

Be Different and Creative: Engage Students with Innovative Pedagogies

別出心裁 – 帶動學習的創新教學法

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Today

- Emotional and Agentic Engagement in Digital Learning
- Suggested Teaching and Learning Ideas
- Teacher Professional Development
- School Actions

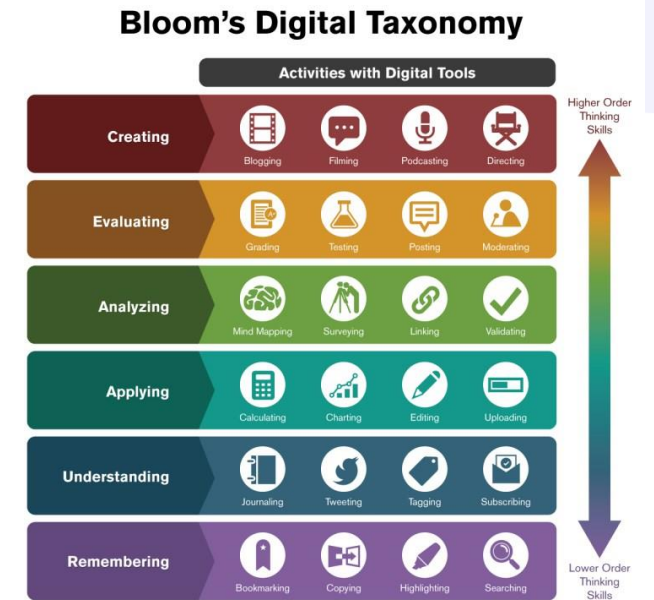
Big questions

What are the outcomes of digital learning?

Why do we need digital learning?

Student Responses on Different Tasks

- Task 1: what do you think about digital learning?
- Task 2: Upload a link that explains how to use technology support teaching and learning
- Task 3: Upload or draw a picture to tell us how you feel about engaging students in digital learning.
- Task 4: Share or make a youtube video to talk your ideas about digital learning



