

資訊科技教育電子領導系列： 如何在中學進行「課程規劃」以促進推行電子學習 經驗分享會（支援計劃）



文可為副校長
樂善堂余近卿中學

如何量度學校 eLearning 發展？



A. 設備及網絡基建

B. 電子教材及內容

C. 電子學習管理平台

D. 學生自主學習態度

E. 老師教學範式轉變

F. 學校資訊科技領導

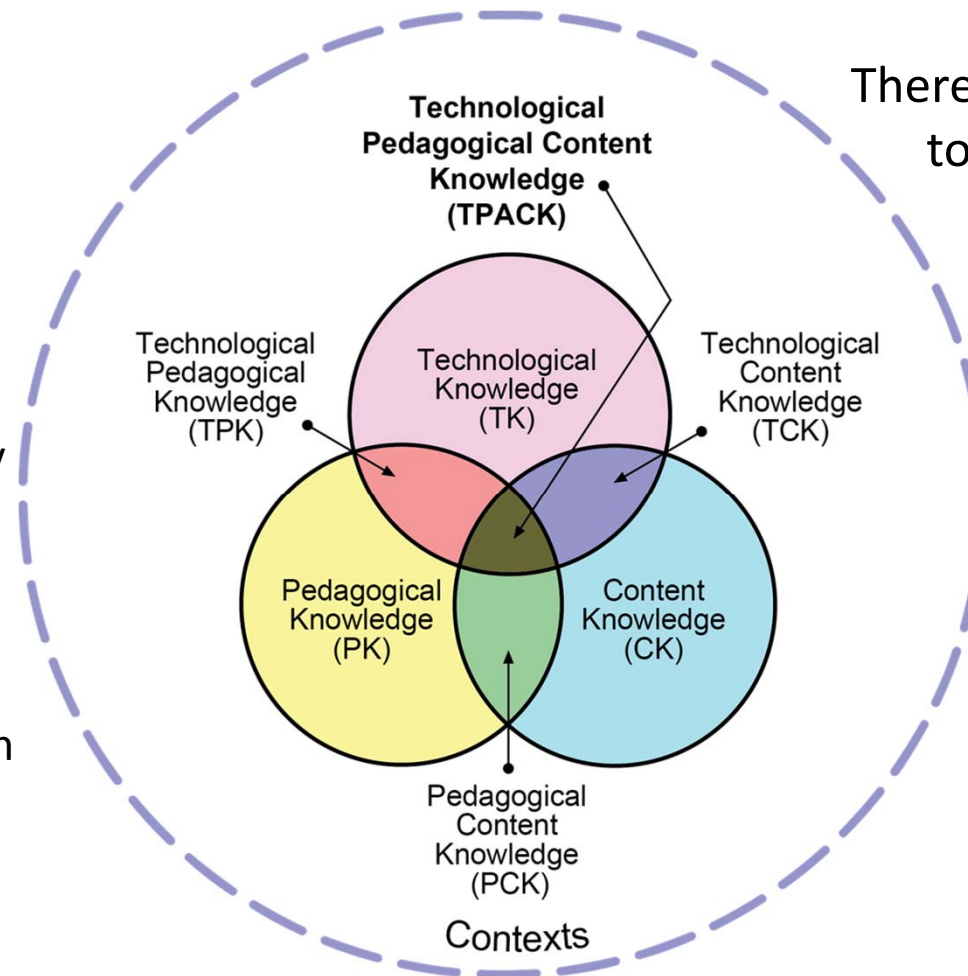
你認為那個度向是量度學校 eLearning 發展的最重要範疇？



<https://goo.gl/forms/CFzKid6V8aMkZFZI2>

Technological Pedagogical Content Knowledge (TPACK) Framework

Effective technology integration for pedagogy around specific subject matter requires developing sensitivity to the dynamic, transactional relationship between these components of knowledge situated in unique contexts.



