資訊科技教育教學法系列:

在中學英國語文科運用學習管理系統 (LMS)及 資訊科技工具 (IT TOOLS) 發展學生的自主學習能力 (SDL)



香港中文大學學習科學與科技中心 CLST

Centre for Learning Sciences and Technologies (CLST)
The Chinese University of Hong Kong





課程目標

本課程旨在:

介紹如何在中學英國語文科運用學習管理系統及資訊科技工具發展學生的自主學習能力。

課程內容

- 1. 簡介現行可用作促進學生自主學習的學習管理系統及資訊科技工具的基本操作、限制及最新功能;
- 於學習管理系統製作簡單電子學習材料、電子評估活動、發放材料及收集 學生課業與回饋的基本技巧;
- 3. 透過學校個案,探討如何運用可整合至學習管理系統的資訊科技工具進行 學習活動,以促進學生自主學習;
- 4. 就不同的學習管理系統及資訊科技工具在中學英國語文學科的應用作比較; 及
- 5. 有效運用學習管理系統及資訊科技工具進行面授課堂及實時網上授課。

課堂安排 (第一節)

目標:

- 1. 有關自主學習 (SDL) 的相關學理
- 2. 不同學習管理系統 (LMS) 及資訊科技工具 (IT TOOLS)的基本操作、 限制及功能
- 於學習管理系統製作簡單電子學習材料、電子評估活動、發放材料 及收集學生課業與回饋的基本技巧

課堂安排 (第一節)

- 1. 有關自主學習 (SDL) 的相關學理
- 不同學習管理系統 (LMS) 的基本學教功能、共通元素、使用限制及最新發展功能
- 不同資訊科技工具 (IT TOOLS) 的基本學教功能、共通元素、使用限制及 最新發展功能
- 4. 學習管理系統製作簡單電子學習材料、電子評估活動、發放材料及收集學生課業與回饋的基本技巧
 - a. 實際應用及操作: VLE (HKEdcity)
 - b. 實際應用及操作: Google Classroom
- 5. 習作講解





導師簡介

梁靜戀

Leung Ching Luen, Jenny

BBA (HON) / PGDE (Secondary English) / MA, CUHK / MFA, HKAPA

大光德萃書院廿一世紀教學設計統籌

香港翻轉教學協會秘書

Flipped Learing Global Initative Asia Faculty Member

Google Certified Innovator & Trainer

Apple Distinguished Education





WhatsApp Group

https://chat.whatsapp.com/DAgtFZPEy9cHsKKaQEtSpc







疫情下的學與教 支援學生在家學習的重要性



停課不停學 疫情下的學與教





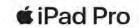




流動電腦裝置 + 無線網絡環境 = 提升學習效能?



Google Pixelbook









課前導讀 分組討論

自主學習 (SDL)

- 1. 疫情下,你認為學生是否能夠做到自主學習?
- 2. 如有,他們具備那些學習特徵?
- 3. 如無,他們欠缺的是甚麼?
- 4. 你所期望學生能在英國語文科中的自主學習是怎樣的?



1. 有關自主學習 (SDL) 的相關學理

元認知取向(西方)

Zimmerman 分析的 SRL 是過程模式(process model),分為三個階段

- •前備 (forethought)
- •表現 (performance)
- ●自我反思 (self-reflection)



元認知取向(西方)

前備(Forethought)

- ●在學習的早期<u>前備階段</u>便要鞏固及提升<mark>學習動機,建立學習習慣</mark>及態度
- 理解學生的性格強弱項、學習類型,透過活動提升自信及自我效能感, 建立短期可達至的學習目標,長遠的期望,養成良好生活作息、時間 管理、情緒及壓力控制等
- ●手冊形式的學生學習概述(profile),定期師生關懷式對話,班級經營的針對性活動都是這階段的策略點子

Prep Time

Consultations

No school bell

SEL lessons

Social Emotional Learning ATLs

Positive Education assembly

Meeting with the principal

Goal-setting meeting

Character Traits Reflection





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元認知取向(西方)

表現(Performance)

- ●在表現階段,就要培育認知學習策略(cognitive strategies)及行為,學習各種學習技巧,例如做筆記、搜集及整理資料、連繫不同的學習概念
- ●不同形式(文字、圖表、數據) 記錄所學,就成為這一階段的行動計劃
- ●思維能力的培育亦應在各學習領域中體現 ,包括邏輯、水平、系统、擴散、創意、解難及批判等能力

元認知取向(西方)

自我反思 (Self-reflection)

- ●到自我<mark>反思階段</mark>,反省、監控、調整目標、自我探究、評鑑學習及工作效果 等
- ●這可能已經不是靠學習策略等小點子而成就,而是隨知識的大量增長,對<mark>追</mark> 求知識的學習慾望及強烈好奇而積累
- ●即是說學習者已擁有相當豐厚的知識,有廣泛的閱讀,才容易從中作反思及 深入探究

分組討論

自主學習 (SDL)

- 1. 你在英國語文課程中,運用了什麼策略提升學生的自主學習?
 - 試以Zimmerman的SRL過程模式來討論3個不同階段的自主學習策略。
 - Forethought (e.g. motivation, learning habit, goal setting)
 - Performance (e.g. cognitive strategies, logical, critical & creative thinking)
 - Self-reflection (e.g. reflection, evaluation, review and making adjustment)

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Choices matter:

How to empower students and motivate them to learn with UDL

" Not Original





Illustrate this butterfly and annotate different parts of the butterfly on your illustration.

Identify what type of living organism a butterfly is with the features that you can find.



Knowledge or Skills needed?



Illustrate this butterfly and annotate different parts of the butterfly on your illustration.

Identify what type of living organism a butterfly is with the features that you can find.







Task 1

Read the texts or watch the videos to learn more about UDL.

https://bit.ly/cuhkclstlmssdlengdec1udl



Task 2



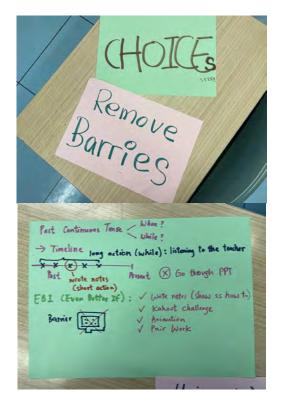
In pairs / groups or just individually, share what you 've learned about UDL. (3 minutes)

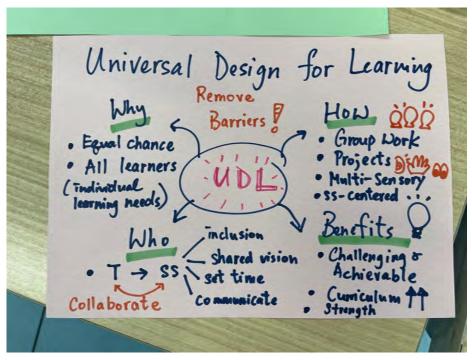
You may use one of the following ways to share your understanding: (12 minutes)

- A foldable
- A short video (no more than 2 minutes)
- A slideshow
- A speech (no more than 2 minutes)
- A poster
- A summary (no more than 150 words)
- A diagram
- A skit





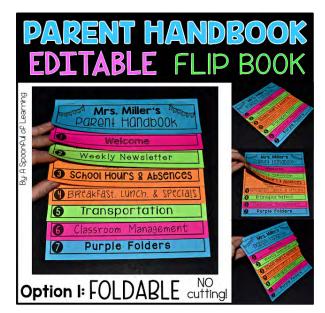








What is a foldable?











