



Assessing for quality decision making

Prof Geoffrey Crisp

<https://www.zetings.com/gcrisp>





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Peer Review of Teaching

The UNSW peer review of teaching registrations are open for Semester 2, 2017

Teaching at UNSW

Welcome to the Teaching Gateway. This site is designed to support staff with:

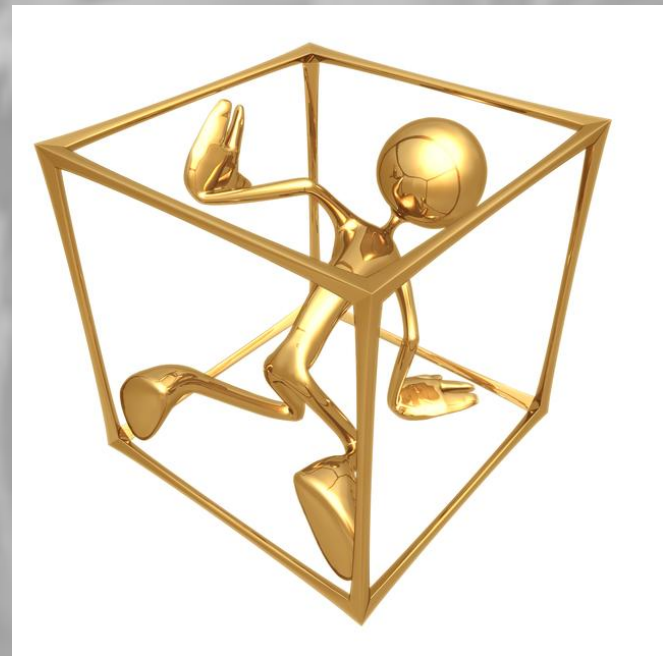
- Learning and teaching,
- Research into teaching
- Career development

@ Subscribe

Subscribe to our [eBulletin](#) to keep informed on learning and teaching events, news and resources.

**We should assess what is important and
not what is easy to assess**

<https://www.zeetings.com/gcrisp>



What value do we place on student responses?

The idea that valid and reliable inferences can be made about students' acquisition of 21st century skills through judging responses as correct or incorrect is too simple an approach for the assessment of complex capabilities



Assessment responses

convergent type, in which one correct answer is expected, and **divergent** responses, in which the answer depends on opinion or analysis (Torrance et al., 2001)

convergent assessment has its origins in mastery-learning models and involves assessment of the student by the master-teacher

divergent assessment is often associated with a constructivist view of learning, where the teacher and student engage collaboratively within Vygotsky's (1986) zone of proximal development

Assessment tasks should be worth doing

- if students can answer your question by copying from the web, maybe you are asking the wrong question
- if students can answer your question by using Google, maybe you are asking the wrong question
- if students can answer your question by guessing, maybe you are asking the wrong question



Assessing 21st century skills

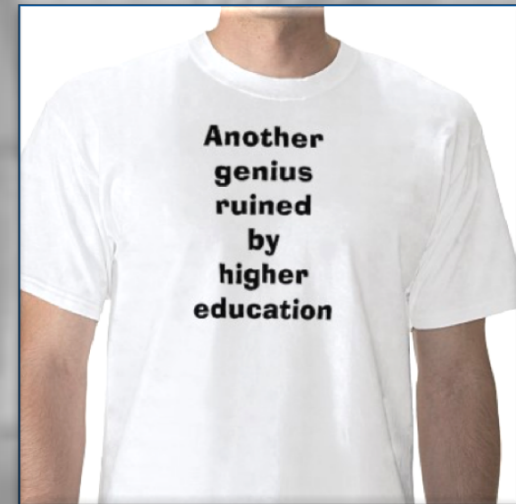
For 21st century skills, our assessment designs need to accept multiple solutions to a problem or issue and provide feedback to students on their chosen strategies that have been used to solve the problem

diagnostic assessment (before learning)

formative assessment (during learning)

summative assessment (after learning)

integrative assessment (future learning)



