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Using Google Form in Chemistry Learning, Teaching and Assessment

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Why Flipped Learning using
e-devices??

Some findings in other countries on flipped classroom (Students' view)

A general Chemistry Lesson – using audio-recorded powerpoint slide as e-resources (7-10 mins a session)

- o 87% agree that the length of the e-resources is appropriate;
- o 48% agree pushing lectures outside classroom is a burden;
- o 65% agree pushing lectures outside classroom make lesson less boring;
- o 94% find the e-resources useful in preparing Test / Exam
- o 84% find the e-resources useful in doing Homework

Flipped Learning using video clip

- Out-of-class:
- Students study the Science Topic by themselves using video clip

STEP 1

“Google Form”



- In-class:
- Discussion on more challenging examples

STEP 2

- Facilitates discussion
- Assist in more difficult questions
-

Teachers' role

Example of a flipped classroom cooperate in in-lesson learning

Lesson Plan

- o 1st Segment – Housekeeping time
- o 2nd Segment – Discussion on e-resources / lesson content
- o 3rd Segment – Graded Follow-up quiz on e-resources
- o 4th Segment – Deepen understanding using more difficult examples

Let's try "Google Form"!

o <http://goo.gl/forms/hvt1MF8ap1>



Classwork
Create a google form !

A combination of tools

o Google Form + Simulations

<http://goo.gl/forms/Kla82PU3GN>

o Google Form + “Explain Everything”

What about auto-marking?

Advantages

Effective to provide **timely feedback**, **reduce workload** for teachers, etc.

Limitation

Effective only for certain question types (e.g. MCQ / True or False), **further consolidation** are needed, etc.

EXAMPLE: **Flubaroo (Add-on for “Google Form”)**

https://www.youtube.com/watch?feature=player_embedded&v=U06W3H_iDho

Timely feedback

Gmail ▾



More ▾

COMPOSE

Inbox (2)

Starred

Sent Mail

Drafts

More ▾



chemistry ▾



Below is a summary of the grades you just emailed:

Assignment Name:	Testing 1
Number of Emails Sent:	1
Number of Graded Submissions:	5
Average Score (points):	3
Points Possible:	5
Answer Key Provided?	Yes

Timely feedback

COMPOSE

to me ▾


Inbox (2)

Starred

Sent Mail

Drafts

More ▾

 chemistry ▾



This email contains your grade for **The Physics of Running Fast!**. Do not reply to this email.

Your grade: 3 / 5 (60.00%)

Summary of your submission:

Name

chemedb@gmail.com

Submission Time

Wed Mar 25 2015 20:28:48 GMT-0700 (PDT)

According to the video, in order to run faster, we have to

Correct

+1 point(s)

Your Answer: keep our foots closer to our hips.

Arrange the order of the following according to their speed: [Human]

Incorrect

0 point(s)

Your Answer: 1 (Fastest)

Correct Answer: 2

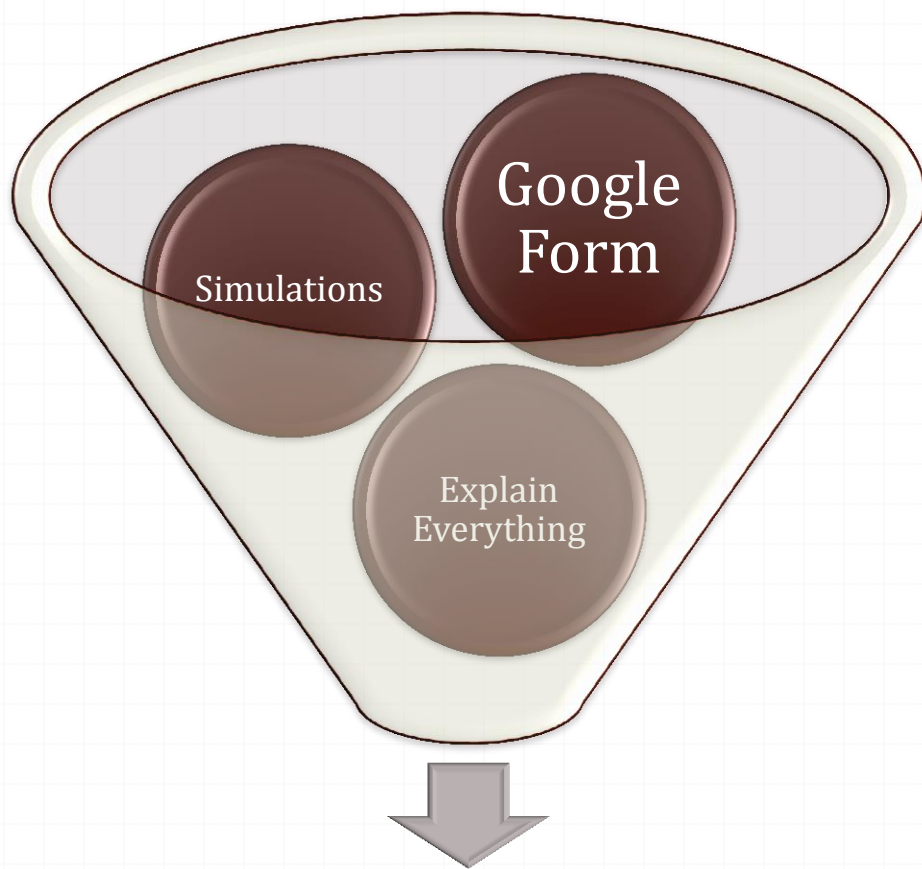


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Go eLearning (HKedcity)

利用Google Form結合Flubaroo製作測驗

o <https://www.hkedcity.net/goelearning/resource/56307feb316e83093c000000>



Formative Assessment

Why perform flipped classroom?

1. Self-directed Learning
2. Timely feedback
3. Mobile learning
4. “Reusable”
5.

1. **Adaptation** - Teachers?
Students?
2. **How** to implement? Any
“incentives” to attract
students?
3. **What** Chemistry learning
materials should be included?
4. **When** to implement?