Three Principles of UDL

Why?

What?

How?

Multiple Means of Engagement

Stimulate motivation and sustained enthusiasm for learning by promoting various ways of engaging with material.



Multiple Means of Representation

Present information and content in a variety of ways to support understanding by students with different learning styles/abilities.



Multiple Means of Action/Expression

Offer options for students to demonstrate their learning in various ways (e.g. allow choice of assessment type).



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" Choices matter



Objectives?



Illustrate this butterfly and annotate different parts of the butterfly on your illustration.

Identify what type of living organism a butterfly is with the features that you can find.





How to design a lesson with UDL? Let's do a 10-minute design sprint!



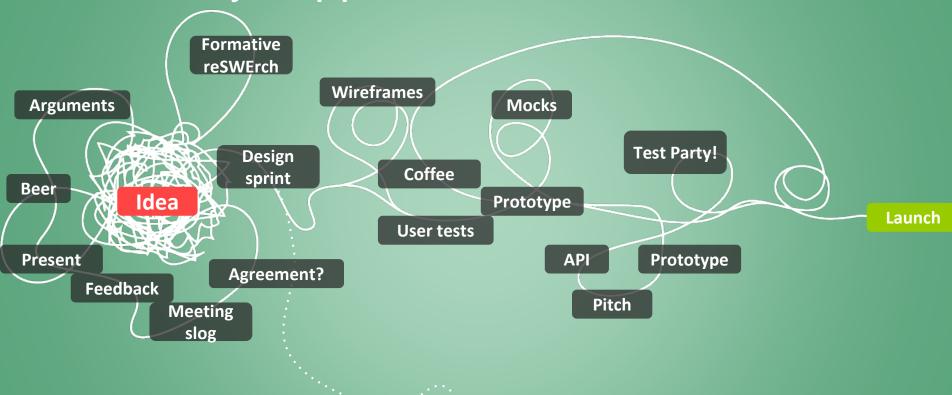


Protocols

Safe space - self edit Be mindful Share the air Hold your ideas lightly Be kind, specific & helpful Be aware of our assumptions & biases Take a deep breath, smile and enjoy

LAUNCH & EVALUATE Pitch, Metrics & Analytics **EMPATHIZE & DEFINE** Explorative research -**Understand User Needs Design Thinking** Cycle TEST & **IDEATE & ITERATE ITERATE** Sketch, Decide, Get Test and Feedback validate your prototype with real users **PROTOTYPE** Build your Minimum Viable Product to answer your questions

What really happens



Uh-oh

Breakouts

Find yourself an affinity buddy, and each of you has a role: User or Designer.

Breakouts will be timed. Return to this meet when the time is up!



Be user-focused



LAUNCH & EVALUATE Pitch, Metrics & Analytics **EMPATHIZE & DEFINE** Explorative research -**Understand User Needs Design Thinking** Cycle TEST & **IDEATE & ITERATE ITERATE** Sketch, Decide, Get Test and Feedback validate your prototype with real users **PROTOTYPE** Build your Minimum Viable Product to answer your questions

Breakout 1: Empathize

Users: You have two minutes to share ONE of your lessons that you think it might not be taught so successfully.

Designers: Listen and take notes. Look for challenges. You have **one minute** to reflect back to your partner what you heard.



Reflect Back

Designer

Reflect back Sitter/User's key ideas and tone (don't repeat every word)

Example:

What I heard you say is that you felt tired when you sat on this chair..

User/Sitter

Offer feedback:

Did your partner capture the essence of what you shared?

What did your partner miss?

Breakout 1: Empathize & Define

Designers: use the space below to take notes as your user describes their work from home experience.

Challenges

What are the problems your user is experiencing?

Opportunities

What things are working well that can be leveraged?

How could challenges become opportunities?

Breakout 2: Define

Together: You have **five minutes** to narrow down your user's challenges into a Point of View statement and then pose the challenge as a How might we question.

Use the Slides template to take collaborative notes.



is a	
User name	User characteristics
Who needs a way to	User need
Because (they value)	

insight

How might we?....

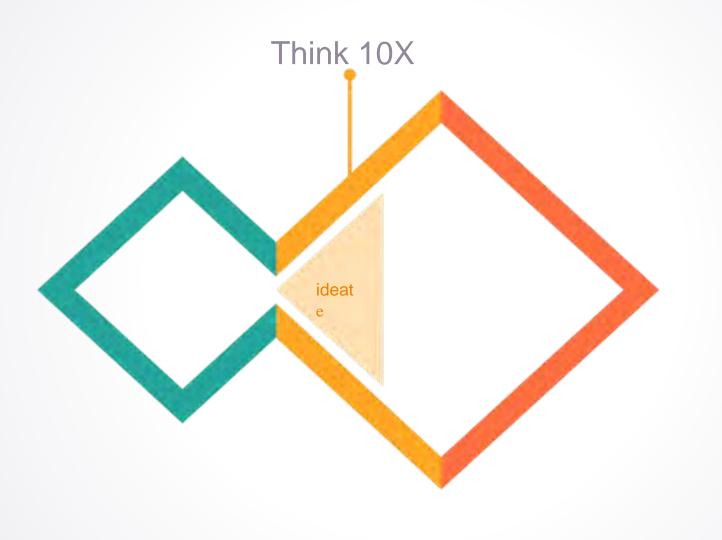


Breakout 2: Empathize & Define Together: narrow in on one challenge and frame it as a Point of View Statement. Then, turn your statement into a question.

Point of View Statement	How might we?
User User characteristics	
is a	
who needs a way to User need	
because (they value)	

Think 10X





Breakout 3: Ideate

Go back to your partner . You will have 6 minutes (2 min per idea).

Designers & Users: Each sketch out **THREE** solutions for your user 's workstation.

Draw your ideas on paper and show your partner.

Together choose ONE idea that you like best from your combined 6 ideas.

