Activities for Effective Emergency Remote Teaching

- Suhairi Abdul Sata, PhD
- Senior Lecturer
- School of Chemical Engineering
- Universiti Sains Malaysia
- chhairi@ usm.my (012 3836 774)







Introduction

What is Emergency Remote Teaching (ERT)?





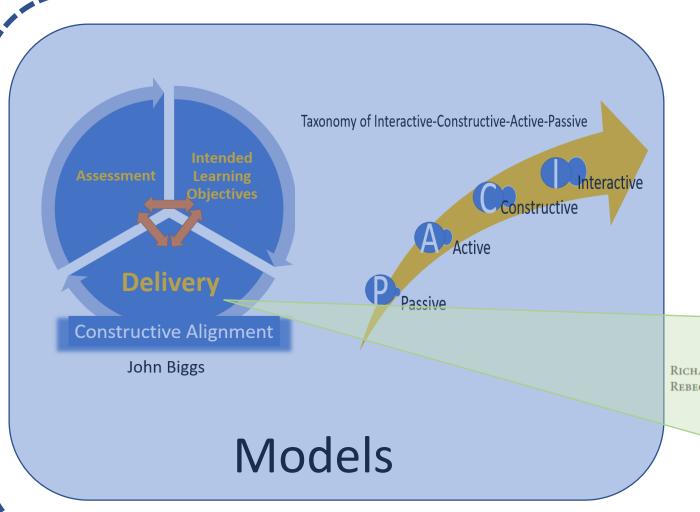
- 'Pandemic Pedagogy'!?
- Face-to-face Teaching vs Online Teaching vs Emergency Remote Teaching

What are the problems?

- Most of educators are not ready
- Social presence: Teachers-students; Students-students
- Cognitive connection: Students-contents
- Intended learning objectives might have changed
- Assessment is heavily affected