Four Dimensions of Engagement



Behavioral

participation in class and learning



Cognitive

willing and able to take on the learning task



Emotional

positive feelings about lessons, and sense of belonging



Agentic

Students express their ideas on teacher teaching

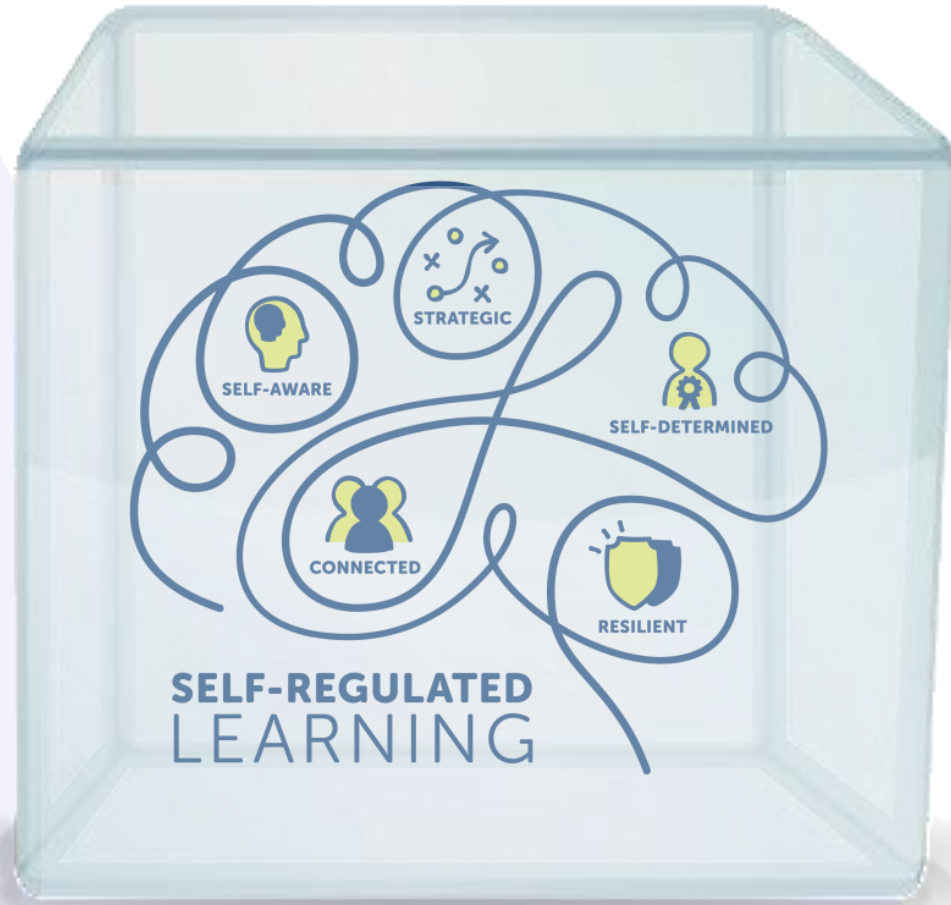
More on agentic engagement

- Agentic people as **self-organising, proactive, self-reflective and self-regulating** as times change.
- Different from “assessment for learning”.
- Students are **active information providers** for “assessment for learning and teaching”
- Associated with the other three dimensions

Emotional and Agentic Engagement

- Learning environments **changes** -> answers can be found in a second
- **Self-regulated** learners
- Student **Interest** toward disciplinary learning / inquiry-based learning
- Student **Digital Competence**
- **Digital learning environments are more effective in self-related learning, rather than face-to-face.**

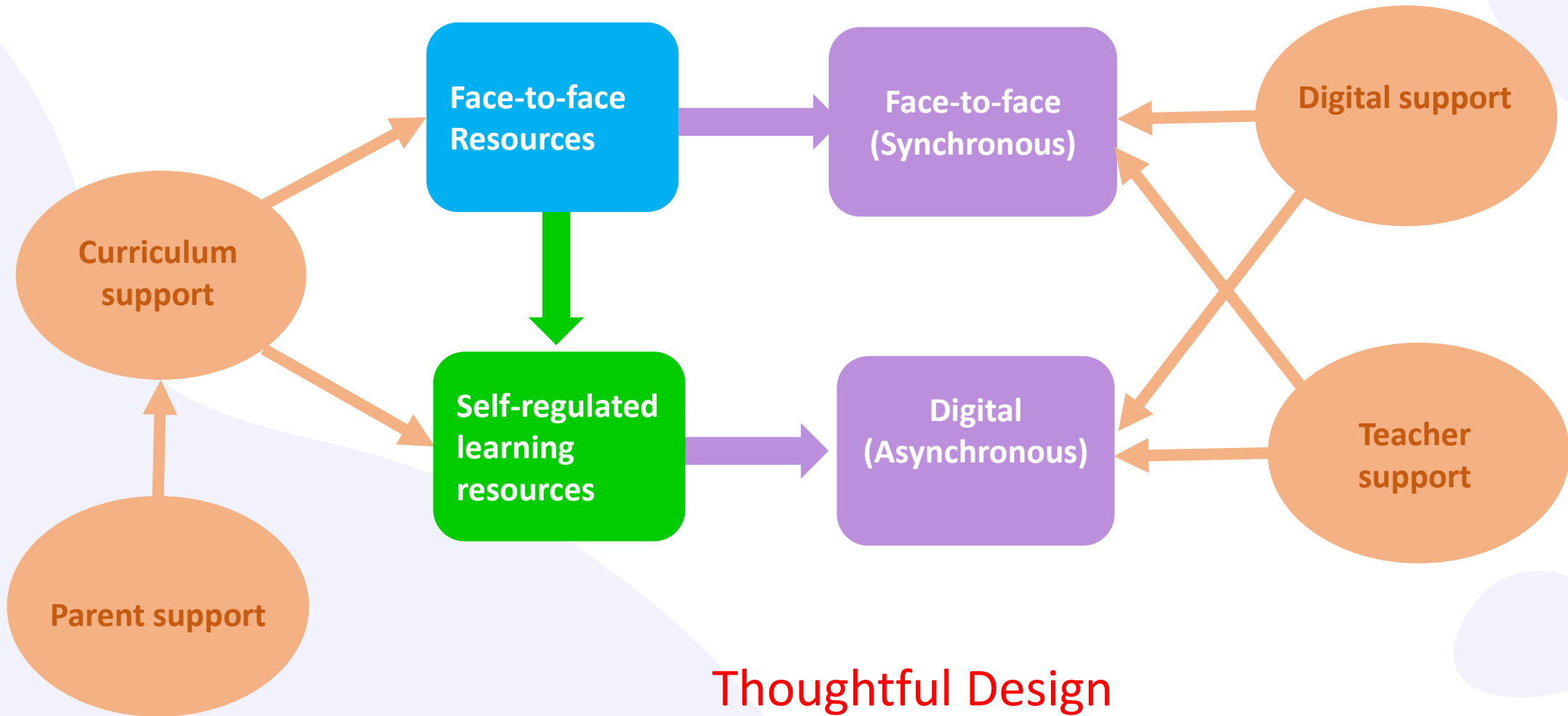
Current digital Learning and Teaching Experience