How I teach

- with technology
- with others
- with inspiration

Where I teach

- anywhere
- collaborative classrooms
- online

How I assess

- authentic
- flexible
- negotiated

Where I assess

- online
- at home
- at work
- in class

Changing assessment practices

Assessment Task Type

Abstract	Literature Review	Simulation
Annotated Bibliography	Log/Workbook	Student negotiated assessment
Blog (or weblog)	Peer Review	Journal
Case Study	Performance	Simulation
Critique	Poster presentation	Student negotiated assessment
Debate	Portfolio	Research Paper
Demonstration	Practicum/Clinical Placement	Thesis
Design/Drawing/Plan/ Sketch	Presentation (individual or group)	Workshop
Discussion posts (online)	Problem Solving	Interview
Essay	Project	Minutes
Examination mid or end (invigilated)	Quiz/Test	Model/Artefact
Examination mid or end (take home)	Reflection	Modelling (theoretical)
Exhibition	Report	Oral Examination / Viva Voce
Field Notes/Report	Self Assessment	Laboratory/Practical

AAGLO - Assessment task by discipline that evidences graduate capabilities

	Business	Chemistry	Drama	Engineering	History	Law	Vet Science	TOTAL
Critical review or essay	2	0	1	1	5	4	1	14
Examinations	0	0	0	0	0	1	4	5
Oral presentation	5	1	1	3	0	1	0	11
Performance	0	0	5	0	0	0	0	5
Reflective piece	1	0	1	2	0	3	0	7
Report	6	6	1	6	0	1	1	21
Tutorial and rehearsal activities	1	2	3	1	0	3	1	11
Work placement	1	0	0	0	0	2	0	3
Working demonstration	0	0	0	3	0	0	0	3
Other	0	0	1	2	1	2	3	11
Multicomponent task	5	0	1	5	1	4	1	17

<https://pollev.com/geoffreycris472>

We should assess what is important and not what is easy to assess

You can respond once

0

I do this already for most of my assessments

0

I would like to do this for most of my assessments but don't have time

0

I do not think this is important

0

Students just want to know what is on the exam



Interactive spreadsheets in assessment

1

Use the following [Excel spreadsheet](#) to match the following statements.

Marks: --/1

[This is a simple example question. See the [worksheet](#) by Richard Green for questions relevant to the spreadsheet]

If the average total cost decreases, and all other parameters remain the same

If the chosen output level increases, and all other parameters remain the same

If the average total cost increases, and all other parameters remain the same

Choose...

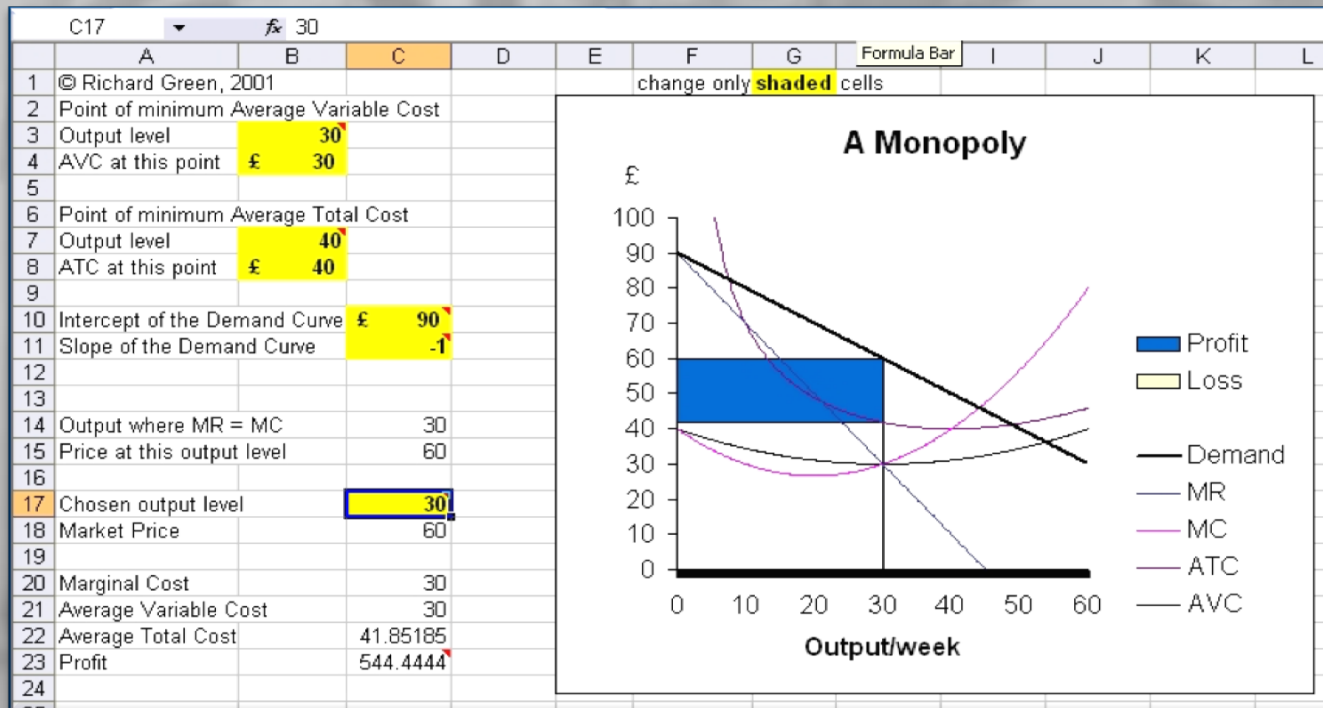
Choose...