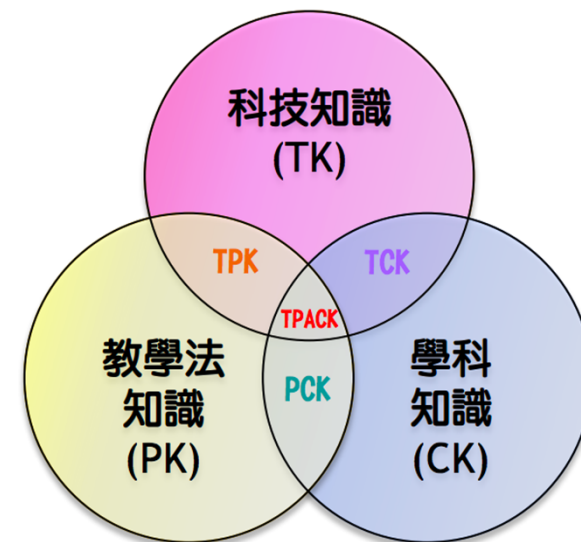
There is no “**one best way**” to integrate technology into curriculum.

Integration efforts should be creatively designed or structured for particular subject matter ideas in specific classroom contexts.

Mishra & Koehler (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054.

(TPACK) Framework

- 學科內容知識 Content Knowledge
 - 教學知識 Pedagogical Knowledge
 - 科技知識 Technological Knowledge
-
- 教學內容知識 Pedagogical Content Knowledge
 - 科技內容知識 Technological Content Knowledge
 - 科技教學知識 Technological Pedagogical Knowledge
-
- 科技教學內容知識
Technological Pedagogical Content Knowledge



課程規劃



課程規劃

PDCA: Plan-Do-Check-Act

PDCA stands for Plan-Do-Check-Act.
It is a cyclical method for continuous improvement of processes.



PLAN

Create a process improvement plan.



DO

Execute a process improvement plan.



CHECK

Inspect feedback and adjust plan accordingly.



ACT

Integrate a process improvement plan into the system.

課程規劃

- The phrase “curriculum planning” can mean one of two related things:
 - Micro Level: either the process of an **individual teacher** to build a **class curriculum**, or
 - Macro Level: the means through which **school boards** coordinate the various curricula being used by teachers in order **to achieve uniform goals**.

課程規劃

- *Curriculum* is basically a lesson plan that functions as a **map for learning**.
- Careful planning is required to ensure first that the lessons actually touch on all required topics, and also that they meet school or governmental standards of basic education.

課程規劃重要性

- Curriculum planning develop well-coordinated, quality **teaching, learning** and **assessment** programs
- which build students' **knowledge, skills** and **behaviors** in the disciplines, as well as their interdisciplinary and/or physical, personal and social capacities.
- The full range of learning needs of students are addressed

(TPACK) Framework

Curriculum eLeadership

(CURRICULUM MANAGERS)

- 學科內容知識 Content Knowledge (CK)
- 教學知識 Pedagogical Knowledge (PK)
- 科技知識 Technological Knowledge (TK)

responsible in the formulation of the schools' vision, philosophy, mission and objectives.

(TPACK) Framework

Curriculum eLearning TEAM: Teacher

- 教學內容知識
Pedagogical Content Knowledge (PCK)
- 科技內容知識
Technological Content Knowledge (TCK)
- 科技教學知識
Technological Pedagogical Knowledge (TPK)

課程規劃：學生層面

eLearning Strategies : Student

- Information Literacy (IL)香港學生資訊素養 2016

類別	八個素養範疇	
有效及符合道德地運用資訊，以達致終身學習	1	符合道德地及負責任地使用、提供和互通資訊
一般的資訊素養能力	2	識別和定義對資訊的需求
	3	找出和獲取相關資訊
	4	評估資訊和資訊提供者的權威、公信力及可靠性
	5	提取和整理資訊以及產生新意念
資訊世界	6	能夠運用資訊科技處理資訊和建立內容
	7	認識社會上資訊提供者（例如圖書館、博物館、互聯網）的角色和功能
	8	認識能獲取可靠資訊的條件

課程規劃：學生層面

eLearning Strategies : Student

WHAT ARE 21ST CENTURY SKILLS? THESE 4 C's:

C

COMMUNICATION

Sharing thoughts,
questions, ideas &
solutions

C

COLLABORATION

Working together to
reach a goal. Putting
talent, expertise,
and smarts to work

C

**CRITICAL
THINKING**

Looking at problems in
a new way and linking
learning across
subjects & disciplines

C

CREATIVITY

Trying new approaches
to get things done equals
innovation & invention

課程規劃：家長層面

1. Effective parental involvement in school affairs may be linked to **parent educational programs** which is central to high quality educational experiences of the children .
2. The parents involvement extends from the confine of the school to the homes. The parents become part of the environment of learning at home.
3. In most schools the Parent Association is organized. This organization is provided by law.
4. **"PARENTS" AS PART OF THE CURRICULUM PLANNING**

WHAT IS MEANINGFUL LEARNING?

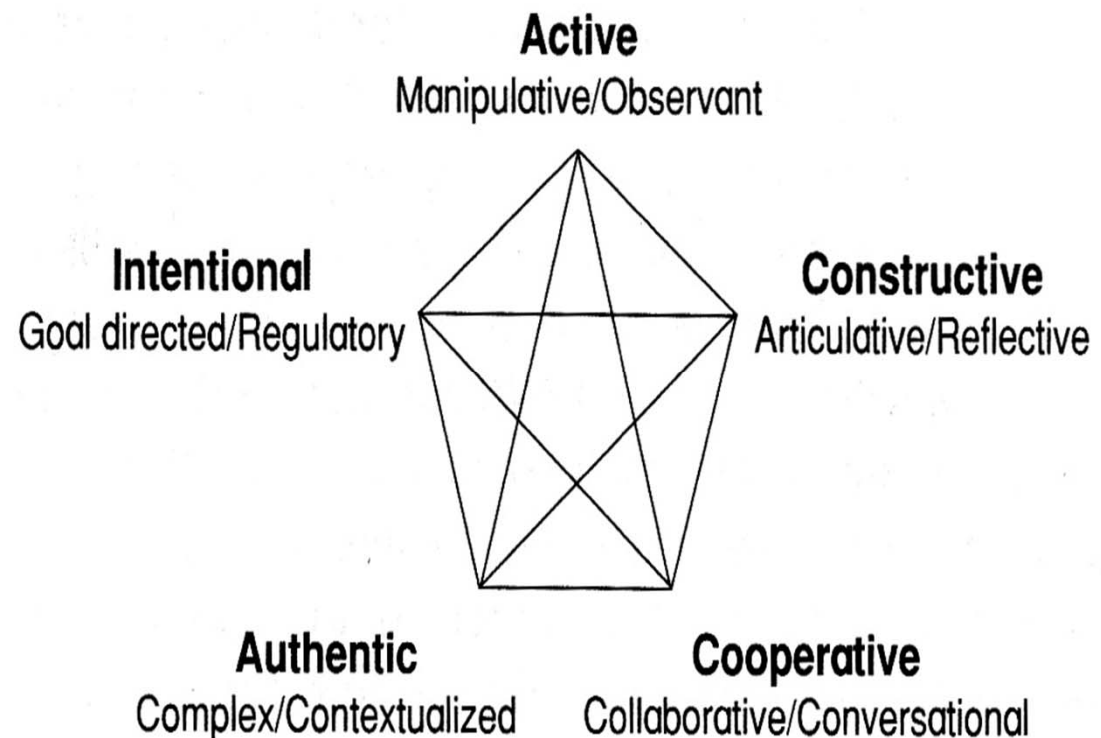
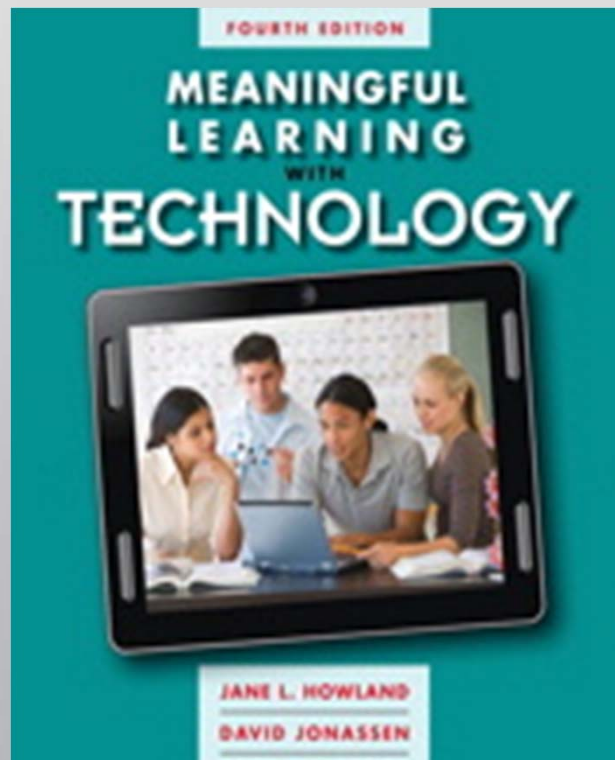
(Jonassen, D, et al, 2008)

