

A Method To Enhance Students Engagement And Performance Using **ALTERNATIVE** and **FLEXIBLE** **ASSESSMENT**

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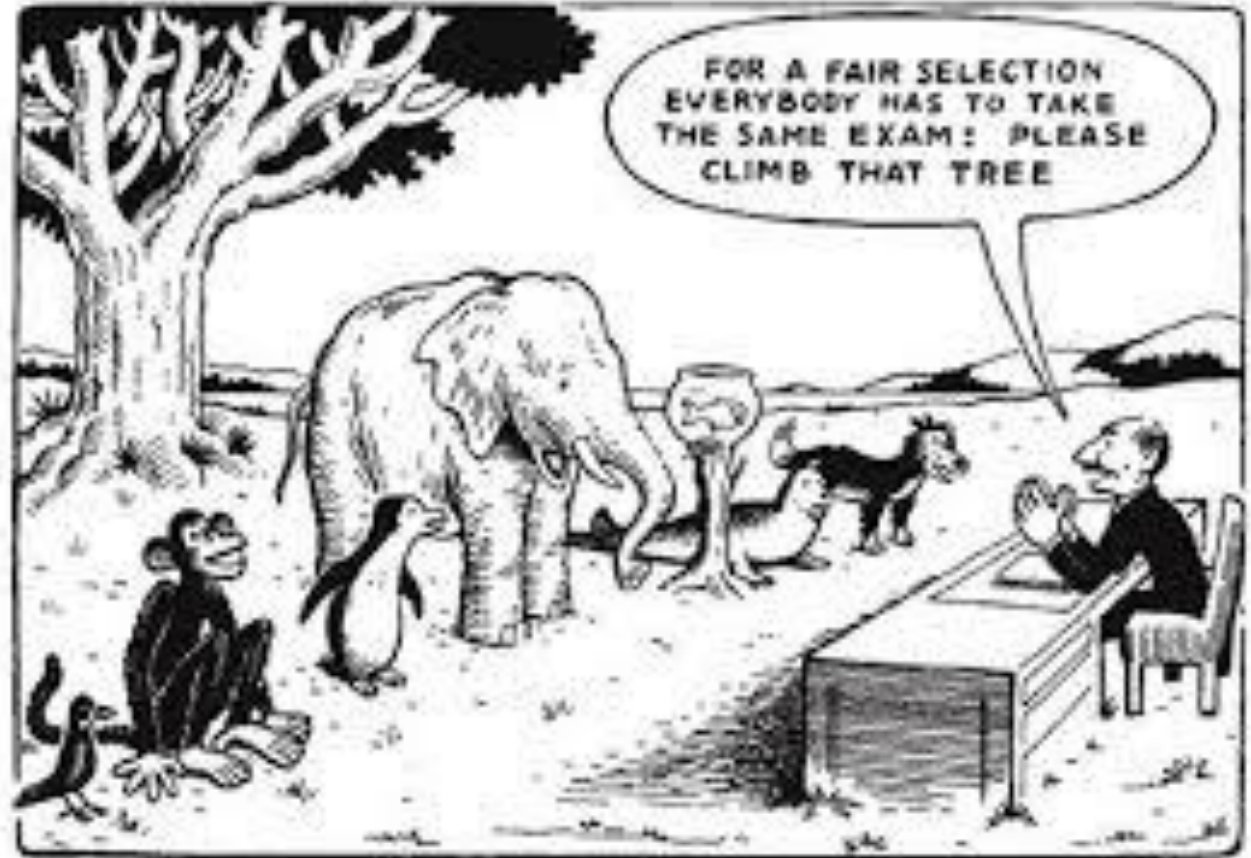
Faculty of Civil Engineering Technology | University Malaysia Pahang | 9 June 2021

TRADITIONAL ASSESSMENT /STANDARDISED TESTING

Test and Final Examination

Main features :

- **Same** time, space and **questions**
- in an observed condition
- **the work is solely of an individual**
- questions are not made available before the exam time
- measuring cognitive ability
- high stake –grade
- no feedback
- pen and paper format.



Online Test and Examination

Integrity and Validity – Remote Learning Environment



Fourteen Simple Strategies to Reduce Cheating on Online Examinations | Faculty Focus

Here are 14 ways that instructors can decrease cheating during online
www.facultyfocus.com

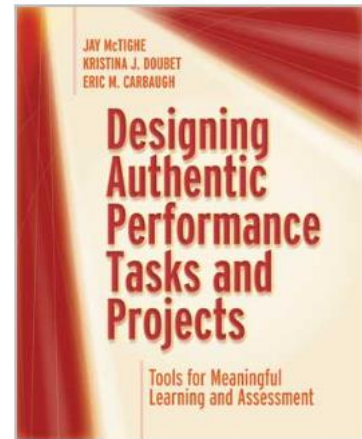
<https://www.facultyfocus.com/articles/educational-assessment/fourteen-simple-strategies-to-reduce-cheating-on-online->

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.

REPHRASING TEST QUESTIONS For Remote Online Test Environment

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>



Same question to every students and expecting same answer



Same questions same answer with different context

What is our premise of Assessment we choose

MISTRUST

TRUST



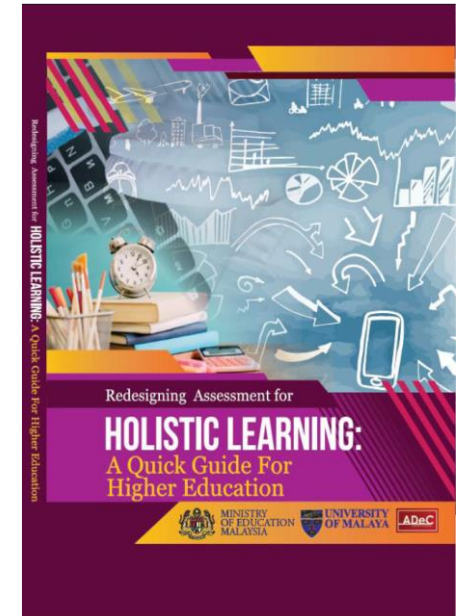
Alternative Assessment



Alternative Assessment

Alternative assessment, also called **authentic** or comprehensive assessment, refers to all sorts of assessments that are used to measure students' ability and proficiency in performing complex tasks that are related to the intended learning outcomes. Alternative assessment differs from the traditional standardised testing requirements as it engages students to perform some tasks that usually **mimic real-life situations**. By applying alternative assessments, teachers are able to observe students' individual strengths and skills and use the information to better design their teaching approaches. Therefore, alternative assessment is a **process-oriented** type of assessment that focuses on the students' progress and growth over **a period of time**.

Some examples of alternative assessments are students' portfolios, project works, problem-based learning, role-playing, journals, writing activities and other activities that involve using rubrics to assess students' works.



Elements of Alternative Assessment

puts learners in real situations or simulating reality, and it examines their responses (Kirikkaya & Vurkaya, 2011).



Performance based

Simulation, Projects, exhibition, role play, drama, poetry, songs, demonstration, experiment.



Authentic

Real world, connect to community/industry

focuses on both process and product



Portfolio/E-portfolio

Collection of students sample work, reflection and related documents to exemplify learning



Writing samples

Newsletter, bulletin, journal, learning blogs, report, proposal.



Open ended

No one fixed answer, Requires multiple solutions/ways to solve a problem



Self/peer assessment

Educate learners to become independent, responsible, trustworthy.

Higher Order Thinking Thinking beyond recall

knowledge is configured and constructed by the learner, where this knowledge could differ from one context to another (Nasri et al., 2010)

ALTERNATIVE ASSESSMENT

1 Definition

- “Any classroom assessment that is alternative to traditional forms of testing or standardized test (multiple-choice tests) to measure students’ overall achievement or continuous progress”
- “Multi-assessment methods, rather than sticking to traditional paper-and-pencil tests”
- “Alternative assessment is also known as Authentic Assessment and Performance-based Assessment”

Characteristics

Using various approaches for student to demonstrate their competencies.

Use real-world situations or simulations.

Assess students on what they do in class every day.

Assessment criteria are made known to students.

Focus on processes as well as products.

Higher-level thinking & problem-solving skills.

Provide information about students strengths & weaknesses.

Use human judgment in scoring.

Encourages life-long learning.

Able to make assessment at the individual and group level.