the profit will decrease

the profit will increase

the marginal cost increases

Submit



QuickTime VR or YouTube videos

1 

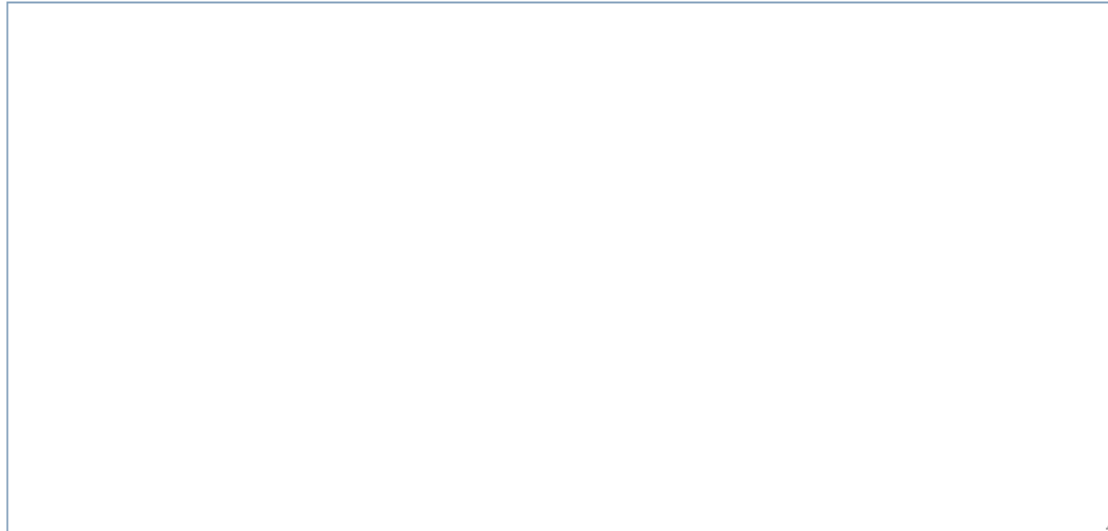
Marks: --
/1

You are required to construct a 500 word argument that **either** supports or refutes the statement 'Some historians claim that the Bayeux Tapestry is not an historical record of the Battle of Hastings, but rather it is simply Norman propaganda'.

You will need to use this [QuickTime virtual reality link to view the Bayeux Tapestry](#) to assist you in selecting and describing two scenes that you will use as the basis for your argument.

Click on this link to the [assessment rubric](#) to view the marking criteria for this task.

Answer:



