

Sharing on 10th December, 2016 LnT Expo

Topic:

SELTAS: 有特殊學習需要學生的電子學習

道慈佛社楊日霖紀念學校陳強佳校長



Missions

To strengthen core subjects and move toward a 21st century education, there are six elements

1. Emphasize core subjects (**expand beyond basic competency**)
2. Emphasize learning skills (**learning to learn**)
3. Use 21st century tools to develop learning skills (**IT proficiency**)
4. Teach and learn in a 21st century context (**Beyond the walls**)
5. Teach and learn 21st century content (**Student Centered Learning**)
6. Use 21st century assessments that measure 21st century skills (**Standardized tests and classroom assessment for improved teaching and learning**)



How important is Information Technology in Education?

1. **effects of the continuing developments** in information technology (IT) on education
2. New and emerging technologies **challenge the traditional process of teaching and learning, and the way education is managed.**
3. Information technology, while an important area of study in its own right, **is having a major impact across all curriculum areas.**
4. Rapid communication, plus increased access to IT in the home, at work, and in school, an activity in which **the pace of technological change forces constant evaluation of the learning process itself.**

Important factors for transforming into the 21st century education



How to make it happen?

Leadership and Management

- 1) Defining the vision and goals
- 2) Resources Mobilization

Implementation Strategies

- 1) Direction of the goals
- 2) Scale of the implementation
- 3) Collaboration between teams
- 4) Evaluation

Infrastructure and Hardware

- 1) Understand student's needs
- 2) Understand staff's needs
- 3) Collaboration between teams

Continuous Professional Development (Paradigm Shift)

- 1) Why we need to change?
- 2) What we need to change?
- 3) How can we change?

