Preparing for the Online Test and Examination

11 & 17 November 2020

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Blended Learning - From Supporting to Substitute

DEFINISI OPERASI:
Pembelajaran Teradun Gantian (PTG)

PTG ialah untuk **mengupayakan pembelajaran dalam talian secara berstruktur dalam julat 30-80%** daripada Jam Pembelajaran Pelajar (Student Learning Time, SLT) berdasarkan:

FORMULA 40:40:20

Formula di atas adalah agihan kepada 30% hingga 80% daripada keseluruhan **Jam Pembelajaran Pelajar (SLT)** kepada **tiga(3) elemen PTG**.

Bahan Pembelajaran	Aktiviti Pembelajaran	Pentaksiran

Ketiga-tiga elemen ini mempunyai hubungan terus dengan **Hasil Pembelajaran Kursus** yang berkaitan dan dinyatakan secara jelas dalam rancangan pengajaran.

Course Structure

Week 01	Week 02	Week 03	Week 04	Week 05	Week 06	Week 07	Week 08
Week 09	Week 10	Week 11	Week 12	Week 13	Study Week	Final Exam	

Asynchronous · Study week · Synchronous · Final Exam

PdP-DT Synchronous & Asynchronous

Synchronous : Lecturer and students are online at the same time, using the same platform of learning.

Asynchronous : Lecturer provide the learning materials which students can access within their flexible time.

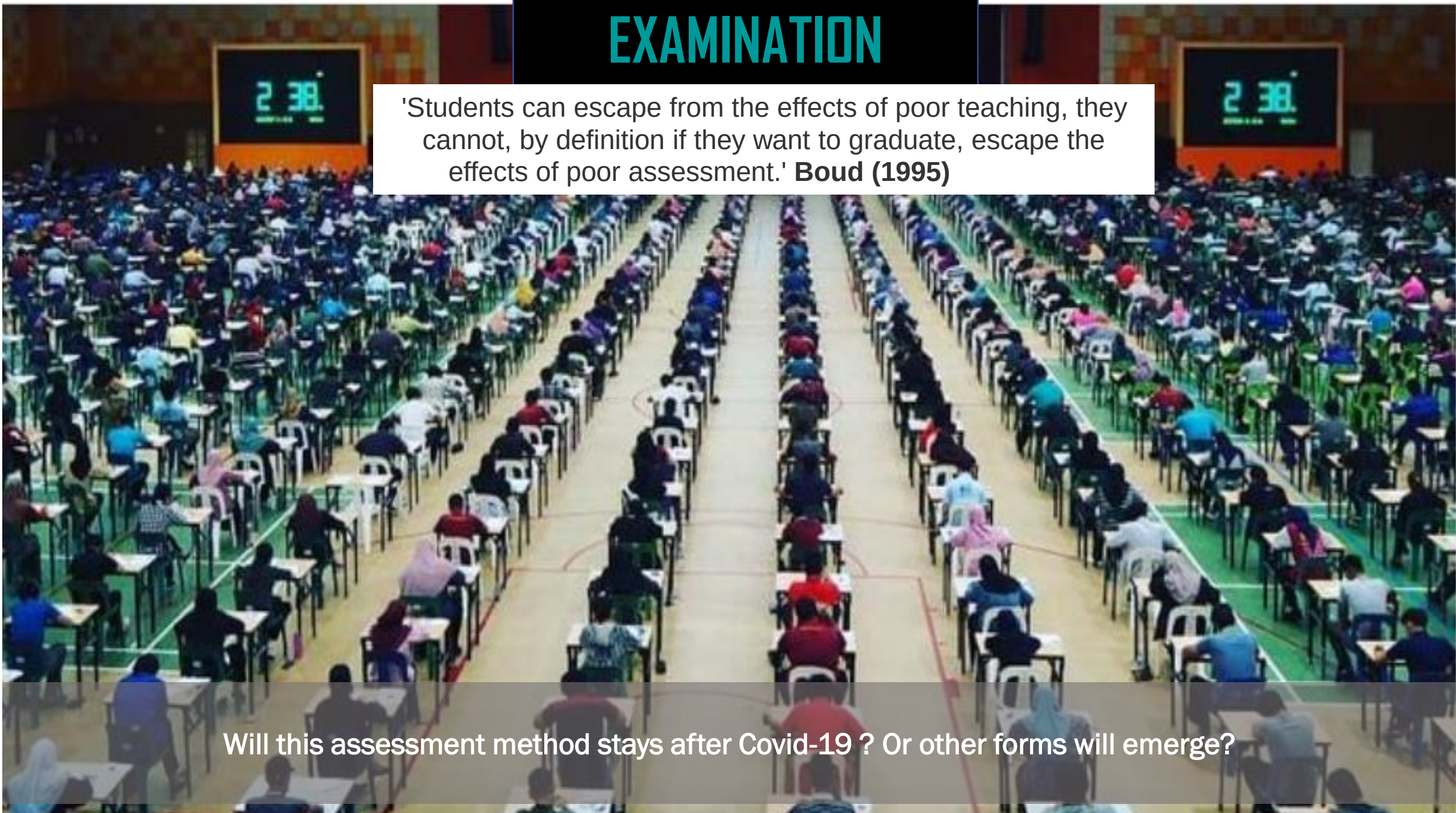
	Synchronous	Asynchronous
1 Learning Material	. Teleconferencing . Real-time Audio	Animation . Multimedia . Video .
2 Learning Activities	. Forum . Debate . Consultation	Research . Feedback . Discussion .
3 Assessment	. Kahoot . Padlet . EDpuzzle	Assessment . Test . Quiz .

Lesson Plan Structure Example 2 hours class session

5 minutes	Welcome + lesson instruction/structure
25 minutes	Short lecture
10 minutes	Group discussion
10 minutes	Individual tutorial
10 minutes	Break
10 minutes	Video streaming
10 minutes	Quiz
20 minutes	Plenery discussion
10 minutes	Learning reflection through Forum in KALAM

EXAMINATION

'Students can escape from the effects of poor teaching, they cannot, by definition if they want to graduate, escape the effects of poor assessment.' **Boud (1995)**



Will this assessment method stays after Covid-19 ? Or other forms will emerge?

UNTUK EDARAN SEGERA

Agensi Kelayakan Malaysia
Malaysian Qualifications Agency

PANDUAN PENGENDALIAN PROGRAM PENDIDIKAN TINGGI SEMASA DAN PASCA PERINTAH KAWALAN PERGERAKAN COVID-19

UNTUK EDARAN SEGERA

PENILAIAN PELAJAR

12. **Penggantian peperiksaan akhir dengan lain-lain bentuk penilaian pelajar seperti peperiksaan secara *online*, tugasan dan sebagainya**

Peperiksaan akhir di kampus boleh digantikan dengan kaedah penilaian yang lain seperti *take-home-exam*, *open-book-exam*, peperiksaan secara *online*, tugasan akhir dan sebagainya bergantung kepada kesesuaian. PPT perlu memastikan mekanisma penilaian yang digunakan dapat mengukur pencapaian pelajar secara individu.

Prinsip utama adalah kaedah-kaedah terbabit dapat mengukur pencapaian pelajar berdasarkan hasil pembelajaran yang ditetapkan serta memelihara sebaik mungkin berdasarkan situasi semasa aspek *validity*, *reliability* dan *fairness* dalam pelaksanaan.

Advisory Note 29 Mac 2020

https://www.mqa.gov.my/pv4/bm/pubs_adv_notes.cfm

Advisory Note 1/2020 Semasa Covid-19 – Mac 2020

Final Examination can be replaced with other forms of examination online, assignments and others.

Take-home-exam
Open-book-exam
Examination Online
Final Assignment
Any suitable or appropriate assessment

Basic principles – must measure students achievement based on intended learning outcome

Validity, Reliability and Fairness must be observed.

Advisory Note 5/2020 Post Covid – sehingga kini

UNTUK EDARAN

Agensi Kelayakan Malaysia
Malaysian Qualifications Agency

***ADVISORY NOTE* BIL. 5/2020**

PANDUAN KAEDAH ALTERNATIF PENYAMPAIAN PROGRAM DAN PENILAIAN PEMBELAJARAN PELAJAR DALAM STANDARD PROGRAM

10. Kaedah alternatif umum yang boleh dilaksanakan bagi semua standard program MQA adalah seperti berikut:

A. Pengajaran dan Pembelajaran (PdP)

Pdp dilaksanakan melalui kaedah *online synchronous/ asynchronous* atau *remote learning*.

B. Amali

i. Digantikan dengan kaedah *virtual/* simulasi/ kaedah lain yang bersesuaian; atau
ii. Boleh dilaksanakan secara fizikal sebahagian/ keseluruhan di premis/ kampus; atau
iii. Tangguh sehingga keadaan membenarkan.

C. Penilaian Pelajar/ Taksiran

Penilaian pelajar diubah kepada kaedah yang bersesuaian seperti *online assessment, take home exam, final assignment*, kertas refleksi dan sebagainya mengikut kesesuaian bidang.

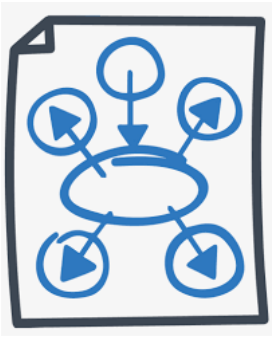
Detailing several practical evaluation procedure / process suggested by program standard based on discipline

Advisory Note 28 July 2020

https://www.mqa.gov.my/pv4/bm/pubs_adv_notes.cfm

SESSION OBJECTIVE

Discuss feasible strategies to conduct online test and examination



Adapt design variables for performance tasks and projects to develop authentic examination questions

Universiti Malaysia PAHANG

اونيۏرسيتي مليسيا ڤهڠ

10-23 Ogos 2020

Selamat Menduduki Peperiksaan Akhir kepada pelajar UMP

(Semester II Sesi Akademik 2019/2020)

"Kekuatan tidak datang dari kemampuan fizikal tetapi ia datang dari semangat yang tidak pernah mengalah"

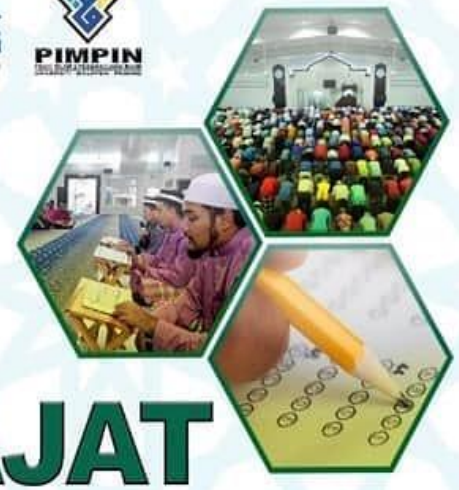
Selamat Maju Jaya

UMPMalaysia 5-Star World Class Technological University

SEMUA DIJEMPUT HADIR

Universiti Malaysia PAHANG

PIMPIN



MAJLIS SOLAT HAJAT & BACAAN YAASIN

SEMPENA

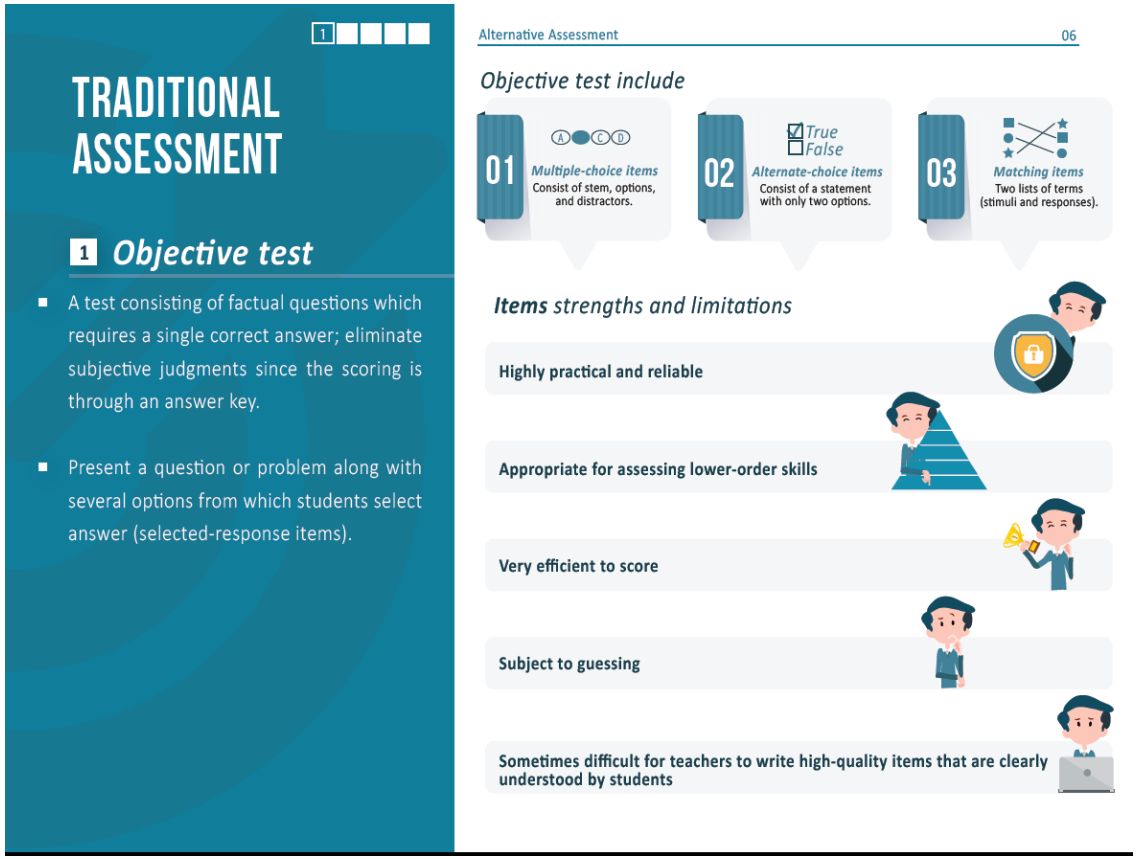
Peperiksaan Akhir Semester 1 Sesi 2019 / 2020

EXAMINATION IN BRIEF

How much it affect us all

TEST AND FINAL EXAMINATION

Main Features and Purpose



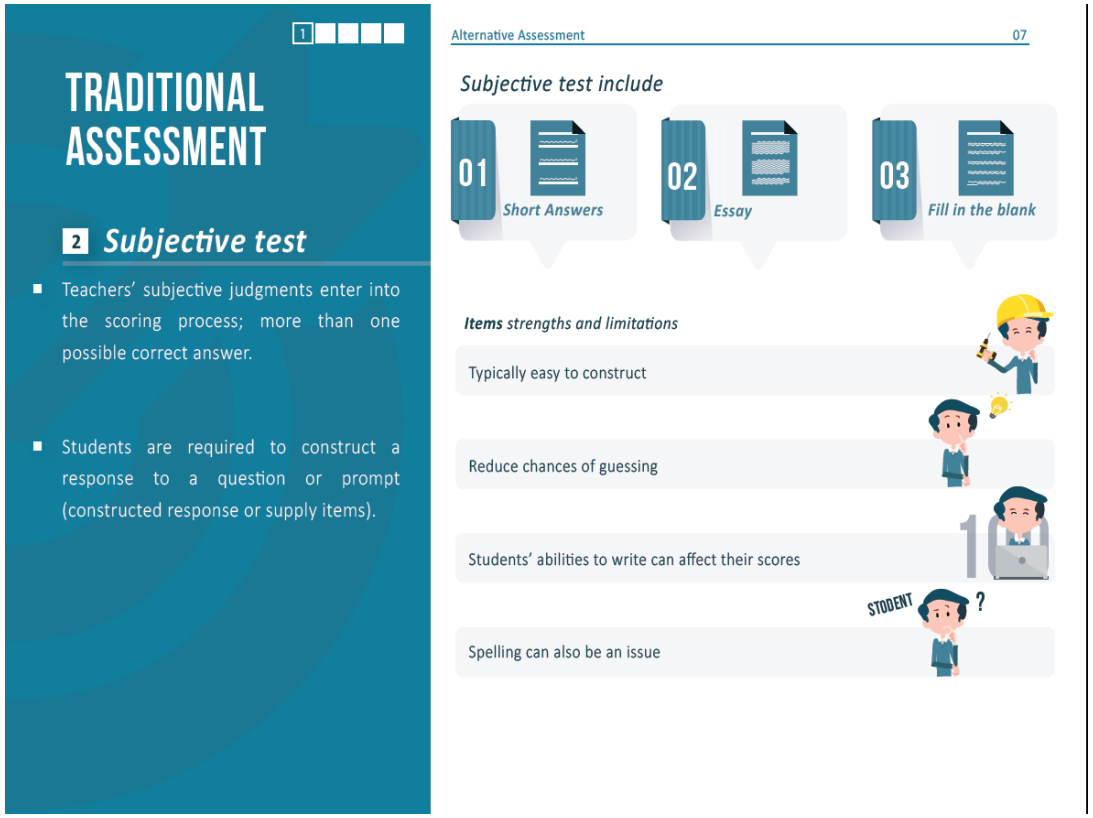


Illustration source : PrAise: Putra Alternative Assessment, UPM (2020)

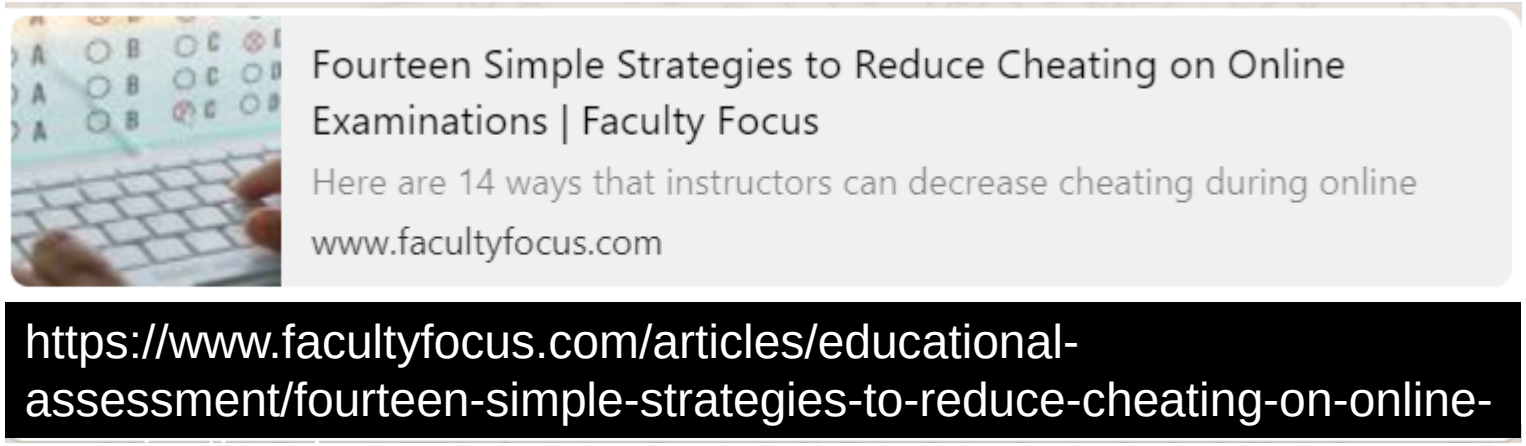
Main features : Pen and paper format | **same questions** at the same time and space| questions are not made available before the exam time | measuring cognitive ability | high stake –grade | no feedback | one-shot measure

Purpose : to measure and to grade the work of solely of an individual | in an observed condition.