『有意義的學習』

- 以學生為中心的『主動』、『建構』、『合作』、『真實』、『意圖』精神
- 探討在『探究』、『實驗』、『設計』、『溝通』、『建立社群與協作』、『寫作』、『建模』、『視覺化』等學習型態與活動上，**科技的導入與應用、評量學習等實例**，同時也提醒教師思考相關問題。

- Meaningful Learning with Technology

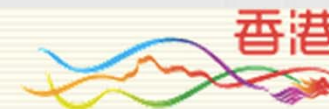
By Jane L. Howland, David H. Jonassen,
Rose M. Marra



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香港特別行政區政府
教育局



GovHK 香港政府一站通

简体版 ENGLISH

流動 / 無障礙瀏覽版本

我的自訂色彩

AAA

輸入查詢字串



網頁指南

主頁

最新消息

有關教育局

教育制度及政策

課程發展

學生及家長相關

教師相關

學校行政及管理

公共及行政相關

公開資料

聯絡我們



主頁 > 教育制度及政策 > 小學及中學教育 > 小學及中學教育適用 > 資訊科技教育

列印

資訊科技教育持續支援

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- [資訊科技教育專業發展課程](#)
- [資訊科技教育卓越中心](#) [到校支援申請表](#)
- [安全上網輔導熱線\(電話：2922 9222\)](#)

