



Hun Chung  
Chang

Wuliao Elementary Sanxia District, New  
Taiwan

五寮國小教導主任 張瀚中

從E<sup>2</sup> 2017全球教師論壇的經驗出發

五寮國小嶄新視界

E<sup>2</sup> | Education Exchange

# 簡報大綱

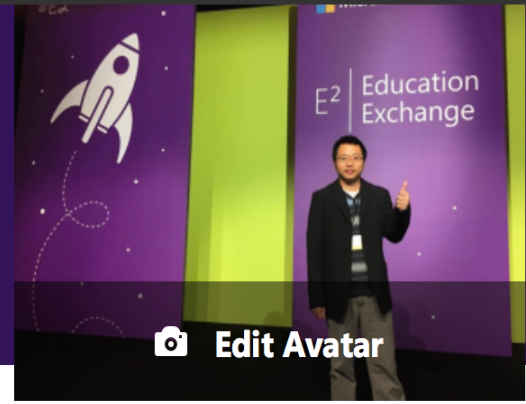
- 一、緣起
- 二、 $E^2$ 大會
- 三、現在的五寮

# 一、緣起

- (一) 新北市單一簽證登入
- (二) 從MIE的自我增能開始
- (三) 課程學習自我安排，挑自己喜歡的上。
- (四) 資料第一手
- Link <https://education.microsoft.com>



- Microsoft Innovative Educator (MIE) programs
- Badges, points, and certificates
- Courses and resources
- Skype in the Classroom
- Find, create, and share a lesson
- Connect and share with educators
- School Leaders Toolkit
- Higher Education



Edit Avatar

# Chang Han Chung

Wres > Taiwan

Subjects: Technology / Science



- About
- Achievements
- Favorites
- Development
- Content
- Connections
- Edit



## Badges Earned (21)

### More About Me

**Native Language**  
English

**Other Languages**  
Chinese, English

**Age Level**  
Ages 11-13

**Categories**  
Technology / Science

[Recover Account](#)



# 機會和挑戰

參賽資格：台灣微軟創新菁英教師及所有台灣教育部體制內教師(包含代理代課教師)。

報名方式：

1. 將您的Office Mix 連結、數位教材說明文件 (例如 PowerPoint, Sway) 上傳至台灣微軟創新菁英教師團隊臉書。
2. 填寫報名表單Microsoft Forms (中文姓名、英文姓名、服務單位、教材名稱、教材科目、任教年級、使用資源與軟體、簡單述教案之創新應用、任教班級學生應用成果分享、Mix連結作品連結等。)

評審委員(邀請中)：

1. 國立臺北教育大學 課程與教學傳播科技研究所 劉遠楨教授
2. 臺北市立大學 教育學系 黃思華 副教授
3. 所有參賽教師
4. 台灣微軟內部高階主管

評分標準：

1. 數位化創新思維
2. 全球數位勳章數(Digital Badge)以及全球證照(MOS/MEC)說明請見此份Sway <https://sway.com/2vAhfmbH1STdKfVf>
3. 實用性及作品完整性(+ Office Mix分享)：實際運用到教學現場的教學成效
4. 差異化教學以及個人化學習
5. 參賽教師互評
6. X factor: 例如全校參與STEM相關活動、遠距跨國交流等

獎勵辦法：

1. 數位化教育轉型教師交流大會優勝(3-5名)  
榮獲至加拿大多倫多參加2017微軟全球教師交流會資格
- 注意: (僅限微軟創新菁英教師以及未參加過Educator Exchange的創新菁英教師)

- (一) 機會：檢視自己在行動學習的努力
- (二) 挑戰：用不同的工具來說一個「行動學習」故事。

Chang Han-Chung

# Digital Story Telling

# 02 Expert of Digital Story teller

- Mode of Curriculum

1. Discover Questions

Making use of questions or learning tasks as the axis for learners to make the learning objectives with the mobile device

2. Collect data

Making use of the mind map to analyze the data, build up the concept and verify the data

3. Share and report

Making a report and sharing by means of the mind map, film, PPT, and so on.

- Teaching specialty

1. Application of Inquiry

With Inquiry Instructional Strategy, the learners used the mobile device to learn the languages or science and technology.

2. Application of Mind map

With X-mind, Coggle APPs, the learners learn on their own to improve their ability of analysis and combination

3. Application of digital story telling

With the process of the script writing , filming, editing, and product sharing, directing the students to tell stories in digital ways

4. With the multi-system mobile device

The learners have various learning by means of network platform.

