



BYOD FOR REFLECTIVE ENGAGEMENT COMMUNITY CUM MOBILE LEARNING CUMMUNITY

JOINT SEMINAR

2014.08.28
14:30-16:30
D3-G-02,
Tai Po
Campus

Part I

- Introduction to BYOD for Reflective Engagement
Prof. KONG Siu Cheung (MIT)
- Affordances of Technology
Dr. SONG Yanjie (MIT)
- Teaching Experiences with BYOD
Dr. CHUNG Ming Yan (HPE)
- Discussion: Teaching Plans for Academic Year 2014-2015

Part II

- Introduction to Mobile Learning Community
Dr. MA Qing (LML)
- Tools for Integrating Mobile Technologies into Teaching and Learning
Dr. WANG Lixun (LML)
- Discussion: Interests and Goals in Learning/Using Mobile Technologies

Enquiries & Registration:
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Organizers:

Project Teams of

- Teaching Development Grants Project: Bring Your Own Device for Reflective Engagement of Learners in Digital Classrooms
- Fostering A Mobile Learning Community: The Use of Mobile Technologies in Studying Subject Knowledge through English in Tertiary Education in Hong Kong



BYOD FOR REFLECTIVE ENGAGEMENT COMMUNITY CUM MOBILE LEARNING COMMUNITY JOINT SEMINAR

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D3-G-02, Tai Po Campus

TDG Project

*Bring Your Own Device for Reflective
Engagement of Learners in Digital
Classrooms*

Prof. KONG Siu Cheung

Department of Mathematics and Information Technology

The Hong Kong Institute of Education

BYOD for Reflective Engagement of Learners in Digital Classrooms



- ◆ Two-Year Design-Based Research
- ◆ Three Rounds of Trial Teaching
- ◆ Adopting Community of Practice (CoP) & Collaborative Apprenticeship Model



(Continuous online discussions within CoP across three rounds of trial teaching)

Facing the current technology trend, *with the adoption of the BYOD technological model*, this TDG project aims to

- 1) explore pedagogical practices that could engage learners in study both inside and outside of classroom at the Institute;
- 2) enhance the competency of HKIEd's academic/teaching staff in teaching with mobile technology and provide students with flexibility in study.

BYOD for Reflective Engagement of Learners in Digital Classrooms



Principal Investigators

Prof. KONG Siu Cheung (MIT);
Prof. CHUNG Wai Yee, Joanne (HPE);
Dr. SONG Yanjie (MIT);

Co-Investigators

Prof. LIM Cher Ping (C&I & LTTC);
Prof. SO Wing Mui, Winnie (SES);
Dr. CHENG Kwok Shing, Gary (MIT);
Mr. CHUI Hin Leung, Mike (MIT);
Dr. CHUNG Ming Yan (HPE);
Dr. MA Wai Wing, Ada (HPE);
Dr. POON Kin Man (MIT);
Dr. WANG Lixun (LML);
Dr. WONG Ka Wai, Gary (MIT);
Dr. TAM Chi Ming (LCS);
Dr. TSE Ka Ho (CHL);

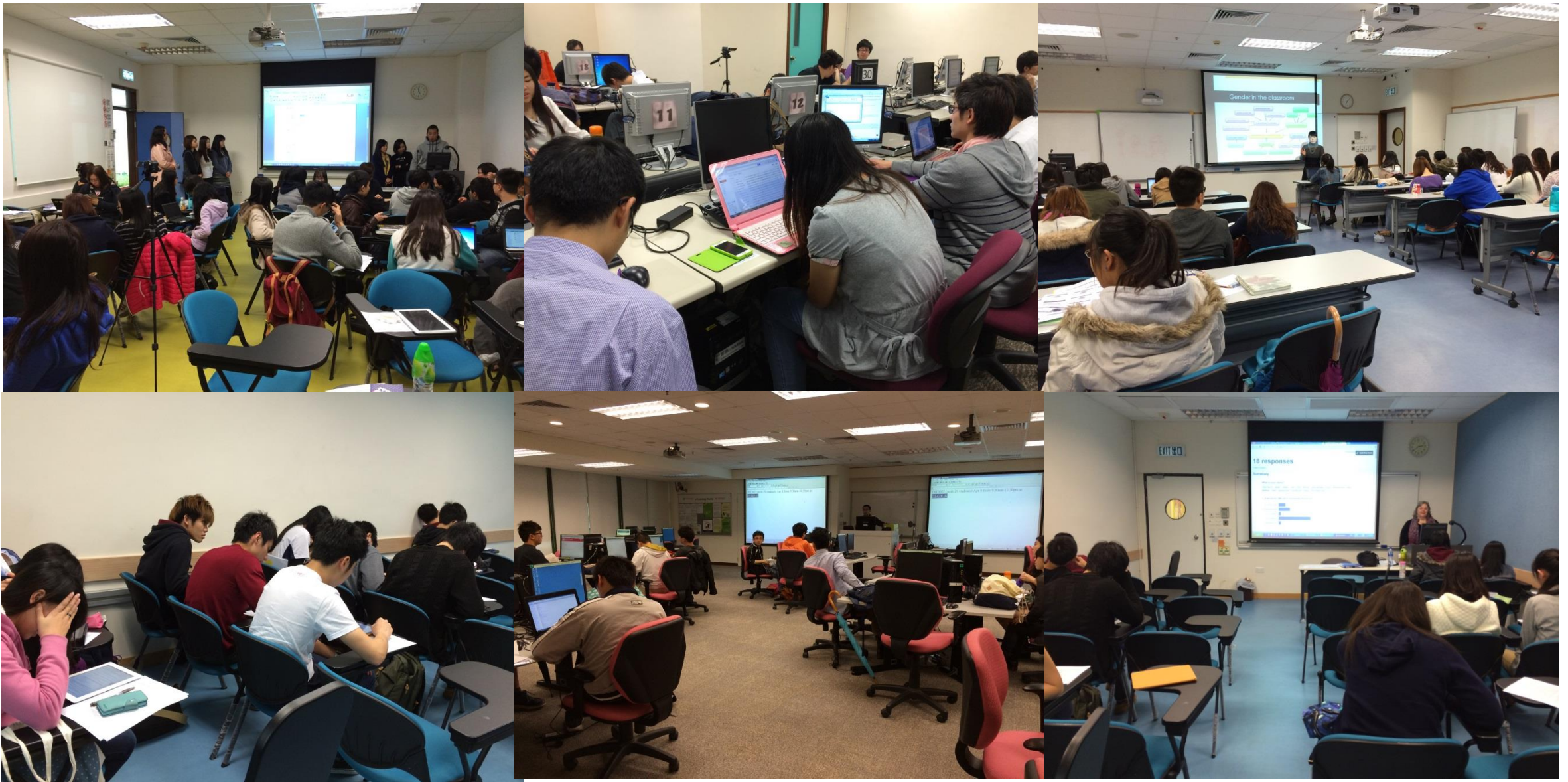
Community Members

Mr. CHAN Ping Man, Paladin (SES);
Ms. Suzan Elizabeth STAMPER (CLE);
Dr. LI Ping (MIT);
Dr. LI Kai Ming (MIT);
Mr. FOUNG Kin Wai, Dennis (CLE);
Dr. YU Baohua (ELE);
Dr. YING Danjun, Issa (CLE);
Ms. XU Damiao, Zoe (CLE);
Dr. MA Qing (LML);
Dr. LIU Peng (EPL);
Ms. CHAN Wing Sum (MIT);
Dr. CHENG Nga Yee, Irene (SES);
Dr. WONG Tat Lam, Ivan (MIT);
Dr. LAU Wing Fat, Wilfred (MIT);

BYOD for Reflective Engagement of Learners in Digital Classrooms

Academic Year 2013-2014:

25 times of trial teachings by **17** lecturers in **20** different courses;



BYOD for Reflective Engagement of Learners in Digital Classrooms



Courses are in different levels:

Undergraduate

Higher Diploma

**Professional
Development
Programme**

Covering a range of subject areas including:

I.T.

Mathematics

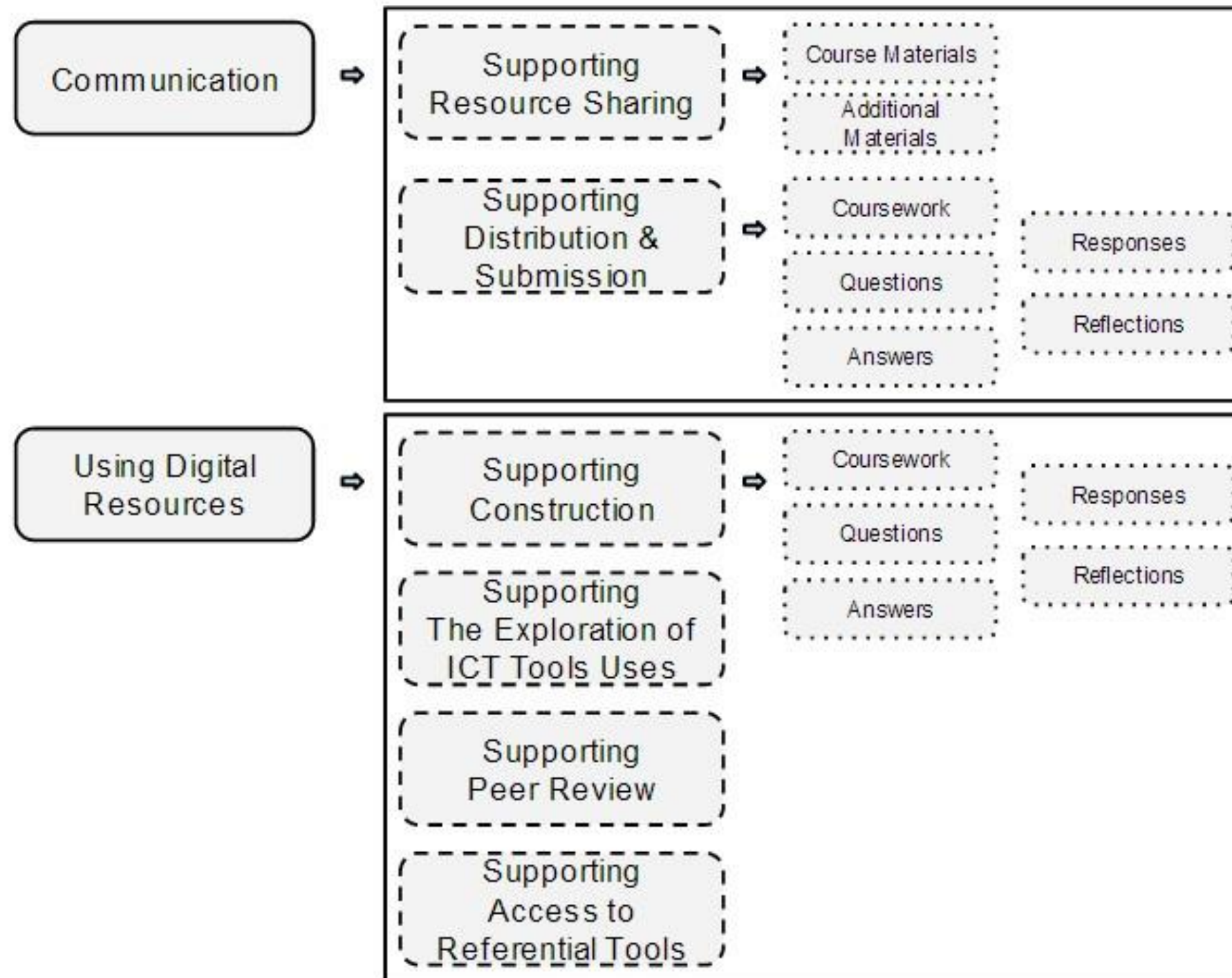
**Health and
Nutrition**

Language

General Education

Creative Writing

BYOD for Reflective Engagement of Learners in Digital Classrooms: Ways of using mobile technologies in T&C in class 2013–2014



BYOD for Reflective Engagement of Learners in Digital Classrooms: Summary of learner survey results 2013–2014 (n=520)

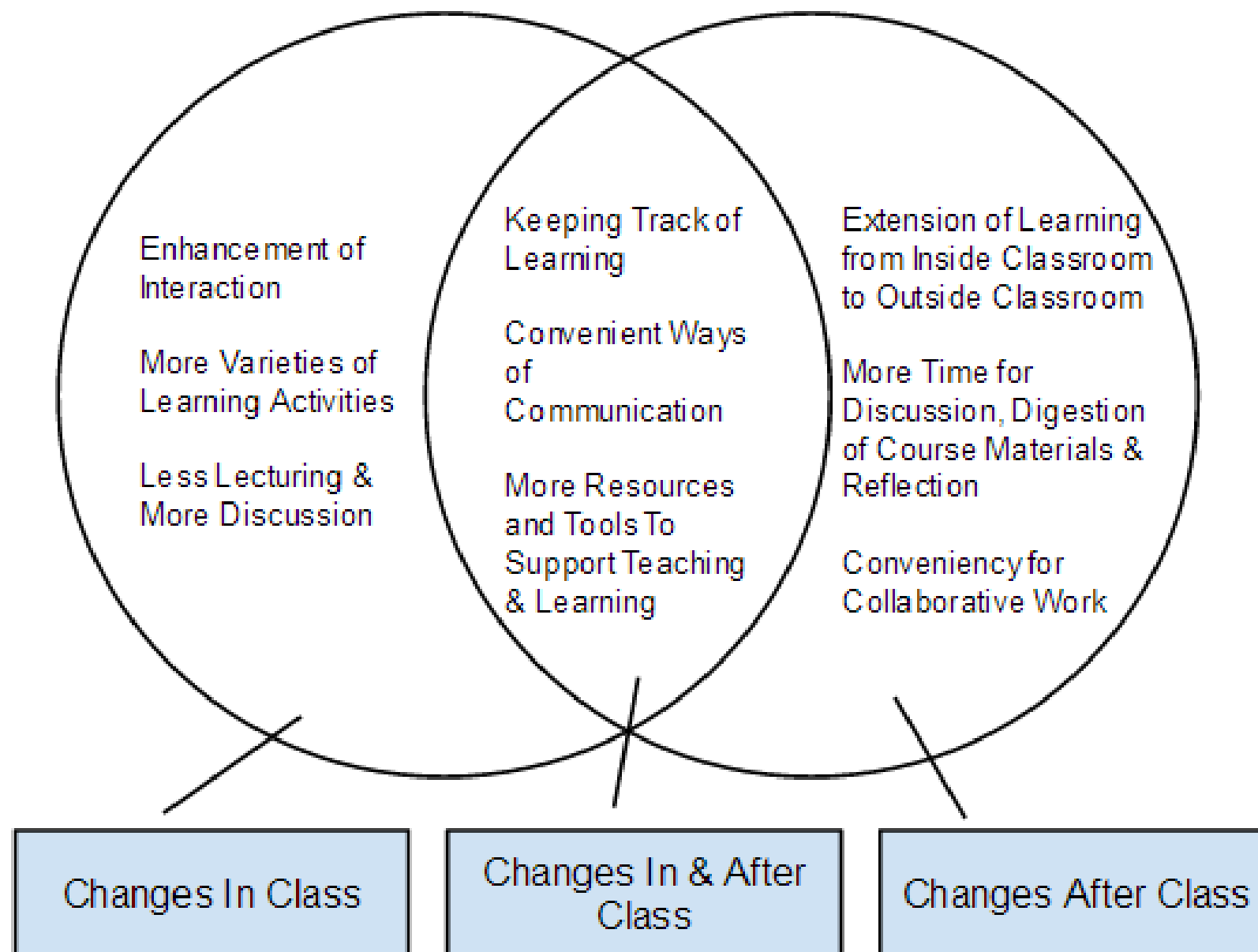


Question: I think wireless-connected portable computing device...

Learner's Social Reflective Engagement	Mean*	SD
Enhances course-related interaction with lecturers	3.721	0.761
Enhances course-related interaction with peers	3.723	0.788
Stimulates my desire of exploring course-related e-resources	3.617	0.806
Fosters collaboration in course work	3.656	0.749
Provides instant feedback from peers	3.637	0.793
Provides instant feedback from lecturers	3.683	0.781
Learner's Personal Engagement		
Empowers my control over learning	3.564	0.763
Stores my learning outcomes efficiently	3.671	0.794
Improves learning motivation in class	3.689	0.760
Facilitates understanding of the topics by getting access to course-related e-resources	3.640	0.778
Enlightens me to have effective study methods and skills	3.573	0.801
Fosters self-reflection of learning after class	3.594	0.792
Keeps track of my learning progress	3.554	0.798
Arouses my attention to the lecture	3.598	0.877

Degree of agreement: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree

BYOD for Reflective Engagement of Learners in Digital Classrooms: Major feedback from teachers and students 2013–2014



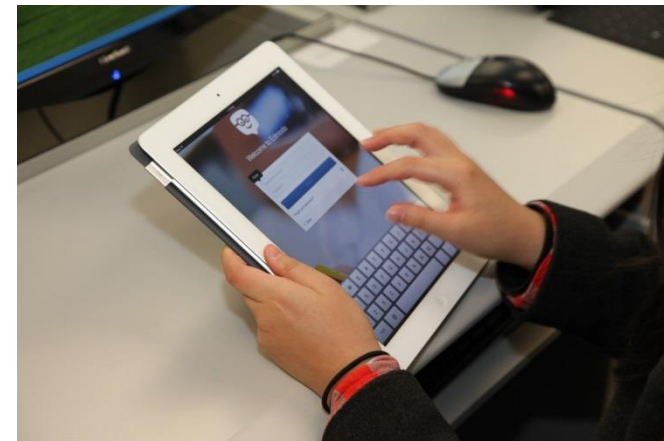
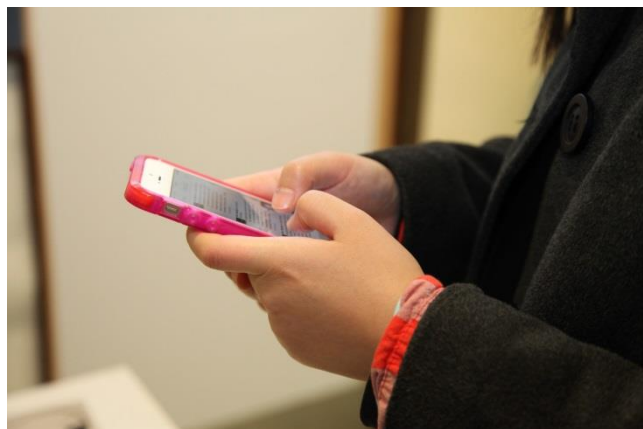
BYOD for Reflective Engagement of Learners in Digital Classrooms