Submit

Remote Labs

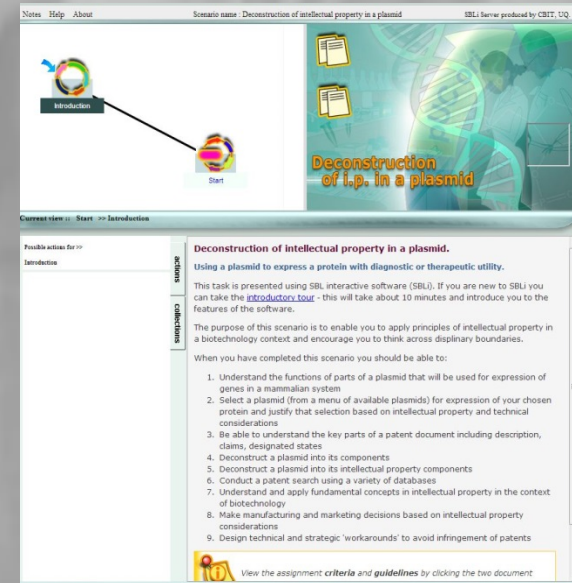
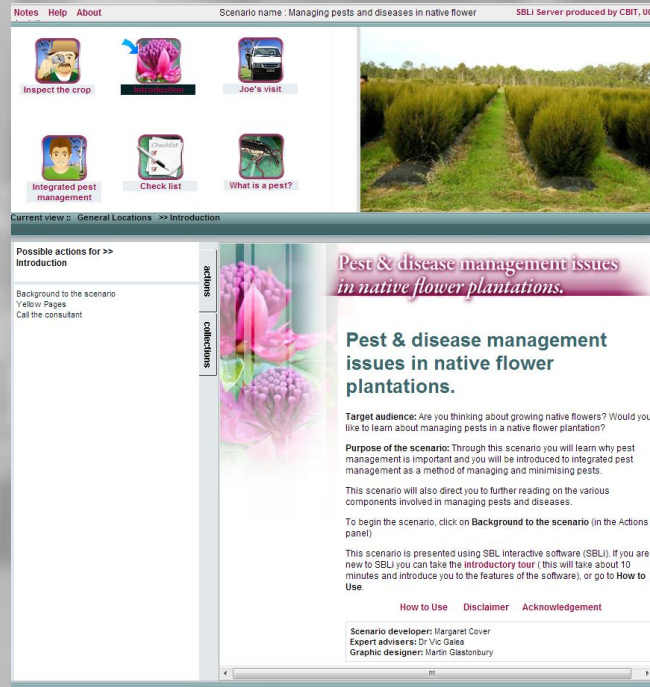
We can rethink the type of questions we ask if students have access to live data and resources in the assessment

The screenshot shows a web-based control interface for a Smart Vibration Platform (SMA). The interface is divided into several sections:

- Graph:** A plot of Amplitude (y-axis, -20 to 20) versus Time (x-axis, 0 to 1). The plot shows a flat line at zero.
- Control Panels:** Three rotary knobs for Motor (DAC0), SMA (DAC1), and MR (A00). Each knob has a scale from 0 to 100 and a 'Zero' button below it.
- Temperature Gauge:** A vertical gauge for SMA Temperature, ranging from 20 to 100. A 'Cut-off' button is located below the gauge.
- Video Feed:** A window on the right shows a live video of the physical apparatus, a red cone-shaped structure with a 'UQ' logo. Below the video is a 'Transferring data from 129.7.203.157...' status bar and a list of 'Delete' buttons.
- Buttons and Text:** A large play button is overlaid on the interface with the text 'Request Control of VI'. Other buttons include 'Rec' (Record) and 'STOP'.
- Footer:** A status bar at the bottom shows 'Done' and a timer '00:07:07:44'.

Let's first request the control of the VI.

Scenario based learning - SBLi



The importance of capturing students' decision points

Habworlds

Are We Alone?

Habitable Worlds (*HabWorlds*) explores the formation of stars, planets, Earth, life, intelligence, technological civilizations and, ultimately, is a quest of exploration as we attempt to answer one of the most profound questions: are we alone in the universe?

Designed by Prof. Ariel Anbar and Dr. Lev Horodyskyj from Arizona State University, *HabWorlds* is now available for faculty to teach at your university.



EXPLORE >>

EMPHASIZES LEARNING BY DOING

Students learn by doing as they create and destroy stars, hunt for planets, and search for signs of life. The course features a personalized quest, “Habitable Hunt”, where students search a field of stars for evidence of inhabited worlds.

USES ADAPTIVE TECHNOLOGY

Students get unique, adaptive feedback and learning pathways that can adapt dynamically as they learn. Access real-time learning analytics to help you understand your students’ responses, misconceptions, and visualize their learning pathways.

GIVES FACULTY CONTROL

Faculty can create a continuous cycle of improvement for their course. You will get access to a lesson-authoring tool to create and deploy content and real-time learning analytics to analyze how their students learn, so you can tailor the lessons to your students’ specific needs.

VIRTUAL FIELD TRIPS

HabWorlds Beyond also includes immersive, media-rich virtual field trips that take students around the world and back in time to explore the limits of Earth’s habitability. [See a virtual field trip.](#)

Build-a-Planet

Via the transit and radial velocity methods, you have found a planet with the following properties.