- Email: wallace_mhw@alumni.cuhk.net
- Mobile: 6112 2400

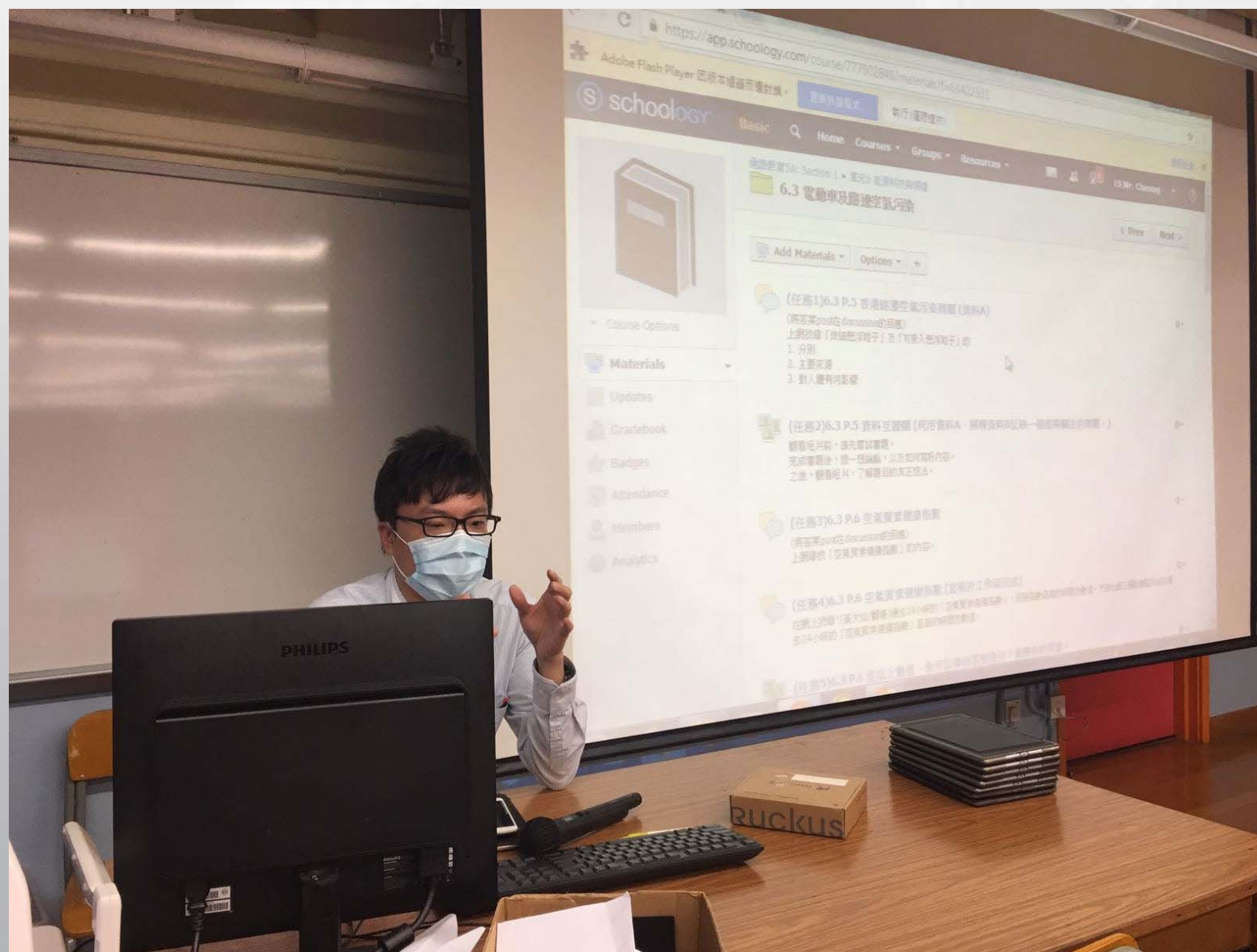
電子學習
由電子學習小組出發
陳錦輝主任

推廣電子學習方式

- 工作坊：每月集會一次
- 內容：電子學習工具 + 科本教學法
 - 由各科先導老師親身體驗試行
 - 選取部分班級及課題

電子學習例子

- 中國語文：Popplet + 作文
- 英國語文：Schoology + Reading skills
- 數學：解方程 App + 自主學習解方程
 - (解方程 App為校本開發流動應用程式)
- 科學：Explain Everything
- 生物：Evernote + 實驗記錄



推行過程的反思

- 全民參與 VS 照顧多樣性
- 針對性發展 (個性發展)



電子學習案例：通識科

- 背景：

- 教師多年共同備課已累積不少教材
- 學生學習能力較弱、動機較低
- 處理學生課業或測考改正虛耗大量課時
- 能力較高學生亦不能忽視
- 尋求方法照顧學習多樣性及提升教學效能

電子學習案例：通識科

- 解決方案：
 - 科技：
 - 學習管理平台 (Schoology)
 - 錄屏軟件 (Explain Everything)
 - 發佈視像 (YouTube)
 - 教學法：
 - 翻轉課堂/翻轉教室

電子學習案例：通識科

- 解決方案：
 - 教師發展：
 - 第一年：
 - 中四級開始試行，任教老師全部參與
 - 第二年
 - 開展中五級，任教老師全部參與
 - 中四級老師沿用已有教材

電子學習案例：通識科

- 教學流程：
 - 共備 → 視像片段 + 引導題目
 - 學生 → 在家預習 (強) / 上課預習 (弱)
 - 教師 →
 - 上課時處理高階思維課題 / 個別輔導照顧強弱生
 - 在學習平台批改短答 / 討論區

推行成果

- 教師方面：
 - 教材資源可重複使用
 - 有時間處理高階思維及照顧學習多樣性
- 學生方面：
 - 按自己能力步伐學習
 - 弱生學習動機提升
 - 能力較高學生可進階學習較深課題

結論








- 根據科本特質選擇合適電子學習工具
- 營造電子學習氛圍，發展教師運用資訊科技於學與教能力
- 善用電子學習工具提升學生學習效能

English Language



- making use of learner-centred instruction to promote learner independence;
- greater use of formative assessment as well as quality and timely feedback to improve students' learning.