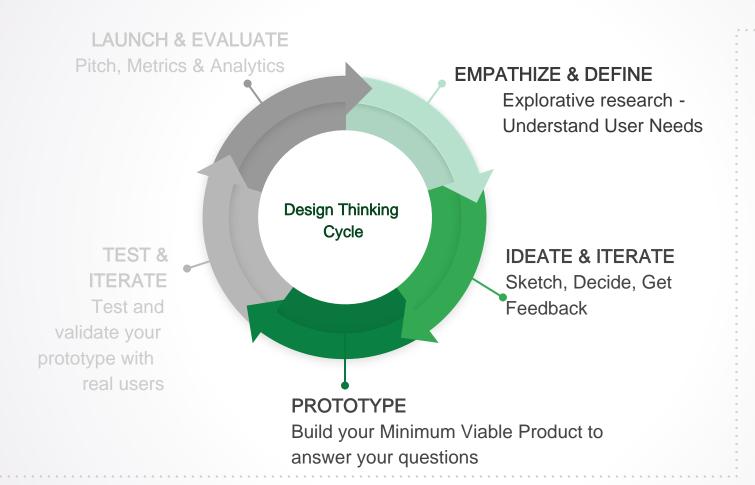
UDL guidelines

Quickly skim through this guidelines

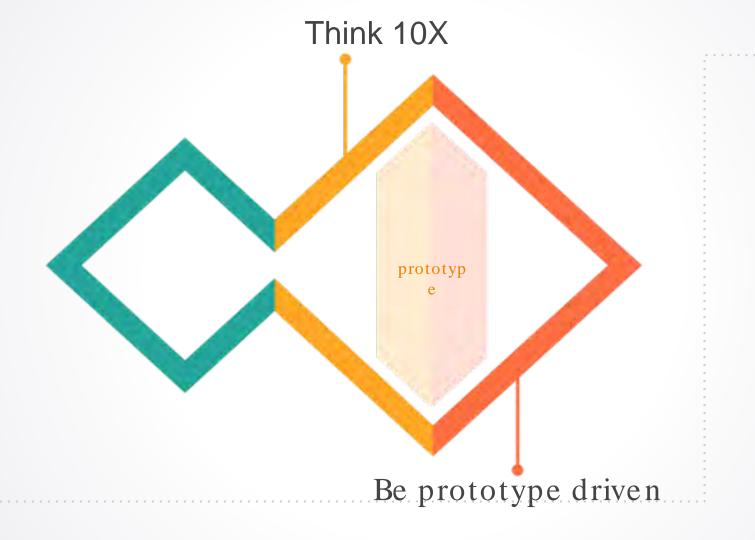
https://udlguidelines.cast.org/

Based on what your user has shared, find out ONE guideline under each UDL principle that your user has achieved.

Then, find ONE guidelines under each UDL principle that your user can further developed.









Breakout #4

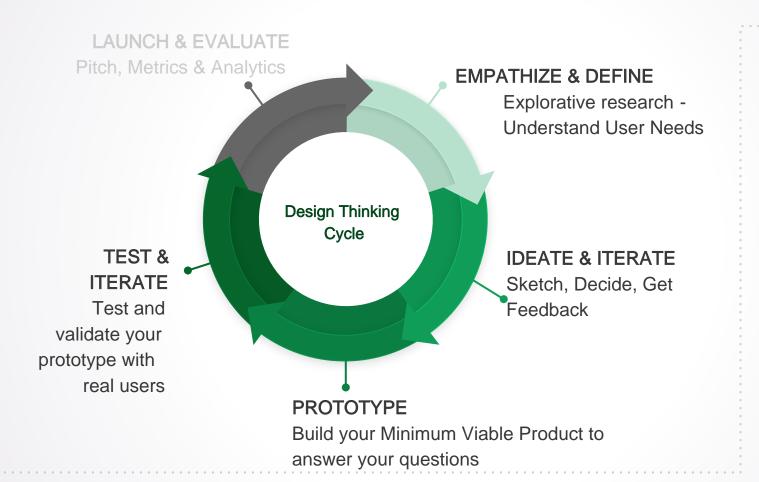
You will have 3 minutes to prototype.

Designers: Create a prototype of a lesson that promotes self -directed learning.

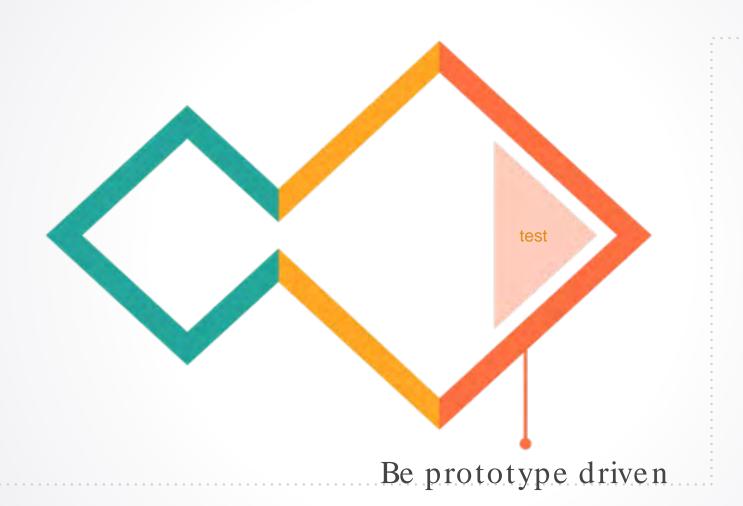
Users: Provide the designer with feedback on their ideas.

Your only have 3 minutes!











Breakout #5

You will have 3 minutes to TEST your ideas.

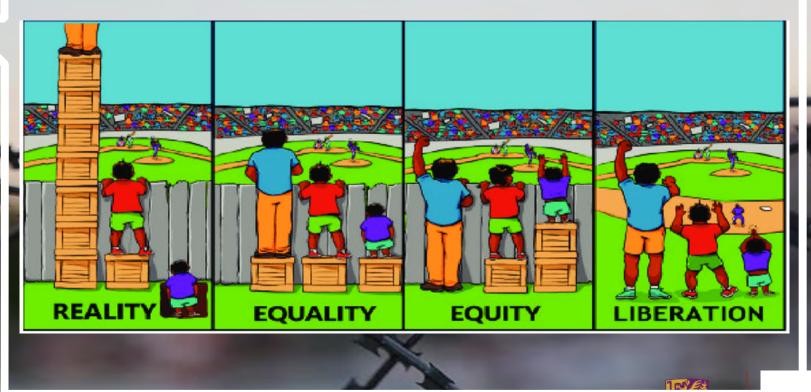
Users: Give your partner feedback on their

prototype. Be kind, specific and helpful

Designers: Modify as needed.

Your only have 3 minutes!