Exam-based assessment should not result in '**sudden death**' of students'

Online Test and Examination

Integrity and Validity



1. Create questions that require **higher order thinking.**
2. Use varied question types.
3. Creatively remind students of academic integrity policies.
4. Require students to sign an **academic integrity contract**
5. Restrict testing window.
6. Set-up the exam to show one question at a time.
7. Prohibit backtracking.
8. Change test question sequence.
9. Offer different versions of the same test.
10. Allow for only taking the test once.
11. Plan for “technical issues.”
12. Delay score availability.
13. Refrain from using publisher test banks verbatim.
14. Protect test question answers.

Test and Examination Online – Integrity and Validity

Proctoring tools - Procto, examity, respondus lockdown browser

Proctoring Systems

1. AI vs Humans
2. Record and review vs Real-time Humans
3. Screen capture
4. Mobile phone as 3rd camera
5. Using own proctors (staff)
6. LMS
7. On-demand and scheduled exam

Advanced security

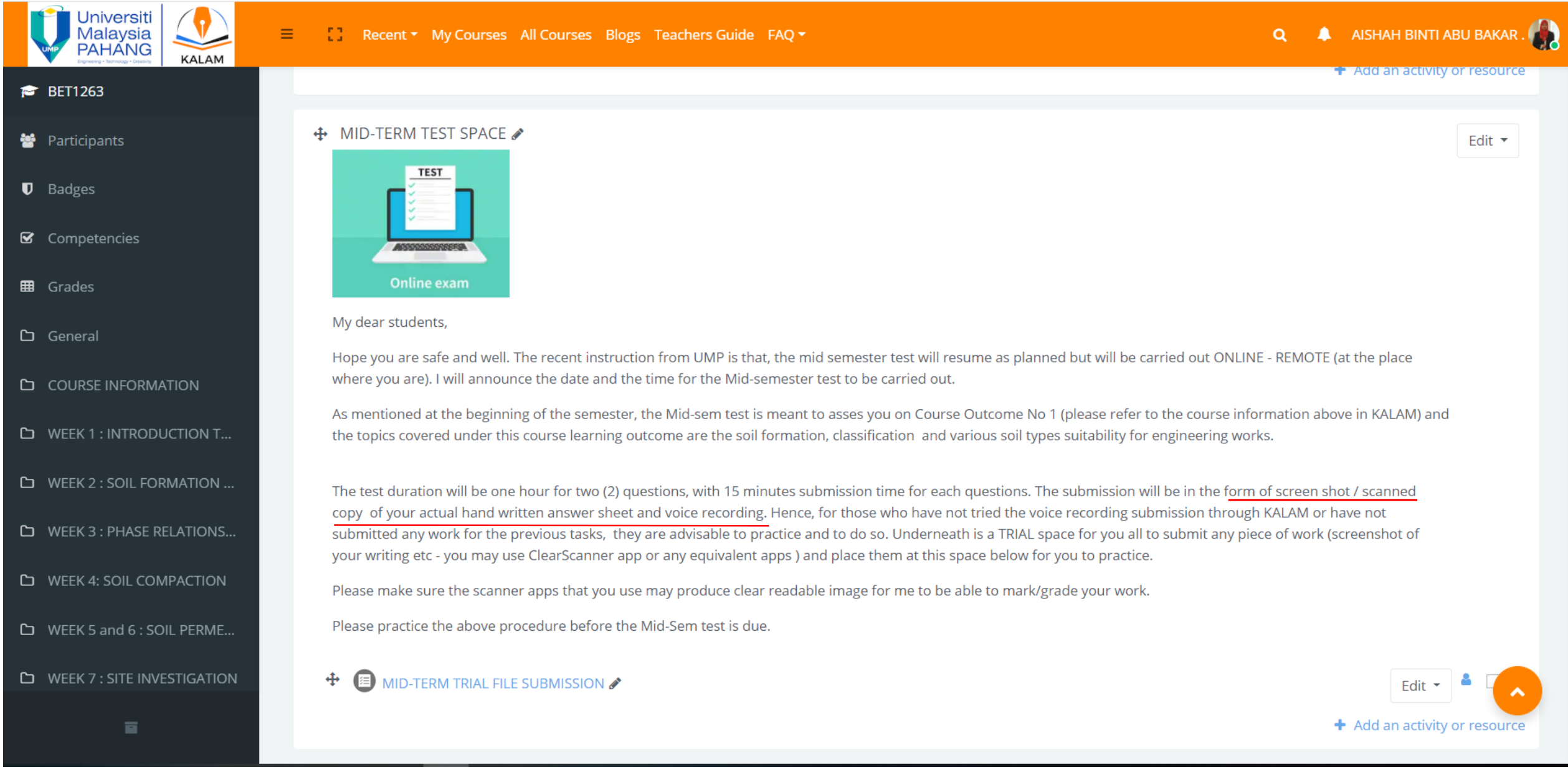
- Automated generated q's
- Computerized adaptive testing
- Pro item banking
- Item response theory scoring
- Psychometrics analysis
- Lockdown
- Linear on the fly testing

Need good infrastructure to support

Work Processes – Examination Online

Core Processes	Explanation	
Before Examination	a. Make changes to the Course Plan	c. Prepare Examination question and get faculty approval
	b. Announce changes to students	d. Choose appropriate platform for the online examination
During Examination	a. Upload examination question online	
	b. Observed examination process	
	c. Ensure students submission	
After Examination	a. Check all students submission	c. Announce students marks / grade
	b. Mark students answer script	d. Handle feedback and record

1. Before the test / exam – Step b – Students Announcement



SECTIONS

1
2
3
4
5
6
7
8

MID-TERM TRIAL FILE SUBMISSION

Please use the this space to try and submit your files

1. Hand written page (use pen and not pencil) assuming it is your answer script (avoid typewritten page).

2. Short voice recording (your voice)

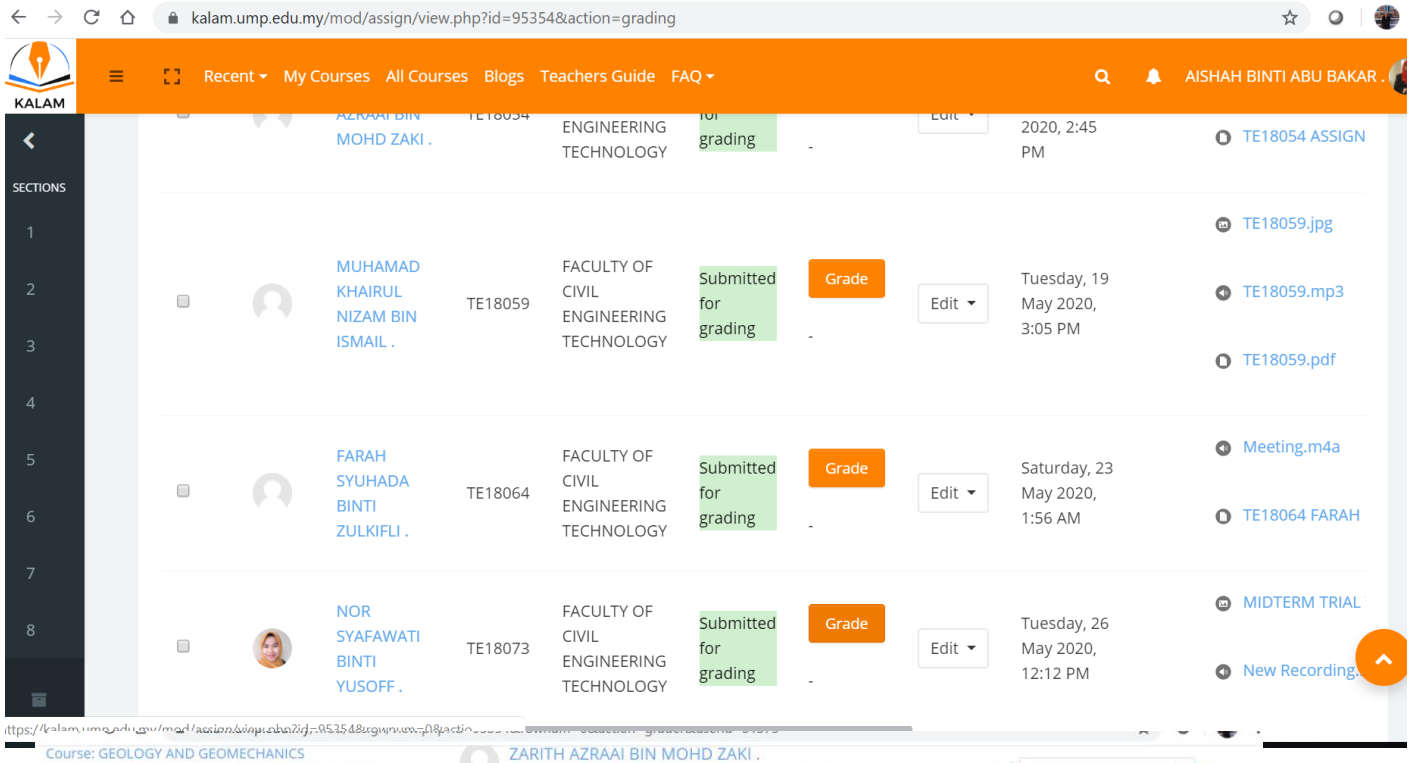
Let me know through our Whatsapps group if you have difficulty.

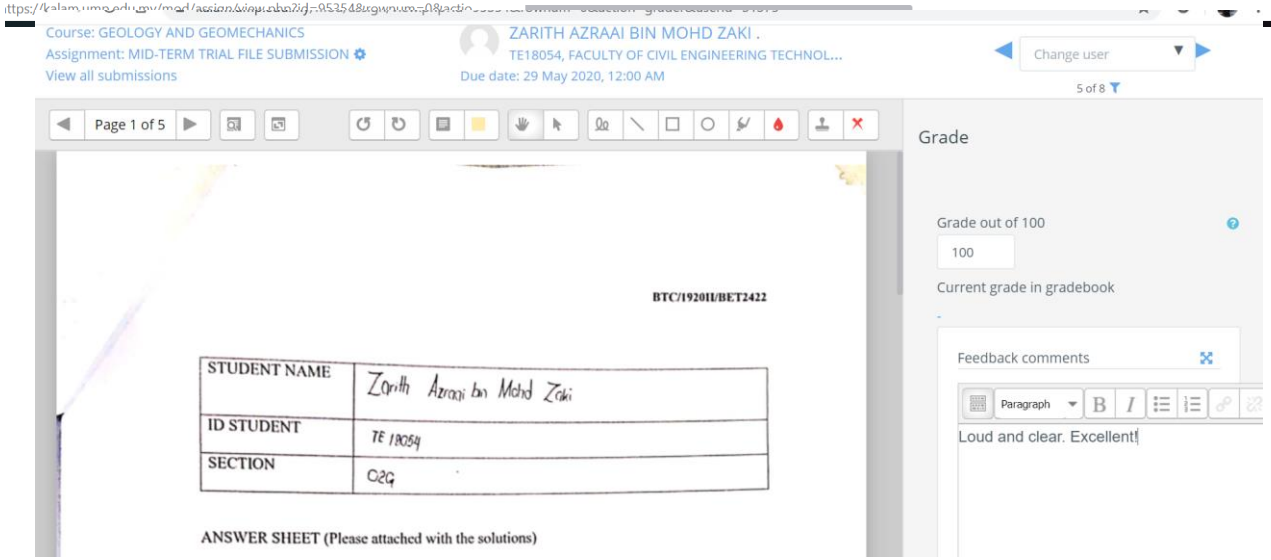
All the best

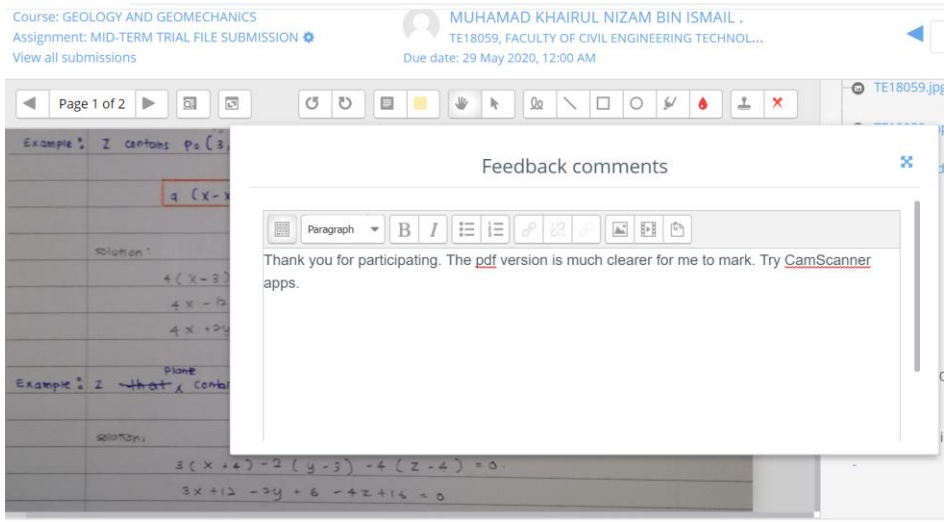
Grading summary

Hidden from students	No
Participants	71
Submitted	64
Needs grading	

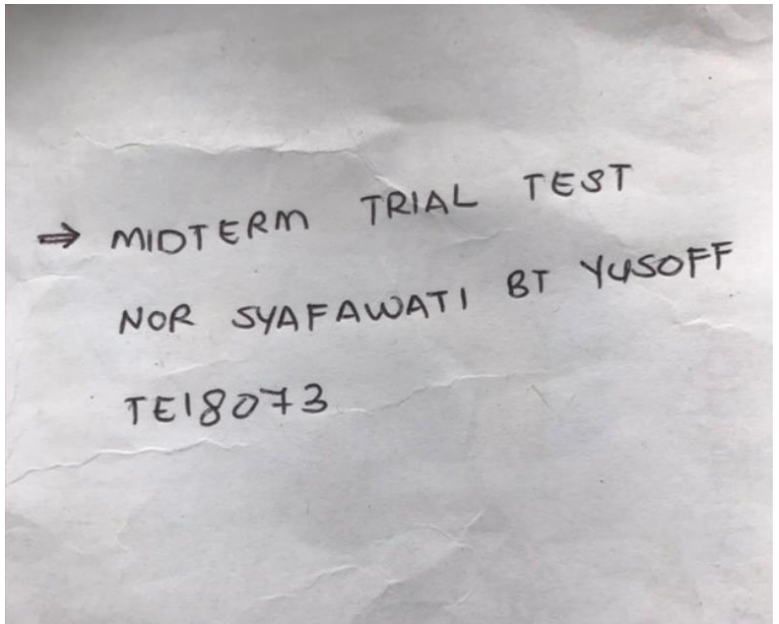
Checking internet connection and platform suitability check