Framework for Effective ERT



LEARNING BY SOLVING SOLVED PROBLEMS

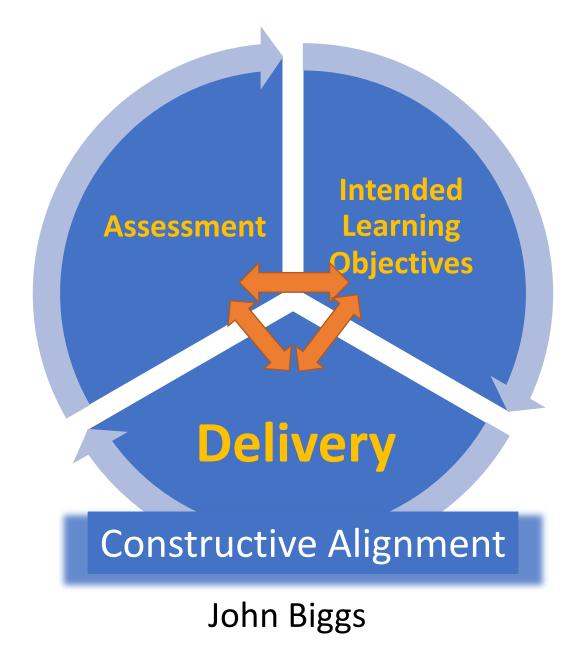
HOW LEARNING WORKS

LEARNING BY DOING

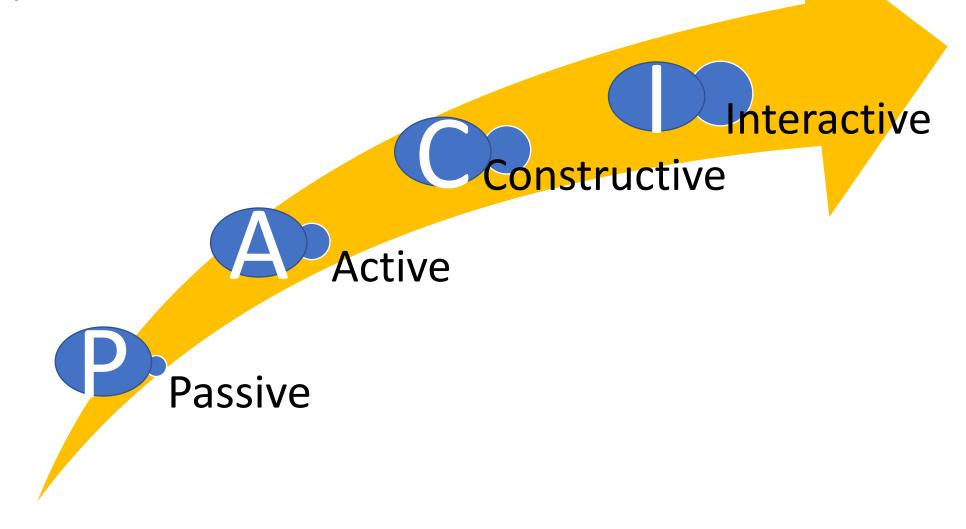
HANDOUTS WITH GAPS

RICHARD M. FELDER REBECCA BRENT

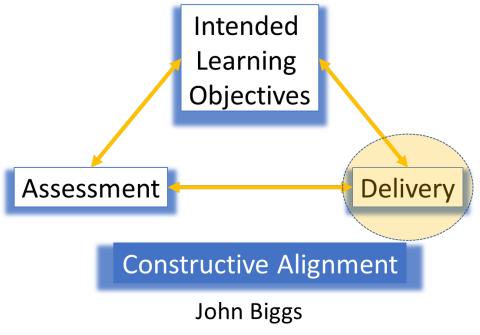
Active Learning Techniques



Taxonomy of Interactive-Constructive-Active-Passive



Students Centred Learning Active Learning





Engage students
with course contents
with instructor
with other students











Video

Students' prior knowledge helps them

- First phases: Ask your students to watch related video clips or your own lecturer recording which related to the topic. This must be done prior to the intended 'remote teaching meeting'.
- Second phase: Ask them to watch after your synchronous remote teaching/briefing. They will watch during asynchronous remote teaching and learning

Fill in Gap Handout Learning by doing

- Students insert important points: Definition, facts, simple maths, diagrams of plot
- Students insert important simulations line, missing parts of solution or derivation

Video Recording

Artefact of Learning

- Since you are not available around like in class, you may ask your students to show the answer and record the explanation
- For example, ask your students (if they are in programming/simulation) to explain the coding lines and show the results after pressing the 'enter' key

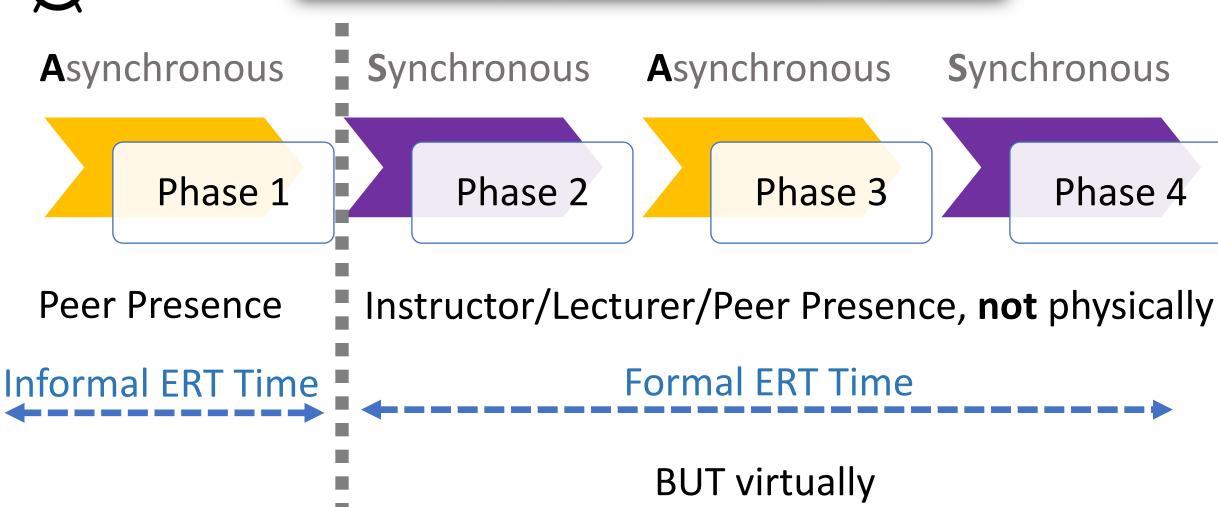
Quiz

As formative assessment



Activities for Effective ERT – 'Who'