5. Instruction With mobile device

Develop various ways of teaching, such as WIP, ADDIE, the little bookworm, the little director, the little reporter



# 03 Curriculum development

- Demonstrate the lesson planning
- Revise as Frame 3<sup>rd</sup>
- Curriculum design includes the 5<sup>th</sup> and 6<sup>th</sup> grade
- Main teaching subjects: Integrative Activities and Information Technology Education
- APPs: Movie Maker and Word



# 04 Development of the Curriculum

- Demonstrate the lesson
- Objectives: enable the learners to think, design, create, express, and apply technology to end up with a combination of unique production
- Teaching resource: E-book of Movie Maker, of Easy construction, and image database
- 40 classes; other class recess to produce

# 驚喜



Jasmine Jocelyn

2月2日

經過所有評審熱烈討論並蒐集了參賽教師的互評結果，再加上許多優秀教師的特殊貢獻(請見評分標準第六點X factor)，初六開工第一天，我們在此公布大家期盼已久的新春好消息，恭喜以下獲獎教師取得先「雞」，我們也將於3/3 (五)下午於台灣微軟舉行頒獎典禮，敬請期待!

2017數位化教育轉型教師交流大會優勝(按照區域由北至南):

張瀚中老師 新北市三峽區五寮國小

林寬慧老師 新竹市竹北區豐田國小

黃崇雨老師 嘉義市北園國小

郭晴之老師 高雄市左營國小

2017數位化教育轉型教師交流大會典範獎(按照區域由北至南):

羅成泰 台北市幸安國小

呂聰賢 新北市昌福國小

林佳徵 桃園市新明國小

陳怡君 苗栗縣新港國中小

吳炳連 彰化市彰興國中

王怡方 台南市海東國小

數位化教育轉型教師交流大會佳作獎(按照區域由北至南):

郭慧敏 新北市中和高中

郭芳瑜 嘉義市北園國小

黃郁雯 嘉義市北園國小

李佳蓉 台南市海東國小

針對這次比賽因時程限制來不及參加，但平日教學使用微軟相關工具及資源累積精彩作品或有特殊貢獻的教師，我們也列入此次比賽的考量之一並頒授典範獎，感謝他們長期在資訊融入教育的耕耘，啟發許多熱血教師，著實堪為典範，在此逐一說明如下:

- (一) 五寮數位說故事課程獲得肯定
- (二) 參加多倫多E<sup>2</sup>交流大會
- (三) 在會場交流我們五寮的行動學習





We have butterfly ecology at our school. Therefore, we design various curriculum based on this. My students learn to make PPTs showing butterfly ecology as a final production. Then, my team members will turn these PPTs into the E-book.



Inquiry by PPT



Butterfly SWF



Papilio memnon heron



Papilio bianor thrasymedes



Papilio polytes pasikrates



Cyrestis thyodamas formosana



Delias pasithoe curasena



Pachiopta aristoclochiae interpositus



Danaus genutia



Troides aeacus formosanus



MIE Expert Name  
 Chang Han-Chung  
 Country : Taiwan(R.O.C)  
 School : Wuliao Elementary School  
 Name of Learning Activity : Digital Story Telling  
 Student Age(s) : 9 to 12 years old  
 Subject : Integrative activities, social studies, science and technology  
 URL to learning activity :  
<https://mix.office.com/watch/1te9tlv033tmb>



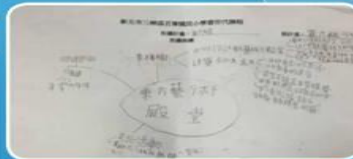
課程模組

**發現問題**  
 利用問題或任務當主軸，讓學生確立目標，並運用行動載具輔助。

**收集資料**  
 收集問題或任入的相關學習資料，並進行檔案管理學習。

**分析驗證**  
 運用心智圖的策略，對搜集的資料解構在建構，並驗證資料。

**分享發表**  
 製作報告，並進行分享，類型為：心智圖、影片、PPT等等。



PBL by Onenote



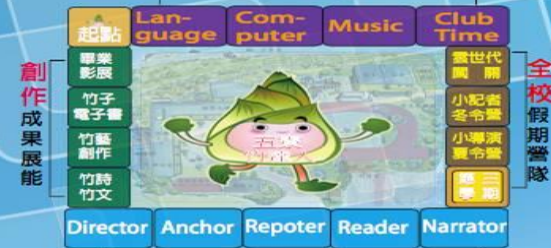
With reading ability as our cornerstone, M-learning as our media, We develop the courses of "Wuliao Bamboo Master" And cultivate our students to meet the future challenges With their ability of expressing well, reading well, Knowing well how to use mobile devices, And how to appreciate and collaborate. We flip Wuliao with technology And build a Bamboo-tech Wonderland.