若學生可以自主學習,老師的角色又是什麼?

The Staged Self-Directed Learning Model

TEACHING LEARNERS TO BE SELF-DIRECTED (SSDL)

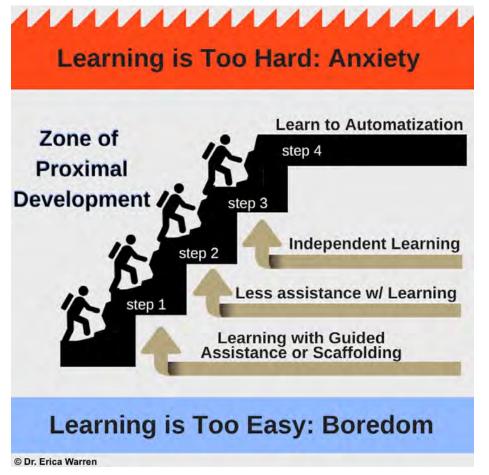
About SSDL: The Staged Self-Directed Learning Model by Gerald Grow

	Student	Teacher	Examples
Stage 1	Dependent	Authority, Coach	Coaching with immediate feedback. Drill. Informational lecture. Overcoming deficiencies and resistance.
Stage 2	Interested	Motivator, guide	Inspiring lecture plus guided discussion. Goal-setting and learning strategies.
Stage 3	Involved	Facilitator	Discussion facilitated by teacher who participates as equal. Seminar. Group projects.
Stage 4	Self-directed	Consultant, delegator	Internship, dissertation, individual work or self-directed study-group.

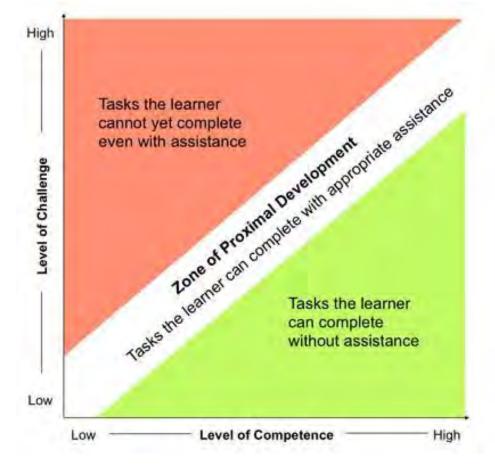
The zone of proximal development (ZPD)

(Vygotsky, 1978, p. 86).





https://learningspecialistmaterials.blogspot.com/2016/01/maximize-learning-keeping-students-in.html



https://www.literacyworldwide.org/blog/literacy-now/2013/09/20/tile-sig-feature-the-digitally-enhanced-zone-of-proximal-development

以資訊科技增潤自主學習 (香港)

堂縣轉皤

「翻轉教室」

學生自主學習 有辦法

TapTab 點指教育

Reboot

SALMAN KHAN'S YOUTUBE LESSONS HAVE ALREADY MADE HIM A GEEK CELEBRITY. NOW HE WANTS TO REINVENT HOMEWORK, BANISH CLASSROOM LECTURES—AND MAYBE SAVE EDUCATION

EV HAVE A WEEL EV

the

School

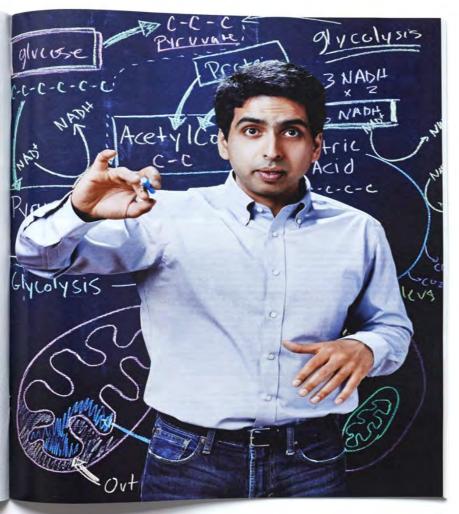
College Preparatory School in East Palo Alto, Calif., sit at their desks with netbooks. They're in the middle of a math lesson, listening as a teacher explains how to convert percentages to decimals. "If we get rid of the percent sign, we just have to move the decimal sign two places to the left," the instructor says. Pens scribble across notebooks.

Seven thousand miles away in Accra, Ghana, students at the African School for Excellence are studying logarithms. Their teacher is the same one firing off math tips in California—both groups

of kids are learning by watching online videos. While the screen shows a march of equations and diagrams, the students never actually see the face of the lecture. There's just a voice, deep, patient and unrehearsed—think NPR host crossed with Mister Rogers. His inflection rises at times to underscore a point or when he gets really excited. "Math is not just random things to memorize and reguiptate on a test next week," he says. "It's the purest way of describing the universe"

The voice belongs to Salman Khan. a 35 year old hedge-fund manager turned YouTube professor to millions around the world. Thanks to his Khan Academy.

Photograph by Jamie Chung for TIME



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Salman Khan:

Let's use video to reinvent education

TED2011 · 20:27 · Filmed Mar 2011 Subtitles available in 42 languages

■ View interactive transcript















3,377,859 Total views

Share this talk and track your influence!

Salman Khan talks about how and why he created the remarkable Khan Academy, a carefully structured series of educational videos offering complete curricula in math and, now, other subjects. He shows the power of interactive exercises, and calls for teachers to consider flipping the traditional classroom script — give students video lectures to watch at home, and do "homework" in the classroom with the teacher available

Related playlists & talks



Playlist Re-imagining

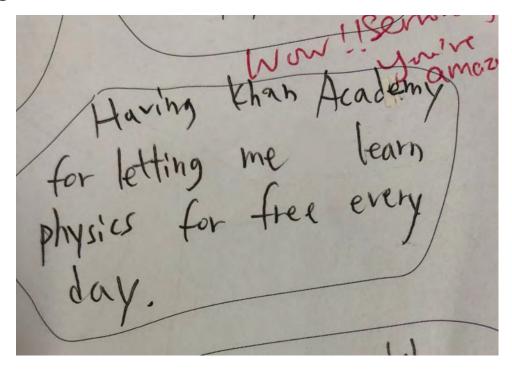


Playlist



Playlist South Americal

Student 's gratitude list











Student watch video to pre-learn

Teacher followup responses Active learning / e-Learning / Higher order activity

20 mins

10 mins

30 mins

Flipping Classroom Framework

Flipped Learning = Continuum

Pre-class video

Teacher consolidation

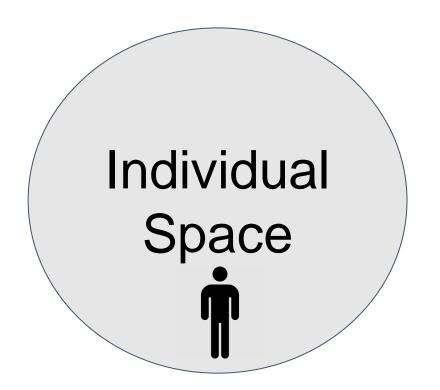
Group space activities

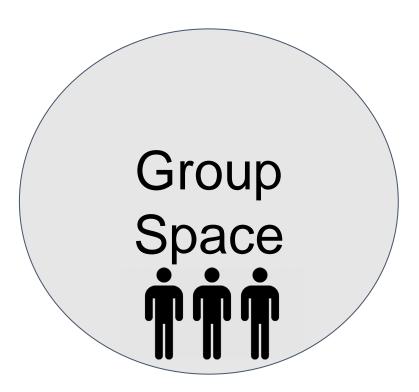
After-class video

Teacher consolidation

Group space activities











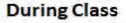
"Let's Do Something Together."