Some Teaching Examples

Semester 2, 2013–2014

Summer, 2014



BYOD in E-Learning Courses Case 1: *BYOD together with social learning platform as personalized learning hub*



Prof. KONG Siu Cheung

INT5032 E-Learning in a Green and Cloud Computing Environment

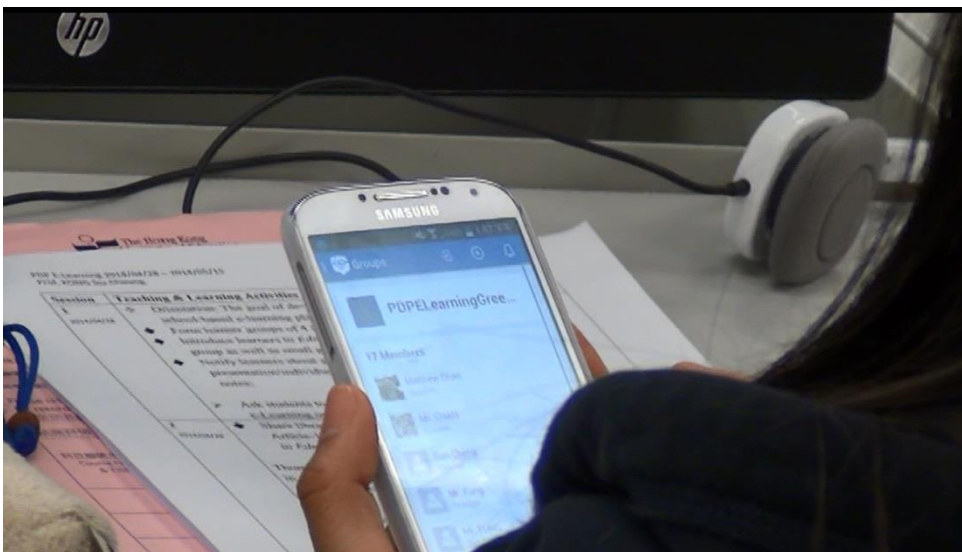
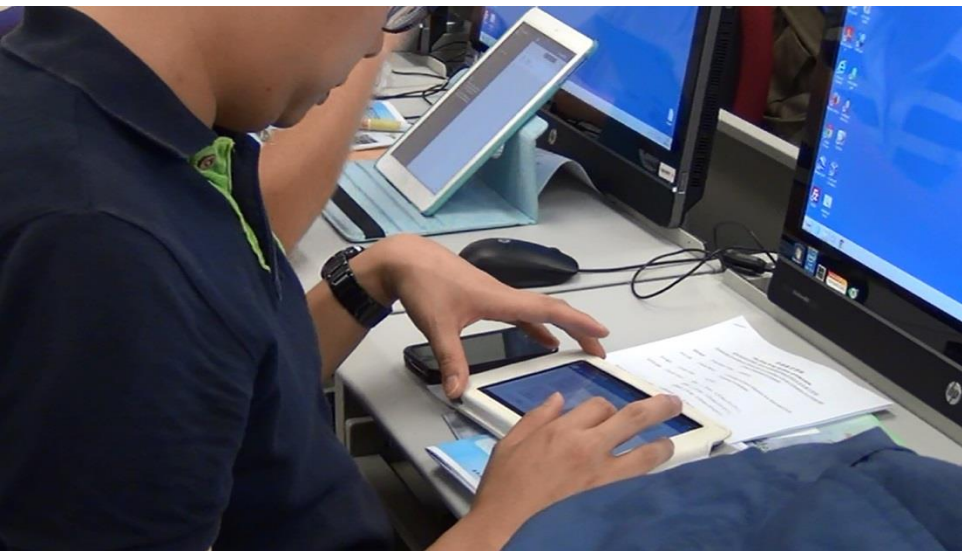
■ Learning Environment:

A WiFi covered computer lab with desktop computers; Students' own mobile devices as a personalized learning hub facilitating learning in and after class

■ Prepare in-service teachers from all backgrounds for writing school-based e-learning plans;

■ Engaging students: extend discussion & learning from inside classroom to outside classroom;

■ Use social learning platform for communication with in-service teachers taking the PDP course: for socializing, informative, coordinating, collaborative and inquiry purposes;



BYOD in E-Learning Courses Case 1:

BYOD together with social learning platform as personalized learning hub



Me to PDPELearningGreenCloud

Please read: Lim, C.P., Zhao, Y., Tondeur, J., Chai, C.-S., & Tsai, C.-C. (2013). Bridging the gap: technology trends and use of technology in schools. Educational Technology & Society, 16(2), 59-68

Reading questions are attached here.

I4_worksheet_3_.doc
DOC File

Me to PDPELearningGreenCloud

QUIZ 2

Turned in (22) Due May 9, 2014

1 question

Me to PDPELearningGreenCloud

Please download "Dearing, J. (2008). Evolution of diffusion and dissemination theory. Journal of Public Health Management & Practice, 14(2), 99-108." from library and read after class before next class meeting. Guiding questions are attached here.

I3_worksheet_2_.doc
DOC File

Submit expectation towards the course, understanding of concepts, and reflective notes

Search posts, groups, users, apps and more...

Group Posts

Me to PDPELearningGreenCloud

After this period of study, please define "e-Learning" based on your present understanding.

17 Replies

Mr. Fung · 10 hours ago

電子學習？
進入二十一世紀，好多事物都因科技進步而改變。在教與學上，我們要善用改變帶來的好處，讓學習更有效和有用。
電子學習可以
1. 帶來豐富的學習資源
2. 增加溝通的方式，延展學習的空間
3. 改變教學範式，學生自主學習
4. 學習二十一世紀應有的能力

Mr. Lam · 10 hours ago

e-Learning is just an aid for teaching. Effective teaching and learning is the core of value of a teacher, make use of e-learning for student centered learning, student self directed learning that makes T&L better.

Au Chuen Ming · 38 minutes ago

E-learning is a form in learning and teaching. It makes use of electronic multimedia and ICT . It facilitates the interactive between the people and the students' self directed learning.

Search posts, groups, users, apps and more...

Group Posts

Mr. Lee to Group 4 (PDPELearningGreenCloud)

Reading Assignment : Evolution of Diffusion and Dissemination Theory

Q1:
Diffusion is the process through which an innovation is communicated through certain channels over time among the members of a social system.

Key components of diffusion theory:
• the innovation, and especially potential adopter perceptions of its attributes of relative advantage (effectiveness and cost-efficiency relative to alternatives), complexity (how simple the innovation is to understand), compatibility (the fit of the innovation to established ways of accomplishing...

Mr. CHAN · May 7, 2014

Q2: 2. How is the current dissemination research and practice different from the classical diffusion model?
Current dissemination research and practice is better characterized by tests of interventions that operationalize one or more diffusion theory-based concepts and concepts from other change approaches, involve complex organizations as the units of adoption, and focus on implementation issues. The interdisciplinary roots and the imperative of spreading evidence-based innovations as basic for a new paradigm of translational studies of dissemination science.

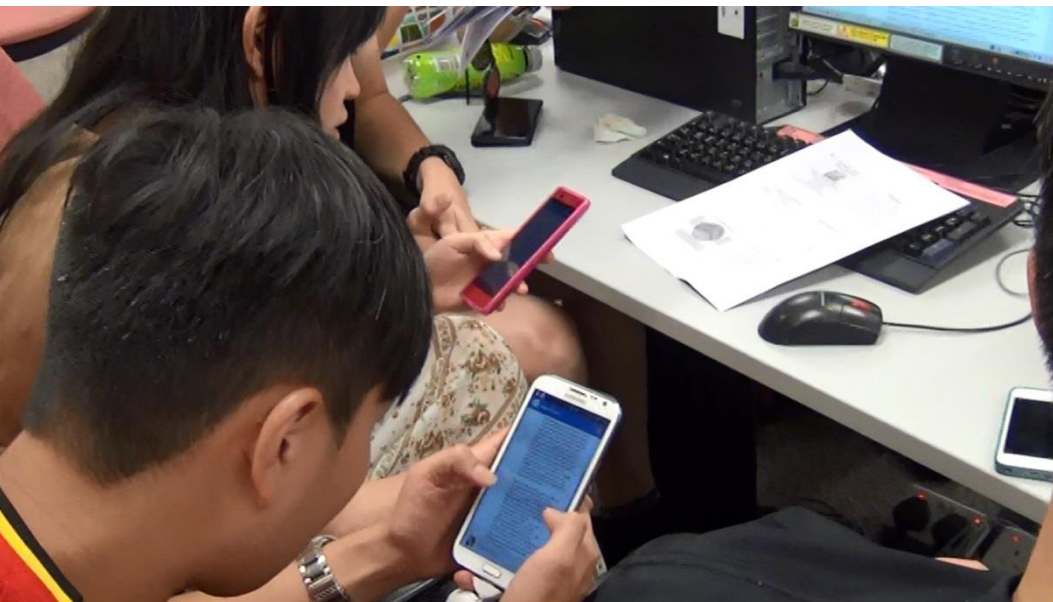
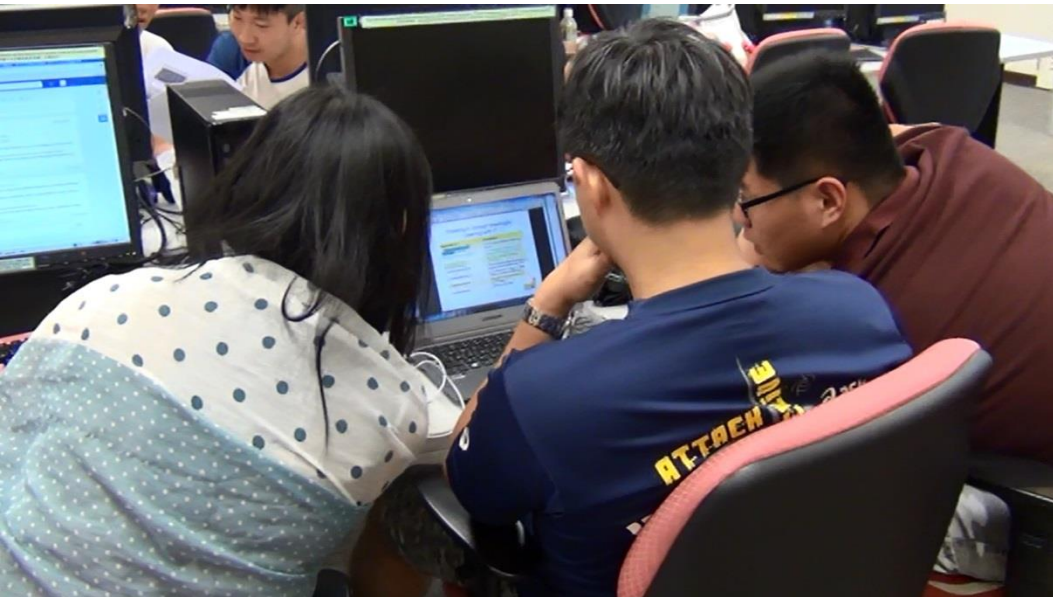
Mr. Fung · May 7, 2014

Q1. I found the answers same as Mr.Lee.
Diffusion is the process through which an innovation is communicated through certain channels over time among the members of a social system.
(On Page 99)
Key components of diffusion theory are:
- innovation
- adopter
- social system
- individual adoption process model

Distribute course materials, assign quiz, send out discussion questions

Discuss course reading, presentation and etc.

BYOD in E-Learning Courses Case 2: *BYOD together with social learning platform as personalized learning hub*



Dr. SONG Yanjie

INT3016 Information Literacy in School Education

■ Learning Environment:

A WiFi covered computer lab with desktop computers;
Students' own mobile devices as a personalized
learning hub facilitating learning in and after class

■ Prepare in-service teachers for teaching information literacy (IL) in schools;

■ Engaging students: individual or group activity facilitated by the use of Edmodo;

■ Use social learning platform for facilitating in-class tasks, especially for purposes like resource access & submission, communication

BYOD in E-Learning Courses Case 2:

BYOD together with social learning platform as personalized learning hub



Me to ■ INT3016 Information Literacy

Pre-self reflection (5%)

Turned in (17) Due Jul 22, 2014

What you know about Information Literacy (IL) and IL in school education?
And what you want to know about IL and IL in school education?
(about 200-300 words: either in English or Chinese)

Reply Jul 22, 2014

Submit reflective notes and assignments.

Follow instructions of different learning tasks and share products of group work in class.

Me to ■ INT3016 Information Literacy

Welcome to join the course INT 3016 Information Literacy in School Education

Reply · Share Jul 21, 2014

Access course materials for completing jigsaw learning activity.

Me to ■ INT3016 Information Literacy

Session 6: Jigsaw Activity

Understanding ways to increase interactions in Computer-Supported Collaborative Learning (CSCL) (2)

To scaffold productive interactions by encompassing interaction rules in the medium. The teacher may specify interaction rules for face to face collaboration, such as "Everybody in the group should give his or her opinion". In CSCL, interaction rules can be continuously reinforced by encompassing them in the design of the (computer-mediated communication) medium. For instance, various research projects concern 'semi-structured' (半結構化的) interfaces,...

Show Full Post

Reply · Share Jul 31, 2014

Me to ■ INT3016 Information Literacy

Session 4: Group Activity 2: Watch & Reflect

Watch the following video clip
跑出課室 - 小學生運用 myID 隨身學進行戶外學習 <http://www.youtube.com/watch?v=U2iFuFoJkuA>
(In Cantonese, start from 1:43)
Please tell
(1) what IL implementation model is adopted?
(2) how IL was integrated into the learning experience and what IL skills students achieved?
(Please refer to your group IL framework worked out in the last session on Edmodo.)

6 Replies · Share Jul 29, 2014

Show more replies...

Charlie Cho Lai Y. · Jul 29, 2014

Group 3

1. Integrate IL into subject areas (General Studies)
2. Determine: Students need to finish the task (worksheet)
Sourcing: Insect Museum and find the information with MYID
Apply: Use the search result to answer the worksheet
Evaluate: Discuss the answer from the result.
Refer to group 3 IL framework

Mr. Man Ka · Jul 29, 2014

Group 5

- 1) Integrate IL into Subject area (Science)
- 2) Student would be faster and easier to get the information by using My ID device .

Mr. Wong · Jul 30, 2014

Group 5 補充資料

- 1) Integrate IL into Subject area (Science)
2. Know: Students need the information of the myID device
Get : the students get the information in myID device, and anywhere anytime to get the information
Where: the students Interactive of the group by using My ID device
Purpose: the students take the my ID device and no need the Traditional textbooks,
Apple: the students get the information in my ID device,the students doing other worksheet ,then the students take more data and renew information in my ID device / database. [more...](#)

BYOD in E-Learning Courses Case 3:

Gaining authentic experiences of collaborative learning activities supported by mobile devices



Dr. LI Kai Ming

INT5033 Managing and Teaching in an IT-rich Environment

■ Learning Environment:

A WiFi covered computer lab with desktop computers; Students' own mobile devices serve to facilitate collaborative learning in and outside classroom;

■ Prepare in-service school teachers for using ICT tools in teaching activities in schools

■ Engaging students: design in-class tasks to be completed with use of mobile devices on campus;

■ Use mobile devices for trying out different applications, accessing instructions for tasks and other uses for completion of teaching and learning tasks

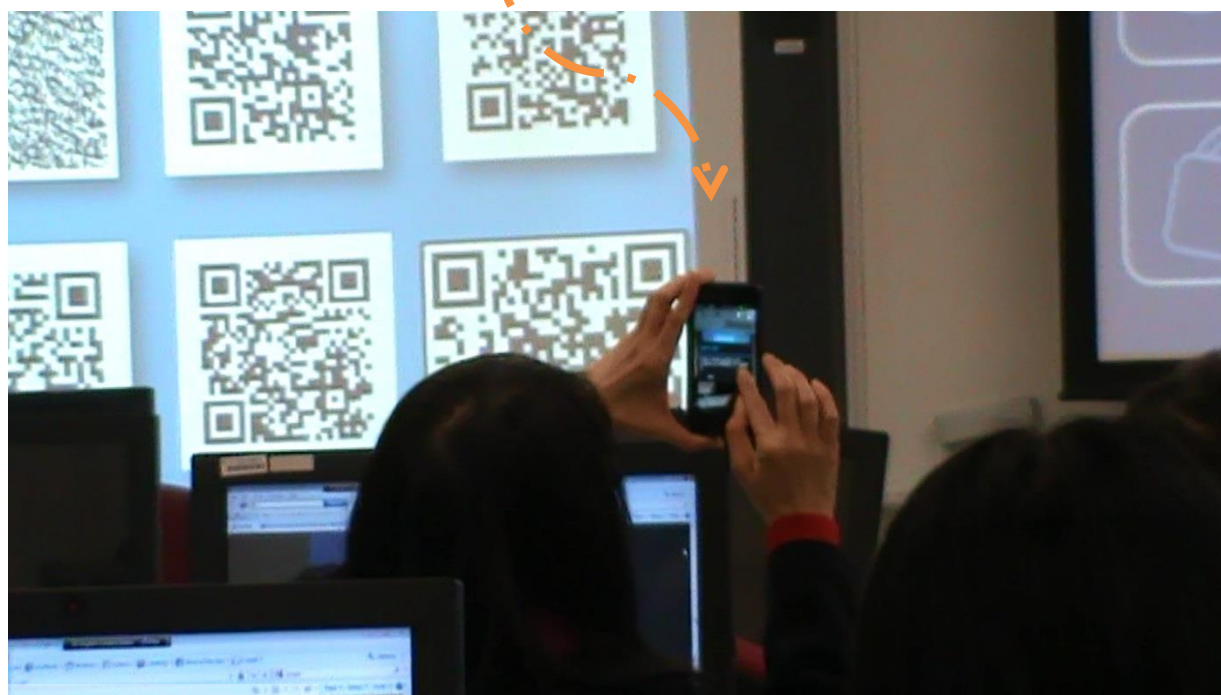


BYOD in E-Learning Courses Case 3: *Gaining authentic experiences of collaborative learning activities supported by mobile devices*