五寮數位教師團隊

My School Team

Four Subjects



Five Sources



Homework



Youtube



School FB



## 二、E<sup>2</sup>大會

- (一) 匯集了2016 MIE的全球教師交流
- (二) 每個小組都有自己的課題
- (三) 認識新的資訊和教育潮流
- (四) 只有單一語言 ---- 英語

# 我的小組與任務

<b>Group 15</b>						
<b>MIE Fellow</b>	<b>Coach</b>	<b>Mrs.</b>	<b>Champa</b>	<b>Rathnayake</b>	<b>Sri Lanka</b>	<b>Ages 11–13</b>
MIE Expert		Mrs.	Kristin	Barr	United States	Ages 11–13
MIE Expert		Miss	Wei	Li	China	Ages 11–13
MIE Expert		Mrs.	Moshira	Shafei	Egypt	Ages 11–13
MIE Expert		Mr.	Moon Cheol	Seok	Korea	Ages 11–13
<b>MIE Expert</b>	<b> </b>	<b>Mr.</b>	<b>Hun Chung</b>	<b>Chang</b>	<b>Taiwan</b>	<b>Ages 11–13</b>



15  
Strategize



Multiple Quizzes in Office Mix  
Group 15

# One Quiz is Not Enough







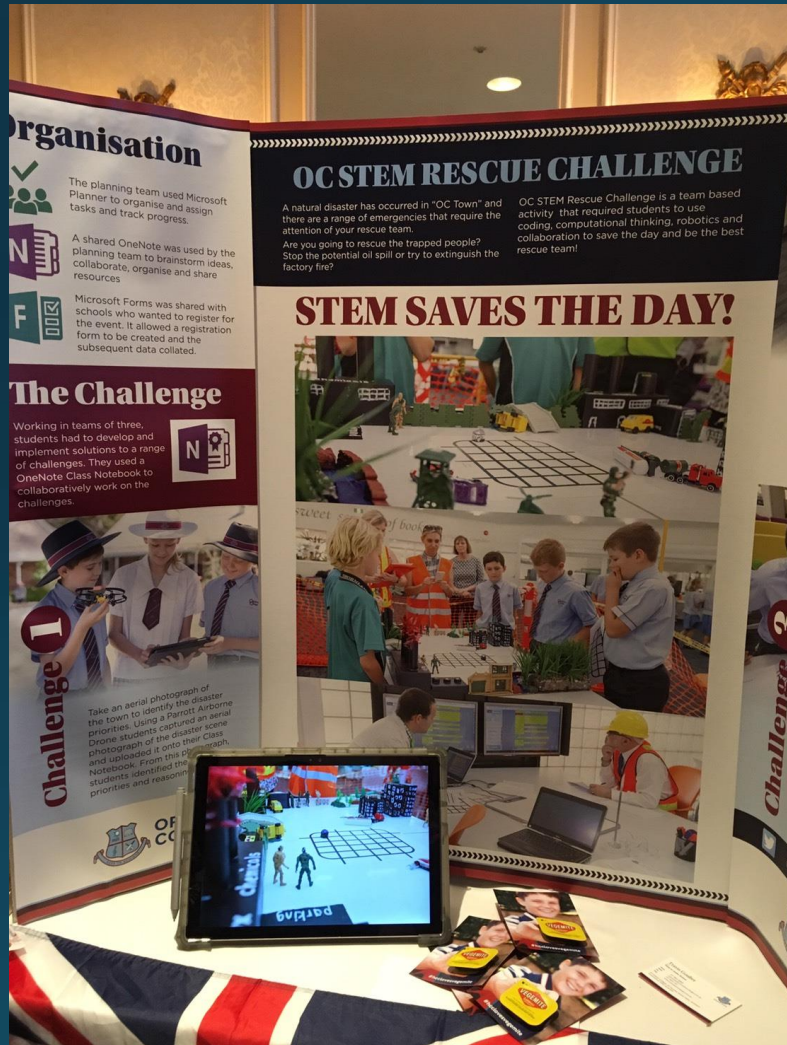
# Statement of Problem

- One quiz cannot meet the needs of all learners. Teachers need the ability to *differentiate* the questions included in an Office Mix video to challenge each student's ability.
- Teachers need to be able to make *multiple quizzes* within the same Office Mix to fit the needs of different learners.