"Will you be my ...?"

Before Class

- Watching videos and reading
- Getting familiar with terms and phrases
- Introduction to concepts
- Formative assessment
- Check for understanding





- Projects, problems, small groups, discussions, labs, creating things, analyzing things
- Formative assessment
- Check for understanding





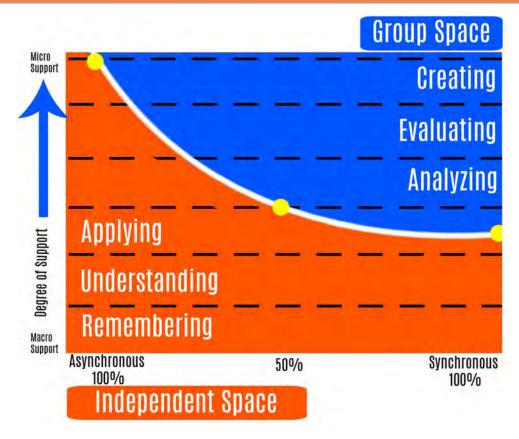
Projects, papers, creating things, reviewing key concepts

- Formative
 assessment
 - Check for understanding







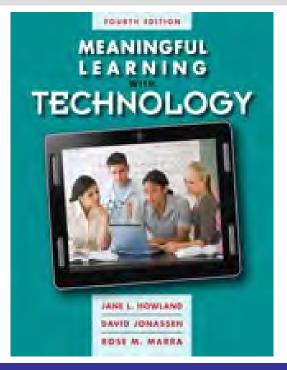


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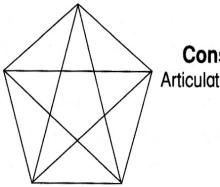
Meaningful Learning with Technology

By Jane L. Howland, David H. Jonassen, Rose M. Marra





Intentional
Goal directed/Regulatory



Constructive
Articulative/Reflective

Authentic Complex/Contextualized

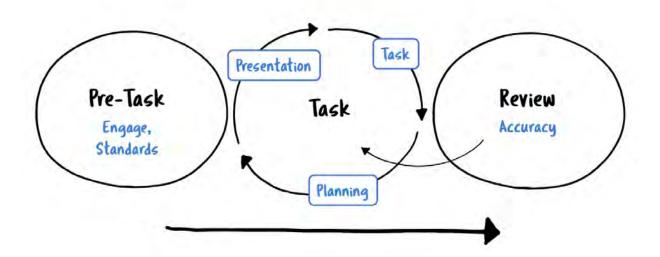
CooperativeCollaborative/Conversational

TEV S

Use of ICT for Learning

Are students passive consumers of ICT, active users, or designers of an ICT product for an authentic audience?

Task-Based Learning (TBL)



barefootTEFLteacher.com

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課前導讀 分組討論

學習管理系統 (LMS)

- 1. 你任教的學校使用那套學習管理系統?
- 2. 有那些主要的學教功能?
- 3. 疫情期間,能否有效發揮停課不停學效能?
- 4. 有甚麼改善空間?
- 5. 你所期望學生能在學習管理系統如何做到自主學習?



2. 不同學習管理系統 (LMS) 的基本學教功能、共通元素、 使用限制及最新發展功能

學習管理系統 (LMS) 的基本學教功能

- 1. 資訊發佈 Announcement by subject/class
- 2. 中央化學習資源 Central repository of learning resources
- 3. 個人化學習進度 Personalized learning progress
- 4. 協作支援 Teacher collaboration tools
- 5. 自動批改 Self-assisted assessments
- 6. 收集回饋 Collection of feedback for further elaboration
- 7. 收發功課 Online assignment submission and collection
- 8. 協作社群 Community building (as a Facebook-like social platform)
- 9. 雲端存儲 Cloud storage syncing
- 10. 學生自助加入 Student self-enrollment
- 11. 家長監察 Parent's monitoring
- 12. 應用軟件 Mobile apps

學習管理系統 (LMS) 的主要套件

1. 資源庫

Resource Library

2. 交流討論

Discussion Forum

3. 分享行事曆

Calendar

4. 內容管理系統

Content Management System

5. 考測評估

Test and Assessment

6. 自動批改

Grading

7. 協作互動

Collaboration





學習管理系統 (LMS) 的主要限制

- 用家介面 User interface
- 2. 兼容格式 Upload formats
- 3. 賬戶管理 Difficult account management
- 4. 電子學習檔 Complicated ePortfolio for students
- 5. 評估工具 Lacks rigorous assessment-management tools
- 6. 有限互通 Limited interoperability





學習管理系統 (LMS) 的最新發展

1. 個人化學習經歷 learner Personalized learning experience for each

2. 數據為本學習分析

Detailed statistics on students' learning progress and customized reports that

analyze students' answers

3. 遊戲化學習

4. 行政自動化

Gamification

Automated admin tasks





學習管理系統 (LMS) 的分類

- 1. Software as a service (SaaS) v.s. self-hosted
- 2. Web-based interface vs App-based interface



課前導讀 分組討論

學習管理系統 (LMS)

你學校使用的學習管理系統,能否有效處理英國語文學科學教中:

- 1. 製作簡單電子學習教材
- 2. 進行電子評估活動
- 3. 發放教學材料給學生
- 4. 派發及收集學生課業及作出回饋



4. 學習管理系統的基本操作技巧

- i. 製作簡單電子學習教材
- ii. 進行電子評估活動
- iii. 發放教學材料給學生
- iv. 派發及收集學生課業及作出回饋

實習:

a. 實際應用及操作: VLE (HKEdcity)

b. 實際應用及操作: Google Classroom



實際應用及操作: Schoology



實際應用及操作: VLE (HKEdcity)