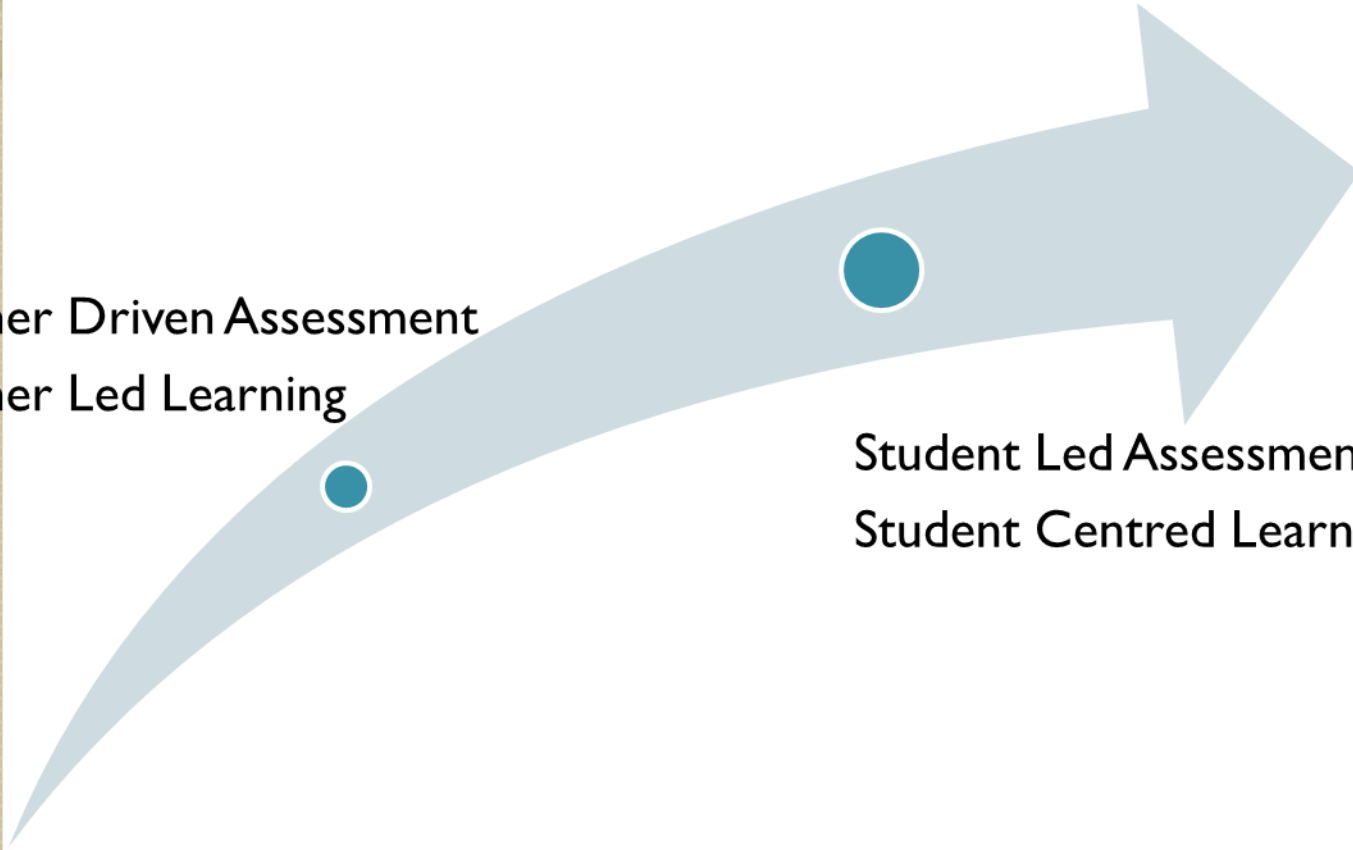
Collaborative partners and Community

- 1) Lower the cost of development
- 2) Raise the standard
- 3) Good education alignment

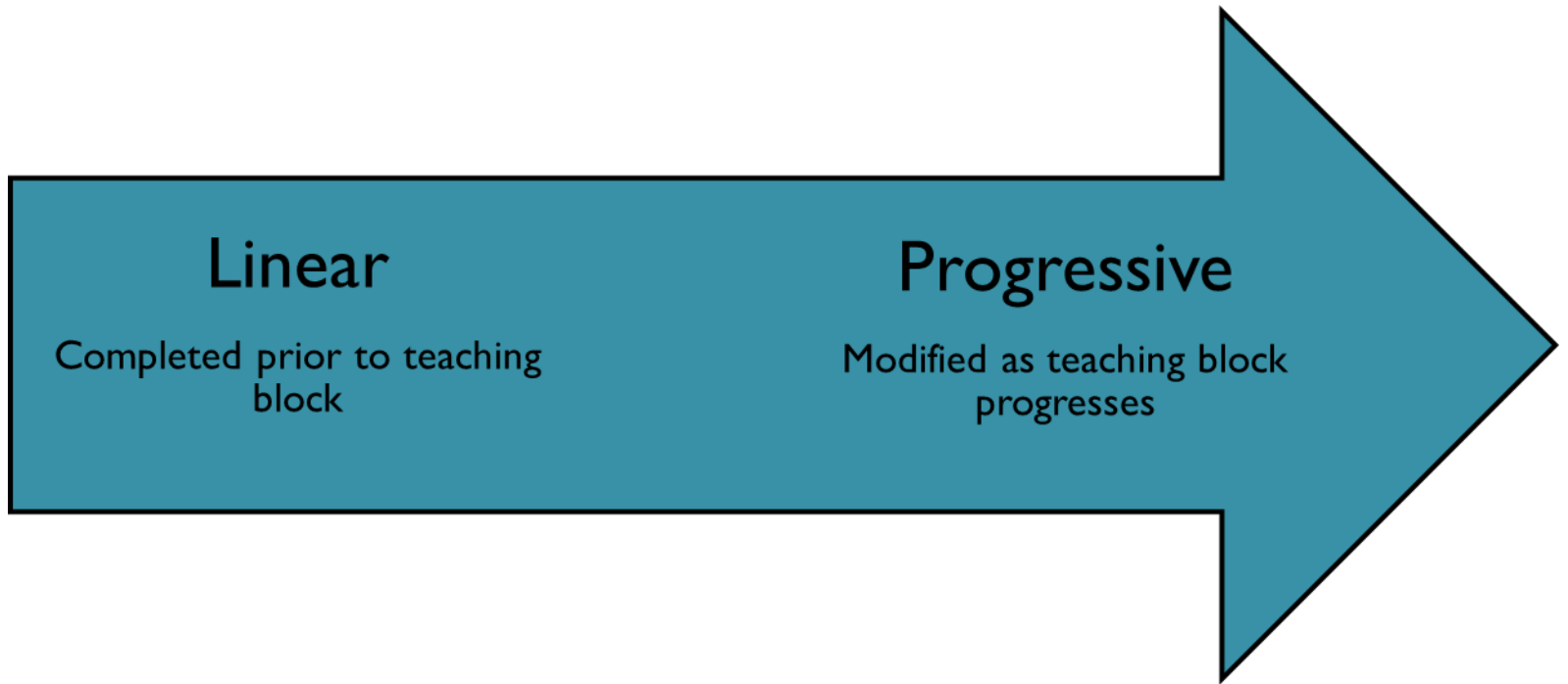
Paradigm Shift (Continuous Professional Development)

