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MINISTRY OF HIGHER EDUCATION

MAGNETIC
Malaysian Higher Education Teaching and Learning Council

ALTERNATIVE ASSESSMENT IN HIGHER EDUCATION

A PRACTICAL GUIDE TO ASSESSING LEARNING

ALTERNATIVE ASSESSMENT
IN
HIGHER EDUCATION

A PRACTICAL GUIDE TO ASSESSING LEARNING

STRUCTURE OF THE BOOK

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INTRODUCTION TO ALTERNATIVE ASSESSMENT

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REPORTING LEARNERS' PERFORMANCE

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ALTERNATIVE ASSESSMENT IN HIGHER EDUCATION CONTEXT

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ALTERNATIVE ASSESSMENT IN HIGHER EDUCATION CONTEXT

MINISTER FOREWORD

Throughout the years, the Ministry of Higher Education has invested great efforts and commitment to enhance the quality of Malaysia's higher education through innovative teaching and learning, improved infrastructure, up-to-date learning facilities as well as easy access to valid and reliable information. The goal of these endeavours is to achieve desirable student learning outcomes which will ultimately lead to the production of future proof graduates.

Education has seen tremendous development through the advancement of technology and changes in the required skill sets of the current job market. We must therefore, stay aligned with these developments in order to provide better quality education in the future.

Apart from quality teaching and learning, proper assessment is equally crucial. More than ever before, educators need to be creative in their assessment methods to truly reflect holistic student learning outcomes. They need to also design new forms of assessments for the implementation in face-to-face classrooms and online platforms.

Alternative assessment is a way forward that allows educators to track and capture students' performances in a more reliable and accurate manner. This book is a guide for educators to get acquainted with the various alternative assessment methods for implementation. It is also a testament of our support and commitment in enabling educators to provide better quality education to students.

I would like to express my sincere appreciation to the dedicated individuals involved in the development and production of this book.

I hope it will be fully utilized by educators in transforming their assessment strategies and in creating better teaching and learning experiences in Malaysia's higher education institutions.

DATUK SERI DR. NORAINI AHMAD
Minister of Higher Education
Malaysia

SECRETARY GENERAL FOREWORD

"We cannot solve our problems with the same thinking we used when we created them" – Albert Einstein

The Ministry of Higher Education has taken various initiatives to ensure the success of the Malaysian Education Blueprint (Higher Education) 2015-2025 in providing quality education. We strive to ensure for all the ministry's initiatives are aligned with the blueprint. One of the key aspects of this book is providing adequate resources, support, and information to all educators regarding effective assessment strategies.

I would like to take this opportunity to express my sincere appreciation to the Department of Higher Education who have put in great effort to coordinate the writing of this book, Introducing Alternative Assesment in Higher Education. I would also like to express my deepest appreciation to all the authors of this book for their sheer dedication, commitment, and contribution. Indeed, I am truly convinced that this book would serve its purpose well, not only as a reference and guide to our educators, but also to invigorate teaching and learning at all institutions of higher learning in Malaysia.

YBHG. DATUK SERI DR. MAZLAN YUSOFF
Secretary General
Ministry of Higher Education

DIRECTOR GENERAL FOREWORD

The Fourth Industrial Revolution (IR 4.0) has brought many challenges to higher education in Malaysia. Embracing IR 4.0 is a way forward given the expectations of higher learning institutions (HLIs) to produce future proof graduates. These graduates must be ready to face the challenges of the IR 4.0 era. Indeed, all HLIs must ensure that their academic programmes are capable of producing graduates who will excel and thrive in the world of constant change.

The most common recommendations to address this goal has been to induce transformation in teaching to align with the demands of IR 4.0. Of equal importance, yet often neglected, is to make changes in the ways learners are assessed. The time has come for educators to move away from the traditional methods of assessing their learners to implementing alternative assessment strategies. Educators, therefore, must change their mindsets to be innovative and creative in the way they assess learner outcomes.

This book comprises 12 chapters that capture the essence of alternative assessment from its fundamentals to best practices and excellent exemplars within the context of higher education in Malaysia. It also provides practical guidance on how lessons are designed and assessed in alternative ways that are both meaningful and fun to learners in the 21st century learning environment.

This book is the culmination of the concerted efforts of assessment experts and practitioners who came together to write the chapters. It is commendable that the book also showcases evidences through a repertoire of effective alternative assessment strategies for a wide-array of disciplines. Therefore, we would like to congratulate all the authors for their immense commitment in realising this book's endeavour.

We strongly believe that this book will serve as a useful reference point for anyone with a vested interest in alternative assessment and hope that it will inspire everyone to make a difference in the 21st century learning environment through assessment.

YBHG. DATO' PROF. DR. HUSAINI B. OMAR
Director General of Higher Education
Ministry of Higher Education

PREFACE

This book was inspired by a group of passionate academicians with some, who at the time of the commencement of this project, held administrative positions in their respective teaching and learning institutions. As academicians, the writers of this book felt strongly that at the turn of the 21st century and moving fast ahead in an ever challenging and uncertain world, there is certainly a need to reconsider the perspectives of implementing assessment in the higher education. In line with the national teaching philosophy, a more holistic and dynamic approach to better prepare students to acquire the various learning skills and attributes compels the need to find alternative ways of assessing. In tandem, it is imperative that learning takes place in the higher education context in preparation for learners' capacity to learn and contribute meaningfully to their respective societies. Apart from assessing knowledge, alternative assessment has the potential to even measure skills that are deemed unmeasurable like ethics, leadership, communication and interpersonal as well as personal skills among others. Hence the general academicians, as educators, lament of not being able to count what cannot be counted but should, can be resolved if one truly understands the essence of implementing alternative assessment. This book aims to facilitate educators who aspire to improve their understanding of assessment – particularly alternative assessment. Many who wanted to explore but are unsure about how to begin, may use this book as a starting point to transform their ways of assessing learning.

Often than not, basic concepts like testing, measurement, evaluation, and assessment may be used interchangeably. There are times that many lose the essence of what these concepts mean and become confusing to educators from non-education background. This book is targeted for all educators regardless of their areas of discipline to assist and hopefully convince them the potential of alternative assessment especially for future education. Written at the time when the COVID-19 pandemic was at its peak, it is hoped that this book will spur educators to first unpack the notion of assessment before exploring alternative assessment in detail. However, to make things clearer for easy understanding and reference, this book is designed with the use of infographics and AI (QR code) whenever needed.

The three-part section of the book provides a structure to the readers – the first part being the fundamentals of assessment and the need to change to alternative assessment whilst ensuring the notion of constructive alignment is in place. This is followed by the second part that provides a more detailed strategies and techniques as well as the notion of rubric development including validity and reliability in instrument development which is key in any measuring tool development for assessment. The final part provides examples of alternative assessment to afford ideas for readers to then embark on their quest to use alternative assessment.

ABOUT THE BOOK

01

INTRODUCTION TO ALTERNATIVE ASSESSMENT

02

REPORTING LEARNERS' PERFORMANCE

03

ALTERNATIVE ASSESSMENT IN HIGHER EDUCATION CONTEXT

This book is divided into three parts, in which each part is further divided into a few chapters. **The first part lays the foundation of the book** which the first chapter provides the overview of assessment and the importance of changing the mindset of making meaningful assessments. The second and third chapter describes the notion of alternative assessment and constructive alignment in ensuring the readers understand the importance of designing the alternative assessment and aligning to the outcomes constructively.

The second part further elaborates on how learners performance can be measured and reported when using alternative assessment. This part includes three chapters that are dedicated to elaborate on the alternative assessment strategies, developing rubric as one of the tools for measurement. It is essential to also discuss ways of ensuring reliability and validity of instrument development used in alternative assessment in order to address issue of fairness in assessment.

The final part provides exemplars of how alternative assessment can be used in various settings and purposes including, verbal and non-verbal, project-based and performance-based in situ settings as well as in digital setting.

Alternative Assessment is the way…

INTRODUCTION

This book serves as a quick practical guide to educators who would like to make a difference to their learners' learning experiences especially in relation to assessment. Alternative Assessment provides possibilities and opportunities for learning to be measured in a meaningful and most important, for learners to complete the assessment given, in a fun way. Alternative Assessment involves the ability for learners to observe the transformation of their soft skills that may be challenging and almost impossible if conventional paper and pencil test type of assessment is done solely. Designing lessons and assessment in an alternative way ensures learners attain the outcomes of the courses and programmes eventually. Such activities related to alternative assessments like projects, case study, problem-based learning and even service-learning enable learners to make meaning of what they have learned in the classroom before being able to apply in real-world contexts. Engaging themselves in the real-world environment not only makes the learners understand the content in a meaningful and fun way but also provide opportunities for them to see themselves contributing to their community and appreciating as well as respecting the differences and challenges faced by the community that they are engaged in. This is in line with the aspiration that education should be focused on the love of acquiring knowledge and related to the Malaysian Education Blueprint for Higher Education. As a quick guide, introduction to alternative assessment is essential for a basic understanding before providing further details on considerations and ways for r eporting learners' performance. This is then followed by sharing various ways of implementing alternative assessment in the context of higher education.

CHAPTER 1

CHANGING THE MINDSET:
MAKING MEANINGFUL ASSESSMENT

Overview of the chapter

It is crucial to understand how knowledge is perceived before and after the 21st century in order for us to know what we need to do and where we are heading towards in helping to understand about assessing learners' learning. Terminologies that cause confusion will also be discussed in order to ensure that educators, no matter what their background may be, are clear on what they need to do.

This chapter also discusses the challenges that educators may face and the need to seek alternatives in assessing learners' learning.

01

BEFORE THE 21ST CENTURY

KNOWLEDGE IS SEEN AS TRANSMITTED in nature, from educators (experts) to learners (novice). Educators often took the role as the whole knower and transmitter of knowledge, whilst learners were seen as merely receiver of the transmitted knowledge.

02

21ST CENTURY AND BEYOND

KNOWLEDGE IS CONSTRUCTED by learners and learning is mediated through various channels. Educators facilitate learning to ensure learners become engaged in learning, whilst making sense of knowledge.

LEARNING AND TEACHING

Learning and teaching are seen as two sides of the same coin. Thus, you cannot really treat the two as separate. In fact, it is dialectically connected in which each influence the other.

Similarly learning outcomes and assessment is interconnected. When learning outcomes are developed, we need to begin with the end in mind. The end in teaching and learning is the assurance of learning and, this is obtained through assessment (of course if it is done the right way). Hence it is important to understand what it means by **assessment**.

LEARNING OUTCOMES AND ASSESSMENT

TERMINOLOGIES AND CONFUSION

Prof Andrea: Have you evaluated your students?

Mr Tea: Yes, I have given them a test last week. I have assessed them on a few topics.

Prof. Andrea: So, what is your evaluation?

Mr Tea: hmm... the test? (puzzled with the question)

WHAT
IS THE DIFFERENCE?
- Testing
- Assessment
- Measurement
- Evaluation

OTHER TERMINOLOGIES

These terminologies may be used throughout this entire book

STRATEGY

in assessment it relates to the various ways for assessment to be conducted

TECHNIQUE

in assessment it relates to a specified procedure and processes involved
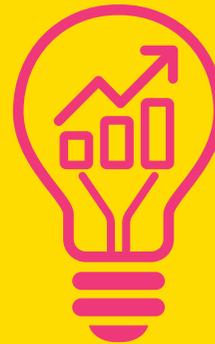
TOOL

in assessment it relates to the measuring tool for example rubric, checklist

TESTING

A test is a sample of items as constructs that measure performance in a specific domain.

TESTING CAN BE USED TO MEASURE THE LEVEL OF KNOWLEDGE, SKILL AND ATTITUDE.

MEASUREMENT

MEASURING BY PROVIDING A SCORE TO DETERMINE LEARNERS' PERFORMANCE.

A process of assigning numbers to what is being measured including tangible and intangible aspects like attitudes, behaviour, using measurement scale.

WHAT IS THE DIFFERENCE?
An overview

ASSESSMENT

It involves descriptive information to help learners make improvements and interaction to make learners understand how well they have learned and achieved. In a way it helps learners develop confidence.

A PROCESS OF DOCUMENTING ONGOING COLLECTION OF INFORMATION ABOUT WHAT LEARNERS WERE ABLE TO DO.

EVALUATION

IN EDUCATION IT RELATES TO THE IMPACT AND EFFECTIVENESS OF ACHIEVING THE INTENDED AIM

Evaluation consists of systematic collection, observation and interpretation of evidence to provide judgement for further action e.g. Excellent, good, above average or below par.
With the judgement, one can use to make decisions.

Purpose of Testing in Education

INFORM LEARNERS AND EDUCATORS OF THE STRENGTHS AND WEAKNESSES OF THE PROCESS

ENCOURAGE IMPROVEMENT

DETERMINE IF THE OBJECTIVES/ OUTCOMES HAVE BEEN ACHIEVED

MOTIVATE LEARNERS TO REVIEW OR CONSOLIDATE SPECIFIC MATERIAL

GUIDE THE PLANNING/ DEVELOPMENT OF THE ONGOING TEACHING PROCESS

CREATE A SENSE OF ACCOMPLISHMENT

The ultimate purpose of testing is to ensure that there is evidence of learning taking place. Therefore, testing is not about failing learners. There is a need to ensure that assessment has taken place before evaluation can be made on the learners.

WHAT IS ASSESSMENT?

Based on a **collection of information** about what the learners know and what they are able to do.

▶ Interaction

Involves interaction, which aims at seeking to understand what the learners have achieved.

▶ Nature

Assessment may be descriptive rather than judgmental in nature.

▶ Diagnostic

Helps learners to diagnose their problems and improve the quality of their subsequent learning.

▶ Role

Increase learner's learning and knowledge development.

FUNCTIONS OF ASSESSMENT

Assessment of learning

The output of the assessment usually is in the form of score or grade. It is summative in nature.

E.g., Final exam score

Assessment for learning

Feedback being embedded during teaching and learning to improve instructional strategy. It is formative in nature.

E.g., Oral or written feedback to learners after their presentation

Assessment as learning

On going self-assessment by learners to monitor their own learning, to reflect on their learning or making adjustments for deeper understanding.

E.g., Writing reflective entries either in journals, forum (online), completing online quizzes that provide feedback on learners' performance

TYPES OF **EVALUATION**

DIAGNOSTIC	To diagnose learners, usually used when tracking or streaming learners according to their levels. It is carried out most of the time as a follow-up evaluation to formative evaluation. A diagnostic test can be in the form of achievement test, performance test, self-rating, interviews observations.
PLACEMENT	To fix learners in the appropriate group or class. e.g., learners are assigned to classes according to their subject combinations, also known as tracking, streaming, grouping.
FORMATIVE	On-going method of assessment by providing feedback (what they have mastered) and feedforward (how they can improve) on learners' performance for improvement. It is closely related to the feedback and diagnostic functions of testing. When learners complete each unit or phase of instructions, tests can inform them of their knowledge whether they are pacing themselves adequately to meet course objectives/outcomes and what topics they need to improve. (not counted as part of overall performance).
SUMMATIVE	Assessment done in the end, in which learners' performance is measured and, a score will be given. Occurs at the end of a programme or course and determines its overall effectiveness. The word summative means the summing up of all available information regarding a program at its decision point. (counted as part of overall performance).
NORM REFERENCE	Compares individual's performance to those of others. It is designed to yield a normal curve with the majority in the average and with 25% percentile at both extreme ends (high and low).
CRITERION REFERENCE	Compares individuals to a set of criteria set as standard. E.g., Outcome-Based Education curriculum is largely criterion-based.
INTERIM/ BENCHMARK	Given during instruction to inform policymakers of intervention, which is reported at the aggregate level, e.g., Star rating in schools.

MEASUREMENT SCALES

A scale is a tool or mechanism by which individuals are distinguished as to how they differ from one another on the variable of interest.