Bottlenecks

1. Slogan style and plan driven (e.g. SRL, DL, and creativity)
2. Student Learning Interest
3. Teacher beliefs / attitude on digital learning
4. Current digital learning practices
5. Rigid curriculum content mindset

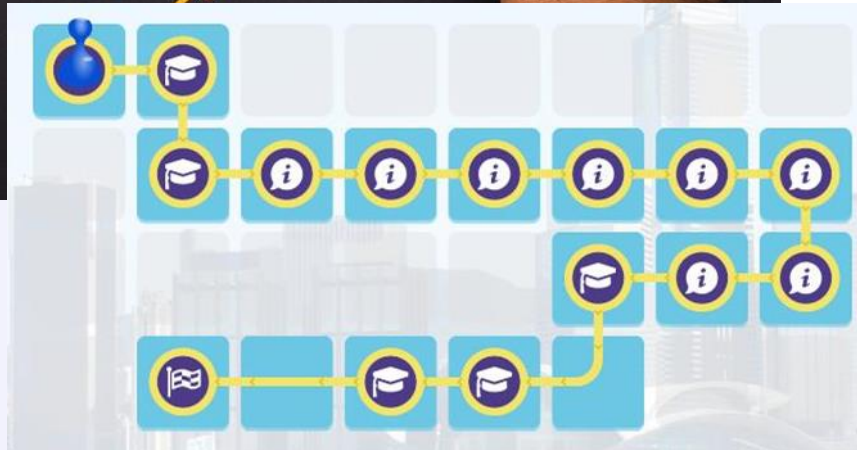
Some Suggested Ideas



Thoughtful Design

Learning path

- From time table / teaching schedule to **learning path**
- Level up exercise (differentiated tasks)**



Pictures source: Google

Level 1:

$$\frac{1}{2} - \frac{1}{2} = 0 \quad (\text{請填上})$$

Level 2:

$$\frac{3}{4} - \frac{1}{4} = \underline{\quad}$$

Level 3:

$$\frac{7}{9} - \frac{2}{9} = \underline{\quad}$$

Level 4:

$$1\frac{5}{9} - \frac{4}{9} = \underline{\quad}$$

Level 5:

$$3\frac{8}{9} - \frac{2}{9} = \underline{\quad}$$

Level 6:

$$6 - 1\frac{3}{4}$$

Level 7:

花生 $12\frac{5}{6}$ 公斤，吃去 $3\frac{1}{6}$ 公斤後，還有花生多少公斤？

Level 8:

判別下列算式的對錯，對的在空格內加「✓」，錯的加「✗」，如有錯請圈出錯處並於空白地方修改。

$$\frac{2}{5} - \frac{1}{5}$$

$$= (2-1) + (\frac{4}{5} - \frac{2}{5})$$

$$= 1\frac{2}{5}$$

Level 9:

請自擬兩道答案為 $\frac{2}{9}$ 的分數減法題。

Level 10:

自擬一道分數減法應用題。

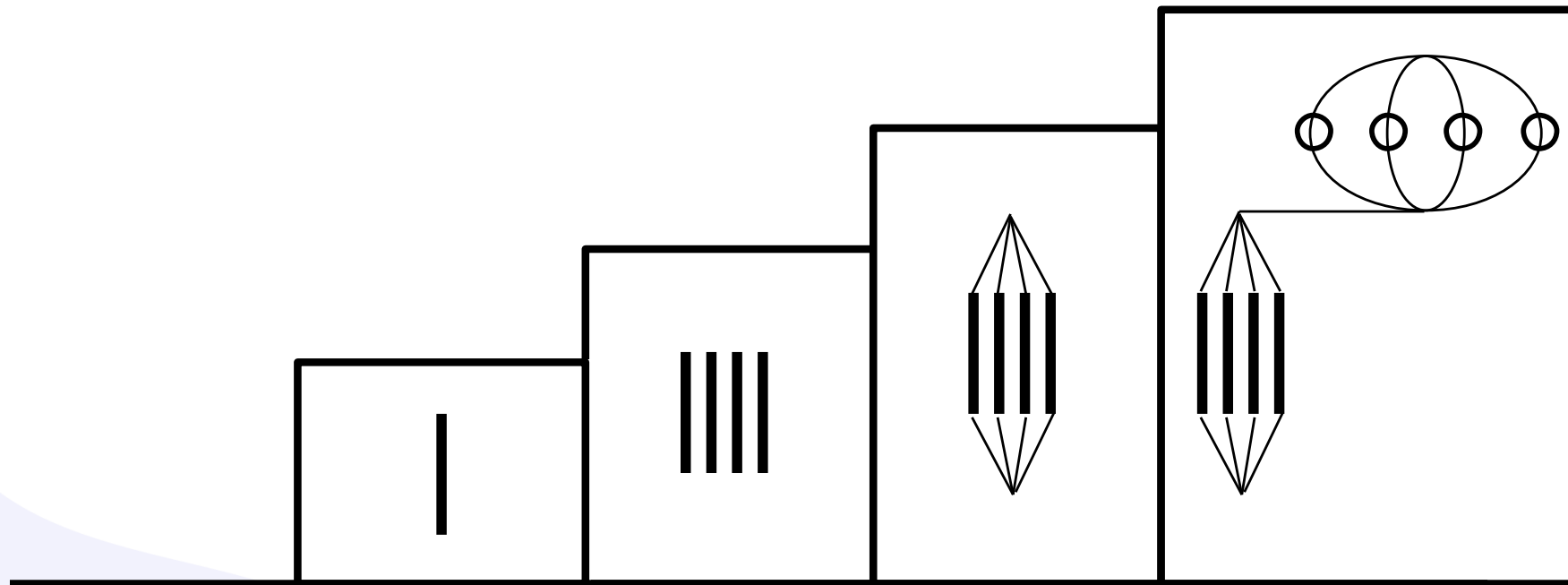
LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
Mastering Fundamentals	Learning Your Style	Increasing Knowledge	Building Skills	Demonstrating Expertise
Three Required Projects	Three Required Projects	One Required Project	One Required Project	Two Required Projects
1) Ice Breaker	4) Project 4	7) Project	8) Project 8	9) Project 9
2) Evaluation and Feedback	5) Project 5	Two Elective Projects	One Elective Project	10) Reflect on Your Path
3) Researching and Presenting	6) Introduction to Toastmasters Mentoring	1) Project 1 2) Project 2	3) Project 3	One Elective Project 4) Project 4

Every Path has Required and Elective Projects: 14 projects across 5 levels - a combination of 10 Required projects and 4 Elective projects.

Learning Path

Path	Task
Mastering fundamental	Task 1, 4, 9
Learning style	Project A, Task 2, 5, 7
Increasing knowledge	Task 2, 6, 8
Building skills	Project B
Demonstrating expertise	Project C and online presentation video