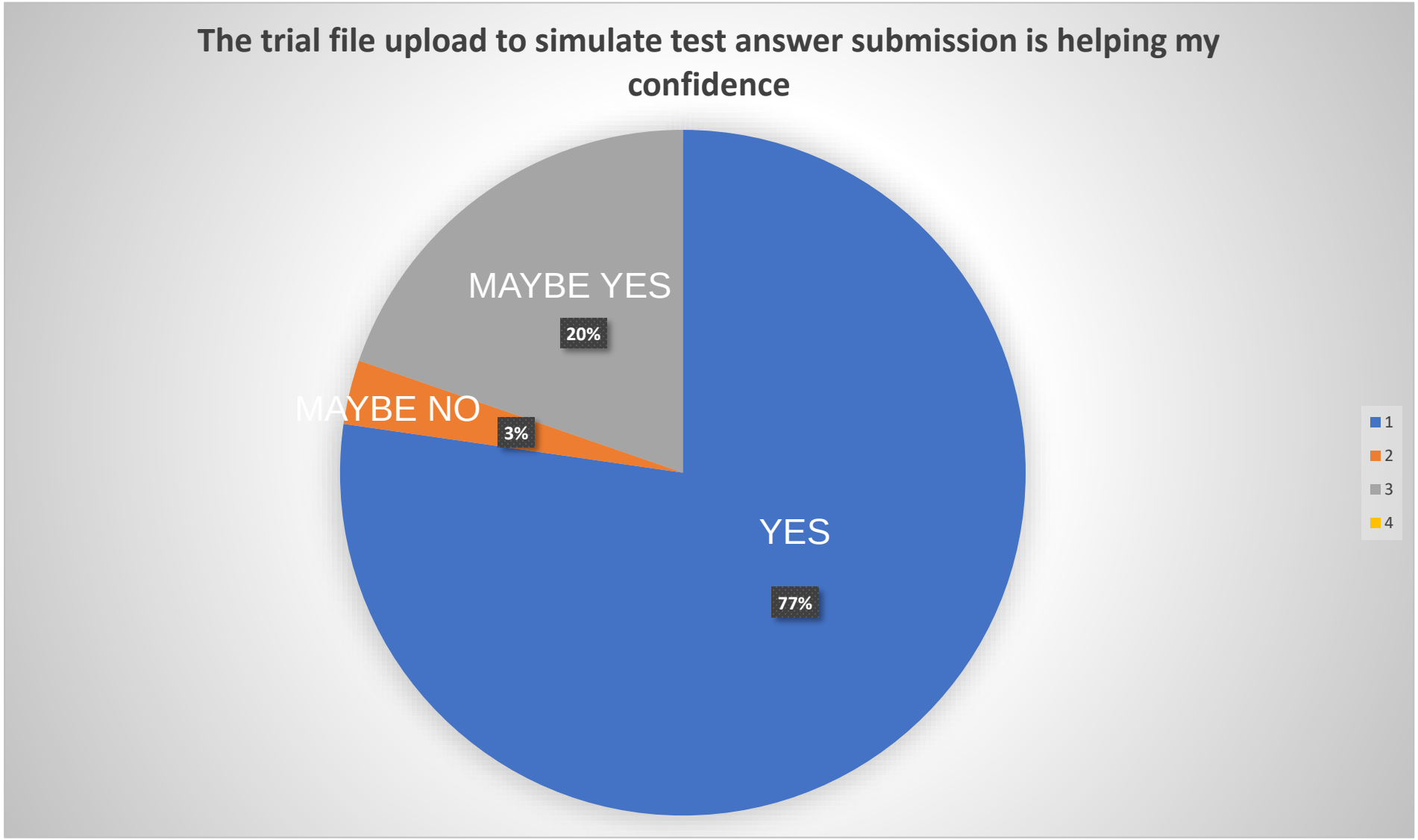


Provide feedback on the trial run



CODE / COURSE NAME : BET1263:GEOLOGY AND GEOMECHANICS
PROGRAMME: BACHELOR OF ENGINEERING TECHNOLOGY (INFRASTRUCTURE MANAGEMENT) WITH HONOURS (BTC)
LECTURER : AP DR. AISHAH ABU BAKAR / DR. MOHD FAKHRURRAZI ISHAK
SEMESTER / ACADEMIC SESSION: SEMESTER 2 SESI 2019/2020 **DAY(TIME)/LOCATION: TUESDAY (10 AM - 1 PM) /**

NO.	MATRIC NO	NAME	Test (20%)	Trial test upload	Status
			CO1	2 files	
1	TE18003	AFRINA FAKIRA BINTI NUZULAR		Received	Both are good
2	TE18004	SYAZANA RASHIQAH BINTI ROSLI		Received	Both are good
3	TE18006	FATIN AMIRA SOFIYYA BT ABD HALIM		Received	Both are good
4	TE18009	SOLAHUDDIN BIN DAUD		Received	Both are good
5	TE18011	MOHAMMAD BASHIRULLAH BIN BAHRAN		Received	Both are good
6	TE18014	NOOR ATIQAH BINTI ROSLI			Voice recording file is not recognised. The file has no extension like .m4a
7	TE18015	NOR FATIN SHAFIKAH BINTI MUHAMAD PIKRI		Received	Both are good
8	TE18016	MUHAMAD ZUL AFKAR BIN MOHAMED JAFRI		Received	Both are good
9	TE18019	ARIF MUSTAQIM B MD SALLEH			
10	TE18020	AHMAD ZULMAJDI BIN MOHD ZULFAKHAR		Received	Both are good
11	TE18034	FATIMATUZZAHRA BINTI MOHAMAD		0	
12	TE18038	NUR SYAKIRAH BINTI SHAFIE		Received	Both are good
13	TE18041	AHMAD YUSRI AIZAD BIN AHAMAD TERMUZI		Received	Both are good
14	TE18045	TUAN QURRATU AINI T. MOHD SHAIFUL QARIDAM		Received	Both are good
15	TE18046	WAN KHAIRUNNISA BINTI WAN IBRAHIM		Received	Both are good
16	TE18047	NUR LIYANA BINTI REJALEI		Received	Both are good


The trial file upload to simulate test answer submission is helping my confidence
MAYBE YES
20%
MAYBE NO
3%
YES
77%
1
2
3
4

Please post your questions here

MID-TERM TEST

Dear all,

Welcome back to Week 6 of this second semester of 2019-2020. As you all been informed several times via KALAM and Whatapps group, your Mid-Term Test will be carried out as follows

Date/Day : **9 June 2020** (**Tuesday**)

Time : **10.00 am - 1.00 pm**

(Test duration is 1 hour for 2 questions; with 20 minutes submission time each)

Mode : **Online** - Remote (at your place)

Application : **KALAM, Zoom/Google Meet and Whatsapps (WA)**

Please pay attention to the following steps on the test day

1. The Zoom connection will be sent to everyone at WA group (10.00 am)
2. Attendance and integrity contract will be distributed (google form) via WA group (10.00 am)
3. Short briefing (live) on the test procedure / general questions and answer (10.15 am) via Zoom.
4. QUESTION 1 will be put up in KALAM, Zoom, WA group and the test begin (10.30 am)
5. Test end for QUESTION 1 and submission start (11.00 am - 11.20 am)
6. QUESTION 2 will be put up in KALAM, Zoom, WA group and the test begin for Q2 (11.30 am)
7. Test end for QUESTION 2 and submission start (12.00 pm- 12.20 pm)

Mid-Term Test End

Please respond to this forum if you have any inquiries about our Online mid-Term Test.

1. The Zoom connection will be sent to everyone at WA group (10.00 am)
2. Attendance and integrity contract will be distributed (google form) via WA group (10.00 am)
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7. Test end for QUESTION 2 and submission start (12.00 pm- 12.20 pm)

Mid-Term Test End

Please respond to this forum if you have any inquiries about our Online mid-Term Test.

Mid-Term Test QUESTION 1 (9 June 2020)

Test duration 10.30 am - 11.00 am (30 minutes)

Submit your QUESTION 1 answer here (11.00 am - 11.20am) within this 20 minutes submission time

Scan your hand written answer script and upload the pdf file in this space for QUESTION 1

Mid-Term Test QUESTION 2 (9 June 2020)

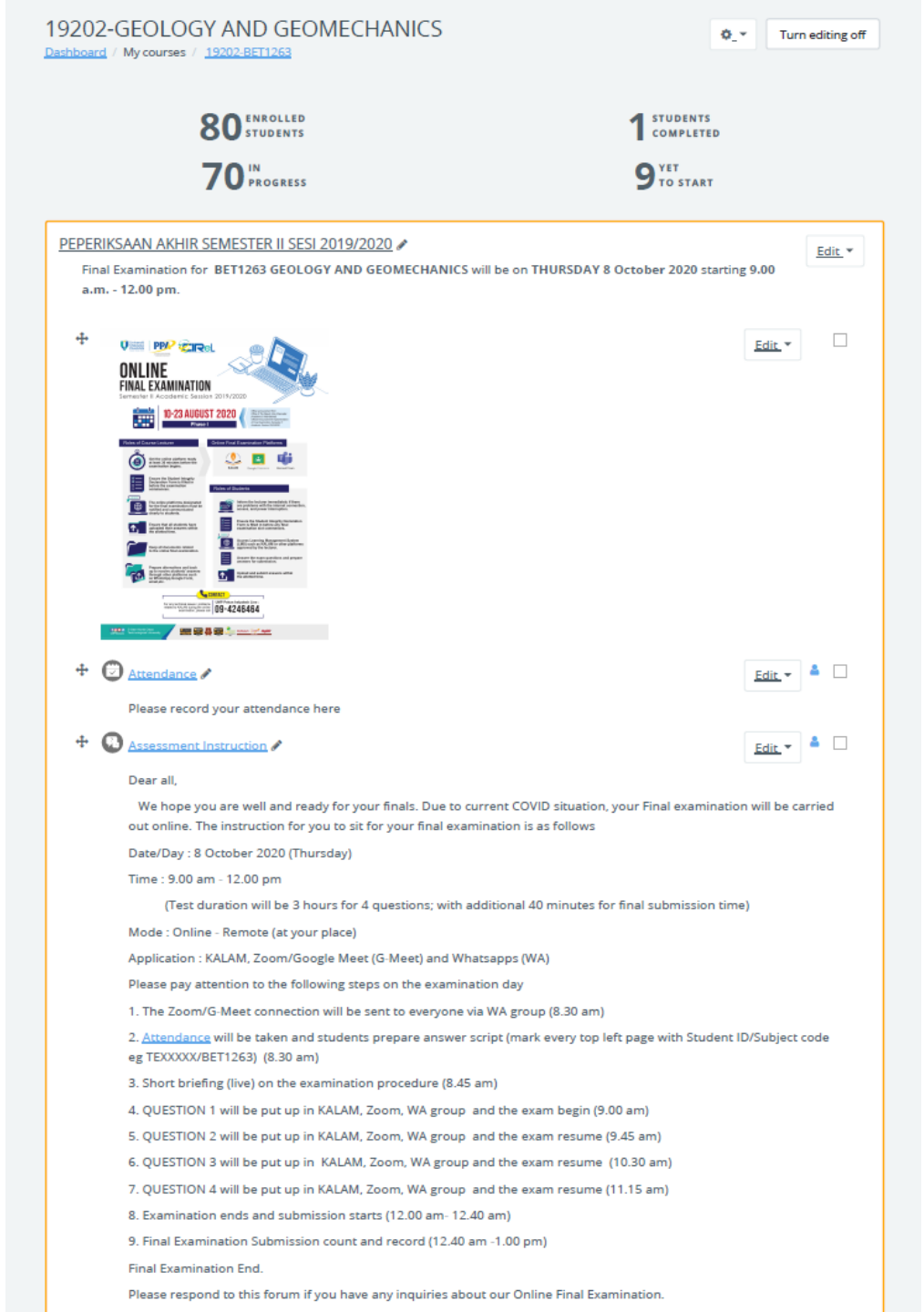
Test duration 11.30 am -12.00 am (30 minutes)

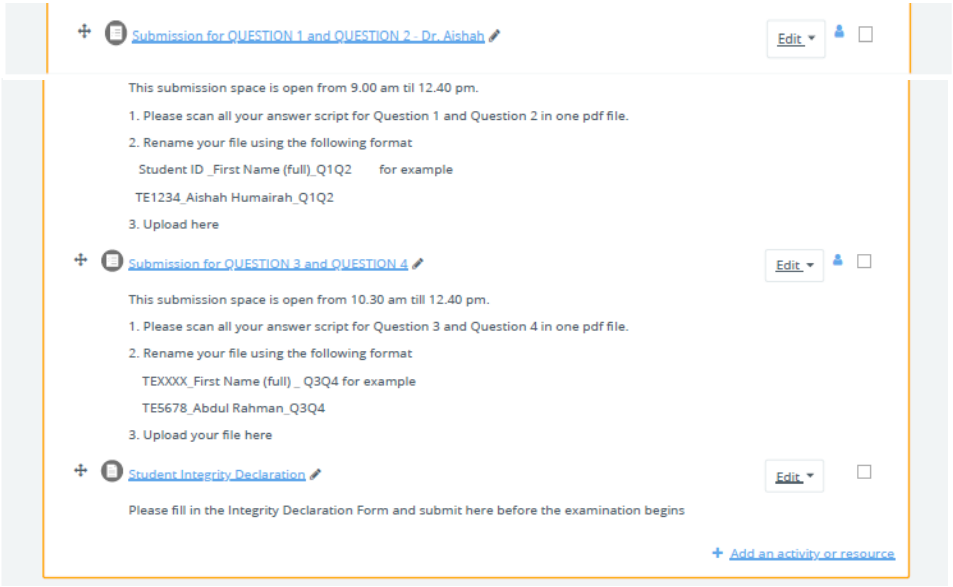
Submit your QUESTION 2 answer here (12.00 pm - 12.20 pm) within this 20 minutes submission time

Please scan your handwritten answer script and upload the pdf file and your voice recording file in this space for QUESTION 2.

Attendance Mid Term Test 9 June 2020

Final Examination – Online Exam Space





WRITING ONLINE TEST / EXAM QUESTIONS

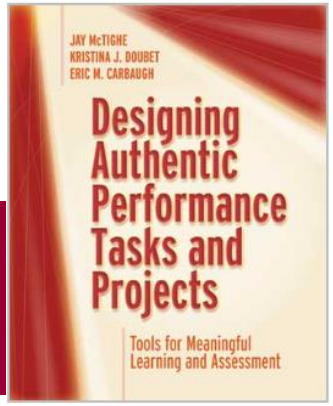
for the online environment

How can we make all students answer the same question without cheating

Step 1 – Make sure the question is aligned to CLO
Step 2a – Attached one or two design variables for performance tasks and projects (eg authenticity) to the STEM of the question
Or
Step 2b – Write the question using Modified Essay Questions (MEQs), task-based questions, performance-based questions or other appropriate approaches

ASCD Webinar - Designing and Using Authentic Tasks and Projects for Meaningful Learning and Assessment
www.ascd.org

http://www.ascd.org/professional-development/webinars/authentic-tasks-and-projects-webinar.aspx



WRITING ONLINE TEST / EXAM QUESTIONS

for the online environment

The changing landscape of assessment: some possible replacements for unseen, time-constrained, face-to-face invigilated exams
1st June 2020

Professor Kay Sambell, Edinburgh Napier University and Professor Sally Brown, Independent consultant

c. The **language of assessment questions** should be radically reviewed to focus less on recollection and memorisation of information, and more on its usage within specific contexts: we need to consider the 'learning outcomes' required by each exam question to promote more explaining, reasoning, applying and arguing, and less describing and listing (Hendry 2020)

d. There should be a greater reliance on **reflection on practice** in examinations to ensure that students' alignment with the work being produced is authenticated.

http://documents.manchester.ac.uk/display.aspx?DocID=49504

REPHRASING TEST QUESTIONS

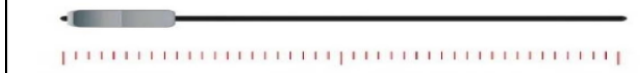
For Online Test Environment

Design Variables for Performance Task and Projects

1. **Time Frame** – *How long will students be involved in this task or project (including time for presentations and evaluations)?*
2. **Integration of Subjects** – *To what extent is the task/project interdisciplinary?*
3. **Cognitive Demand/Rigor** – *Where does the task/project fall on the Depth of Knowledge (DOK) scale?*
4. **Level of Inquiry** – *Are students engaged in the process of answering a question, exploring an issue, or solving a problem?*
5. **Degree of Authenticity** – *To what extent is the task/project authentic; i.e., featuring a real challenge, problem, issue; genuine product/performance; authentic audience; and real-world constraints?*
6. **Audience(s) for Student Product(s) /Performance(s)** – *To whom will students present their products and performances?*
7. **Performance Mode** – *How will students work?*
8. **Direction** – *Who will direct the task/project?*
9. **Student Choice** – *To what extent will students have choices regarding any of the following: – task/project topic, question, problem, issue? – product(s)/ performance(s)? – audience(s)?*
10. **Access to Resources** – *To what extent will the resources needed (e.g., information, supplies, equipment) be provided?*
11. **Degree of Scaffolding** – *To what degree will students be provided with instructional support and scaffolding as they work on the task?*
12. **Evaluation of Student Products/Performances** – *Who will be involved in evaluating student products and performances?*

ASCD WEBINAR

Degree of Authenticity:
To what extent is the task authentic?