INTERVAL

RATIO
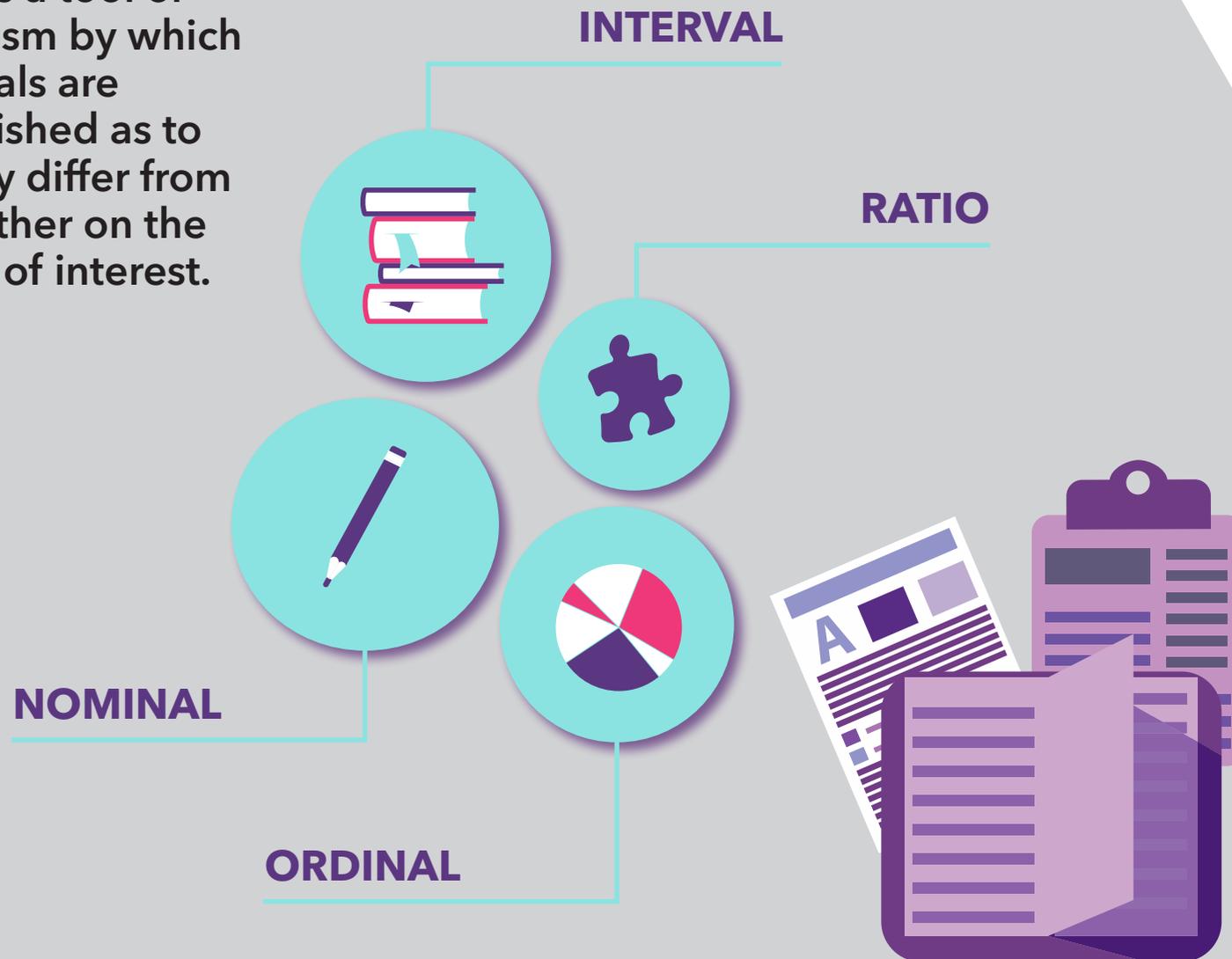
NOMINAL

ORDINAL

LEVELS OF MEASUREMENT?

NOMINAL

- Count by category
- Binary (Yes/No)
- No meaning between the categories (Blue is not better than red)
- e.g. Male (0)/Female (1)
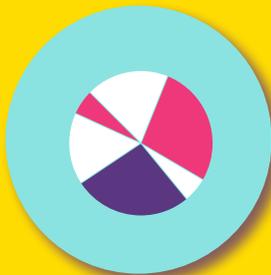
ORDINAL

- Ranks
- Scales
- Space between rank is subjective
- e.g. Gold, Silver, Bronze or Excellent, Good, Weak

INTERVAL

- Integers
- Zero is just another value – doesn't mean "absence of"
- Space between values is equal and objective, but discrete
- e.g. Score 50% - 75%

RATIO

- Interval data with a baseline
- Zero (0) means "absence of"
- Space between is continuous
- Includes simple counts
- e.g. Age, height, weight

PRINCIPLES AND CONCEPTS OF ASSESSMENT

- ▶ Free from bias

- ▶ Fairness

- ▶ Valid and reliable

- ▶ Measure the outcomes stipulated

- ▶ Feasible – time, location, environment

- ▶ Clarity in marking scheme and tool of assessment

DATA
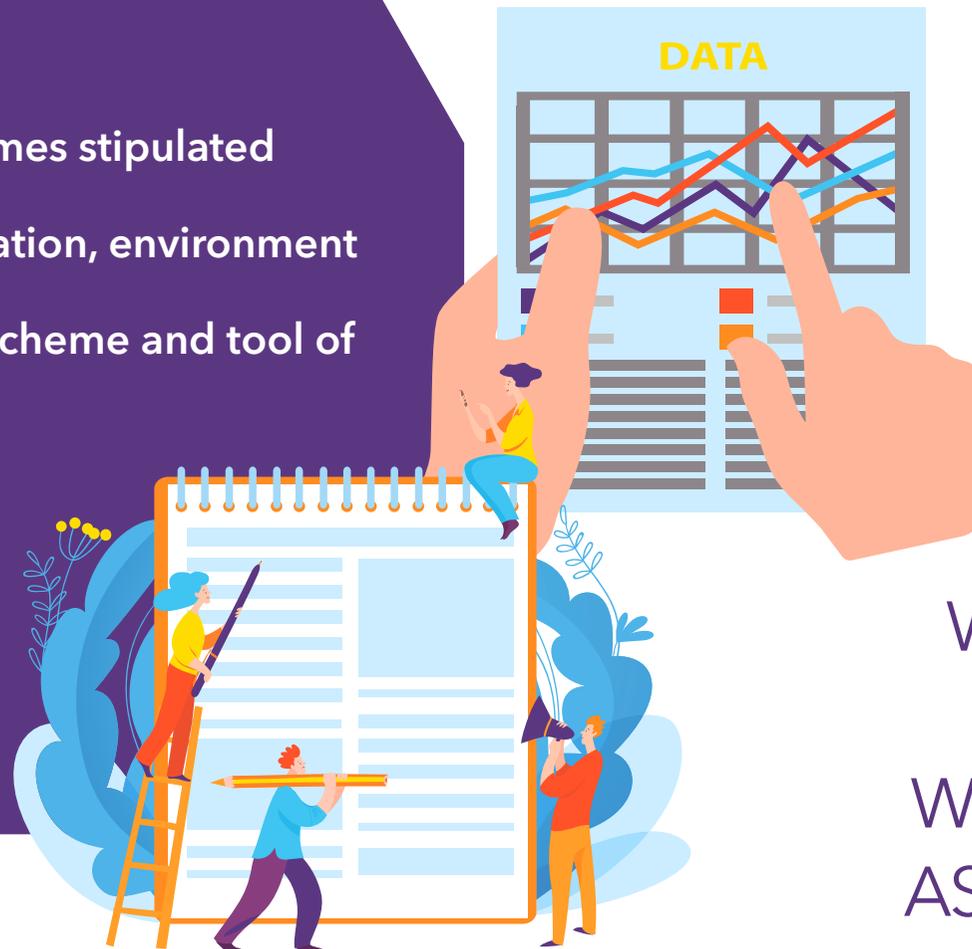
SO, WHAT DO WE **NEED TO CONSIDER** WHEN DOING ASSESSMENT?

RECAP – COULD YOU DIFFERENTIATE?

TESTING

ASSESSMENT

MEASUREMENT

EVALUATION

LET'S HAVE A GO: REVISION

In your own words try to define these terms above
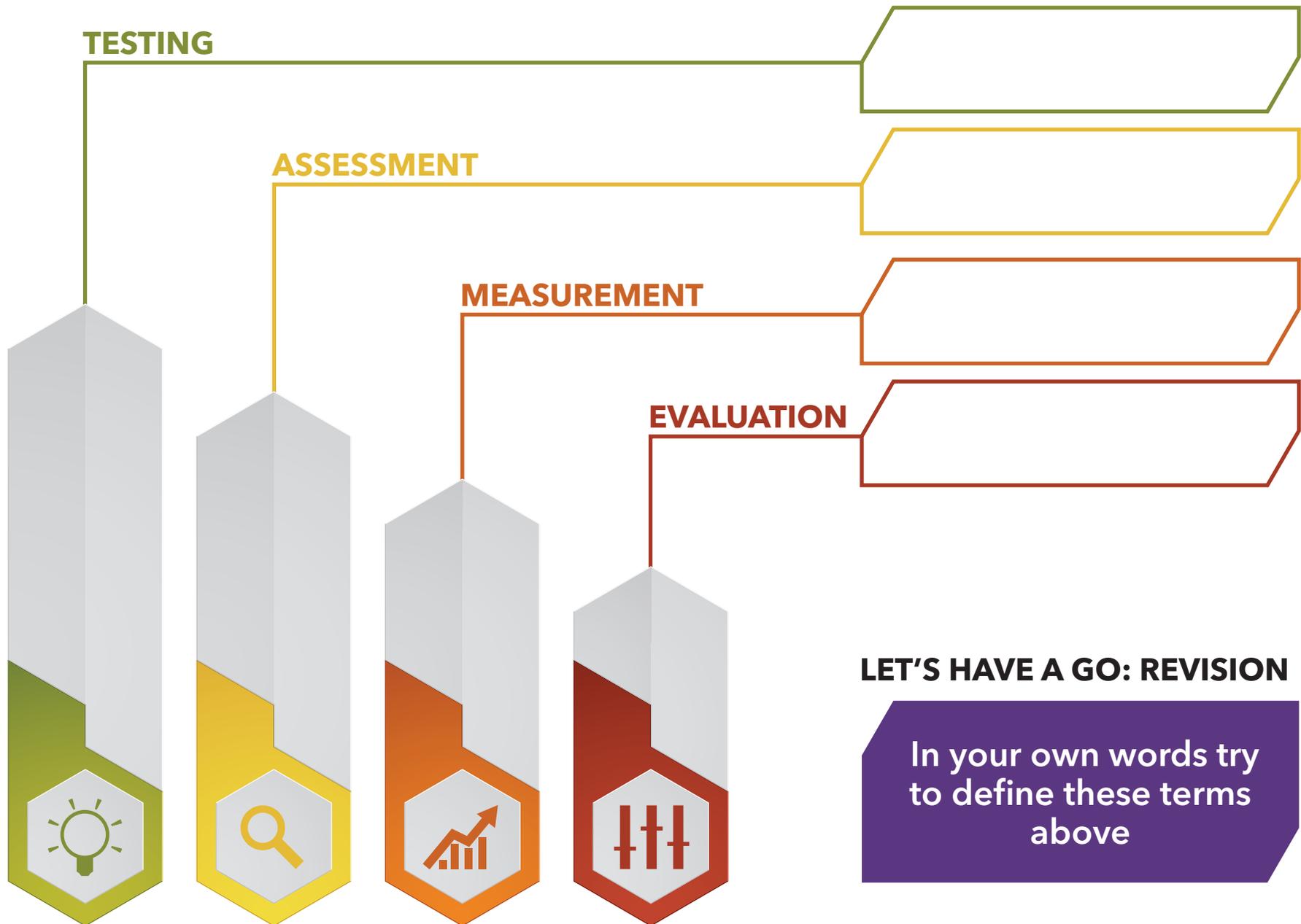
THE CHALLENGES OF CONVENTIONAL ASSESSMENT
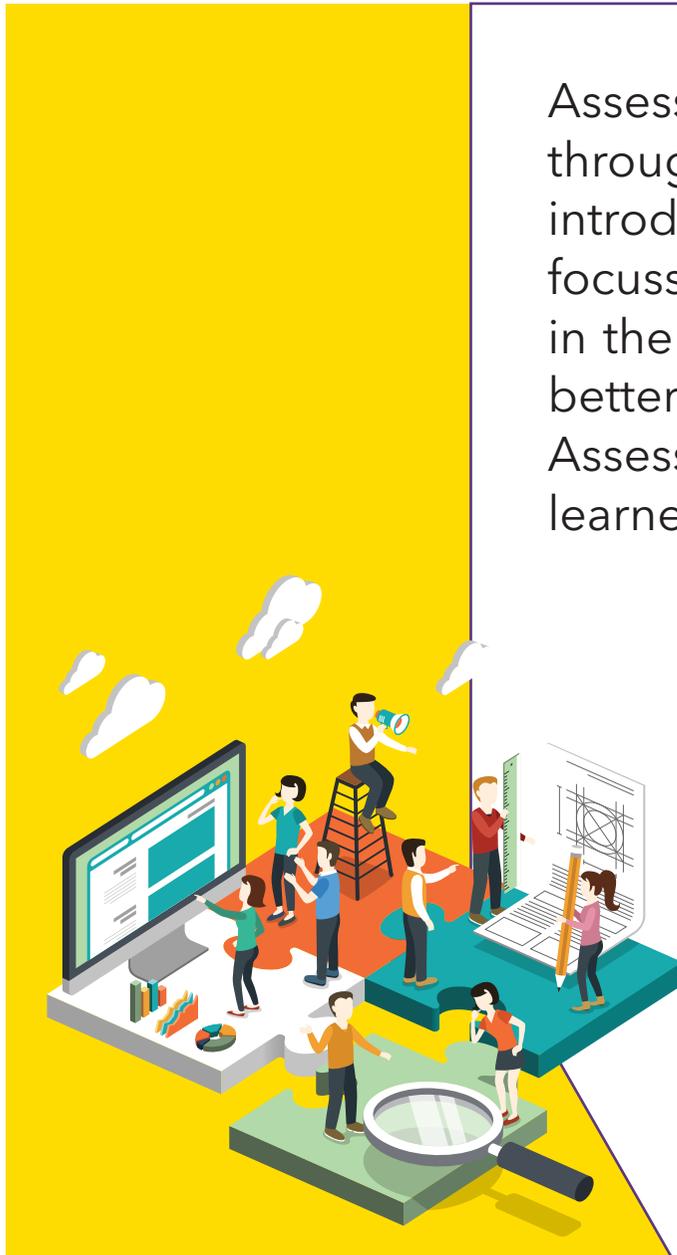
Assessment in Higher Education has gone through transformations, especially since the introduction of outcome-based education which focusses on learning. Conventionally, assessment in the form of tests, quizzes and final examination or better known as paper and pencil test has been used. Assessment has largely been used to measure what learners have been taught and (of course) remember. However, the millennium era has subjected learning to be disruptive, unpredictable and dynamic whilst curriculum to be developed with a futuristic, prospective orientation and with a flexible design to take into account the process of learning for the future. Surely there is a need to reconsider our conventional ways of assessment.