Mystery Planet

Radius = $1.6 R_E = 1.01 \times 10^9$ cm

Mass = $3.0 M_E = 1.80 \times 10^{28}$ g

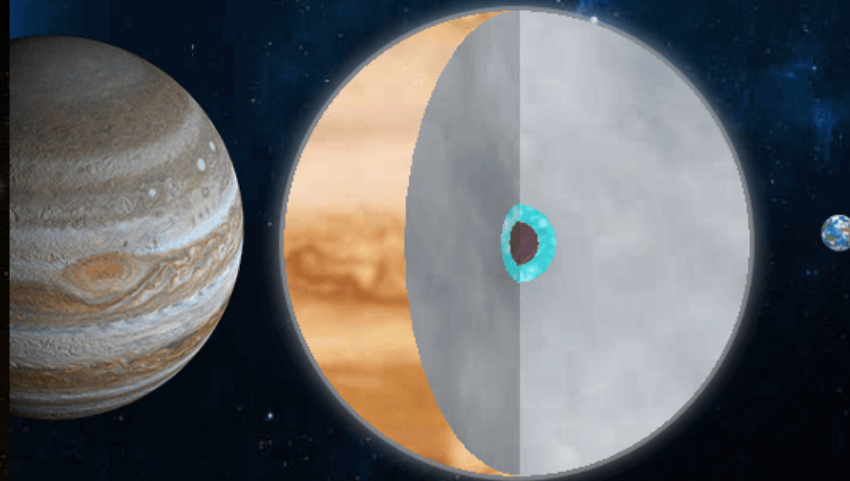
1. Calculate the planet's density:

Density: 4.17 g/cm^3 

2. Build your planet using the simulation on the right 

Planet Properties

Mass: $320.7897 M_E$ $1.009408 M_J$ Density: 0.508256 g/cm^3
Radius: $15.13406 R_E$ $1.381117 R_J$



	Mass(g)	% by mass	% by volume
Gas:	<input type="range"/>	97.867%	99.483%
Ice:	<input type="range"/>	0.8526%	0.4333%
Rock:	<input type="range"/>	0.0136%	0.0023%
Metal:	<input type="range"/>	1.2658%	0.0804%

Verify

All Formats ▾

Most Recent ▾

Search Courseware

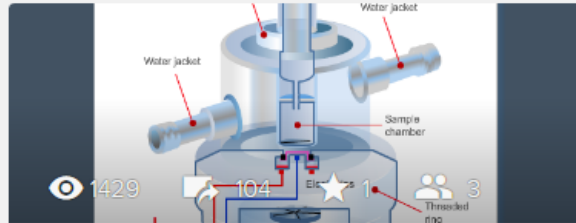


1613 views, 27 comments, 0 stars, 1 user

Patsie Polly
Western Blotting

This Western Blotting virtual lab allows students to undertake a virtual western blot and interpret the res...

Western blot, Duchenne muscular dystrophy, Wester...

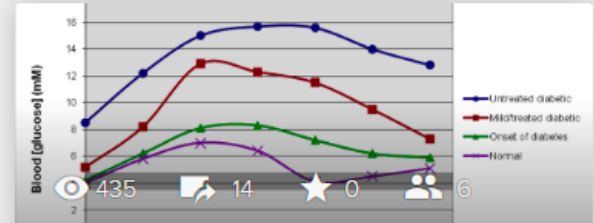


1429 views, 104 comments, 1 star, 3 users

Louise Lutze-Mann
Virtual Oxygen Electrode

An oxygen electrode measures the concentration of dissolved oxygen in a solution. This lesson allows st...

mitochondrial function, Mitochondria, Glutamate, AD...

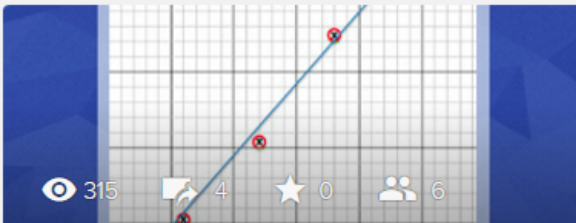


435 views, 14 comments, 0 stars, 6 users

Rebecca LeBard
Glucose Tolerance Testing

This short tutorial considers the glucose tolerance test (GTT) in the context of normal and abnormal carbohy...

Glucose tolerance test, biochemistry, glucose, tolera...

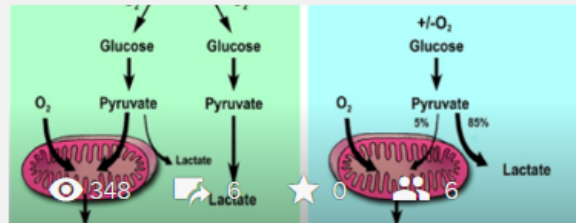


315 views, 4 comments, 0 stars, 6 users

Rebecca LeBard
Nitrogen Metabolism

This lesson mimics a practical class in which a student is asked to assess uric acid concentration in a serum...

