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Mobile Learning in Taiwan

Ministry of Education M-Learning Project host

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Outline

- **Beginning**
- **Project Objective**
- **Project Features**
- **Mobile learning Strategies**
- **Participation Schools**
- **Example-Love in Taitung**
- **Using Augmented Reality Technology in M-Learning & hands-on**
- **Reference**

Beginning

- **Student use of personal handheld devices in learning will become popular**
- **Reduce costs**
- **M-learning environment has become an important trend**

Beginning

- **M-learning is a learning model that allows the learner to access learning materials anywhere and at any time**
- **Learning across spaces**

Beginning

- Increased student involvement and motivation, knowledge creating, language development and learning, collaboration, global awareness, effective costs, and time management
- There are **201** primary and secondary schools participating in M-learning program in Taiwan

Beginning

- **Team collaboration, creative thinking, critical thinking, and problem-solving, and communication**
- **[M-learning in Taiwan video](#)**

Project Objective

Develop mobile learning strategies.

1

Create features of IT applications for schools.

2

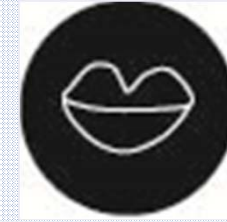
Project Features



Helps schools understand their **readiness** of mobile learning



Helps schools develop IT application features



Professors provide in-depth guidance at schools

Mobile Learning Strategies

A | Peer assessment strategy

D | Presentation strategy

B | Graphics assisted strategy

E | **Immediate feedback strategy**

C | Video-based teaching strategy

F | Testing practice strategy

Mobile Learning Strategies

G | Data collection strategy

J | History documentation strategy

H | Game-based learning strategy

K | Mind mapping strategy

I | Interaction and discussion strategy

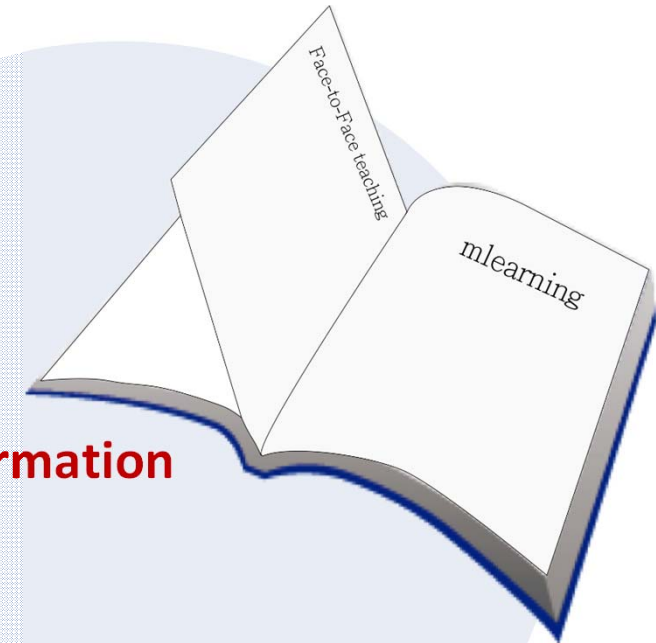
L | **Blended Learning**

What is Blended Learning?

- **Blended learning as the convergence between traditional face-to-face learning environments and computer-mediated learning environments**
- **Combining instructional modalities**
- **Combining instructional methods**
- **Combining online learning and face-to-face instruction**

Bookend Blend

- **Introductory experience online. (M-Learning)**
 - **online self-paced learning to acquire background information**
- **Teach subject knowledge face-to-face.**
 - **face-to-face learning focused on active learning and application experiences**
- **Extend the learning into practice at work. (M-Learning)**
 - **online learning and support for transferring the learning to the workplace environment**



Why Blended Learning?