Teacher Driven Assessment
Teacher Led Learning

Student Led Assessment
Student Centred Learning

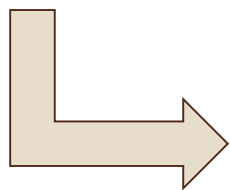


Teaching Plan Preparation



「運用資訊科技於學與教」政策的制定

學校的關注事項



年度目標

1. 建構穩定而安全的網絡，供教學及學習保持良好學習環境
2. 建立學習社群，提昇教職員資訊科技專業水平
3. 提高學生在資訊科技的素養，讓他們掌握必須的技能和知識以處理資訊

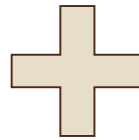
年度目標 -

建立學習社群，提昇教職員資訊科技專業水平

Professional Training (8 or over)

USEFUL
TOOLS

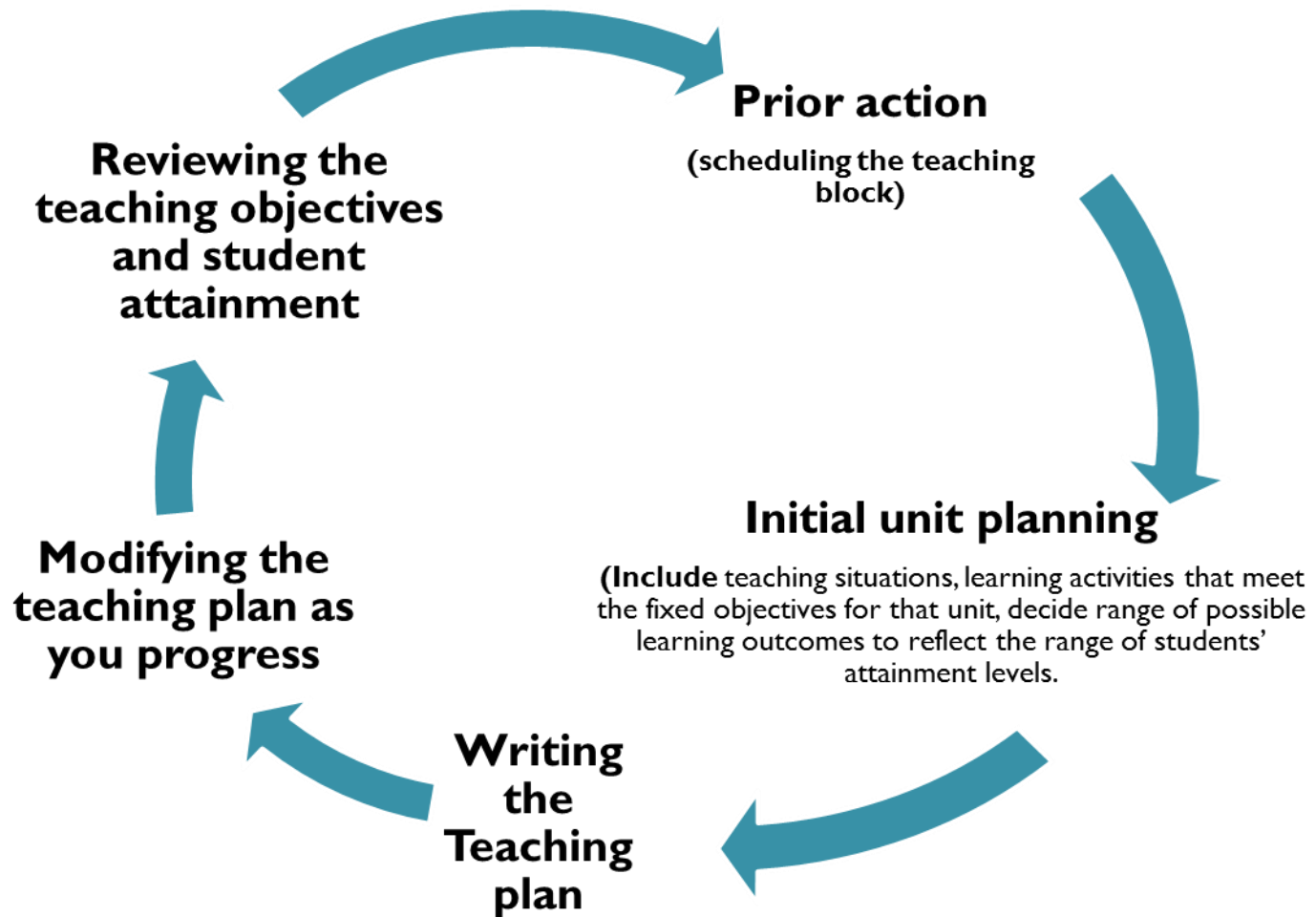
資訊科技規劃組



教職員發展組

TEACHING
STRATEGY

Teaching Plan Implementation Strategy



Application of eLearning in different Key Stage

Function of IT Application Key Stage	A Media to Illustrate Learning Materials	Provide an Opportunity to Scaffold Learning Content	Regard as a Learning Partner
KS1	*****		
KS2	****	*	*
KS3	***	**	*
KS4	*	***	**