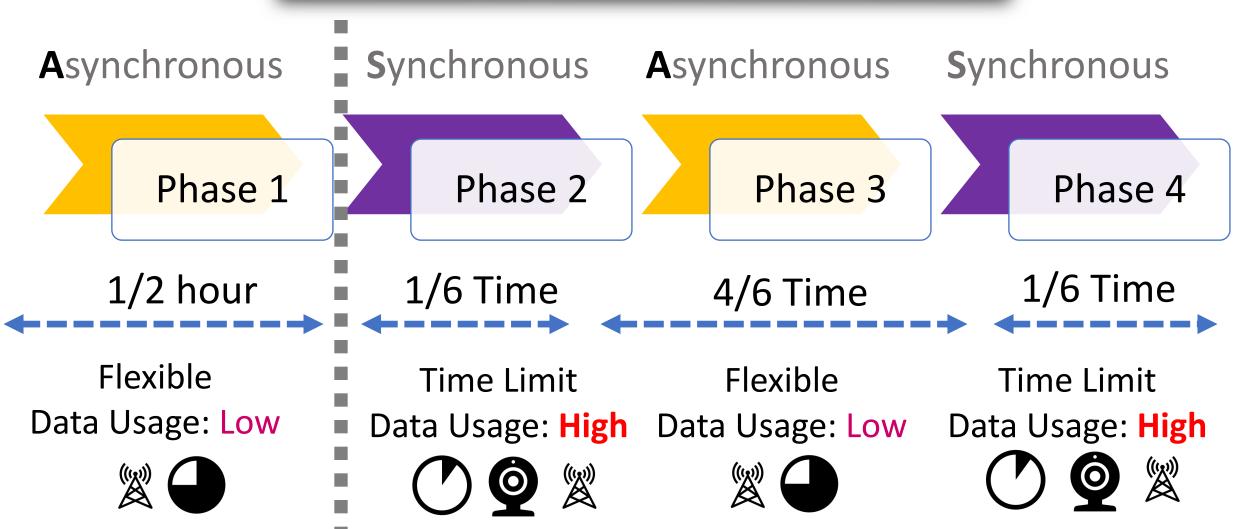




Activities for Effective ERT – 'When'

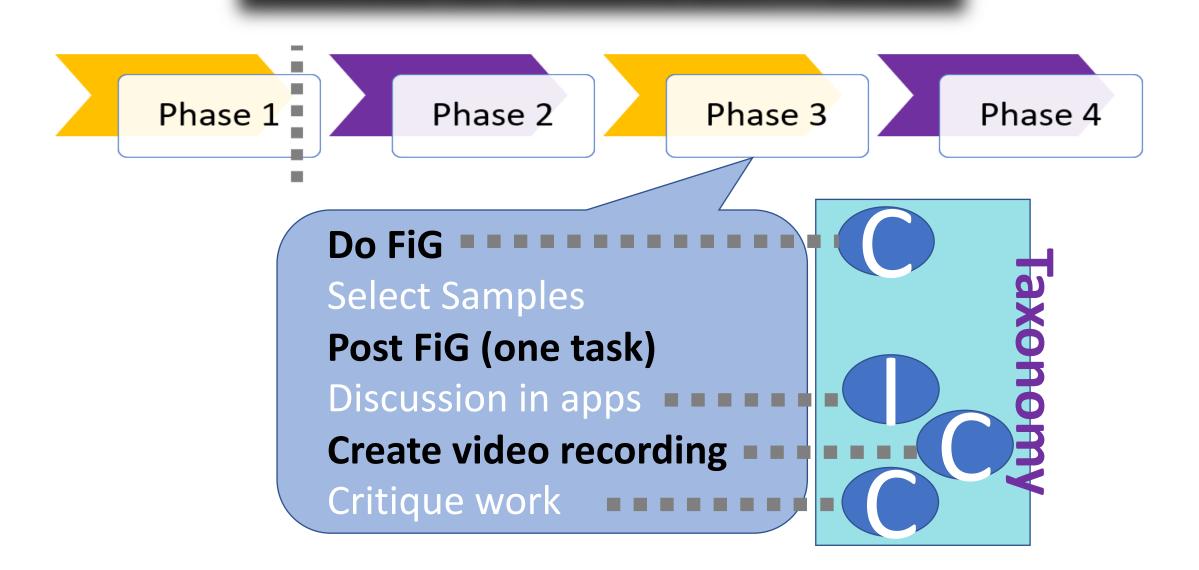








Activities for Effective ERT – 'What'



'What' for Effective ERT





Phase 1



Phase 2





Phase 3

(

Phase 4

Watch Video

Do FiG

Briefing

Instruction

ILO

Overview

Key points

Pre-Quiz

Do FiG



Post FiG (one task)

Discussion in apps

Create video recording

Critique work

Debriefing

Key conclusion

ILO

Overview

Key points

Post-Quiz

Activities for Effective ERT – 'The sample'



Computer Programming



8 video clips



85 students



1 team project Weekly discussion



7 weeks [9 weeks]



4 video recording



8 FiG Handout



2 critique tasks

Conclusion

- Use simple low band communication to support asynchronous teaching – choose simple activities
- Asynchronous teaching activities allow for peer engagement
- Allow for some synchronous teaching, minimum of 30 minutes, engaging to get teachers-students interaction.
- For effective ERT activities, we combine constructive alignment, taxonomy of ICAP, and student centred learning techniques
- Use simple worksheets to get students learn by doing

Remarks

- If you require Bahasa Melayu version of recorded presentation, please contact the detail below:
- chhairi@ usm.my
- HP: 012 38 36 774