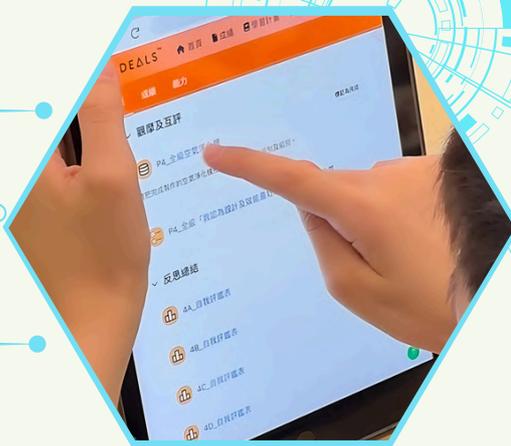




Intelligent Dsign-Aware Learning analytics empowered 21C L&T System



IDEALS

Quality Curriculum Design | AI | Big Data Empowering Future Learning



Learning Design

e-Learning Implementation

Learning Analytics

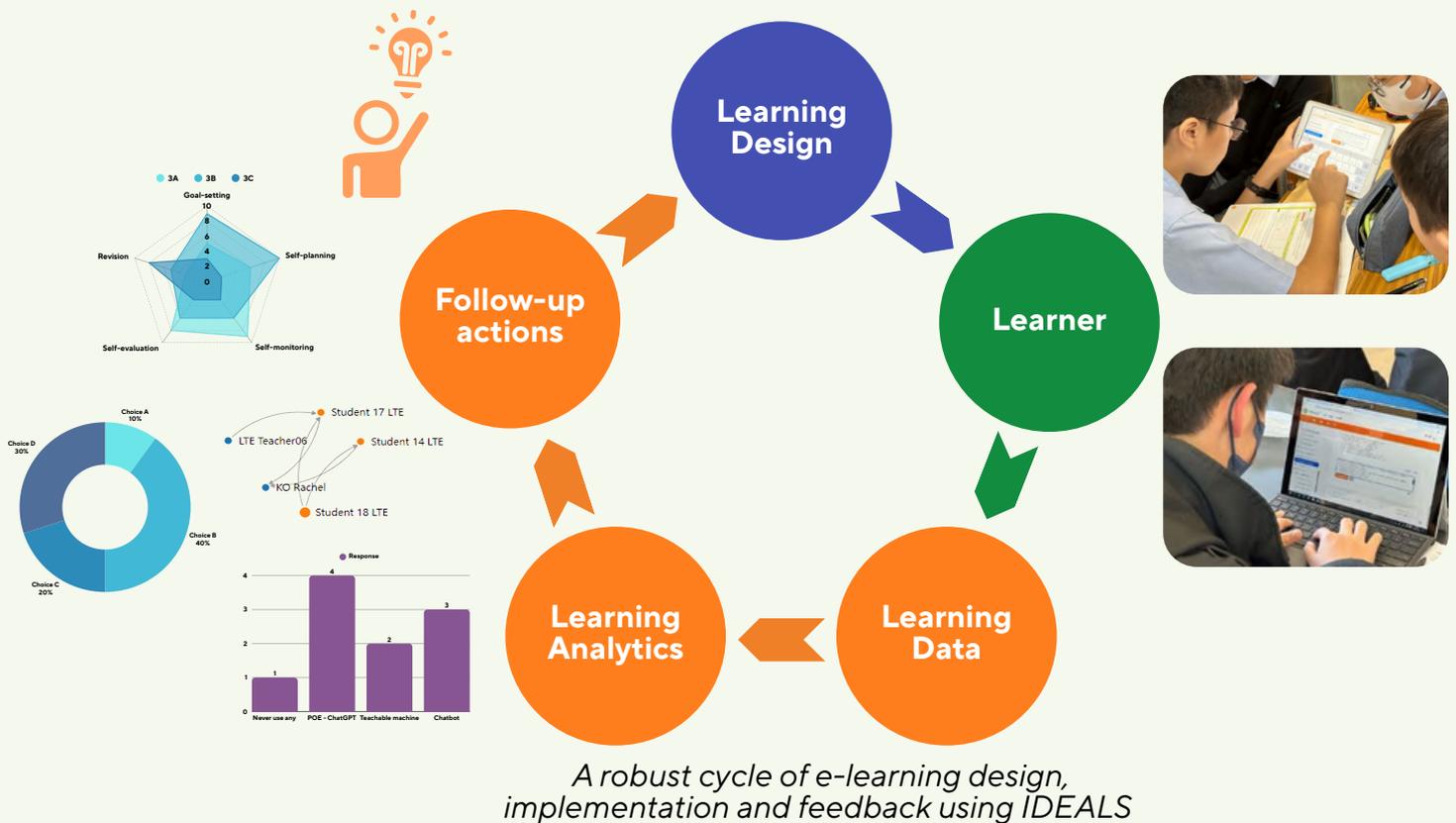


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Design-Aware Learning Analytics Learning Analytics-Informed Feedback



Different Types of Learning Analysis Questions

Cognitive Performance

Cognitive Engagement

Metacog. Performance

Metacog. Engagement

Social Engagement

What iLAP tools can be utilized to address key learning analytics questions?



Meaningful Design-Aware Learning Analytics for sample iLAP learning tasks



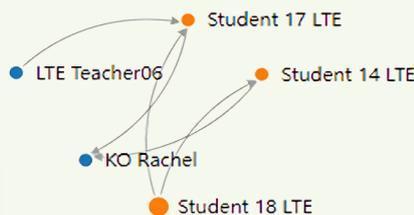
Forum

How well have students **interacted** in a particular task?

01

What is the focus of student discussions?

Forum Graph shows student interactions



Forum Keywords indicates the focus of discussions



Checklist

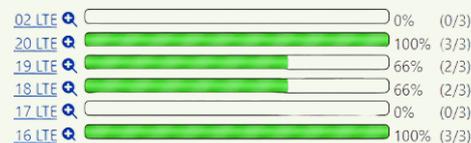
How well have students **monitored** their own work?

02

Progress Bar supports students in self-monitoring



Support Teachers to see how students monitor their own learning progress



The **Workshop** tool promotes students' discussion, and collaborative learning by having them submit their work and participate in **peer evaluations**.

Assessment form Grid				
Criteria				
Prompt clarity 指令清晰程度	01 The student's prompts are unclear and ambiguous, making it difficult to understand their intended actions. 學生的指令不明確、含糊、難以理解與執行。	02 The student's prompts lack clarity or specificity, leading to some confusion or misinterpretation. 學生的指令缺乏明確性與具體性，導致家屬感到困惑與誤解。	03 The student's prompts are mostly clear, with minor issues in clarity or specificity that may require additional clarification. 學生的指令大多清晰，但在某些方面仍有需要進一步澄清之處。	04 The student's prompts are exceptionally clear, concise, and unambiguous, leaving no room for confusion or misinterpretation. 學生的指令非常清晰、簡潔、明確，沒有引起任何混淆與誤解。