- **pedagogical richness**
- **access to knowledge**
- **social interaction**
- **increased access and flexibility**
- **increased cost-effectiveness**
- **ease of revision**

Participation Schools

At present, **201** schools are participating in the Mobile Learning program in Taiwan



Participation Schools



Taipei City-13 schools

南湖國小	玉成國小
仁愛國中	永吉國中
幸安國小	健康國小
南港國小	辛亥國小
大同國小	明湖國小
文昌國小	麗山國中
	龍門國中

Participation Schools



New Taipei City-21 schools

白雲國小	五寮國小
中港國小	新竹國小
崇林國中	竹光國中
成福國小	三民國中
三芝國中	米倉國小
及人高中(國中部)	昌福國小
科園國小	鳳鳴國小
光華國中	義學國小
長坑國小	瑞芳國小
屈尺國小	明志國中
	清水國中

Participation Schools



Taoyuan City-5schools

大埔國小
中興國小
義盛國小
樹林國小
石門國小

Participation Schools



Hsinchu County-10 schools

新光國小	東興國小
東安國小	豐田國小
五龍國小	芎林國中
博愛國中	精華國中
十興國小	新埔國中

Hsinchu City-6 schools

新竹國小	茄荖國小
竹光國中	南寮國小
三民國中	虎林國中

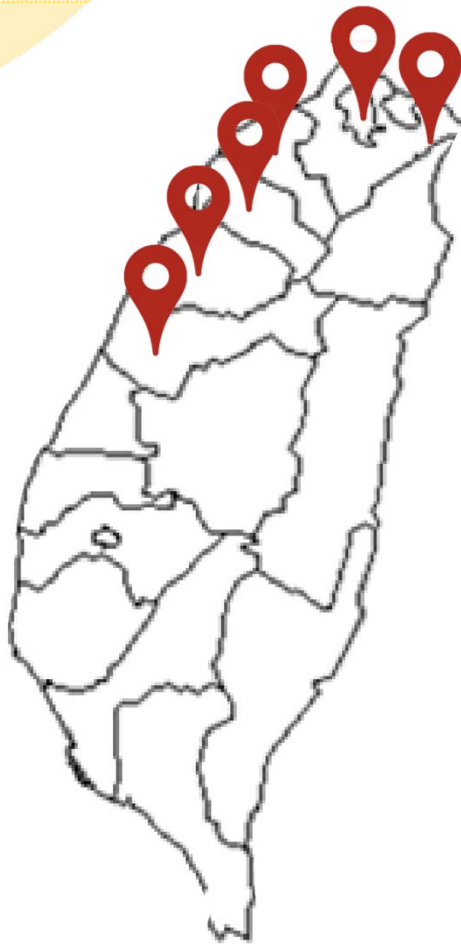
Participation Schools



Miaoli County-8 schools

武榮國小	新港國小
後龍國小	中山國小
建中國小	同光國小
新港國中	中興國小

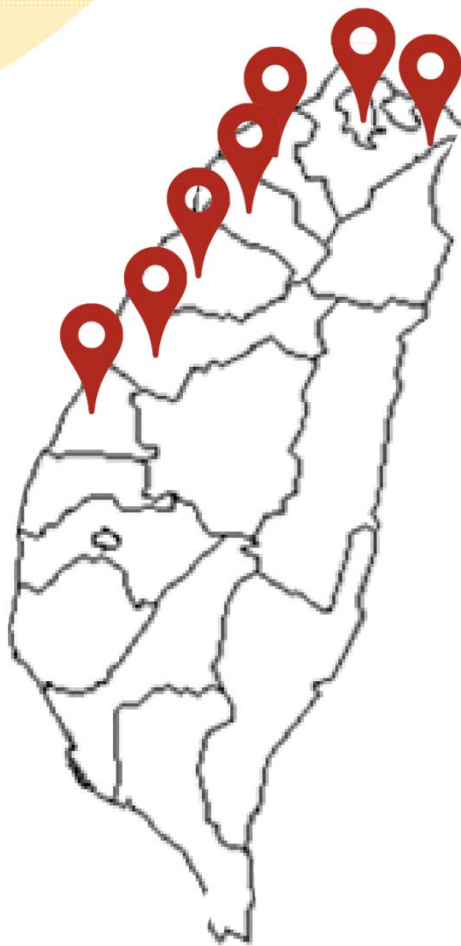
Participation Schools



Taichung City-6 schools

大鵬國小
華龍國小
東寶國小
長安國小
上石國小
惠文高中

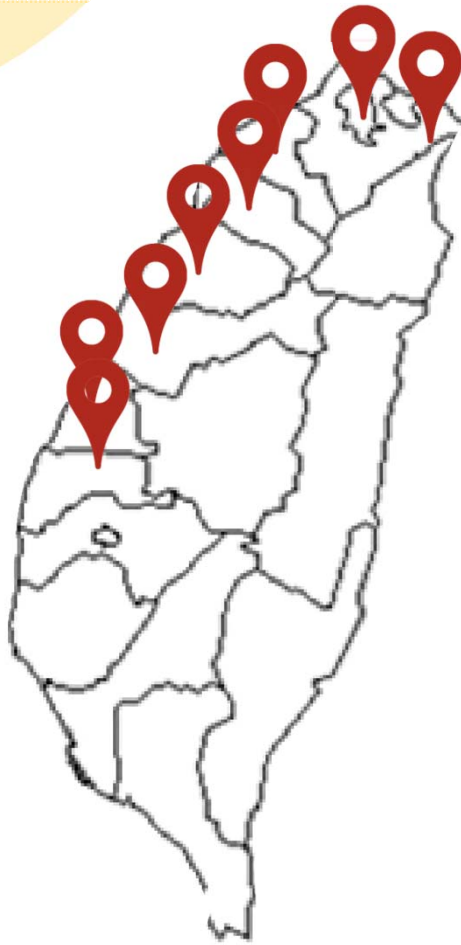
Participation Schools



Changhua County-3 schools

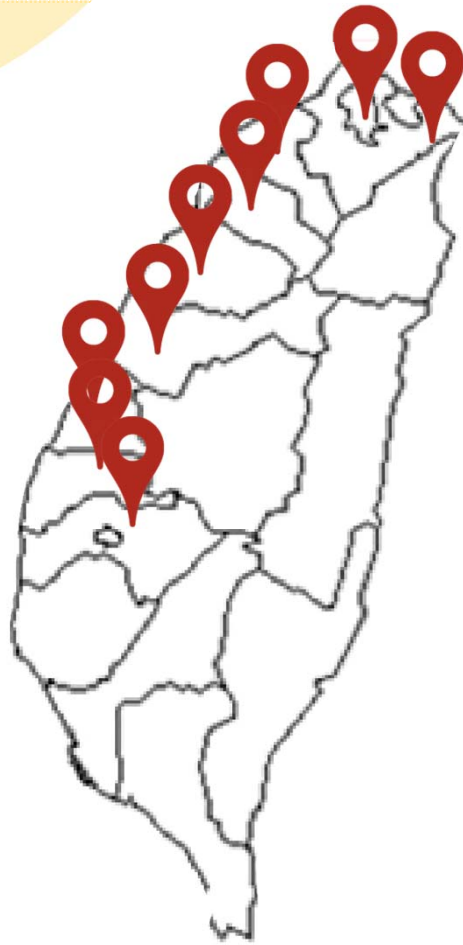
