - partly - with some exceptions - already	- however - on the other hand - conversely - although - alternatively - instead	- if - unless - as long as - otherwise - only if - in order to - in that case	- similarly - likewise - compared to - equally - resembles - in comparison - just as	- a few - several - many - a number of - numerous

Sample precision checklist

Before I finalise my answer, I check:

- ☐ Did I include the required qualifiers? (e.g., *detailed, experienced, only, just before, still*)
- ☐ Did I capture the contrast? (e.g., *but / however / although*)
- ☐ Did I capture the cause/condition? (e.g., *because / so / only if / unless*)
- ☐ Did I capture the comparative meaning? (e.g., *more / less / the best / still*)
- ☐ Did I use the correct number (e.g., singular/plural)?
- ☐ Is my answer too general?

Discussion

1. How would you adapt this set of Resource Materials (e.g., lesson objectives, level of scaffolding) to better suit the needs and level of your learners?
2. If you could swap one activity used in this lesson, what would you change it to and why? What would the new activity allow learners to do that the current one does not?
3. Can this lesson be executed without using AI? What are the benefits and drawbacks of using AI?
4. How do the activities in this set of Resource Materials help learners transfer the “precision-focused” listening skills to a different context?
5. The materials include a warning that AI may generate questions that do not perfectly match the transcript or invent details not present in the transcript. How would you handle this moment in class if a student notices AI has hallucinated?
6. The lesson is framed around EDB’s 4As SDL Framework (Aspirations, Aptitude, Acceleration, Application). Which “A” do you think is hardest to achieve in your context? Why?

SDLL: With AI vs. Without AI

Stage	AI-assisted SDLL	Traditional SDLL
1. Diagnose	Teacher uses AI-generated precision items	Teacher uses pre-made precision items (like Attachment 1)
2. Teach strategies	Teacher plays AI-generated instructional videos introducing strategies	Teacher interacts with students and introduces strategies
3. Micro-practice	Students ask AI to generate tasks	Teacher provides pre-made precision task sets, or students create tasks for each other
4. Application	Students use AI for feedback	Students peer-check or use answer key + transcript

You are an experienced ESL teacher creating an instructional video for Hong Kong secondary school students (Secondary 4 to Secondary 6) preparing for the HKDSE English Language Paper 3A (Listening Comprehension).

Video objective: *To introduce students to practical strategies to listen for precise meaning, not just keywords. Focus on common listening errors where students miss qualifiers, contrast, conditions and comparatives.*

Which is better?
Real teachers vs. AI-generated instructional videos?

Benefits and Drawbacks of AI Integration: Students

Benefits

- Support SDL (can practice independently, build autonomy)
- Instant, personalised feedback
- Unlimited practice generation
- Reduced anxiety about “wrong” answers as students can experiment and fail safely
- Develop critical AI literacy (e.g., what it does well, what it cannot do, how to verify its output)

Drawbacks

- AI hallucination/errors
- Students may not develop their own error-checking skills, but over-rely on AI feedback
- Require AI literacy to use well: If students do not understand AI's limitations, they will trust it blindly
- Not all students have reliable access to AI tools
- AI tools can be used for off-task activities
- If students are working with AI, they may miss opportunities for peer feedback and collaborative learning
- Students may read AI feedback without truly engaging with it. Less metacognitive struggle = less deep learning

Benefits and Drawbacks of AI Integration: Teachers

Benefits

- Reduce prep time
- Reduce teacher burnout
- AI feedback logs can reveal patterns in what students miss
- Can support 30+ students without being overwhelmed by marking/feedback
- Not one-size-fits-all. Each student gets tasks matched to their specific weakness

Drawbacks

- Need to learn AI tools first (e.g., how to use AI, how to write effective prompts, how to troubleshoot errors)
- Cannot fully trust AI output
- Teaching students to use AI critically is different from traditional teaching
- Students might use AI to generate answers rather than actually listening → Harder to monitor
- Concerns about data privacy, AI bias, etc.

