

# e-Assessment in Higher Education

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20 Nov 2020

Get your device ready...



Transforming **Assessment.com/STADIO**

# Caveats – context

## **Different strokes for different folks!**

Australian HE – Universities, Vet sector, Schools  
City, remote, offshore e.g. Mainland China (GFC)

Access and availability of computers, phones,  
internet/bandwidth

Students cohorts – Well-off, Low SES, ESL, First in  
family, working

Technical capability, literacy, digital skills of  
students and staff

Availability of students – timelessness, time  
quotient, synchronous/asynchronous

# Is this your learning space?





# A key motivation - The gap

Real world of work



World Economic Forum - How will digital change your working world.  
<https://agenda.weforum.org/wp-content/uploads/rtr2m8vm1-628x330.jpg>

Many assessments



Exams at Monash Caulfield in 2015 (matthew.hilier[at]monash.edu)  
70,000 student university.

We are faced with a growing disconnect between the way *assessment* is conducted using pen on paper tests and students' everyday experiences of study, work and life ~ let alone their future!

*Do you agree? ~ comment in the chat box!*

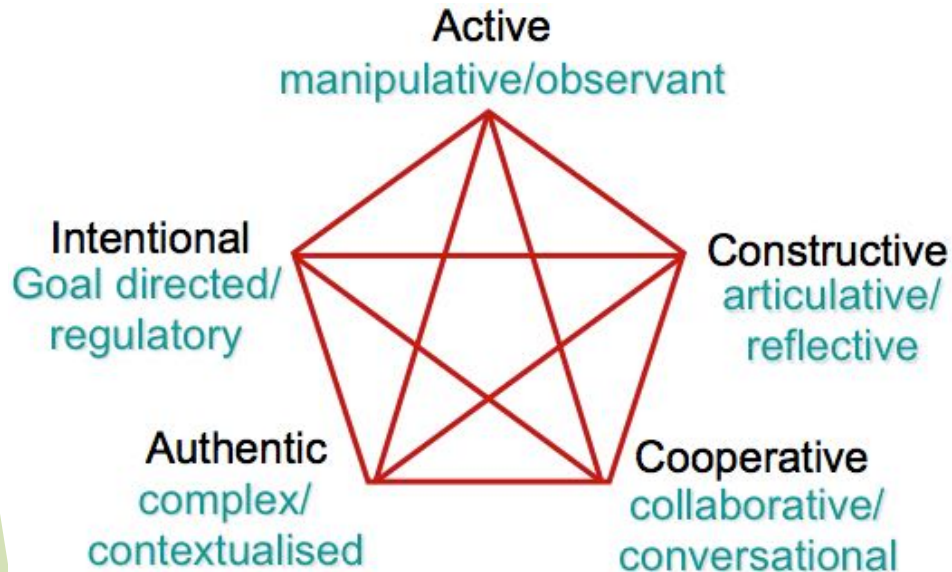
4IR

21C

# Pedagogical aspirations

## Meaningful

Meaningful learning is:



(Jonassen et al, 2008)

## Authentic

Authentic learning involves:

1. Authentic context
2. Authentic activities
3. Expert performance
4. Multiple roles and perspectives
5. Reflection
6. Collaboration
7. Articulation
8. Coaching and scaffolding
9. Integrated authentic assessment
10. Professional learning

(Herrington & Kervin, 2007)

# A key idea: technology as an enabler

## Redefinition

Technology allows for the creation of new tasks previously inconceivable

## Modification

Technology allows for significant task redesign

## Augmentation

Technology acts as a direct tool substitute with some functional improvement

## Substitution

Technology acts as a direct tool substitute with no functional improvement

Transformation

The affordances (features and capabilities) of technologies is important. Technology must enable the transformation of assessment towards desired pedagogical aspirations - choose carefully!

## SAMR Model

Substitution  
Augmentation  
Modification  
Redefinition  
(Puentedura, 2006)

Enhancement

# Cart and Horse or Horse and Cart?

Consider your discipline content (CK)

Ask how you want to achieve learning (PK)

Look for the tools to help (TK)

*Teachers need TPACK*  
(technological, pedagogical and content knowledge).

Koehler & Mishra (2005)

*Are you familiar with TPACK?*

*Is it helpful in thinking about online teaching?*

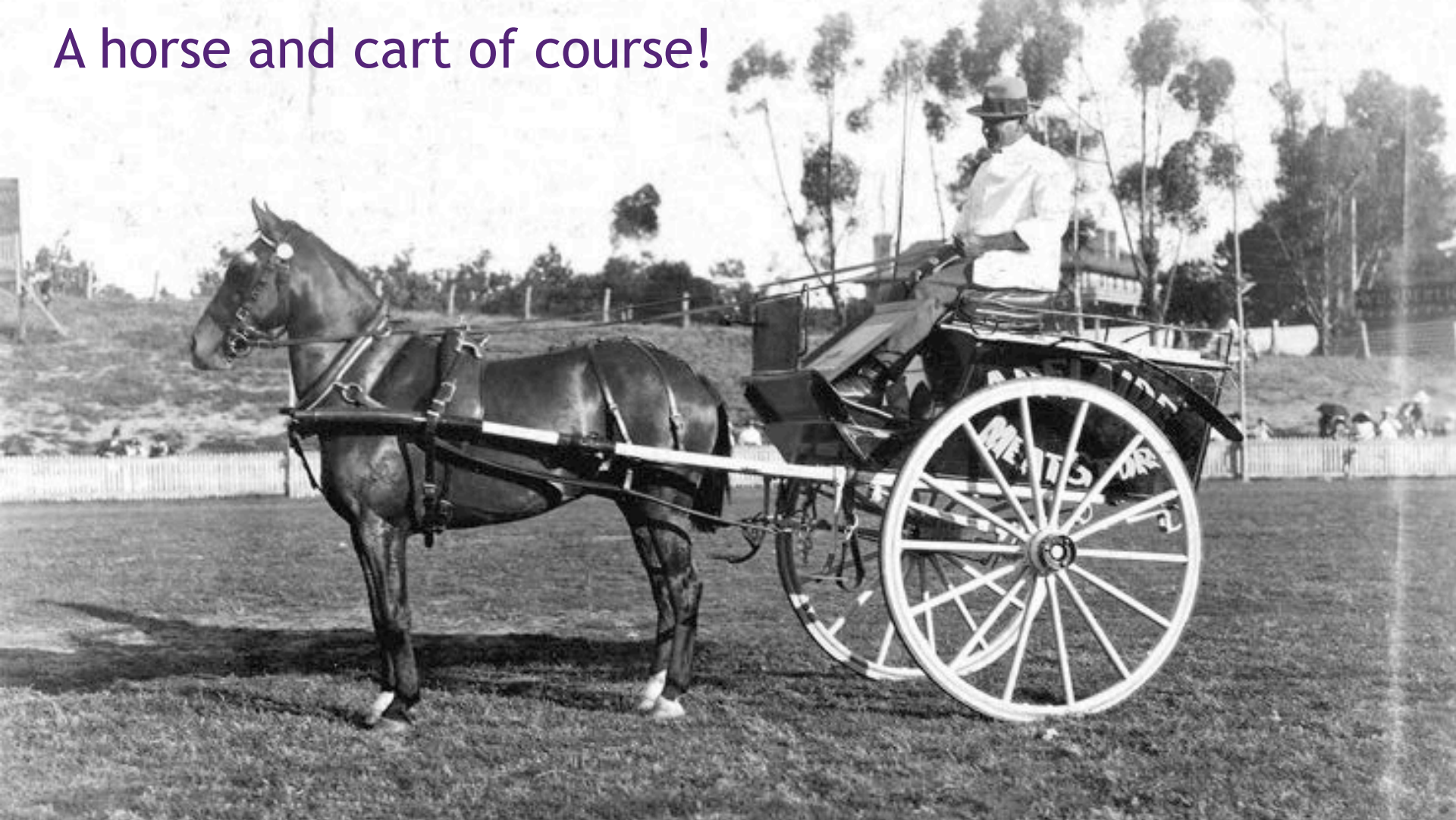
*Comment in the chat box!*



Sankey (2020). <https://michaelsankey.com/2020/05/22/putting-the-pedagogic-horse-in-front-of-the-technology-cart/>

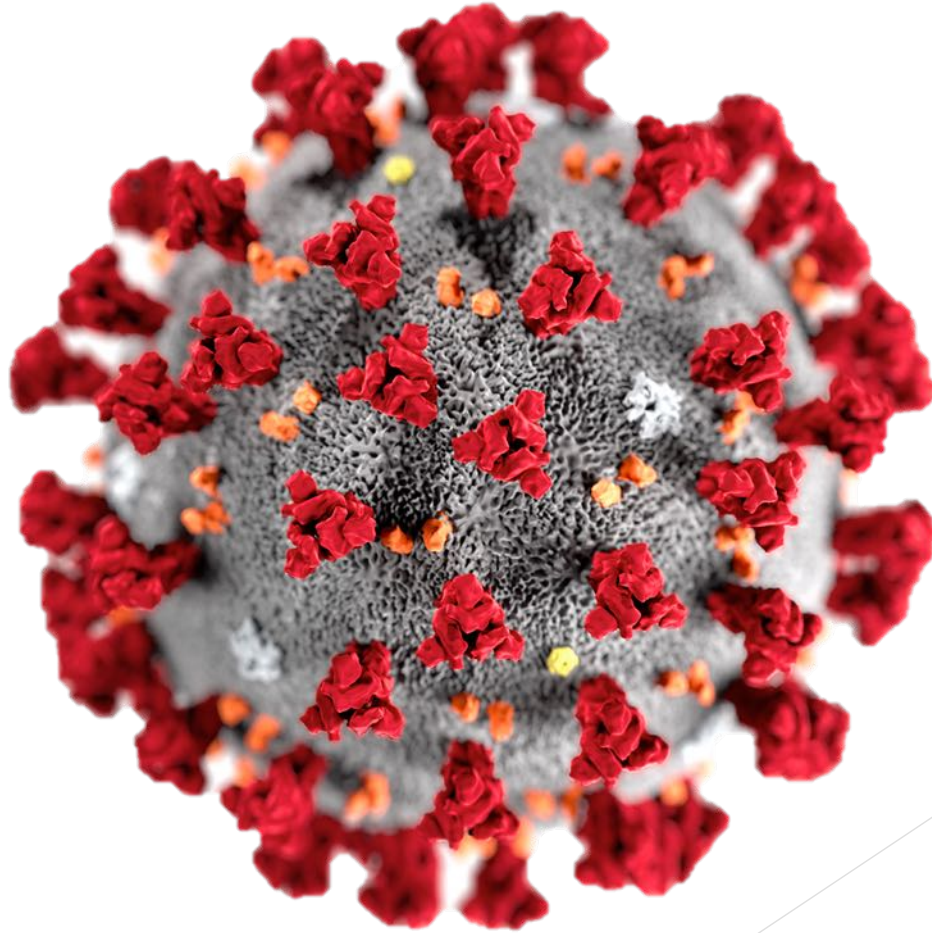


A horse and cart of course!