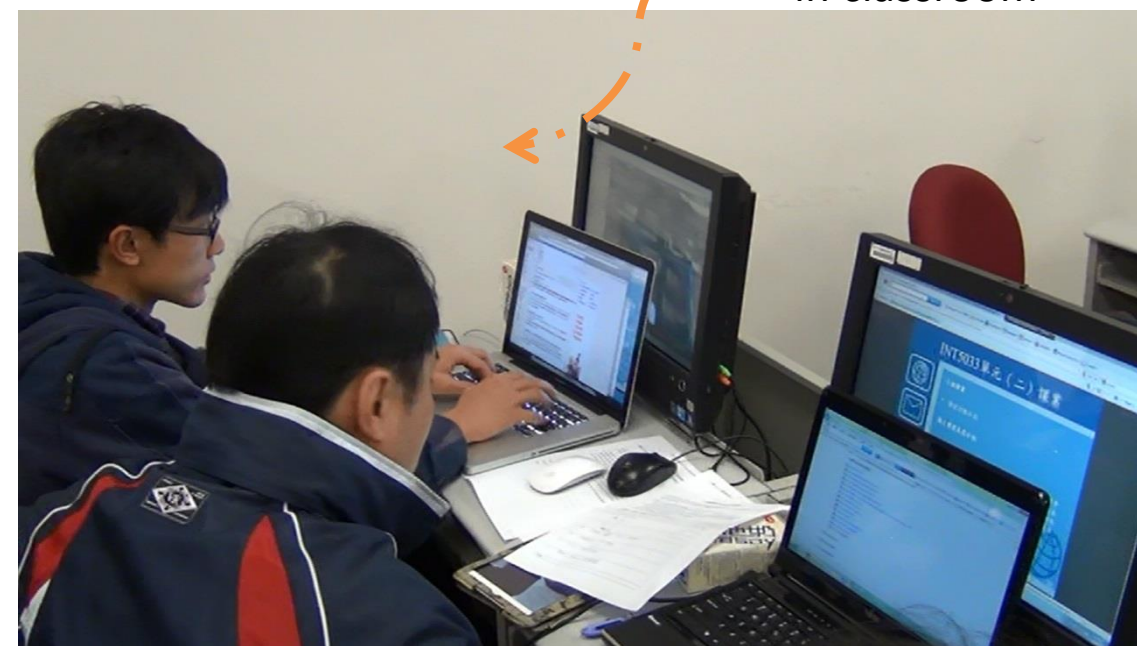
Access instructions
for completing tasks
outside classroom



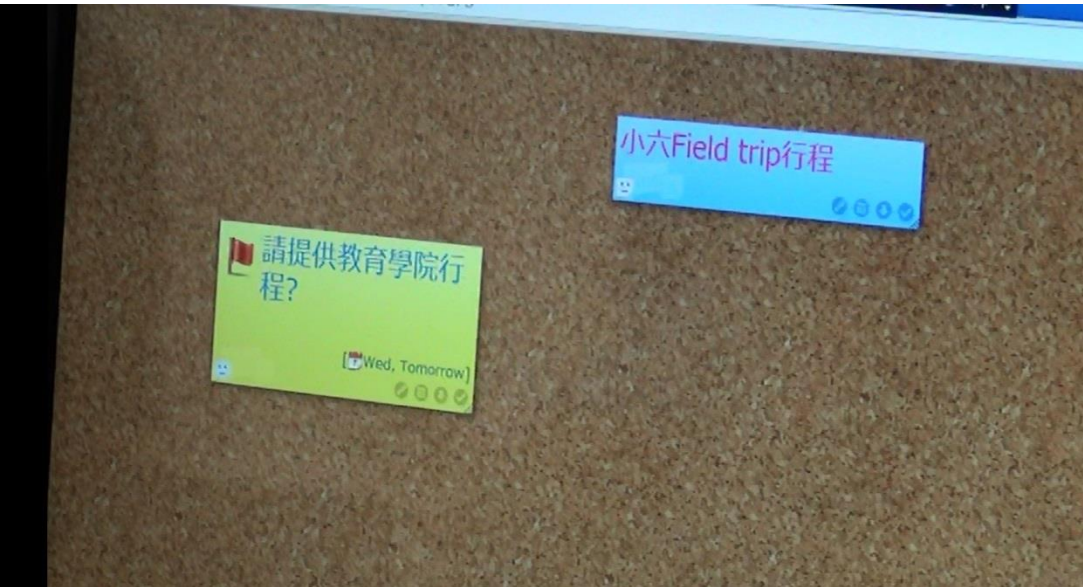
Use mobile devices for
trying out ICT tools for use in
teaching and learning



Compile
information
collected and
finish worksheet
in classroom



BYOD in E-Learning Courses Case 4: *BYOD for collaboratively planning a fieldtrip for primary school students*



Dr. WONG Ka Wai

INT5032 E-Learning in a Green and Cloud Computing Environment

■ Learning Environment:

A WiFi covered computer lab with desktop computers;
Students' own mobile devices serve to facilitate collaborative learning in and outside classroom;

■ Prepare in-service school teachers for using ICT tools in teaching activities in schools

■ Engaging students: design collaborative task for students to work in groups;

■ Use mobile devices for collecting information for fieldtrip planning and *Lino* for construction of the plan collaboratively

BYOD in E-Learning Courses Case 4: *BYOD for collaboratively planning a fieldtrip for primary school students*



Take photos and collect other relevant information for planning the fieldtrip



Compile group member's collected data



Edit group plan and share with class

BYOD in Health Education Courses:

Using mobile devices for supporting collaborative learning activity: critique on school lunch recipes



Dr. CHUNG Ming Yan

HCS4033 Integrative Nutrition

■ Learning Environment:

A WiFi covered general teaching room;
Students' own mobile devices with use of learning management system serve to facilitate collaborative learning in and after class

■ Preparing students for developing healthy school lunch recipes;

■ Engaging students: collaborative work in class & suggestion for improvement given after class;

■ Using mobile devices for resource access, communication, representation, construction and submission

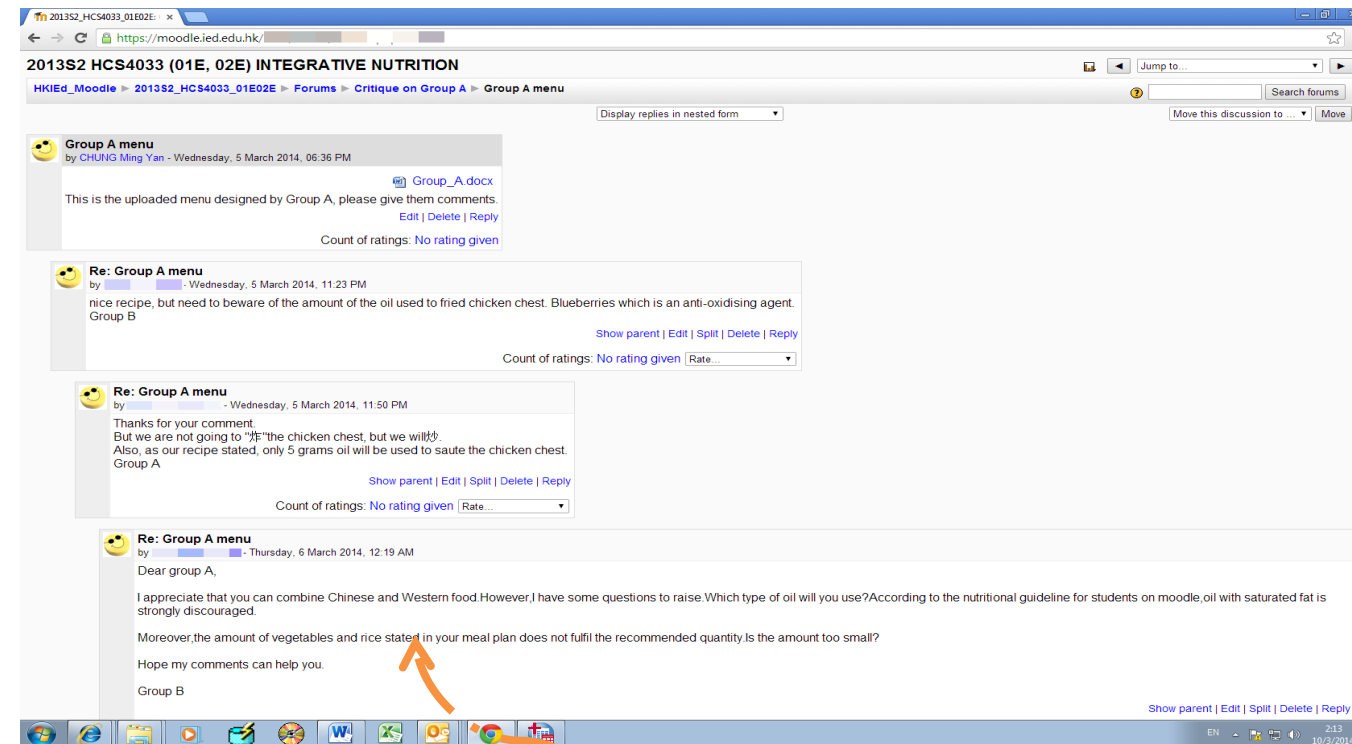


BYOD in Health Education Courses:

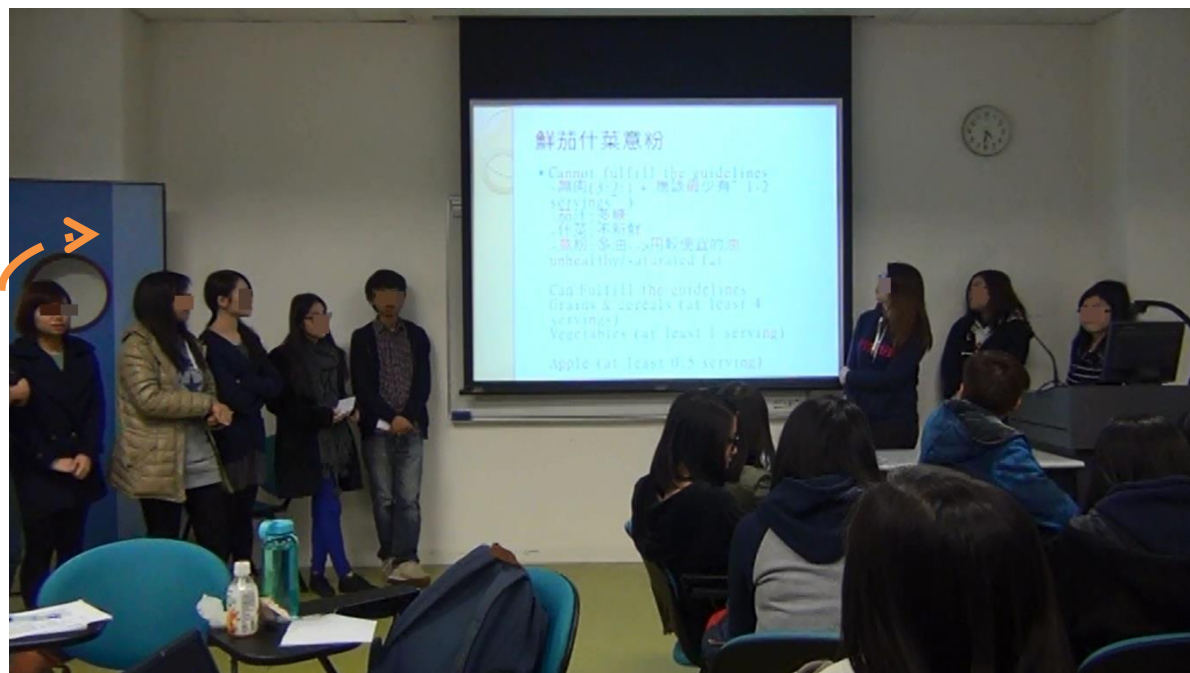
Using mobile devices for supporting collaborative learning activity: critique on school lunch recipes



Work in groups on critique on a given school lunch recipe



Re-design a healthy school lunch recipe and submit to Moodle for review and comment by teacher and fellow students



Present in groups and provide suggestion for improvement

BYOD in Language Courses Case 1:

BYOD for facilitating submission of in-class exercises

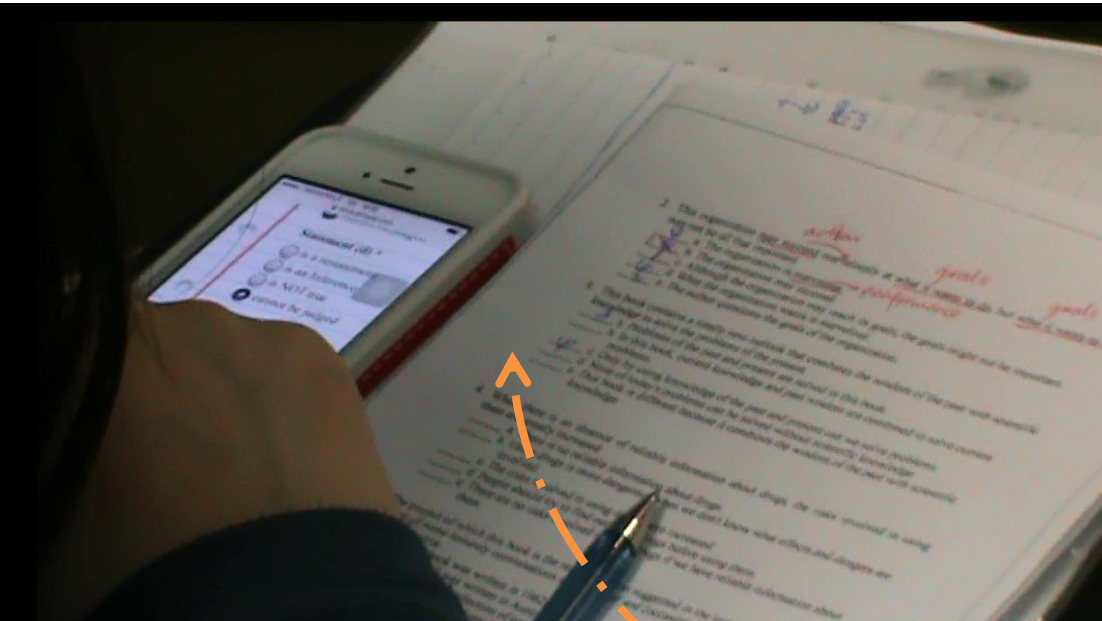


Mr. FOUNG Kin Wai

CLE1169 Subject-Specific English Enhancement

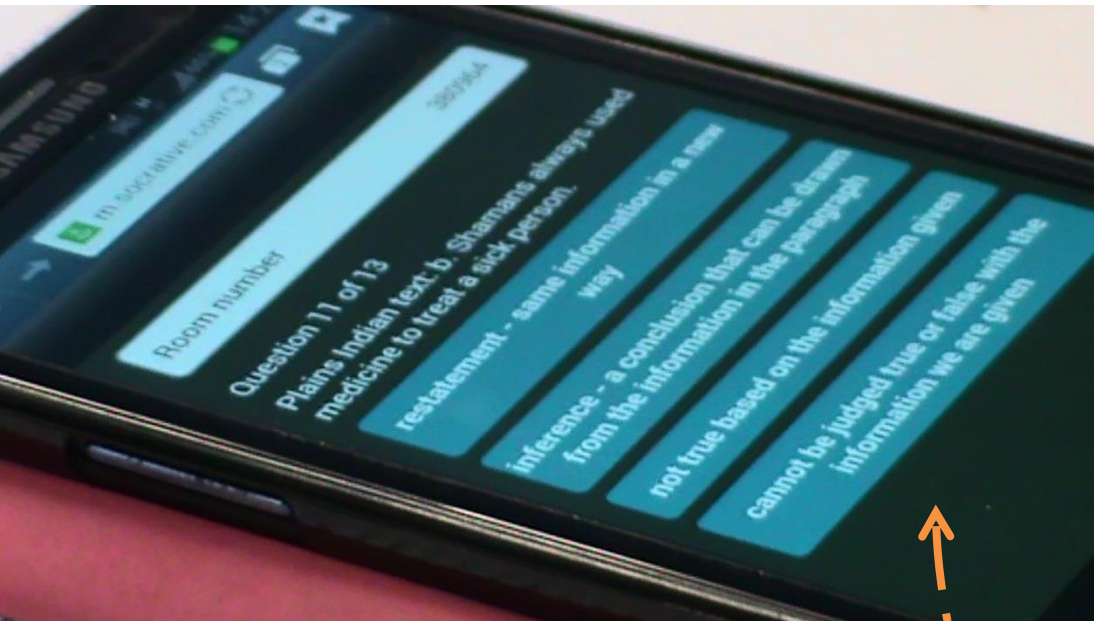
- Learning Environment:
A WiFi covered general teaching room;
- Improve students' English reading abilities;
- Engaging students: ask students to finish, submit their answers to exercises and then discuss with tutor
- Use mobile devices and *Google Form* for submission of answers to exercises

The exercises are originally in paper form. Tutor digitalizes the exercises with Google Form and makes it easy and efficient for students to submit their answers.