Prompt Effectiveness 指令有效性	01 The student's prompts consistently fail to produce the desired outcomes, indicating a significant lack of effectiveness in their instructions. 學生的指令未能 consistently 產生預期結果，顯示其指令缺乏有效性。	02 The student's prompts have limited effectiveness, frequently failing to produce the desired outcomes or requiring additional iterations to achieve the intended task. 學生的指令效果有限，經常無法達成預期目標，需要多次迭代才能完成。	03 The student's prompts mostly achieve the desired outcomes, with occasional minor imperfections or deviations from the expected results. 學生的指令大部分實現了預期結果，偶爾會有一些細微的偏差。	04 The student's prompts consistently produce the desired outcomes and successfully accomplish the intended tasks. 學生的指令 consistently 產生預期結果，成功地完成了預期的任務。
Prompt Revision 指令的修訂	01 The student lacks adaptability in adjusting their prompts, leading to a consistent inability to make progress or accomplish their goals. 學生在調整指令方面缺乏靈活性，導致無法 consistently 取得進展或達成目標。	02 The student struggles to adapt their prompts based on the AI's responses, resulting in limited progress or difficulty in achieving their goals. 學生在根據 AI 的回應調整指令方面遇到困難，導致進展有限或難以達成目標。	03 The student shows some adaptability in modifying their prompts based on the AI's responses, although there may be room for improvement in optimizing their instructions. 學生在根據 AI 的回應修改指令方面顯示出一定的適應性，但在優化指令方面仍有改進空間。	04 The student demonstrates a high level of adaptability in refining and adjusting their prompts based on the AI's requirements, effectively achieving their goals. 學生展現出高程度的適應性，能有效地根據 AI 的要求調整指令，成功地達成目標。
Prompt writing and language 指令寫作和語言	01 The student's writing style and language are poor, leading to ambiguity or confusion in their prompts. 學生的寫作風格和語言不佳，導致指令含糊或令人困惑。	02 The student's writing style and language show some weaknesses, with occasional inaccuracies in the choice of vocabulary. 學生的寫作風格和語言顯示出一些弱點，在詞彙選擇方面偶爾有 inaccuracies。	03 The student's writing style and language are generally good, with few inaccuracies in the choice of vocabulary. 學生的寫作風格和語言整體良好，在詞彙選擇方面只有少數 inaccuracies。	04 The student's writing style and language are excellent, demonstrating high level of accuracy in the choice of vocabulary. 學生的寫作風格和語言非常優秀，在詞彙選擇方面展現出高程度的準確性。