# 學習和刺激

- (一) 單一主題式的課程學習
- (二) 單一APP的運用
- (三) 持續穩健地運用在課堂上
- (四) 簡單分成四大類：Coding、PBL、  
Skype、特色課程
-

# Coding課程





# PBL課程

## Selfie and Sway it!

**Learning Objectives**

- Students will be able to identify the concept and characteristics of Overpopulation, Least Population and Optimum Population
- Students will be able to collaborate with other students and apply their knowledge in creative way

**Steps of S-to-S Activity**

- Group Discussions**
  - Students will ;
    - Assign themselves into gr
    - Delegate roles
    - Planning their work
    - Set their own time limit
- Taking Selfie**
  - Students need to take self that related to the learning objective (task specific)
  - Students need to discuss and decide the style of the selfie
- Organizing Information**
  - Students work together in designing their Sway presentation
  - Make interesting caption i selfie photos
- Finalizing**
  - Students will finalize their Sway presentation before the present it

**Lesson steps**  
**FLIPPED CLASSROOM**

Before the lesson → Induction

Presentation & Feedback ← S-to-S activity

Quiz & Conclusion ← Reflection

**In this activity, students will ;**

- Work together
- Share responsibility
- Make substantive decision
- We interdep

**SELFIE!**  
selfie to sway

## Historic Buildings

MR NORUL FAKHRI DAUD  
EDU. TECH. OFFICER  
MOE

**TASK :**  
Choose an iconic historical buildings and make a report or presentation about it in your creative way.

**TOOLS USED**

**LEARNING OBJECTIVES**

- Students will work in teams to do research on historical buildings
- Students will explore ICT tools to complete it
- Students will make a creative presentation about historical buildings

**SUBJECTS COVERED**

- HISTORY
- LANGUAGE
- HERITAGE STUDIES
- GEOGRAPHY
- DESIGN & TECHNOLOGY

**THE PROCESS**

EXPLANATION  
RESEARCH  
DISCUSSION  
APPLICATION

TEACHER	STUDENTS	21 <sup>ST</sup> CL SKILLS
<ul style="list-style-type: none"> <li>Brief the task</li> <li>Set time frame(6 weeks)</li> <li>Form the team(team of 4)</li> <li>Set the report styles</li> </ul>	<ul style="list-style-type: none"> <li>Q&amp;A session with teacher</li> <li>Discuss to choose the building</li> <li>Select the team leader</li> <li>Plan the works to do</li> <li>Setup cloud storage</li> <li>Further discussion via online</li> </ul>	<ul style="list-style-type: none"> <li>Skilled communication</li> <li>Collaboration</li> <li>Self-regulation</li> <li>Real world problem solving and innovation</li> </ul>
<ul style="list-style-type: none"> <li>Guides students about research method</li> <li>Guides students about data or information validation</li> <li>Share the tips of effective slides, journal and video clips</li> <li>Guides students to present their works confidently</li> <li>Gives constructive criticism</li> <li>Encourage students to share their works to the world</li> </ul>	<ul style="list-style-type: none"> <li>Literature review</li> <li>Search information from internet</li> <li>Interview</li> <li>Field research</li> <li>Share input in cloud storage</li> <li>Compare and contrast then make substantive decision about the information</li> <li>Use MovieMaker/Sway/PowerPoint/ Word online to create slides/Journal/Video</li> <li>Team leader leads the presentation.</li> <li>Team members and other teams evaluate the presentation</li> <li>Share the works to the world via online media</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge Construction</li> <li>Knowledge Construction</li> <li>Use of ICT for Learning</li> <li>Use of ICT for Learning</li> <li>Skilled communication</li> <li>Use of ICT for Learning</li> <li>Real world problem solving and innovation</li> </ul>

Visitors :

## Secret Of Life

Sherine Khamis Mohamed Anwar Egypt

**Learning Based**  
It is an instructional method of hands - on active learning centered on the investigation and resolution of messy,real world problems.