Benefits and Drawbacks of AI Integration: Lesson Design

Benefits

- Students can do a full SDL cycle (practice → feedback → reflection → goal-setting) in one/two lessons, not over weeks
- AI supports all four As: Aspirations (goal-setting), Aptitude (strategy teaching), Acceleration (instant practice), Application (independent use)
- Students can generate exam-style precision questions on-demand, not just use textbook materials

Drawbacks

- The lesson may become partly about "how to use AI" rather than purely about "how to listen precisely"
- If AI generates a bad question mid-lesson, it may disrupt the flow. Harder to fix than a pre-made task
- If AI access is removed or restricted, the lesson falls apart

Attachment 6: Reflection

- **Mistake summary:**

Question: _____

My answer: _____

- **Precision detail I missed:**

I ignored / did not notice _____

- **How that detail changed the meaning:**

- **My new personal rule:**

- **Why I chose this rule:**

Because I often _____

This rule will help me _____

Can AI be used to facilitate student reflection? If so, how?

Other AI Possibilities for SDL in Listening Comprehension

English Language Education

Key Learning Area

English Language

Curriculum and Assessment Guide

(Secondary 4 - 6)

Jointly prepared by the Curriculum Development Council and
the Hong Kong Examinations and Assessment Authority

Published for use in schools by the Education Bureau
HKSARG
2021
Effective from Secondary 4 in the 2021/22 school year

Listening

To help students develop the various skills required in listening, teachers need to expose them to a broad range of listening experiences and to make use of a wide selection of authentic listening materials such as advertisements, announcements, telephone conversations, speeches, films, poems, songs and rhymes. It is important to draw students' attention to the use of spoken English in their daily lives and encourage them to make use of available resources such as English language programmes on TV and the radio, and to build their confidence by providing them with learning experiences and activities in which they can be successful. Teachers are encouraged to consider the following activities to help students develop listening skills and strategies effectively.

- ***Skills of anticipation***

The activities suggested below are mostly conducted at the pre-listening stage to motivate students, set the scene and give them clear purposes for the listening tasks.

- Students share knowledge and opinions on the given topic and use them as the basis for prediction and comprehension.
- Students are given the title or background information on what they are about to hear and they guess what the content of the text is going to be.
- Students listen to a short extract of what they are about to hear and predict what they will hear in the main text.
- Students read through questions in advance so that they know what to listen for (focused listening). This will train them to select and pay attention to the key points in what they hear.

- ***Sound processing and sound discrimination***

These activities are related to recognition of words; sentence and clause boundaries; contracted forms; stress and intonation patterns and their significance; speech rhythm; changes in pitch, tone and speed of delivery; and discrimination between similar speech sounds, homonyms, etc.

- Students are given sentences containing minimal pairs of words set in context for discrimination practice.
- Students identify the meanings of different stress and intonation patterns and interpret the speaker's intent and the real meaning of the message. For example, a simple sentence such as "Ms Smith teaches Geography." can be spoken with stress on different words to indicate that Ms Smith, not someone else, teaches Geography, or that Ms Smith **teaches**, not studies Geography, or that Ms Smith teaches **Geography**, not another subject.

- *Understanding instructions and following directions*
 - Students follow directions given and trace routes or locate specific facilities on maps or floor plans.
 - Students carry out various tasks based on oral instructions.
- *Understanding the main idea or theme*
 - Students match descriptions they hear with non-verbal forms such as a picture or diagram.
 - Students listen to radio or TV news bulletins and identify the main points, paying attention to the headlines which are normally given at the beginning of news broadcasts.
 - Students write down the most important words or phrases they hear in a passage.
 - Students supply a title for a passage they have heard or summarise the main points of the passage.
- *Understanding the use of supporting ideas or details*
 - Students write down details in support of the main ideas.
 - Students identify illustrations or examples for each main idea.
- *Processing meaning*
 - Students organise the materials into meaningful sections as they listen (e.g. making notes under different headings as they listen, using a mind map to organise information, picking out particular facts, evidence or cause-and-effect relationships).
 - Students make use of contextual clues to deduce word meanings or implied meanings.
- *Critical listening*
 - Students listen to others' ideas in group discussions and evaluate them in the light of their own knowledge, experience and ideas, and make critical judgements.
- *Understanding the speaker's intent or attitudes*
 - Students interpret the speaker's intent or attitudes as well as the underlying meaning of what the speaker says by examining:
 - the language used (e.g. choice of words, use of repetition, use of hyperboles); and
 - the manner of speech (e.g. choice of intonation and stress, volume, pitch, pace).