 **Basic**  [Home](#) [Courses](#) [Groups](#) [Resources](#)    [Portia Lee](#)  

English: Demo Class
#coffeeismylife

[Questions](#) [Settings](#) [Preview](#) [Results](#) [Comments](#)

Questions 1-6 of 6 | Page 1 of 1

Question 1 (10 points)
** Pay attention to the verbs **

What tense did Ms Lee use?

☐ a The Simple Present
☐ b The Present Continuous
☐ c The Simple Past

- assigning quality homework to provide language practice in meaningful contexts and discouraging meaningless mechanical drills;



DO

Student copy Slide 9 / 35

Festivals of Light

Light plays an important part in many festivals around the world. Here are a few of them.

On the longest night of the year, people in Iran light big bonfires and stay up all night with family and friends to celebrate the Yalda Festival. The Iranians believe that the light from the fires helps the sun to fight against the darkness.



Mid Autumn festival 🌕

In Hong Kong, people eat moon cake in September, that is Mid-Autumn Festival, they eat mooncake, play lanterns in Mid-Autumn Festival 🏮



They celebrate this festival because they want to unite the family 👨👩👧👦

The moon is very big and round, so the people will see the moon at night 🌕



We have been the best students since 2015.

- providing greater opportunities for learners to use English for purposeful communication both inside and outside the classroom;



- using feedback as well as formative and summative assessments for reviewing and improving teaching plans and strategies.



CHECK

B. Simple Past Tense and Present Perfect Tense (14 marks; 1 mark each)

Mary is talking to her sister, Jenny, at night.



For Questions 1-9, complete the conversation by filling in the blanks using the correct form of the verbs.

Jenny: You look very tired. What (e.g.) have you done (do) today?

Mary: Yes, I (1) _____ never _____ (feel) so tired before. I (2) _____ (get) up at 6am this morning and (3) _____ (pick) Nancy up in the airport. Then, we (4) _____ (go) to many different places and (5) _____ (buy) a lot of things. Nancy (6) _____ (get) everything on her shopping list already!

Jenny: (7) _____ she _____ (try) egg tarts yet?

Mary: No, she (8) _____ (have) egg tarts yet. But she (9) _____ (eat) dim sum already!

at we have done

Playstation 4 Pro.

(2) _____ we _____ (see) shooting stars yet? Yes, we have! We saw it on Lantau. We

(3) _____ (not take) French courses yet, but Dad (4) _____ already _____ (get) three

French courses done! (e.g.) We have read all the Harry Potter books. (We/ all the Harry Potter books/

read) Moreover, (5) _____ (we / send / a postcard to Santa Claus).

However, (6) _____ (in / we / the Pacific Ocean / not swim / yet).

Even worse, (7) _____ (never / for Mum's birthday / make / a card / We).

Let's make her a birthday card next time!

Nicole



CHECK

A	C	D	E	F	G	H	L
請選擇你的科目：							
	10.老師在學習上對我提供足夠的支援。	11.老師能使用不同的方法令我在學習上更容易理解。	12.我認為老師在課堂上，能提供機會讓我整理、總結所學。	13.我在課堂後會對課題作進一步的思考。	15.我認為老師在批改習作及測驗卷時能讓我知道強弱項，從而作出改善。	16.老師有安排機會讓我檢視及跟進自己在學習上的優點和缺點。	(英文科)我認為在課堂中引入電子學習提升學習英文的樂趣。
1CD							
回答總人數(人)	25	25	25	25	25	25	25
"非常同意"人數(人)	8	9	9	7	7	6	10
"非常同意"百分比(%)	32	36	36	28	28	24	40
"同意"人數(人)	16	15	15	17	16	19	13
"同意"百分比(%)	64	60	60	68	64	76	52
"非常同意" + "同意"的百分比(%)	96	96	96	96	92	100	92
每1分，最高4分，合格為2.5分)	3.24	3.28	3.28	3.20	3.16	3.24	3.32