To begin with, our learners have changed…

GENERATIONS

Characteristics	Maturists (pre-1 945)	Baby Boomers (1945-1960)	Generation X (1961-1980)	Generation Y (1981-1995)	Generation Z (Born after 1995)
Aspiration	Home ownership	Job security	Work-life balance	Freedom and flexibility	Security and stability
Attitude toward technology	largely disengaged	Early information technology (IT) adaptorss	Digital immigrants	Digital natives	Technoholics
Attitude toward careers	Jobs are for life	Organisational- careers are defined by employers	Early 'portfolio.' careers - loyal to profession, not necessarily to employer	Digital entrepreneurs - work "with" organizations not "for"	Career multitaskers
Signature product	Automobile	Television	Personal computer	Smart phone	Nano-computing, 3-D print, driveless cars
Communication media	Formal letter	Telephone	E-mail and SMS	SMS or Social media	Hand-held communication devices

COMING YOUR WAY...
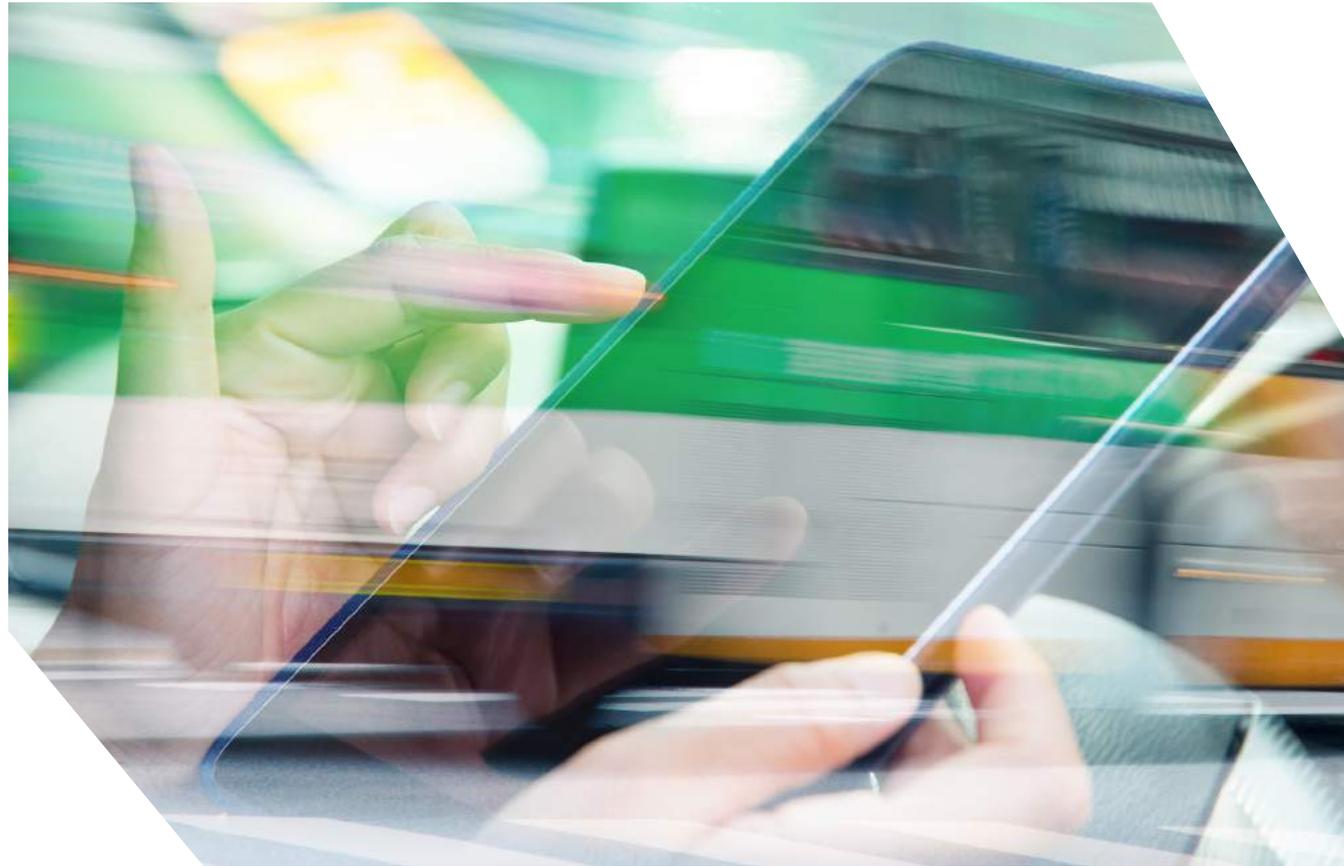
If we are stuck in the way we were taught, to teach our future learners, then we remove the opportunity for everyone (including us) to grow but what is worse is that our action will cause their future to be bleak.

OUR WORLD IS CHANGING…
HOW WE LEARN NEEDS CHANGING TOO

Assessing learners on regurgitated knowledge will not be a plausible solution to deal with the V.U.C.A. (Volatile, Uncertainty, Complexity, Ambiguity) world. A need for **prospective orientation** towards education.

UNDERSTANDING OUR WORLD REQUIRES LEARNING AND TEACHING FOR THE FUTURE – PROSPECTIVE ORIENTATION

SEVEN Cs

DYNAMIC CURRICULUM

KNOWLEDGE CONSTRUCTION

PROSPECTIVE ORIENTATION

We cannot teach and assess our learners the way we and our forefathers went through… for our future generation to survive in this world, We NEED to CHANGE.

SEVEN Cs

Clear Goals

Collaboration

Care and Compassion

Critical Thinking

Creativity

Communication

Creation and Innovation

YOUR CHOICE DETERMINES THE QUALITY OF OUR FUTURE LEADERS MEASUREMENT?

I CAN

LEARNERS MAKE SENSE

Your alternative ways to assess and provide meaningful essons help them know what to do with what they have learned

LEARNERS HAVE CONFIDENCE

Their learning experiences gathered from your meaningful lessons help them to gain experiences in solving real-world problems persistently and hopefully diligently

I KNOW

SEEKING ALTERNATIVE WAYS TO DO ASSESSMENT

Though the conventional method of assessment has been helpful when providing information on what learners have learned in terms of knowledge, nevertheless, it has been problematic when trying to assess skills and attitudes. Especially in the 21st century education, where learning needs to focus on the process. Due to this, the emphasis that centres on learners' learning is inevitable.

Teachers, as educators, need to migrate from the heavily teacher-centered approach of learning and teaching to focusing on learners' learning. This is especially so when learning is not only about knowledge but also the focus on skills and attitudes, which are crucial, especially in outcome-based education.

Therefore, there is a need to search for alternative ways to do assessments, and this requires the need for one to understand further what alternative assessment is. This is further elaborated in Chapter 2.

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CHAPTER 2

ALTERNATIVE ASSESSMENT

Alternative Assessment

Alternative assessment is indirect contrast to what is known as conventional assessment. It refers to all sort of assessments that are used to measure learner's ability and proficiency in performing complex tasks that are related to the intended learning outcomes (Yusop, 2018)