De-contextualized | Simulates Authenticity | Fully Authentic

Performance Task ..... Project-based Learning

ASCD WEBINAR

Student Choice: *To what extent will students have choices regarding the other elements of the task/project?*

No Choice | Some Choices | Many Choices

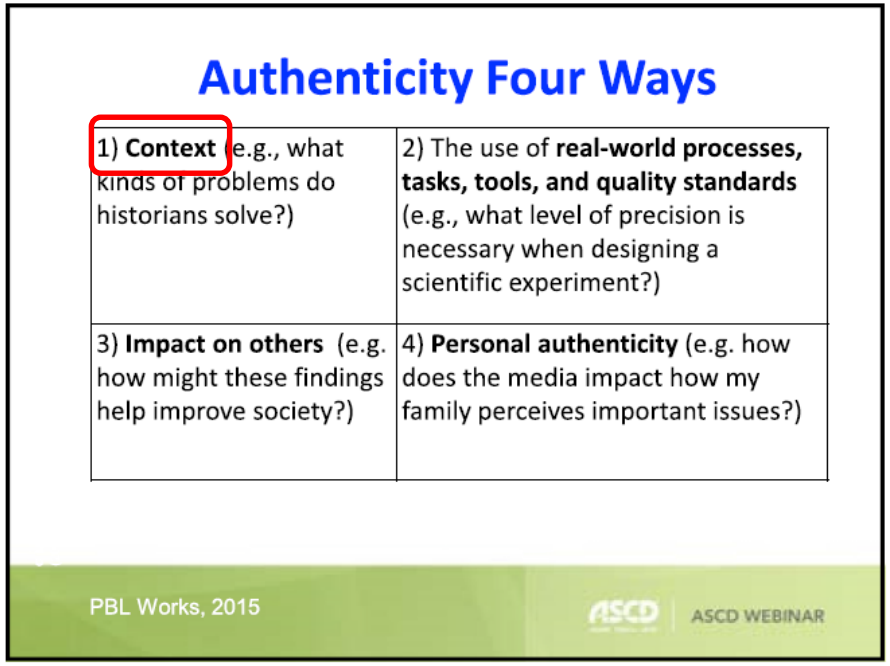
Performance Task ..... Project-based Learning

ASCD WEBINAR

REPHRASING TEST QUESTIONS

For Online Test Environment

Variable 5



- Verbally report (voice recording)
- Draw Concept map / diagram using open source tools / hand drawn
- Poster

Course Learning Outcome No. 1 :

Describe the formation of geomaterials and its characteristics which influence their engineering technology application. (C2)(20%)

Question 1

a. Describe the soil formation using a simple three-diagram (5 marks)

Question 1 – online – open book

a. Write a short note to your senior technologist describing the soil formation at the project site assuming that the project is at one these locality (chose only one).

Near seaside	Near the mouth of a river
Near the hill top	Flat agricultural area
At the toe of the hill	Near downstream of a river
Near the lake	

(5 marks)

Design variable No 5 : Degree of Authenticity

Degree of Authenticity:

To what extent is the task authentic?

Performance Task ..... Project-based Learning

Authenticity Four Ways

1) **Context** (e.g., what kinds of problems do historians solve?)	2) The use of **real-world processes, tasks, tools, and quality standards** (e.g., what level of precision is necessary when designing a scientific experiment?)
3) **Impact on others** (e.g. how might these findings help improve society?)	4) **Personal authenticity** (e.g. how does the media impact how my family perceives important issues?)

1

Authenticity "Before and After"

Before	After
• Students will do a lab and prepare a report.	• **Role:** Scientist • **Audience:** The scientific community • **Situation:** You want to discover _____. As a scientist, you are familiar with the scientific method. • **Product:** Design and conduct an experiment to answer your question. Present your findings at our scientific convention.

An Authenticity "Before and After"

1,2

Before	After
• Students will write a book report on their favorite science fiction novel.	• Role: Rotten Tomatoes Reviewer • Audience: Science Fiction Fans • Situation: There's a new series on Netflix claiming to be science fiction (it's based on a book you've read). You need to let your fans know whether or not to watch. • Product: Create a blog (or a vlog) post explaining your opinion of the show and if fans should tune in.

Simulating authenticity

Design variable No 5 : Degree of Authenticity

What Would an Expert Do? ***Some Possible Roles***

- **Mathematics: Mathematician, Architect, CSM, Engineer, Statistician, Accountant, Actuary, Financial Advisor, Astronaut, Stockbroker, Programmer, Air-traffic controller, A.E.D., Cook, Mechanic, Building contractor**
- **Science: Biologist, Botanist, Chemist, Environmental, Genetic Counselor, Zookeeper, Doctor, Paleontologist, Forensic Scientist, Construction Manager, Engineer**
- **English: Author, Editor, Publisher, Lawyer, Advertising, Politician, Book Critic, Movie Critic, Technical Writer, Public Relations, Journalist**
- **Social Studies: Archaeologist, Anthropologist, Historian, Museum Curator, Film Consultant, politician, lawyer, psychologist, geographer, cartographer, international relations consultant/diplomat, tour guide, fact-checker, author, economist**
- **World Languages: English fields + Tour Guide, Interpreter, Ambassador**
- **Physical Education: Coach, Referee, Commentator, Columnist**
- **Visual Arts: Graphic Designer, Art Critic, Web Designer, Freelance Artist**

Authenticity Four Ways

1) **Context** (e.g., what kinds of problems do historians solve?)	2) The use of **real-world processes, tasks, tools, and quality standards** (e.g., what level of precision is necessary when designing a scientific experiment?)
3) **Impact on others** (e.g. how might these findings help improve society?)	4) **Personal authenticity** (e.g. how does the media impact how my family perceives important issues?)

Figure 2.8
Sample Roles and Audiences

actor	family member	playwright
advertiser	farmer	poet
artist/illustrator	filmmaker	police officer
author	firefighter	pollster
biographer	forest ranger	radio listener
board member	friend	reader
boss	geologist	reporter
boy/girl scout	government official	researcher
businessperson	historian	reviewer
candidate	historical figure	sailor
carpenter	illustrator	school official
cartoon character	intern	scientist
cartoonist	interviewer	ship's captain
caterer	inventor	social scientist
celebrity	judge	social worker
CEO	jury	statistician
chairperson	lawyer	storyteller

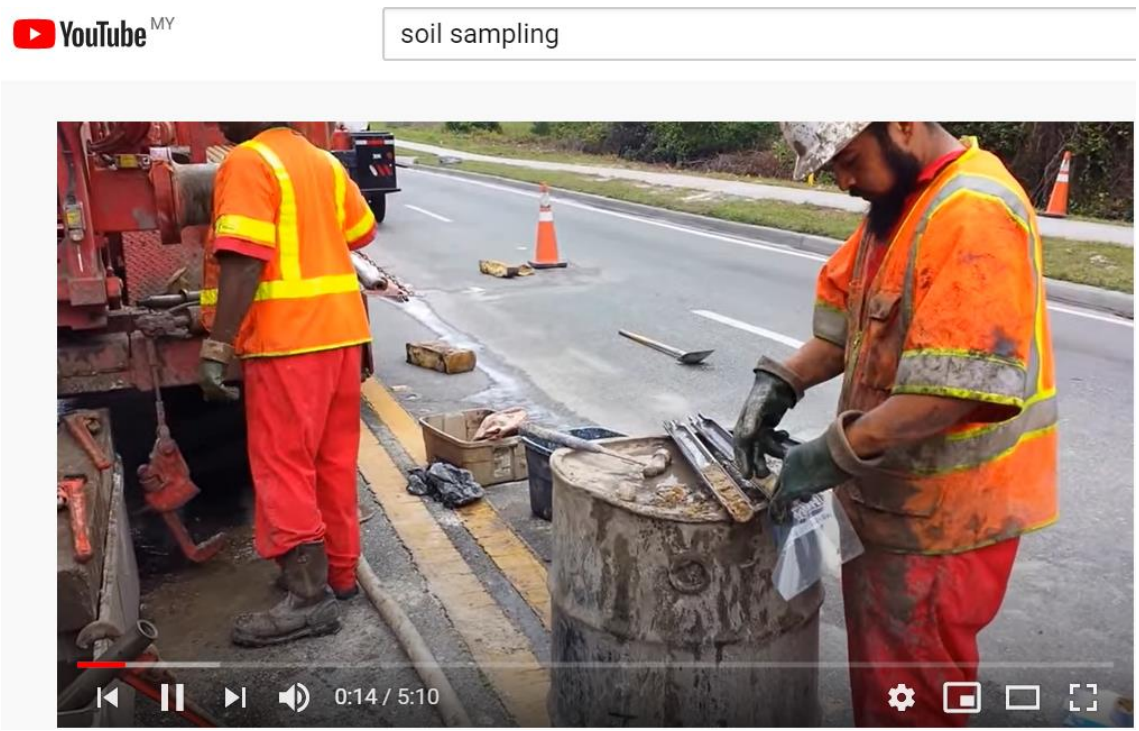
Degree of Authenticity

Using Context in the question by getting student to assume a role / to specific audience in the real world of work

chef/cook	library patron	student
choreographer	literary critic	taxi driver
clients/customer	lobbyist	teacher
coach	meteorologist	tour guide
community members	museum director/curator	trainer
composer	museum goer	travel agent
construction worker	neighbor	traveler
dancer	newscaster	tutor
designer	novelist	TV/movie character
detective	nutritionist	TV viewer
editor	panelist	viewer
elected official	parent	visitor
embassy staff	park ranger	website designer
engineer	pen pal	zoo keeper
expert (in __)	photographer	
eyewitness	pilot	

Source: From *Understanding by Design Professional Development Workbook* (p. 173), by J. McTighe & G. Wiggins. (2004). Alexandria, VA: ASCD.

Design variable No 5 : Degree of Authenticity



T

Did you see the technician gathering the sample? Sloppy!!!!!

We may take real processes in engineering technology work and get students to examine whether the process has been carried out in accordance to the standard procedure. Hence, is the concern real or unreal.

Authenticity Four Ways

1) **Context** (e.g., what kinds of problems do historians solve?)	2) The use of **real-world processes, tasks, tools, and quality standards** (e.g., what level of precision is necessary when designing a scientific experiment?)
3) **Impact on others** (e.g. how might these findings help improve society?)	4) **Personal authenticity** (e.g. how does the media impact how my family perceives important issues?)

Infographics (They're Everywhere!) - Canva

New York Times

Doubet & Southall, 2018

Real Simple magazine

Design variable No 5 : Degree of Authenticity

PAHANG MEDIA

YAB Menteri Besar Pahang, Dato' Sri Haji Wan Rosdy Bin Wan

Authenticity Four Ways

1) **Context** (e.g., what kinds of problems do historians solve?)	2) The use of **real-world processes, tasks, tools, and quality standards** (e.g., what level of precision is necessary when designing a scientific experiment?)
3) **Impact on others** (e.g. how might these findings help improve society?)	4) **Personal authenticity** (e.g. how does the media impact how my family perceives important issues?)

We may use multidisciplinary task and get students to find out how the recent innovation can be further improved and help the society.

Plenty of ideas from Imagineering, makerspace and others – challenge-based

Design variable No 5 : Degree of Authenticity

Example:

A "How To" Guide

Since you are an accomplished _____.
You have been asked to develop a step-by-step guide to help **other students** learn how to do it.
Your direction should include texts and pictures to help others learn how to _____ like you.

1. Authentic context **Driving Question**: Were certain historical events inevitable? **Task**: Students investigate whether U.S. involvement in World War II could have been avoided, and if so, how?	**2. The use of real-world processes, tasks, tools, and quality standards** **Driving Question**: How can we evaluate the quality of art? **Task**: Students research a variety of pieces across time periods and genres. They develop universal criteria that could be used to evaluate art and explain their rationale.
3. Impact on others **Driving Question**: How can our words and deeds impact others? **Task**: Students survey patients at a local children's hospital to determine their favorite books. They raise funds to purchase these works and visit (or Skype) with the patients to read and discuss the books.	**4. Personal authenticity** **Driving Question**: How can I design or improve a product or process? **Task**: Students pick an area of interest and propose a way of improving a product or process to address it. Present your design idea to a "shark tank" panel to convince them to invest in your idea.

How does ------theory connect to me personally
How does this apply to me

REPHRASING TEST QUESTIONS

For Online Test Environment

Variable 5

Authenticity Four Ways

1) **Context** (e.g., what kinds of problems do historians solve?)	2) The use of **real-world processes, tasks, tools, and quality standards** (e.g., what level of precision is necessary when designing a scientific experiment?)
3) **Impact on others** (e.g. how might these findings help improve society?)	4) **Personal authenticity** (e.g. how does the media impact how my family perceives important issues?)

Variable 9

Design Variable: *Student Voice and Choice*

As you progress through the boxes, the "scale" for the degree of student choice increases.

1. Same Product, Same Focus Examples: Create a presentation on flood-prone area in our community.	**2. Different Product, Same Focus** Examples: Create a presentation or mini-documentary on flood-prone areas in our community.
3. Same Product, Different Focus Examples: Create a presentation on flood-prone areas in our community's residential or recreational areas.	**4. Different Product, Different Focus** Examples: Create a presentation or mini-documentary on flood-prone areas in our community's residential or recreational areas.

Course Learning Outcome No. 1 :
Describe the formation of geomaterials and its characteristics which influence their engineering technology application. (C2)(20%)

Question 1

a. Describe the soil formation using a simple three-diagram (5 marks)

Question 1 – online – open book

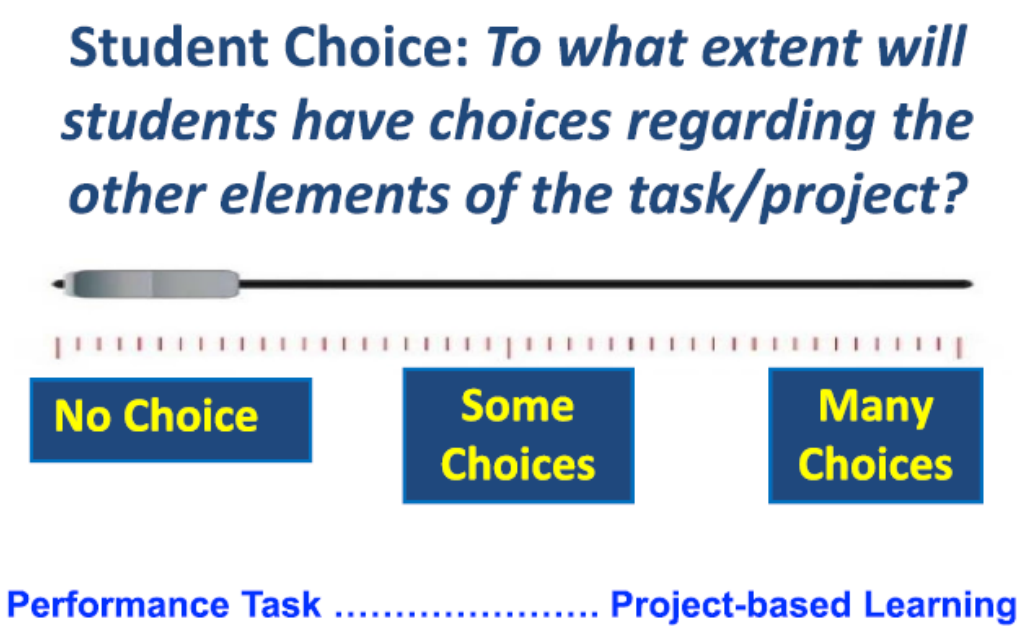
a. Write a short note to your senior technologist describing the soil formation at the project site assuming that the project is at one these locality (chose only one).

Near seaside
Near the hill top
At the toe of the hill
Near the lake
Near the mouth of a river
Flat agricultural area
Near downstream of a river

(5 marks)

Design variable No 9 : Student Voice and Choice

Increase students motivation



Design Variable: *Student Voice and Choice*

As you progress through the boxes, the "scale" for the degree of student choice increases.

1. Same Product, Same Focus Examples: Create a presentation on flood-prone area in our community.	**2. Different Product, Same Focus** Examples: Create a presentation or mini-documentary on flood-prone areas in our community.
3. Same Product, Different Focus Examples: Create a presentation on flood-prone areas in our community's residential or recreational areas.	**4. Different Product, Different Focus** Examples: Create a presentation or mini-documentary on flood-prone areas in our community's residential or recreational areas.

Design variable No 8 : Student Voice and Choice

Different Product, Different Focus

Common Goal: All students will plot functions P(t) and R(t) on a graph and find the x & y intercepts, and the domain & range of both functions. Then they will interpret what the x & y-intercepts are telling us in relation to the given functions P(t) and R(t) under the following scenarios .