**PBL**

Collaboration  
Evaluation  
Critical thinking  
Communication  
Creation

**Project Objectives**

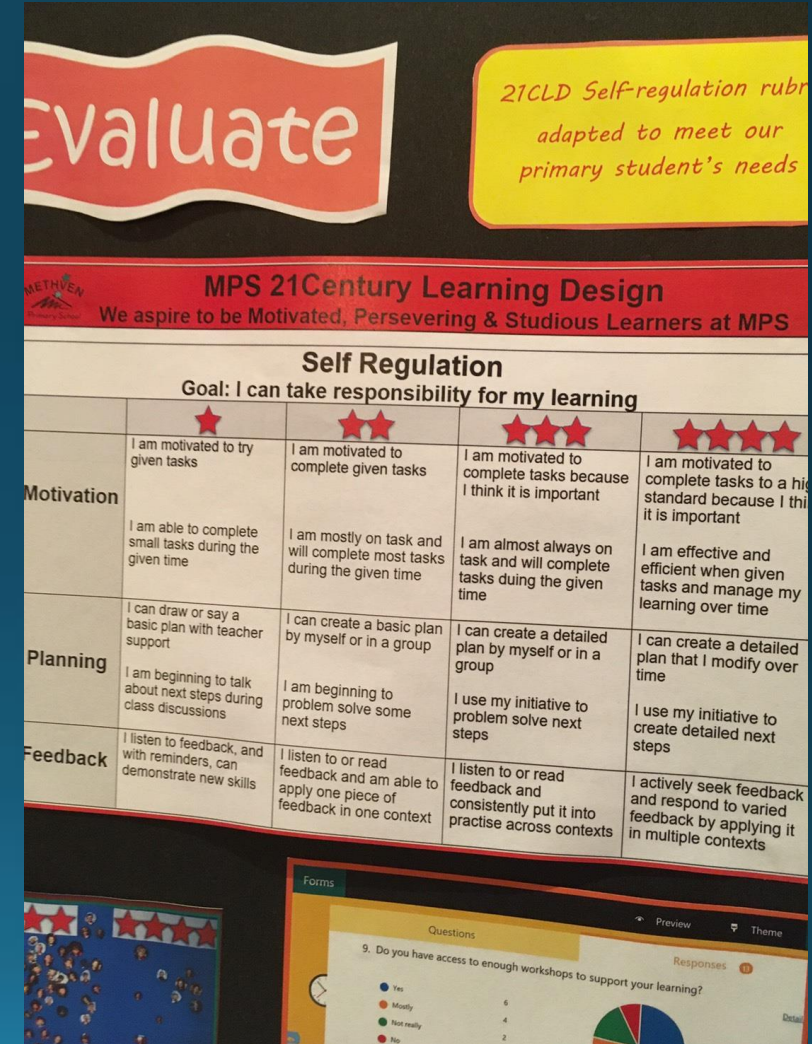
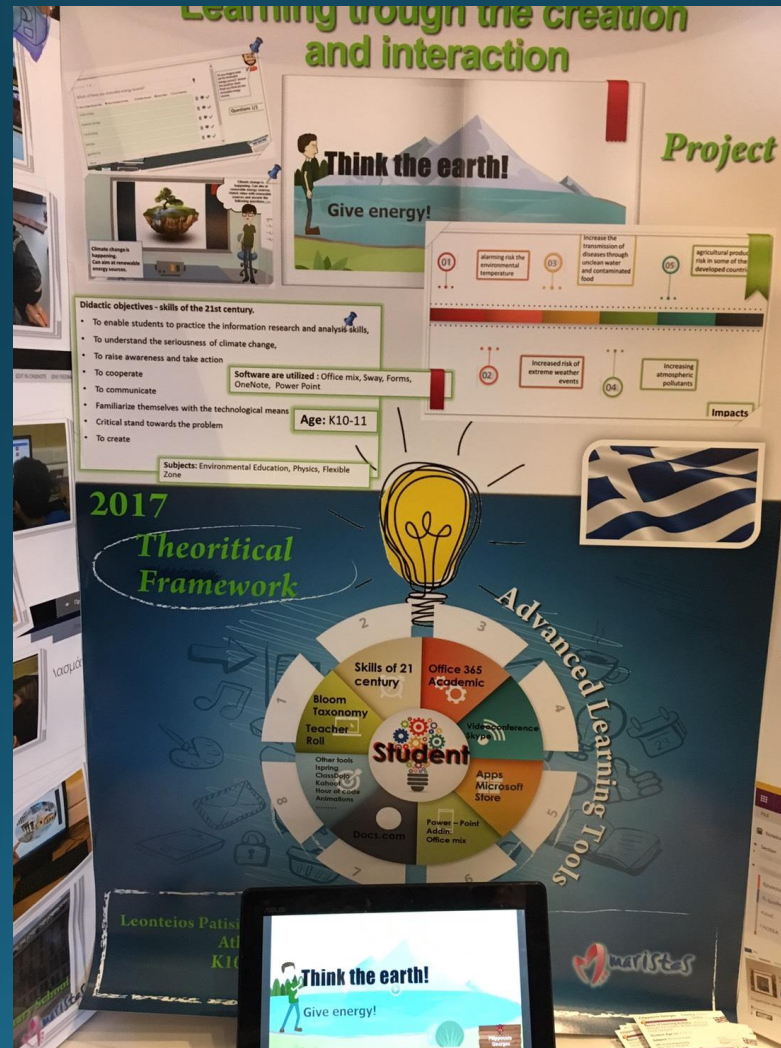
- Research and write about water cycle with Microsoft Word/PowerPoint/Word online
- Share their works to the world via online media