Assessment



Missing the point

Single point

Multiple
unrelated points

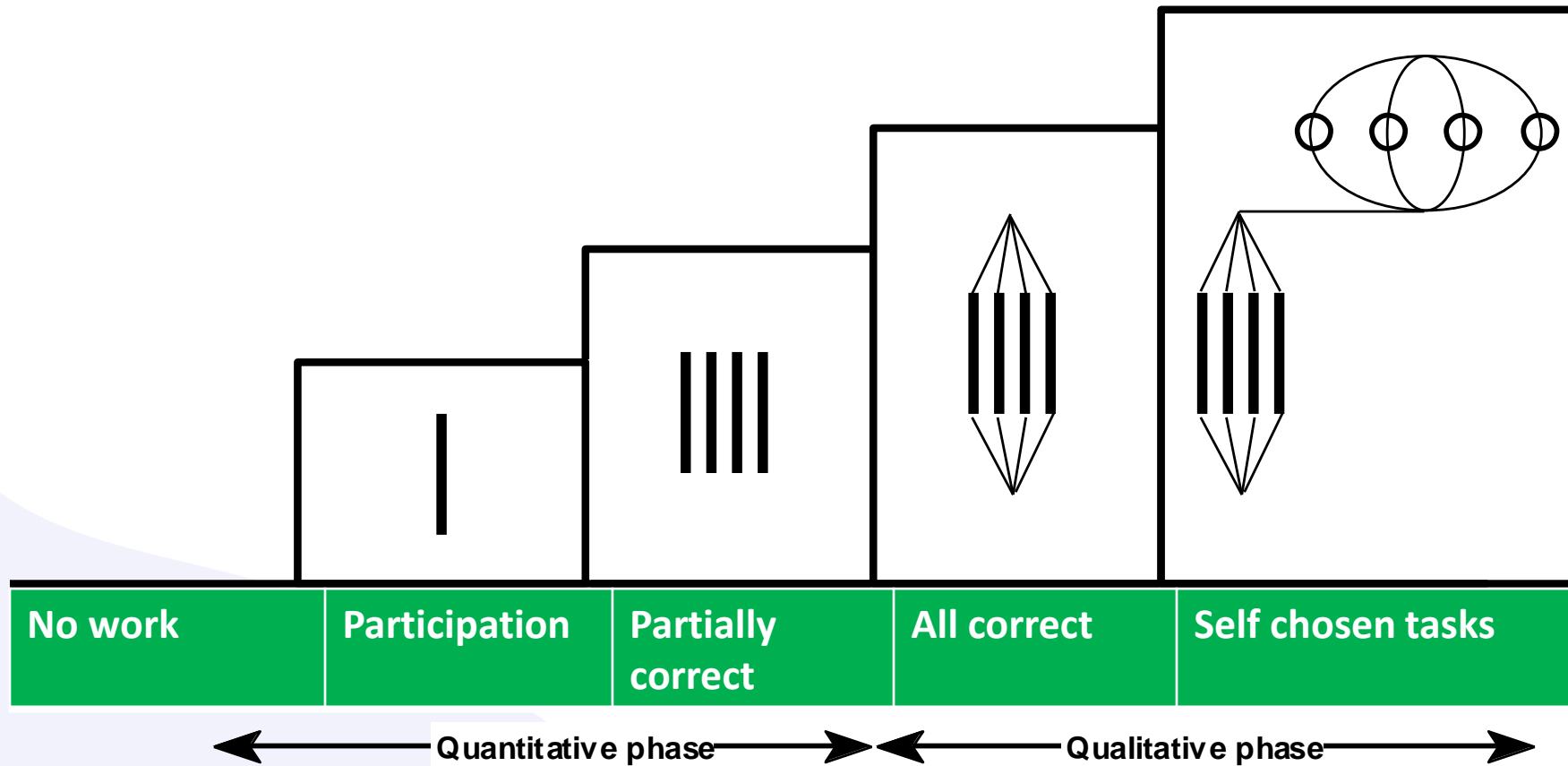
Logically related
answer

Unanticipated
extension

← Quantitative phase → ← Qualitative phase →


0	1	2	3	4
No input	input	speak	answer	Extra sharing

assessment



“Challenge” task

- Upload “challenging” tasks in asynchronous learning space (e.g. LMS)
- Assessment focuses on **student learning efforts and quality**

	Criteria	Mark /grade
Effort  Quality	Finish all the assignments	1
	Some are correct	2
	All correct	3
	Self-initiatives ideas / items	4

The formula

Tools + Content + Activities = Purposes

Tools	Content	Activities	Purposes
Games	Easy / known	Self-learning	Cognitive engagement
Games	New knowledge	Self-learning and discussions	Cognitive engagement
Games	Same knowledge presented in lesson	Self-learning in class with teacher one-to-one guidance	Cognitive engagement / agentic
Padlet	Three new words	open	Emotional / Agentic
Padlet	Expressing how to learning		Emotional / Agentic
video	Passionate project	Self-learning	Emotional / Agentic

Face-to-face



Digital

- **Interaction** within an environment
- **Communication** between the two environments
- Technology **integration** for self-initiative learning

Other ideas

- Station learning
- A digital space for students to express when, what and how to learn.
- Video conferences for one-to-one / small group meeting
- Voting by emoji or multimedia.

Professional Teacher Development

- Digital Learning design **for a learning unit**
 - Focus on both lesson observation (teaching with technologies) and digital resources
 - Design rubrics
 - Digital resources should be a digital learning space
- **Assessment of** digital learning design
 - Use a long term period e.g. 2 weeks
 - Measure student digital leaning artifact
 - Measure Self-regulated learning / interest as the outcomes
 - Use student work collected in digital environments for teaching in classrooms

Professional Teacher Development

- Enhance Teachers beliefs on digital learning
 - Not a burden
 - Quality design, rather than massive production
 - Reusable
 - An investment (e.g. Easier jobs in long term)
- Workshop digital learning
 - Ideas for Engaging students learning with digital tools
 - principles to design good quality resources
 - No skills to use tools (15 minute rules)
 - Teacher Digital Competence
 - Growth mindset on digital learning

School actions

- **School mindset:** Long term investment, a team work, coordinate teachers to create learning units.
- **Leader learning support:** encourage teachers to attend international conferences as rewards or funding teacher to attend courses in MOOCs or online courses.
- **Expert learning support:** External bodies such as universities and educational service providers can run professional development workshops for teachers on digital learning design and offer individual consulting sessions upon teachers' request.
- **Peer learning support:** Groups (Trio) of learning “buddies” can be formed to provide teachers with mutual support. digital learning design must be the central ideas.

Thank You

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