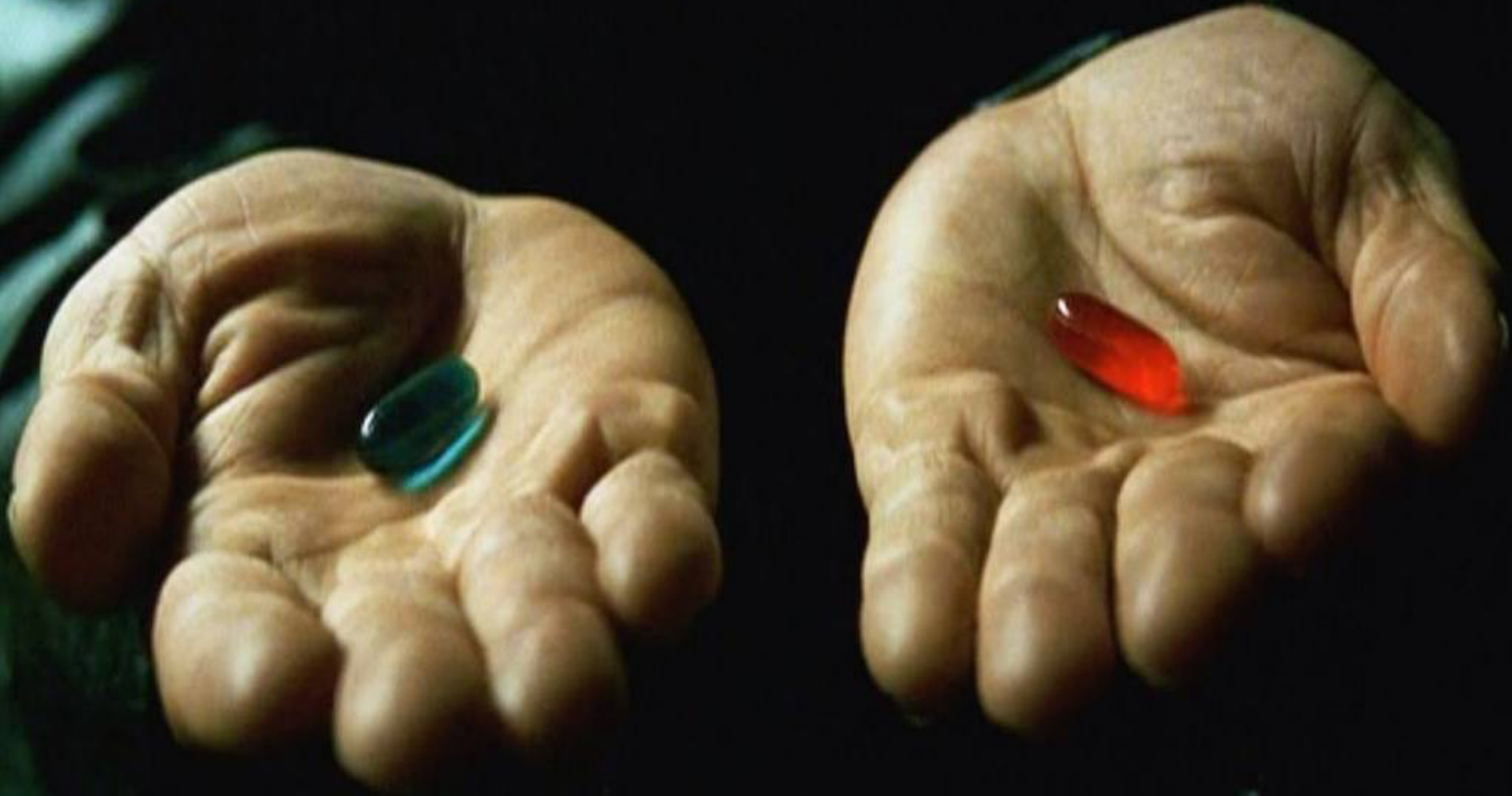




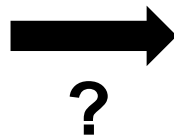
A crisis ... an opportunity.



After COVID: Blue or Red?



# The choice – migrate or transform?



Blue - safe	Red - brave
Migration*	Transformation*
Efficiency-first assessment.	Authentic-first assessment.
MCQs and text in closed environments	Complex constructed responses in open environments
Consumptive and passive	Productive and interactive
Digital paper - 1.1	Post-paper – 2.0, 3.0
Assessment of learning(?)	Assessment for/as learning

**(perspective meets technology choice)**

*Which appeals to you?*

*Migrate or transform?*

*Comment in the chat box!*

\*Allan (2020). Migration and transformation...

TA Webinar [http://transformingassessment.com/events\\_6\\_may\\_2020.php](http://transformingassessment.com/events_6_may_2020.php)

# Good assessment: Three dimensions

## Authenticity:

Enabling a *broad pedagogical landscape* for the **assessment of 21<sup>st</sup> Century capabilities**. Go beyond a 'paper' paradigm. Use 'tools of the trade' (word processor, spread sheet, database, math, stats, graphics, multimedia, software dev, simulations, CAD, discipline tools). Flexible for blended and online contexts. Data open for analytics -> integration.

## Scalability:

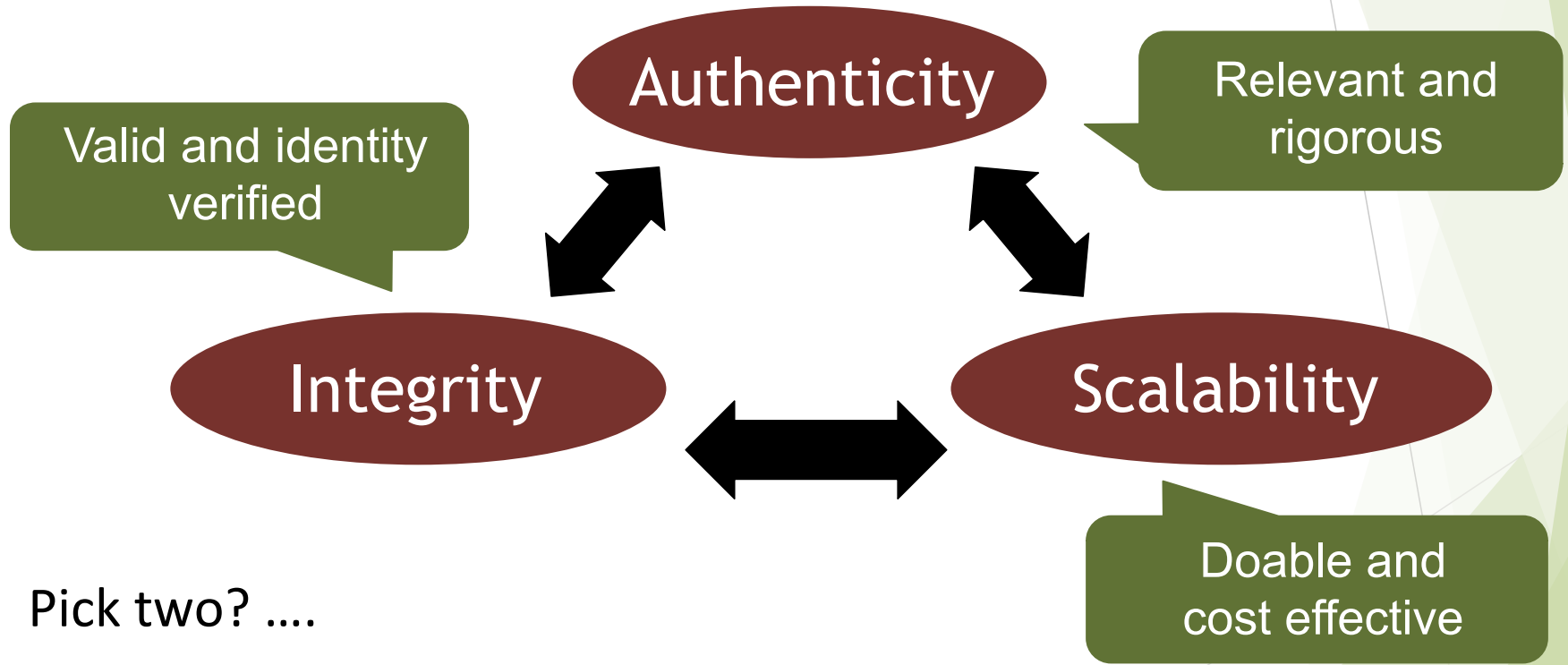
Practical, doable, cost effective. Mix constructed and process problems as well as some computer marked response types. Large scale equipment provision and access  $\approx$  BYOD. Reliable  $\neq$  networks!? = must be robust. Complexity = work!  $\sim$  Must use technologies appropriately and efficiently  $\sim$  design the logistics.

## Integrity:

Valid assessments. Secured. Academic integrity: education, awareness, opportunity are factors. Identify verified, resource access known/expected. Design to the conditions. Activity and identity logging can help. Anti-cheating  $\geq$  paper. Continuous improvement.



# Good assessment: Three dimensions -Trade off?



Pick two? ....

We need to strive for all three.