**Learning Environment**

Learning happened in classroom and at home. Students were responsible for the whole process of their learning

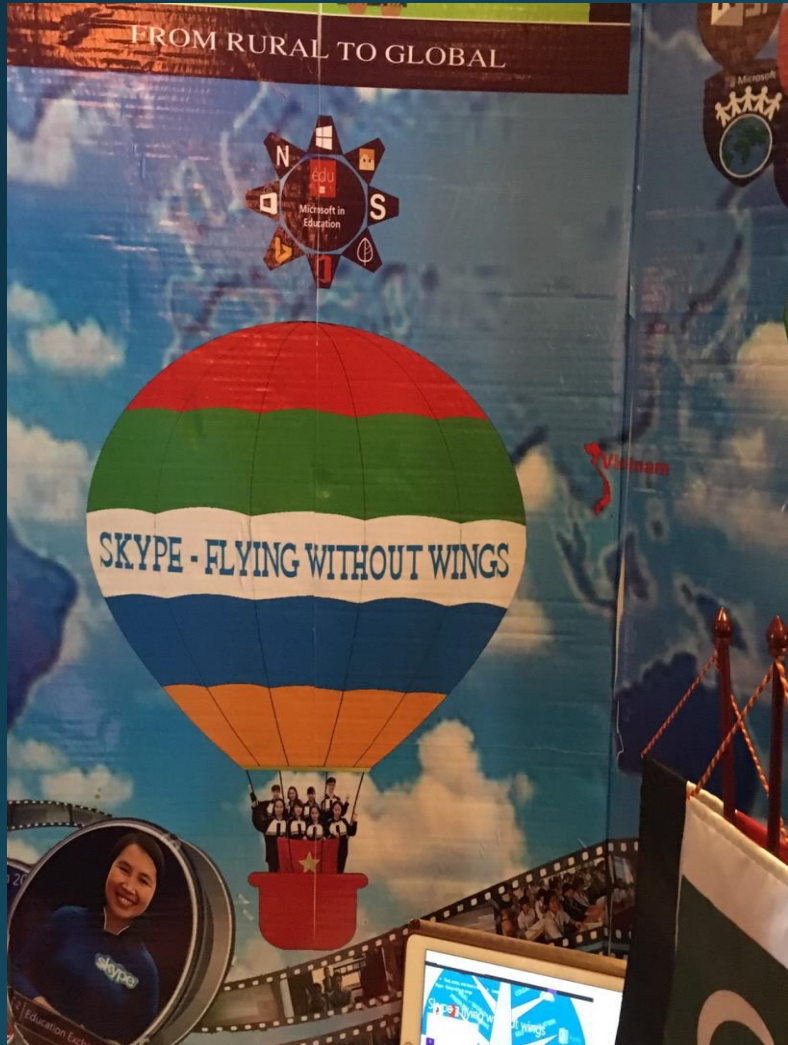


# PBL課程





# SKYPE課程



**INTRODUCTION**  
Implemented school-wide in 2016  
Age group: 15 years old (Grade 9)

**LESSON OBJECTIVES**  
For knowledge required: (basic properties of circles)  
Topic - Mensuration  
Solve problems involving arc length, areas of sector and segment of a circle.  
Convert angular measure from radians to degrees and vice versa.