Biochemistry, clinical biochemistry, laboratory scienc...

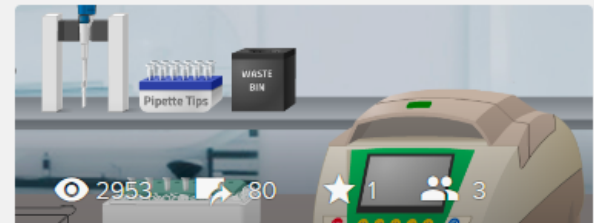


348 views, 6 comments, 0 stars, 6 users

Rebecca LeBard
Glycolysis in Skeletal Muscle

Students are asked to consider the process of glycolysis as it relates to the Warburg effect - as see...

Warburg effect, clinical biochemistry, exercise physio...



2953 views, 80 comments, 1 star, 3 users

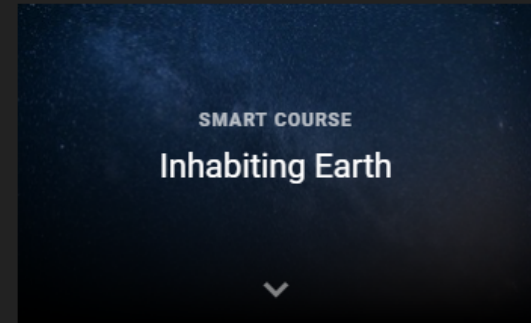
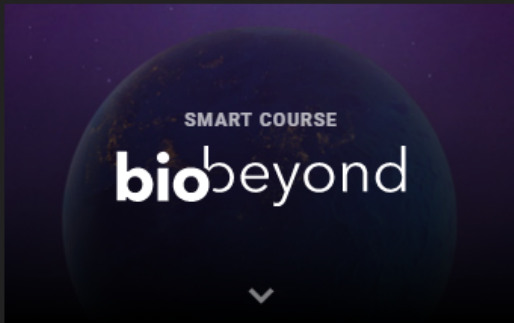
Louise Lutze-Mann
Polymerase Chain Reaction

The PCR virtual laboratory was developed for university students, to supplement or replace the us...

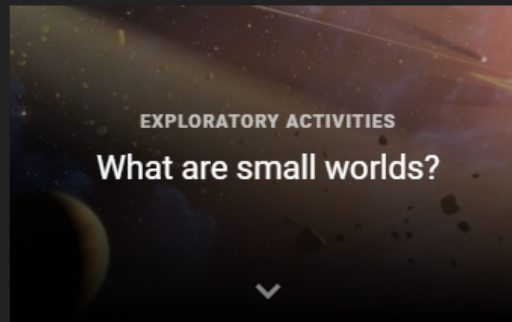
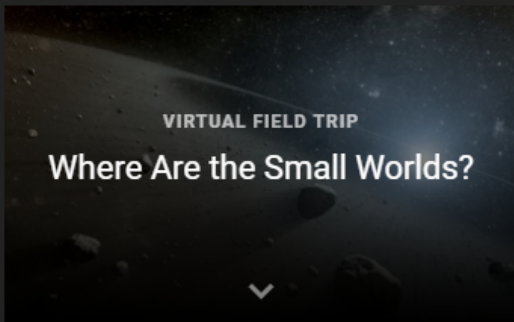
Duchenne muscular dystrophy, Polymerase chain re...

<https://inspark.education/>

Next Generation Courseware



Infiniscope



<https://www.youtube.com/watch?v=-k48udGeiA0>

Assessment by design

<https://www.youtube.com/watch?v=2W2iKhNZOZ0>



Using negotiated assessments in higher education
Hook, A and Bodell, SJ 2010
<http://usir.salford.ac.uk/19324>

E-exams – Mathew Hillier

<http://www.transformingexams.com>

The screenshot shows a computer desktop with a 'Movie Player' window open. The window title is 'Movie Player' and it shows a menu bar (File, Edit, View, Insert, Format, Table, Tools, Window, Help) and a toolbar. The main content area displays an exam document with the following questions:

5. Please describe the picture shown below.

Please write your answer below this line

6. Click on [this link](#) or open the file [Test.pdf](#)
Please write your answer below this line

7. Place a drawing of yourself below (you can use the GIMP as described on your student eExam page)
Please put your answer below this line

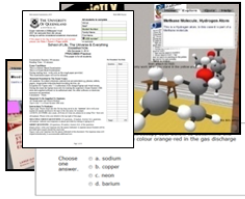
8. View the video file by clicking on [this link](#) in the Materials folder.

a) Could you see the video playing on your screen?