用戶指南 https://www.edcity.hk/vle/zh-hant/user_guide





實際應用及操作: Google Classroom

https://support.google.com/edu/classroom#topic=10298088

熱門文章

探索 Classroom

開始使用 Google Classroom

學生:加入及管理課程

學生: 繳交及追蹤作業

學生:與老師或同學溝通交流

老師:建立、加入及管理課程

老師:建立、追蹤及批改作業

老師:與學生和監護人溝通交流

G Suite 管理員:管理 Google Classroom

隱私權、政策和濫用情形

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實際應用及操作: Google Classroom

https://classroom.google.com/c/NDQwOTg4MDM1MzQz?cjc=pbawjjm









3. 不同資訊科技工具 (IT TOOLS) 的基本學教功能、共通元素、使用限制及最新發展功能

- 1. 基本操作 Basic operations
- 2. 開設賬戶 Create an account (teacher, student)
- 3. 加入任務 Create e-learning tasks/games/e-assessments
- 4. 匯入資源 Use existing e-resources
- 5. 分享內容 Share with students
- 6. 追蹤進度 Track students' responses
- 7. 匯出報表 Download reports
- 8. 其他設定 Other settings

Forethought: Motivation

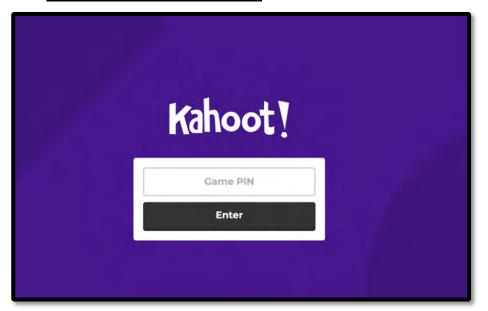


https://game.classcraft.com/

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參與: www.kahoot.it 輸入 Game PIN



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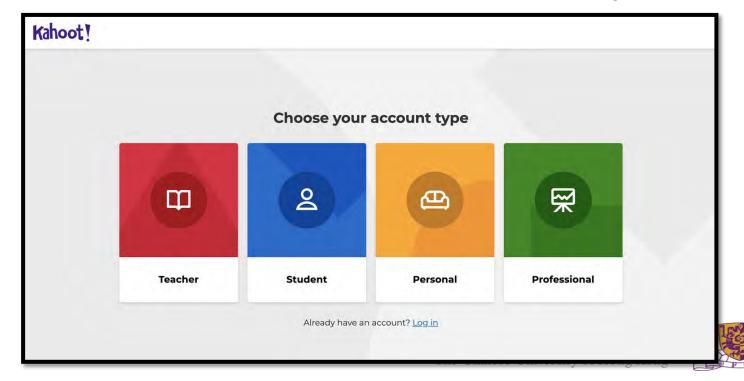


KAHOOT!: https://kahoot.com/schools/distance-learning/



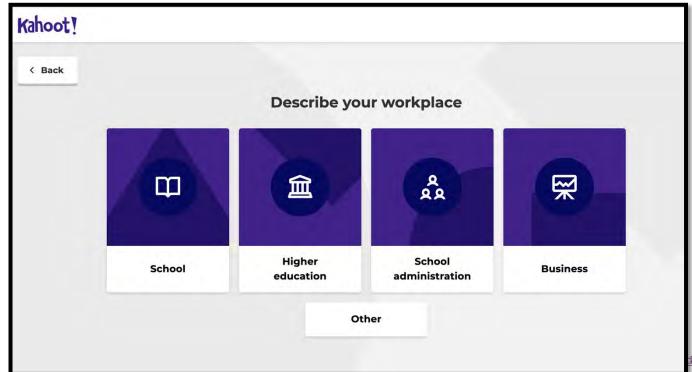


KAHOOT!: https://kahoot.com/schools/distance-learning/





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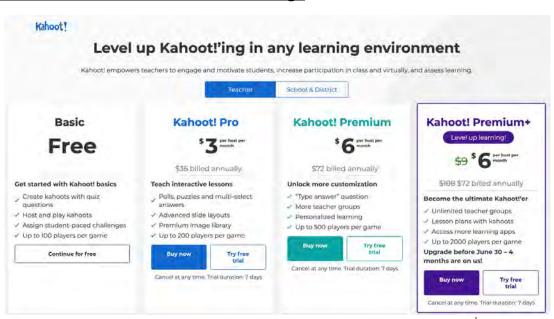






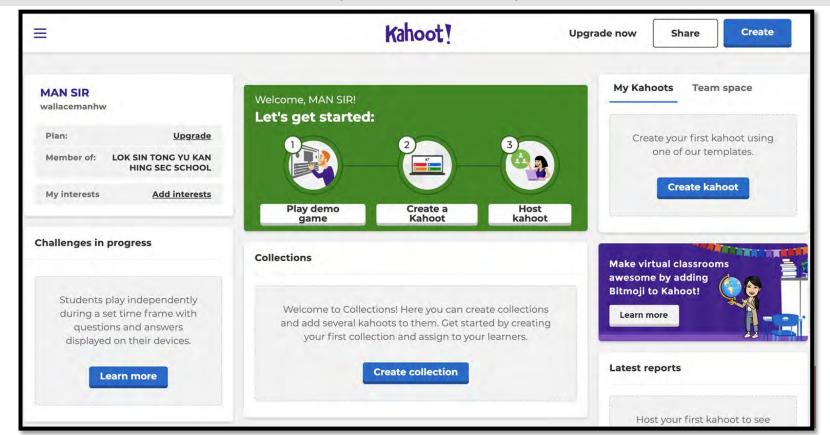
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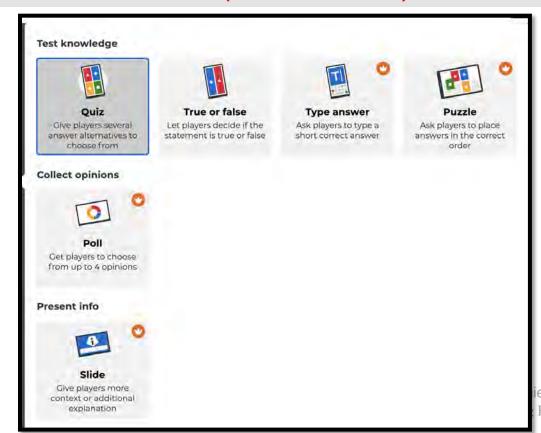