Scenario 1	Scenario 2	Scenario 3
Goal: Interpret data for Math Mowers Inc. to understand the logistics of the business and to better serve customers Role: Entrepreneurs of a private lawn mowing business, Math Mowers Inc. Audience: Customers of Maths Mowers Inc.	Goal: Determine which pizza coupon gives you the best piece of a two topping pizza Role: A hungry university student Audience: Your wallet	Goal: Determine which play will give you a higher number of yards gained in the football game Role: Football Team Captains Audience: Your teammates

Student Voice and Choice

Figure 2.9
Sample Products and Performances

Written Products	Oral Performances	Visual Products
advertisement	audiotape	advertisement
biography	conversation	animation
blog	debate	banner
book report/review	discussion	book/CD cover
brochure	dramatic reading	cartoon
crossword puzzle	dramatization	collage
editorial	infomercial	computer graphic
essay	interview	data display
field guide	newscast	design
historical fiction	oral presentation	diagram
journal	oral report	display
lab report	podcast	drawing
letter	poetry reading	exhibit
log	puppet show	flowchart
magazine article	radio script	flyer
manual	rap	game
memo	skit	graph
newscast	song/recital	map
newspaper article	speech	model
play	TED Talk	movie
poem	teaching a lesson	painting
policy brief	Other:	photograph(s)
position paper		poster
proposal		presentation software
questionnaire		scrapbook
research report		sculpture
screenplay		social networking page
script		storyboard
story		vodcast
test		website
tweet		Other:
Other:		

REPHRASING TEST QUESTIONS

For Online Test Environment

Course Learning Outcome No. 1 :
Describe the formation of geomaterials and its characteristics which influence their engineering technology application. (C2)(20%)

Question 1

a. …….
b. Suggest an engineering use of coarse-grained and fine-grained soil with brief explanation of its properties that make it suitable for the engineering used as suggested.

(5 marks)

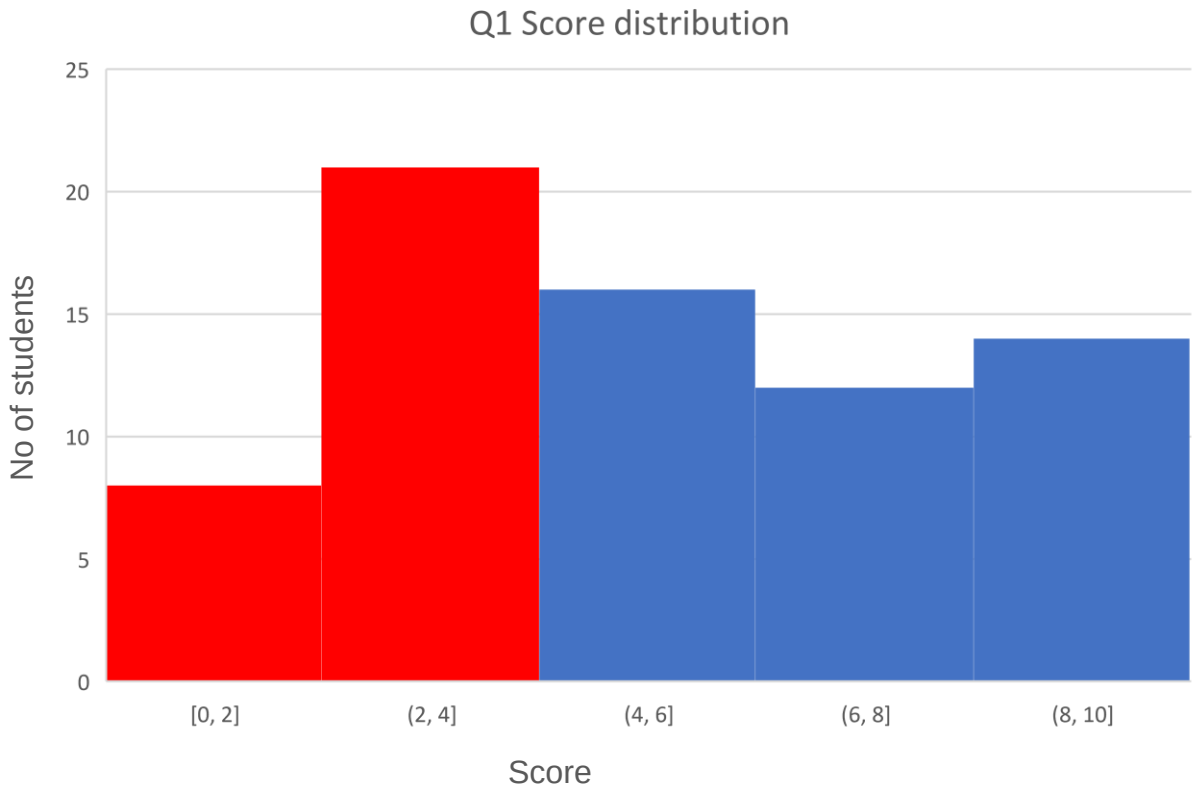
Question 1 – online – open

a. ……
b. State whether the soil you described in your note is suitable to be used as a backfill material behind a retaining wall. Give reason to your answer based on the properties of the soil concerned.

(5 marks)

Same product, different **focus**.

HOW DID STUDENTS RESPONDED TO AUTHENTIC QUESTIONS



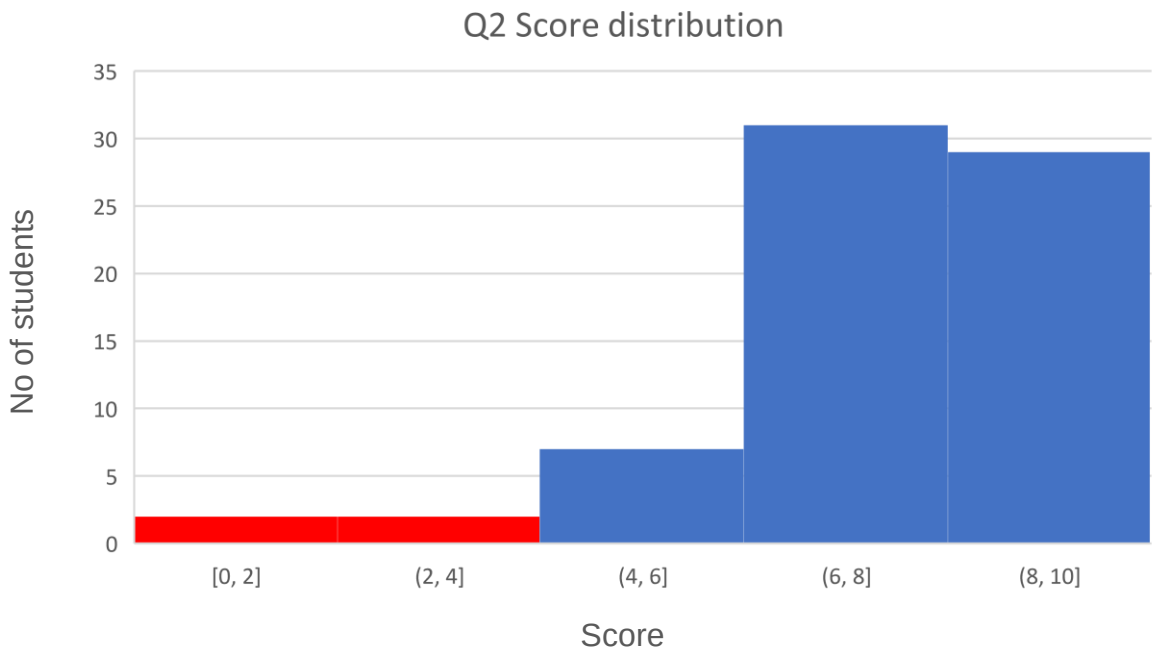
Students sample answers

Highest

Midddle

Low

HOW DID STUDENTS RESPONDED TO AUTHENTIC QUESTIONS



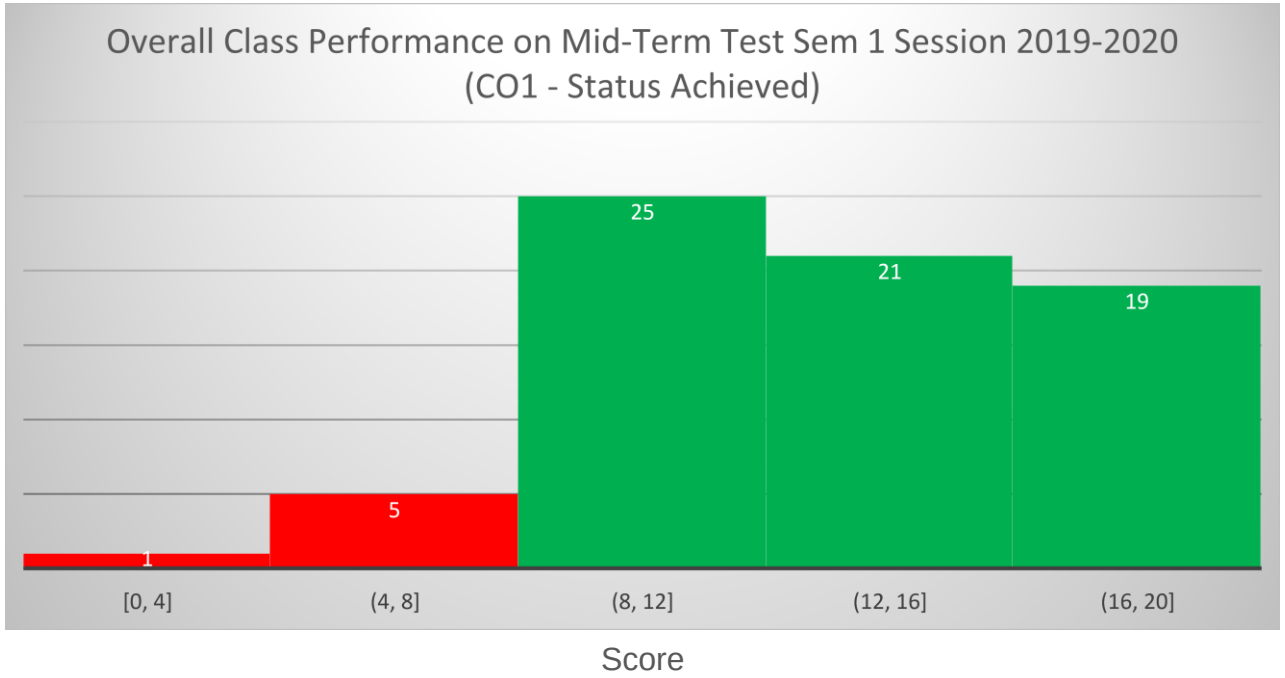
Students sample answers

Highest

Midddle

Low

OVERALL CLASS PERFORMANCE ON THE ONLINE TEST WITH REDUCED CHEATING STRATEGIES COMBINED WITH AUTHENTIC QUESTIONS



Percentage Passed = 90%
Percentage Failed 10%

<u>CO1 Achievement Status</u>
ACHIEVED - more than 65% students (90%) achieved more than 40% of the allocated marks

HASIL PEMBELAJARAN KURSUS (CLO) *COURSE LEARNING OUTCOMES (CLO)*	HASIL PEMBELAJARAN PROGRAM (PO) *PROGRAMME LEARNING OUTCOMES (PO)*			STRATEGI PEMBELAJARAN *LEARNING STRATEGIES*	KAEDAH PENILAIAN & PEMBERATAN PENILAIAN *METHOD OF ASSESSMENT & ASSESSMENT WEIGHTAGE*	KRITERIA PENCAPAIAN HASIL PEMBELAJARAN KURSUS *CRITERIA FOR ACHIEVEMENT OF COURSE LEARNING OUTCOME*
	PO1	PO3	PO4			
1. Memperihalkan pembentukan bahan geo dan cir-ciri yang mempengaruhi aplikasi kejuruteraan teknologi. *Describe the formation of geomaterials and its characteristics which influence their engineering technology application.* Tahap taksonomi: [C2] *Taxonomy level*	√			Kuliah dan latihan dalam kelas *Lectures and in class exercise*	Ujian (15%) (dan Tugasan 1 (10%) Test (15%) and *Assignment 1 (10%)*	65% daripada keseluruhan pelajar mendapat sekurang-kurangnya 40% daripada markah yang diperuntukkan *65% of the students achieved at least 40% of the allocated marks*

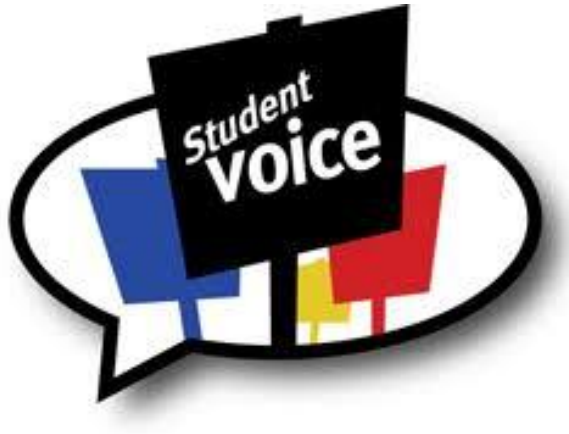
What did students said about their online test experiences

Google Form Survey

Conducted 24 June 2020 (2 weeks after the test), on the day after the approval of Faculty's Board of Examination, and 4 hours before the results being released

Aspect of Investigation

1. Online Test Experience
2. Test Preparation
3. Lecturer's support
4. Online Test Assessment Plan and Instruction
5. Effect authentic questions to student's ability to answer Q1 and Q2
6. Integrity and honesty



OTHER EXAMPLES

UNIVERSITY OF MALAYA

Example of CP

A company has purchased a mixing system with the following specifications for a gas-liquid-solid (catalyst) reaction:

No.	Item	Measurement
1	Diameter of the tank, D	2.0 m
2	Number of baffles	4
3	Length of baffles	0.1D
4	Height of the liquid	1.0 D
5	Diameter of the impeller, d	D/3
6	Impeller Clearance, C	Suitable Clearance
7	Ring Sparger Clearance	Suitable Clearance
8	Sparger Diameter, d_s	D/3
9	Solid %	5 % wt.
10	Catalyst (Solid) specification	Inert spherical particles with mean diameter of about 300 micron and density of 2500 kg/m^3.

42

- ☑ However, the supplier is unable to identify a suitable impeller (from 3 types of impellers available).
- ☑ The company requires a minimum gas-holdup of 3% in order to obtain the required yield.
- ☑ The catalyst has to be sufficiently suspended in the liquid medium.

 # Question:

1. Recommend a suitable impeller for this purpose.
2. Estimate kW of the motor.
3. Estimate gas flow rate required by conducting a scale-down experiment in the laboratory.

Given:

Liquid phase density is 1100 kg/m^3 ;

viscosity is 1.2 cP ;

Process occurs at 32°C.

UNIVERSITY OF MALAYA

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Courtesy to

By : Prof. Ir. Dr. Abdul Aziz Abdul Raman
Dean, Faculty of Engineering
03 7967 5200 ; azizraman@um.edu.my

TYPES OF ESSAY QUESTIONS

SPECULATIVE – Invite student to construct alternative realities. Hidden in the questions is the importance of providing rationales for alternative views

- *What would have happened to the settlement of the … object .., if … so and so.. happened.*
- *What would happen to the infrastructure management of Malaysian if there were no anti-Corona Virus vaccine found?*

QUOTE TO DISCUSS – To challenge or getting new perspectives from students

- *The soil get 'soft' when it rains. Discussed.*
- *Acceptable design concept is used instead of Factor of Safety in Rock Engineering Design. Discuss*

ASSERTION – To encourage students to examine the pros and cons.

- *During the constant head test to measure the k value, reading should not be taken if the water in the reservoir is not in a steady-state. Discuss.*
- *Steel mullet should not be used to prepare soil sample during the compaction test experiment. Discuss*

TYPES OF ESSAY QUESTIONS

WRITE ON –students to select from their knowledge and develop their framework for the question

- *Write a recommendation report for building forensic activity to be carried out for your own house.*
- *Write a speech to report the finding of risk assessment on … so and so… infrastructure.*

COMPARE AND CONTRAST – May require students to give / not to give own views

- *Compare and contrast lab and filed testing for measuring the permeability coefficient of soil.*
- *What are the difference between physical and engineering properties of engineering materials?*

DESCRIBE OR EXPLAIN – Usually meant to get student to 'Give an account of and/or rationale of

- *Explain how do you arrive to the conclusion you made in Part A.*
- *Describe the characteristics of the .. So and so ..*

DISCUSS – Normally require student to critically discuss which may involve comparison, contrast, analysis, evaluation, description and explanation

- *Discuss the need for site investigation at the place of the …infrastructure.. failure*

TYPES OF ESSAY QUESTIONS

EVALUATE – Focus on the analysis and assessment of evidence and argument, Student must indicate evidence used.