CONVENTIONAL ASSESSMENT VERSUS ALTERNATIVE ASSESSMENT

CONVENTIONAL ASSESSMENT

▶ Depends on learner learning proxy measures to represent target skills

▶ Encourages memorisation of correct answers

▶ Aims to measure acquisition of knowledge

▶ Non-interactive performance

▶ Foster extrinsic motivation

▶ Usually depends on forced-choice and written measures

ALTERNATIVE ASSESSMENT

▶ Depends on direct measures of the target skill

▶ Encourage divergent thinking in generating possible answers

▶ Aims to enhance the development of meaningful skills

▶ Interactive performance

▶ Foster intrinsic motivation

▶ Promotes integration of various written and performance measures

TYPE OF ASSESSMENT

```
                    ASSESSMENT
                   /          \
      CONVENTIONAL            ALTERNATIVE
      ASSESSMENT             ASSESSMENT
                            /          \
              AUTHENTIC            PERFORMANCE-BASED
              ASSESSMENT          ASSESSMENT
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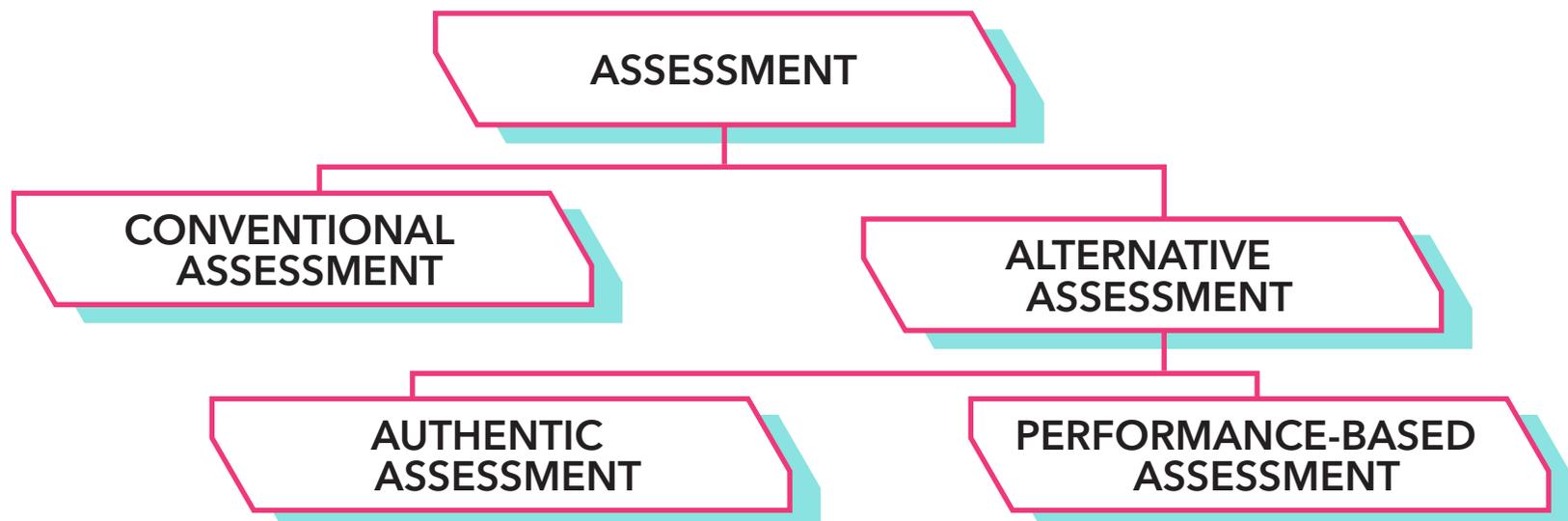
ALTERNATIVE ASSESSMENT

AUTHENTIC ASSESSMENT

According to Mueller (2005), authentic assessment is a form of assessment in which learners are asked to carry out real-world situations that show meaningful application of essential knowledge and skill. Usually, all the performance tasks will be evaluated by using rubric.

ALTERNATIVE ASSESSMENT

PERFORMANCE-BASED ASSESSMENT

According to Chun (2010), performance-based assessment is used to measure learners' ability to apply the skills and knowledge learned from a unit or units of study. Usually, the learners use their higher-order thinking skills to create a product or complete a process as the task challenge. It requires more subjective judgement on the part of the evaluator based on criteria and rubric development prior to learners' assignment.
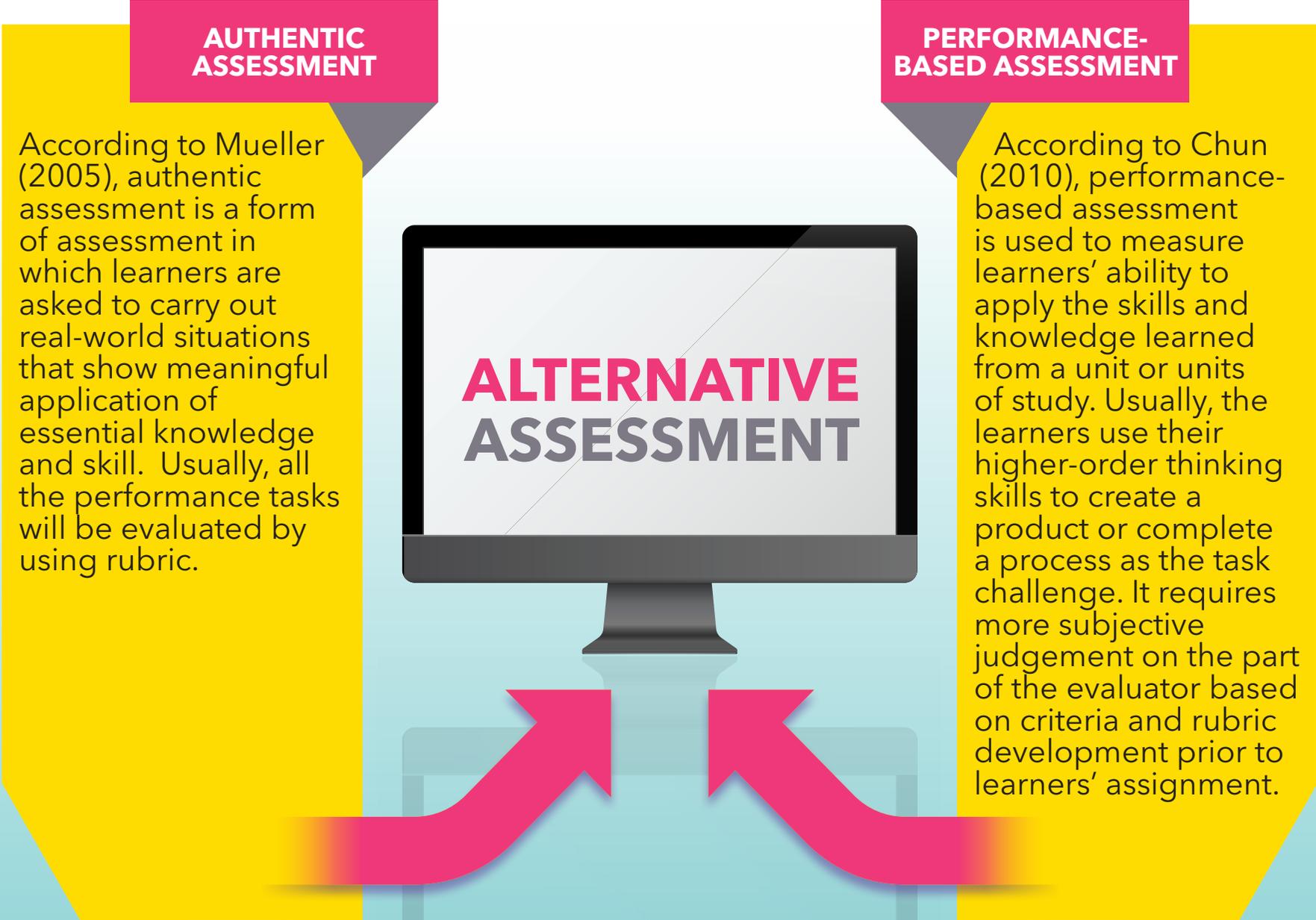
ALTERNATIVE ASSESSMENT COMMON STRATEGIES

PEER ASSESSMENT

A process of peers giving feedback on the other learners' work in terms of the quality.

SELF-ASSESSMENT

A process of formative assessment during which learners reflect on the equality of their work, judge the degree that reflects explicitly stated goals of criteria and revise accordingly (Andrade, 2010).
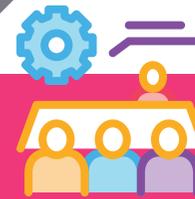
GROUP ASSESSMENT

A group of learners collaborates to solve a complex problem task that needs proper planning, discussion, research, and presentation either during a class or over a certain period outside of the class. Educator will monitor learners by following the groups' progress and the contribution of individual learners within a group.

If you need to see examples of alternative assessment strategies, please refer to Chapter 4.

ALTERNATIVE ASSESSMENT TECHNIQUE

PROJECT

Project-based assessment is a technique to test the learners when participating in learning through a more concrete way. It also enables the educators to assess learners' higher-order thinking skills when engaging in the projects related to learners' course work and the experience gained throughout the time frame of the class. A hands-on project is given to learners to apply what they have learned to an in-depth exploration of a topic.

INTERVIEW

A technique used when assessing spoken achievement of learners when engaging in the interaction between educators and learners. The interview will be conducted by educators only for assessment purposes. So, it is not about learners conducting an interview to gain information rather the purpose of the interview is to assess the learner's oral production as well as to seek to discover a learner's learning styles and preferences.

TECHNOLOGY-BASED ASSESSMENT

It involves the use of technology and modern devices incorporated in the teaching and learning to assess learners' performance and progress (Yusop, 2018). This type of assessment is used to encourage the learners to participate and collaborate in learning via online and outside the classroom.

If you need to see examples of alternative assessment techniques please refer to Chapters 8, 9, 10, 11 and 12

ALTERNATIVE ASSESSMENT TECHNIQUE

ORAL PRESENTATION

It refers to direct means of assessing learners' learning outcomes that are conducted by questioning the learner. For this assessment, there is no structured list of questions where assessors can ask any questions and request responses depending on the situations compared to interview assessment. An oral assessment provides opportunities to the learners to develop their verbal communication skills.

PORTFOLIO

Portfolio assessment is an on-going process, which learners produced tangible evidence of their learning. It consists of learner's work collection in which it would assess their performance, ability, progress, and learning process based on a marking standard in order to decide their performance or a study programme.

If you need to see example of portfolio strategies and technique please refer to Chapter 7

CONCLUSION
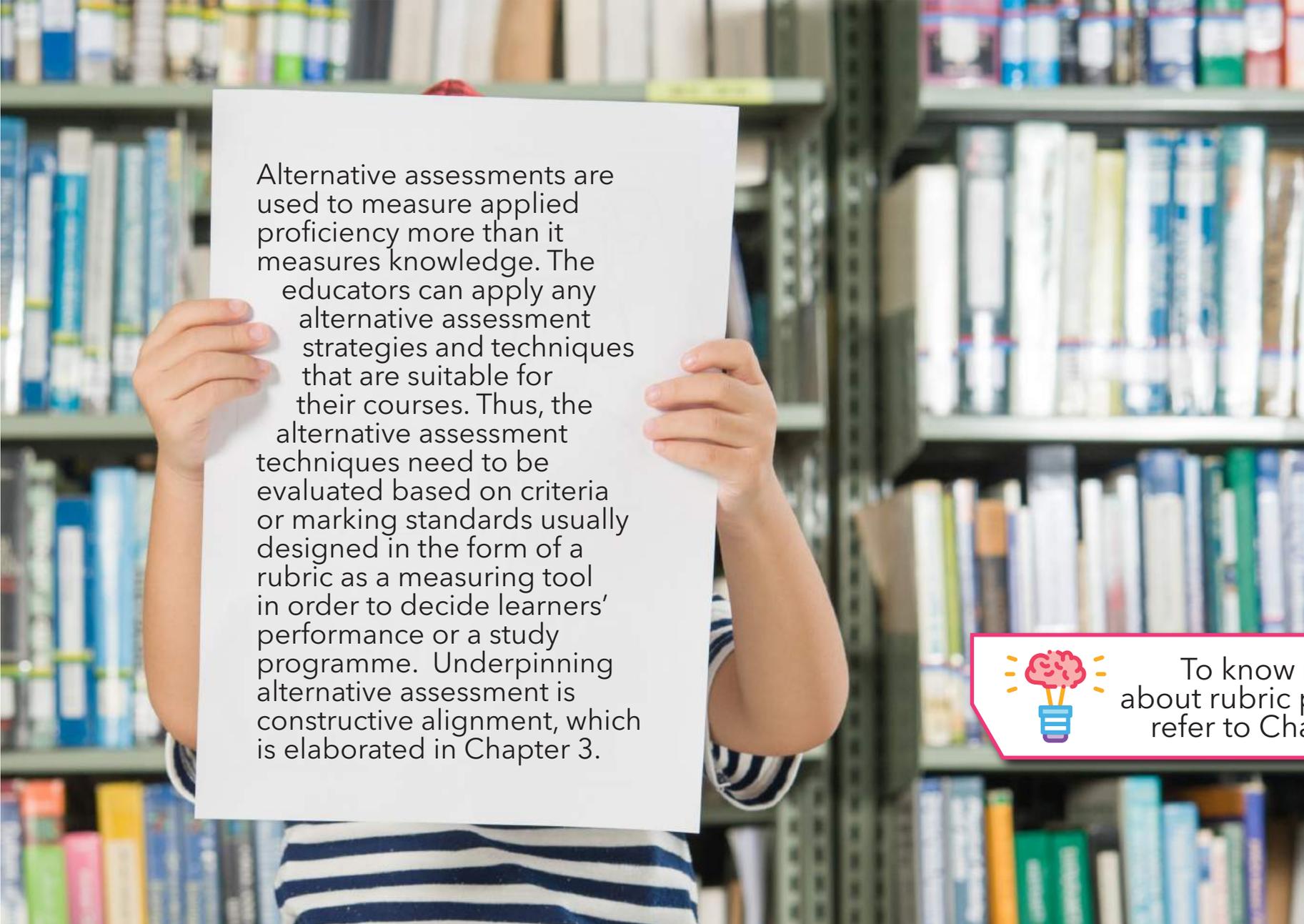
Alternative assessments are used to measure applied proficiency more than it measures knowledge. The educators can apply any alternative assessment strategies and techniques that are suitable for their courses. Thus, the alternative assessment techniques need to be evaluated based on criteria or marking standards usually designed in the form of a rubric as a measuring tool in order to decide learners' performance or a study programme. Underpinning alternative assessment is constructive alignment, which is elaborated in Chapter 3.

To know more about rubric please refer to Chapter 5

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CHAPTER 3
CONSTRUCTIVE ALIGNMENT

Introduction

Constructive alignment is a key principle in designing the curriculum delivery of an educational program. All educators should understand the importance of curriculum alignment to ensure the continuity of the curriculum offered at every level of education and how it supports previous learning. It is also important to align appropriate expectations and assessments to guide learners to achieve the intended learning outcomes. Through constructive alignment, the educators also need to clarify learning and assessment activities to ensure that the learner can construct their own learning meaningfully and directly address the intended learning outcomes. The constructive alignment was introduced by Professor John B. Biggs.

PROFESSOR JOHN B. BIGGS

CONSTRUCTIVE ALIGNMENT IS A DESIGN FOR TEACHING IN WHICH WHAT IT IS INTENDED STUDENTS SHOULD LEARN AND HOW THEY SHOULD EXPRESS THEIR LEARNING IS CLEARLY STATED BEFORE TEACHING TAKES PLACE. TEACHING IS THEN DESIGNED TO ENGAGE STUDENTS IN LEARNING ACTIVITIES THAT OPTIMIZE THEIR CHANCES OF ACHIEVING THOSE OUTCOMES, AND ASSESSMENT TASKS ARE DESIGNED TO ENABLE CLEAR JUDGMENTS AS TO HOW WELL THOSE OUTCOMES HAVE BEEN ATTAINED"

(BIGGS, 2014, PP.5-6).

In other words, **constructive alignmen**t is a principle used for devising teaching and learning activities and assessment tasks that directly address the intended learning outcomes (ILOs) in a way not typically achieved in traditional lectures, tutorial classes, and examinations.

IMPORTANCE OF CURRICULUM ALIGNMENT

01 To ensure the continuity of the curriculum offered at every level of education and how it supports previous learning.

02 To align appropriate expectations and assessments with guiding student achieve the intended learning outcomes.

03 To clarify learning and assessment activities to ensure that the learner can build their own learning meaningfully and directly address the intended learning outcomes.

FUNDAMENTALS OF CONSTRUCTIVE ALIGNMENT

STUDENTS CONSTRUCT THEIR OWN KNOWLEDGE THROUGH LEARNING ACTIVITIES RATHER THAN BEING DIRECTLY TRANSFERABLE FROM TEACHER TO STUDENT"

(BIGGS, 2014,P.9)

LEARNING TAKES PLACE THROUGH THE ACTIVE BEHAVIOR OF THE STUDENTS: IT IS WHAT HE DOES THAT HE LEARNS, NOT WHAT THE TEACHER DOES."

(TYLER, 1949)

There are several questions that need to be answered **to understand the curriculum**:

What is the curriculum content of a programme?

What is the vision and mission of the programme?

What is the programme's purpose?

What is the key performance indicator (KPI) that the programme should achieve?

In designing constructive alignment, an educator needs to understand the curriculum for a programme.

Therefore, in **understanding learning outcomes**,
there are several questions that educators need to answer:

01

What is the learning outcome of a programme to be achieved?

02

What is the learning outcome of the course to be achieved?

03

What are the taxonomy domain that learners need to master?

04

What is the previous continuous quality improvement (CQI) that needs to be highlighted following other standards or requirements?

05

What is the Key Performance Indicator (KPI) that the course should achieve?

A GOOD EDUCATOR WILL REVIEW ALL THE INFORMATION TO HELP THEM DESIGN APPROPRIATE TEACHING AND ASSESSMENT TO ACHIEVE THE INTENDED LEARNING OUTCOMES.

Before designing teaching and learning activities, an educator also **needs to identify appropriate assessment tasks** in line with the intended learning outcomes.

There are several questions that may help educators in selecting suitable assessment tasks:

01 What is the purpose of assessment?

02 What kind of information you want from the learners?

03 What is the objective/outcome?

04 What are the assessment limitations?

05 Does the assessment optimise result in deriving intended learning outcomes?

There are several types of alternative assessment that support learning:

01 Structured, On-Demand-Task

02 Naturally Occurring or Typical Performance Task

03 Longer-Term Project

04 Portfolios

05 Demonstrations

06 Experiments

07 Oral Presentations and Dramatisation

08 Simulation and Contrived Situation

Therefore, teaching and learning activities must be designed to be aligned with the intended learning outcomes and assessment as shown in the diagram. There are several types of approaches in designing the teaching and learning activities, such as:

1 Problem-based learning

2 Work-based learning

3 Collaborative learning

4 Cooperative learning

5 Field study

6 21st century learning

7 Case study

8 Modular

9 Inquiry-based learning

10 Experiential learning

11 Scenario-based learning

12 Game-based learning

13 Expeditionary Learning

14 Digital-based learning and many more

OUTCOME-BASED EDUCATION

IN MALAYSIA, LEARNING OUTCOMES PLAY A DYNAMIC ROLE IN STRUCTURING AND DEVELOPING A CURRICULUM. CURRICULUM DEVELOPMENT BASED ON BACKWARD DESIGN PROMOTES UNDERSTANDING BY DESIGN (UBD)
(WIGGINS & MCTIGHE, 2005).

UBD GUIDES THE PLANNING PROCESS AND STRUCTURE OF CURRICULUM, ASSESSMENT, AND INSTRUCTION. TWO KEY IDEAS OF UBD ARE (I) FOCUS ON TEACHING AND ASSESSING FOR UNDERSTANDING AND LEARNING TRANSFER, AND (II) DESIGN CURRICULUM "BACKWARD" FROM THOSE ENDS. THE MAIN CONCEPT IN PLANNING FOR AN OUTCOME-BASED CURRICULUM IS CONSTRUCTIVE ALIGNMENT
(TYLER, 1949; SHUELL, 1986; BIGGS, 2003).

CURRICULUM

LEARNING OUTCOMES

DELIVERY
(Teaching and Learning Activities)
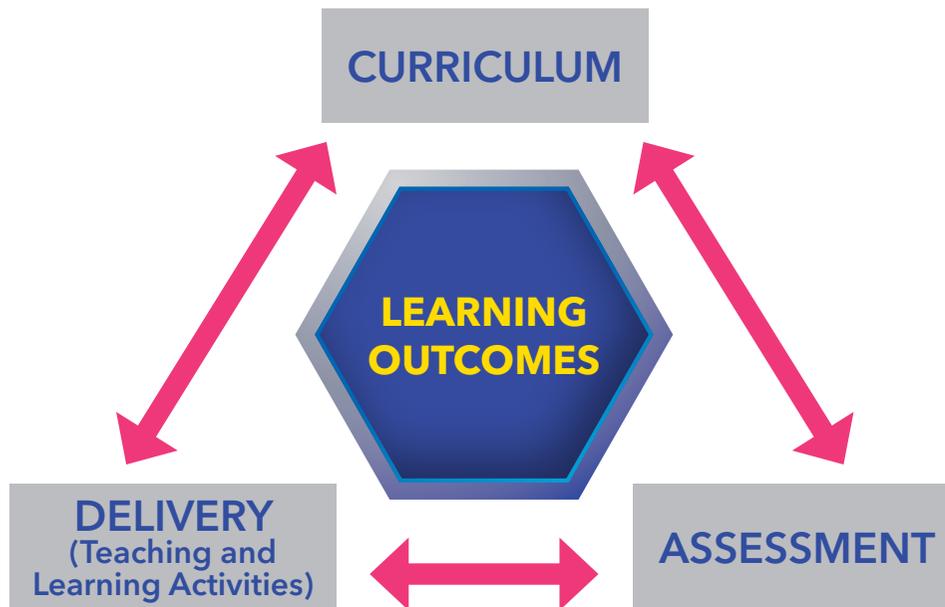
ASSESSMENT

Diagramme of Constructive Alignment

LEARNING OUTCOMES DOMAINS VS CLUSTERS OF MQF2.0

LEARNING OUTCOME DOMAINS, LOD