Attainment milestones

Listening – ATM 1	Listening - ATM 2	Listening - ATM 3	Listening - ATM 4	Listening - ATM 5	Listening - ATM 6	Listening - ATM 7	Listening - ATM 8
Understanding key words in some short simple texts	Understanding some information, ideas and feelings in short simple texts, using some listening strategies as appropriate	Understanding information, ideas and feelings in some simple texts, using some listening strategies as appropriate	Understanding and inferring information, ideas and feelings in a small range of simple texts, using and integrating a small range of listening strategies as appropriate	Understanding and inferring information, ideas and feelings in a range of simple texts, using and integrating a small range of listening strategies as appropriate	Understanding and inferring information, ideas, feelings and opinions in a range of texts with some degree of complexity, using and integrating a range of listening strategies as appropriate	Understanding, inferring and interpreting information, ideas, feelings and opinions in a range of texts with some degree of complexity, using and integrating a range of listening strategies as appropriate	Understanding, inferring and interpreting information, ideas, feelings and opinions in complex texts, using and integrating a range of listening strategies as appropriate

Underlying Principles

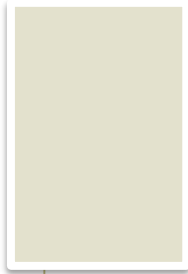
1. Language development strategies, generic skills, and positive values and attitudes are essential to English Language learning and form an integral part of the learning-teaching-assessment cycle.
2. Learners are exposed to a variety of text types and listening purposes (e.g. listening for academic development, listening for interactive conversational exchanges, listening for enjoyment) in preparation for real life applications.
3. Selection of a wide range of texts of appropriate lengths and different topics, including authentic texts (e.g. radio programmes, audio books) delivered in familiar and less familiar accents, could be gradually introduced to help learners become familiar with the characteristics of spoken English (e.g. overlapping turns, hesitations, redundancy).
4. The development of some basic listening strategies does not readily lend itself to descriptions of the learning outcomes in terms of eight attainment milestones, for example,
 - being attentive,
 - activating prior knowledge,
 - anticipating the likely development of spoken texts, and
 - being selective while listening (e.g. discriminating relevant from irrelevant information based on individual circumstances or task requirements).
5. The interplay between tasks and texts is a factor for consideration when teachers design a range of tasks for learners to demonstrate their understanding of the texts. In principle, task demand increases with text complexity as learners progress in the development of listening skills and strategies. To cater for learner diversity, simple tasks can be included for complex texts to cultivate learners' confidence, and difficult tasks for simple texts to stretch their abilities.
6. Classroom interactions are crucial to the development of listening skills and strategies, particularly at the early stage of learning. Teacher support is essential to helping learners process the text and demonstrate their understanding during the learning and teaching process. As learners progress, the amount of support provided is gradually reduced to promote learner independence.