Distinguishing aspects

Flexible



Show development



Increases communication



Promotes reflection



Provides feedback



PrAise:
Putra
Alternative
Assessment

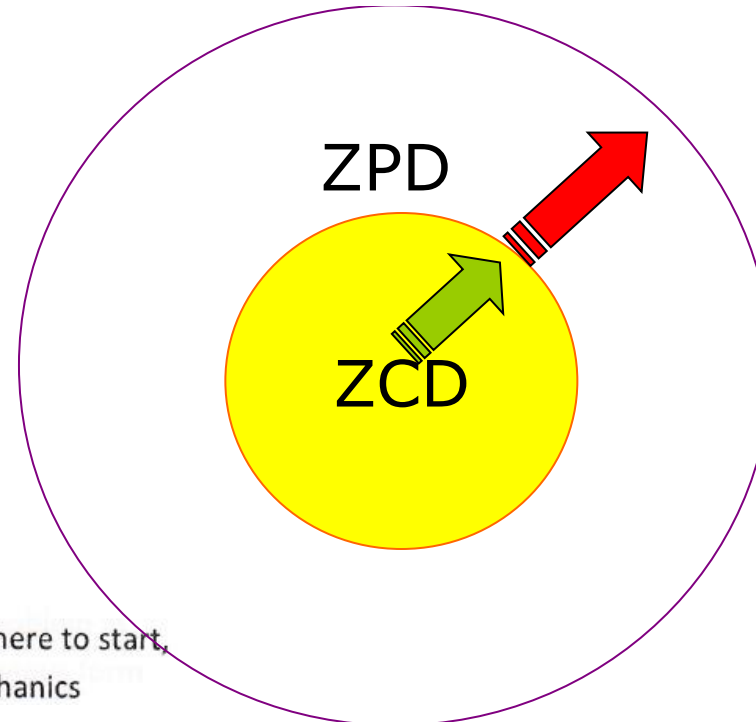
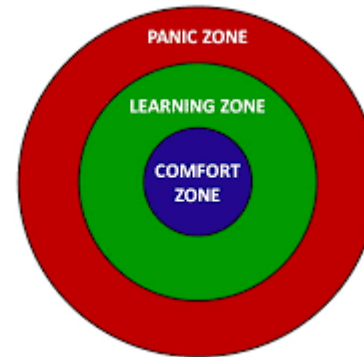
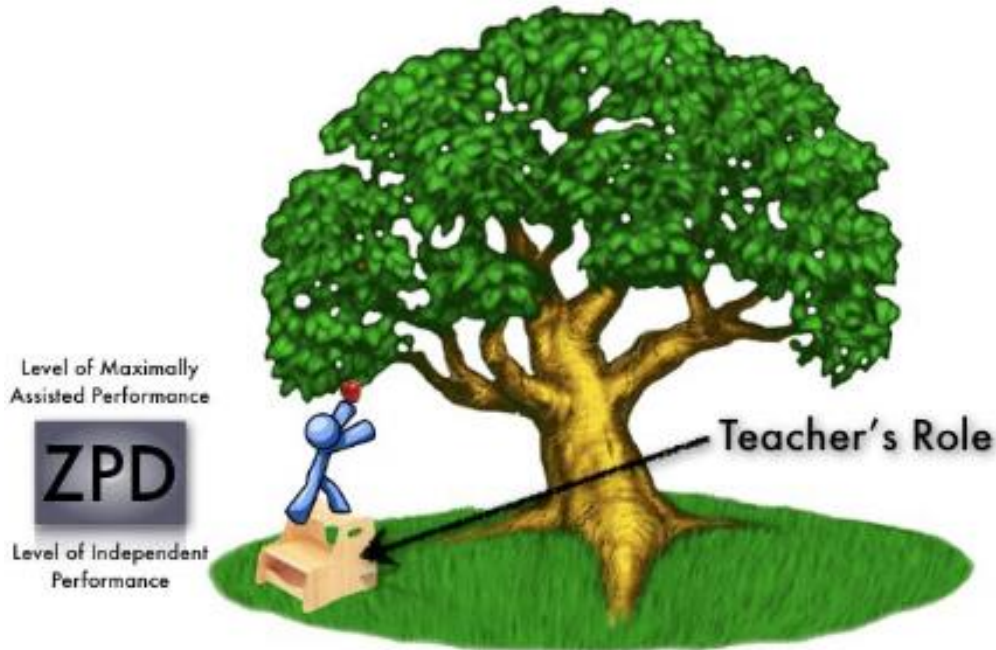




THE UNDERPINNING THEORY

Vygotsky's Zone of Proximal Development

Zone of Proximal Development



Zone of Current Development (ZCD)- represent the level that a learner can reach through independent problem solving and

Zone of potential development (ZPD)- is the potential distance the learner could reach with the help of a more capable peer.

Note: Subsequently – the ZPD become the ZCD

On the first day I was assigned for the coursework, I wasn't quite sure where to start, what to expect, or what we need to do and search. I had been learning soil mechanics

FLEXIBLE Assessment



Flexible Assessment

Flexible assessment is a **student-driven assessment** which involves students taking the **responsibility of their own learning**. Students can be offered **flexibility** in terms of the **environment, theme, mode and time of assessment** depending on their area of interest and comfort level. This student choice in assessment explores the idea of **equivalent ways of demonstrating learning outcomes** where students can use different methods to showcase their understanding. This freedom of choice that they are able to exercise makes them feel **respected and so they begin to take ownership of their learning**. On the other hand, incorporating flexibility in the assessment process turns out to be a plausible solution for a teacher to break the repetitiveness in the ongoing assessment system.

Flexibility

Mode & Type

- Diagnostic
- Formative
- Summative



Time

- Prescribed time
- Anytime / On-time



Theme

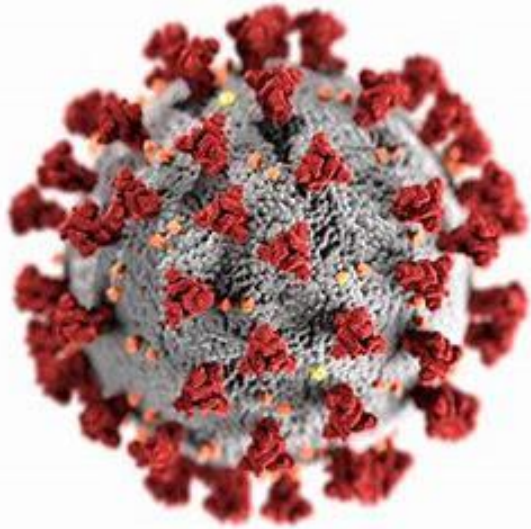
- Prescribed
- Open Choices
- Various Expression



Environment

- Physical F2F
- Online
- Virtual Reality/
Gamified
- Hybrid
- Technology Assisted

HOW DO WE AND OUR STUDENTS DEAL WITH ASSESSMENT IN REMOTE ONLINE ENVIRONMENT



Our Learner's Struggle

Connectivity –
internet –
wifi/data
(limited/unlimited)

Device – computer,
mobile devices
(laptop/tablet/phon
e)

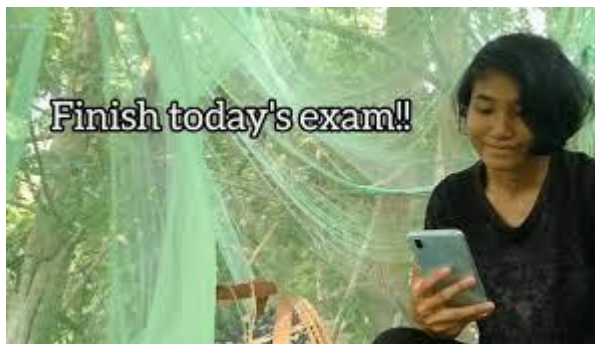
Learning spaces –
conducive room,
outside, power
supply

Support – family,
peers, lecturers
and institution

Socio-economics – (full
time/part time job)

Health – COVID,
accident,
depression

Attitude – carrot and stick,
positive affirmation





SESSION OUTCOME



1. Reflect on the assessment development and the needs for alternative and flexible assessment.

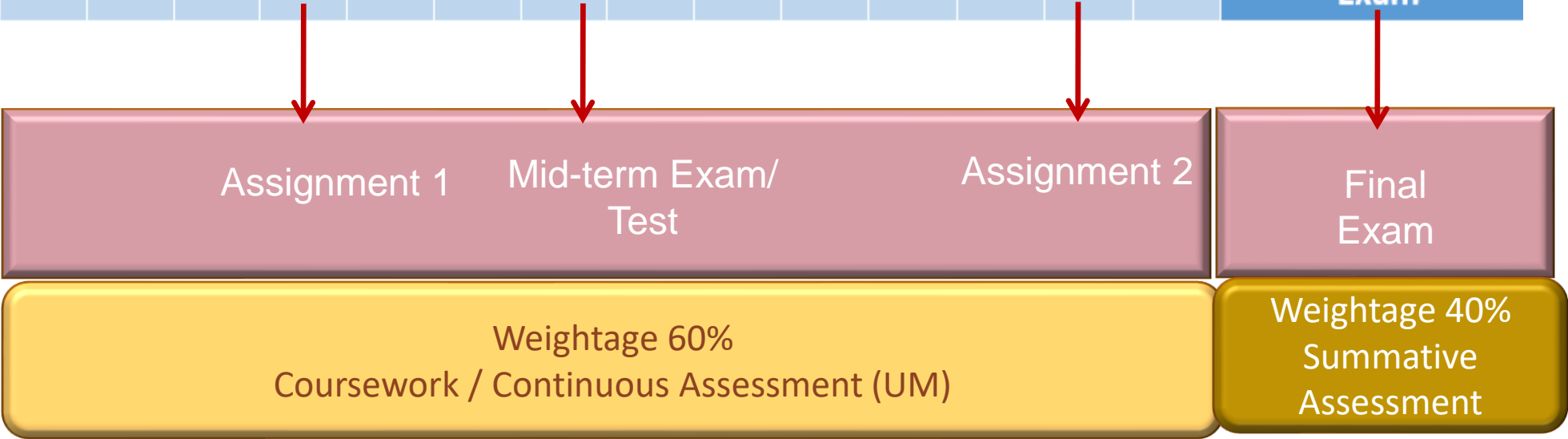
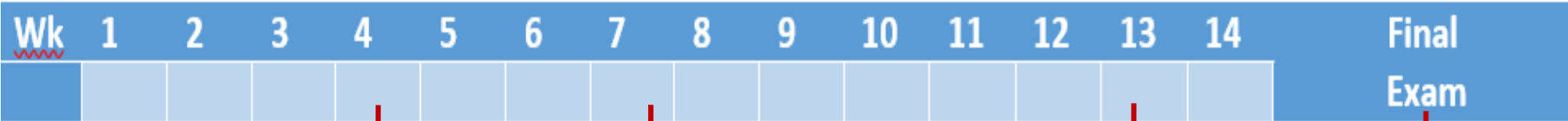


2. Plan to perform the various types of alternative and flexible assessment in a course



3. Discuss students and lecturer's role in alternative and flexible assessment to enhance engagement and performance

The position of Alternative Assessment in a course



60:40, 70:30, 50:50, 100:0 and 80:20.