- *Evaluate the impact of environmental pollution to the durability of concrete*
- *What aspect of field testing may be compromised while preserving the quality of the results?*

DESIGN – Requires quite detailed specifications – for longer period of examination

- *Design an investigation plan for the …. So and so … system*
- *Draw up a specification for a temporary Covid-19 waiting area for use by 'handicap' patient*

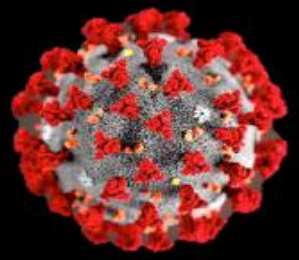
PROBLEM-BASED ESSAY Can be real or hypothetical problem

- *You have been asked to give a talk on the Impact of Human of Human Activity on Slope to the local Slope Watch Community. Prepare a draft of your talk and the answers to four questions which might be raised by the audience.*
- *What advice would you offer to a small concrete production company that has the following turnover and characteristics……..*

MORE IDEAS ON DIGITAL EXAMS – WAY FORWARD

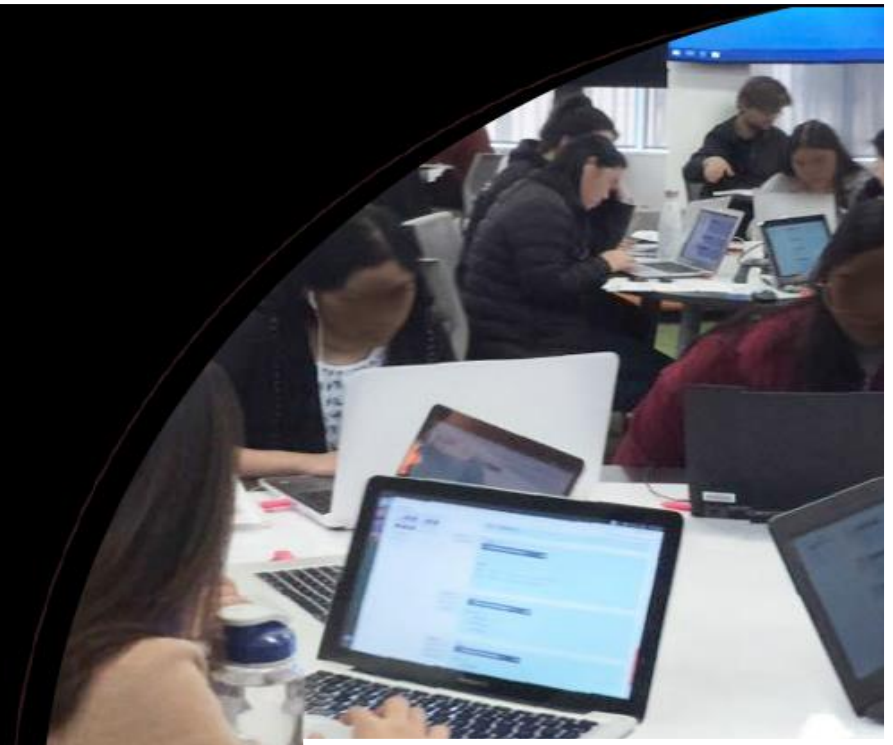
Digital Examinations Forum 2020

The future of e-assessment practices after the coronavirus emergency



Dr Mathew Hillier

Macquarie University, Australia

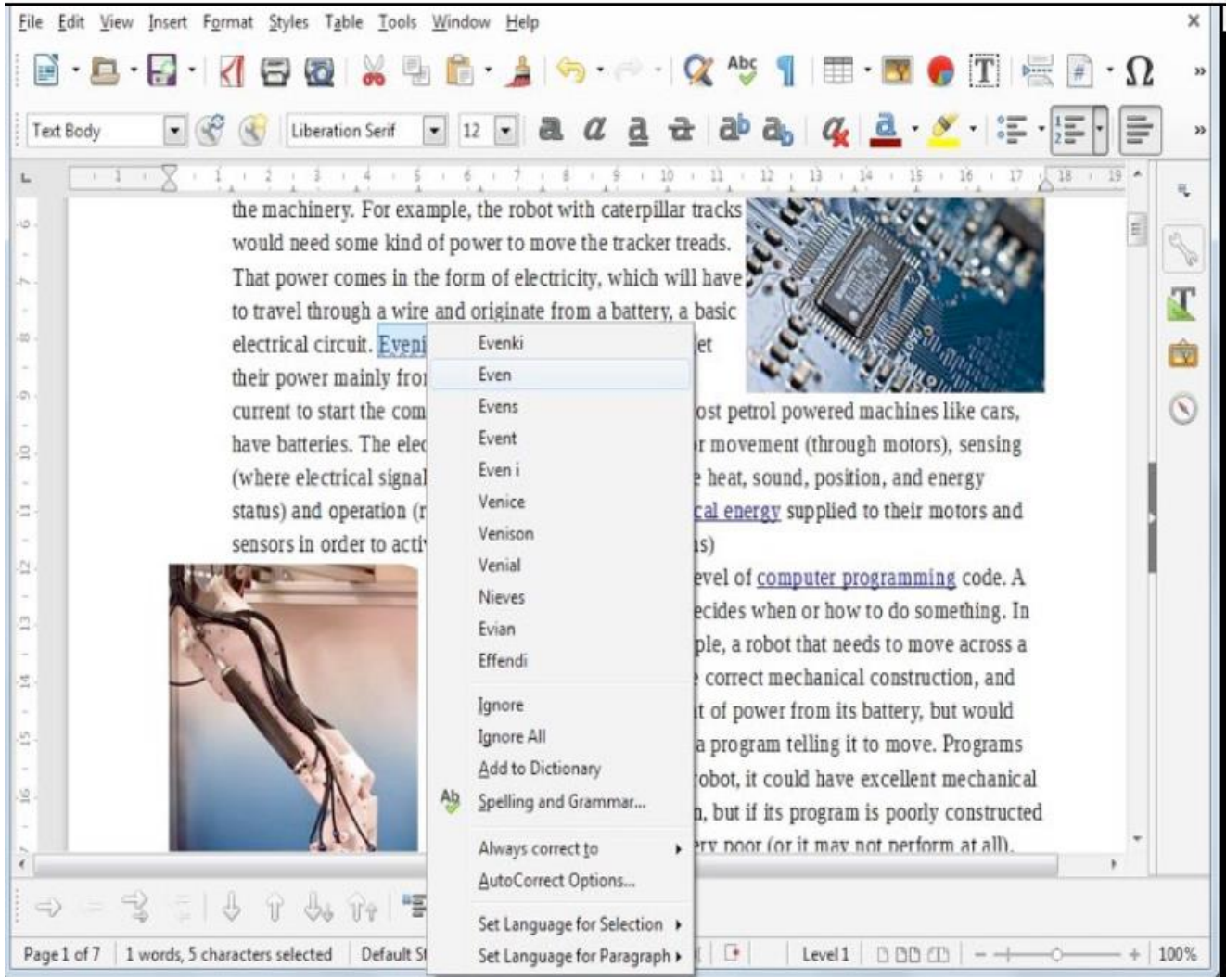


Dr Mathew Hillier
mathew.hillier@gmail.com
http://mathewhillier.com

DET national e-Exam project
http://TransformingExams.com
Webinar series
http://TransformingAssessment.com

Authentic Assessment: Writing Tools

Authentic



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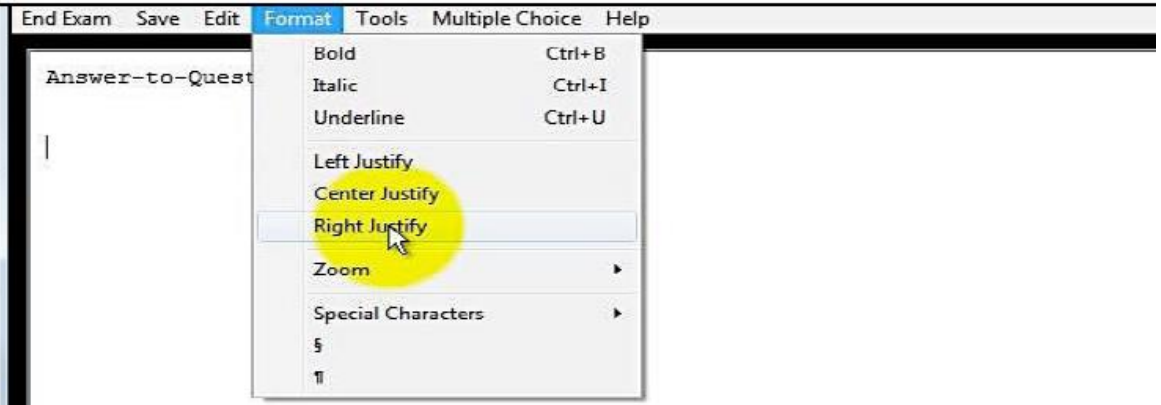
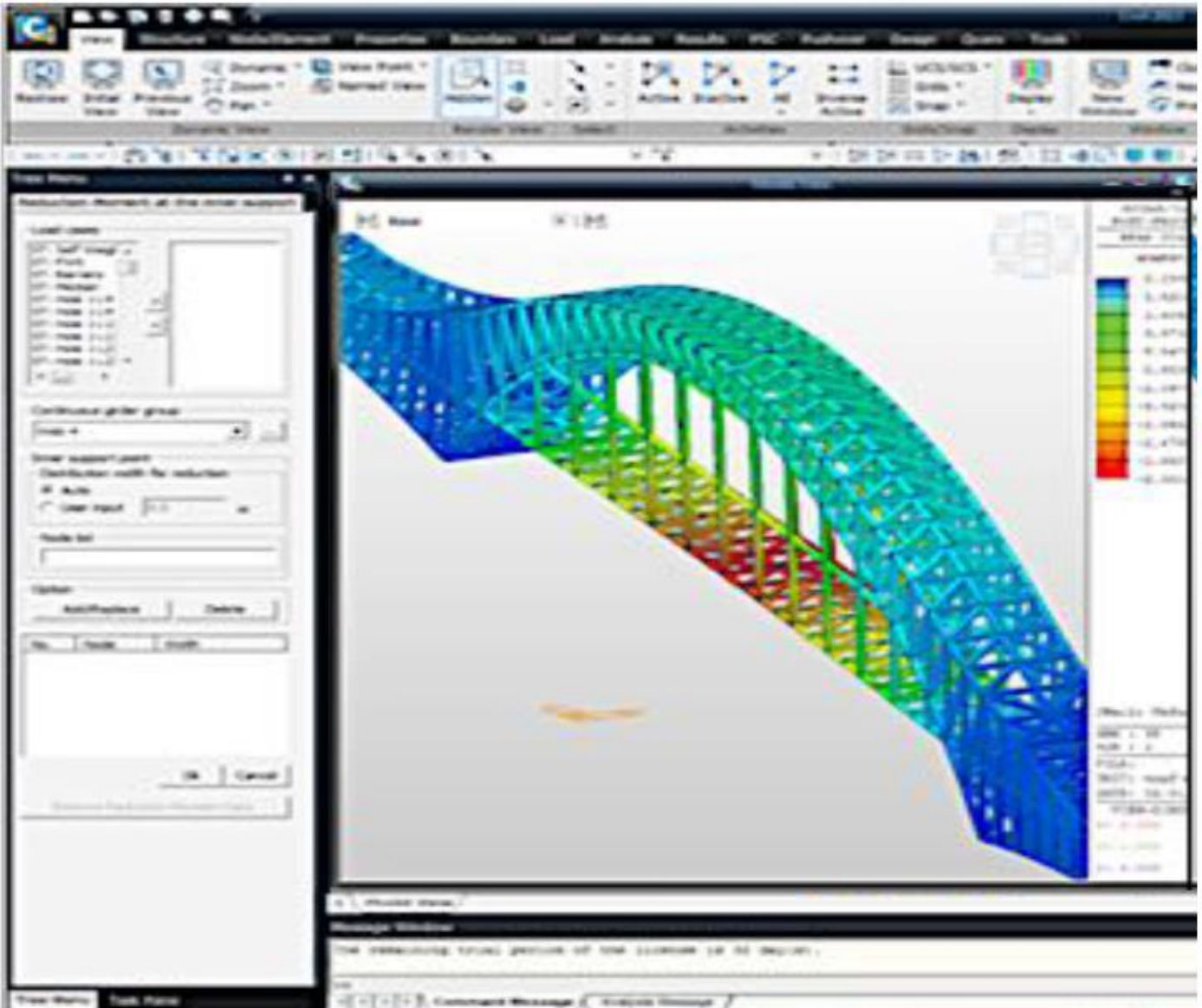


Engineering Problem Solving

Authentic



Not

Only numbers, decimal point markers (period or comma), sign indicators preceding a number (e.g., -5), or spaces (e.g., as thousand separators, 5 000) are allowed within curly brackets. **NOTE:** For scientific notation, a period MUST be used as the decimal point marker.
Any other characters (e.g., $ or %) can be placed outside brackets, if needed. For example: 3/10= {30}%
(Only 30 will need to be entered in the blank response field.)
When defining a range of values, the value preceding the pipe "|" must be smaller than the value after the pipe (e.g., {12.2|14.5}).

Show Rich-Text Editor (and character count)

12*15={180}

2)
Q. Find the question of a line passing through (1,2) and inclined at $120^0$with x-axis.

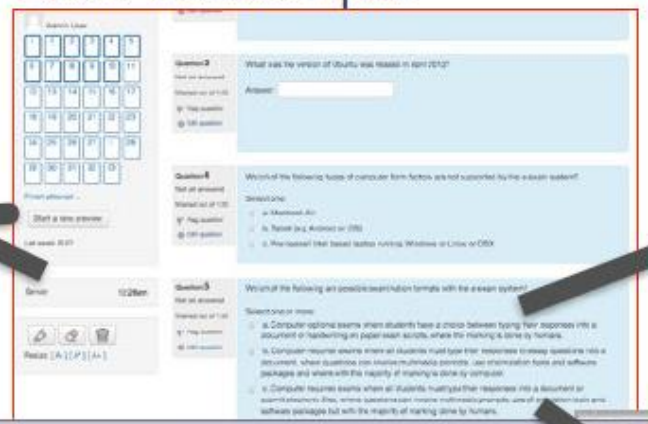
Choose one answer.

- $\frac{x}{a}=\frac{y}{b}=1$
- $y-y_1=m(x-x_1)$
- $\frac{y-y_1}{y_1-y_2}=\frac{x-x_1}{x_1-x_2}$
- $y=y_1+r\sin\theta$

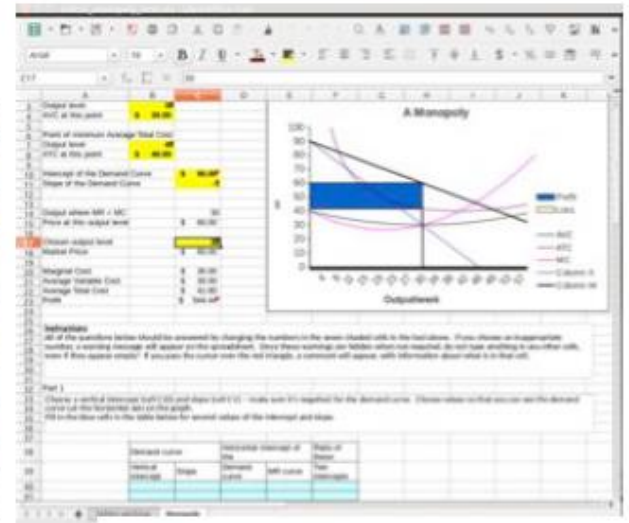
Towards ‘post-paper’ ...

Start simple and build up!

Start! Moodle quiz



Video

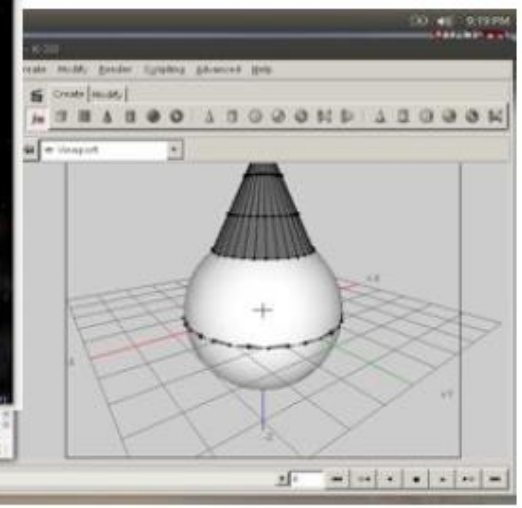


Scratch SDK

Spreadsheets for calculation and analysis.