Grades for submissions indicate the **quality of work** in relation to students' learning outcomes

Grades for assessments reflect the **review quality** of students' on reviewing peer works

Grade for submission

9.71 / 15.00

Grade for assessment

13.82 / 15.00

Workshop

To what extent do student achieve the learning outcomes?

03

Are students able to critically assess each other's work based on the rubric?

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What iLAP tools can be utilized to address key learning analytics questions?



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Choice

What is the distribution of students' choices among the different options?

How well have students engage in the activity?

04

Resulting Graph visualizes the distribution of responses

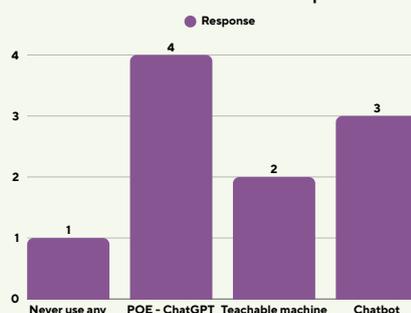
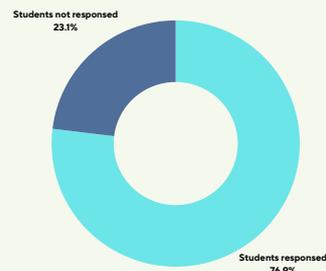


Figure shows the participation rate in the choice activity



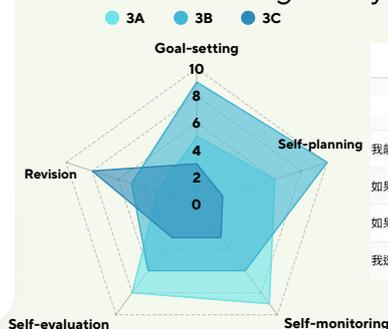
Questionnaire

How effective is students' self-directed learning ability?

How do students perceive their performance?

05

Students' self-evaluation results visualize their self-directed learning ability



Questionnaire results indicate students' self-perceived performance

Average rank (and average values)	
Rank	Average Value
很少	4.7 (3.7)
有時	4.4 (3.4)
經常	4.5 (3.5)
幾乎穩定	4.7 (3.7)

The H5P tool enables students to watch short videos and answer questions simultaneously.



H5P- Interactive Video

To what extent do students understand key concepts from the video?

Do students make several attempts for the Quiz in the video?

06



Attempts report provides detailed insights into students' performance and engagement on the quiz, including their scores, the time taken, and the number of attempts made.

Highest score attempt

Date	Score	Max score	Duration	Completion	Success	Report
10/03/25, 16:35	4	5	6 minutes 24 seconds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View repo

All user attempts

#	Date	Score	Max score	Duration	Completion	Success	Report
1	10/03/25, 16:35	4	5	6 minutes 24 seconds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View repo



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Intelligent Dsign-Aware Learning analytics empowered 21C L&T System

✓ Innovation

Implementing and receiving feedback on e-learning design through the IDEALS system for a robust teaching and learning process.



✓ Mission

Enhance Student Learning
Foster Teacher Professionalism
Support Professional Learning Communities



For further information, please visit

<https://ideals.cite.hku.hk>



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