# What do you think?

If we can *only have two*:

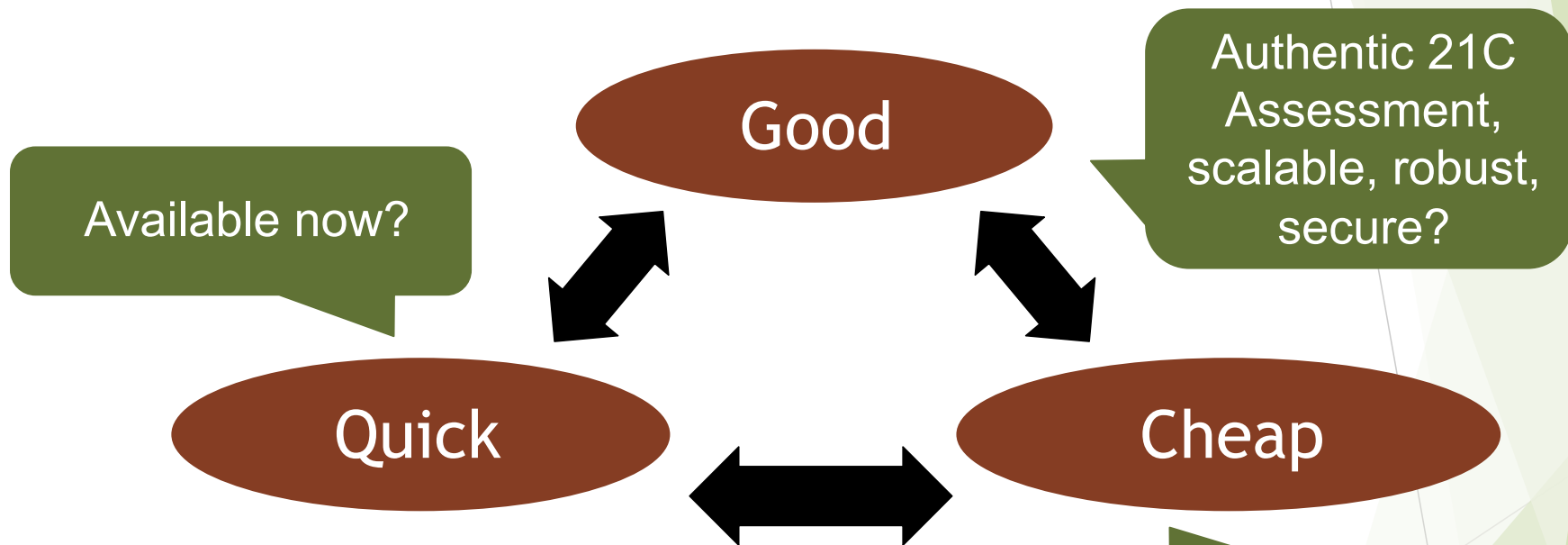
Which TWO do you think we should target?

1. Authenticity + Integrity
2. Authenticity + Scalability
3. Integrity + Scalability

To respond:

Go to **Menti.com** – use the code **56 88 18 7**

# Implementing digital assessment



Pick two? ....

*Authentic* assessment is not readily available off-the-shelf. Investment, time and thought required.

# In your teaching ...

What does “authentic assessment”  
mean to you?

*Type 1 or 2 words*

To respond:

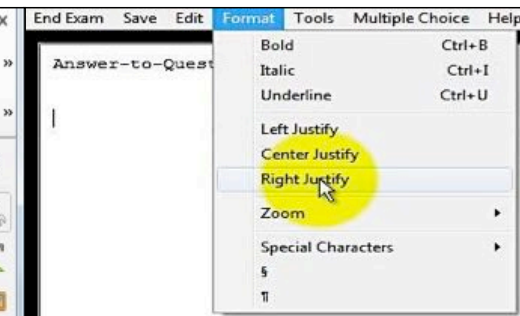
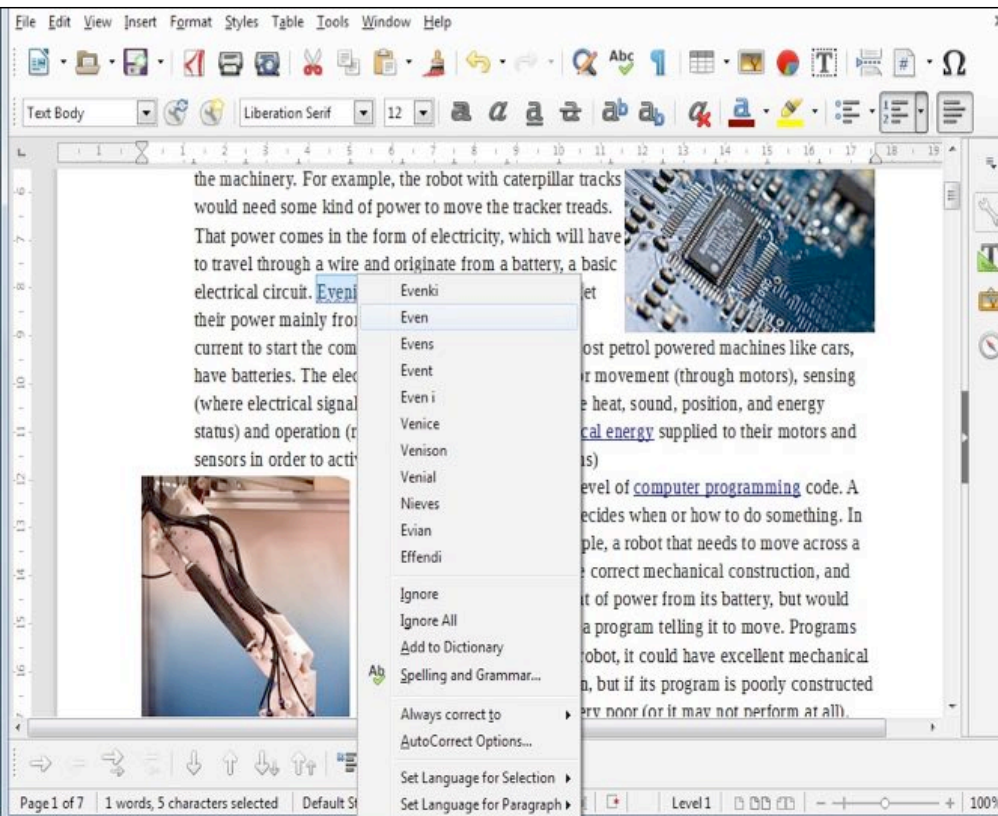
Go to **Menti.com** – use the code **56 88 18 7**



# eTools of the trade - Writing Tools

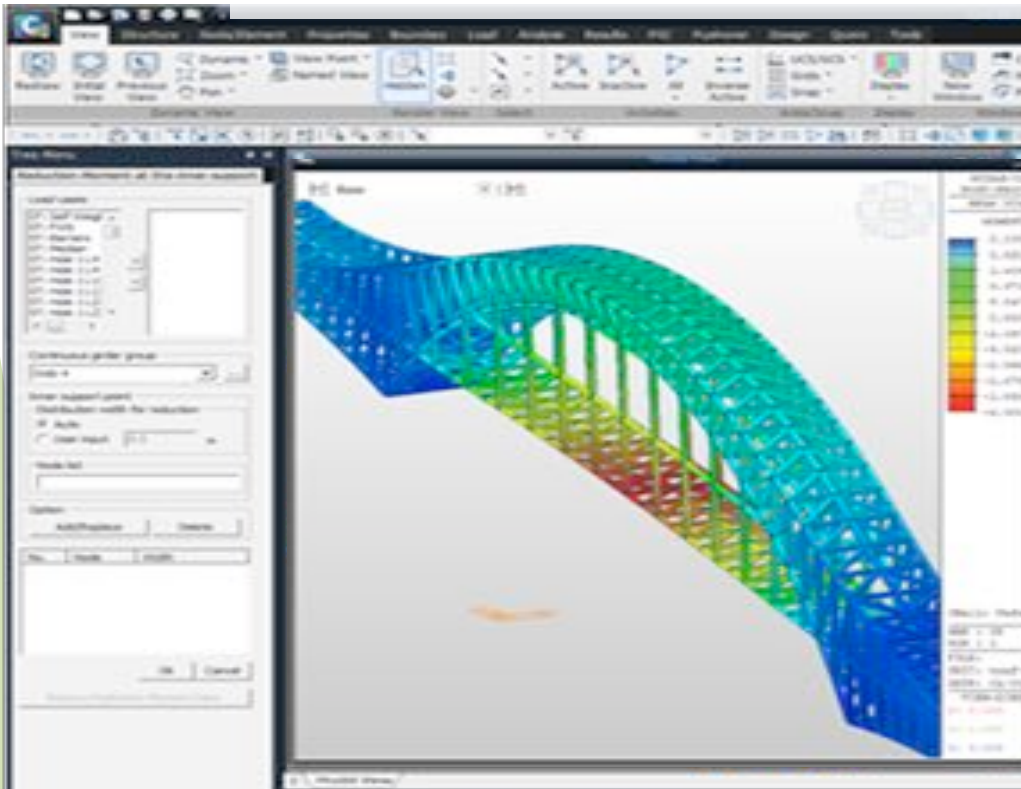
## Authentic

## Not



# eTools of the trade – Engineering Problem Solving

## Authentic



## Not

F.E (PART-II) MCQ Test, 2012

BASIC CIVIL ENGINEERING

Day and Date: Tuesday, 26/03/2012

Time: 08.50 a.m. to 09.50 a.m.