BYOD in Language Courses Case 2:

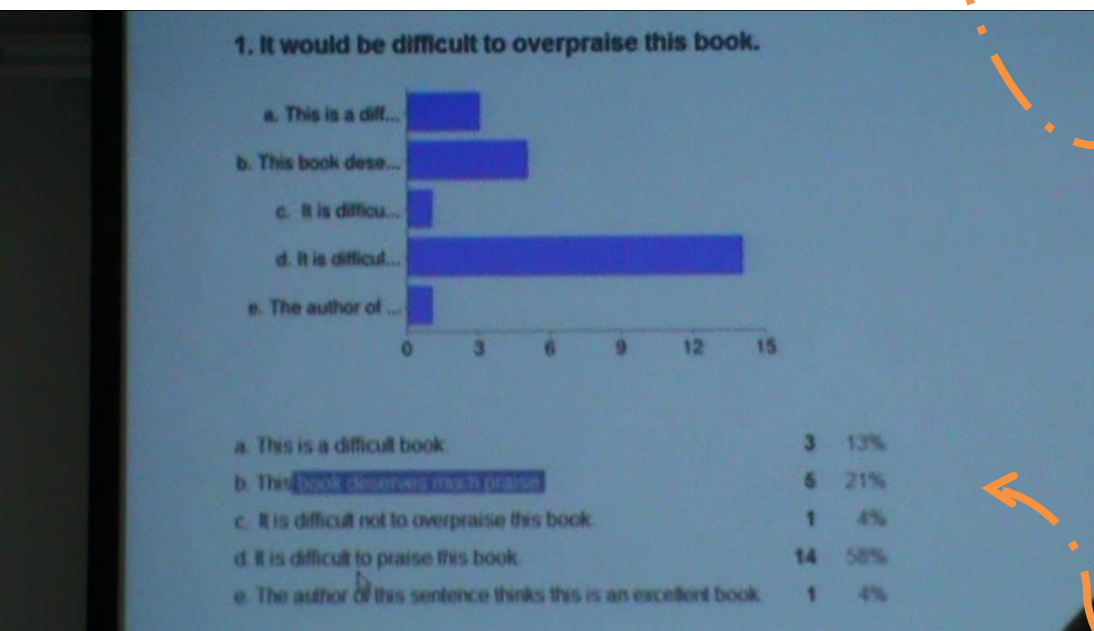
BYOD for facilitating submission of in-class exercises and fostering student responses



Ms. Suzan STAMPER

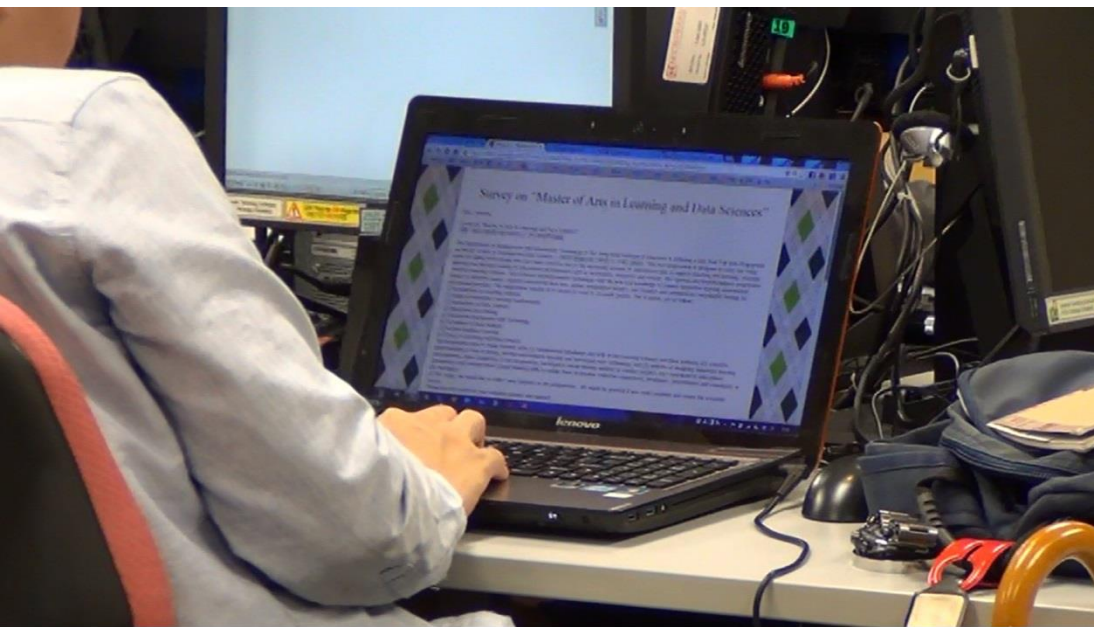
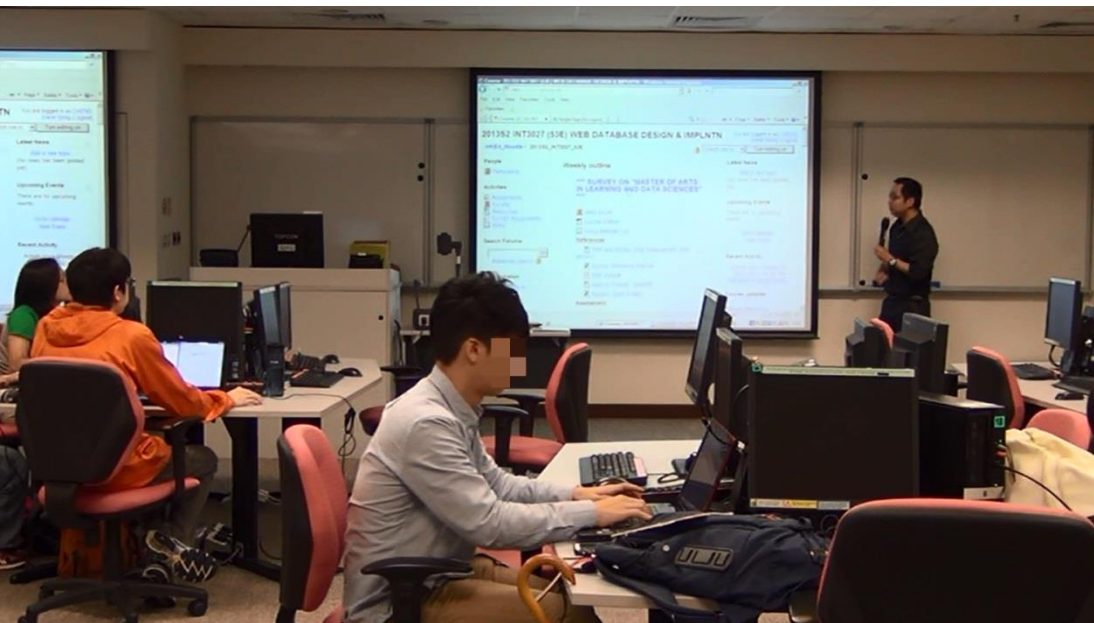
CLE1169 Subject-Specific English Enhancement

- Learning Environment:
A WiFi covered general teaching room;
- Improve students' English reading abilities;
- Engaging students: ask students to respond to questions, submit their answers to exercises online and then discuss with tutor
- Use mobile devices, *Socrative* and *Google Form* for communication and submission of answers to exercises



Tutor posts questions for students to respond through *Socrative* and digitalizes exercises with *Google Form* for students to submit answers. All responses can be shown in an auto-generated report.

BYOD in IT Courses Case 1: *Course revision supported by BYOD*



Dr. CHENG Kwok Shing

INT3027 Web Database Design and Implementation

■ Learning Environment:

A WiFi covered computer lab with desktop computers; Students' own devices serve to facilitate both collaborative learning and their own use of specific software in classroom;

- Prepare students for mastering web database design and implementation
- Engaging students: ask students to finish exercises as a revision of the course content and share in class
- Use the camera on mobile devices for capturing each group member's answers and presenting a consensus to class

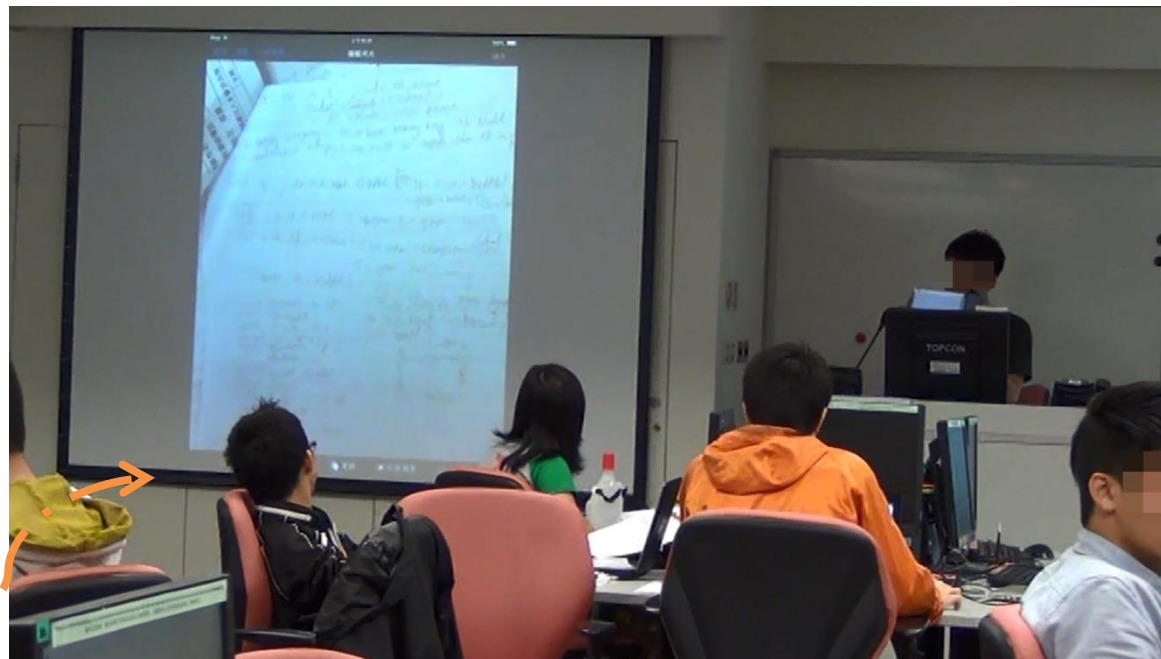
BYOD in IT Courses Case 1: *Course revision supported by BYOD*



Review course content
of the semester and
finish exercises
individually.



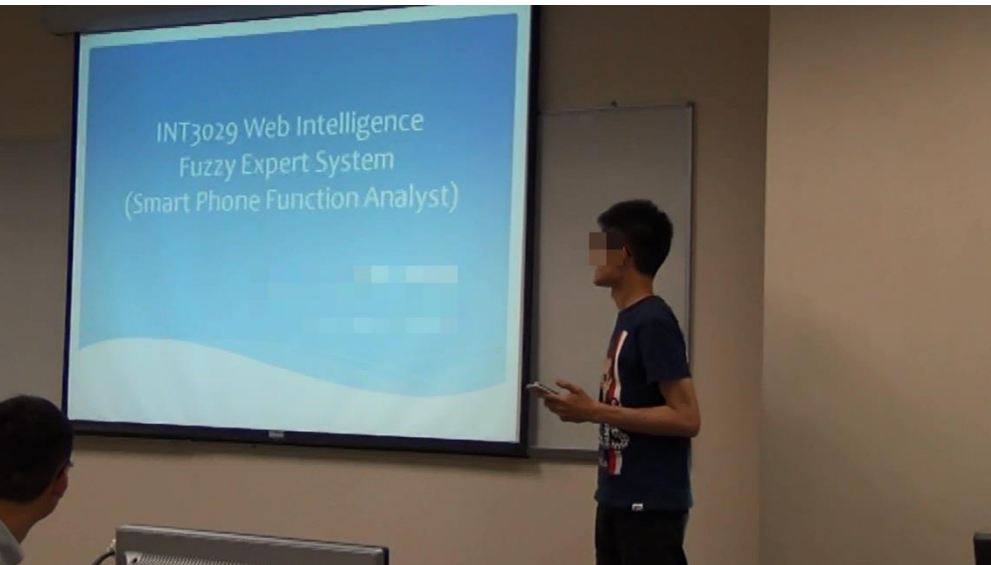
Compare one
another's answers to
exercises, reach a
consensus and
capture answers for
sharing in class.



Share by
representatives in class.

BYOD in IT Courses Case 2:

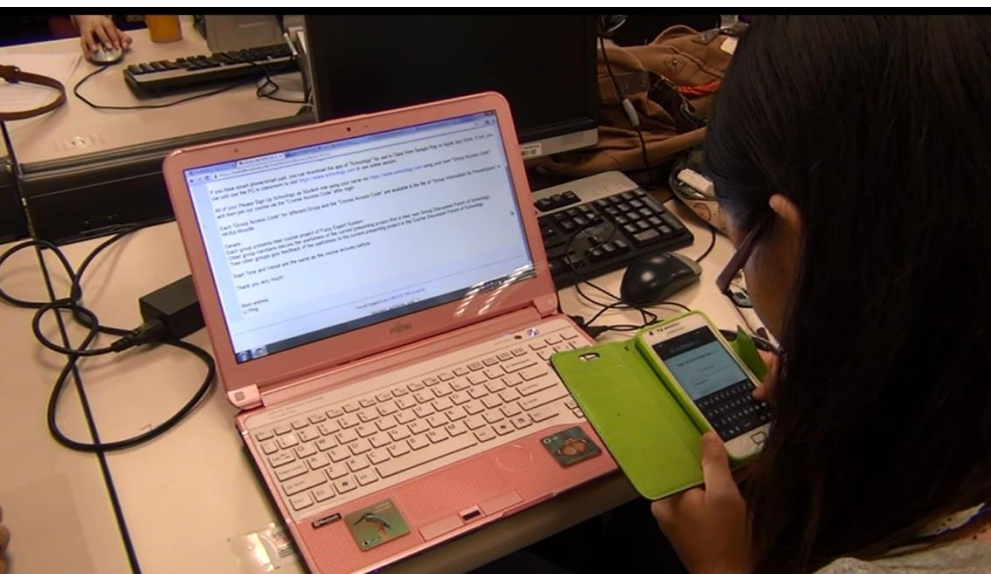
Feedback giving in student presentations supported by the use of mobile devices and LMS



Dr. LI Ping

INT3029 Web Intelligence

- Learning Environment:
A WiFi covered computer lab with desktop computers;
- Provide an alternative way for students to peer review their final project presentation
- Engaging students: ask students to give feedback and submit online while attending others' presentations
- Use *Schoology* as a platform for submission of feedback



BYOD for Reflective Engagement of Learners in Digital Classrooms 2014-2015



Join us in Academic Year 2014-2015!

Research support including:

- In-Class Video Recording
- Questionnaire Survey
- Focus Group Discussion

Enquiries:

Miss Lillian Jiang

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Thank You.

Affordances of BYOD Tools for Reflective Engagement

SONG Yanjie

Department of Mathematics and Information Technology

Email: ysong@ied.edu.hk

Bring your own device (BYOD) for reflective engagement

- ▶ BYOD refers to a technology model where learners bring a personally owned device to school for the purpose of learning (Alberta Education, 2012; Collier & Halpin, 2012).
- ▶ A range of tools can be used on BYOD for reflective engagement.
- ▶ These tools offer different affordances in different learning environments for varied reflective engagement -- personal, social, intellectual and academic.

Affordances

- ▶ The concept of affordances emphasizes possible actions that the **observer perceives as feasible** in the environment (Gaver, 1996).
- ▶ It is interpreted as **the properties of the environment that offer “the possibilities for action”** (e.g., Young, 2004, p. 171).

Reciprocal relation between people and their environment

Technology affordances

- ▶ If learning technologies are tools for mediating the practice of learning, “the affordances of any [learning] technology are the properties of the environment that enable the effective use of the technology, the abilities of the learner to take learning actions” (Jonassen et al. ,2000, p.113)’.

Perceived/misperceived affordances



Source: photo from Google images

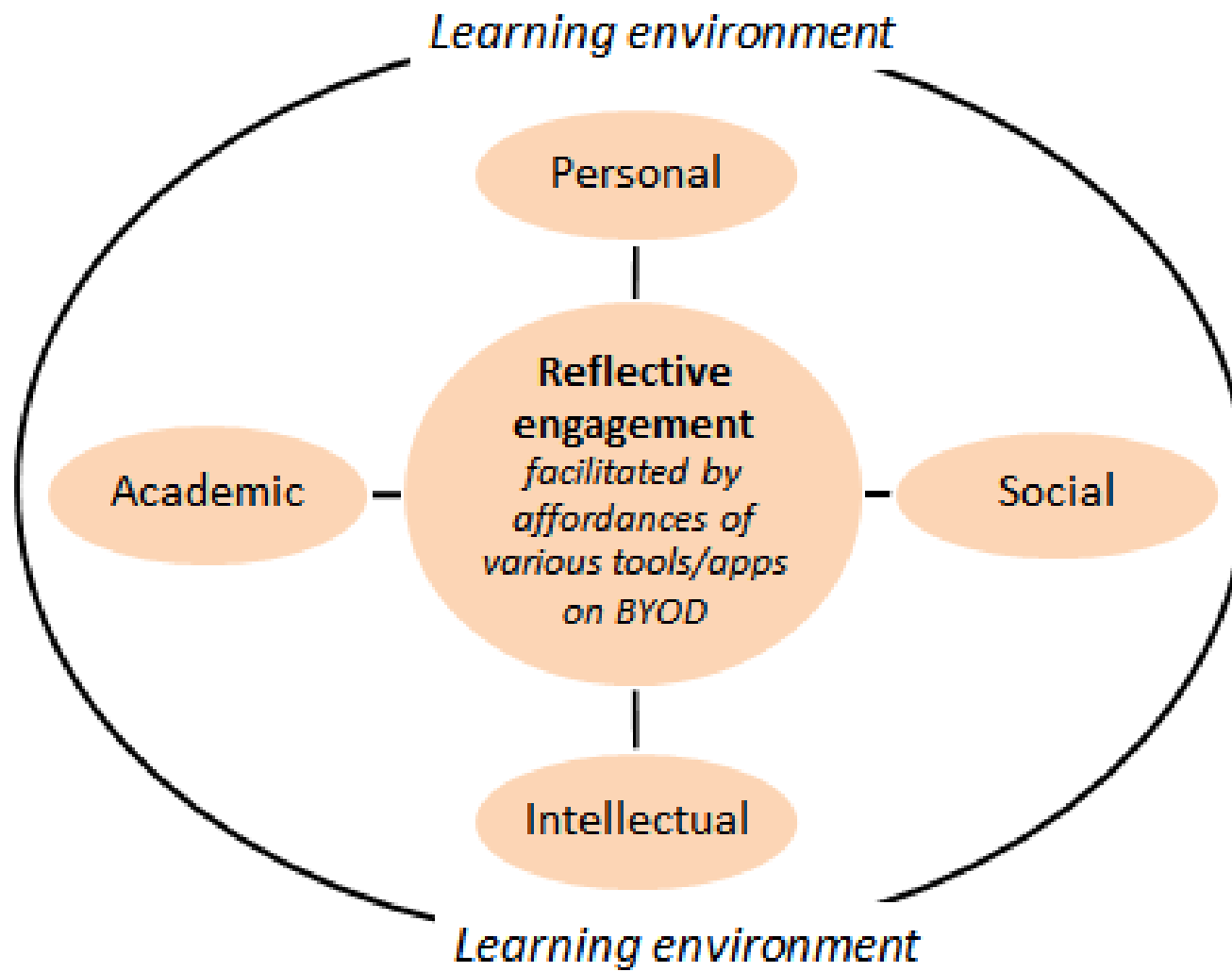
Affordances

- ▶ Voice Recognition Elevator - ELEVEN! (in Scotland) <https://www.youtube.com/watch?v=5FFRoYhTJQQ>



Why do we have to explore “Affordances” of BYOD?

- ▶ To increase the capability of teachers and learners to perceive and act on the affordances of BYOD for reflective engagement across different educational environments.