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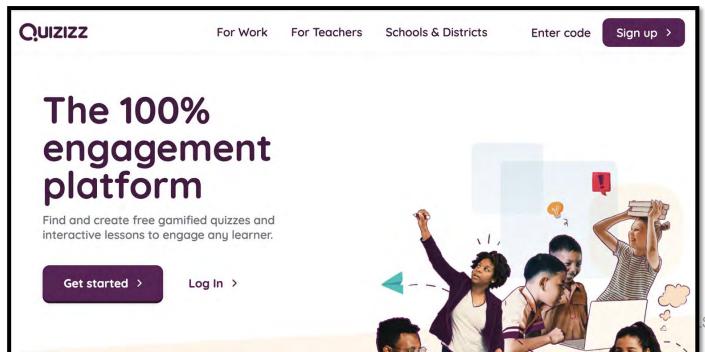








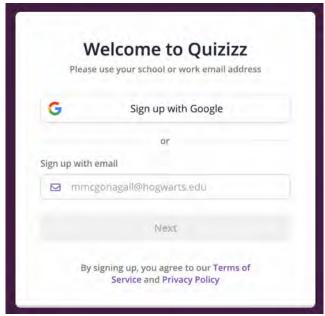
Quizizz: https://quizizz.com/







Quizizz: https://quizizz.com/



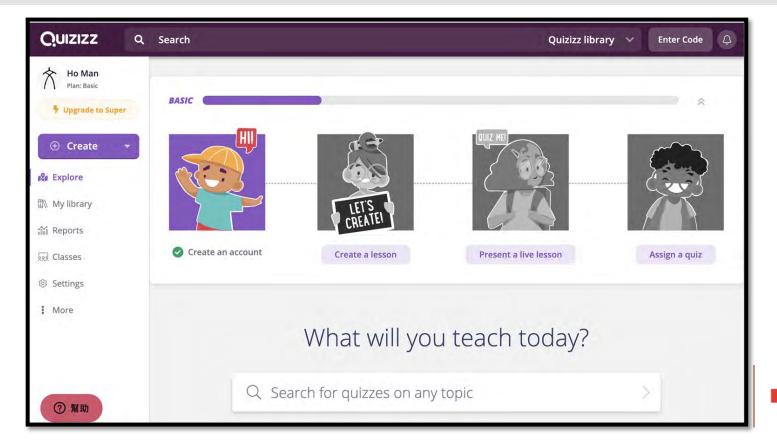


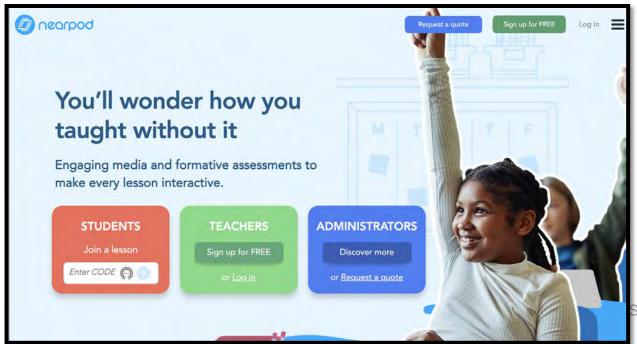
Quizizz: https://quizizz.com/





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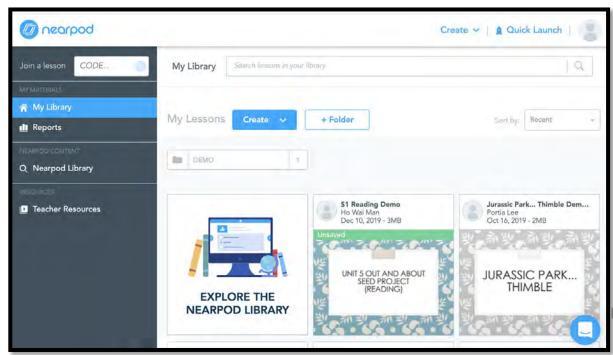






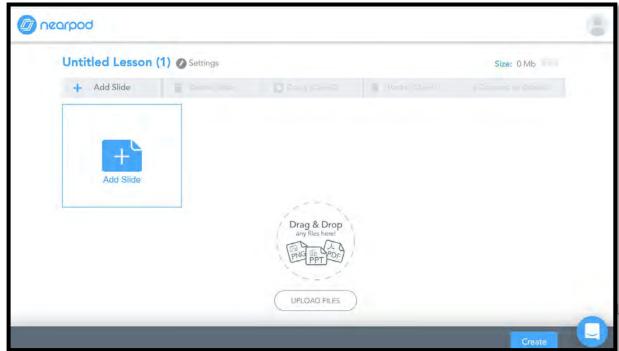






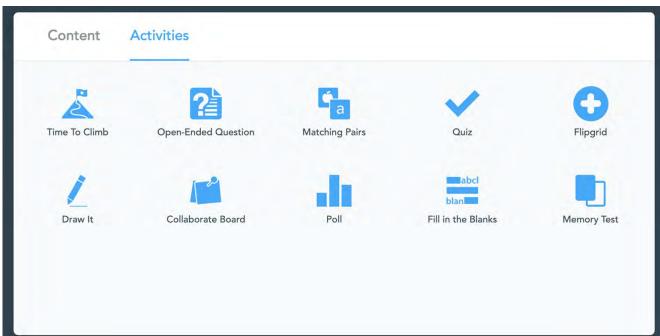






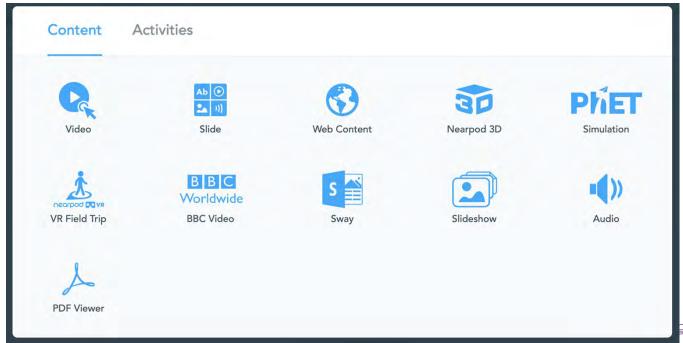
















	Kahoot	Nearpod
Updated functions	 Multi-select answers Microsoft Teams integration "Groups" facilitates the easy sharing of content with other users and make online collaboration more flexible 	 Require students to submit a response to certain learning activities Microsoft Teams integration Teacher view in student-paced mode Student audio submissions for open-ended questions
limitations	 10-player limit for free accounts Teacher can't ask challenging and complex questions due to the time constraints for Q&A Limited question and chart types Few customization options 	 Time consuming to create presentations Some features may not work on all devices Take much time to load with a slow wireless connection