MULTI POINT SUMMATIVE + SUMMATIVE
(Developing Effective Assessment In Higher Education, Sue Bloxham and Pete Boyd, Open University Press 2007)



Plan to perform the various types of alternative and flexible assessment in a course

The most effective strategies for achieving such flexible assessment will utilise a variety of accessible and inclusive approaches, employing a carefully designed and balanced range of **authentic assessment tasks** and **formative assessment** processes that enable all students to demonstrate what they know, understand and can do

[Examples of Flexible Assessment in Practice - LTE Online \(tees.ac.uk\)](https://tees.ac.uk/lte-online)

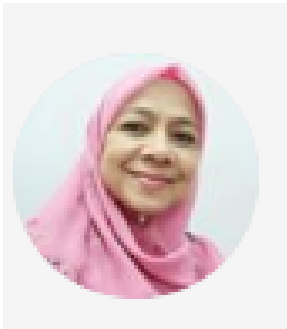
Let's Design Our Alternative Assessment Task



"I expect you all to be independent, innovative, critical thinkers who will do exactly as I say!"

ALTERNATIVE ASSESSMENT MAIN FEATURES –

Authentic, Performance/Task-based, Process-oriented



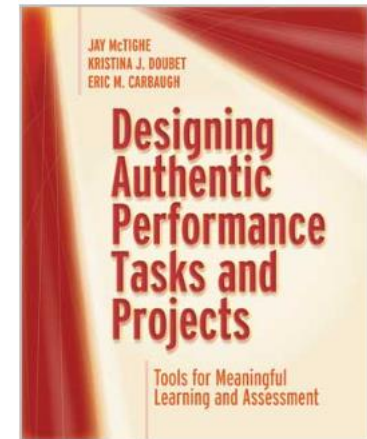
Courtesy to Prof.
Raja Maznah Raja
Hussain

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>

Recorded March 10, 2020



Twelves (12) Design Variables to craft Performance Task and Projects



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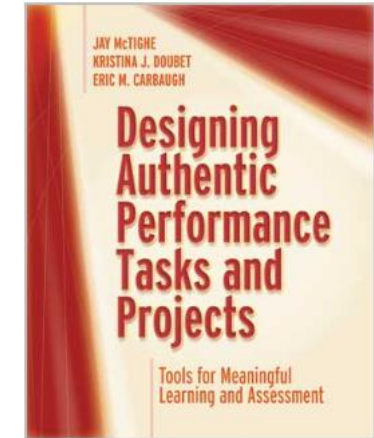


Design Variables for Performance Task and Projects

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)?*
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Alternative Assessment Task

Deciding on Time Frame and type of Alternative Assessment

Time Frame: *How long will students work on the task/project?*



1-4 Class Periods

5-10 Class Periods

More than two weeks

Performance Task Project-based Learning

Assignment No 1 (CO1 Taxonomy Level C2)

CO1 : Describe the formation of geomaterials and its characteristics which influence their engineering technology application. (C2)

Weightage 10% from 3 cr course (120 SLT) = 12 SLT (Inst. + Assmnt.)

Topic No 1, Delivered in Week 1 through 3 hours lecture + activities.

Hence Total SLT is 3 (f2f) + 5 (ILT) = 8 hours

Hence Assessment SLT is $12 - 8 = 4$ SLT

Assessment Type –short written group assignment – rock formation review (4 SLT)



TEACHING PLAN FACULTY OF CIVIL ENGINEERING TECHNOLOGY UNIVERSITI MALAYSIA PAHANG

15	Assessment Methods	Methods	Weighting	CO1	CO2	CO3
		ASSIGNMENT1	10 %	10		
		ASSIGNMENT2	20 %		20	
		FINAL EXAM	40 %		20	20
		GRADED TUTORIAL	15 %	10	5	
		TEST	15 %	15		
			100%	35	45	20

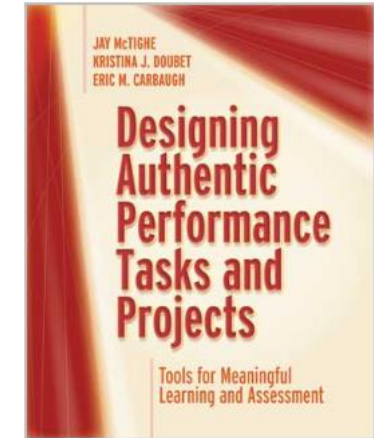
Course Detail with SLT Allocation

Semester 20212/IJA
Course BET1263 GEOLOGY AND GEOMECHANICS

Student Learning Time (SLT)					Normal Teaching & Learning				Online Teaching & Learning				Total SLT
Week	Topic No	CO	Topic	Sub Topic	Face-to-face	None Face-to-face		Normal Assessment	Online Learning	Online Activities	Online Assessment	Online Self Learning	
						Guided	Non-Guided						
1	1	CO01	MODULE 1: BASIC GEOMATERIALS CHARACTERISTICS Introduction to Engineering Geology	1-Rock formation and types 2-Rock cycle 3-Rock material and strength					2	1		5	8
2	2	CO01	MODULE 1: BASIC GEOMATERIALS CHARACTERISTICS Soil Formation and its Characteristics	1-Formation of various types of soil 2-Coarse and Fine-grained soil, Residual and Transported Soil					2	1		4	7
3	3	CO01	MODULE 1: BASIC GEOMATERIALS CHARACTERISTICS Soil Testing and Classification	1-Soil tests for classification purposes 2-Engineering Soil Classification - British Classification System 3-Soil description					1	2		4	7
4	4	CO01	MODULE 1: BASIC GEOMATERIALS CHARACTERISTICS Phase Diagram and Relationship	1-Phase Diagram 2-Phase Relationship					4	4			8
			MODULE 1: BASIC GEOMATERIALS CHARACTERISTICS Mid-Term Test								1	2	3
			MODULE 1: BASIC GEOMATERIALS CHARACTERISTICS Assignment 1								4		4
			MODULE 1: BASIC GEOMATERIALS CHARACTERISTICS MODULE 2: SOIL COMPACTION, SEEPAGE AND SLOPE STABILITY Assignment 2								5		5
			MODULE 2: SOIL COMPACTION, SEEPAGE AND SLOPE STABILITY Graded Tutorial								2		2
			MODULE 2: SOIL COMPACTION, SEEPAGE AND SLOPE STABILITY MODULE 3: COMPRESSIBILITY OF SOIL AND SHALLOW FOUNDATION Final Examination								3	6	9