聯興國小
平和國小
原斗國小

Participation Schools



Yunlin County-2 schools
成功國小
斗南國中

Participation Schools



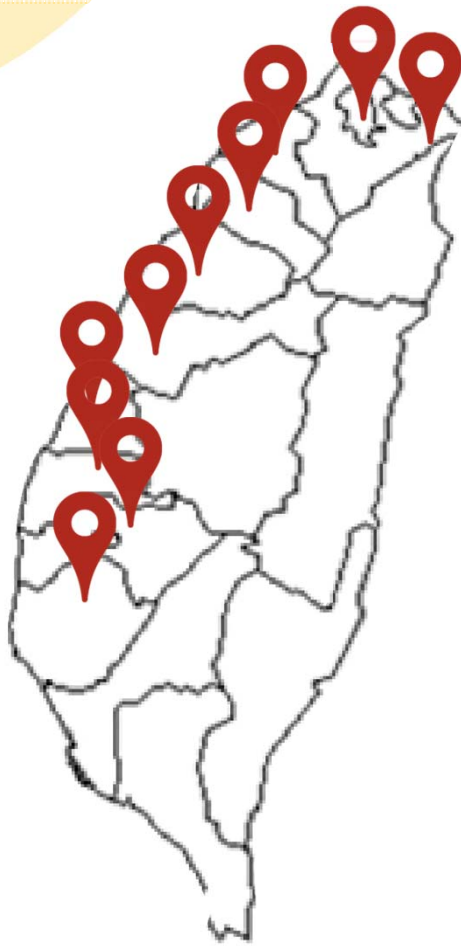
Chiayi City-9 schools

北園國小 北興國中
興安國小 港坪國小
民族國小 精忠國小
嘉義大學附小 世賢國小
志航國小

Chiayi County-4 schools

六嘉國中
義竹國小
梅山國中
東榮國小

Participation Schools



Tainan City-21 schools

海東國小	新進國小
億載國小	大橋國中
和順國中	長興國小
東區順利國小	德南國小
大成國中	岸內國小
虎山國小	青草國小
西門國小	東區大同國小
樹林國小	喜樹國小
東區復興國小	三慈國小
深坑國小	北門國小
東區東光國小	

Participation Schools



Kaohsiung City-16 schools

左營國小	福山國小
加昌國小	中正高中
旗山國小	博愛國小
路竹高中(國中部)	景義國小
大同國小	立志高中
後勁國小	
中山國小	
大華國小	
苓雅國中	
燕巢國中	
林園國中	