Total marks: 50

### SECTION I

- The curvature of earth is ignored in
  - Geodetic surveying
  - Hydrographic surveying
  - Plane surveying
  - Astronomical surveying
- In an optical square; the mirror are fixed at an angle of
  - $30^\circ$
  - $60^\circ$
  - $45^\circ$
  - $90^\circ$
- The true meridian passes through
  - Geographical poles
  - Arbitrary poles
  - Magnetic poles
  - only N-pole
- In WCB system; a line is said to be free from local attraction, if the difference between FB and BB is
  - $0^\circ$
  - $90^\circ$
  - $180^\circ$
  - $360^\circ$
- When higher values are inside the loop; it indicates a
  - Hill
  - sloping ground
  - pond
  - Overhanging cliff
- The line of collimation and axis of the telescope should
  - coincide
  - be perpendicular
  - by parallel
  - intersecting
- The canal taken directly from reservoir is called as
  - Main canal
  - Distributary
  - branch canal
  - Field canal
- For national highway the road way width is
  - 9 m
  - 12 m
  - 7.5 m
  - 25 m
- Cumulative error is proportional to
  - L
  - 2L
  - $\sqrt{L}$
  - L
- The compass box is made of
  - Iron
  - Aluminum
  - Brass
  - Wood

# Interactive online oral assessment (Griffith University)

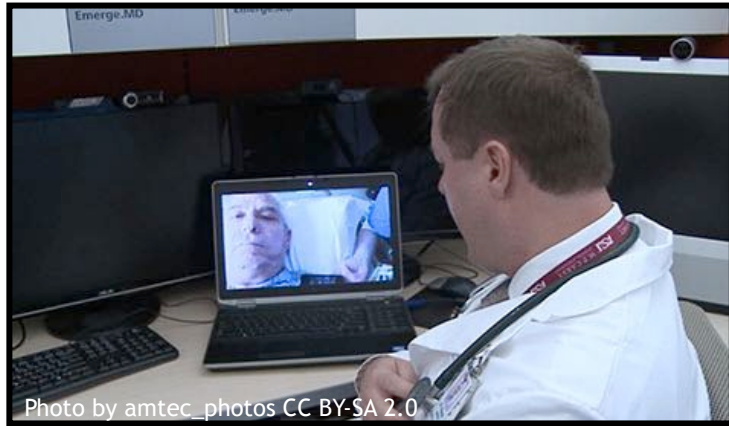
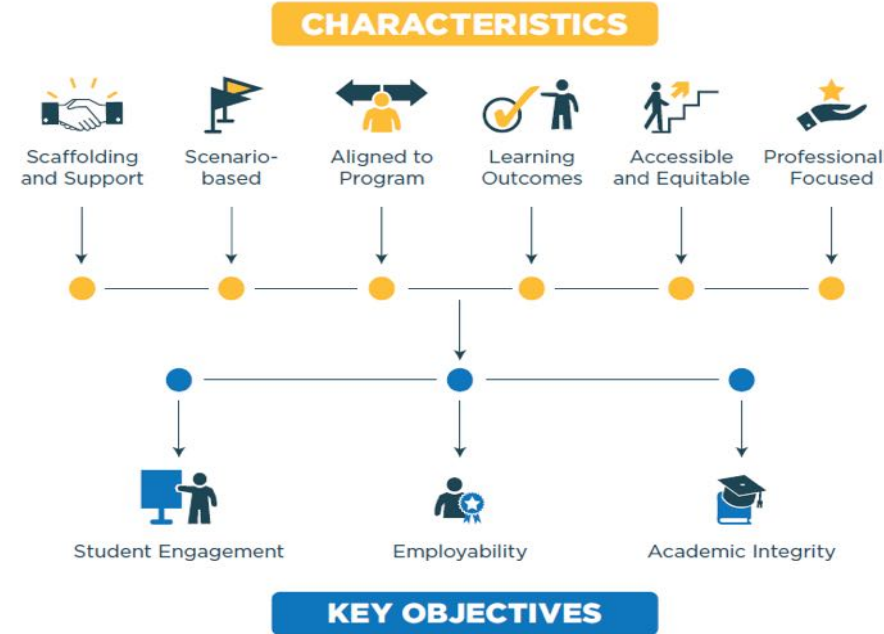


Photo by amtec\_photos CC BY-SA 2.0

- Scenarios: defence of work done, job interview, media interview, presentation to board, report to management, shareholders meeting, pitch to client, response to crisis, presentation of artefact, questions on content, link to future discipline or profession
- Booking tool + online conferencing software (recorded for moderation/audit).
- Tutor teams used as interviewers/examiners.
- Tips: allow time for change over and tasks, Use a staff member in 'waiting room'. Students need instructions, reassurance and practice in the medium.



Sotiriadou, Logan, Daly & Guest (2019).

TA Webinar 30 April 2020: [http://transformingassessment.com/events\\_30\\_april\\_2020.php](http://transformingassessment.com/events_30_april_2020.php)

# Virtual work integrated learning (U Western Australia)

## Example: Simulated scenario on self-management in the workplace

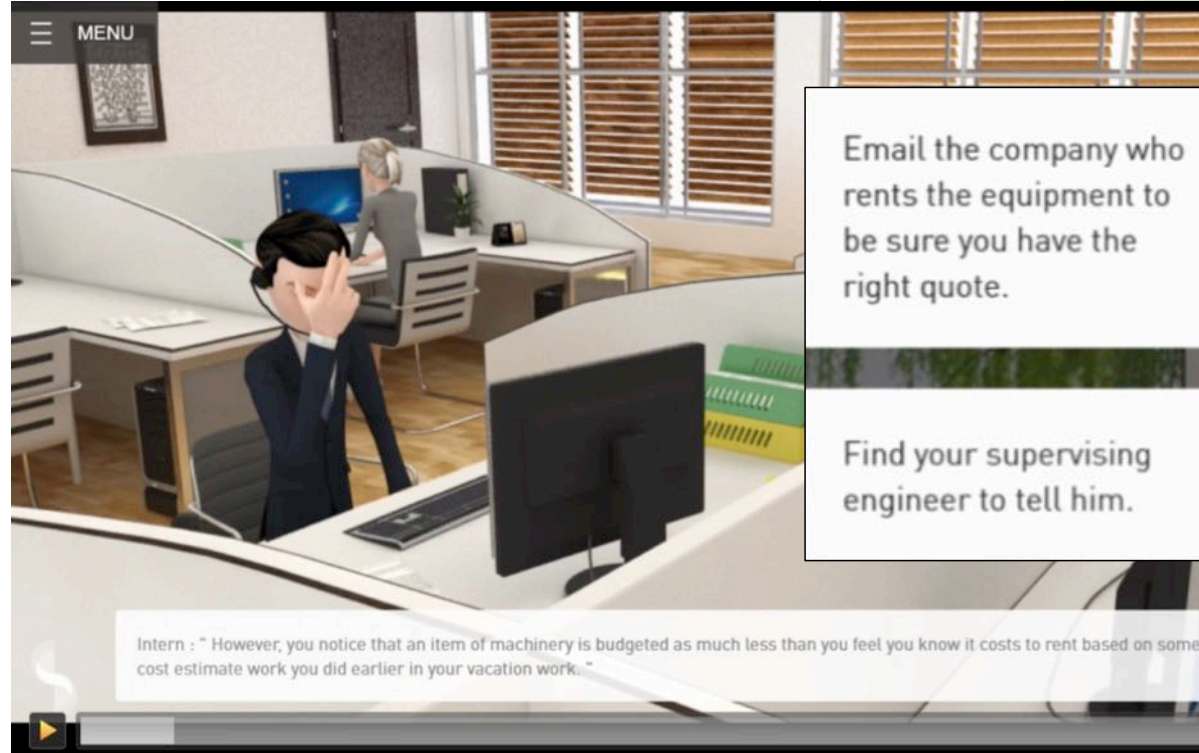
Students complete authentic projects:

- Using a virtual environment that simulates a work site,

- Receive feedback from industry-based practitioners and

- Self and peer reflection.

Online access real or simulated sites or equipment, and/or practitioners.



Ref use in engineering: TA webinar

[http://transformingassessment.com/events\\_5\\_september\\_2018.php](http://transformingassessment.com/events_5_september_2018.php)



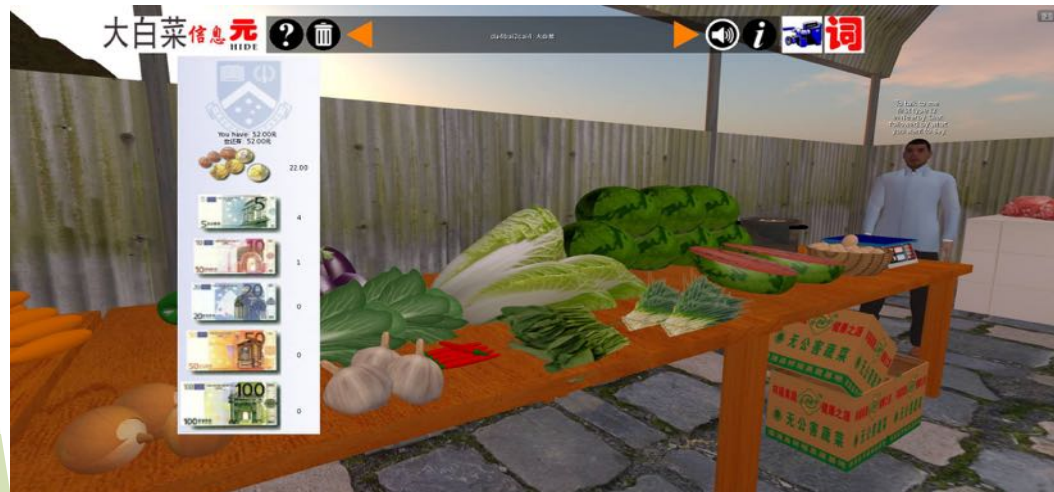
# Virtual Immersive Language Lessons

Task Based Learning or Task Based Language Learning.

Includes communication activities, using language to carry out tasks, language use that is meaningful to the learner and has a purpose, and communication activities that reflect real-life activities with authentic materials.