Reflective engagement framework

- ▶ **Personal engagement**: mainly concerns awareness of learning intentions and expectations;
- ▶ **Academic engagement**: is relevant to academic attributes and skills that they have and other skills that they actively develop including academic writing;
- ▶ **Intellectual engagement**: focuses on the interest in the current educational issues and confidence in facing challenges;
- ▶ **Social engagement**: is related to interactions with peers, teachers and resources (Pittaway, 2012)

An example: Information Literacy in School Education

Week	Course Content
1	Introduction to IL (Pre-reflection: What you know about IL? And what you want to know about IL?)
2	Theories and models of information behavior + Citation Styles
3	Frameworks, Standards & Outcomes of IL and Implementations
4	IL Development in School Education in Hong Kong
5	Pedagogies of IL - Fostering IL through Meaningful Learning with IT (I)
6	Pedagogies Issues of IL - Fostering IL through Meaningful Learning with IT (II)
7	Group IL lesson design in school education
8	Group reflective report
9	Individual IL Lesson design in school education
10	Legal and ethical issues of IL + Consultation
11	Wrap-up and post-reflection

Learning environment

- ▶ Project-based learning
- ▶ Edmodo
- ▶ A WiFi-covered computer lab & online learning
- ▶ Students being encouraged to perceive and use affordances of BYOD tools for reflective engagement anytime, anywhere
- ▶ Mixed mode students
- ▶ 18 participants

Engage: Mobile device as a resource collection tool for sharing photos on Edmodo



Ms. [redacted] to [redacted] INT3016 Information Litera

Group 1 Photo



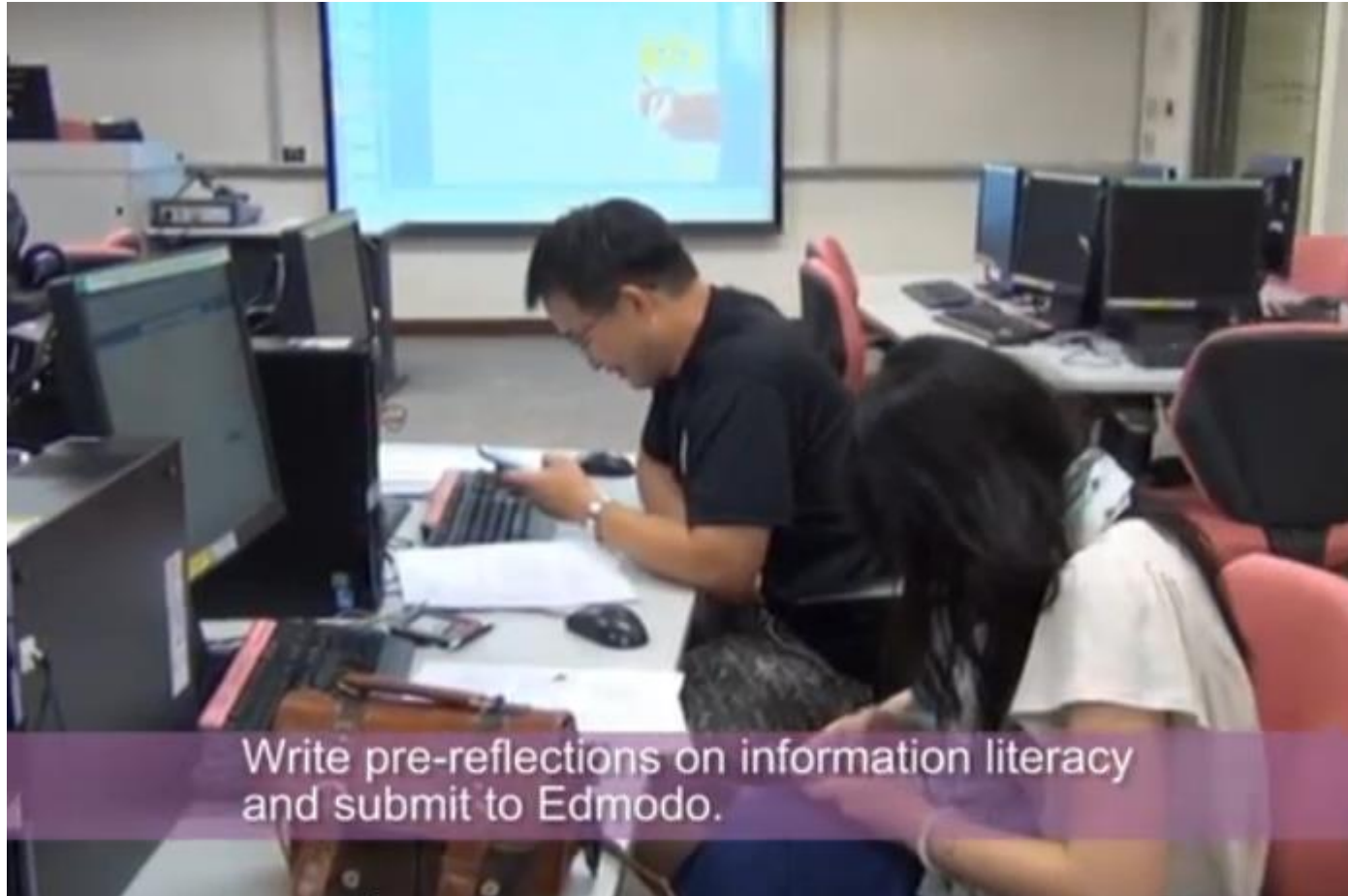
Form small groups and share group
profile picture to Edmo




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Not for publication or further reproduction.

Form small groups and share group
profile picture to Edmodo.

Pre-reflection: Word a construction tool for knowledge construction and reflection



Pre-reflection

 **Mr. Andrew**

Submitted on Jul 22, 2014 7 40 PM

/










Grade

Information literacy (IL) is a set of skill and attitude about using information. By using this skill, we can identify, evaluate, and effectively use data found in order to solve daily difficulties. Apart from that, we are supposed to apply the information properly and ensure not to harm the benefits of those related owners.




In the age of information, mass learning material is quite easy to get around the world, especially in the Internet. However, it is quite different to find out if the information is true or suitable for the students. In terms of school education, teachers are not the only learning source in such environment. Students can acquire knowledge easily from various areas. As a result, they are in danger of getting wrong information. Teachers therefore should take the role to guide the students how to acquire, select and use data properly. Also, IL is very helpful in making project learning. Besides these, helping students to combine useful information and their thoughts and then convert them into one's knowledge is very important too.

I would like to learn how to help students build up IL effectively and efficiently. Also, I am interested in the latest development of IL.

Let Mr. Andrew know what you thought of this submission

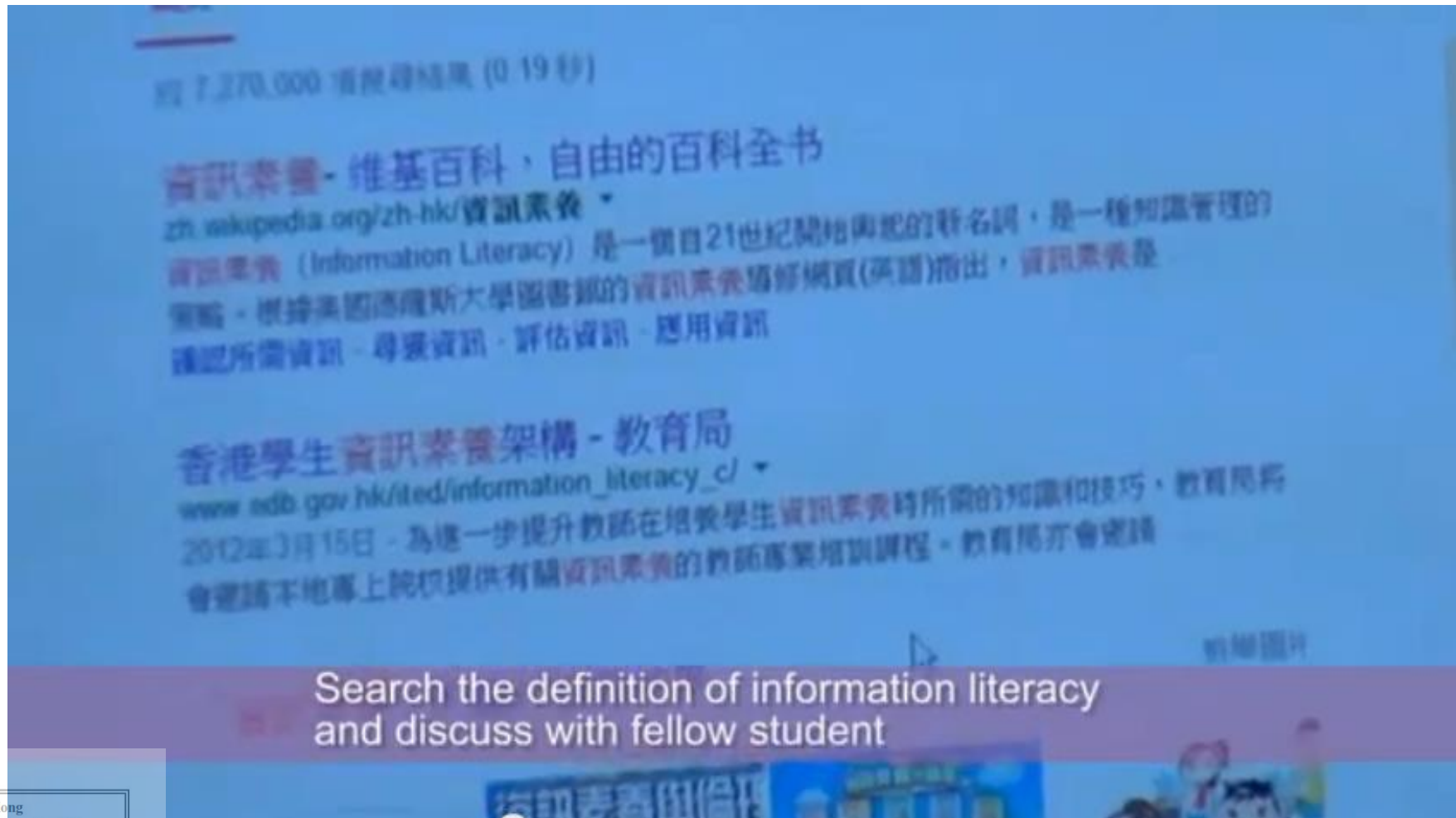


Write pre-reflections on information literacy and submit to Edmodo.



Add Comment

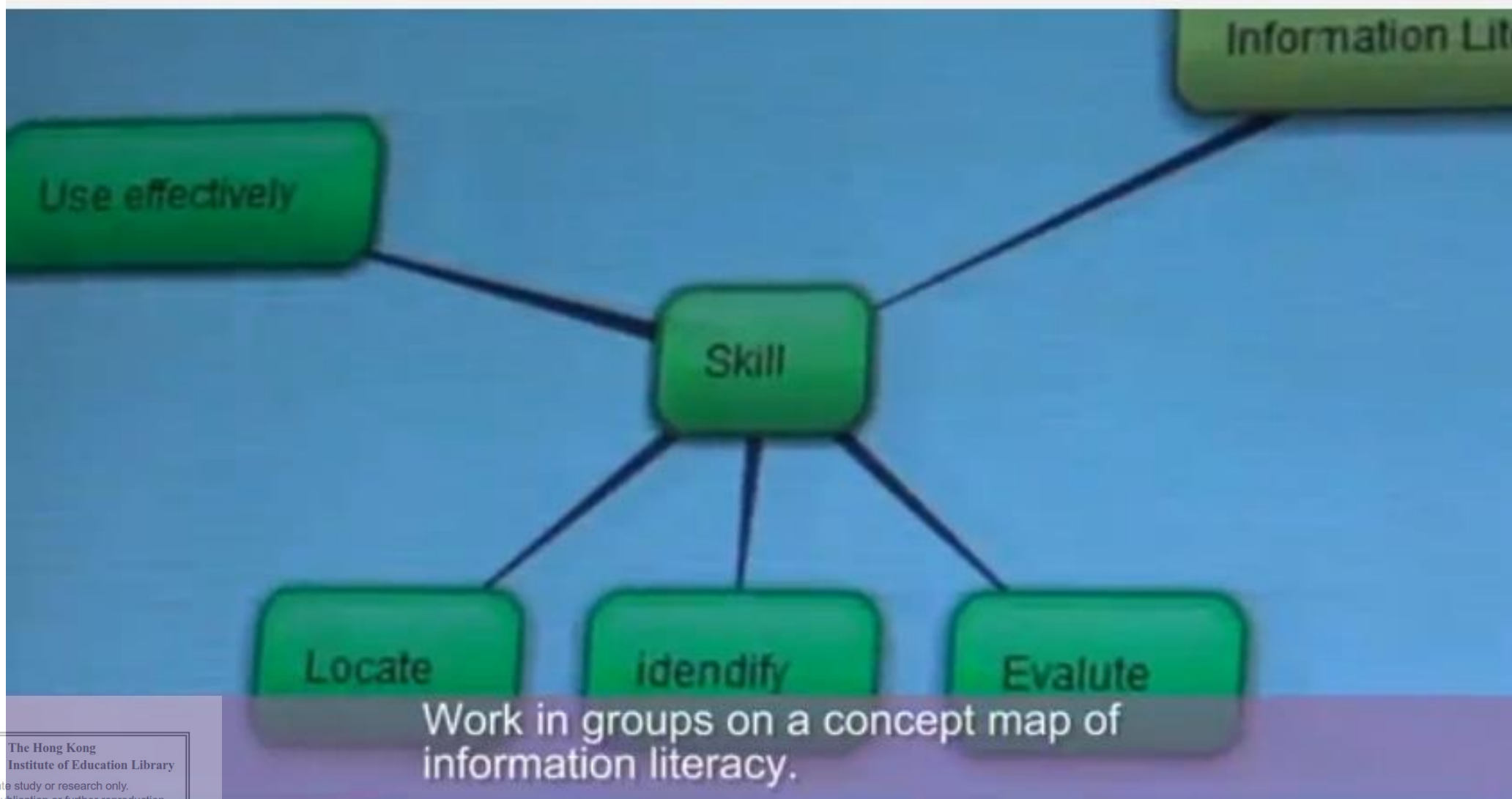
Collaborative exploration: Mobile device as a resource access tool for collaborative use



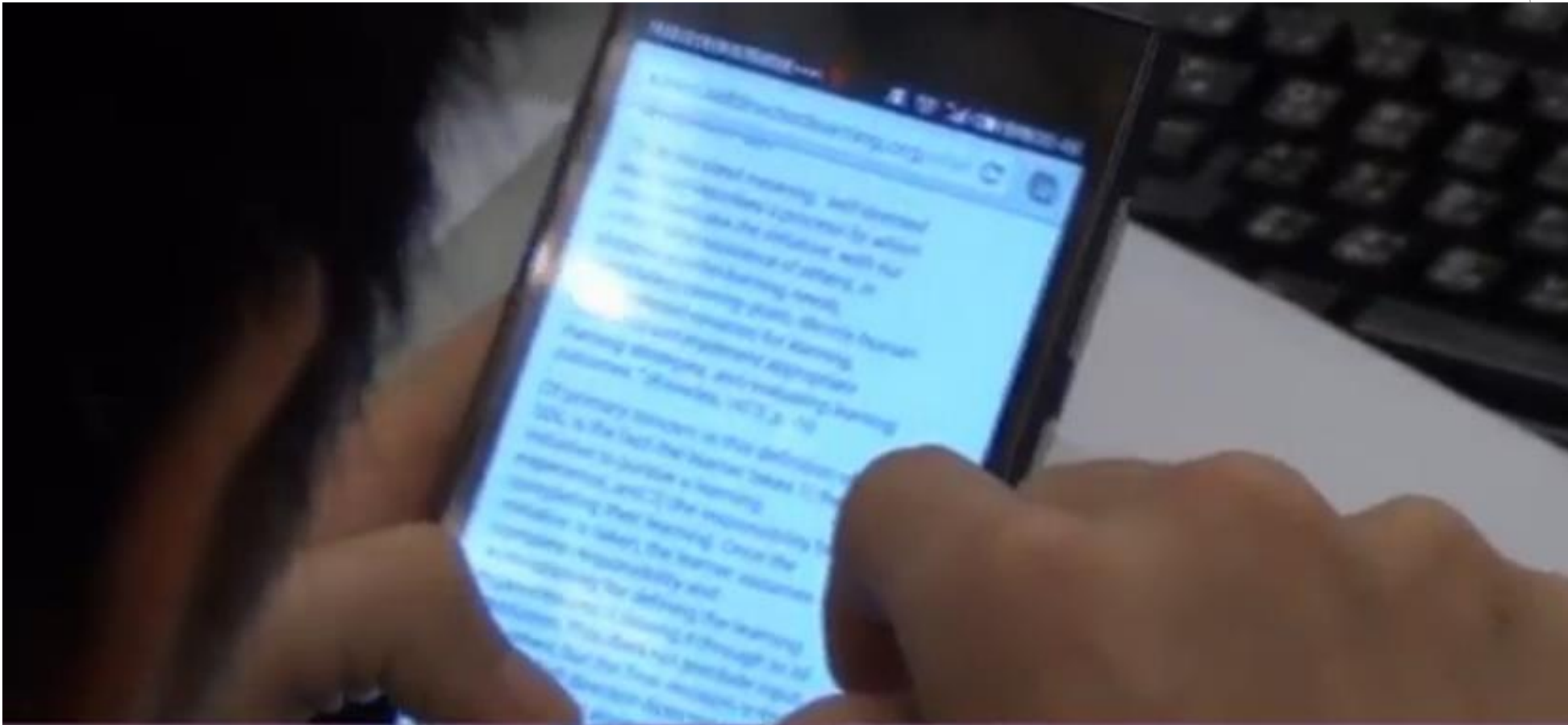
Presenting in class: Mobile device as a resource access tool for sharing



Representing ideas using concept map: Mobile device as a representation tool for visualizing use



Information searching: Mobile device as a resource access tool for explorative use



Search concepts about collaborative learning and cooperative learning in class.