Key: * Proportion Distributed (maximum: *****)

Application of eLearning in different Key Stage

	A media to Illustrate Learning Materials	Provide an Opportunity to Scaffold Learning Content	Regard as a Learning Partner
Role of Teacher	Main Person Operating IT	Operating IT	Facilitator
Role of Student	Receives Information	Operating IT	Main Person Operating IT Active Learner Knowledge Builder

Electronic Support for Teaching and Learning

Flexible Access

Switches

Tablets

Touch Screen

Flexible Input

Read Words

Read Symbols

Listen to Words

Follow Film Clips

Flexible Content

Level 1

Level 2

Level 3

Progression->

Flexible Output

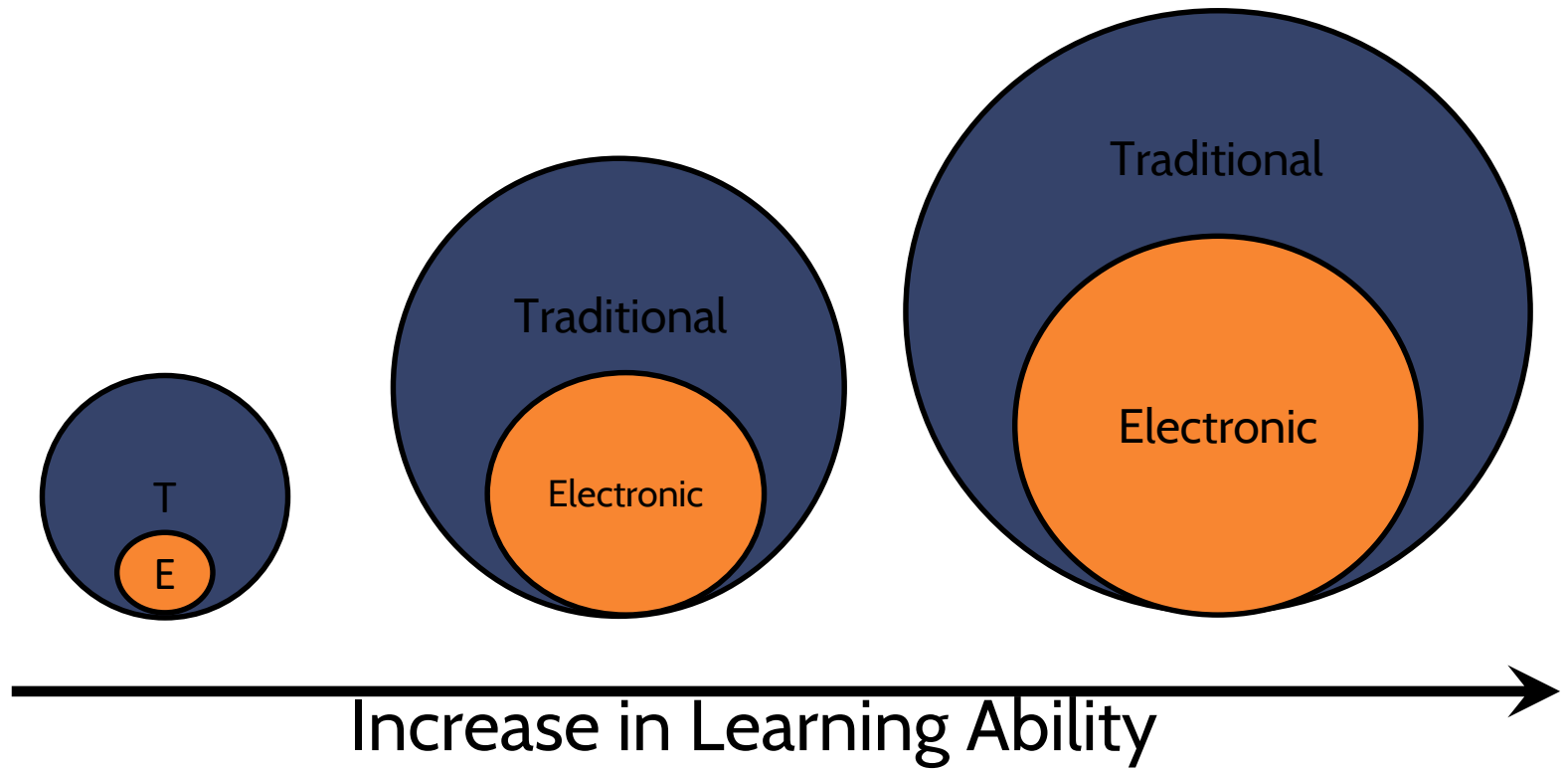
Writing
• PowerPoint
• Word Processing

Drawing

Audio/Video
Recording

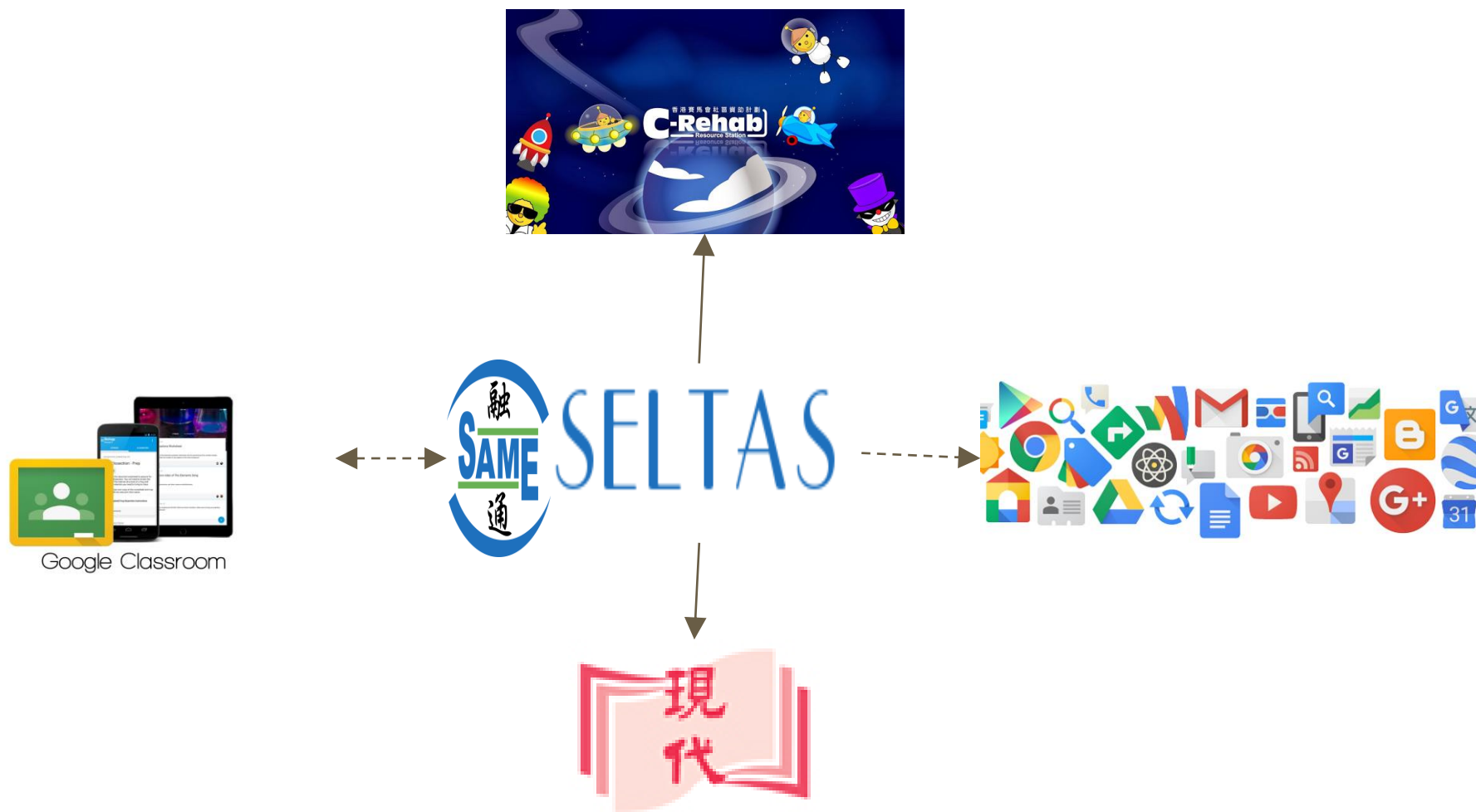
Preset
Systematic
Recording
(score/speed/fre
q)