01 Knowledge and Understanding
02 Cognitive Skills
03 Practical Skills
04 Interpersonal Skills
05 Communication Skills
06 Digital Skills
07 Numeracy Skills
08 Leadership, Autonomy and Responsibility
09 Personal and Entrepreneurial Skills
10 Ethics and Professionalism

LEARNING OUTCOME CLUSTERS, LOC

01 Knowledge and Understanding
02 Cognitive Skills
03 Functional Skills
04 Personal and Entrepreneurial Skills
05 Ethics and Professionalism

EXAMPLE OF CONSTRUCTIVE ALIGNMENT MATRIX
(COURSE ASSESSMENT PLAN, CAP)

NO	TOPIC — Please tick "√" at the topics that related to your assessment method									TEACHING AND LEARNING ACTIVITIES	ASSESSMENT METHODS	STUDENTS LEARNING TIME (SLT)	EVIDENCE / INSTRUMENTS	COURSE LEARNING OUTCOMES (CLOs)			MQF LOC	C / A / P*
	1	2	3	4	5	6	7	8	9					CLO1 %	CLO2 %	CLO3 %		
1	√	√	√							Lecture, Discussion and Presentation	Assignment Test 1	32 Hours	• Assignment Task • Instruction & Scoring Rubric • Paper Test 1 • Test 1 Scheme	10%			Cluster 2	Creating
2				√	√	√				Lecture, Field Work, Discussion and Presentation	Field Work	28 Hours	• Field Work Task Instruction & Scoring Rubric • Paper Test 2 • Test 2 Scheme			20%	Cluster 4	Organising and Conseptualising
3							√	√	√	Lecture, Case Study and Presentation	Project	48 Hours	• Project Task • Instruction & Scoring Rubric	40%	20%		Cluster 2 & 4	Creating & Organising and Conseptualising
4	√	√	√	√	√	√	√	√	√		Final Exam	3 Hours	• Examination Paper • Examination Scheme	10%			Cluster 2	Creating
TOTAL	2	2	2	2	2	2	2	2	2					60%	20%	20%		
													TOTAL	100%				

* C = Cognitive,
P = Psychomotor,
A = Affective

EXAMPLE OF COURSE ASSESSMENT PLAN (CAP)
(COURSE:BUILDING CONSTRUCTION TECHNOLOGY)

COURSE LEARNING OUTCOME	MQF LOC	DELIVERY METHOD	METHODS OF ASSESSMENT	ASSESSMENT TASK	STUDENT LEARNING TIME
By the end of this course the students will be able to: **Propose** the suitable technology in building construction due to various condition and task by client (C6)	Cluster 1	Educators prepare video as a case-based study for students' discussion. The video shows the client's needs. In a small group, students will watch the video and understand the contexts and condition of the client's needs. They are to discuss and **propose** the suitable technology in building construction.	Project	In a real-world scenario, students are required to do a mini-research project. The students will **propose** the suitable methods, procedure, technique and systems using construction technology based on client's requirements and budget. Rubric – **How well students are able to propose** (based on the criteria)	48 hours

CONCLUSION

- Constructive alignment is one of the most influential principles in higher education as it aligns the predetermined knowledge and competencies, instructional strategies, and assessment types. It is a very important process to support positive academic outcomes for a diverse group of learners and achieve an effective learning process.

- Imagine "Your objective is for students to learn to apply analytical skills, but your assessment measures only factual recall. Consequently, students hone their analytical skills and are frustrated that the exam does not measure what they learned."

- Misaligned between assessment and learning objectives or instructional strategies can be detrimental to both student motivation and learning and sacrifices reliability and validity of the assessment.

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CHAPTER 4

ALTERNATIVE ASSESSMENT STRATEGIES

An interdisciplinary and integration of ongoing assessment among courses.

Provides an engaging and creative learning platform that connects learners with real-life situations.

Examples: Capstone projects, portfolio, checklist,   rating   scale, case study.

Analyses learners' values, interests, preferences, creativity, English proficiency, and basic computing skills.

The outcome - is the learners' holistic profile, including their academic motivations.

Examples: portfolio, blog, running record.

INTEGRATED

AA ELEMENTS

PROFILING

AUTHENTIC

PERSONALISED

Contextualised tasks, which requires learners to exhibit their competency in a more authentic environment.

Examples: portfolio, anecdotal notes, blog.

Measures the learners' readiness to be assessed - flexibly and adaptively.

On-demand assessment - the assessment materials are accessible by demand.

Measures based on learners' level.

Examples: checklist, rating scale, running record, anecdotal notes, rubric.

Measures learners' abilities to apply the knowledge and skills which they have learned.

Strengthening learners' critical thinking, problem-solving, self-evaluation, and higher-order thinking skills (HOTs).

Examples: debate, performance, fishbowl, portfolio, running record, blog.

Differs significantly from traditional assessments.

Using technology to support assessment – towards the digital natives.

Examples: blog, running record, apprenticeship model, flipgrid presentation, chat and, oral examination, e-portfolio, e-service learning project.

PERFORMANCE-BASED

CONTEMPORARY

AA
ELEMENTS

CHALLENGE-BASED

REAL-TIME

Emphasis on collaboration, cooperation and group competition.

To encourage competitiveness among learners.

Examples: Hackathon, role play, fishbowl.

To analyse learners' mastery of contents and skills during the learning process.

To adjust the teaching approaches, appropriate to the learners' level of understanding.

Examples: observation, thinking aloud, anecdotal notes, checklist, rating scale.

EXAMPLES OF STRATEGIES

ROLE-PLAY

FISHBOWL

PORTFOLIO

BLOG

CASE STUDY

RUNNING RECORD

ROLE-PLAY

W W W H

WHAT

Assessment activity in which learners act out an imaginary scenario that closely mirrors a situation.

WHEN

To spark brainstorming sessions, improve communication between learners, and see problems or situations from different perspectives.

WHY

To build up learner's experience and self-confidence with handling the situation in real life and develop quick and instinctively correct reactions to situations.

HOW

Takes place between two or more people, who act out roles to explore a scenario.

Identify the Situation - do ice-breaking, introduce the problem, and encourage an open discussion to uncover all the relevant issues.

Add Details - enough details for it to feel "real" situation.

Assign Roles - identify the various fictional characters involved in the scenario.

Act Out the Scenario - test and practice different approaches for handling the situations.

Discuss What Have Been Learned – after the role-play, educator and learners need to discuss what have been learned in the role play.

TIPS

- Give a tentative time frame for writing a running record.
- Getting organised ahead of time for recording.
- The educator needs to play an active role in order to record the observations on the spot.

FISHBOWL

W W W H

WHAT

Similar to debate. A few learners are selected to be in the "hot seat" where they respond to questions, concerns, ideas about the given topic. While other learners observe and listen carefully to the ideas presented.

WHEN

This strategy is especially useful when you want to make sure all learners participate in a discussion, when you want to help learners reflect on what a good discussion looks like, and when you need a structure for discussing controversial or difficult topics.

WHY

Advances learner knowledge and comprehension, as well as improving skills in active listening, critical inquiry, professional communication, presentation, and group discussion.

HOW

Select a Topic | Choose a suitable topic for a Fishbowl discussion.

Set Up the Room | Requires a circle of chairs ("the fishbowl") and enough room around the circle for the remaining learners to observe what is happening in the "fishbowl."

Prepare for the Discussion | Structure the conversations - learners have had a few minutes to prepare ideas and questions in advance.

Discuss Norms and Rules | Setting up rules for fishbowls in terms of switching roles between group learners (listener and speaker), time for each session, flow of session, activity (question and answer), and language used.

Debrief | Ask learners to reflect on the discussion and what they have learned from it. These reflections can be in writing or small or large-group discussion.

TIPS

- A Fishbowl for Opposing Positions - two distinct positions or arguments where both sides must share and listen to both presentations.
- A Fishbowl for Multiple Perspectives – the same topic with multiple viewpoints of different historical figures, characters in a novel, social categories or political/philosophical points of view.

PORTFOLIO

W W W W H
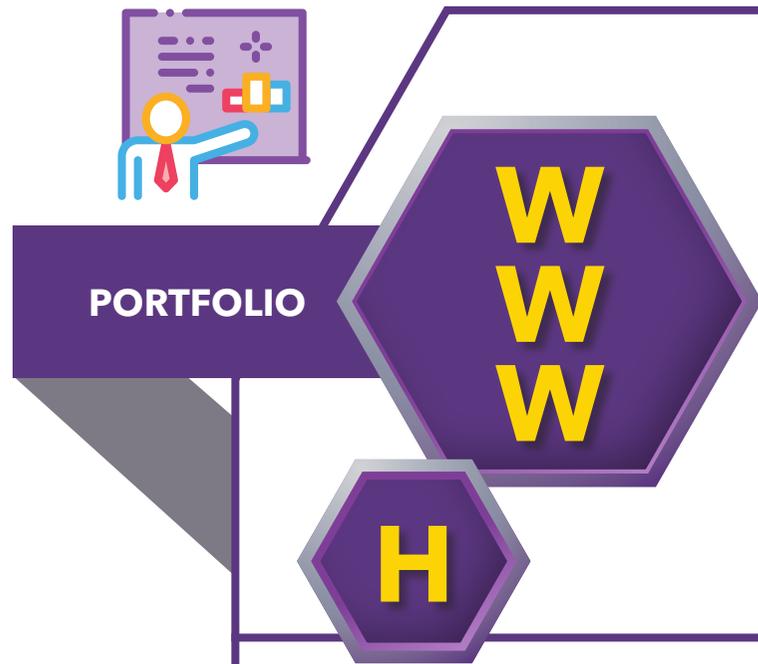
WHAT

A portfolio is a collection of learners' work samples, self-assessments, and goal statements that reflect their progress in hardcopy or digital form.

WHEN

Formative assessment over a period of time to show evidence of deep learning, behaviour of self-directed life-long learning provision upon the learning

WHY

Allow educators to assess learners' academic progress or work evolution and evidence of learning over the course.

HOW

- Provide clear guidelines and a portfolio format (pages, structure, types, and formats of evidence) that aligns with the course learning outcomes.
- Organise work samples according to chronology, subject area, style, or learning goal that provide evidence of learners' learning over time.
- Work samples include graphic organisers, journals, conversation, stories, presentations, tests, working theories, solutions and reflections.
- Portfolio can be in written, image, audio recording, video recording and website; e.g., chatroom, blogs, wiki.
- Share assessment rubric to guide learners in designing their portfolios.

TIPS

- Limit the task to a single course.
- Update portfolio regularly.
- Use technology for a digital portfolio.
- Include self-assessments that describe the student as both a learner and an individual.
- Include the assessment, evaluation, and communication of learning outcomes
- Document learning in a variety of ways from the process, product, growth and achievement.

Refer to Chapter 7 for more details of portfolio

BLOG

W W W H

WHAT

A blog is a website where learners publish short items on a continuous basis that reflect learners' progress.

WHEN

Blogs can be written as reflective posting, journal writing about course readings, a digital diary, and generate group discussion as formative assessment that reflect on the learning as it develops throughout a course.

WHY

To facilitate learners' formative learning towards key assessable learning outcomes, including academic literacy and digital literacy skills.

Learner can construct knowledge collaboratively, engage in self and peer reflection and, freedom to write reflectively about a topic.

HOW

- Ensure the technology, the content, and the task are aligned with the learning outcomes.

- Decide suitability of group or individual blogs based on the learning outcomes.

- Plan to formatively assess a blog early in the semester.

- Develop assessment criteria and rubrics for learners to use as self and peer reviewers.

- Show learners the style of language, standard of writing, content expectations of blog posts, reflective journal posts, comments, and provide exemplary blogs.

- Post the rubric and criteria on the group and individual blogs.