Design Variables for Performance Task and Projects

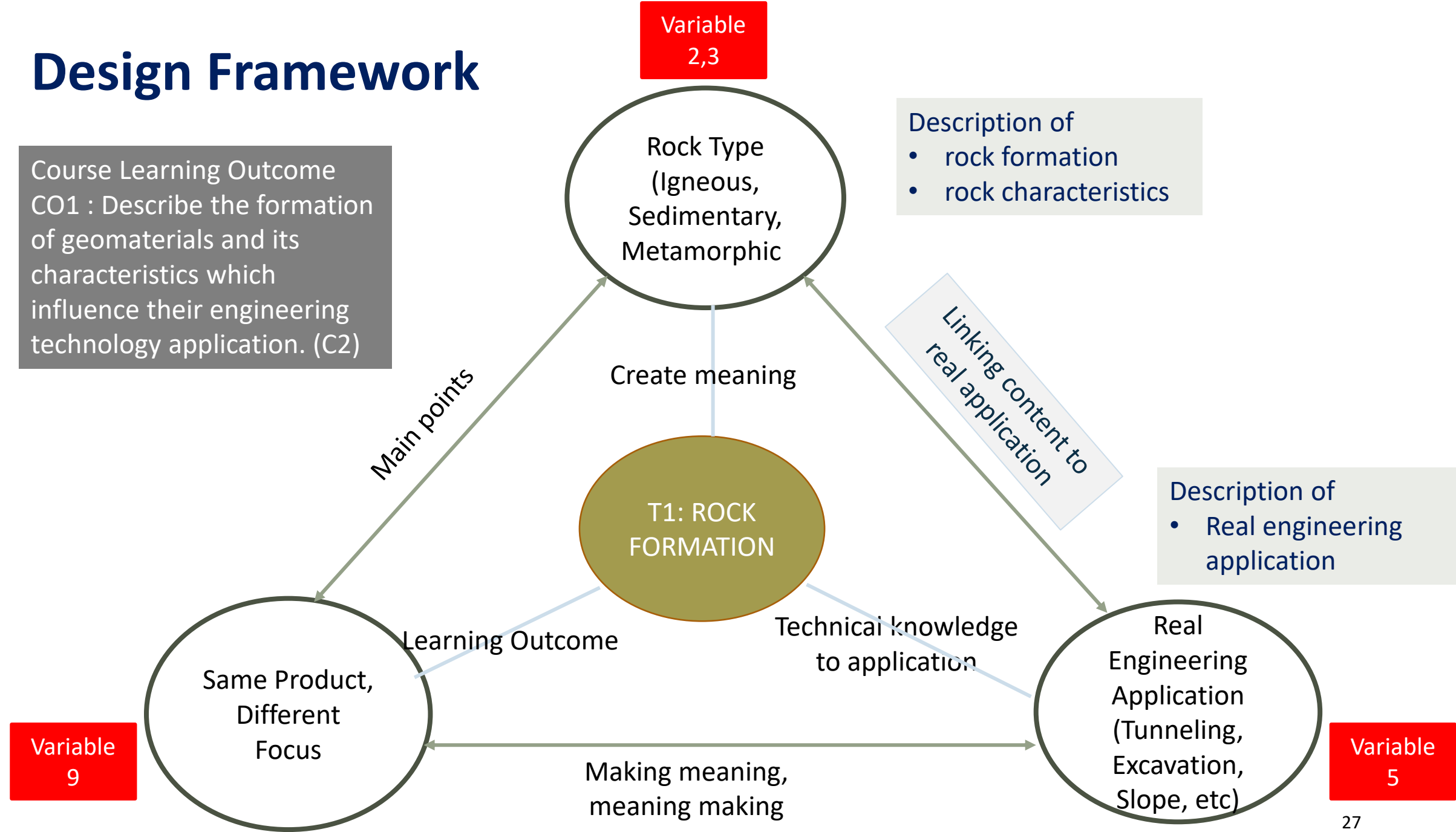
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Design the
Assessment
Instruction

Design Framework

Course Learning Outcome CO1 : Describe the formation of geomaterials and its characteristics which influence their engineering technology application. (C2)



Implementation Framework

Assessing Process

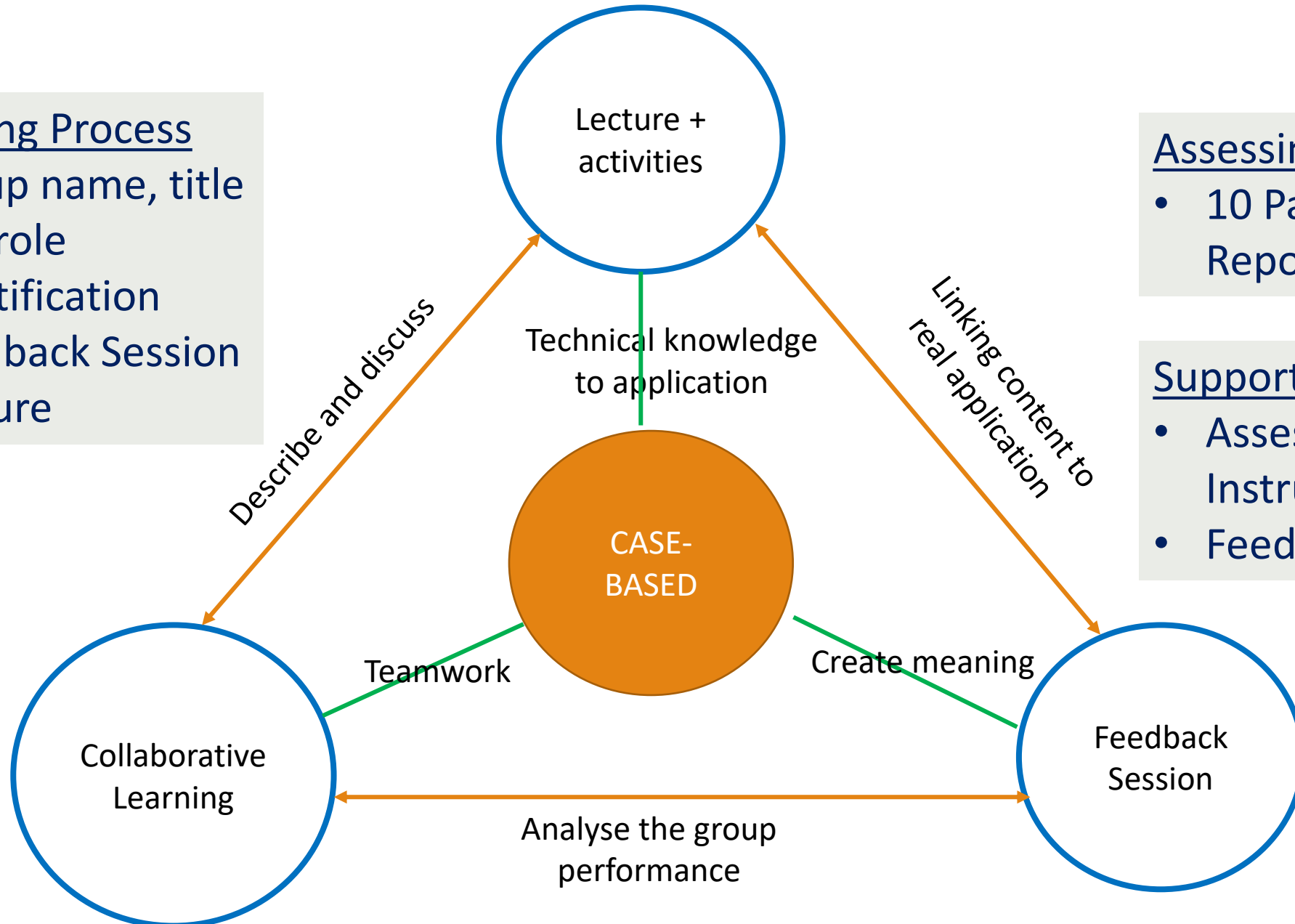
- Group name, title and role identification
- Feedback Session
- Lecture

Assessing Product

- 10 Pages Group Report

Support

- Assessment Instruction
- Feedback Session



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 own team, how a particular type of rock formation determines its characteristics and hence has an impact on 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, 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 9.00 pm on the 28 Mac 2021 (week 4)

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 part is connected and referred.

All the best.

Assessment Instruction

1. Time frame – 2-3 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 - not totally open ended (no choice/ some choice / many choices)

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

During planning and implementation of alternative assessment / performance task / project

1

Degree of Scaffolding: *To what degree will students be provided with support?*



**Considerable
Support**

**Some
Support**

**No
Support**

Variable no 11

Feedback

2

Assessing Process vs assessing Product

Variable no 12
who, what, when

Good Feedback Practice

- Align with Learning Outcome
- Timely
- Encourage feedforward
- Employ good feedback structure
 1. strength
 2. areas for development and improvement
 3. strategies for improvement
 4. Limit 3-4 comment on those really helpful
- Track student's response to feedback
- Avoid obscure criticisms, negative and over-general - unhelpful to students

The screenshot displays a video recording of a screen. The top portion shows a WhatsApp chat window with a contact labeled '+60 10-380 4553' and a timestamp 'today at 09:09'. The chat contains a photograph of a winding road through a mountainous landscape. Below the photo, the text 'Here is the example dr.' is visible. A 'meet.google.com' sharing notification is also present. The bottom portion of the screenshot shows the Google Meet interface, including a video player with a progress bar at 0:28:52, a volume icon, a chat icon, and navigation controls like '10', 'Play', and '30'. A participant's profile picture and name 'T E 1 9 0 4 3 NOOR HAFIZATI' are visible on the right side of the Meet window.

Learning must be supported by meaningful learning discussion (feedback);
Feedback is the starting point for learning improvement in whatever space and time we are.

MOODLE – “Workshop” feature for peer feedback to be exercised by students and guided by lecturer



IMPLEMENTATION OF ALTERNATIVE ASSESSMENT

Assessment Instruction

Learning Outcome,
Objective, Scope of work,
rubric, expectation.
Learning guides

Student support

Forum, Feedback between
peers and lecturers



Forum



Workshop

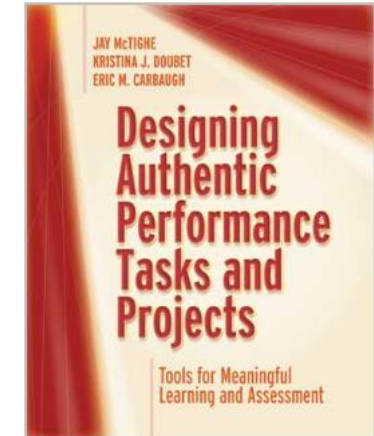


Feedback



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Design variables
and Assessment
Integrity Issues

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
<ul style="list-style-type: none"> Students will do a lab and prepare a report. 	<ul style="list-style-type: none"> 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.

Simulating authenticity

An Authenticity “Before and After” 1,2

Before	After
<ul style="list-style-type: none"> Students will write a book report on their favorite science fiction novel. 	<ul style="list-style-type: none"> 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.

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?)