Traditional and Electronic Learning Support



Created by Mr. Keith Humphreys for Seltas Project, June 2012

提高學生在資訊科技的素養，讓他們掌握必須的技能和知識以處理資訊



Traditional and Electronic Learning Support



建構穩定而安全的網絡，供教學及學習保持良好學習環境。

Networking

Wireless Network

Wifi 100 in 2014

Backbone

Strengthen the network with optical and Gigabit

Add on nodes in everywhere

Using one off grand for special needs students



Hardwares (恒常)



CITG (EVERY YEAR)



Hardware (發展性)

Samsung SMART School
(2014 - 2015)



One-off grant for aided
special schools to develop
assistive technology
(2013 - 2015)



Wifi 100 (2014 - 2017)



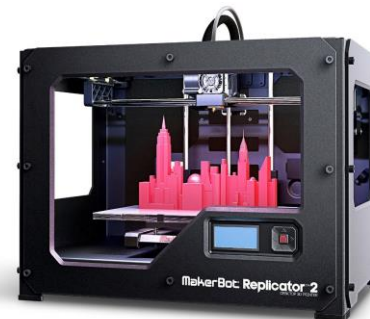
道慈佛社楊日霖紀念學校
BTCFS Yeung Yat Lam Memorial School

Hardware (others subjects)

Design & Technology



Physical Education



VISUAL ARTS



Pre-requisite for an effective
I.T. in education practice

Human

System

Staff
Professional
Development

Student
Training

Hardware

Software

Hardware and tools
Software: SCL, platform

Hardware and tools
Software: platform

Tailor-made
AT devices

Barrier Free Platform

What is Assistive Technology (AT - 啟能科技)?

Assistive **T**echnology is technology used by individuals with disabilities in order to **perform functions** 完成任務 that might otherwise be **difficult** 困難 or **impossible** 沒有可能 .

Assistive technology can include mobility devices such as walkers and wheelchairs, as well as **hardware** 硬件, **software** 軟件, and **peripherals** 周邊設施 that assist people with disabilities in **accessing computers** 使用電腦 or other information technologies.

(<http://www.washington.edu/accessit/articles?1109>)

Purpose of Applying AT in SELTAS/YYL

To provide a barrier-free E-learning environment for students to learn independently

→ **Student-Centered Learning SCL**

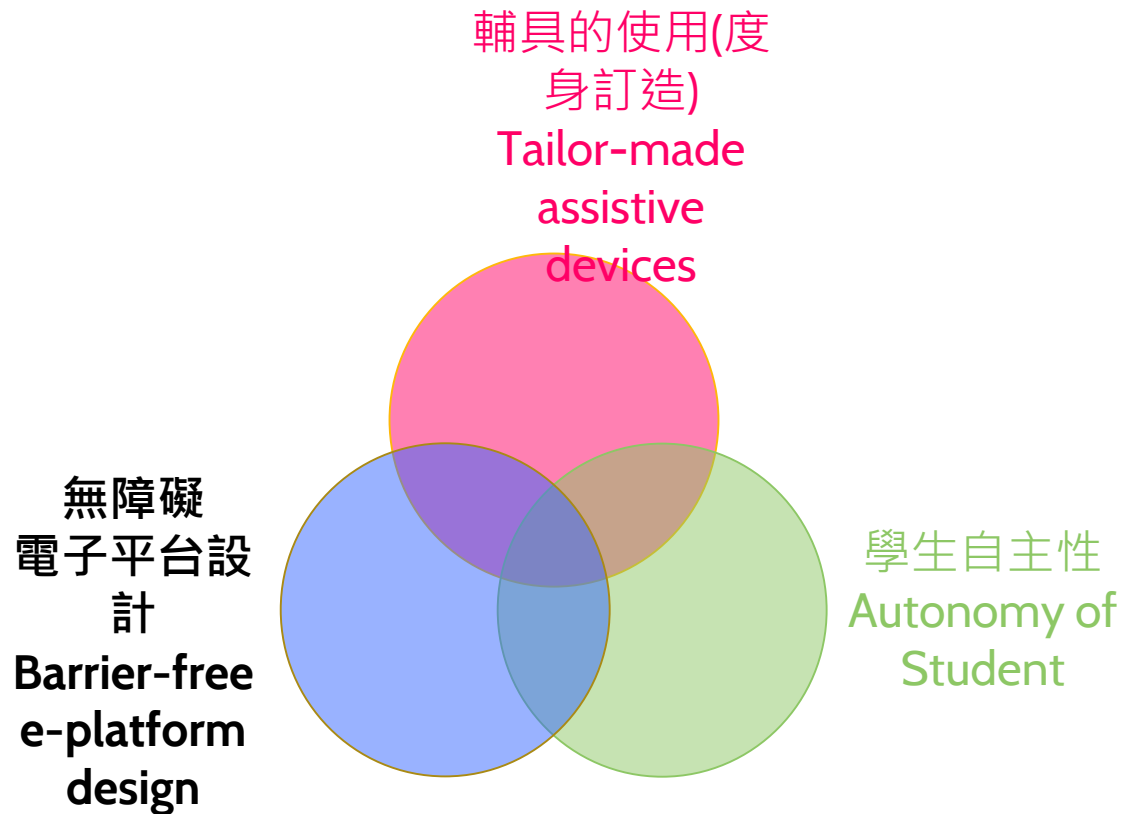


What are the barriers for Students?
How to make Barrier-free possible?