CASE STUDY

W W W H

WHAT

Case study depicts real-world organisational problems that need to be solved.

WHEN

- Case studies aim to develop learner reasoning, problem-solving, and decision-making skills.
- In preparing learners to move on to a professional practise *in-situ* learning situation.
- Usually used in business, law, medicine, and the other health disciplines.
- Can be used to assess individuals or teams.

WHY

Allows learners to learn by doing and apply what they have learned to a real organisational issue.

HOW

- **Assessment–Preparation**
  - Decide the output of the case study, either a verbal presentation or written submission.
  - Decide who will take part in the assessment— the tutor, an industry specialist, a panel, peer groups, or students themselves by self-evaluation?
  - Decide whether to give a class or group mark, to assess individual performance, or to have the product assessed by peers.

- **Assessment–Strategies**
  - Assess the process of analysis, for example in term of quality of research, the feasibility of solutions presented, organisation and evidence of arguments, etc.
  - Assess learner's interaction with other members of a group by asking open-ended questions and setting tasks that require teamwork and sharing resources.
  - Assess learner's demonstration of deeper understanding and cognitive skills such as identification of a problem, hypotheses generation, construction of an enquiry plan, interpretation of findings.
  - Use of various tools such as Survey Monkey for peers, group members' contribution, and presentation assessment.

RUNNING RECORD

W W W W H

WHAT

A running record requires the educator to act as a video camera, recording all significant learners' behaviours and interactions as they happen.

WHEN

Open-ended method means that educators can gather a lot of information in a relatively short period of time. Record as much raw data as possible. Usually used to capture what learners know and understand about the reading process (reading performance).

WHY

Analyse learner's behaviours, responses, competencies, initiatives taken towards learning outcomes.

HOW

- Set the proper setting and time for recording all significant behaviours and learning outcomes needed. Can conduct an interview (question and answer), retelling or storytelling or presentation.

- Discuss, analyse, and plan assessment strategies based on the running record.

- Record the learning conversations by using an audio or video recording devices or chatroom, blogs, wiki.

- When analysing a learners' reading performance, calculate the percentage of accuracy and self-correction rates (correcting errors in reading).
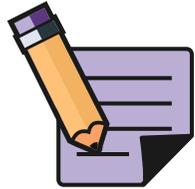
EXAMPLES OF TOOLS

ANECDOTAL NOTES

CHECKLIST

RATING SCALE

ANECDOTAL NOTES

W
W
W

H

WHAT

A brief, objective and focused notes to record specific or ongoing observations during the lessons of an individual learner to reflect the programme outcomes.

WHEN

Conducted during an authentic assessment, a learner's project, to observe development over a period of time, behaviours, skills, and attitudes.

WHY

Record qualitative information of learner development in terms of behaviours, skills, and attitudes in a learning process.

Educators can plan learning activities, experiences, interventions, and individual learner's instructional needs.

HOW

- Can be performed in an informal setup and simple notes to be taken (simple format).

- The process of anecdotal records in an assessment-instructional cycle is by observing, documenting anecdotal records, interpreting or understanding the observation, and improving teaching and learning of an individual student.

- Information to be recorded: Learner's name, date, time, setting, observer, curriculum area/domain, description (what you see during observation), objective comments, and follow-up questions.

- Tools that can be used: Clipboards, notepads, sticky notes, activity matrix, and mailing labels to record anecdotal notes (manually or using device).

- One can choose the skills to observe and colour coding notes according to the domain. For example, Physical (red), Cognitive (blue), Social (yellow), Emotional (green), Language and Literacy (black), and Creative Arts (white).

- There is a need to ensure one's ability to be positive, objective, and using descriptive language when writing anecdotal records.

- Use the past tense when writing anecdotal notes and be sure to have a beginning, a middle, and an end for each anecdote.

ANECDOTAL NOTES

TIPS

- One note for each learner.

- Keep notes brief and focused (a few sentences or phrases).

- Plan ahead what to observe.

- Record during or as soon after the observation has been made to ensure the accuracy of notes.

- Review notes/records regularly and summarize information related to trends in learners' learning.

- Can use ABC Record Antecedents (before), Behaviour and Consequences (after)

CHECKLIST

WWW

WHAT

A clear list arranged to determine the presence or absence of conceptual knowledge, behaviours or skills related to the learning outcomes or domains.

WHEN

Allow educators to record specific information quickly from organised activities related to learner's knowledge, behaviours, or skills in relation to specific programme outcomes.

WHY

During observation, conversations, and videos assessment.

To identify whether key tasks in a procedure, process, or activity have been completed and followed.

To record the performance of an individual, a group or, a whole class.

CHECKLIST　**H**

HOW

Checklist Development Cycle

Planning (preparation), documentation (observation record), interpretation (pattern and inconsistent data) and instruction (reflect interpretation data).

PRE

- Ensure learners understand what information will be gathered during observation and how it will be used.
- Determine skills and sequence of checklist associated with the learning outcome and criteria for success (knowledge, behaviour, skills, or sequence (easy to hard).
- Develop the format ("Yes" or "No", or simply have a box to be checked once the item has been completed). Include spaces for brief comments, which provide additional information not captured in the checklist.
- Organize the items and questions.
- Review the task descriptions for details and clarity (get feedback from other instructors).

DURING

- Educators look, listen, taste, smell, or feel during observation to gather as much significant observational data as possible.
- Use checklists to collect data and ensure checklists are dated to provide a record of observations over a period of time.

POST

- Interpret observational data and look for patterns and inconsistencies.
- Reflects towards the interpretation of data.
- Share observations with learners, both individually and in a group.
- Continue the cycle if needed.

HOW

- Design a short, clear, and simple checklist.

- Record learner information (e.g., name, date, course, examiner, and overall result.

- Have tasks chunked into logical sections or flow from start to finish.

- Highlight critical tasks/criteria for assessing a

- learner's achievement (criteria for success).

- The checklist should be reviewed by other instructors before being used.

- Avoid including any assumptions, interpretations, opinions, or "educated guesses" during observation.
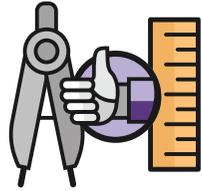
RATING SCALE

W W W H

WHAT

Allow educators to indicate the quality or frequency of the behaviours, skills and performance displayed by the learner.

WHEN

A rating scale is a tool used for assessing the performance of tasks, skill levels, procedures, processes, qualities, quantities, or end products, such as reports, drawings, and computer programmes.

Rating scales are similar to checklists except that they indicate the degree of accomplishment rather than just yes or no.

WHY

Educators can use rating scales to record observations, and learners can use them as self-assessment tools.

HOW

- Be short enough to be practical and include information such as learner's name, date, course, examiner, and overall results.

- Have specific and clearly distinguishable terms (e.g., excellent vs. very good) and scales in ascending or descending orders (e.g., percentage, scale 0-5).

- Have statements that are chunked into logical sections or flow sequentially (e.g., introduction, main body, conclusion).

- Consider the weightage for each row and be proportionally rated.

- Highlight critical tasks or skills based on expected outcomes.

- Consider the value for passing or failing marks on the scale.

- Be reviewed by other educators before being used.

RATING SCALE

TIPS

- Effective rating scales use descriptors with clearly understood measures, such as frequency.

- Rating scales list the performance descriptors and the range of accomplishment using either horizontal or vertical rating scales.

- The use of descriptive words, such as always, usually, sometimes, and never helps them pinpoint specific strengths and needs of learners.

- In a rating scale, the descriptive word is more important than the related number. The more precise and descriptive the words for each scale point, the more reliable the tool.

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CHAPTER 5

RUBRIC DEVELOPMENT

What is a rubric?

A tool comprising a set of criteria (with possible levels of performance quality on the criteria) developed to assess learners' work, from written to oral to visual. It is used to measure performance, such as the process of doing something (e.g., playing a musical instrument, making a speech) or products of the learners' work (e.g., concept map, laboratory report, bookshelf) (Brookhart, 2013).

TIPS
See examples of student performance and products in Chapters 8, 9, 10

BENEFITS OF USING RUBRICS

1

Support authentic assessment
Reflects how well learners are able to apply knowledge in the real-world context.

2

Communicate expectations
Gives learners an idea of what is expected of them. It is especially useful when the rubrics are communicated to the learners before they are assessed.

3

Improve performance
Explicit criteria and performance level descriptions allow learners to understand the desired performance. Learners are able to assess themselves by referring to the specific criteria and performance-level descriptions.

4

Provide informative feedback
Instructors are able to provide constructive feedback to learners on their weaknesses and strengths.

5

Promote thinking and learning
Learners are able to review and revise their work, thus reflecting on their learning experiences.

6

Ensure fairness
Learner performance assessed fairly given its objectivity. It helps avoid disputes between learners and instructors about the scores/grades achieved.

ANALYTIC

It consists of individual criterion with corresponding descriptors of performance.

TYPES OF RUBRICS

HOLISTIC

It consists of performance descriptors that are placed together to reflect the overall performance.

ANATOMY OF
AN ANALYTIC RUBRIC

Rating scales with corresponding scores or weights

CRITERIA	LOW (0 - 15%)	MODERATE (16 - 20%)	HIGH (21 - 30%)
CRITERIA 1			
CRITERIA 2			
CRITERIA 3			

Desired performance descriptors are written here

Criteria of desired performance