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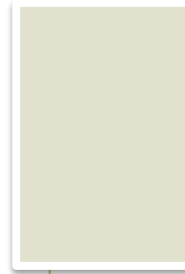
Pointers <i>Learners can, for example,</i>	Pointers <i>Learners can, for example,</i>	Pointers <i>Learners can, for example,</i>	Pointers <i>Learners can, for example,</i>	Pointers <i>Learners can, for example,</i>	Pointers <i>Learners can, for example,</i>	Pointers <i>Learners can, for example,</i>	Pointers <i>Learners can, for example,</i>
- recognise some consonant and vowel sounds (e.g. <u>p</u>en, cat, <u>h</u>ot) - recognise some words by distinguishing word boundaries - recognise some formulaic expressions for classroom interaction (e.g. Good morning) - follow simple classroom instructions with the support of non-verbal cues (e.g. gestures, illustrations) - follow simple songs and rhymes and perform actions	- identify familiar words by recognising some consonant and vowel sounds - locate key words in some texts (e.g. conversational exchanges) - follow simple activity instructions by using knowledge of simple cohesive devices - follow predictable narrative texts by recognising key words and phrases - recognise the intonation of simple utterances (e.g. questions, statements and commands) - recognise that audio clues (e.g. tone) convey meaning	- recognise some features of connected speech such as linking (e.g. four eggs) - extract specific information in texts (e.g. announcements) by identifying relevant meaningful chunks - follow simple directions by using knowledge of simple cohesive devices and prepositional phrases - follow the sequence of events in narrative texts - understand speakers' feelings by using semantic and syntactic clues - recognise the sound effects (e.g. onomatopoeia, rhymes and alliteration) in simple texts	- work out the meaning of some words and phrases by using semantic and syntactic clues - extract specific information by using knowledge of text structures - identify main ideas by using semantic and syntactic clues - infer the identity of speakers in some social situations (e.g. borrowing books in the library) by using semantic clues - understand narrative texts by forming sensory images of characters, settings and events	- work out the implied meanings of some utterances by using semantic and syntactic clues - identify supporting details for main ideas by using knowledge of cohesive devices and formulaic expressions - infer the purpose and intended audience of texts by using knowledge of stylistic features in texts - infer speakers' feelings by using semantic clues and knowledge of tone and intonation - record and organise information and ideas using some written and graphic forms - recognise features of connected speech (e.g. sentence stress)	- work out the meaning of some idiomatic expressions (e.g. a piece of cake) by using semantic and syntactic clues - follow the development of main ideas and make connections between them by using syntactic clues and knowledge of text structures - identify speakers' views and arguments by using knowledge of sentence stress and intonation - deduce information and ideas by using semantic and syntactic clues - identify opinions by recognising common expressions (e.g. I believe, in my opinion) and using syntactic clues	- draw conclusions from directly stated information, ideas and opinions - compare alternative views and arguments (e.g. equal opportunities, law and order) by using written and graphic forms - distinguish between facts and opinions by using semantic and syntactic clues - infer speakers' views and attitudes by using semantic and syntactic clues	- work out the multiple meanings of words and expressions (e.g. word puns) by using semantic and syntactic clues - infer the mood of a situation from intonation and semantic clues used - analyse ideas, views or arguments by using knowledge of stylistic features in texts (e.g. repetitive structures, emotive language) - infer speakers' intentions by using semantic and syntactic clues and knowledge of sentence stress and intonation

Outcome statements

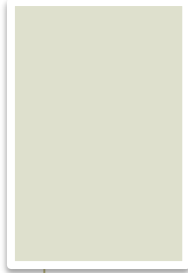
The listening strategies included in some of the pointers provide examples on how these strategies can help learners construct meaning and interpret texts. They are by no means exhaustive or prescriptive. They serve as reference for teachers in planning and developing tasks for the learning-teaching-assessment cycle.