Jigsaw activity



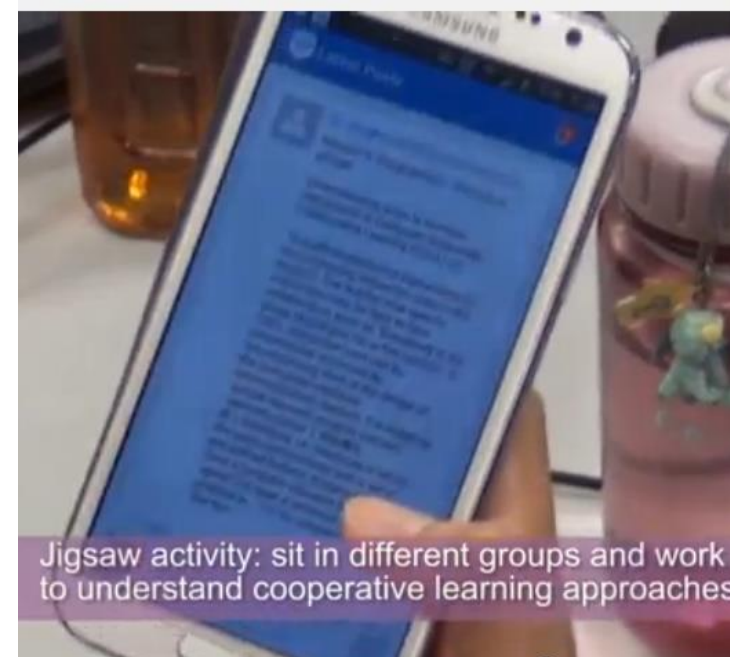
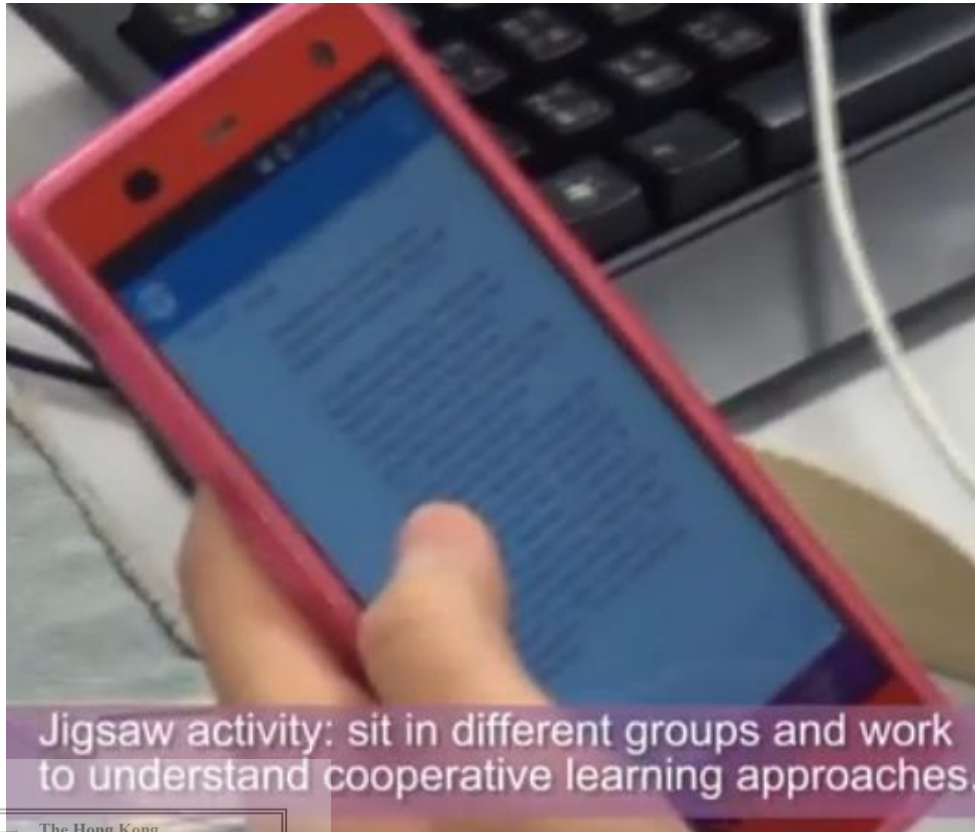
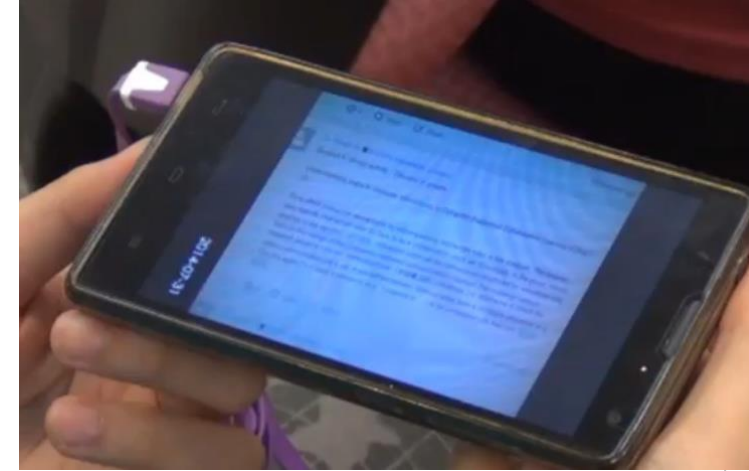
Jigsaw activity: sit in different groups and work to understand cooperative learning approaches.



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Jigsaw activity: Mobile device as a resource access tool for referential use



Jigsaw activity: sit in different groups and work to understand cooperative learning approaches.

Jigsaw activity: sit in different groups and work to understand cooperative learning approaches.

Jigsaw activity: Mobile device as a resource access tool for referential use

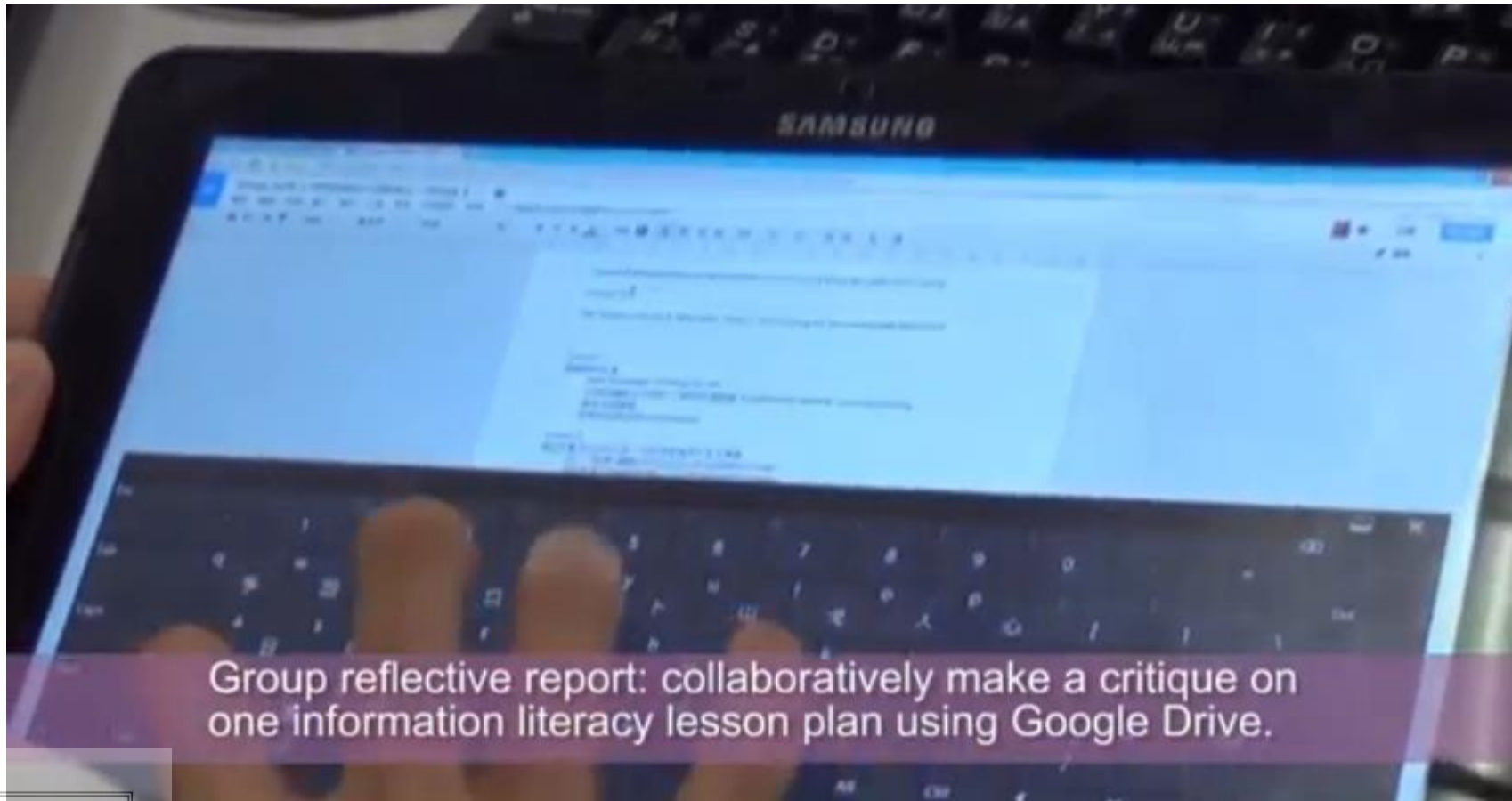


Jigsaw activity: mobile device as a resource access tool for referential and collaborative use

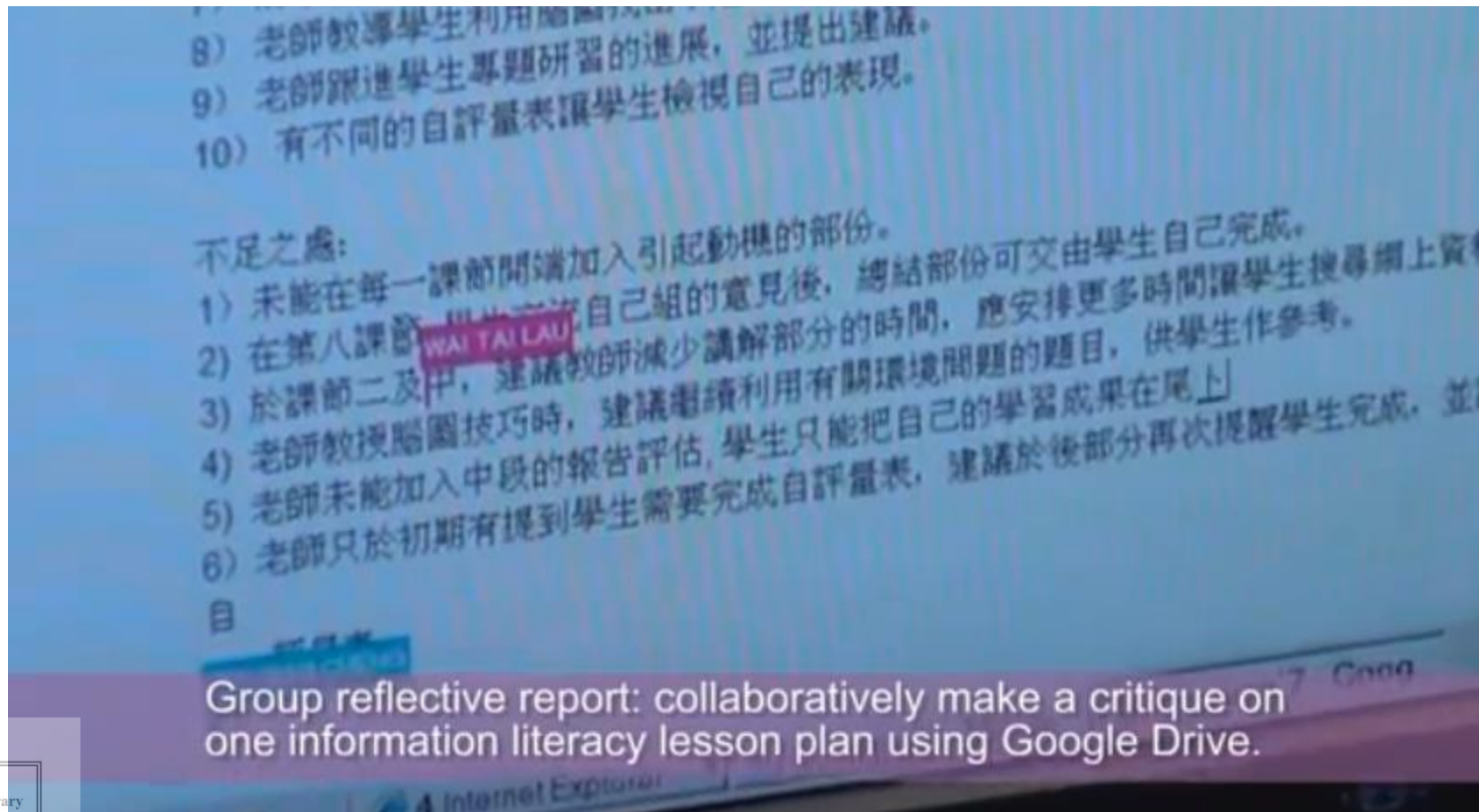


Share with original group and discuss learning results.


Group reflective report: Microsoft Word in Tablet as a construction tool for knowledge construction and reflection



Group reflective report: GoogleDrive as a construction tool for knowledge construction and reflection



Sharing the GoogleDocs link on Edmodo: Mobile device as a resource sharing tool


Mr. NG

Submitted on Aug 5, 2014 8:55 PM

Grade

Group 2

<https://docs.google.com/document/d/10s2clUh4a...>



Session 7 - Google Docs
docs.google.com

Let Mr. NG ☐ know what you thought of this submission

Type your note here

Submit the Google Drive link to Edmodo.

Add Comment

Presenting in class: Mobile device as a resource access tool for sharing



Affordances of BYOD tools

Tools/ Apps	Affordances	Purposes (uses)	Environment: Project-based learning Wi-Fi covered learning environment
Edmodo, Google, GoogleScholar,	Resource access	Instructional	Instructional activity in class
		Referential	Presentation in class
		Explorative	Engagement activity in class
		Collaborative	Jigsaw learning activity in class
		Reflective	Course review & reflection out of class
Edmodo	Communication	Informative	Online messages
		Coordinating	Online coordination
		Inquiry	Online advice seeking
Edmodo	Resource sharing	Peer assessment	Sharing ideas online in and out of class in groups
Edmodo	Resource submission	Submitting	Engagement activity in class; artefact and assignment submission in and out of class
Edmodo, Google Drive	Construction	Knowledge construction	Collaborative construction of group reflective report in class
Edmodo	Representation	visualizing	Representing ideas using mind map in class

Personal Engagement: Definition of Information Literacy before and after the class

The Definition of IL Before Class

Information Literacy (IL) concerns the abilities to ...

- Locate up-to-date, reliable sources of information available online;
- Analyze and properly use information gathered online, as well as handle the copyright issues concerned;
- Think independently, turn online information to one's own knowledge and use it for problem solving;
- Master essential IT skills to communicate, increase productivity and enhance learning achievement.

The Definition of IL After Class

Understanding of the concept of Information Literacy (IL) goes beyond a single definition and ...

- IL can be defined differently with varied focuses and tool use is just one aspect of IL;
- There are several IL frameworks and pedagogical approaches for IL;
- IL in education concerns not only fostering students' capabilities in properly use information within the subject area of IT, but also the application of useful IT tools in learning different subjects.

Personal engagement: What expect to learn and what have achieved?

What do students expect to learn?

- To learn more about IL
- To learn how and what to teach about IL in schools and what related pedagogies are available

What learning achievements do students perceive?

- The understanding of IL is extended from tool use to learning enhancement, or even knowledge management level;
- Theories and frameworks of IL;
- Pedagogies of IL and class designs.

Social and Intellectual engagement

Do you think the use of BYOD can help improve your learning and achievement?

- ▶ [ST1503] Definitely yes. It's like when you are still on the bus, you get a message telling you that you need to discuss something **and my group and I are motivated to start thinking about the questions**. Gradually you **get used to check from time to time** whether there are new tasks to complete. In a conventional class, I don't think such kind of habit will develop.
- ▶ [ST1502] Yes I think so. At least I found myself **more engaged in reading teaching materials**. For example, within a few clicks I could read the PowerPoint slides, open links connected to academic journals...

Academic and social engagement

Do you agree that BYOD can engage learners in reflective learning activities?

- ▶ [ST1502] I think by breaking down a big final project into small parts and turning them into in-class assignments for students to complete and submit to Edmodo, such kind of design could help engage students in developing a more structured idea in their final project and by working both in groups and individually, we also learn from each other.
- ▶ [ST1504] Take Edmodo as example. It is quite similar to Facebook but it provides information and helps with the communication between learners and teachers, and among learners as well.
- ▶ I was late for class today and when I was on my way to school, I saw my friend's post on Edmodo and I could reply immediately.

Summary: Student reflective engagement

- ▶ Personal: Achieved their learning goals
- ▶ Social: Increase collaborative skills and interaction with teachers, peers and resources
- ▶ Intellectual: Be motivated to learn; and become confident in doing both group and individual projects
- ▶ Academic: Developed skills to learn anytime, anywhere, do group presentation and write individual essays

BYOD in Higher Education: Project-based Learning

Mobile Learning (Session 1)

Construct group
project outline &
create QR Code

Exchange group project
outline & revise

Google Docs; QR Code Creator; Moodle; Search Engines

Seamless Learning (Session 2)

Discuss research
methods & construct
instruments in class

Carry out research on
campus & go back to
classroom to upload

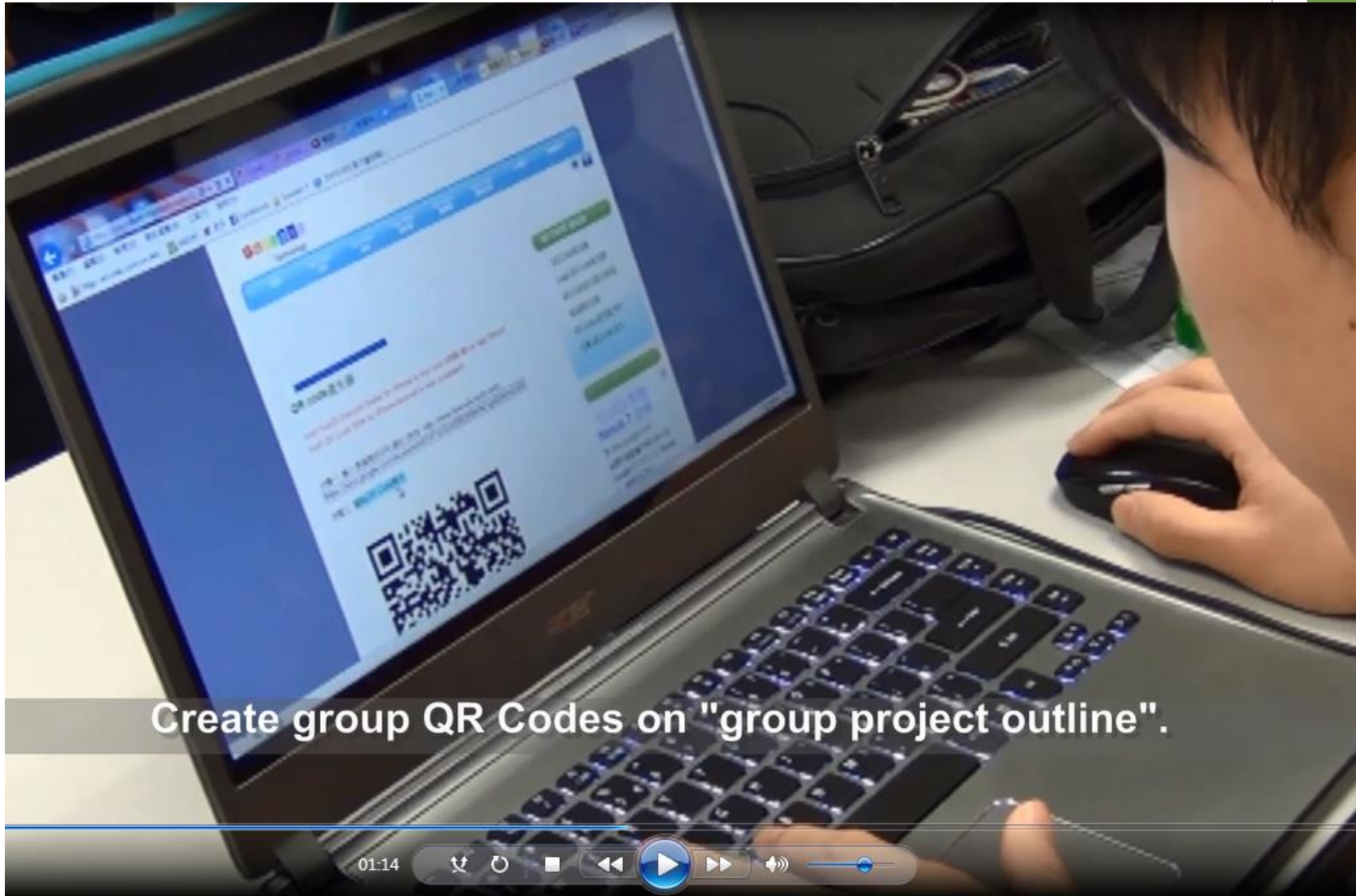
Search Engines; Google Form; Moodle; Recording

Share in class

Resource Access Tool



Augmented Reality (AR)



AR & Resource Sharing Tools



Share outlines among groups.