The row represents the criteria for the desired performance, while the column represents the evaluation score. Under the rating scale (corresponding weights or scores can be assigned), the performance descriptors are explicitly stated.

ANATOMY OF
A HOLISTIC RUBRIC

Descriptions

SCORES	DESCRIPTIONS
LOW (0 - 15%)	
MODERATE (16 - 20%)	
HIGH (21 - 30%)	

Combined desired performance descriptions are written here

Rating scales with corresponding scores or weights

It comprises the rating scale (corresponding weights or scores can be assigned) in the row while the combined desired performance descriptors are placed in the column.

STEPS IN DEVELOPING RUBRICS

01 Define purpose of learning taks

02 Choose rubric type

03 Define criteria

04 Design rating scale

05 Write performance descriptors

DEFINE PURPOSE OF LEARNING TAKS

01

STEP 1: DEFINE THE PURPOSE OF YOUR LEARNING TASK

Guiding questions

Will I use the rubric to assign learners' grades?

Will I use the rubric to provide informative feedback to learners?

What are the learning outcomes of the task?

How will learners demonstrate that they have achieved the learning outcomes?

(O'Reilly & Cyr, 2006)

CREATE A RUBRIC BASED ON AN ASSIGNMENT

Description of the task
The purpose of the assignment is to assess learner's cognitive and analytic skills in applying knowledge gained and constructed throughout the course Diffusion of Innovation, by watching the Surrogates movie and writing an analytical review of the movie in the context of innovation diffusion. I want to provide learners with informative feedback on their cognitive and analytic skills such as the following: applying the concepts of innovation diffusion, making judgments on the scenes related to innovation diffusion identified from the movie, selecting and critiquing theories of innovation diffusion and making connections between the theories, as well as arguing and proposing necessary solutions to the problems shown in the movie.

TIPS
Example of a Course Assignment: Diffusion of Innovation | Course expectations must be conveyed clearly to learners

← Course expectations

CHOOSE RUBRIC TYPE

02

STEP 2: CHOOSE A RUBRIC TYPE

Guiding questions

Analytic rubric
Do I want to provide detailed feedback for the learning task?
Do I want to provide informative feedback for each component of the learning task?
Do I want to provide formative feedback about learners' performance on individual elements of a learning task?

Holistic rubric
Do I want to assess the learning task as a whole?
Do I want to make a general judgement?
Do I want to assess learners' overall performance for the learning task?
Do I want to provide summative feedback about overall learners performance on a learning task?

ANALYTIC RUBRIC

CRITERIA	LOW (0 - 15%)	MODERATE (16 - 20%)	HIGH (21 - 30%)
CRITERIA 1	Criteria 1 descriptor	Criteria 1 descriptor	Criteria 1 descriptor
CRITERIA 2	Criteria 2 descriptor	Criteria 2 descriptor	Criteria 2 descriptor
CRITERIA 3	Criteria 3 descriptor	Criteria 3 descriptor	Criteria 3 descriptor

HOLISTIC RUBRIC

SCORES	DESCRIPTIONS
LOW (0 - 15%)	Descriptor for criteria 1, 2 & 3
MODERATE (16 - 20%)	Descriptor for criteria 1, 2 & 3
HIGH (21 - 30%)	Descriptor for criteria 1, 2 & 3

(O'Reilly & Cyr, 2006)

DEFINE CRITERIA

03

STEP 3: DEFINE THE CRITERIA

Guiding questions

What do I want learners to learn from the learning task?

In what ways will learners demonstrate what they have achieved in terms of the knowledge, psychomotor or affective domains?

What are the attributes of the final product?

ANALYTIC RUBRIC

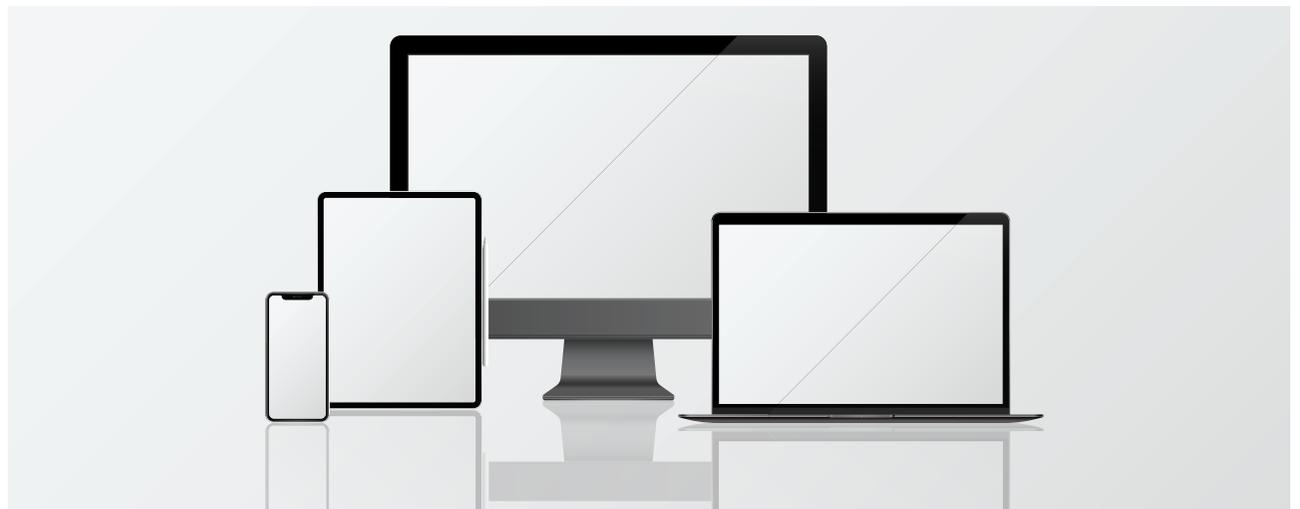**An example of the criteria based on the course expectations of Diffusion of Theory course:**

Communication of Theory Knowledge (TK)

Communication of Content Knowledge (CK)

Communication of Ideas and Argument

Connections between CK and TK

Writing and formatting

DESIGN RATING SCALE

04

STEP 4: DESIGN THE RATING SCALE

This is where you decide on the level of mastery with the corresponding scores (Roell, 2019). The scores are arranged either in an ascending or descending order.

STANDARDS / CRITERIA	ADEQUATE 1	DEVELOPING 2	COMPETENT 3	EXCELLENT 4
Commucation of Content Knowledge (CK)				
Commucation of Theory Knowledge (TK)				
Commucation of Ideas and Argument				
Connections between CK and TK				
Writing and Formatting				

WRITE PERFORMANCE DESCRIPTORS

05

STEP 5: WRITE PERFORMANCE DESCRIPTORS FOR SCALE LEVELS

Characteristics of good descriptors:

1. Observable, measurable and specific

2. Parallel language to describe performance
   • Wordings for each scale is consistent

3. Performance descriptors vary in degree
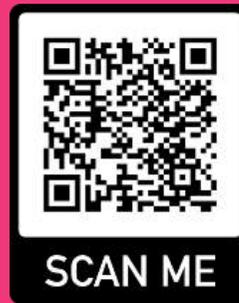   • Variation in degree is described in amount, degree and intensity

(O'Reilly & Cyr, 2006)

EXAMPLE OF A COMPLETE ANALYTIC RUBRIC

TIPS
For more analytic rubric examples, refer to Chapter 10

SCAN ME

EXAMPLE OF A COMPLETE HOLISTIC RUBRIC

SCAN ME

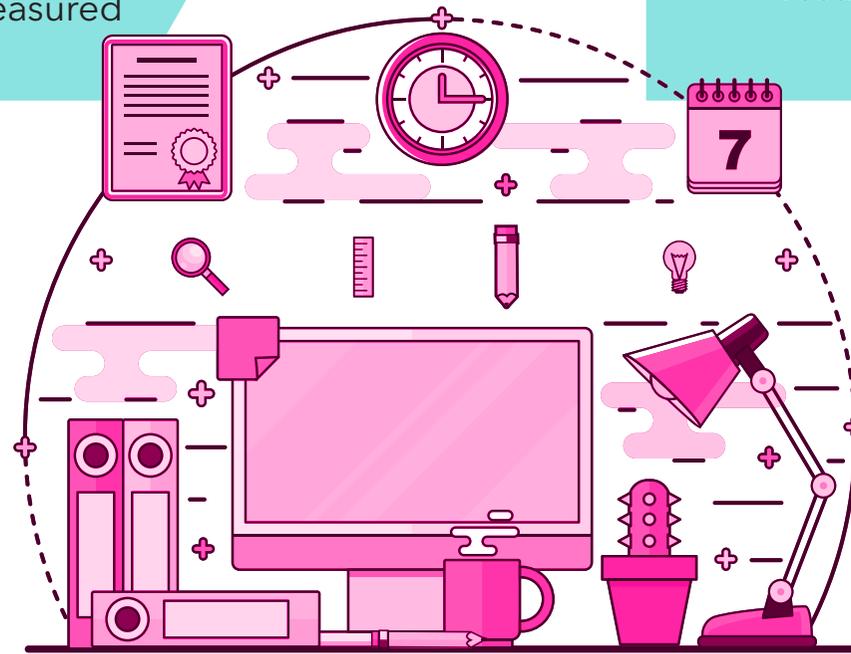# HOW TO MARK SELF, PEER AND GROUP WORK?

SCAN ME

Acknowledgement: Curtin Teaching and Learning, Curtin University

ESTABLISHING VALIDITY AND RELIABILITY OF RUBRICS

VALIDITY
measuring what is supposed
to be measured

RELIABILITY
yielding consistent results

7

TIPS
To understand more about the concepts of validity and reliability, refer to Chapter 6

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Roell, K. (2019). How to create a rubric: Introduction. Retrieved from https://www.thoughtco.com/how-to-create-a-rubric-4061367

CHAPTER 6

VALIDITY AND RELIABILITY IN ALTERNATIVE ASSESSMENT INSTRUMENTS

Introduction

Instruments that are used in the alternative assessment must **be aligned to the learning outcomes** and measure well what it intends to measure **(valid)** and produce consistent scores **(reliable)**.

The valid instrument will manifest the true ability (latent trait) of learners and permit appropriate **inferences** to be made about **a specific group of people for specific purposes**.

01
LATENT TRAIT

02
INSTRUMENT

03
MANIFESTATION

TYPES OF VALIDITY

01
FACE VALIDITY

Simple form of validity that applies a superficial and subjective assessment whether the instrument measures what it is supposed to measure.

02
CONTENT VALIDITY

Refers to the extent to which the items on a measure assess the same content or how well the content material was sampled in the measure.

03
CONSTRUCT VALIDITY

Refers to the extent to which the test may be said to measure a theoretical construct or trait.
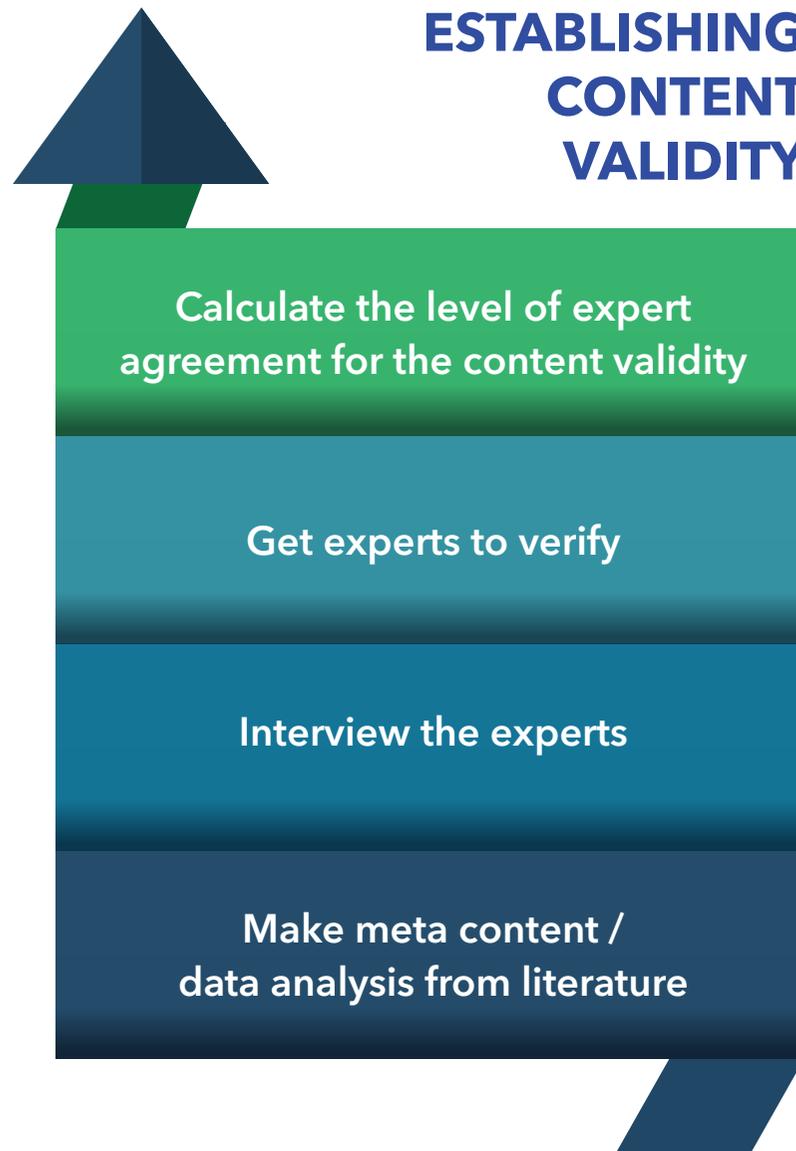
04
CONCURRENT VALIDITY

Refers to the extent to which scores on a new measure are related to scores from a criterion measure administered at the same time.
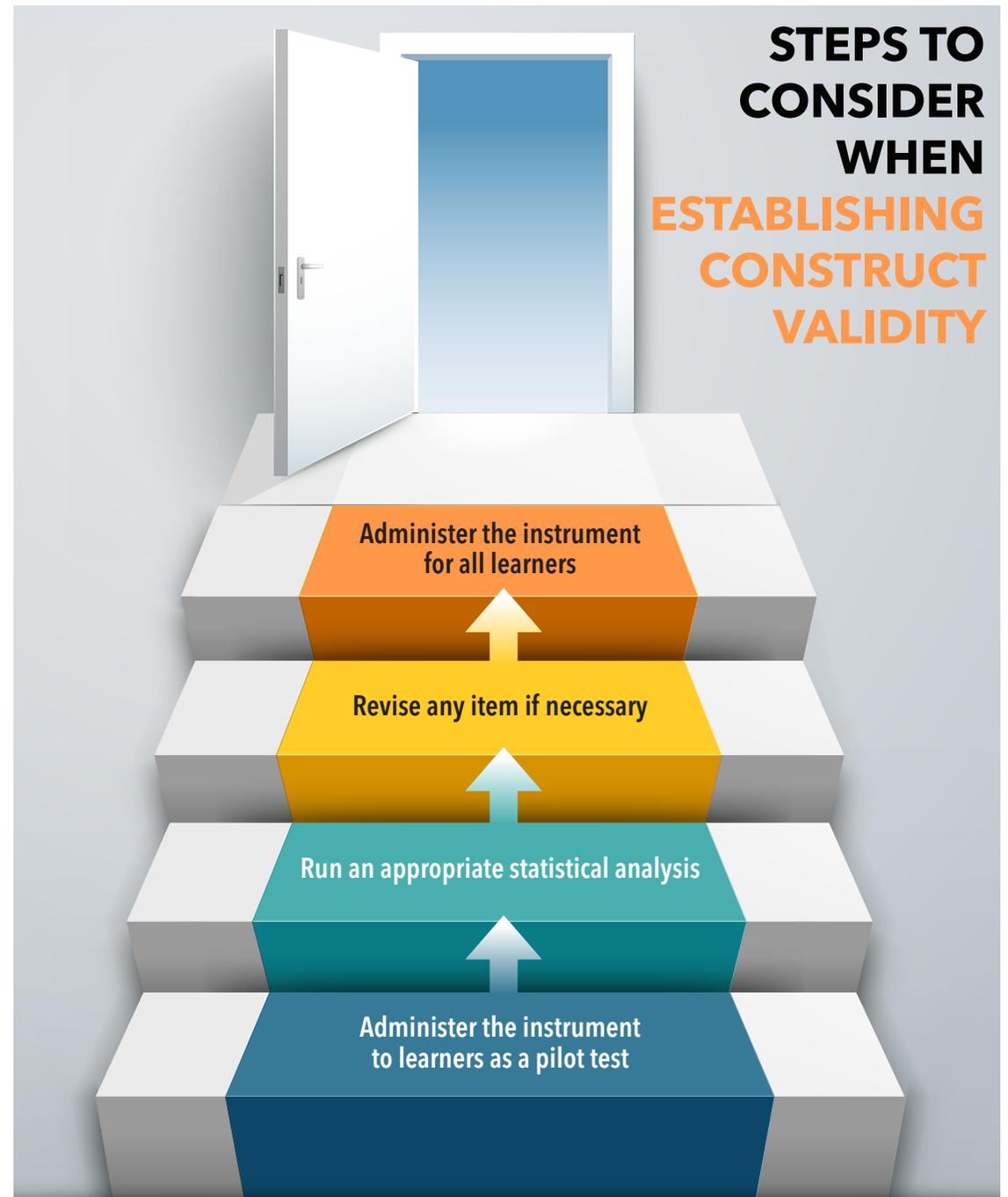
05
PREDICTIVE VALIDITY

Refers to the uses of the scores from the new measure to predict performance on a criterion measure administered at a later time.

STEPS TO CONSIDER WHEN ESTABLISHING CONTENT VALIDITY

Calculate the level of expert agreement for the content validity

Get experts to verify

Interview the experts

Make meta content / data analysis from literature

STEPS TO CONSIDER WHEN ESTABLISHING CONSTRUCT VALIDITY

Administer the instrument for all learners

Revise any item if necessary

Run an appropriate statistical analysis

Administer the instrument to learners as a pilot test

CONSTRUCT MAP

More precise concept than construct.

Ranges from one extreme to another (from high to low, small to large, positive to negative, or strong to weak).

Identifies the position of the respondents in this range.

Representativeness of sampling (questions and ability of respondents).
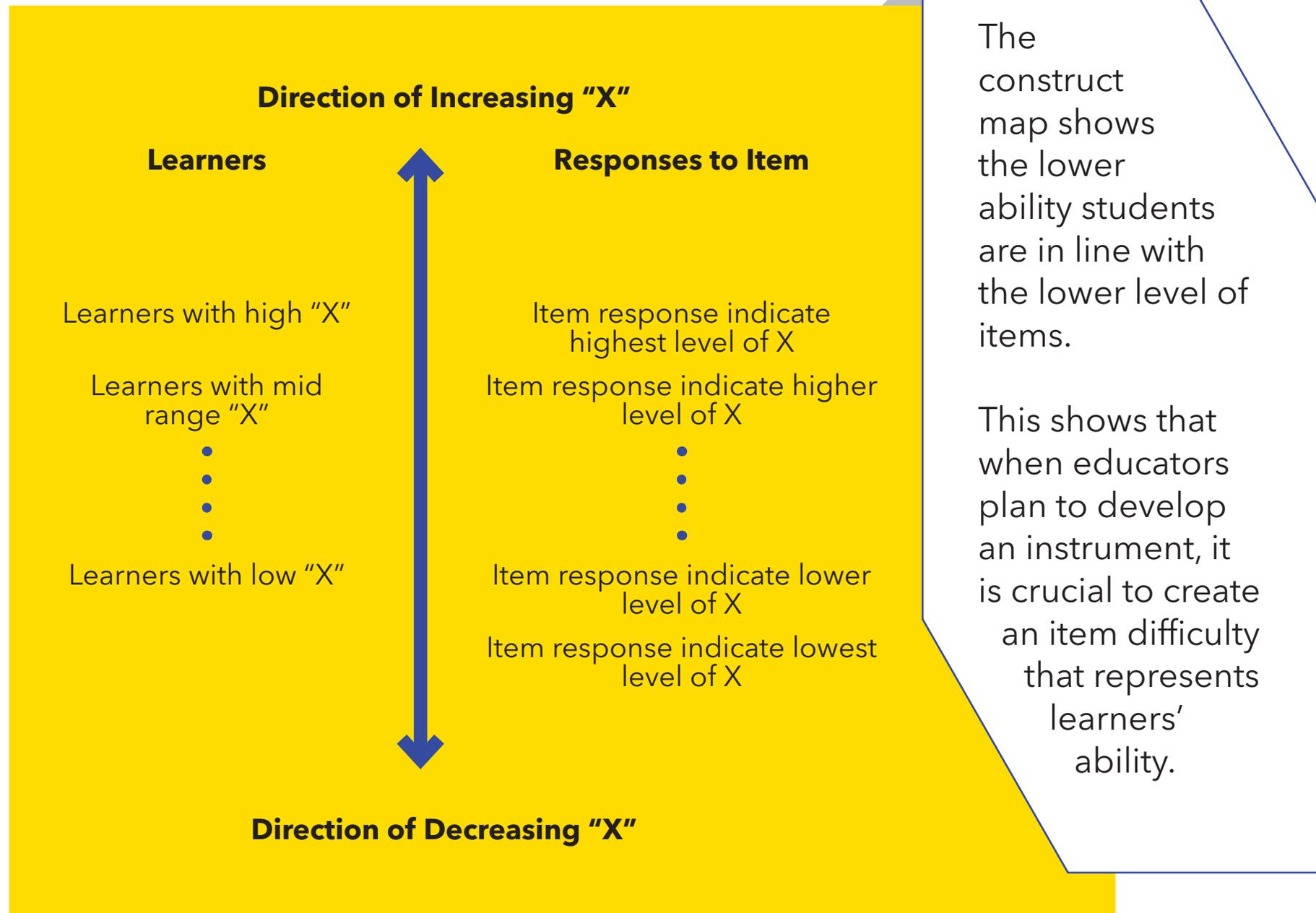
EXAMPLE OF A CONSTRUCT MAP : AFFECTIVE

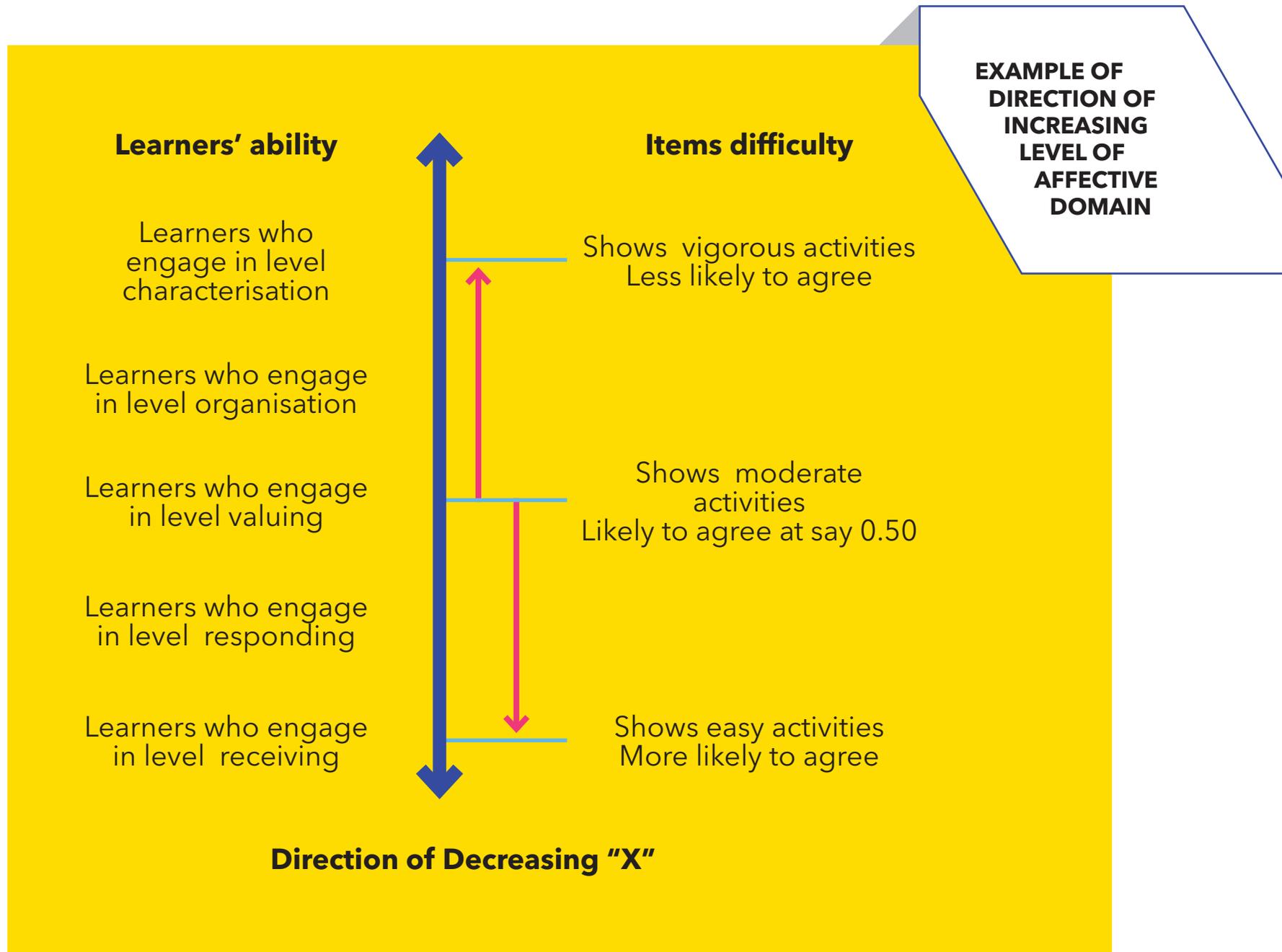| LEVEL OF AFFECTIVE VARIABLES	EXAMPLES OF ITEMS IN MEASURING TEAM WORKING SKILLS
5. Characterisation	Learners volunteers to do the group works.
4. Organisation	Learners are willing to help others, although it is not their scope of task.
3. Valuing	Learners respect other team members' opinion when doing the discussion.
2. Responding	Learner gives cooperation when needed in group works.
1. Receiving	Learner accepts the diversity of races and nationalities among group members.

EXAMPLE OF A CONSTRUCT MAP : COGNITIVE

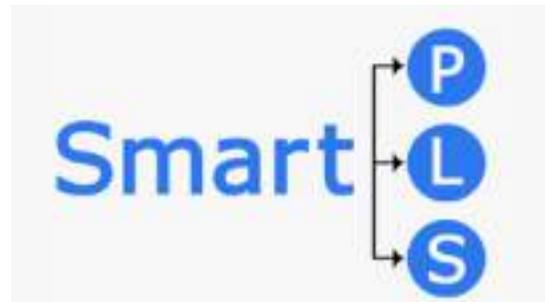| LEVEL OF COGNITIVE VARIABLES	EXAMPLES OF ITEMS IN MEASURING THINKING SKILLS
6. Creating	Learners are able to suggest a new model or framework of learning digital community.
5. Evaluating	Learners are able to judge the impact of the scenario towards education perspective.
4. Analysing	Learners can differentiate the facts using a few theories.
3. Applying	Learners can solve problems using the facts given.
2. Understanding	Learners are able to explain the facts using their own words.
1. Remembering	Learners only memorise the facts given.

EXAMPLE OF A CONSTRUCT MAP : PSYCHOMOTOR

LEVEL OF PSYCHOMOTOR VARIABLES	EXAMPLES OF ITEMS IN MEASURING DIGITAL SKILLS
7. Origination	Learners can modify their own devices to perform better.
6. Adaptation	Learners can solve and troubleshoot the problem while using the computer.
5. Complex Overt Response	Learners can use the computer competently.
4. Mechanism	Learners can use the computer independently, but still make minor errors.
3. Guided Responses	Learners can use the computer, but still need guidance.
2. Set	Learners are ready to use the computer.
1. Perception	Learners can observe how to use computer.

Direction of Increasing "X"

Learners   **Responses to Item**

Learners with high "X"   Item response indicate
                                highest level of X

Learners with mid   Item response indicate higher
range "X"   level of X

Learners with low "X"   Item response indicate lower
                                level of X

                                Item response indicate lowest
                                level of X

Direction of Decreasing "X"

The construct map shows the lower ability students are in line with the lower level of items.

This shows that when educators plan to develop an instrument, it is crucial to create an item difficulty that represents learners' ability.

EXAMPLE OF DIRECTION OF INCREASING LEVEL OF AFFECTIVE DOMAIN

Learners' ability

Items difficulty

Learners who engage in level characterisation

Shows vigorous activities
Less likely to agree

Learners who engage in level organisation

Learners who engage in level valuing

Shows moderate activities
Likely to agree at say 0.50

Learners who engage in level responding

Learners who engage in level receiving

Shows easy activities
More likely to agree

Direction of Decreasing "X"

MEASURING **CONSTRUCT VALIDITY**

Unlike content validity, this construct validity can be analysed using statistical analysis.

Use Exploratory Factor Analysis [EFA], Confirmatory Factor Analysis [CFA] or Unidimensionality to confirm all items are measuring the right construct and the raw variance explained for the latent variables is sufficient.

Gap in item map also can show accuracy in construct validity.

RELIABILITY

The degree to which test scores are **consistent** over repeated administrations of the **same/equivalent** test and therefore considered dependable and repeatable for an individual learner. A test that produces highly consistent and stable results (i.e. relative free from random error) is said to be highly reliable.