**Learn by doing:**

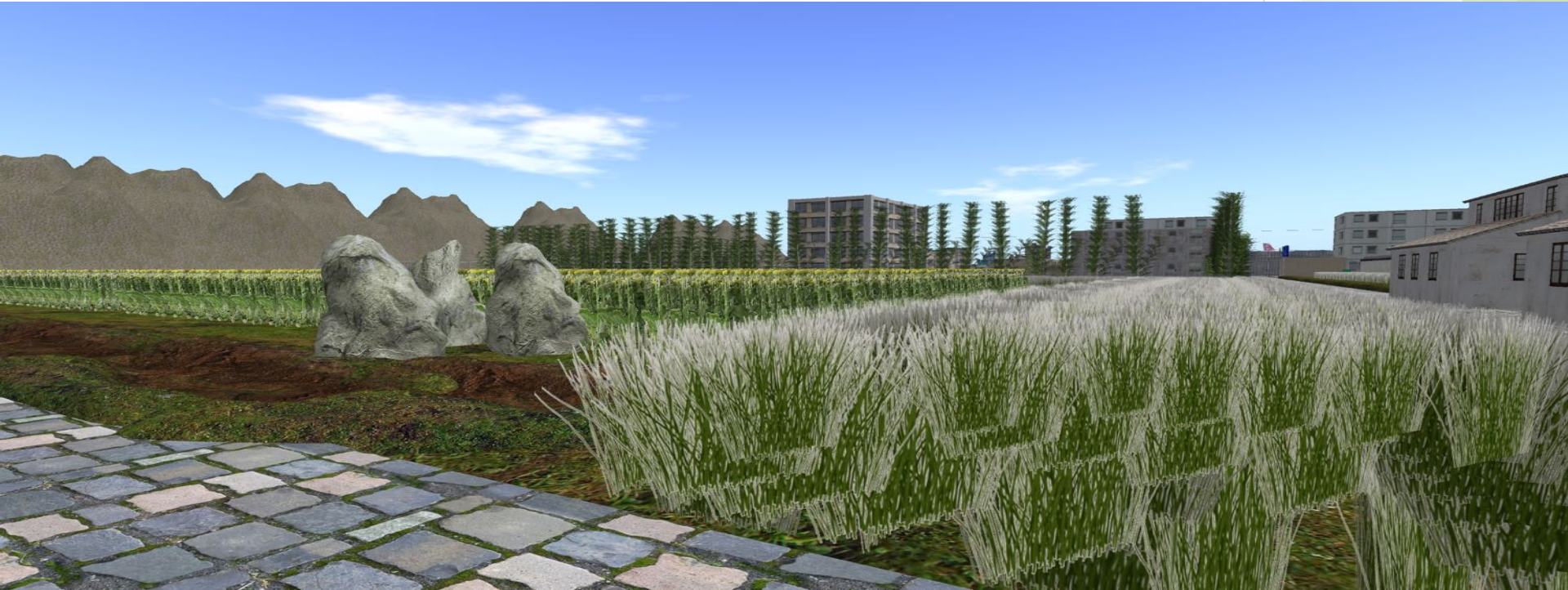
Ask directions, purchase supplies then cook noodles – all in Chinese.



# Virtual Immersive Language Lessons

Scott Grant (Monash University, Australia). Chinese Island (2015)

OAR file at <http://www.virtuallyenhancedlanguages.com>



TA webinar [http://transformingassessment.com/events\\_1\\_april\\_2015.php](http://transformingassessment.com/events_1_april_2015.php)

# Design the Assessment – Priorities



Alignment - think about the following:

1. Learning outcomes (unit/subject -> proposed task)
2. Criteria – areas / categories of evidence
3. Standards – levels of performance (e.g. poor to great)
4. Task design – the activity for student's to demonstrate their achievement of the above.
5. Select e-tools – for both the task and the marking rubric.

Note: some back-and-forth consideration of the latter elements is to be expected! E.g. available tools set boundaries.

# Which tool for what?

## Common LMS tools

Be informed – tools and their affordances.

Blog	Wiki	Forum	Portfolio
Individual work. Publishing of work. Reflective writing. Seeking external opinions and comments. Analytical writing and reflection. Discussion with experts and networking.	Collaborative work. Peer editing of a document e.g. report, essay, paper, textbook. Creating glossary of terms or collection of resources e.g. bibliography, reading list. Brainstorming for a project. Shared knowledge base on a topic.	Communicative work. Online asynchronous tutorials. Analytical writing and reflection. Exploration of views and opinions on a topic or idea. Student feedback. Help facility.	Individual work. Collation of learning evidence. Skills log. Showcase. Capstone.

Source: <https://teaching.unsw.edu.au/assessment-blog-wiki-or-forum-which-should-you-use>

See also:

- \* Bower (2008) Affordance analysis - matching learning tasks with learning technologies.
- \* LMS Tool Guides for teachers: [http://transformingassessment.com/LMS\\_tool\\_guides\\_for\\_teachers](http://transformingassessment.com/LMS_tool_guides_for_teachers)



# Assessing Discussion Forums (UNSW)

Teacher presence is key – re Salmon (2000) Five stages + Community of enquiry model (Garrison et al. 1999)

## Example assessment activities:

- Small group reports to the whole class
- Reflect on discussion
- Role play discussion
- Student lead or moderate** (see side bar)
- Case studies and scenarios
- Current events
- Retrospective commentary on learning

## Aim to build interaction.

## Focus on quality rather than quantity of posts.

Rubrics available - examples

<https://teaching.unsw.edu.au/assessing-discussion-board>

**UNSW Digital Assessment Toolkit** (more examples)

<https://teaching.unsw.edu.au/digital-assessment-toolkit>

HK had a good idea to enable assessment of forums

Knutzen <http://brant.knutzen.se/custom-tools/>

The screenshot shows a discussion forum page for the course 'ARTS3639-Japan in Popular Culture (T2 2019)'. The page is titled 'W4 Tutorial Leader' and contains instructions for students to post questions and images. Below the instructions, there is a table listing discussion topics and their status.

Discussion	Started by	Group	Replies	Unread	Last post
2pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		2	0	Wed, 26 Jun 2019, 12:41 PM
2pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		2	0	Wed, 26 Jun 2019, 10:59 AM
2pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		2	0	Wed, 26 Jun 2019, 9:52 AM
3pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		2	0	Tue, 25 Jun 2019, 10:53 PM
2pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		2	0	Tue, 25 Jun 2019, 9:08 PM
2pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		2	0	Tue, 25 Jun 2019, 5:44 PM
3pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		2	0	Tue, 25 Jun 2019, 5:06 PM
3pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		2	0	Tue, 25 Jun 2019, 4:43 PM
3pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		3	0	Tue, 25 Jun 2019, 4:05 PM
3pm class Leader: [Name], Group member: [Name], [Name], [Name]	Sumiko Iida		1	0	Sun, 23 Jun 2019, 1:32 PM

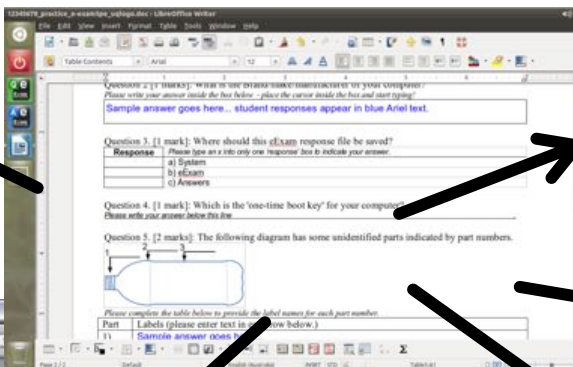
<https://teaching.unsw.edu.au/digital-assessment-toolkit/exemplar-17>

# Moving on from simple testing...

Start simple and build up!



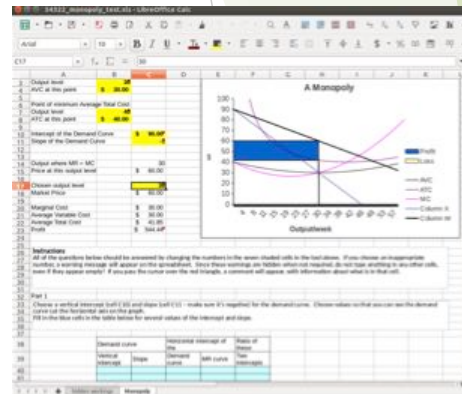
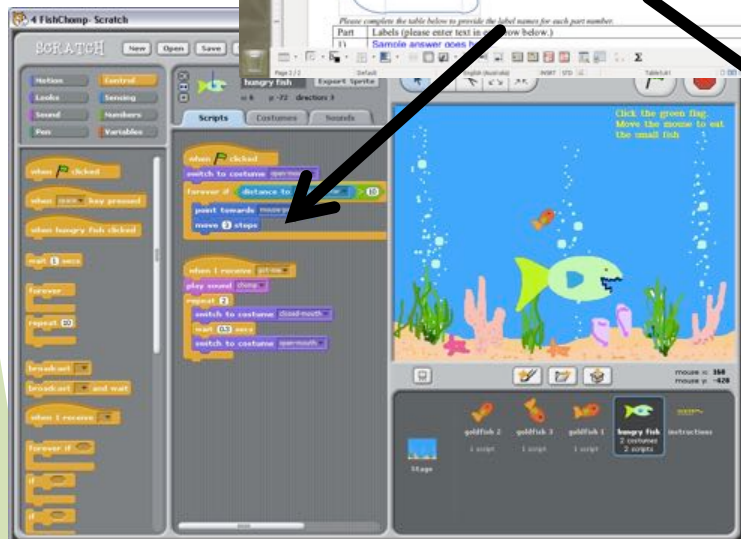
Start! A document



Video



Scratch SDK

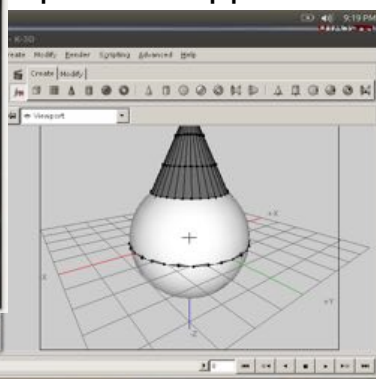


Spreadsheets for calculation and analysis.

Specialist applications

PDF

Sims



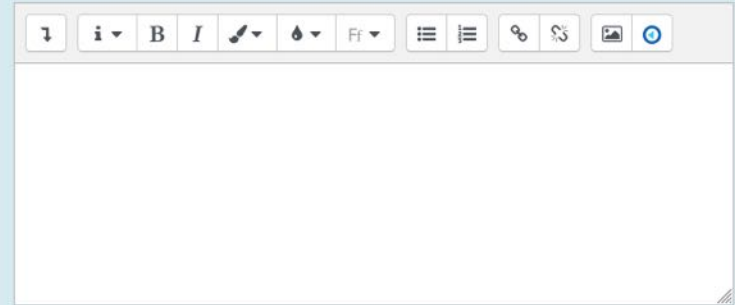
# Rich media prompts

Listen or view and transcribe or describe.

Listen to the audio and dictate what did you hear in the essay box below.



Watch the video and dictate what you hear in the essay box below.



# Multi-part or Cloze questions

Multi-part question  
is possible.

Free-text or numeric with multiple  
possible answers.

Selected response by radio button or  
drop-down list.

Each sub-question or response field  
can carry a different weight in terms  
of the question mark.

Partial marks possible by defining  
alternative responses e.g. common  
errors, partially correct responses.