Design variable No 5 : Degree of Authenticity

YouTube ^{MY}

soil sampling



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?)
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Infographics (They're Everywhere!) - Canva



New York Times

 Doubet & Southall, 2018



T

[Redacted comment text]

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.

Design variable No 5 : Degree of Authenticity



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.

<p>1. Authentic context</p> <p><u>Driving Question:</u> Were certain historical events inevitable?</p> <p><u>Task:</u> Students investigate whether U.S. involvement in World War II could have been avoided, and if so, how?</p>	<p>2. The use of real-world processes, tasks, tools, and quality standards</p> <p><u>Driving Question:</u> How can we evaluate the quality of art?</p> <p><u>Task:</u> 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.</p>
<p>3. Impact on others</p> <p><u>Driving Question:</u> How can our words and deeds impact others?</p> <p><u>Task:</u> 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.</p>	<p>4. Personal authenticity</p> <p><u>Driving Question:</u> How can I design or improve a product or process?</p> <p><u>Task:</u> 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.</p>

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

Design variable No 9 : Student Voice and Choice

Increase students motivation

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

**Design Variable:
Student Voice and Choice**

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

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

Design variable No 9 : Student Voice and Choice

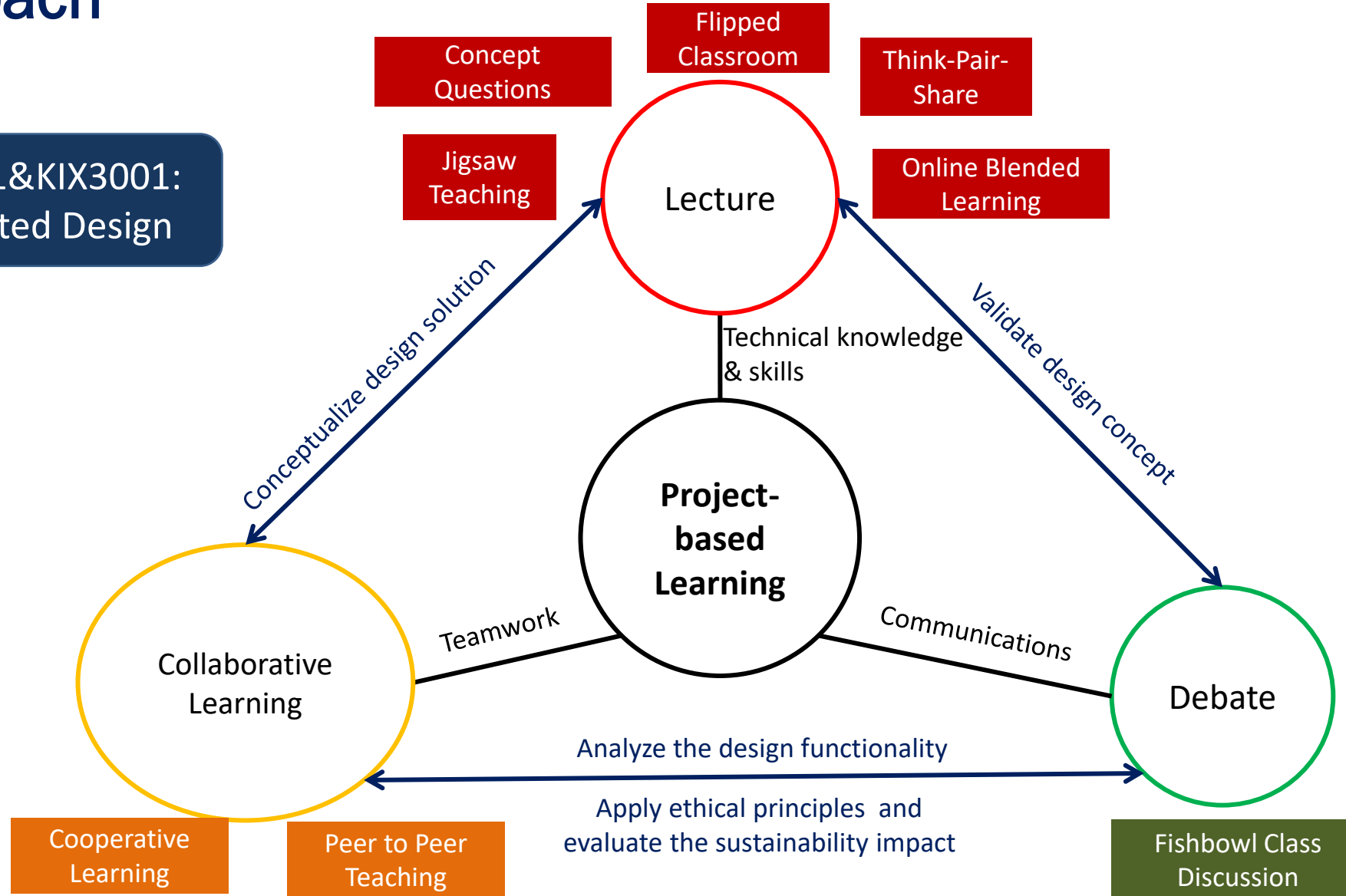
Different Product, Different Focus

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

Integrating & Visual Mapping of Delivery Modes with Teaching Approach

KIX2001&KIX3001:
Integrated Design



Multi-disciplinary Projects Teaching Plan

	WK 1	WK 2	WK 3	WK 4	WK 5	WK 6	WK 7	WK 8	WK 9	WK 10	WK 11	WK 12	WK 13	WK 14	WK 15	WK 16
COVERAGE IN CURRICULUM	Projct brief	Introduction to product design and development	Material selection -plastic, ceramic	Process design and optimization -control logic	Machine and drives - Stepper motor, DC motor, etc.	Programming and IOT - C++, Python	Biomechanics -anthropometry, gait	Mid-sem break	Project implementation	Project implementation	Project implementation	Project implementation	Model review	Model review	Final presentation, report submission	



ACTIVITIES	Brainstorming	Literature review	Market survey	Preparing drawing	Design specifications	Concept selection	Product architecture	Proposal presentation	Internal component design	Hardware design	Developing simulation model		Presentation	
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DELIVERABLES	Logbook - Team social contract - Activities report					Proposal + presentation			CAD design and simulation results				Presentation & Logbook submission	
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PROJECT BRIEF (TEMPLATE)

University/Programme/Course: University of Malaya/Bachelor of Mechanical Engineering/Integrated Design

Year: 3rd year

Learning Outcomes:

Experience a basic design-build project:

1. Conceptualize design solution of an engineering problem
2. Apply project management techniques and/or economic feasibility study of the proposed design solution
3. Perform technical investigation of the proposed design
4. Analyze the functionality of the proposed design
5. Apply ethical principles, standards and professional engineering code of ethics
6. Function effectively as a team member
7. Evaluate the sustainability impact on the design solution
8. Communicate effectively on complex engineering activities through reports and presentations

Objective:

This project requires you to design and produce a drowsiness detection system for drivers. The completed drowsiness detection system is to be completed by week 14 of Semester 2 and assessed under the Microsleep Challenge during week 15 of Semester 2.

Scope:

To meet the project requirements, you will need to:

- Form a work team of 4 members and organize the necessary activities you will need to do to complete the drowsiness detection system according to the specifications provided (see Appendix). Note: it is important that your team identifies clear roles and responsibilities, distributing and coordinating various tasks appropriately, and able to operate as a high performing team (LO6.)
- Collectively evaluate and choose an appropriate design from a selection of alternatives conceived during the design stage (LO1, LO2)
- Fabricate a prototype model to detect the drowsiness and make the driver stay alert. The device needs to:
 - Provide real time feedback without delays
 - Be cost-effective
 - Function regardless of the environment
 - Non-intrusive (LO3, LO4, LO5)
- Submit the drowsiness detection system at the stipulated time to prepare for the Microsleep Challenge. (LO6, LO7)
- Present your project work experiences via an oral presentation of 10 minutes (including 5 minutes for Q & A). Your presentation must clearly communicate how you:
 - o Worked as a team (e.g., challenges faced and how they were tackled, etc)
 - o Key decisions made (what basis and how these are decided) concerning the design and production of your prototype (LO8)

Assessment:

The distribution of marks for the various project components is contained in **Table 1**.

Table 1:

Assessment Components	Mark (%)	
	Semester 1	Semester 2
Design process <ul style="list-style-type: none">• Design structure approach• Complexity of the design problem• Quality of the design solution• Innovative & creativity	50%	
Teamwork <ul style="list-style-type: none">• Delegation and fulfillment of responsibilities• Focus and punctuality• Team communication• Peer review	25%	12%
Communication <ul style="list-style-type: none">• Technical Writing• Oral Presentation• Graphical Representations	25%	12%
Technical investigation and analysis <ul style="list-style-type: none">• Technical investigation and analysis• Use modern tools• Detailing competency• Project objectives• Innovative & creativity		40%
Project management and/or economic feasibility study <ul style="list-style-type: none">• Risk management• Schedule• Resources• Budget		12%
Ethical principles, standards <ul style="list-style-type: none">• Identify relevant standard testing procedures• Safety and health considerations• Societal considerations• Similarity index• Citation		12%
Sustainability impact <ul style="list-style-type: none">• Environmental (optimized usage of resources, used of recovered and renewable resources, protected ecosystem, optimize or eliminate emission of hazardous substances).• Social (Addressed community and stakeholder requests, considered local circumstances and cultures, protected human health and well-being requests).• Justification for sustainability (incorporated life cycle approach to design, incorporated life cycle engineering design tools, used innovative technologies to achieve sustainability).		12%
Total	100%	100%

STUDIO-BASED LEARNING



1 Teaching Approaches

In studio-based learning students work like apprentices in a common space under the tutelage of a mentor. Students undergo periodic critiques (crits) of their designs, projects or products. Crits are done to gain knowledge about their work and involve student-to-mentor first before evolving into self learning crits between peers. Final works or products can be presented publicly.