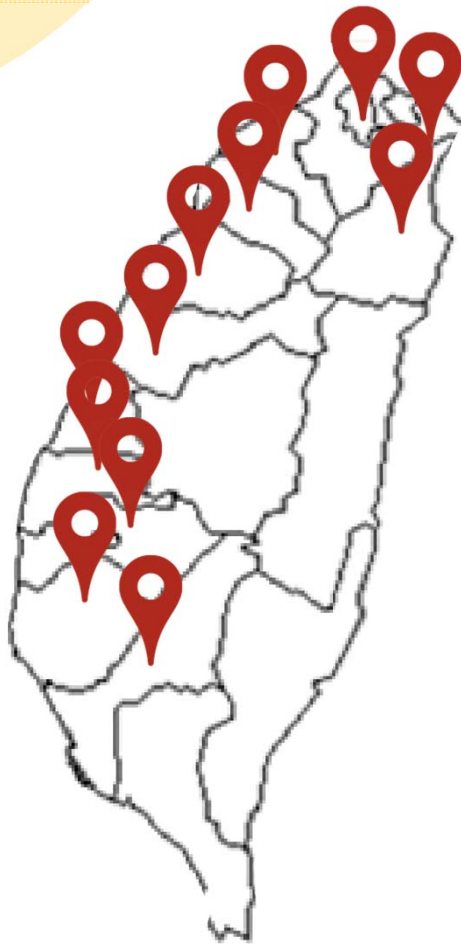
Participation Schools



Pingtung County-6 schools

萬丹國小
高樹國小
南榮國中
唐榮國小
和平國小
凌雲國小

Participation Schools



Ilan County-12 schools

玉田國小
中山國小
順安國小
羅東國小
北成國小
黎明國小

金洋國小
壯圍國中
順安國中
南山國小
凱旋國小
宜蘭國中

Participation Schools



Hualien County-13 schools

富源國小
北昌國小
萬榮國中
復興國小
新城國小
太平國小
和平國小

長良國小
豐濱國小
自強國中
鶴岡國小
忠孝國小
石門國小

Participation Schools



Taitung County-7 schools

康樂國小
大王國小
太平國小
新生國小
大武國小
溫泉國小
賓朗國小

Participation Schools



Nantou County-15 schools

名間國中
大成國小
南投國中
康壽國小
僑光國小
南投國小
成城國小

新民國小
光華國小
魚池國中
宏仁國中
忠正國小
前山國小
信義國中
水里國中

Participation Schools



Penghu County-2 schools

文光國中
忠正國小

Kinmen County-5schools

中正國小
開瑄國小
金湖國小
賢庵國小
金沙國小

Jhong Jheng Elementary School

- [Animation 1](#)
- [Animation 2](#)
- [Animation 3](#)
- [Animation 4](#)
- [Animation 5](#)
- [Students introduce Cheng Huang Temple](#)

Love in Taitung

Kang Le Elementary School

You can understand a place through different ways, such as good food, scenery, festivals, historical sites.

Kang Le Elementary School hopes to bring kids with their mobile devices and get to know Taitung with “love.”

Most families in this school are low-income households. There is relatively less cultural stimulus due to the remote location of the school, and students lack confidence and have poor learning intention.

Love in Taitung

Kang Le Elementary School

Students in higher grades are currently in the important stage of personality development of pondering **“what kind of person they want to become.”** All of the “everyday heroes” in the “Love in Taitung” Plan are accessible and observable by students.

Their hard work in becoming their ideal self can serve as an example for students to learn from.

The five steps **“observe, collect, judge, share, and act”** allow students to learn about Taitung with **“love.”**

Love in Taitung

Kang Le Elementary School



Taitung beautiful beach



360 degree scene photography

Love in Taitung

Kang Le Elementary School



Taitung beautiful beach



Expert interview

Love in Taitung

Kang Le Elementary School



Pollution-free crops



Dried fruit

Love in Taitung

Kang Le Elementary School

Teachers design activities to use mobile devices for teaching, and utilize the characteristics of mobile devices to offer students a learning experience not limited by time and space.

In which the lesson “**Love for land**” uses the topic of organic agriculture for exploration. They visited A-rong Natural Farm, which uses “Shumei Natural Agriculture,” emphasizing respect for nature and conforming to nature. Besides using natural fertilizer, no other impure substances are added, so that the soil is clean.

Love in Taitung

Kang Le Elementary School

Spring Trading Company uses local agricultural products to make all natural fresh fruit popsicles.

Secret Base Tea Garden uses organic agriculture and its farming method to grow Dah Yeh Oolong.

These farmers use the most natural way to provide the healthiest foods for us and allow us to understand the hard work involved in agriculture. We hope to promote their ideas to reach even more people.