Question 11

Not yet answered

Marked out of 7.00

Flag question

Edit question

For those that can't find the one-time boot key, you can make  change to your computer which  affect the normal operation of the computer. To do this you need to edit the settings in the  so that the USB is positioned at number  in the boot priority menu. You will need to press a model specific key to call up the settings area during the early stages of computer start up. The specific instructions for your computer will normally appear briefly after the computer is powered on, so watch carefully or check your computer manufacturer's help information for the correct key to press.

If the changes are successfully made then the computer will

- ☐ 1. shut down
- ☐ 2. go blank
- ☐ 3. boot to the e-Exam system
- ☐ 4. boot the USB

if the USB stick is correctly inserted prior to

- ☐ a. shut down
- ☐ b. turning the power on
- ☐ c. when restarting

Once loaded, the computer marked question type version of the e-Exam system will launch into an onboard LMS called .

# Combine! Audio – example

Monash University 2018.

Chinese language – two units  
(1<sup>st</sup> year and 3<sup>rd</sup> Year).

Moodle quiz cloze question  
with embedded audio.

Students used headsets to  
listen.

Responses via cloze fields.

Semi-auto marked.



This screenshot shows a Moodle quiz question interface. It features two audio players, each with a play button, a progress bar, and a volume control. The first audio player is followed by a cloze question: "27. k [ ] ch [ ]". The second audio player is followed by another cloze question: "28. j [ ] q [ ]".

## Question 5

Not yet answered

Marked out of  
24.00

Flag question

Edit question

## Section 3

Indicate the tones you hear.

Please enter a number for the tone you hear in the app

- 1. chuang [ ] lian [ ]

- 2. cao [ ] chang [ ]

- 3. fang [ ] xiang [ ]

- 4. guo [ ] jia [ ]



# Software “e-tools of the trade”

Selection of  
of source  
texts in  
scroll box  
(Pick one).

Type  
translated  
response

▼ **Advanced students:** please translate any **two** of the following Chinese passages into English.  
▼ You will be marked against criteria specific to your proficiency level.  
You may use Dim Sum Chinese tools for this question. To open the software from the e-Exam System - use the circular 'Dash' button at the top left of the screen. The type "dimsum" into the search box.

**Below are three separate Chinese source text passages** - please scroll to read them.

## Passage 1

Be sure to look at the notes associated with the **bolded red** vocabulary items, as these words cannot be found in DimSum.

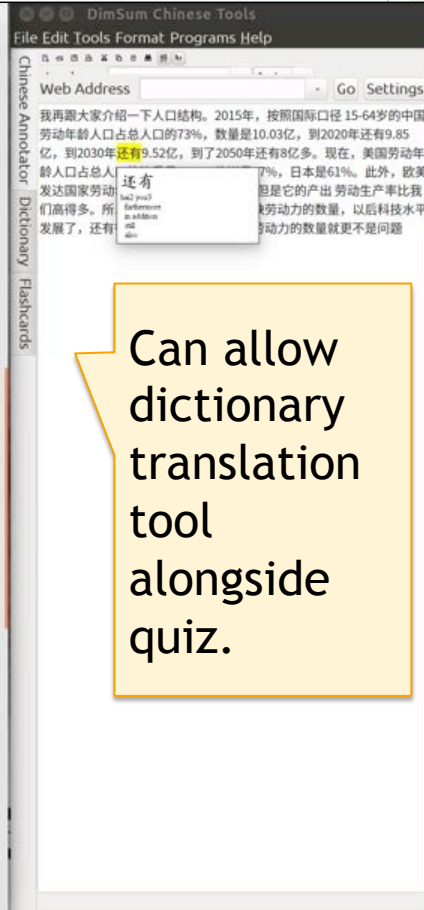
我再跟大家介绍一下人口结构。2015年，按照国际口径 15-64岁的中国劳动年龄人口占总人口的73%，数量是10.03亿，到2020年还有9.85亿，到2030年还有9.52亿，到了2050年还有8亿多。现在，美国劳动年龄人口占总人口的比重是66%，欧洲是67%，日本是61%。此外，欧美发达国家劳动年龄人口总数只有7.3亿，但是它的产出劳动生产率比我们高得多。所以说，中国不光是现在不缺劳动力的数量，以后科技水平发展了，还有很多替代的措施和办法，劳动力的数量就更不是问题

## Notes:

口径 kǒujīng = 标准

“产出”是指生产过程中创造的各种有用的物品

Type your translation(s) below. Please indicate the passage number(s) for your selected passage(s).

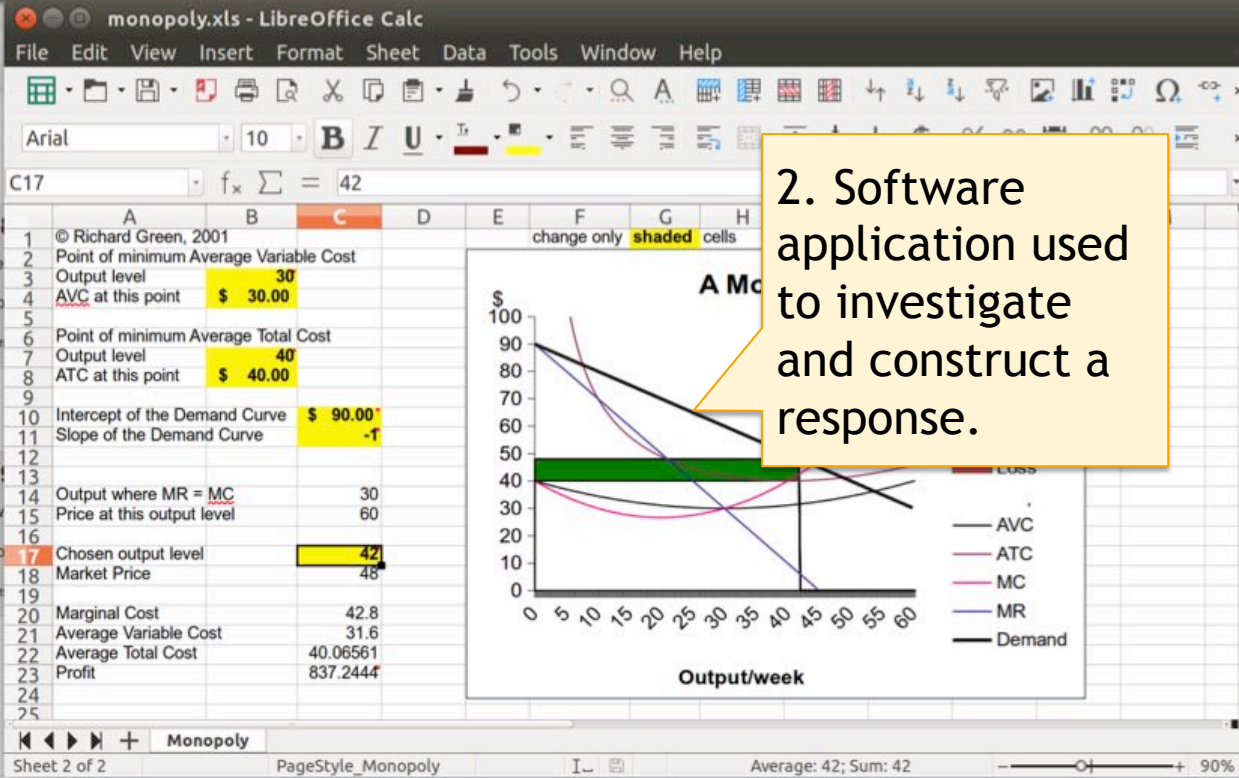


Can allow  
dictionary  
translation  
tool  
alongside  
quiz.

Leverage  
e-tools of the  
trade in  
assessment

Constructed  
enquiry

1. Download file



Question 20 Use the [attached spreadsheet] to determine the output level where profit is maximised.

Enter a whole number as your answer for the output level.

Answer:

3. Respond via form

Question 21

Use the [Australasian Legal Information Institute \(AustLII\) online database portal](#) to find the title of last Australian appeal case heard by the Privy Council.

# Leverage e-tools of the trade in assessment

## Constructed response (file upload)

1. Question prompt and direction to use software

Question 26

Answer saved

Marked out of 1.00

Flag question

Scratch will be required for this question.

To open this application, click on the circular icon on the top left of the screen, and then type 'scratch' into the search box that appears.

Using the default Scratch program, make the Cat sprite run in circles and 'meow' when it touches the sides.

When done, save the file to the answers drive using your name as the file name.

1. Provide a one or two sentence summary of the commands you used in your response in the text box below.
2. Then attach your scratch program file to this question.



Scratch program is a cat game where we make cute and fluffy characters run in circles, bump into each other and make meow noises. We can keep typing a very long text based response into here. The system may spxll check your work.