Categories of AT tools/devices

Special Needs of Students	Choice of AT Tools/Devices
Physical	Proper Mounting, Touch Screen, Special Switches/Input devices, Scanning System, Eye-gaze System, Voice Recognition System (e.g. Win7)
Cognitive	Assisted Comprehension System (e.g. Total Communication, Screen Reader), Large and Simplified Display
Visual	Enlarged Display & Icons, Easily Adjustable Color Display, Screen Reader (e.g. JAWS), PenFriend
Auditory	Speaker, Hearing Aids, FM system, Specified Sound-Function, Word/Symbol System
Verbal	Communication Devices, Pre-installed Communication Software, Text to Speech Engine
Writing	On-screen Keyboard, Pre-installed Symbol Bank (e.g. board-maker)

What is “Barrier-free” E-learning?



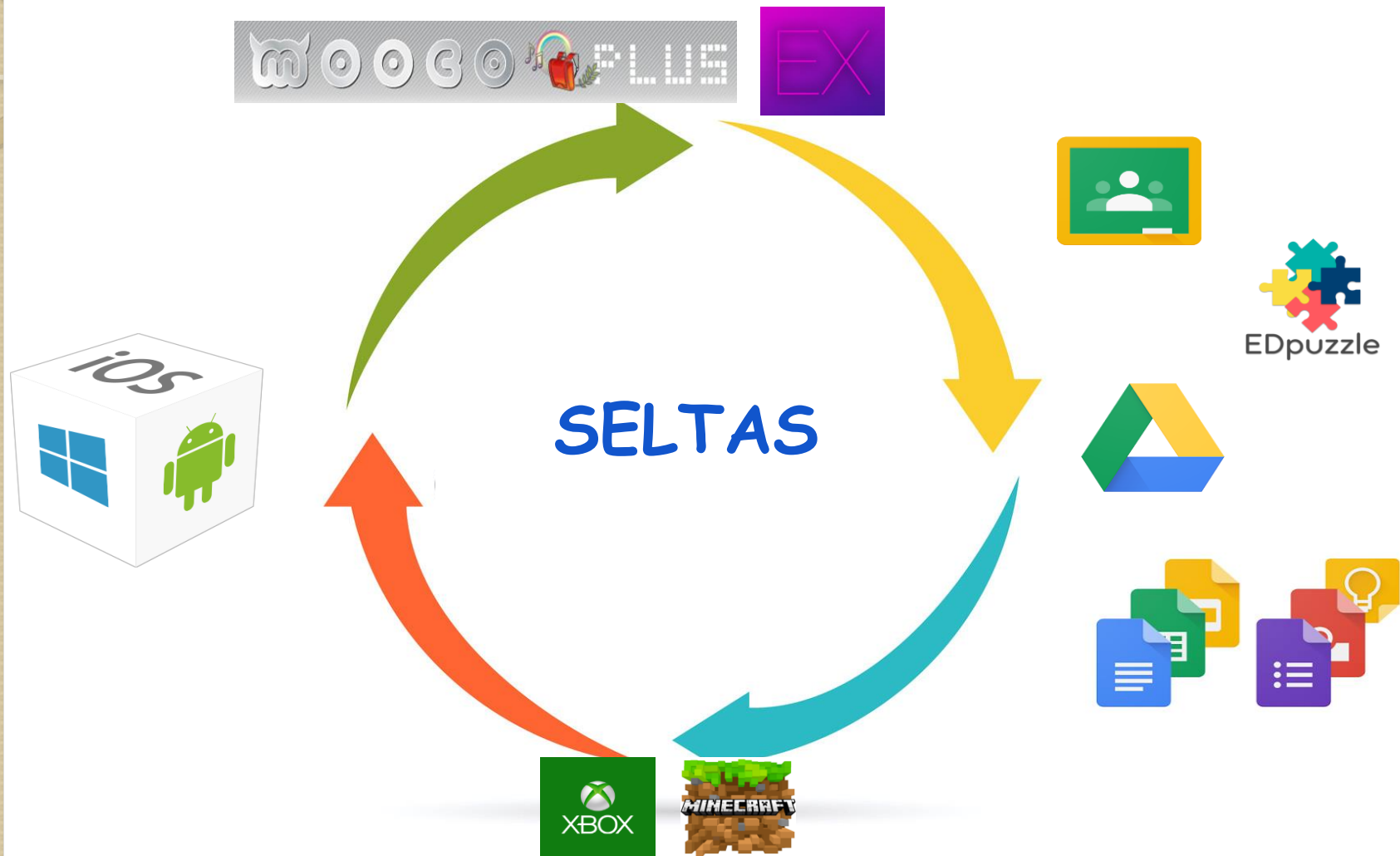
To provide a barrier-free E-learning environment for students to learn independently