PDF

Specialist applications

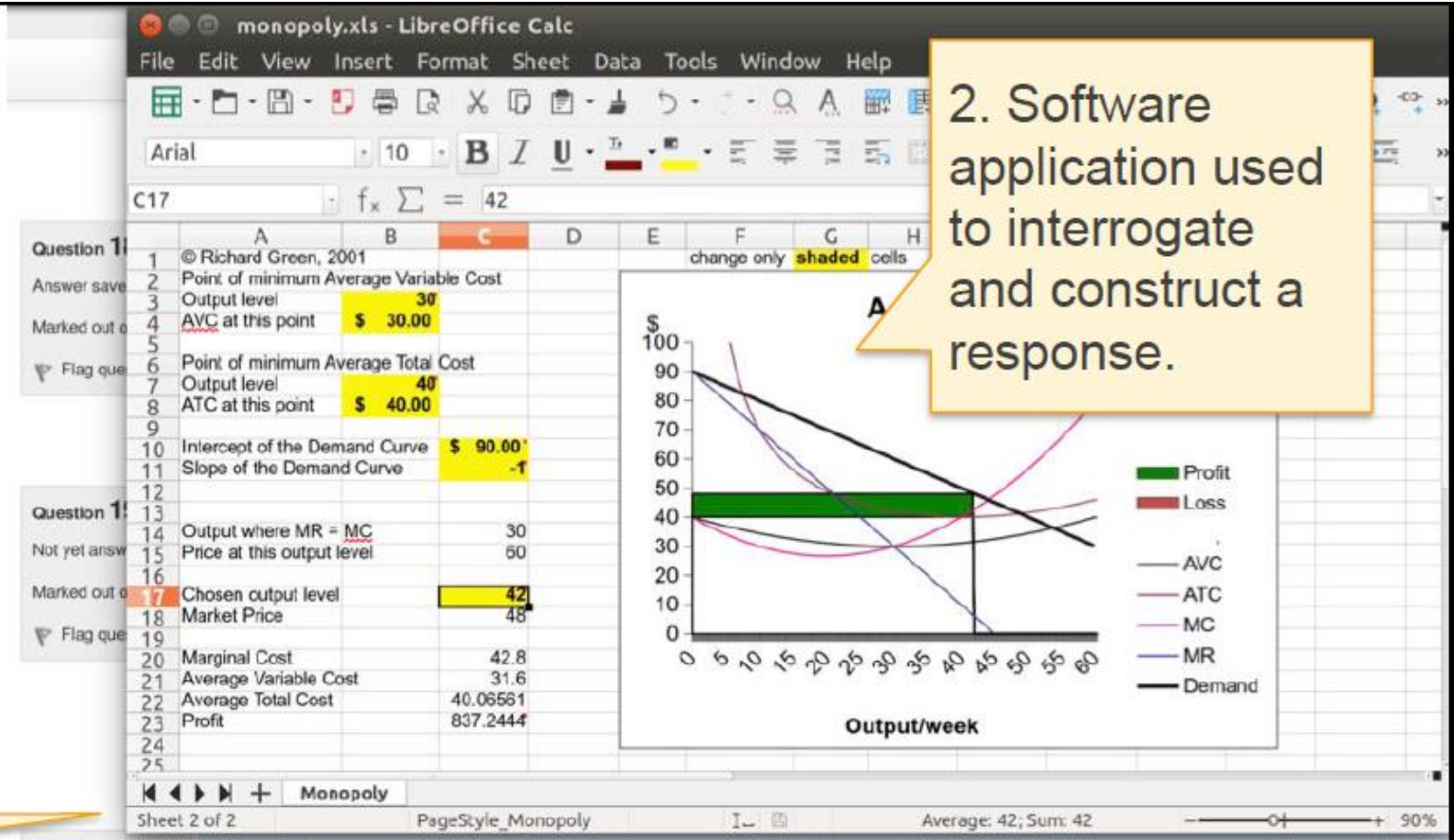


Sims

Authentic Questions in LMS

Constructed enquiry

1. Download file



2. Software application used to interrogate and construct a response.

Question 20
Not yet answered
Marked out of 1.00
Flag question

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

Enter a whole number as your answer for the output lev

Answer:

3. Respond via form

Question 21
Answer saved
Marked out of 1.00
Flag question

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

Answer: Port Jackson Stevedoring Pty Ltd v Salmond and Spraggon (Aust) Pty Ltd [1980] UKPCHCA 1; (1980) 1

Authentic Questions in LMS

Constructed response

(file upload)

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 i… atch' into the search box that appears.

1. Open software

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.

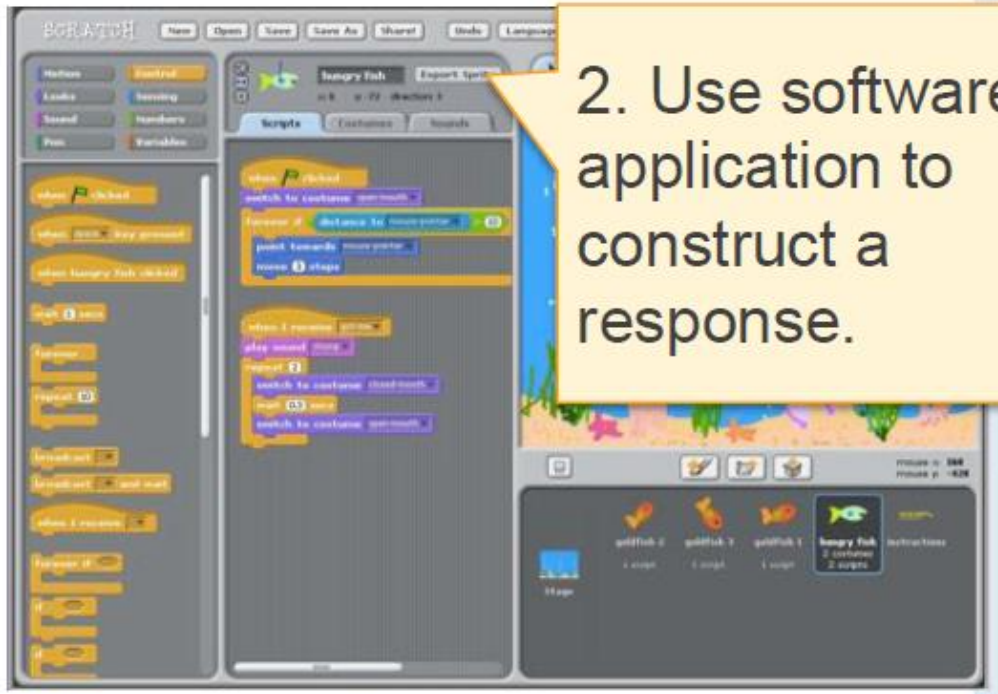
1. Provide a one or two sentence summary of the commands you used in your response in the text box below.
2. Then attach your scratch program file to this question.

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

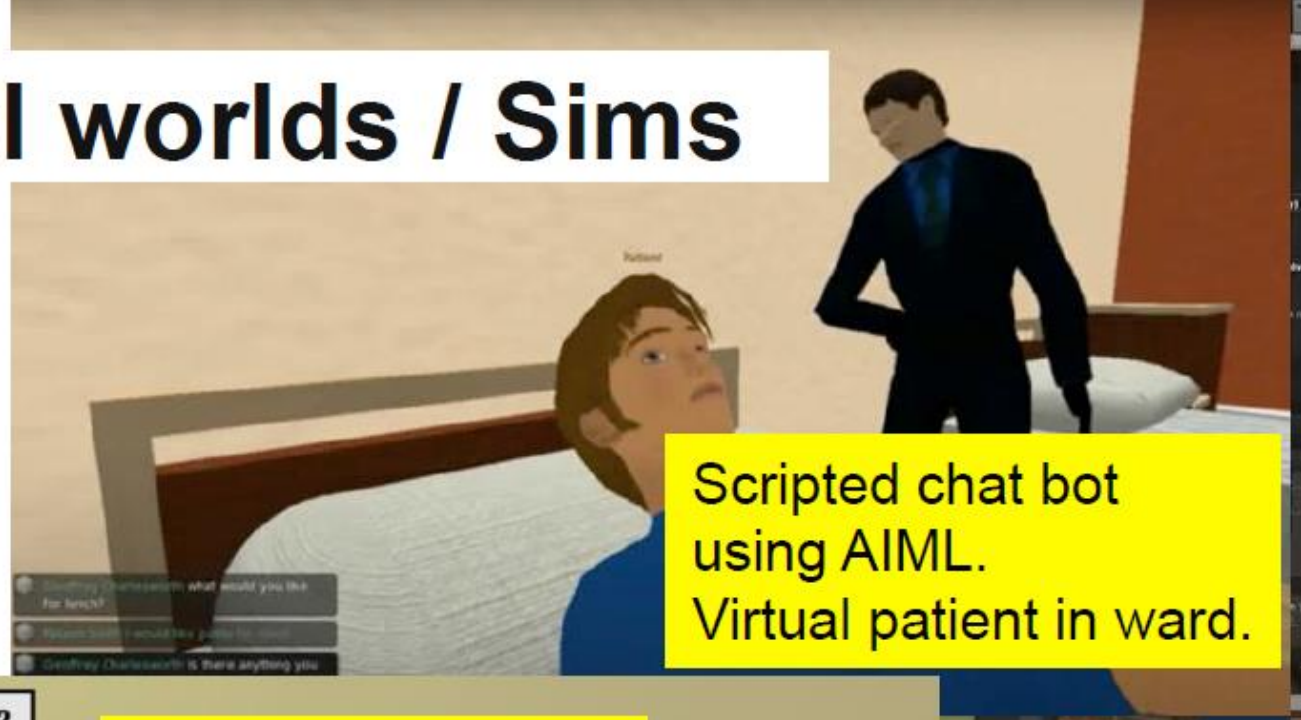
example.sb2



2. Use software application to construct a response.

3. Respond by file upload

Virtual worlds / Sims

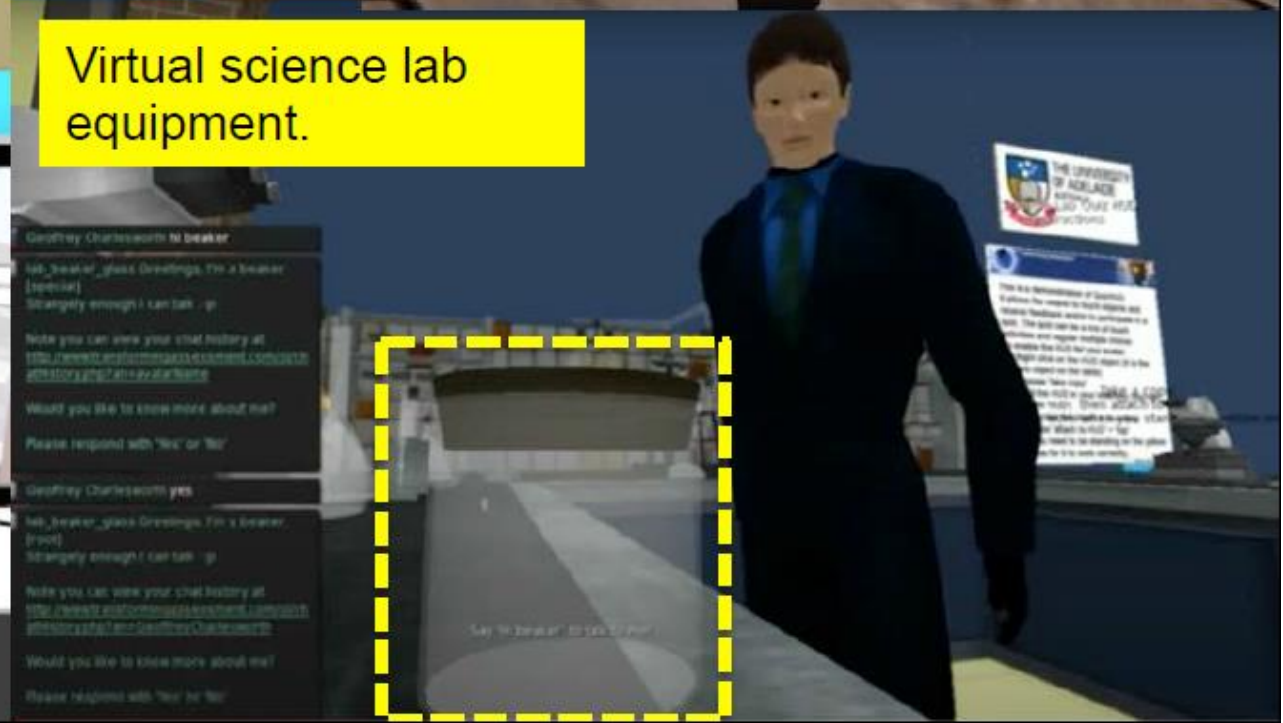


Scripted chat bot
using AIML.
Virtual patient in ward.

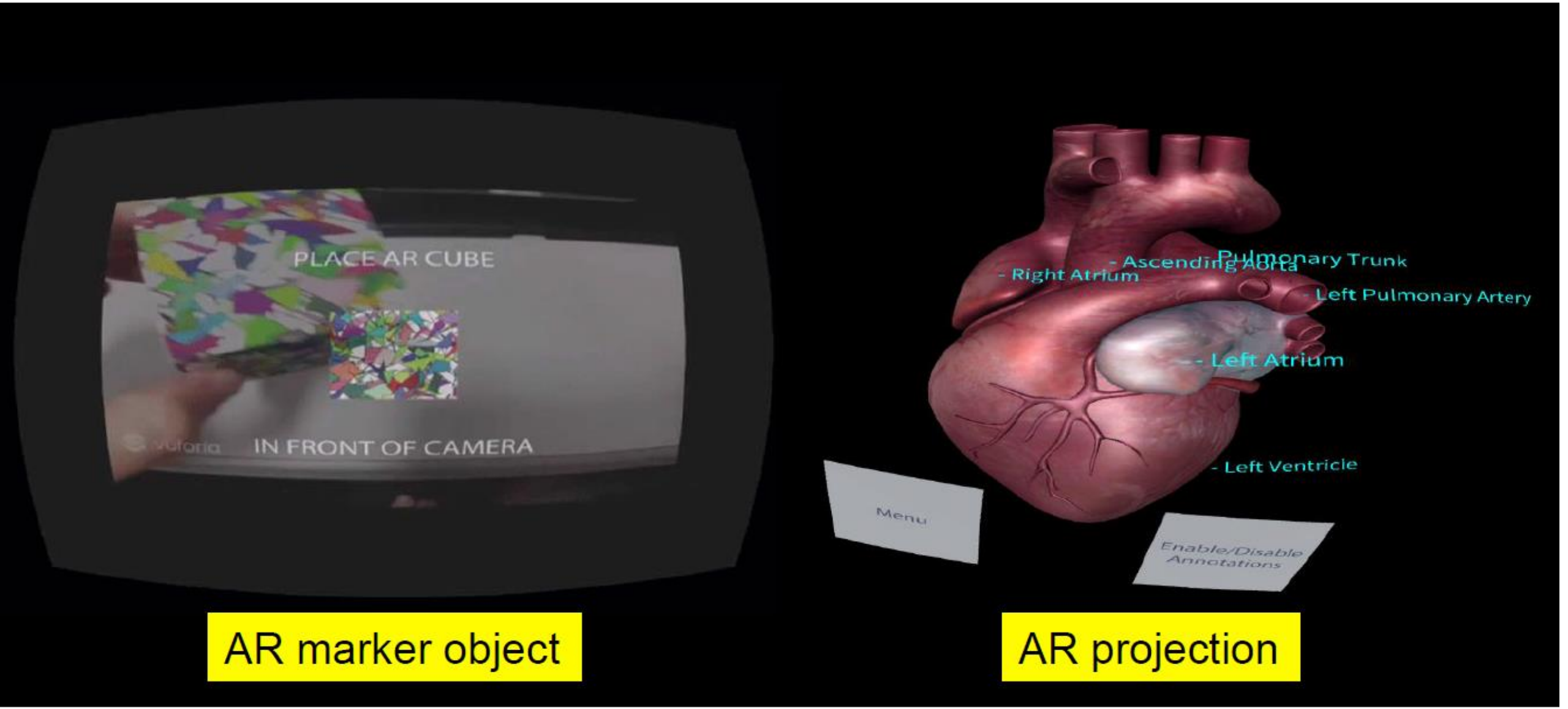
Task based language
assessment.

Simulated economy
and businesses.

Virtual science lab
equipment.



AR e-Exam using spatial data capture



AR marker object

AR projection

Cowling, Hillier & Birt (2018)

AR e-Exam

Live Linux e-Exam system on laptop.

Android Virtual Machine to run AR app.

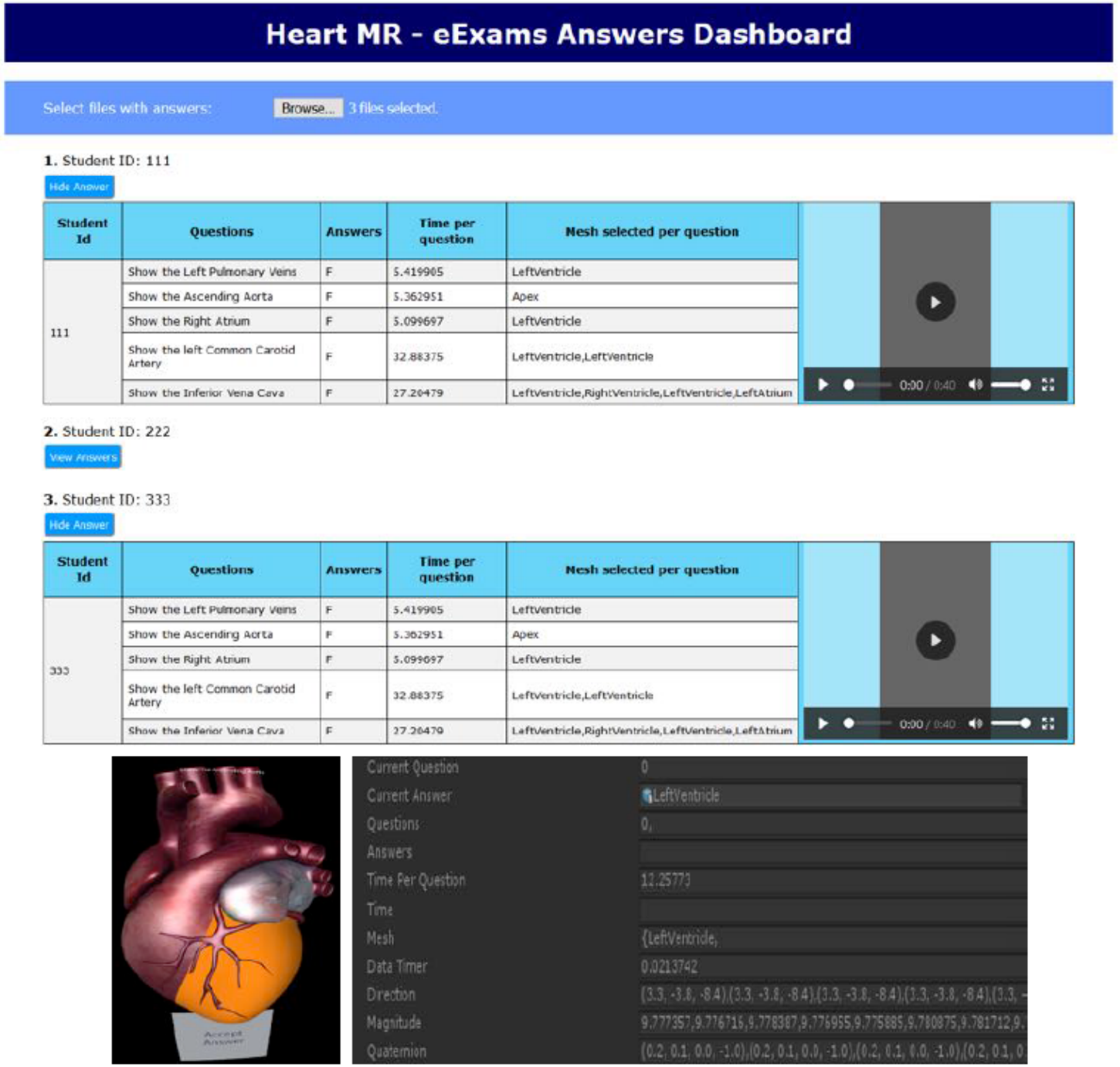
Android App – captures learning data through observation and examination mode – uses existing webcam on student laptop.