Maximum size for new files: Unlimited



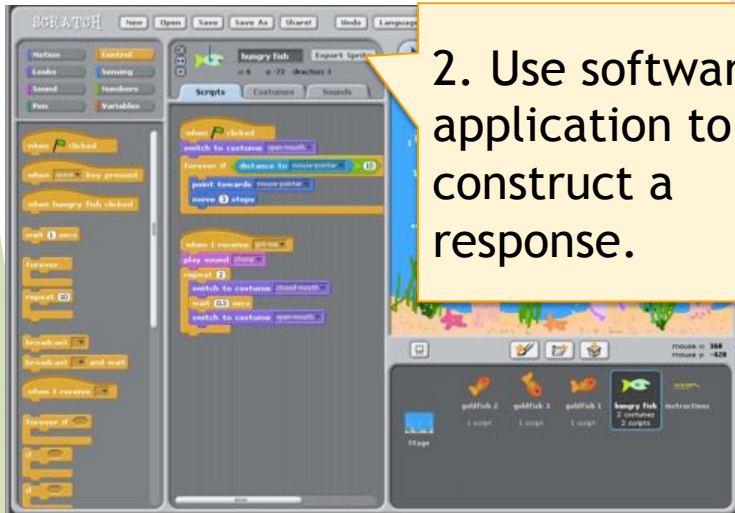
Files



example.sb2

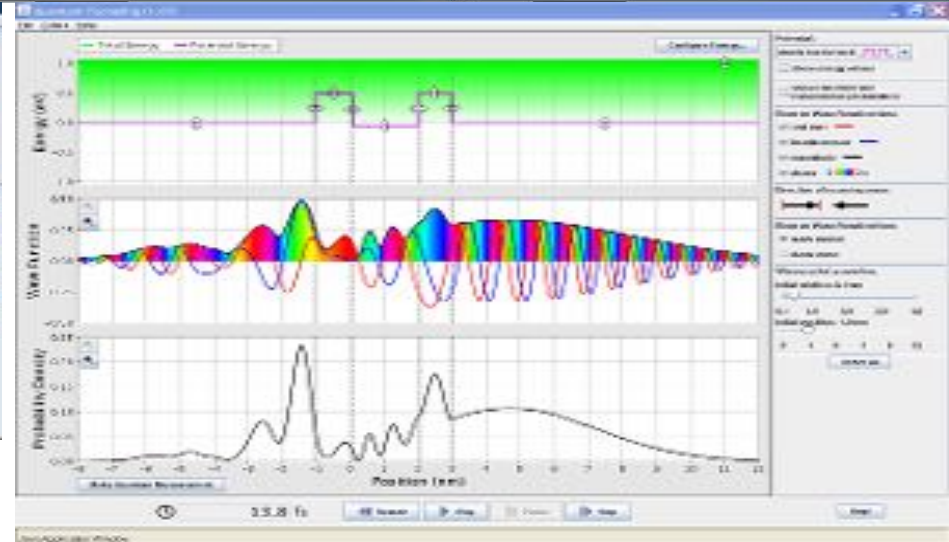
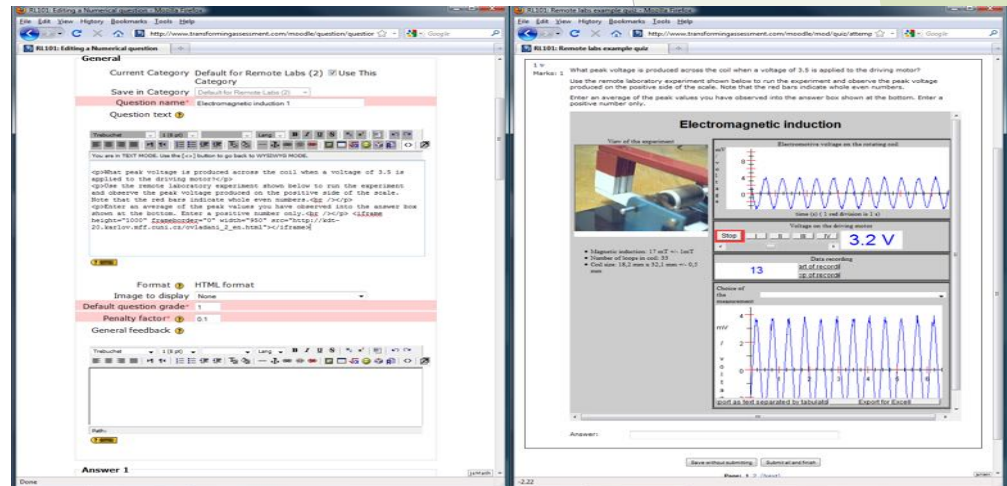
3. Respond by file upload

2. Use software application to construct a response.



# Simulated Labs

Physical hardware can be connected to the internet  
or we can use **software simulations** of labs and experiments (much more scalable!).





# Multimedia response

## Recording using Atto video or audio – Max 3 minutes

E.g. Moodle essay question type with “HTML editor with file picker” enabled.



Manually marked by humans.

**Audio recording** - lower bandwidth for upload.

Examples:

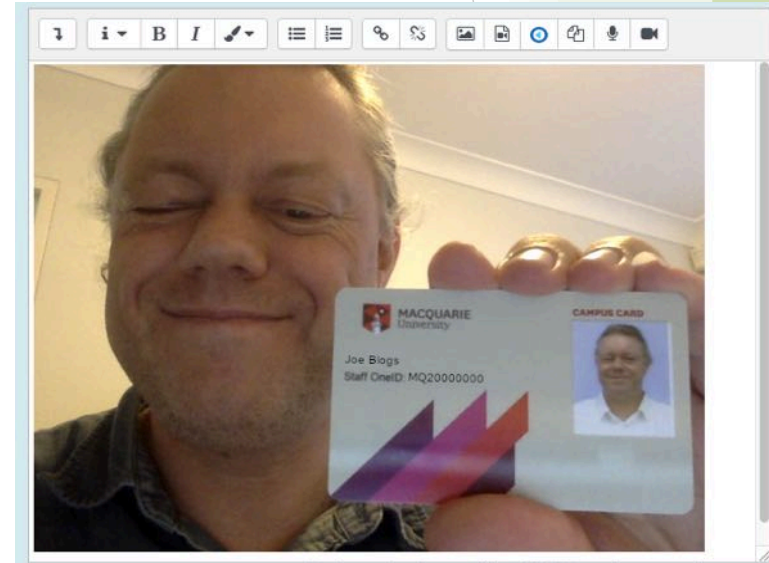
Oral responses, viva voce, language speaking, interpreting, music performance.

**Video recording** - more bandwidth for upload.

Examples:

Identity check or spatial context check.

Video performance, practical skills, speaking test, sign language response.

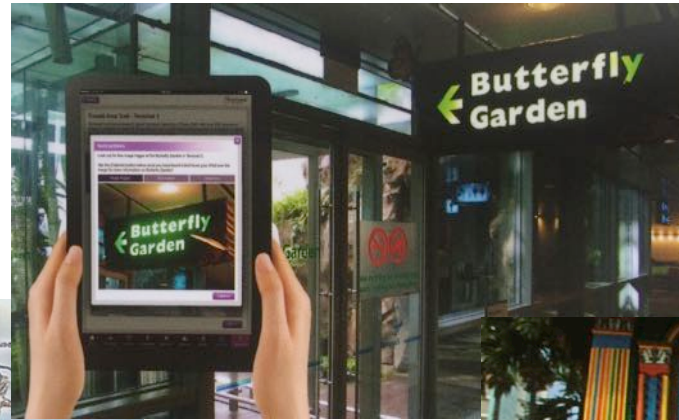




# Leverage what is in the student's hands!?

Location awareness examples: History, architecture, culture, museum, virtual tour, outdoor biology/environment studies.

Indoor Changi airport image recognition augmented tour



Outdoor GPS triggered information / tasks.



Outdoor location based tasks.



# Mobile Apps: Authentic measurements

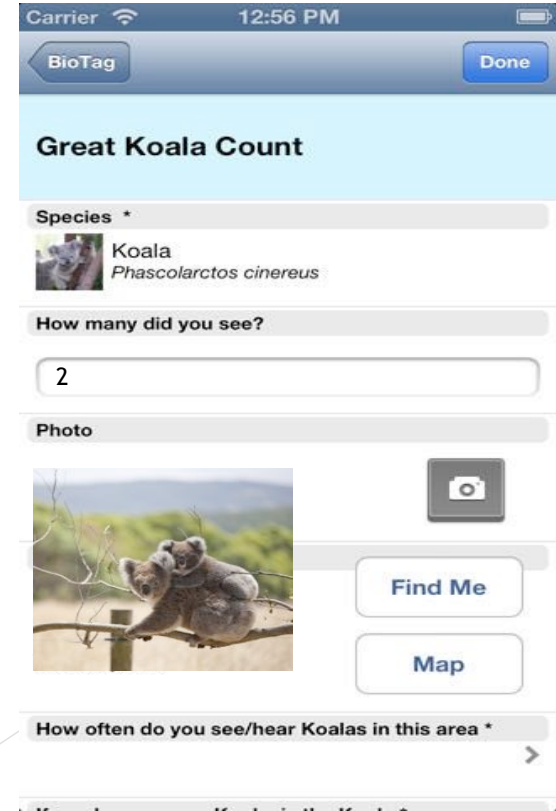
Augmented Reality Theodolite, height, distance.



Real time data collection in the field, speed, altitude, sound levels.



Citizen Science Surveys:  
National Koala count.



# Engage students with assessment

Assessment is often  
done TO students.

It is better if we do  
assessment WITH students.

# Many use Rubrics, but ...

How often do you use rubrics for  
*student's understanding* of assessment?

To respond:

Type into the text chat box

“never” or “sometimes” or “often”

# Rubrics – the good and the not so good...

**Pros:** delivers greater clarity to students and markers, helps moderation, enables students to judge own performance (assessment AS learning).

**Cons:** difficult to specify exacting criteria and standards, dealing with creative/unexpected responses, some difficulty capturing the wholistic and subjective dimensions of performance (tends towards measurable reductionism)

**Digital tools** can help (deliver and assess – e.g. Moodle/Turnitin has rubric tools).

More about Rubric design and use <http://taw.fi/rubric>

A collection of rubrics <http://taw.fi/rubricbank>



# Students need your guidance

Students are can be novices in interpreting the rubric.

Students need practice to develop their judgement of standards – this is a learned skill! Don't expect osmosis!

– in particular ***how do the standards you have set play-out in terms of the specific assessment task?*** Especially important for new assessment types because students are often confused about the 'rules of the game'.

*Consider how you can help students understand the requirements and their own achievement.*

**e.g. 1:** Co-develop a rubric with students – have them work in groups/pairs to think about the characteristics of a quality assessment response.

**e.g. 2:** Conduct a mock marking exercise with students. Have the students mark an example assessment response. (lets try this next).

What else could you do to help?

# Engage students: A mock marking exercise

## Phase 1 – off-the-cuff marking:

- 1) Give an example assignment/response for students groups/pairs to review.
- 2) Ask students to give a mark to the assignment/response.
- 3) Quickly poll students about what mark they gave. (you will note a wide distribution). Tip: use Mentimeter or Moodle Choice and show the class.
- 4) Have the class discuss – what did they have in mind when giving their mark.

## Phase 2 – rubric marking:

- 1) Provide students with a rubric for the assignment/task (for the same assignment)
- 2) Ask students to read the rubric and discuss in their group/pairs – then give a mark.
- 3) Quickly poll students about what mark they gave. (you will note narrower distribution). Show the class the results again.
- 4) Have the class discuss – what was different to the first time around? Did it help understand the marking/judgement of what was expected? Was it easier or harder to give a mark?