The video player window, titled 'Genomics Digital Lab.ogg', is overlaid on the exam document. It shows a 3D simulation of a plant with various panels for 'PLANT PROPERTIES', 'LIGHT', 'GASES', 'LIQUID', 'CHLOROPLAST', and 'SUGARS'. The video player controls at the bottom show the video is playing at 0:27 / 1:18.

e-Exam Workflow

Set-up: prepare exam learning materials



Academic creates exam learning material

Create master USB (tested)



USBs duplicated per student



Pre-session: Student laptop setup & practice.

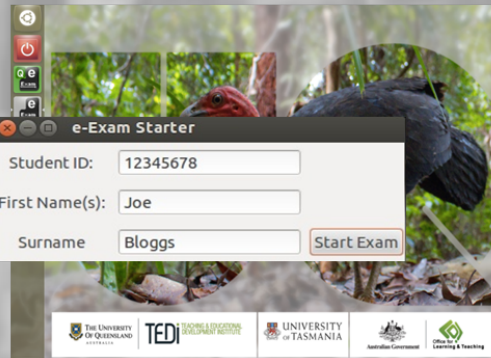
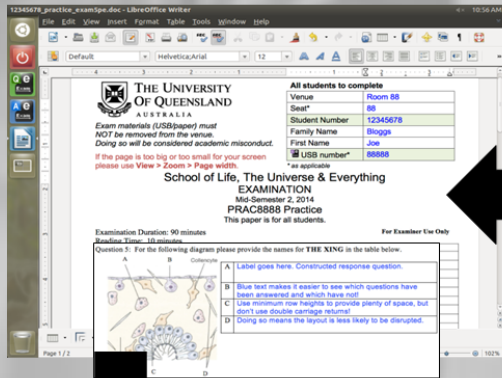


Exam room use



Ubuntu Live USB.
Libre Office,
Moodle etc

1. Students enter room
2. Given USB
3. Boot laptop
4. Do exam
5. Return USB
6. Leave room



Post session: retrieve responses and assessment



Collect USBs (responses)



Responses retrieved from USBs.



Collated e-responses sent to academic.



Rethinking assessment in a participatory digital world - Assessment 2.0 and beyond

Transforming Assessment is an ASCILITE SIG

We are about exploring assessment in higher education with a particular focus on use of information and communications technology to enhance the assessment of student learning (e-assessment).

Transforming Assessment Webinars

The preliminary schedule for 2017 is now taking shape!

- Schedule and session details -> See right side column!
- How to participate in sessions
- Technical help & FAQs for webinars
- Recordings of past events from 2010 to 2016 are available in multiple formats.

Partners and Joint Activities

- Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) as the e-Assessment SIG.
- Special issue on e-Assessment - International Journal of Educational Technology in Higher Education (2016) open access.
- Assessment in Higher Education (AHE) 2017 conference in the UK.
- Higher Education Academy (HEA UK) joint webinars showcasing work of HEA fellows.
- e-Assessment Association (eAA) joint webinars - details soon!
- e-Assessment Scotland (See session archives for the 2013 and 2014 conferences.

Professor Geoffrey Crisp's ALTC Fellowship (2009-2011)

- Read about the fellowship and download reports.

Things to do on our site...

- Participate in events: keep up to date on our Web seminars.
- View e-Assessment Exemplars: explore the assessment examples utilising a range technologies. You will also find a collection of presentations and other documents relating to e-assessment. An Zotero database containing a citations relating to e-assessment is also available.



Time to next webinar

37:01:02:37
Days Hrs Mins Secs

User login

Username *

Password *

- Create new account
- Request new password

Log in

Upcoming Events

2017: Getting Started with Assessment and Feedback in Higher Education
1 March 2017

2017: Virtual Field Trips to Enhance Employability Skills in Hospitality
5 April 2017

2017: Topic TBA - (AHE Preview)
3 May 2017

2017: MapMyProgramme – Developing the holistic student assessment experience
7 June 2017

2017: Topic TBA - (AHE 2017 Panel Review)
5 July 2017

2017: Competency based assessment
2 August 2017

2017: Student Self-assessment: rationale and practice
4 October 2017



TRANSFORMINGEXAMS.COM

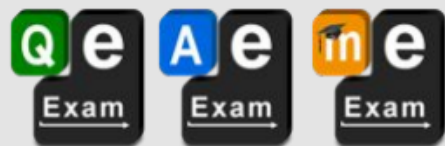
A Scalable Examination Platform For BYOD Invigilated Assessment



e-Exam System Trials @ Monash: Paper Equivalent e-Exams

Paper equivalent exams are where students can choose pen or keyboard. A fully functioning word processor is used to collect responses.