AR Android app stores data offline on USB stick.

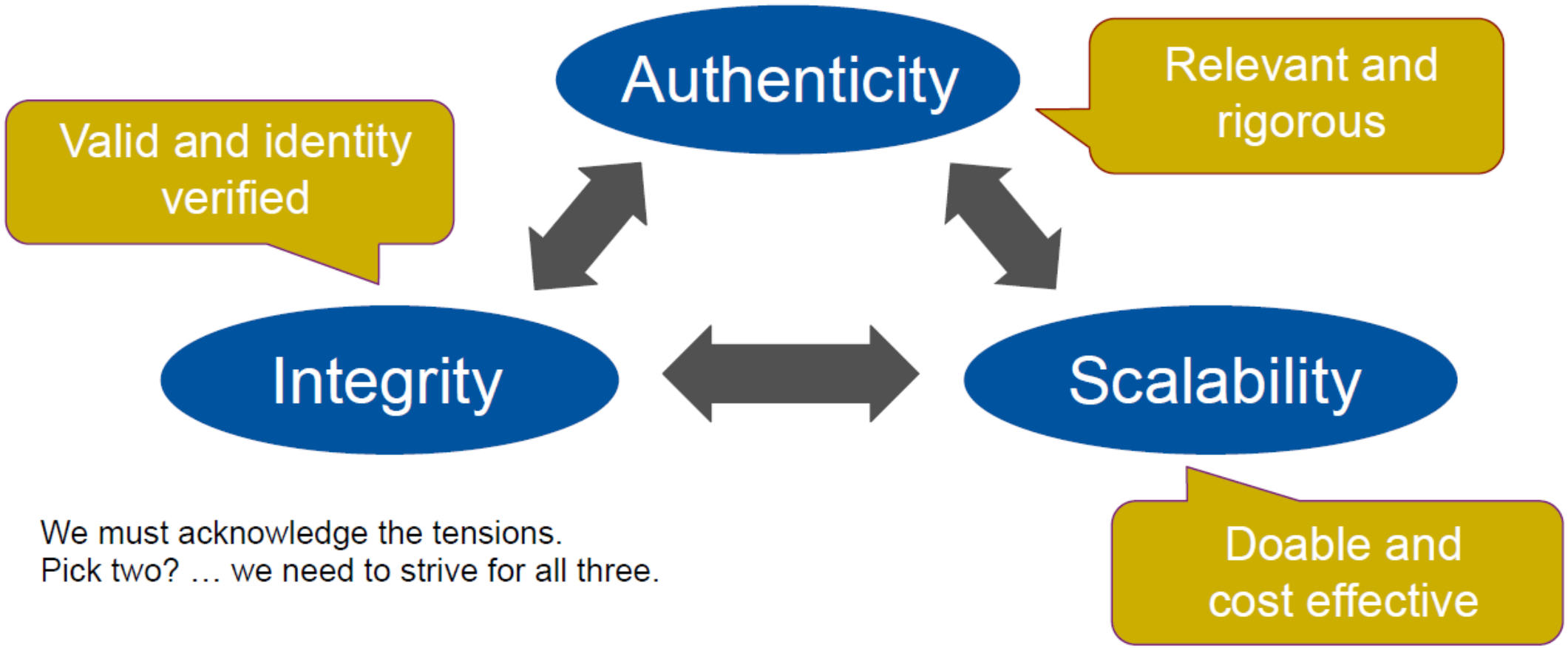
Data uploaded to Dashboard server.

Visualize data. Replay of student attempt. Answers to questions.

Cowling, Hillier & Birt (2018)



Defining ‘Good’ for Digital Assessment: Three dimensional trade off?



We must acknowledge the tensions.
Pick two? … we need to strive for all three.

The choice

?

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

(p.s. technology choice matters)

Allan, S. (2020). Migration and transformation: A sociomaterial analysis of practitioners' experiences with online exams. Research in Learning Technology, 28. DOI:10.25304/rlt.v28.2279 + TA Webinar http://transformingassessment.com/events_6_may_2020.php

Test and Examination Online – 11. Plan for Technical Issues

Synchronous / Asynchronous

1. Low bandwidth / disconnection of internet connection / blackout

Prepare for low bandwidth approach as second /back up strategies eg. Using 'Whatsapp' to put up questions and submission of work (short essay / essay questions). For quizzes – may consider google forms to put up questions or other low bandwidth platform. Consider another repository like google drive or other means.

2. Late submission / beyond test timeframe

Cut some marks?????

When should we consider taking a flexible approach?

If test questions are authentic in nature (students answer may not be the same) – can we accept late submission?

3. Unintended submission – google form for test.

What if students accidently press submit when he/she have not completed answering tests questions – are we allowed students to retake?

Test and Examination Online – 11. Plan for Technical Issues

Live Proctoring

1. If live proctoring is adopted such as getting all students to on the camera and unmute microphone during exam, the recommend ratio of one proctor to students is 1: 30. Hence if we are dealing with large class size, we need several proctor to invigilate students online examination. This is similar to no of invigilators assigned for total number of students per session

of the examination in a typical examination hall.

No Proctoring

2. Make sure that we take measures to reduce cheating either using Step 1 or Step 2 or a combination of Step1 and Step 2.

Test and Examination Online – Invigilator's Report

Invigilator's Report

Lecturer's and invigilator's name

Date, Time, Mode (Online Remote), Synchronous / Asynchronous

Correction / Amendments to test questions

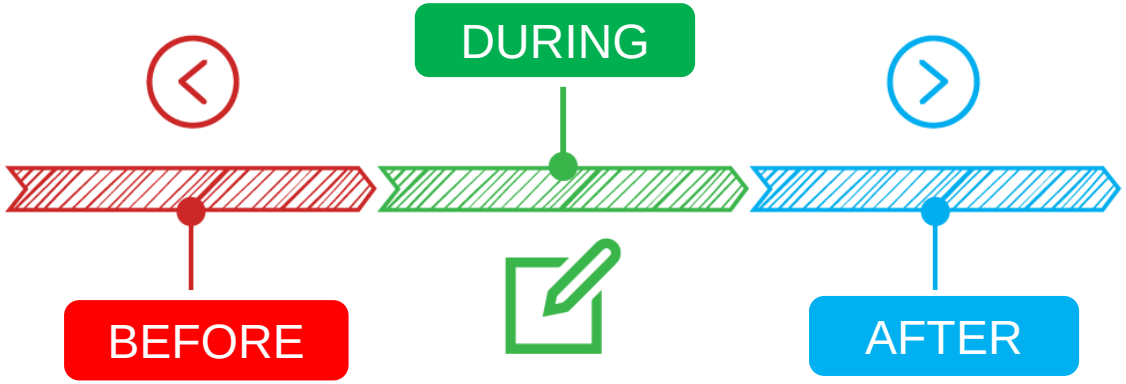
Technical Issues - nature, action taken, direct effect to the test session

Similar to the normal test and exam (f2f) procedure, the number of answer script collected must tally with the number of students attended the test / examination

Submission format – List of students with submission format A / B /C

Late submission report – list of student, justification

Other Quality Assurance Related Matters



University's Role

Lecturer's Role

Student's Role

Universiti Malaysia PAHANG

UNIVERSITI MALAYSIA PAHANG

Faculty of Civil Engineering Technology, Gambang Campus
Semester 1, Session 2020/2021

ASSIGNMENT 1	BET 1263: GEOLOGY AND GEMECHANICS

Course Learning Outcome No. 1 :
Describe the formation of geomaterials and its characteristics which influence their engineering technology application. (C2)(10%)

Task Objective
The objective of this assignment is for you to discuss in your team how a particular type of rock formation determines its characteristics and hence has an impact to the performance of an engineering structure. Review and give suggestions on how the characteristic of a particular rock type influence its engineering technology application such as in slope protection, foundation, excavation, tunneling or other suitable engineering works.

Scope of Task

1. Form a team of 4 students / group. Identify tasks to be performed and divide the task to each team member. Please be reminded that you need to conduct your group discussion collaboratively so that your report is cohesive and main points from one section to another are well connected.

2. Select one engineering work where rock is used as a structure or structural element (not as building materials). It can either be rock slope, tunneling, excavation, foundation or others.

3. Review rock cycle and choose a type of rock (igneous, sedimentary or metamorphic) for your group to discuss how its characteristic influence the engineering technology work that you chose in step 2.

4. Prepare a short group report of maximum of 10 pages including diagrams and pictures with the following sub-headings included
   - Formation of (your chosen type of rock) and rock cycle (1-2 pages)
   - Characteristic of (chosen type of rock)(2-3 pages)
   - Engineering Work (eg. Actual title is Rock slope protection system)(2-3 pages)
   - Engineering concern (How the type of the chosen rock influence the slope protection system)(3-4 pages)

5. Include one-page team members' contribution and role in this assignment task (this page is not counted in the 10 pages report and carries no mark – refer to the template provided)

Duration and Submission Date
The duration for this task is two weeks. The report is to be submitted soft copy in Word file via KALAM from each group by group representative by 5.00 pm on the 23 November 2020

Marking Criteria
The marking criteria will be as follows

Criteria	Marks
Description of rock formation	2
Description of rock characteristics	3
Description of engineering application work	3
Linking rock characteristic to engineering application work	2

Expectation
Your group is expected to produce a cohesive report showing linkages between each subsection. Please have a productive discussion prior to the report writing phase and check the thought flow of the report so that every parts are connected and referred.

All the best.

Assessment Instruction

1. Time frame - 2 weeks
2. Integration of subjects – 1 discipline (two/multi)
5. Degree of authenticity – Real engineering technology application
7. Performance mode – group work (individually/ partner/group)
9. Student choice – some choice - rock type & engineering tech. application - not totally open ended (no choice/ some choice / many choices)

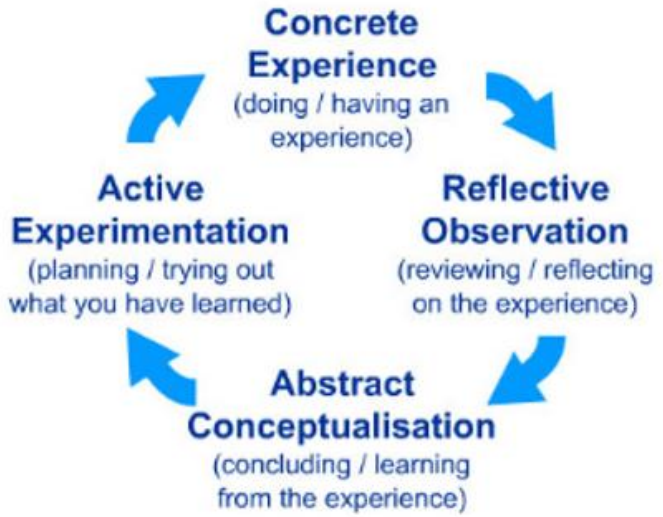
Design Variable: *Student Voice and Choice*	**1. Same Product, Same Focus** Examples: Create a presentation on flood-prone area in our community.	**2. Different Product, Same Focus** Examples: Create a presentation or mini-documentary on flood-prone areas in our community.
As you progress through the boxes, the "scale" for the degree of student choice increases.	**3. Same Product, Different Focus** Examples: Create a presentation on flood-prone areas in our community's residential or recreational areas.	**4. Different Product, Different Focus** Examples: Create a presentation or mini-documentary on flood-prone areas in our community's residential or recreational areas.

CRITICAL REFLECTION AS AN ALTERNATIVE ASSESSMENT

Kolb's (1984) Four–Stage Model

- David A. Kolb experiential learning cycle also used to explain reflective practice.
- The reflective cycle can begin at any one of the four points.

Smith, Mark (1996, last updated 2006) *David a. Kolb on Experiential Learning,*< http://www.infed.org/biblio/b-explrn.htm#links> [date accessed 3/10/07]



1. Concrete Experience - (a new experience or situation is encountered, or a reinterpretation of existing experience).

2. Reflective Observation of the new experience. (of particular importance are any inconsistencies between experience and understanding).

3. Abstract Conceptualization (reflection gives rise to a new idea, or a modification of an existing abstract concept).

4. Active Experimentation (the learner applies them to the world around them to see what results).

E-Portfolio

Assessment 7 Semester 2 2018/2019	XXX : **SOCIAL ENGAGEMENT** **Individual Final Critical Reflection**

Learning Outcome
CO1: Demonstrate the importance of social engagement (20%)

Level of Taxonomy
C2 (comprehension): Ability to understand information and grasp material, translating knowledge from one form to another

Task / Activity
For two of the four areas below, critically reflect about what you have learned in that area this semester. Each reflection should address the following questions and contain at least 300 words.

Guided questions for the reflection:

- What did I learn?
- How did I learn it?
- Why does this learning matter?
- What will/could I or others do in light of this learning?

Four areas (Choose two):

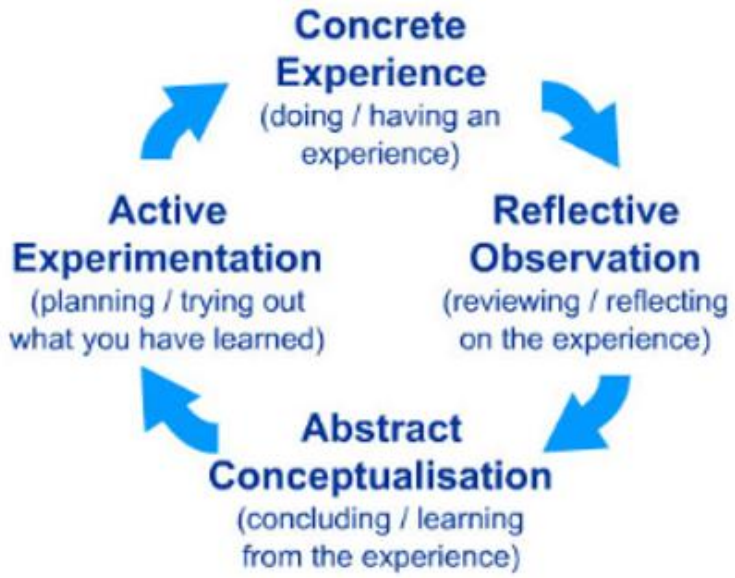
a. **Personal and Professional Development**: What did you learn about who you are (your strengths, weaknesses, assumptions, skills, convictions, etc.) and who you want to become, personally or professionally?
b. **Social Impact:** What did you learn about the broader impacts of your work and how you and others can affect change locally and/or globally? What did you learn about the community, the needs, and/or the quality of the service provided?
c. **Academic Enhancement:** What did you learn related to your discipline and how was that enhanced by the service-learning context? What did you learn about Human-Centered Design?
d. **Ethics:** What you have learned about professional ethics, the ethical issues you encountered in your team and your project, and how decisions regarding ethical issues are made individually and as a team?

Deliverable / To submit
Your reflection responses should be typed and submitted to your supervisor (e-mail, SPeCTRUM, blog or other means as agreed)

Marking scheme / Rubrics
Group No. (Name):

Matric No	Name	**ACCEPTING** Aware of positive and negative characteristics of own self and others based on fieldwork experience (1-6 MARKS)	**RESPONDING** Agreed on positive characteristics needed to be practiced (7-13 MARKS)	**VALUING** Conduct behavioral change in full awareness (14-20 MARKS)

Reflective Practice Tool – Kolb's Cycle



Analytic Rubric

Standards / Criteria	Adequate (1)	Developing (2)	Competent (3)	Excellent (4)
Communication of reflection	Learner is merely reporting and summarization of events and/or learning activities.	Learner translates the learning activity to his/her own knowledge construction. Includes some examples and supporting evidence like pictures.	Reflection is somewhat comprehensive and learner is able to generate some new ideas from the learning activities. Includes examples and supporting evidence like pictures and/or videos for each post.	Reflection shows originality and is comprehensive. Learner is able to generate new ideas from the learning activities. Includes examples and supporting evidence like pictures and/or videos for each post, including caption that explains the appended materials.

THANK YOU ....

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