# Assessment integrity



# Improving online assessment integrity

Multiple parts to secure assessment- Verify:

- Identity of the student
- Resources - that the student only used permitted material
- Authorship - that the student did not have unauthorised help

Considerations

- Assessment design – i.e. design for open book
- People – prepared and identified
- Equipment/connectivity – suitable, authorised, available
- Materials – suitable, authorised, available
- Space – suitable, authorised, available
- Realistic, authentic rules and limitations – design for online openness

# Random questions

Student allocated questions from the various category pools to progress through (pool = same difficulty).  
All question types can be used for random.

- 1) Place multiple questions into a category in the question bank, then,
- 2) Insert a 'random question' when building the quiz.  
When doing so specify the category.

Category	Category 1 Topic A Easy	Category 2 Topic A Moderate	Category 3 Topic A Hard	Category 4 Topic B Easy	Category 5 Topic B Moderate	Category 6 Topic B Hard	Category 7 Integration	n/a Standard question	Total
Start	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Finish
Attempt Quiz	Q1_01	Q2_01	Q3_01	Q4_01	Q5_01	Q6_01	Q7_01	Q8	Submit
	Q1_02	Q2_02	Q3_02	Q4_02	Q5_02	Q6_02	Q7_02		
	Q1_03	Q2_03	Q3_03	Q4_03	Q5_03	Q6_03	Q7_03		
	Q1_04	Q2_04	Q3_04	Q4_04	Q5_04	Q6_04			
	Q1_05		Q3_05	Q4_05		Q6_05			
Pool	Five multiple choice	Four matching	Five mixed types	Five multiple choice	Four matching	Five numerical	Three essay questions	One essay question	
Moodle quiz build	Random question	Random question	Random question	Random question	Random question	Random question	Random question	Essay question	
Marks	1	2	3	1	2	3	4	4	20



# Session monitoring - options

**Lock down browser** – suitable for on-campus, supervised spaces – not BYOD at home.

**Automated recording** of screen/web cam – lower stakes tests (can't monitor wider space). Could position webcam/mobile cam to show scene.

**Live online invigilation** – human and screen/webcam recording. Can intervene in real time and ask for 360 sweep. UNE AU example student prep video

<https://www.une.edu.au/current-students/my-course/examinations/olx-project>

Both methods need equipment and bandwidth – know your students and their context. Both raise privacy/data security concerns – needs thoughtful design and socialising.

Tips: Allow extra time, run zero stakes practice tests!

Using Zoom to monitor remote exams – training, guides etc needed.

UniMelb AU (student guide: on-screen exam or handwritten exam)

<https://students.unimelb.edu.au/your-course/manage-your-course/exams-assessments-and-results/exams/how-do-i-take-my-exam>

UST HK (staff guide)

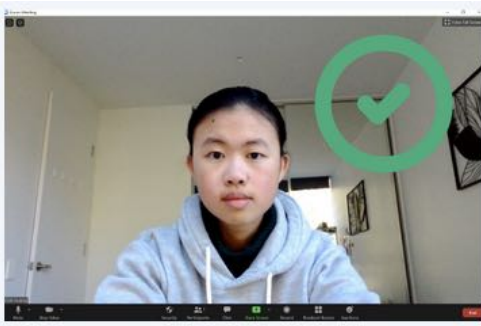
[http://cei.ust.hk/files/public/good\\_practices\\_for\\_conducting\\_live\\_proctored\\_online\\_exams\\_using\\_zoom.pdf](http://cei.ust.hk/files/public/good_practices_for_conducting_live_proctored_online_exams_using_zoom.pdf)

# Using Zoom to invigilate

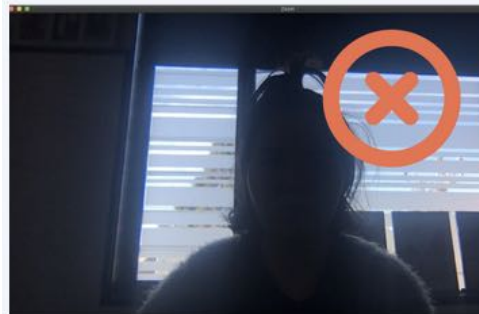
For 'on-screen' exams e.g. LMS quiz or word document.

- Join zoom on the *same device* where you are accessing exam questions and composing responses.
- The camera must have a clear view of your face and upper body. Turn OFF backgrounds and filters!

**Good:**  
This has good lighting.  
The face is clearly identifiable.



**Bad: Do not do this!**  
This has poor lighting.  
The face is not identifiable.



## ID check

You will be asked to show your ID

## Room Scan

You will be asked to show a 360 degree sweep of your space.

## Random checks

Anytime - you may be asked to go to a breakout room to share your screen or show your room.

# Using Zoom to invigilate

## For 'hand written' pen-on-paper exams

- Laptop to read questions + Mobile device as zoom camera
- Camera must have clear view of you, the desk and reading screen. Turn OFF backgrounds and filters.



Acceptable - this student is viewing the exam via phone, with the device visible on their desk.



Acceptable - this student has a second device disconnected from the internet - with the screen visible.



Acceptable - this student has ensured that their hand is not out of view if they reach forward.



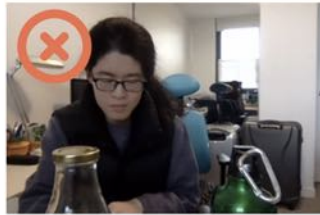
Acceptable - this student is using a printed exam, and their face is clear and visible for identification.



Unacceptable - the device is too close; your hands should not go out of view during the exam.



Unacceptable - the device being used to read the exam paper is not visible.



Unacceptable - objects within reach are not visible - either obscured or out of frame.



Unacceptable - objects within reach are not visible, the student can't be identified and your working out shouldn't be readable.

## ID check

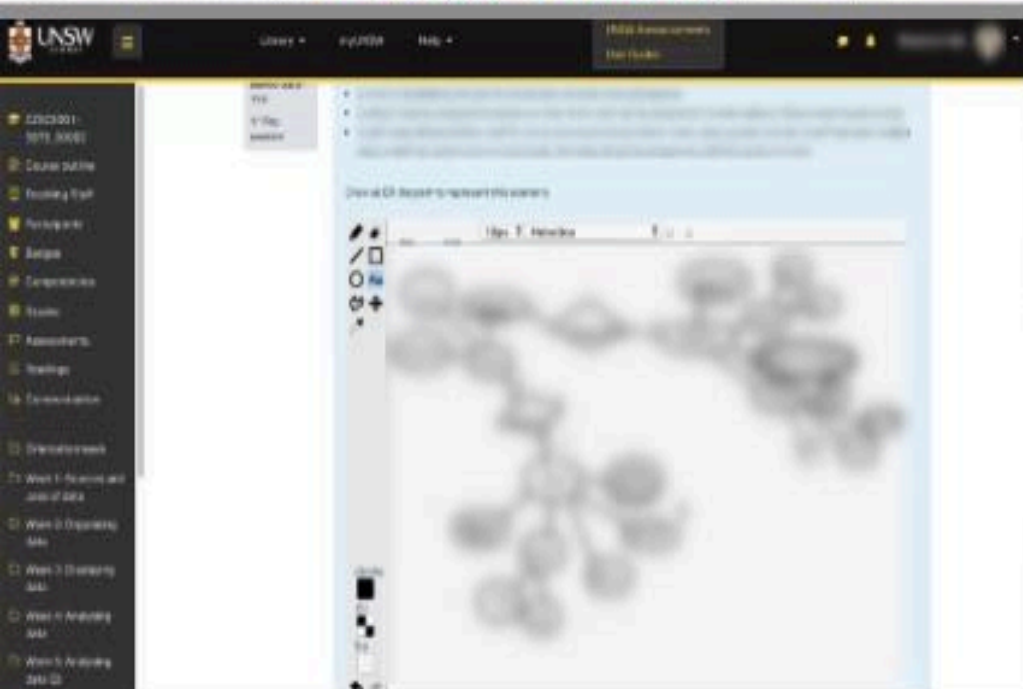
You will be asked to show your ID.

## Random checks

Anytime - you may be asked to go to a breakout room to share/show your screen or show your materials.

# Remote exam monitoring and recording

## Exam



## Student



UNSW Online remote  
pilot Oct 2019


# Macquarie University live exam monitoring


Allows exam invigilator in Zoom to monitor students doing a selected Moodle activity.


State, Start time, finish time and duration.

See who has finished -> allow to leave zoom room.

(Dev: Shamim Joarder, MQ)

**MACQUARIE**  
University  
SYDNEY AUSTRALIA

Live exam monitoring  
SYSTEM  
Logged in as: Mathew Hillier | [Logout](#)

  
Unit: **PSYU2248 Design and Statistics I - PSYU2248**  
Assignment: Zoom Invigilated Final Exam  
Assignment open: November 10, 2020, 3:00 PM  
Assignment close: November 10, 2020, 6:00 PM  
Time limit: 02:40

**Sydney time**  
**5 : 20 :12**

Total student	Not attempted	In progress	Finished
11	1	1	9

**Exam participants**

Username	Firstname	Lastname	State	Started	Finished	Exam duration
1	Mathew	Hillier	Finished	10 Nov 2020 3:02 pm	10 Nov 2020 5:14 pm	2 hours 12 minutes
2	Thomas	Ward	In progress	10 Nov 2020 3:00 pm	Did not submit	
3	Thomas	Ward	Not attempted			



# References and further reading

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UNSW Digital Assessment Toolkit (examples) <https://teaching.unsw.edu.au/digital-assessment-toolkit>

# Questions please!

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Mathew**Hillier**.com Linkedin, add me!

Transforming**Assessment**.com

Transforming**Exams**.com

# Stay in touch



Two recent sessions

1) Transforming Assessment webinar: **Defending assessment against e-Cheating: design and standards.** A/Prof Phillip Dawson, Australia) <http://taw.fi/18N2020>

2) Transforming Assessment webinar **Re-imagining assessment to "robot-proof" our students.** Presenter: Prof Margaret Bearman, Australia) <http://taw.fi/19N2020>

ASCILITE online conference (low cost):

30 Nov to 1 Dec (full days): **Australasian Society for Computers in Learning in Tertiary Education annual conference** - first virtual conference. Research and practitioner papers. Reduced registration the 100% online format. Australia time zone.  
<https://2020conference.ascilite.org/registration/>