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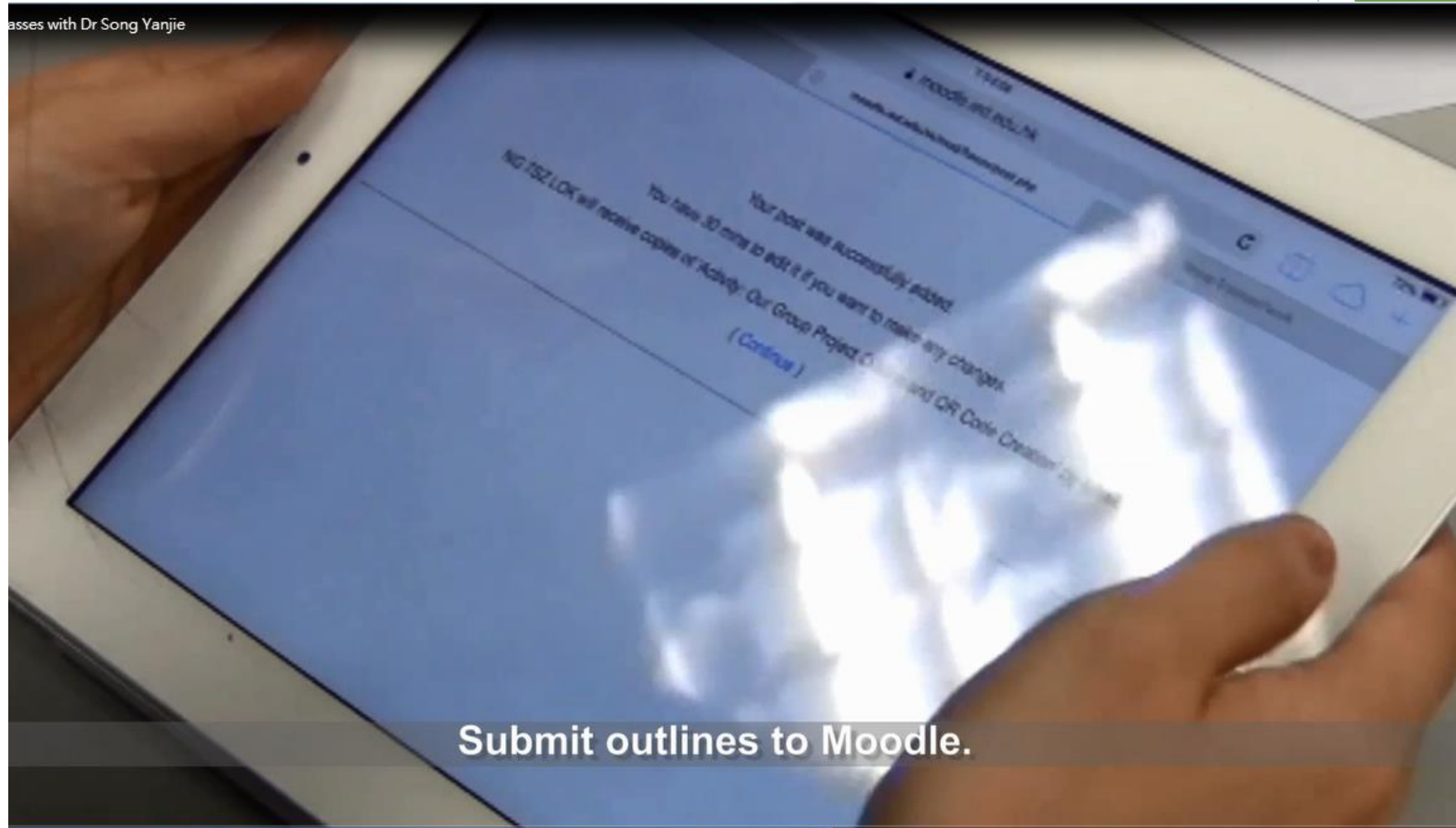
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Share outlines among groups



Resource Submission Tool

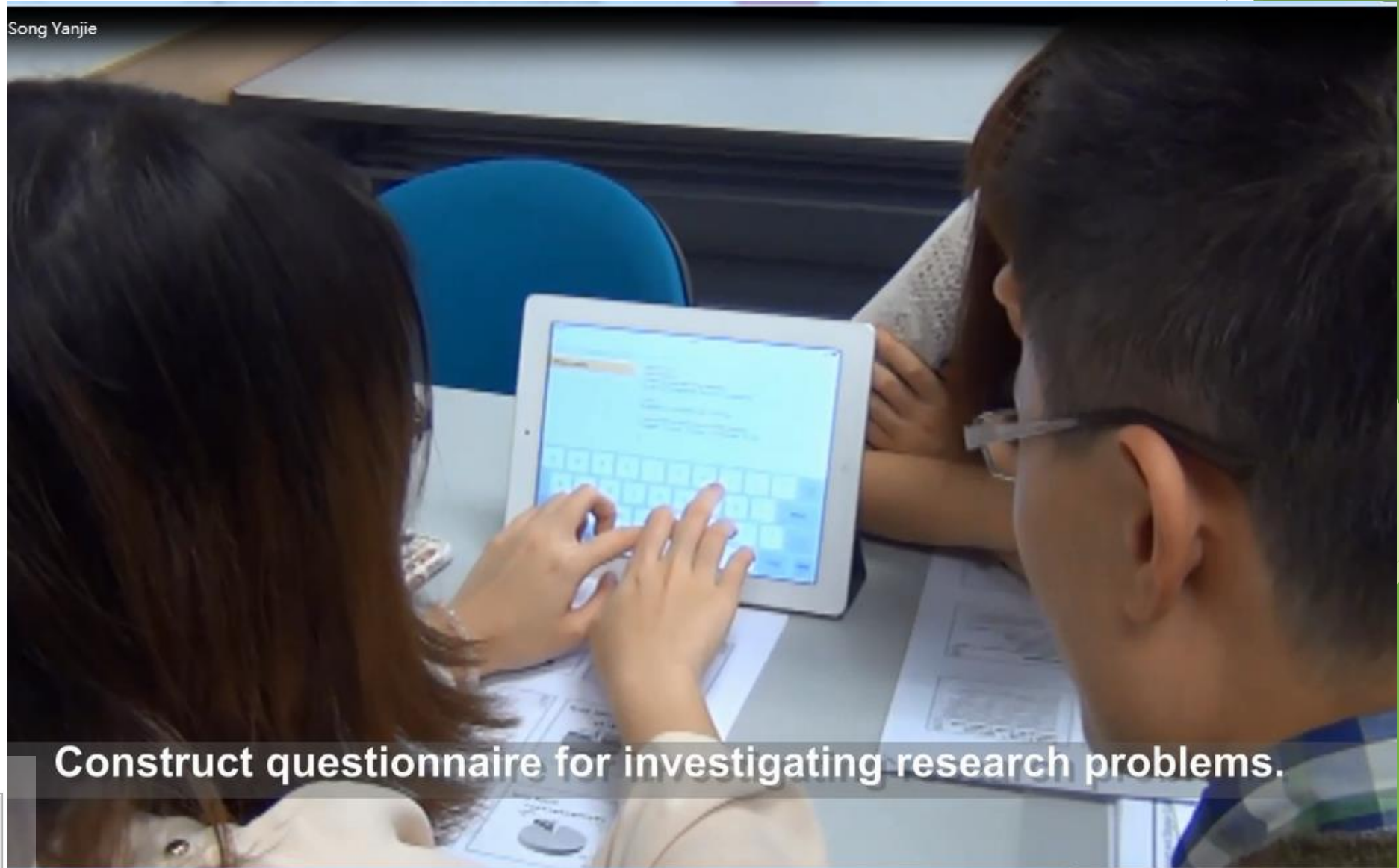


Resource Access Tool



Search Online & Discuss: the concept of "seamless learning".

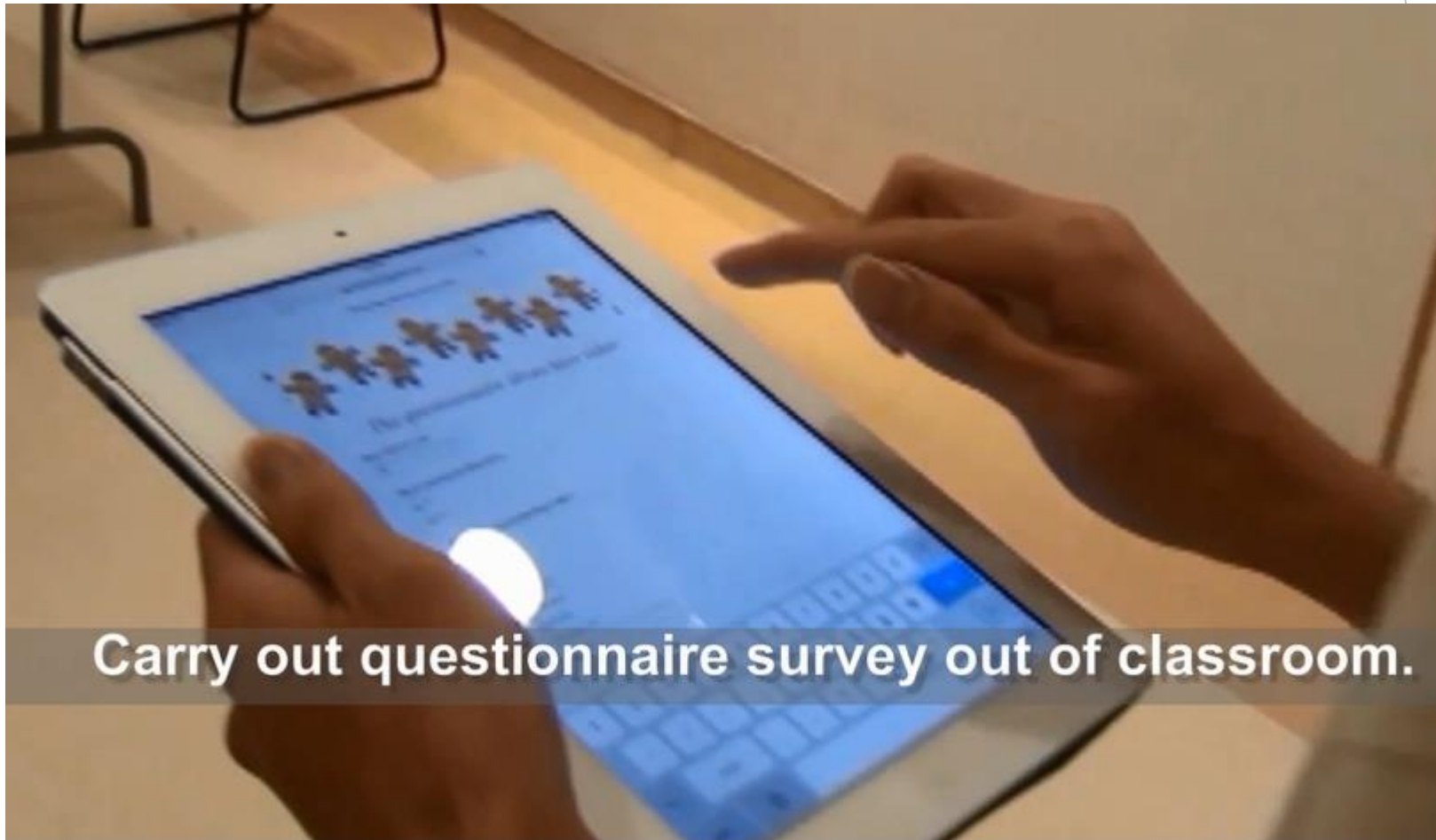
Construction Tool



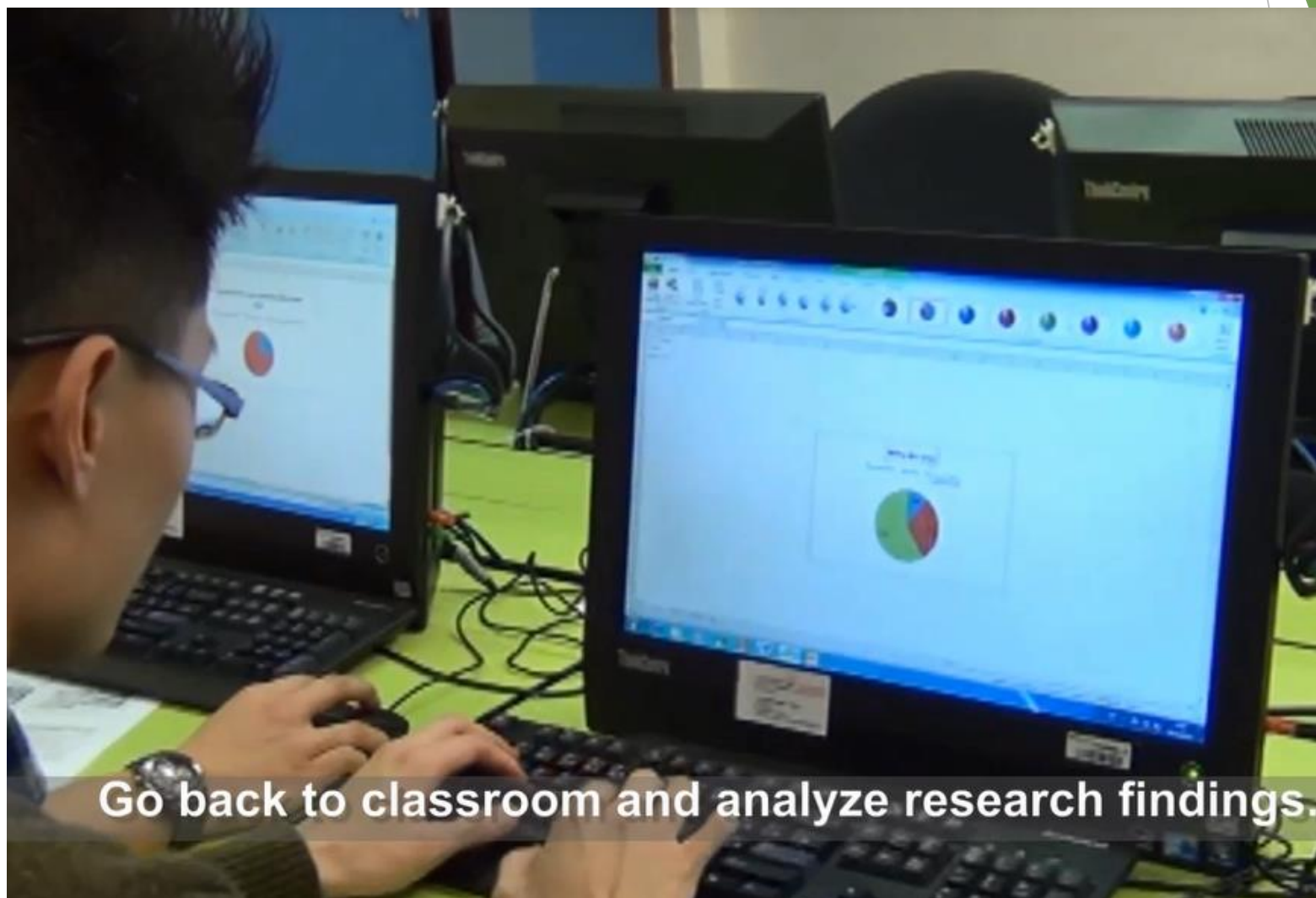
Resource Access & Resource Collection Tools



Resource access & Resource Collection Tools

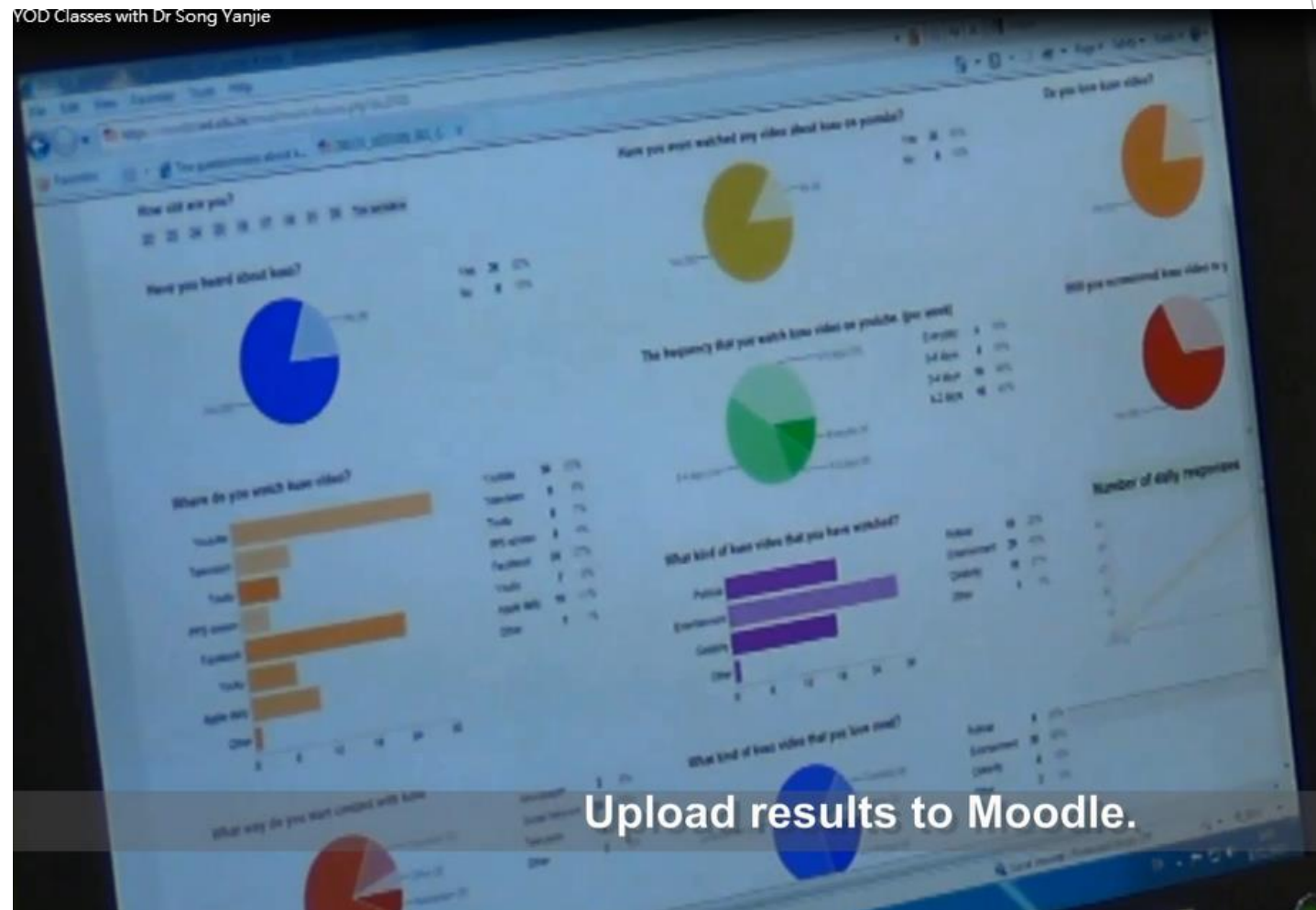


Carry out questionnaire survey out of classroom.