EXPERIENTIAL LEARNING



2 Teaching Approaches

Experiential learning is the process of learning through experience or defined as 'learning through reflection on doing'. Students apply their knowledge and skills and gain first-hand experience. Skills, knowledge and experience are acquired outside of the traditional classroom setting and may include internship, field trips, field research and service learning project.

SCENARIO / STORY -BASED LEARNING



3 Teaching Approaches

SBL involves students working through a storyline based around an ill-structured or complex problem (where the scenario changes over time) which they are to solve. Students have to apply subject knowledge, critical thinking and problem solving skills. Decisions made will affect and/or alter subsequent event leading to new events like in real life. Mistakes are part of students learning to prompt them to make better choices in the future.

CHALLENGE-BASED LEARNING (CBL)



4 Teaching Approaches

In CBL, real world issues are posed as challenges broadly that allow for a variety of solutions for students working in teams to tackle. CBL emphasises exploring topics and solving the challenge from multiple perspectives which allows students to appreciate the connections between these subject areas. Reflection, documentation and formative assessment are parts of learning process.

GAMMIFICATION & SIMULATIONS



5 Teaching Approaches

Gamification and simulation approaches to motivate students to learn by using video game design and game elements in learning environments. The goal is to maximise enjoyment and engagement through capturing the interest of learners and inspiring them to continue learning. Games and simulations enable students to solve real-world problems in a safe environment and enjoy themselves while doing so.

PROJECT -BASED LEARNING



6 Teaching Approaches

Students are required to complete a project assignment relevant to them. Working over an extended period of time, students may need to conduct extensive research using a variety of sources. Project-based learning can help students learn key academic content, develop life-skills like team collaboration, communication & critical thinking, and create high-quality authentic products and presentations.

PROBLEM-BASED LEARNING (PBL)



7 Teaching Approaches

Students are presented with complex real-world problem as a stimulus for learning, integrating and organising learned information that promote recall and application to future problems. By being actively engage with the problem, students develop skills in relevant information search process and creative problem solving. Lecturer acts as a guide and mentor to facilitate learning and to provide needed learning materials.

CASE-BASED LEARNING

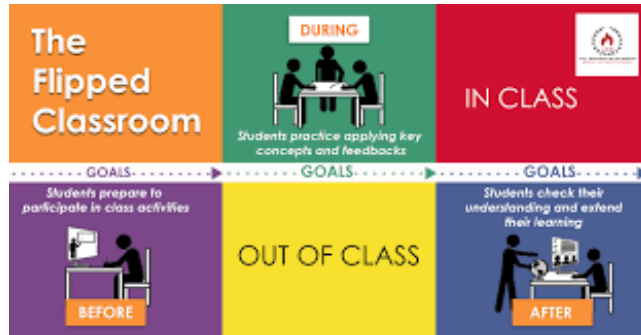


8 Teaching Approaches

Case-based learning using real world situations. Students will examine a case which has specific timeframe, sequence of events and an issue (problem). Students need to apply previously learned theories to the scenario in the case and then suggest a plan of action which may have no single right answer.

Teaching Approaches

FLIPPED CLASSROOM



1 Modes of Delivery

A delivery model where the typical lecture and homework elements are reversed. Students (e.g. at home) view short video lectures before the class session, while in class time is devoted to exercises, projects or discussions, that is, where students inquire about lecture content, test their abilities in applying knowledge and engage in hands-on activities

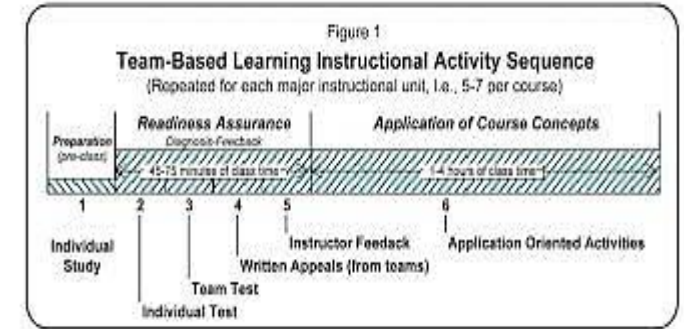
COOPERATIVE TEAM LEARNING



2 Modes of Delivery

Involves small teams, each with different levels of ability. Uses a variety of learning activities to improve their understanding of subject. Each member of the team is responsible not only for learning what is thought but also helping team mates learn, thus creating atmosphere of achievement.

TEAM-BASED LEARNING (TBL)



3 Modes of Delivery

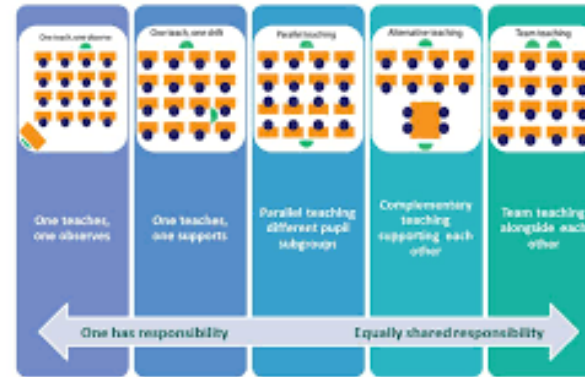
TBL allows teacher to conduct multiple small groups teaching at the same time. Students must actively participate in and out of class through preparation and group discussion. Class time is shifted away from learning facts and toward application and integration of information. The teacher retains control of content and acts as both facilitator & content expert. This method affords the opportunity for assessment of both individual and team performance.

COLLABORATIVE TEAM LEARNING



Students working in small groups to complete a specific task or to work together over time to complete various assignments. This method believes that knowledge can be created within a group where members actively interact and contribute towards achieving a common goal. That is students engage in a common task where every member has a role to play, contributes and depends on and is accountable to each other.

TEAM TEACHING



Where two or more teachers are responsible for planning and co-teach all students. The lessons are taught by both or team of teachers who actively engage in conversation, not lecture to encourage discussion by students. Both or team of teachers are actively in the management of the lesson discipline. At its best, team teaching allows students and faculty to benefit from the healthy exchange of ideas.

JIGSAW TEACHING



The jigsaw method is a delivery mode by organising the learning activity that make students dependent on each other and share knowledge and skills in order to succeed. It groups classess into teams and breaks information assignments into pieces that team members must learn, share, integrate and apply to complete the (jigsaw) puzzle.

7 Modes of Delivery

LECTURE

Pausing lecture & students make notes

Pausing lecture – students discuss what was presented

Pausing lecture; polling students; students discuss answers; faculty-led tutorial on correct answer

Active lectures blend 10-15 minute presentation segments with interactive experiences such as asking provocative questions and class or small group discussions. Using aids such as graphic organiser, video clips or few power point slides to emphasize main points and an engaging voice improve results.

ONLINE, MOBILE AND BLENDED LEARNING



8 Modes of Delivery

Online, mobile and blended learning refers to the use of electronic / mobile educational technology in teaching and learning. Integrating varying formats such as lecture, text, graphics, audio, video, Web resources, assessments and interactive devices in a lesson requires careful planning and organisation. Communication with students becomes extremely important.

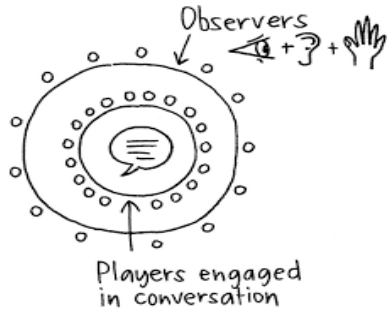
PEER-TO-PEER TEACHING



9 Modes of Delivery

Peer-to-peer teaching involves students teaching other students. Students learn more & demonstrate mastery when they are able to effectively teach a subject, vice versa when a student is struggling, having someone who is on the same age level as them helps to create bridges in the learning gaps. A peer tutor can form examples and relate to a student on an entirely different level than the teacher.

FISHBOWL CLASS DISCUSSION



The 'fishbowl' teaching method can help students practice being contributors and listeners in a discussion. Students ask questions, present opinions, and share information when they sit in the 'fishbowl' circle, while students on the outside of the circle listen carefully to the ideas presented and pay attention to process. Then the roles reverse. This method is useful in making all students participate in the discussion. Fishbowls make excellent pre-writing activities, often unearthing questions or ideas.

THINK-PAIR-SHARE

THINK



PAIR



SHARE



Think: students will think about the topic or problem posed by the teacher individually. **Pair** : students discuss their thoughts in pairs. One will talk while the other listen and vice-versa. This will allow students to articulate their ideas and to consider those of others. **Share** : student pairs share their ideas with larger group, such as the whole class.