**21st Century Competencies**  
Self-directed learning  
Real-world problem solving

**IMPLEMENTATION**

**Office Mix**

**Skype for Business**

**ASYNCHRONOUS LESSON**  
To enhance students' understanding of 2D mathematical problems, household items were used to illustrate the problems in 3D. This was covered using Office Mix which allowed students to view the videos created at their own pace.

**SYNCHRONOUS LESSON**  
Skype for Business was used to facilitate real-time class discussions. The teacher was the facilitator of the lesson and students were able to clarify their doubts in real-time as well.

**ASSESSMENT FOR LEARNING**  
Assessment for Learning was conducted through a quiz which consisted of ten multiple choice questions at the end of the asynchronous and used that feedback to review their understanding.

**IMPACTS ON LEARNING**  
Students demonstrated a greater appreciation of the topic.  
Students actively participated in their own learning.  
Opportunity for students to exercise self-directed learning.  
Learning was made engaging and interactive.  
Positive feedback was given during post-learning survey.

**CHALLENGES**  
Not all the teachers and students were proficient in using the ICT Tools.  
Some teachers preferred using traditional teaching methods and there was an inertia to change.  
Tracking if the students had completed their asynchronous session.

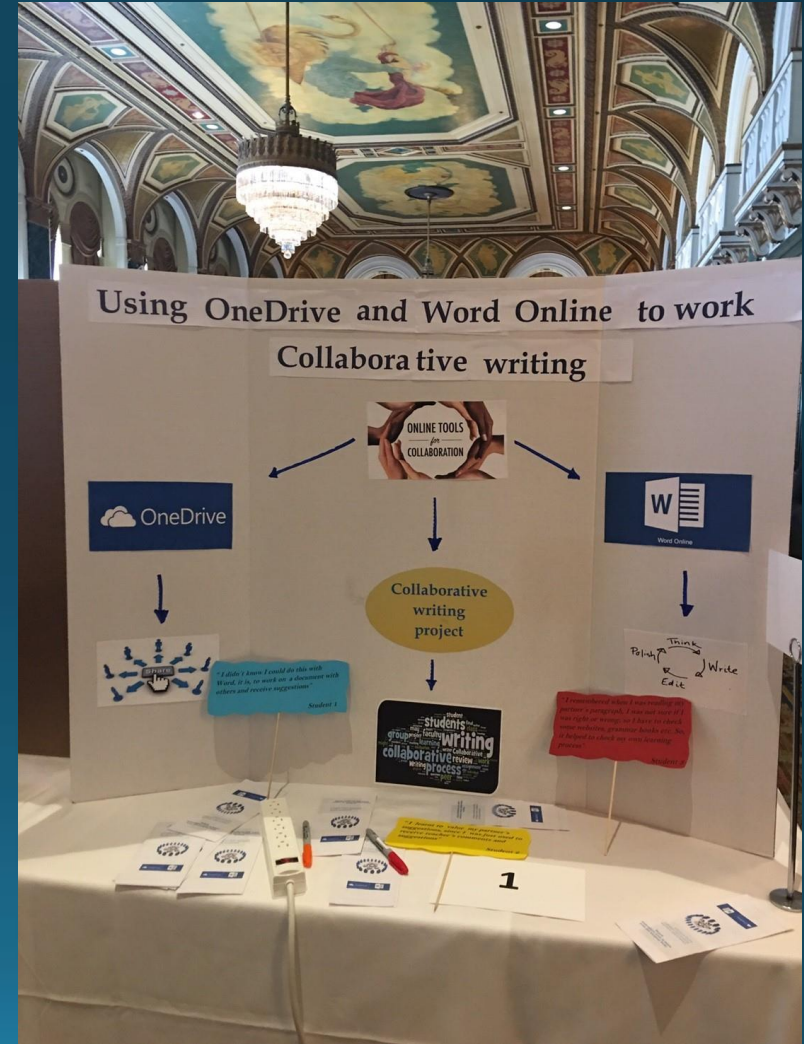
**MOVING FORWARD**  
Conduct training sessions for both the teachers and students.  
Gradual introduction of ICT tools so that it would be less intimidating for teachers who are less IT savvy.  
Creating short quizzes at appropriate intervals to track students' progress.

**FUTURE AHEAD**





# 特色課程



然後呢？



# 三、現在的五寮

智慧教師



智慧行政

智慧學生

智慧家長







謝謝聆聽