Love in Taitung

Kang Le Elementary School



A-rong Natural Farm

Love in Taitung

Kang Le Elementary School



A-rong Natural Farm

Love in Taitung

Kang Le Elementary School



A-rong Natural Farm

Love in Taitung

Kang Le Elementary School



Expert explanation



Make natural fresh fruit popsicles

Love in Taitung

Kang Le Elementary School



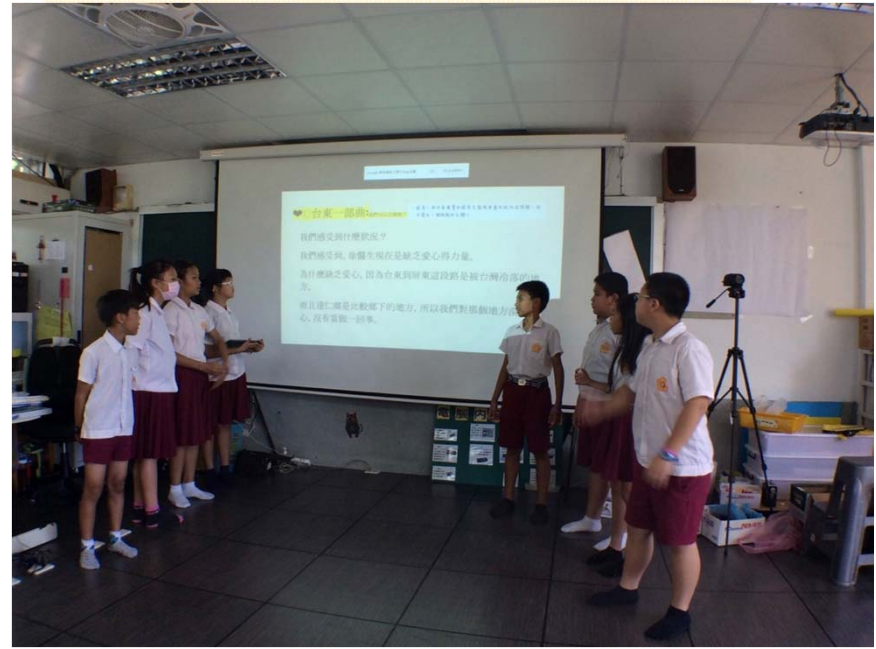
Secret Base Tea Garden



Dah Yeh Oolong

Love in Taitung

Kang Le Elementary School



Group discussion

Love in Taitung

Kang Le Elementary School



Group presentation

Love in Taitung

Kang Le Elementary School



Result presentation

Love in Taitung

Kang Le Elementary School

Film appreciation

Mobile learning breaks through limitations of textbooks and classrooms; Pads take children on a series of exploratory activities.

Schools will utilize local resources to make the connection with the daily life of children so that children can learn from doing, and develop their learning and other key abilities through practice.

Love in Taitung

Kang Le Elementary School

The example of “Love in Taitung” not only teaches children the stories of people, but also values in life; they not only learn IT applications, but also how to learn about the world.

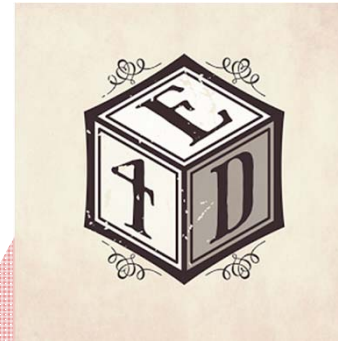
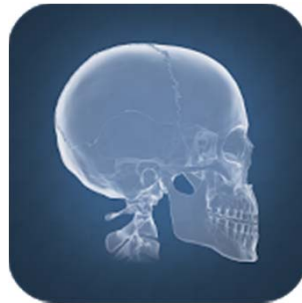
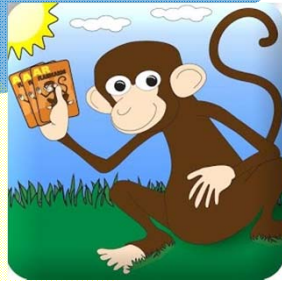
This makes students their master in learning.

Augmented Reality

- **Consolidated communications technology to add information to real-world items, or ways to observe the world.**
- **Add virtual information to existing physical objects or fields.**
- **Students can use AR technology interact with teachers in the classroom, making learning interesting, so that learning becomes lively and interesting, is a trend of education.**

Using Augmented Reality Technology in M-Learning

- AR Flashcards
- Anatomy 4D
- 4D Elements
- Quiver





Kahoot time!



Kahoot!

Reference

- Chang, W. H., Liu, Y. C., & Huang, T. H. (2017) . Perceptions of learning effectiveness in M-learning: Scale development and student awareness. *Journal of Computer Assisted Learning*, 33 (5) , 461-472. (SSCI)
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Thank you
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