Performance: Active Learning Strategies



Playposit: https://www.playposit.com/

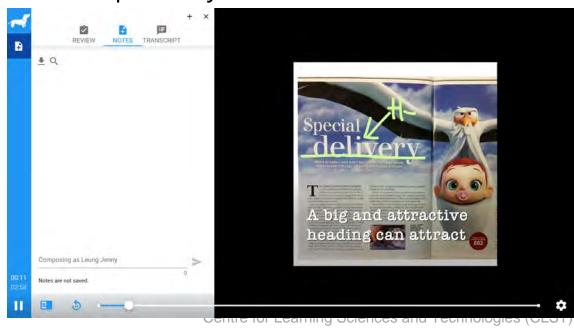






Playposit 示例:

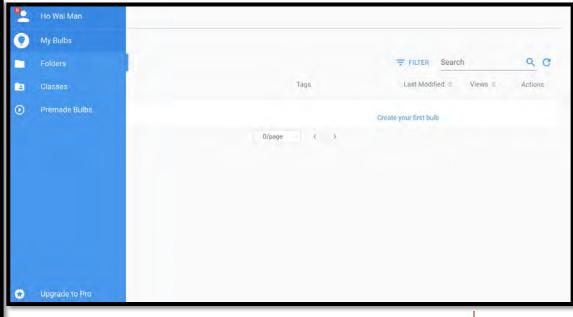
http://bit.ly/LMSSDL-SS-ENG-POSTIT





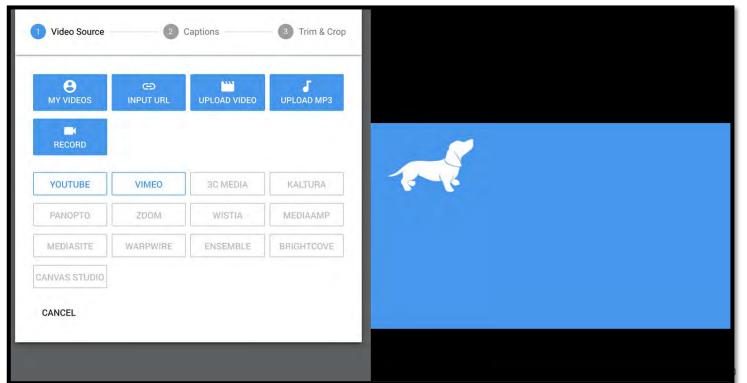
Playposit: https://www.playposit.com/



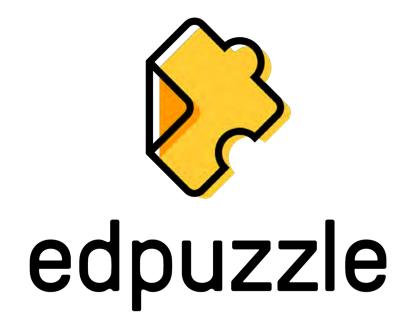




Playposit: https://www.playposit.com/







https://edpuzzle.com/





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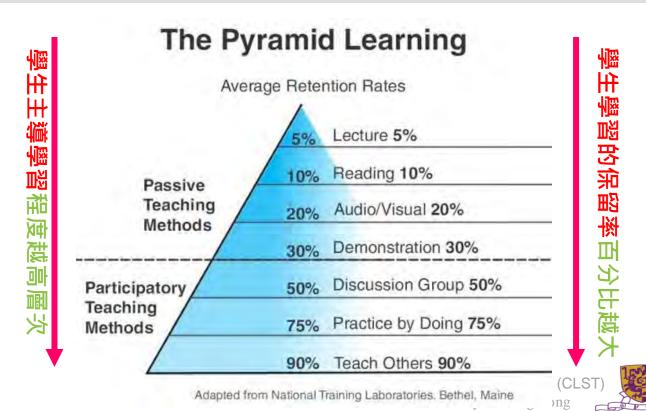
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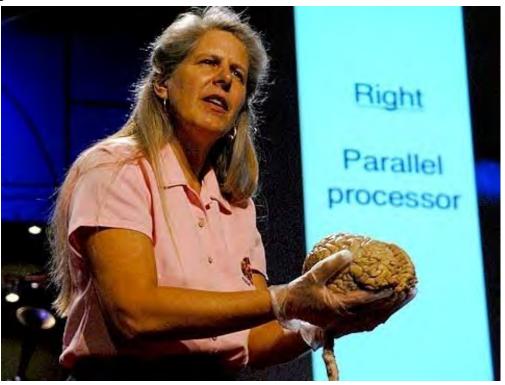


A Private -

自主學習的內容及步驟



Jill Bolte Taylor





PRESENTATIONS Is the key







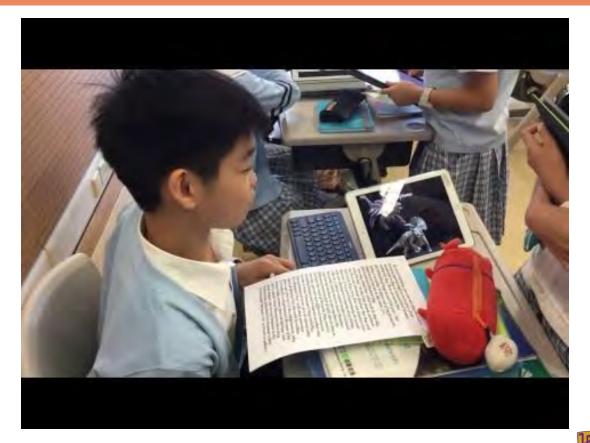
Rotation Presentation (ENVOY)





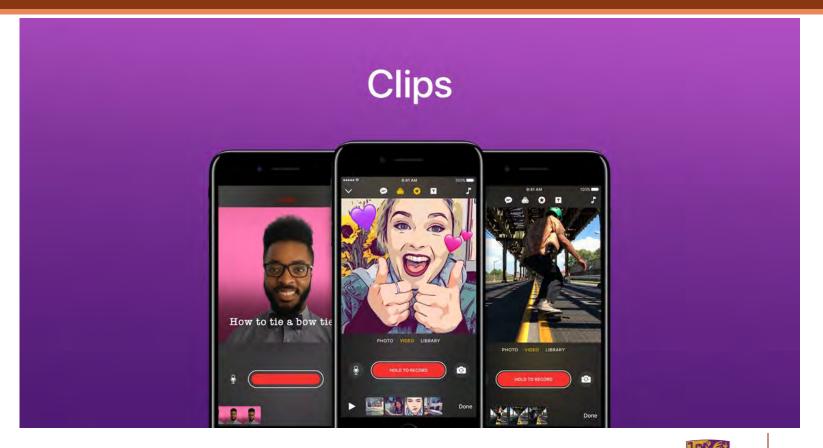
Rotation Presentation (ENVOY)





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5. 習作講解

習作講解

Try one strategy that you've learned today in the coming week and share your reflection in the following padlet.

https://padlet.com/missjennyhk/cuhkclstlmssdleng20211201