Question paper and responses



Moodle exams coming soon!

Typical e-Exam trial timeline

Pre-semester: Trial arranged with unit leader and a customised plan developed.

Week 1 to 3: Students choose to type or handwrite exam via online form.

Two weeks prior to exam: Typists go to setup/practice session.

On the day of the exam: students who are typing bring along their laptop, a wired mouse and go to the assigned room while others handwrite with pen-on-paper.

At the end of the exam: all students will be asked to complete a post-exam survey.

Project information and participation consent forms are available upon request.

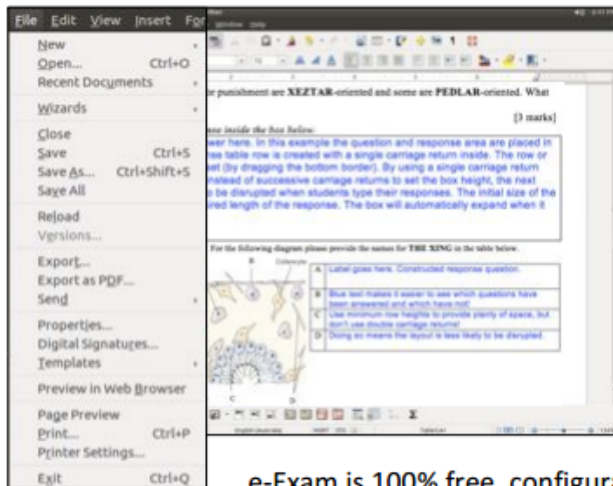


An Innovation and Development Grant: 2016-2018

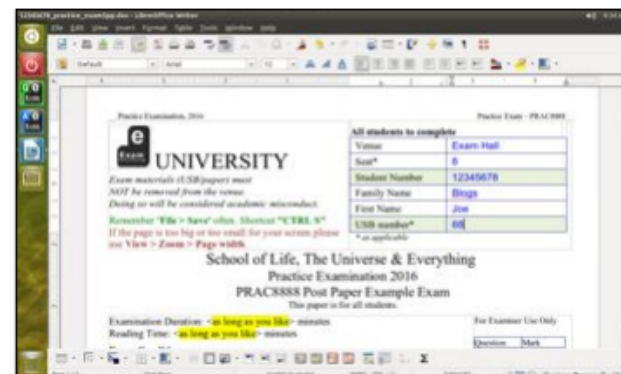
- ▶ 1) Boot your laptop with the e-Exam USB stick. After the system has started, enter your student ID and name then click 'Start Exam'.



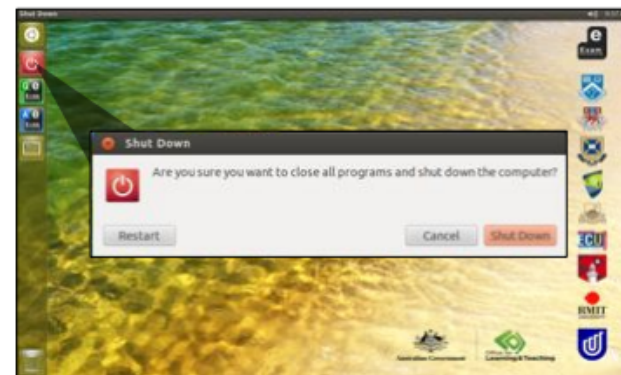
- ▶ 3) Auto save occurs every 2 minutes. Manually save the document at any time. Use Exit when you are done.



- ▶ 2) The exam file will be prefixed and labelled with your id, then opened ready to enter your responses.



- ▶ 4) When ready to hand-in your exam click the red 'shut down' button to close down properly.



- ▶ 5) Hand back the e-Exam system USB stick.

e-Exam is 100% free, configurable, open source - contact mathew.hillier@monash.edu



**The traditional meaning of the inukshuk is
"Someone was here" or "You are on the right path."**