ROLE PLAY



Role playing as teaching approach is the conscious acting out and discussion of the role in group. In the classroom a problem situation is briefly acted out so that students can identify with the characters. Role playing allows students to make mistake in a nonthreatening environment. They can test several solutions to very realistic problems, and the application is immediate.

13 Modes of Delivery

DEBATE



Debate is defined as form or argument that has 'strict rules of conduct and quite sophisticated arguing techniques'. Debate as a teaching technique can be effective in fostering students to take an active role in their own learning through the preparation and presentation of their own work and that of their peers. Debates also helps students to develop critical thinking by promoting the understanding of alternative viewpoints with a strong fact base.

14 Modes of Delivery

CONCEPT QUESTIONS



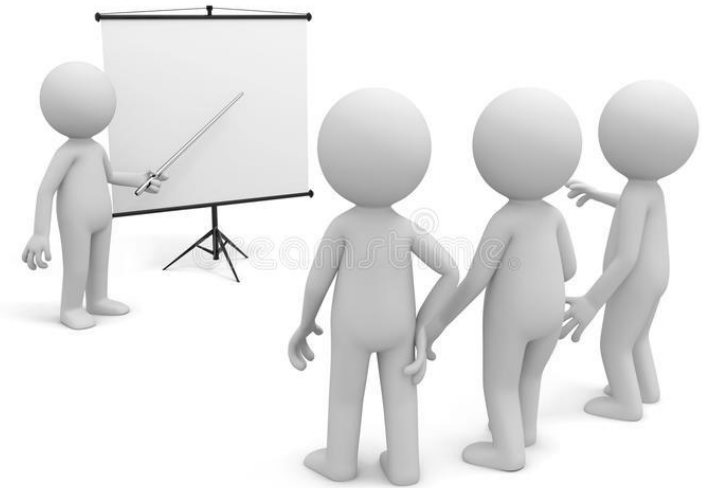
Concept questions are short, informal, targeted questions that can be conducted in class to gauge students understand key concepts. They can be used both to assess students prior knowledge or their understanding of content in the current subject. The primary purpose of concept tests is to get a snapshot of the current understanding of the class and not on the individual students.

15 Modes of Delivery

3



Discuss students and lecturer's role in alternative and flexible assessment to enhance engagement and performance



Lecturer's Preparation (At Planning Stage)

1. Conduct Assessment Audit
2. Decide on curriculum delivery of the whole course (conventional, project-based, experiential learning, etc)
3. Design alternative assessment task (use design variables as a guide)
4. Embed flexibility (modes, time, theme, environment) – Design / Implementation Framework
5. Write clear Assessment Instruction and Rubrics
6. Plan support system to ensure students performance meeting intended learning outcome.
7. Assess process/end product and individual/group
8. Note the underpinning theory and criteria



Jadual 5.2: Pemetaan Penjajaran Konstruktif Keterlibatan Komuniti

Bil.	Hasil Pembelajaran Kursus (HPK)	DHP KKM	Kaedah Penyampaian	Komponen/Kaedah Pentaksiran				Perincian Tugas dan Hubungan dengan Atribut DHP KKM	Beban Pembelajaran Pelajar / Student Learning Time (SLT)
				Nota perbincangan/ Minit Mesyuarat/ Laporan Video/ Pemerhatian	Pentaksiran Rakan Sebaya	Maklum Balas Komuniti	Pembentangan/ Pameran Projek		
1	Menghasilkan kertas cadangan projek keterlibatan komuniti yang berimpak sosial	KKM4	Perbincangan dalam kumpulan, kuliah interaktif	15%				Nota perbincangan/Minat Mesyuarat/Laporan Video oleh pelajar yang mempamerkan subatribut 'moral', 'proaktif' dan 'kesukarelaan' dalam DHP KKM4	15 jam
2	Mempamerkan kemahiran kepimpinan dan kerja berpasukan.	KKM5	Perbincangan dalam kumpulan, kuliah interaktif	25% (5% pemerhatian semasa perbincangan; 10% pemerhatian semasa pelaksanaan projek; 10% laporan video)				Laporan video, pemerhatian semasa perbincangan dan pemerhatian semasa pelaksanaan projek oleh pelajar yang menonjolkan kemahiran 'kepimpinan' dan 'kerja berpasukan' yang merupakan atribut dalam DHP KKM5.	20 jam
3	Mempamerkan tanggungjawab sosial dalam pelaksanaan projek.	KKM3	Kerja lapangan	20% (pemerhatian Langsung: 10% individu; 10% kumpulan)	10% (individu)	20% (kumpulan)	10% (pembentangan hasil akhir/ laporan video)	Tugas ini mencapai atribut Kemahiran dan Tanggungjawab Sosial DHP KKM3 iaitu subatribut 'keyakinan diri', 'saling menghormati', 'komunikasi sosial', dan 'kesedaran sendiri'.	45 jam
JUMLAH				60%	10%	20%	10%		80 jam

Enhancing engagement and performance - 1. Teamwork 2. Facilitating implementation phase

Developing Teamwork

Inception Stage

- Group Formation Guides
- Know your strength activity
- Team Role Identification
- Wreck a team activity
- [Group contract](#)

Implementation Stage

- Log book
- [Progress sheet / PBL Form](#)
- Action learning – critical thinking
- Interdependency check
- ALeGoRP – Values and Ethics

Final Stage

- Individual / Group assessment
- Assessing Process / Assessing Learning Development
- Assessing End Product
- Formative assessment and feedback



Collaborative Learning Criteria

Online

*Regular self-assessment
of group functioning*

~~*Face-to-face
interaction*~~



*Appropriate use of
interpersonal skills*

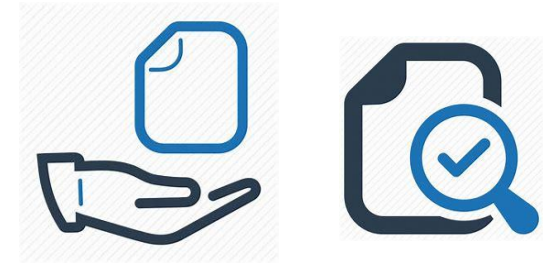
*Positive
interdependence*

*Individual
accountability*

Voice Recording on Their Thinking Processes / PBL Form | 1. What is the main point of discussion. 2. How am I/ we going to use it. 3. What new content/skill do I/we need to find/ develop next .

How To Facilitate

During group discussion, play your role as



1. Informer and Assessor

- Make positive or negative critical comments on students' performance and tell them a little bit more on what they have found e.g.....
- The facilitator is responsible to supply extra information and is assume to have some insights and knowledge not yet acquired by students.
- The facilitator plays the role of professional expert

How To Facilitate

During group discussion, play your role as

2. Inquirer / Questioner

- While enquiring, treat students as peers
- Acknowledge student's expertise in the context of the discussion with assumption there are things that facilitator are not aware / know
- Facilitator may share own points / experiences while asking question
- Use Socratic questioning



How To Facilitate



During group discussion, play your role as

3. Listener - Reflect

- It involved active listening in which facilitator may reflect back on what the students have said. E.g. “You’ve said.....
- The facilitator may summarize what students have said or may give an overview on what students have said

Note : Inquire – Listen and reflect has great potential to develop students critical thinking

Helping Students Developing Cooperative Learning Skills

Support to students – periodic self assessment on team performance

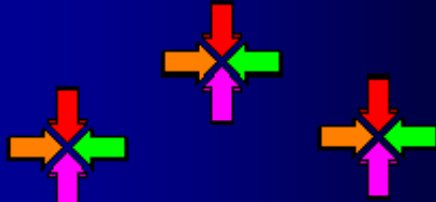

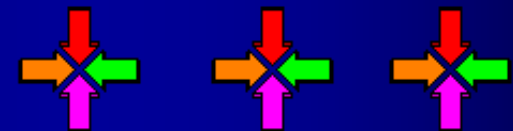


- Are we meeting our goals and expectations?
- What are we doing well?
- What needs improvement?
- What (if anything) will we do differently next time?

Helping Students Developing Cooperative Learning Skills

Support to students – Jigsaw technique training

JIGSAW

- Form home teams. 
- Form expert groups, provide specialized training 
- Regroup in home teams, complete assignment 

Helping Students Developing Cooperative Learning Skills

Support to students – Action Learning Technique

Guidelines in Action Learning

1. Statements only in resp
can ask questions
2. Action learning coach ha
whenever he/she identi



Guidelines in Action Learning

Problem Presenter

1. Take just 1-2 minutes. To highlight
problem/challenge/task for which yo
2. Trust that the group will ask the imp
3. Be brief, if you take too long to pres
coming up with questions and (b) b
details.
4. When you provide too much detail,
irrelevant 'brush' which slows down
is seeking to find.
5. Answer the questions asked of you
6. You do not have to answer question
answer for (a) don't know) or (b) for v
opinion ('I need to think about that c
7. Feel free to ask questions of other g

Guidelines in Action Learning

Action Learning Coach

1. Describe the two ground rules

2. Identify the leadership skills

3. Question to begin action learning session

- (*to problem presenter*) Could you take a minute or so to tell us the problem or task that you would like the group to help you with?