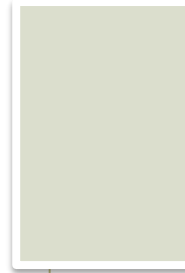
Text-to-speech



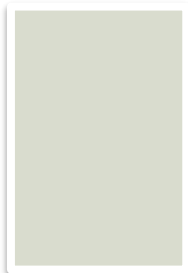
**Speech-to-text (i.e.,
transcription)**



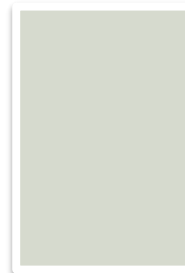
**Interactive dialogue
and conversation
practice**



**Grading the audio
input**



Song generation



Interactive games

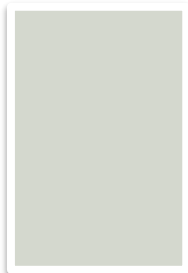
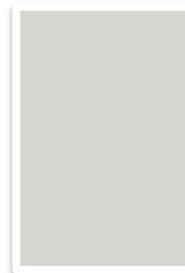


Image generation



Vocabulary building

1. Text-to-Speech

Paste a short article → listen at 1.0x → again at 0.8x/1.2x

After each speed: Write 1 gist sentence + 2 key details

Choose different accents (e.g., UK, US, Singapore)

Task: Note 3 differences in pronunciation you notice (e.g., vowels)

Do shadowing (listen 1 sentence → repeat immediately)

Task: Circle 3 words that were hard to shadow

Dictogloss: Listen to TTS once with screen off → Write key points (no full sentences) → Listen again and reconstruct a 50-word summary

2. Speech-to-Text

Listen to a short clip → generate a transcript → listen again

Task: Identify 3 words you only caught when the transcript becomes available

Listen to a short clip → dictate what you hear → compare with (AI-generated) captions/transcript

Task: Highlight any differences

Watch a short clip with captions off → write gist + 3 details → watch with captions on

Task: Notice if anything is inaccurate

Watch a short clip → generate a transcript → use AI to generate 5 comprehension questions based on the transcript

Task: Answer the questions without looking at the transcript

3. Interactive Dialogue and Conversation Practice

Role play scenario (e.g., restaurant, complaint call)

Task: Ask for repetition or clarification (e.g., “Sorry, did you say...?”)

Role play scenario: booking, event registration, job schedule, etc.

Task: Confirm 3 details (e.g., time, price, location, requirement, deadline)

Ask AI to intentionally include 2 confusing parts in a conversation (e.g., fast speech / idiom)

Task: Identify them and express in clearer English

Roleplay: AI gives information on a topic

Task: Take notes

4. Grading the Audio Input

Refer to
Event 2

Get transcript → ask AI to create a simplified/more advanced version → listen to the original version, then the simplified/more advanced version

Task: Identify 3 phrases that are different

Play a clip at 1.5x → take notes → then play the clip at 1.0x → add more to the notes

Task: Compare the notes with the transcript

5. Song Generation

Generate a song with clear vocals and full lyrics → ask AI to delete 10 key words (e.g., content words, numbers, connectors) to make a cloze → listen 2-3 times and fill the blanks without looking at the full lyrics

Task: Check using the original lyrics and underline misheard parts

Generate a song that tells a mini-story (problem → climax → resolution) → after first listen: write 1 gist sentence → after second listen: write 3 details → after third listen: write 1 inference (“The singer implies...”)

Generate a song that mixes past/present/future

Task: Listen and extract 10 verbs + label tense and time reference

Generate a song that includes reductions (e.g., “going to”, “want to”, “have to”)

Task: Identify where these reductions occur

6. Interactive Games

**Essentially, any skills listed in
the LPF / Curriculum Guide**

Reflection and Action Plan

1. How comfortable do you feel about introducing your students to AI-assisted self-directed language learning now?
2. What concerns or challenges might you anticipate when introducing your students to the activities and strategies discussed today?
3. If you were to implement one of the AI activities, what would “success” look like for your students?
4. What roles should teachers play when introducing students to AI-assisted self-directed listening practice?
5. Who else in your department might be interested in piloting the materials and activities discussed today?
6. What is one thing from today’s session that you would definitely use, and one thing you would need to modify for your context?

Summary

- 4As of self-directed learning
- Different listening skills (LPF + Curriculum Guide)
- Different applications of AI for SDL listening practice
- More specific prompt → More useful output
- Useful AI vocabulary: HTML, Web Speech API

Thank you 😊