→ **Student-Centered Learning SCL**

Reminder in Application of AT

- **S**etting of Classroom 課室擺設
- **E**-platform Familiarization 熟習使用電子平台
- **L**inked AT Devices, with tailor-made mounting 隨時候命的輔具
- **T**ime Allowed for Learning to Learn 給予充裕時間「學會學習」
- **A**utonomy of Students 賦予學生自主學習的機會
- **S**trategies for **S**tudent-**C**entered Learning
以學生為中心的教學策略

「運用資訊科技於學與教」的推行



Use of Smart board



學生可即時在與投影互動，進行數據統合。



提昇互動學習的效能，同學可即時在白板一起進行學習



Use of Notebook with wireless environment



學校備有手提電腦及WIFI網絡，讓學生可即時在互聯網獲取資訊及與同儕進行互動。

「運用資訊科技於學與教」的檢討

REVIEW

DATA

SURVEY



Achievement-Recognition by media and University



HK ICT Awards 2015 得獎專訪 (三)

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六月 5, 2015 • 業界專訪 •

第九屆香港資訊及通訊科技獎 (Hong Kong ICT Awards) 已圓滿結束。這項香港IT界的重要獎項, Unwire追訪了今屆的多個大獎得主, 今次跟大家介紹「最佳數碼共融獎」和「最佳資訊科技初創企業獎」。

最佳數碼共融大獎
融通電子學習平台 - 讓有特別學習需要學生也能享受科技帶來的習好處

孔子提倡「因材施教」, 是有見每一個學生的學習能力都不同。特殊學校就正正是為有特殊學習需要的學生而設。近年社會提倡電子學習, 但教材或系統大多針對主流學生而設計, 難免忽視了特殊學校師生的需要, 「融通電子學習平台」正正填補了這個缺口。



道慈佛社楊日霖紀念學校



最佳數碼共融獎 (左起) 黃國強、李永傑、李永傑



在傳統電子學習之外, 學校更備有特別設備, 目的是滿足學生的實際需要, 讓軟硬體的配合。此外, 學校更設了多個顧問支援老師, 並作定期交流, 讓電子學習更有的放矢。

學校亦不同的電子學習計劃, 得到家長和老師上的支持, 對推廣電子學習有極大幫助。電子學習平台讓學生上未雨綢繆的好處, 在課堂上能針對學生程度作個別指導, 學生學習更方便, 而且在課餘時間上能夠做更多不同的項目, 另外, 不少電子工具也照顧到家長, 例如家長可以知道學生的學習, 對於電子有困難的同學, 怎樣利用學生工具, 電子學習的正面強大, 除了幫助課堂教學, 更進行推動學習, 讓學習更有趣味。

學校更積極參與以資經驗, 他們會到電子學習基金會交流, 另外, 電子學習更推動學習平台, 加強老師學生的能力, 善用電子學習平台及多種的內部電子學習平台, 提高學習, 提高學習, 電子學習將成為教學上的改變, 讓這些計劃更顯, 相信教學質素必有所提高, 讓學生得益。



ACHIEVEMENT-RECOGNITION BY SOCIETY

Showcasing in the 2013, 2014 International Education Expo



ACHIEVEMENT-RECOGNITION BY SOCIETY

Invited to train over 500 teachers in Hong Kong by Education Bureau, HKSAR



ACHIEVEMENT- RECOGNITION BY COMMUNITY AND INDUSTRY



The Hong Kong Inclusion Digital Gold Award 2015



ACHIEVEMENT- RECOGNITION BY COMMUNITY AND INDUSTRY



The Hong Kong Inclusion Digital Grand Award 2015

ACHIEVEMENT- RECOGNITION BY COMMUNITY AND INDUSTRY



The Asia Pacific "Inclusion and Community" Award 2015

ACHIEVEMENT- RECOGNITION BY COMMUNITY AND INDUSTRY



**The World Information Technology Alliance
-Digital Opportunity Award 2016**

The Future