4. Questions at first intervention(8-15 minutes into session)

- (*to the entire group*) How are we doing as a group so far (ask each member for 1-2 word assessment; i.e., ok, not ok, great, etc)
 - What are we doing well?
 - What could we do better?
 - Do we have agreement on the problem – yes or no? Why don't we all write it down? Is there agreement?

continued

ACTION LEARNING – The How



Form a group of four
(max of 8) people



Identify one person
to be Action Learning
Coach



Identify one person
to be the Problem
Presenter



Read the Action
Learning Short Guide
before you begin

Guidelines in Action Learning

1. Statements only in response to questions; anyone can ask questions
2. Action learning coach has authority to intervene whenever he/she identifies learning opportunities



Guidelines in Action Learning

Problem Presenter

1. Take just 1-2 minutes. To highlight the key elements of the problem/challenge/task for which you would like to receive some help.
2. Trust that the group will ask the important information and details
3. Be brief, if you take too long to present, the group may (a) have difficulty coming up with questions and (b) be bored or impatient with your details.
4. When you provide too much detail, you may create unnecessary or irrelevant 'brush' which slows down or gets in the path which the group is seeking to find.
5. Answer the questions asked of you as concisely as you can
6. You do not have to answer questions that (a) you do not have the answer for ('I don't know) or (b) for which you have not yet formed an opinion ('I need to think about that question', ' I am not sure')
7. Feel free to ask questions of other group members

Guidelines in Action Learning

Team Members

1. Seek to gain a group-agreed understanding of the problem by asking questions
2. Make statements only in response to questions directed specifically to you or to the group as a whole
3. Feel free to ask questions of other group members as well
4. Try to built on each other's questions rather than just on getting your questions answered.
5. Listen carefully to the question of the action learning coach and do not resume working on the problem until he/she asks you to continue

Guidelines in Action Learning

Action Learning Coach

1. Describe the two ground rules

2. Identify the leadership skills

3. Question to begin action learning session

- *(to problem presenter)* Could you take a minute or so to tell us the problem or task that you would like the group to help you with?

4. Questions at first intervention(8-15 minutes into session)

- *(to the entire group)* How are we doing as a group so far (ask each member for 1-2 word assessment; i.e., ok, not ok, great, etc)
- What are we doing well?
- What could we do better?
- Do we have agreement on the problem – yes or no? Why don't we all write it down? Is there agreement?

continued

Guidelines in Action Learning

Action Learning Coach

5. Questions at conclusion of session

(to problem presenter) What action are you going to take as a result of this session? Were you helped? How?

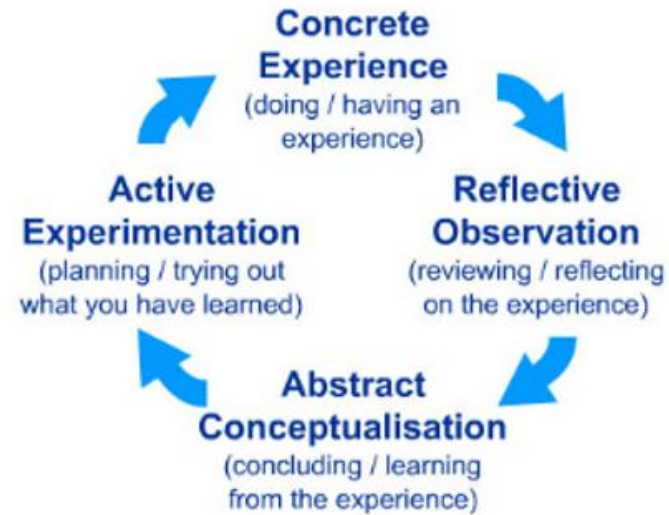
(to the entire group) What did we do best as a group? Let's explore how each of us demonstrated our leadership skills. What did we learn or do what we could apply to our lives / organization?

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.inted.org/biblio/b-explr.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

Learning Outcome

CO1: Demonstrate the importance of community engagement (C2) (20%)

Level of Taxonomy

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

Task / Activity

Based on the community engagement project that you have immersed yourself into, critically reflect on what you have learned from those experiences.

When writing your reflection, choose any TWO of these areas below:

- 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?
- 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?
- 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?
- 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?

Each reflection should address the following reflective questions and contain at least 300 words (written) or other comparable acceptable format (3 minutes' video format, infographics, animated poster) preferably using the first person language.

Guided questions for the reflection:

- What did I learn from this project / a particular critical incident?
- How did I learn it (what actually happened)?
- Why does this learning matter?
- What will/could I or others do in light of this learning?

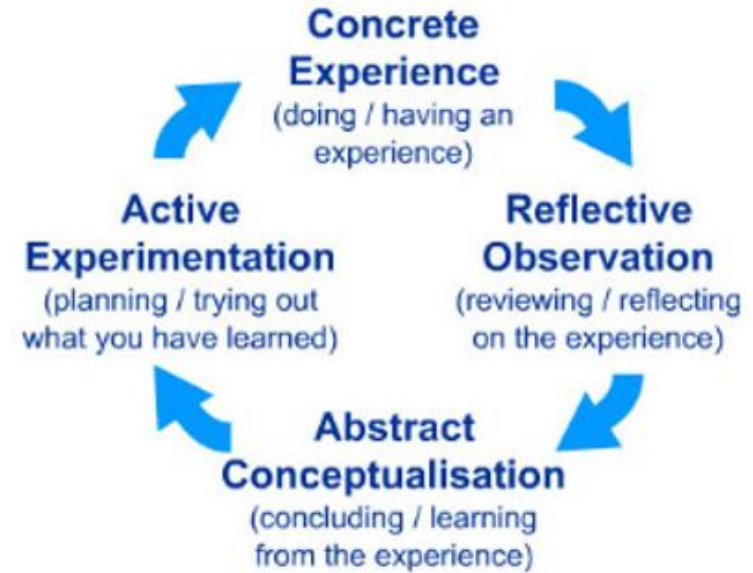
Deliverable / To submit

Your final product of your reflection must be submitted via the e-learning platform before due date

Marking scheme / Rubrics

ACCEPTING	RESPONDING	VALUING
Aware of positive and negative characteristics of own self and others based on the project experience (1-6 MARKS)	Agreed on positive characteristics needed to be practiced (7-13 MARKS)	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.

Internal Document

Lampiran 1



UTeM

ONLINE TEACHING AND LEARNING AND ASSESSMENT GUIDELINES

C. ONLINE ASSESSMENT AND STUDENT LEARNING TIME (SLT)

1. The Principles of Online Assessment

Any emergency and contingency situation such as during lock downs and movement control orders to face COVID-19 pandemic has lead all day to day activities and task to be changed. Education is no exception. UTeM has made an option to resort to partial/full-time online teaching and learning to survive during this period of time. of. Faculty members are encouraged to think creatively in delivering the teaching and learning to run courses for their students. As with face-to-face teaching and learning, the issue of assessment become a challenge to faculty members when they are designing their online courses. This guideline discusses the main principles of online assessment to help lecturers designing assessment.

1. Addressing accessibility issues

In the situation where students are dispersed throughout multiple localities with differing quality of IT infrastructure, the issues of availability and stability of the internet connection and suitable equipment should be the priority. **Asynchronous assessment** methods or tools which do not require real-time interactions should therefore be given priority when required.

2. Alignment of assessment activities with the learning outcomes

Constructive alignment is important in online assessment as in face-to-face assessment and therefore have to ensure that the assessment tools and activities match the learning outcomes.

3. Creating authentic assessment tasks

Authentic assessment tasks are considered as a more holistic assessment of student abilities. It is characterized by assessment tasks that are set in real-life contexts, cuts across multiple competencies and has multiple solutions.

4. Avoid assessment of irrelevant skills

Certain skills not directly related to any learning objectives, like keyboard typing skills and familiarity with a specific online assessment tool which might become disadvantage to certain students, especially in timed assessments. Unless the course needs to specifically intends to assess such skills in the assessment, be aware of this when designing any task/assessment.

5. Planning assessment according to student learning time (SLT)

Planning assessment according to SLT to ensures that students are well prepared for the online assessment and the assessment load is appropriate. Academicians are required to ensure that the number and complexity of tasks given commensurate with the course credit load and student learning time.

Lecturers can plan to conduct online assessments with small groups of students to avoid congestion. If this approach in small groups is implemented, lecturers must ensure that the assessments carried out are fair and equal across all groups.

6. Communicating with students regarding assessment matters

Communication regarding assessment needs to be clear and transparent similar to face to face assessment. Students must be informed using either text, audio or video regarding how the assessment relates to the learning objectives, the methods and criteria used (including rubrics and rating instruments) and when and how they can access their assessment results. This communication channel also must be recorded for accreditation and ISO purposes.

7. Employing multiple assessment methods

Do not rely on a single assessment tool for all learning outcomes. Multiple types of online assessment methods and tools can be used to support a more accurate assessment and is better able to assess the breadth and depth of student knowledge.

8. Continuous reflections

Individual educators are encouraged to use data obtained from online formative assessment tasks to reflect on teaching and assessment practices. It can be obtained from any platform chosen such as ULearn.

9. Timely feedback

The most critical element of online assessment is the provision of frequent, timely, sufficiently detailed and constructive feedback. This kind of feedback is necessary to make online assessment tasks successfully influence the learning.

10. Provide a well-spaced-out assessment schedule

Assessments should be well spaced out across the course of educators, taking into consideration the time students are reasonably expected to complete the assessment task and external factors such as important events in the calendar.



THANK YOU



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