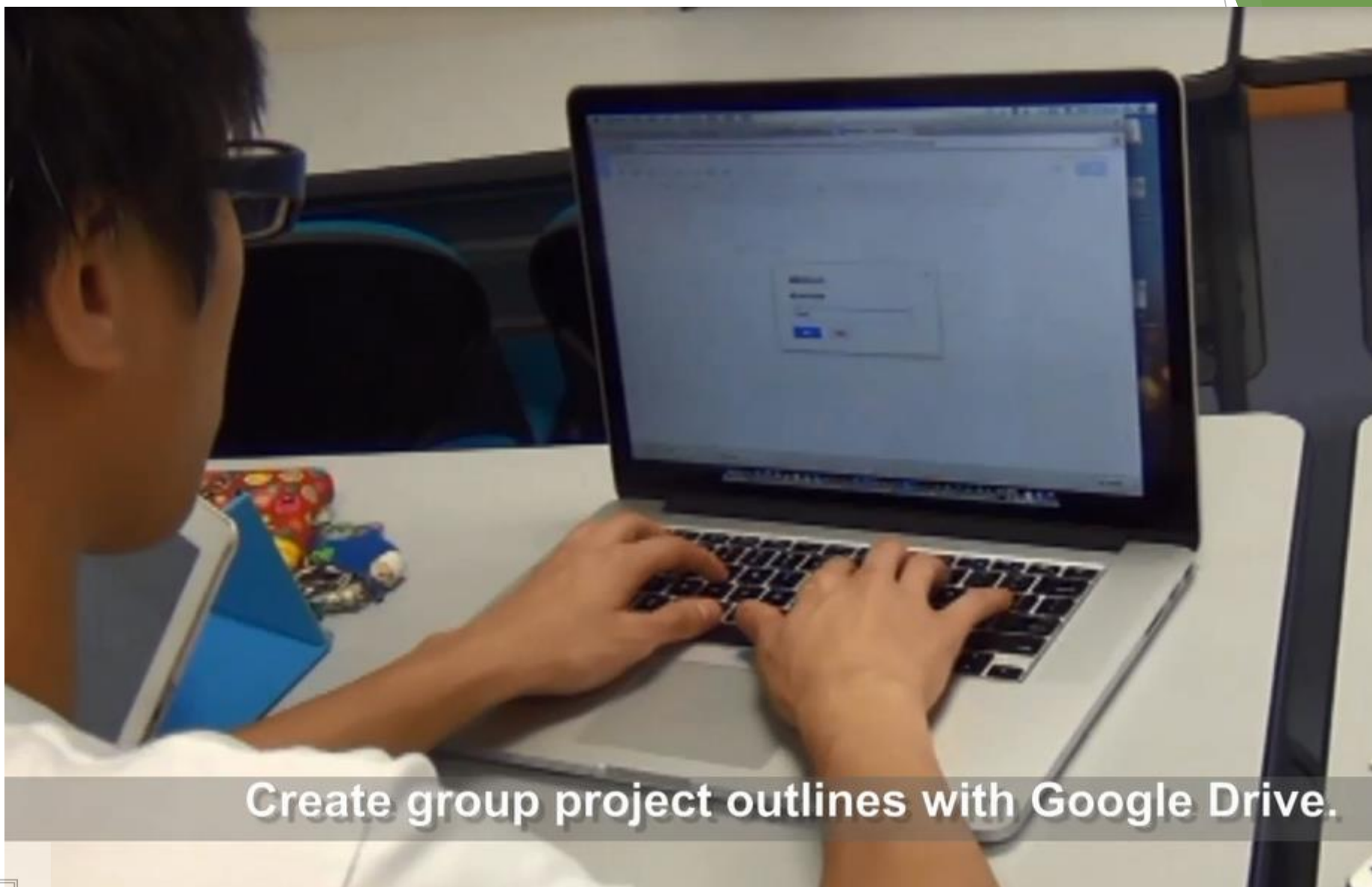
Go back to classroom and analyze research findings.







Share research experiences and findings of the survey.



Create group project outlines with Google Drive.



Student reflections

- ▶ In the session, “we used QR Code for example, I think the tasks were more practical, and I could learn by trying, thus feel more engaging” (Learner interview).
- ▶ “Seamless learning can help us learn without time and space constraints, thus can improves learning efficiency and motivate us to learn” (Learner reflection on Moodle).

Don't let BYOD become “bring your own disaster”! (Livingstone, 2012)

What shall we do is to explore ways to make transformative use of technologies in innovative pedagogical designs for reflective engagement.

Acknowledgement

- ▶ I thank Hong Kong Institute of Education Jockey Club Primary School for their collaborative work.
- ▶ The Project will not be possible without MIT small research fund.

Reflective engagement facilitated by affordances of BYOD tools

- ▶ This type of reflective engagement in learning involves **not just one successful experience in certain environment** but developing the capacity and interest to **create new action possibilities, even reconstructing relations** that might not have been readily apparent in the environment (Shaffer, 2004).

An ecological type of learning

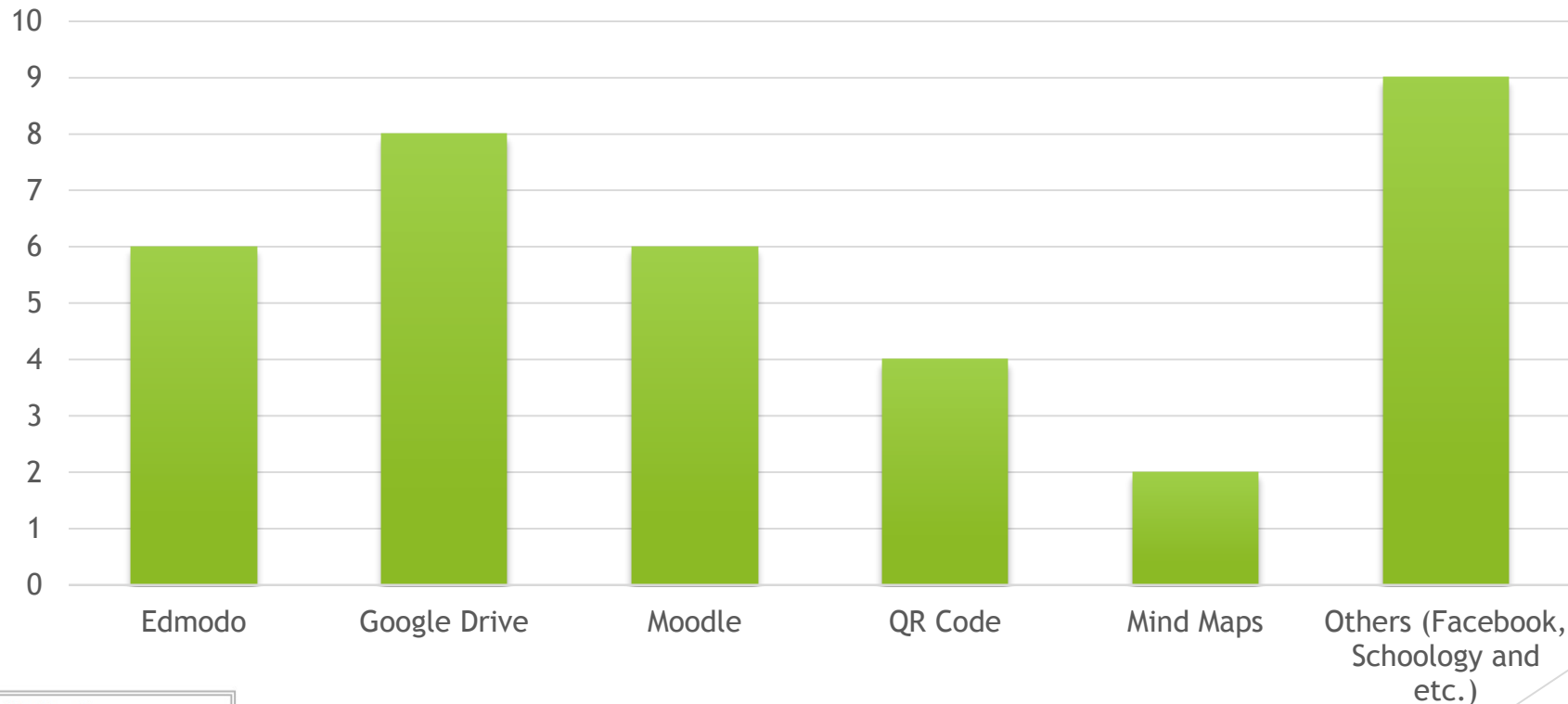
- ▶ Learning in this view is an ecological, not an individualistic, phenomenon that is distributed and enables the learner to engage in progressively **more adaptive learner-environment relations**.

(Barab & Roth, 2006)

Hence better reflective engagement.

BYOD tools adopted by the Project team members in year 2013-14

Applications Adopted in BYOD Courses, 2013-2014



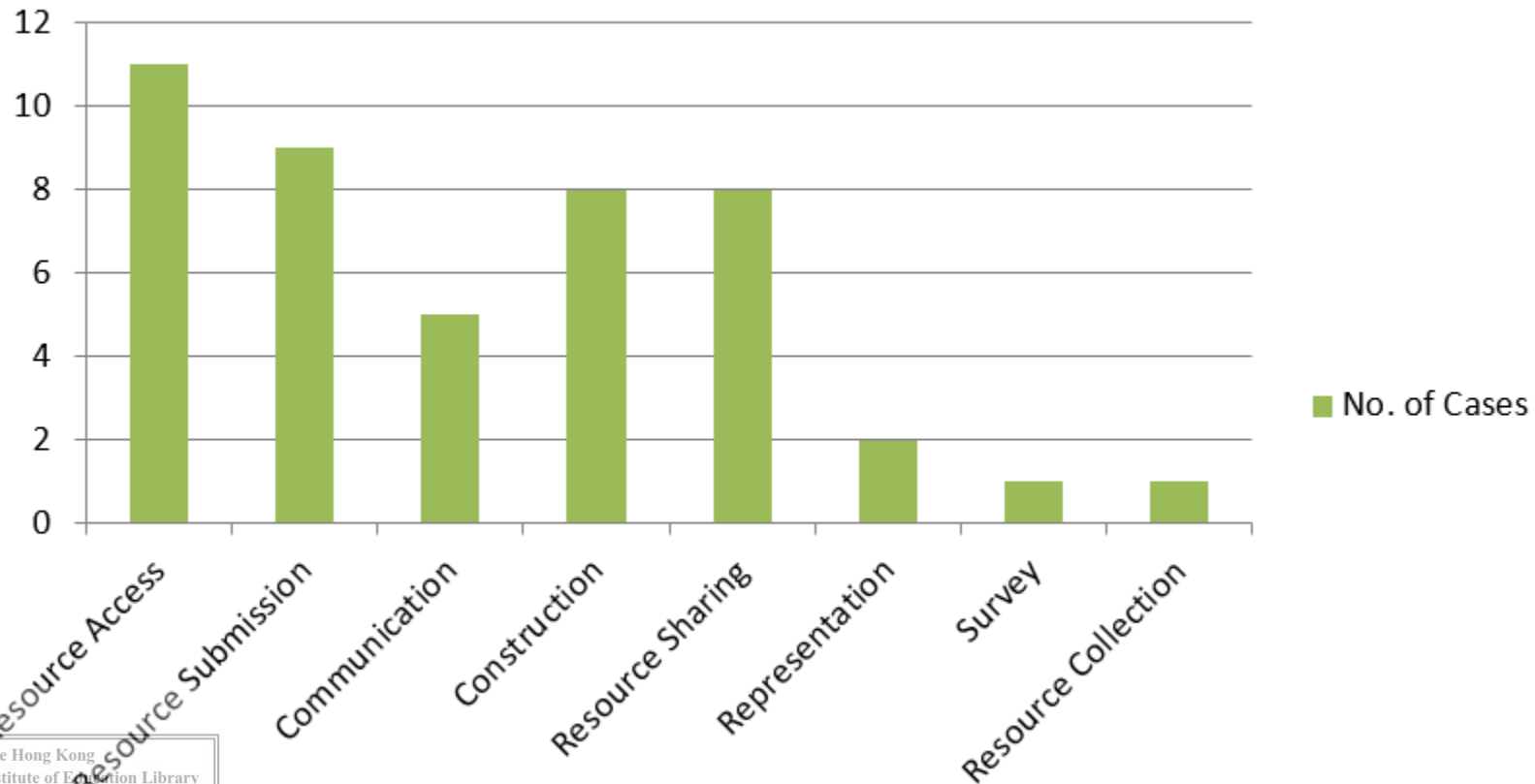
■ No. of Cases

BYOD tools

Google Drive	8
Edmodo	6
Moodle	6
QR Code	4
Mind Map Tools	2
Facebook	1
Lino	1
Schoology	1
Socrative	1
Camera (on device)	1
中國哲學書電子化計劃	1

Affordances of BYOD tools adopted by the Project team members in year 2013-14

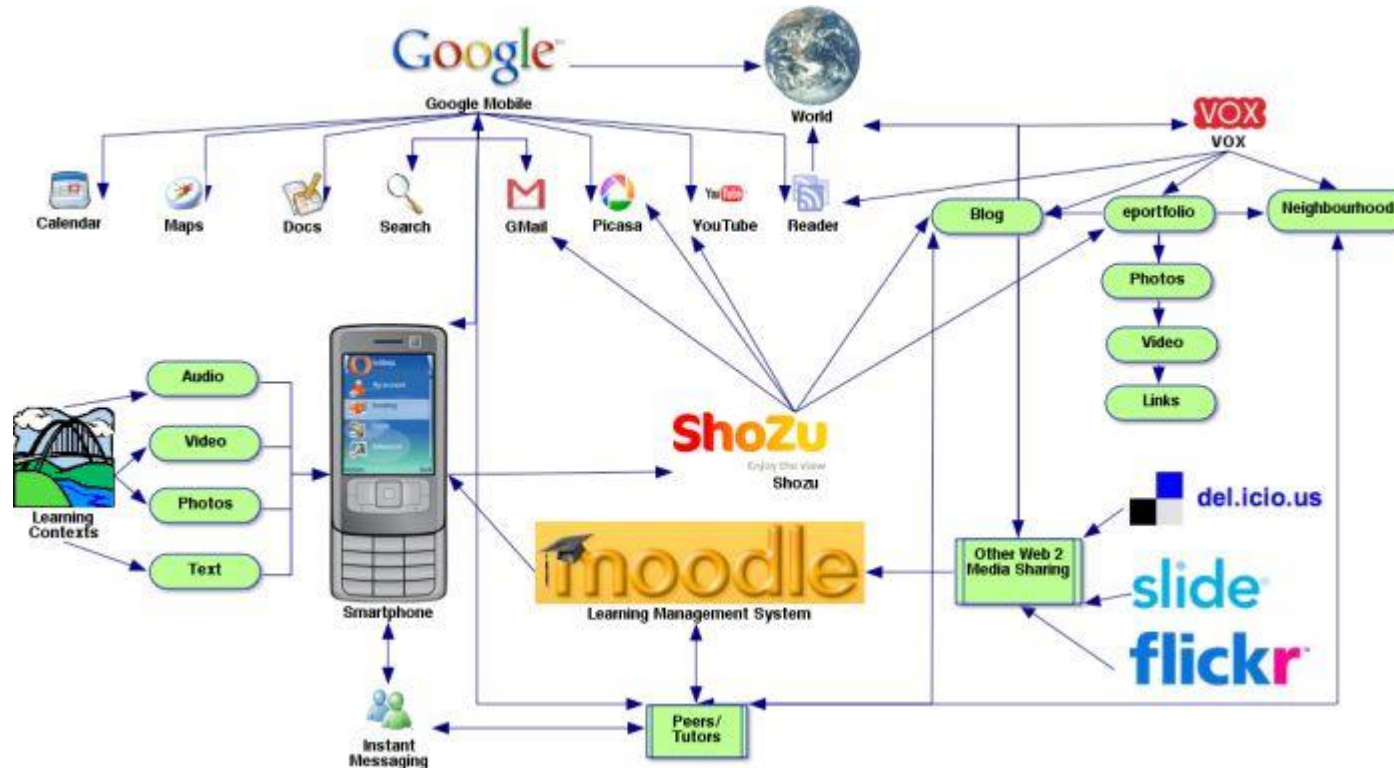
Purposes of Use of Technology in BYOD Courses, 2013-2014



Affordances of BYOD tools	No.
Resource Access	11
Resource Submission	9
Construction	8
Resource Sharing	8
Communication	5
Representation	2
Resource Collection	1
Survey	1

Future work

- BYOD as a “personalized learning hub” where a affordance network can be perceived and acted upon for personal, social, academic and intellectual reflective engagement and “niche” learning.



Thank you



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Video clip of the course: Information Literacy in School Education

► <https://www.youtube.com/watch?v=MV2wlf4-9Rs&feature=youtu.be>