TYPES OF RELIABILITY

01

Test-retest

demonstrates the stability of a measure over time

02

Internal consistency

most of the items within a rating scale of a concept show consistency of scoring

03

Inter-rater

the extent to which two or more independent raters are consistent in observing, recording and scoring data (should be 70% or higher agreement)

04

Intra-rater

relies on one rater to rate an object or event twice (70% or higher of agreement)

FACTORS AFFECTING VALIDITY AND HOW TO INCREASE VALIDITY?

FACTORS AFFECTING VALIDITY	HOW TO INCREASE VALIDITY?
1. Inaccuracy of items in measuring the outcomes	1. Vetting session to get reviews from the expert.
2. Poor items development	2. Follow the format and tips in developing good items.
3. Unclear instructions	3. Do pilot testing to measure the usability of the test.
4. Intervening events	4. Control the internal threats validity factors.
5. Items difficulty is not suitable for the learners	5. Create a construct map to ensure there is an item that represents learners ability.

FACTORS AFFECTING RELIABILITY AND HOW TO INCREASE RELIABILITY?

FACTORS AFFECTING RELIABILITY	HOW TO INCREASE RELIABILITY?
1. Test Length	1. The test length should be appropriate with test difficulty.
2. Test-retest interval	2. Suggested duration is between 3 weeks to 2 months.
3. Variability of scores	3. Do construct map to ensure the items are suitable with learners' ability.
4. Guessing	4. Penalise the guessing answers. You also can detect either the learners are guessing or not using the statistical analysis named guessing analysis and person fit analysis.
5. Inconsistency score from different raters	5. Appoint the rater to mark certain questions for all learners (This always happen when you have more than one section and have more than one lecturer).

CONCLUSION

Reliable not valid Precise not Accurate

Not Reliable but valid Not Precise but Accurate

Not Reliable but Not valid Not Precise but Not Accurate

Reliable and valid Precise and Accurate

Coming back to the issue of validity and reliability in assessment, there is a need for educators to put an effort to ensure that the items in the form of questions or instructions are not only clear but also able to measure what it is intended to measure based on the related learning outcomes.

Establishing validity and reliability of instruments can provide educators with some indications of the quality of the measuring tools being used. Valid and reliable instruments enable the educators to continuously use the measuring tools without reservation.

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CHAPTER 7

PORTFOLIO AS EVIDENCE-BASED OF LEARNING

Introduction

In higher education institutions, learners are creating portfolios for the purpose of supporting their learning needs for assessment. Instead of the conventional portfolio, most of the higher education institutions using e-Portfolio as a medium of learning and assessment.

Technology allows for access to information, constant **social interaction, and easily created and shared digital content**. In this setting, educators can leverage technology to create an **engaging and personalised** environments to meet the emerging educational needs of this generation. The opportunities afforded by technology should be used to re-imagine 21st century education, focusing on **preparing learners to be learners for life**.

Future Skills and Talents

Today, because of rapid economic and social change, **schools have to prepare learners** for :

a.   The steepest decline in skill demand is no longer in the area of manual skills but in routine cognitive skills. Success is increasingly about ways of thinking, ways of working, and about the sociocultural tools that enable us to interact with the world.

b.   Education systems, which can foster entrepreneurship as well as offer vocational training; employers, who can invest in learning; labor unions, which help that investments in training are reflected in better-quality jobs and higher salaries; and individuals, who can take better advantage of learning opportunities.

Andreas Schleicher
OECD Education Directorate 2020
https://www.peoplematters.in/article/skilling/oecds-andreas-schleicher-on-skills-and-jobs-26931

Portfolio as Teaching, Learning & Assessment

Source of Learning

Your prior learning experience should be connected to the course learning outcomes, and your portfolio should demonstrate that you have met those learning outcomes.

Demonstration of Learning

Your portfolio must include documentation i.e., artefacts) that supports the knowledge and skills you have acquired.

Evidence of Learning

Your portfolio should tie your prior learning experience to educational theory.

Reflection of Learning

Portfolio must include documentation of reflection i.e., that you have thought deeply about what you can demonstrate in your learning and what actions generate personal growth.

Performance of Learning

You need to demonstrate that you have mastered and applied the knowledge and skills reflected in the course learning outcomes.

E-Portfolio as Evidence based for Future Ready Graduates

An Portfolio (electronic portfolio) is a digital collection of work that documents and **showcases knowledge, skills, and abilities, and their growth over time**. An e-Portfolio may include such things as:

Knowledge	Skills	Abilities	Experience	Growth
Writing samples (research papers, essays, fiction, reflections, journals)	Photos/slideshows/videos /audio or other types of media files	Links to blogs, web pages, or other online content	These artefacts are usually accompanied by reflection on how or why these items are included in the e-Portfolio	Research project
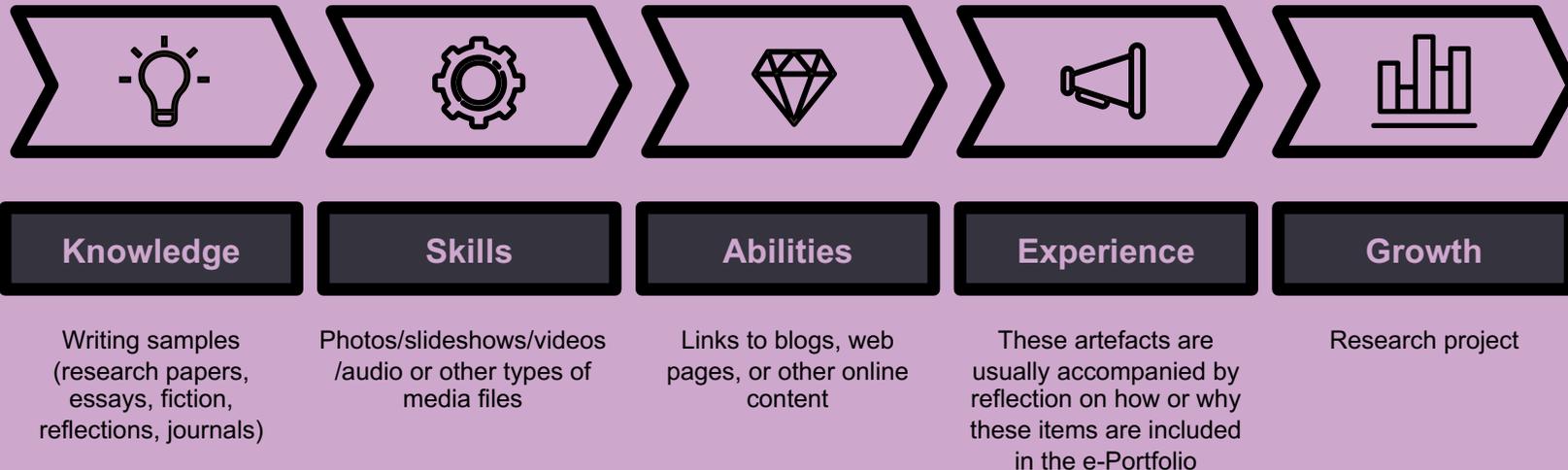
E-Portfolio Platform Considerations

E-Portfolio platform should provide additional or supportive information/data of our graduates to industries:

**"Hire me" concept (Learner Initiated)
vs
"I have a job, do apply" (Industry initiated)**

Industry-driven (preparing for the industry)

Complementary evidence to academic qualifications

Empowered by learners, supported by Higher Education Institutions (HEIs)

One stop Portal of e-Portfolios

Quantitative (Grade) vs Qualitative Information (e-Portfolio)

Visibility of Malaysian graduates

to **see the person**, not just the grades.

Three Categories of E-Portfolio

Storage
LEVEL 1

At this stage, the facilitator asks the learners to create, update, edit and share the artefacts or artworks in a set of folder on the platform prepared by the facilitator. This basic activity is designated to store the evidence in a digital form for easy access.

Workspace
LEVEL 2

The learners keep learning using e-Portfolio as a workspace to reflect their learning as represented in the artefacts or artworks stored in the digital archive.

Showcase
LEVEL 3

The purpose of the e-Portfolio is not only for learning but also to showcase learners' collection of their work and reflection. These capture learners' life long learning processes.

Portfolio Pedagogical Framework

as an **evidence** of

Documentation

The emphasis on assessment technologies is spurring the development of new online and desktop systems for collecting, analysing, and reporting information about learners' achievement. Electronic portfolios have become one of the choices for assessment.

Achievement

Course Portfolio – knowledge, skills, and abilities achieved from an academic course where the portfolio is developed.

Integrated Portfolio - knowledge, skills, and abilities achieved over the whole duration of the study, including academic and non-academic experience.

Portfolio Pedagogical Framework
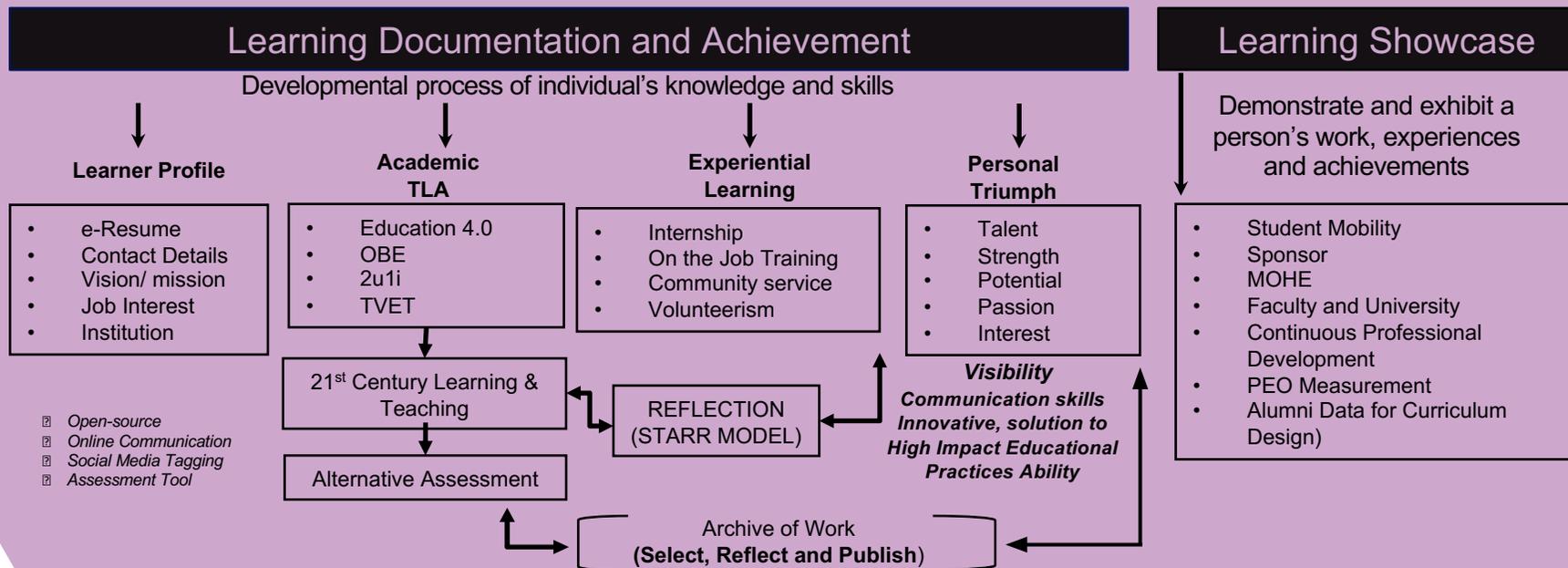
Learning Documentation and Achievement				Learning Showcase

Developmental process of individual's knowledge and skills

Demonstrate and exhibit a person's work, experiences and achievements

Learner Profile

- e-Resume
- Contact Details
- Vision/ mission
- Job Interest
- Institution

□ Open-source
□ Online Communication
□ Social Media Tagging
□ Assessment Tool

Academic TLA

- Education 4.0
- OBE
- 2u1i
- TVET

21st Century Learning & Teaching

Alternative Assessment

Experiential Learning

- Internship
- On the Job Training
- Community service
- Volunteerism

REFLECTION (STARR MODEL)

Personal Triumph

- Talent
- Strength
- Potential
- Passion
- Interest

Visibility Communication skills Innovative, solution to High Impact Educational Practices Ability

Archive of Work **(Select, Reflect and Publish**)

- Student Mobility
- Sponsor
- MOHE
- Faculty and University
- Continuous Professional Development
- PEO Measurement
- Alumni Data for Curriculum Design)

Portfolio Pedagogical Framework

as an **evidence** of

Documentation

The emphasis on assessment technologies is spurring the development of new online and desktop systems for collecting, analysing, and reporting information about learners' achievement. Electronic portfolios have become one of the choices for assessment.

Achievement

Course Portfolio – knowledge, skills, and abilities achieved from an academic course where the portfolio is developed.

Integrated Portfolio - knowledge, skills, and abilities achieved over the whole duration of the study, including academic and non-academic experience.

E-PORTFOLIO ATTRIBUTES MQF2.0
BASED ON THE MAPPING OF MQF2.0 AND 10 SKILLS OF 2020 AND 2022

The aspiration of having e-Portfolios is to provide additional and supportive information or data of our graduates to industries such as; 1) complementary information to GPA/CGPA, 2) quantitative and qualitative data i.e., measuring programme aims, programme educational outcome and, programme learning outcome), 3) visibility and marketability, 4) hire-me concept, 5) empowered student back by HEI.

MQF	Learning Outcome Domain
1	Knowledge
2	Cognitive Skills
3	Practical Skills
4	Interpersonal Skills
5	Communication Skills
6	Digital Skills
7	Numeracy Skills
8	Leadership, Autonomy and Responsibility
9	Personal Skills
10	Entrepreneurial Skills
11	Ethics and Professionalism

Future Skillset 2020	MQF 2.0 Learning Outcome Domain										
	1	2	3	4	5	6	7	8	9	10	11
Complex problem solving	x	x									
Creativity		x									
Critical thinking		x									
People's management				x							
Coordinating with others					x						
Emotional intelligence (EQ)				x					x		
Judgement and decision making		x			x						x
Service orientation					x					x	
Negotiation					x						
Cognitive flexibility	x	x									

Future Skillset 2022	MQF 2.0 Learning Outcome Domain										
	1	2	3	4	5	6	7	8	9	10	11
Analytical thinking and innovation	x	x									
Active learning and learning strategies	x	x	x	x	x	x	x	x	x	x	x
Creative, originality and initiative		x							x		
Technology design and programming		x	x		x						
Critical thinking and analysis		x					x				
Complex problem solving		x					x		x		
Leadership and social influence				x	x			x	x		
Emotional intelligence				x	x				x		
Reasoning, problem solving and ideation					x						
System analysis dan evaluation	x	x				x	x				

E-Portfolio as Measurement Mechanisms and Approaches in Assessing Learner's Performance and Growth of Knowledge, Skills and Abilities

Higher Order Thinking (HOTS)

Active Learning and Self-Directed Learning

Measurement of Soft skills and Values

Emerging Learning Design, Assessment and Technologies
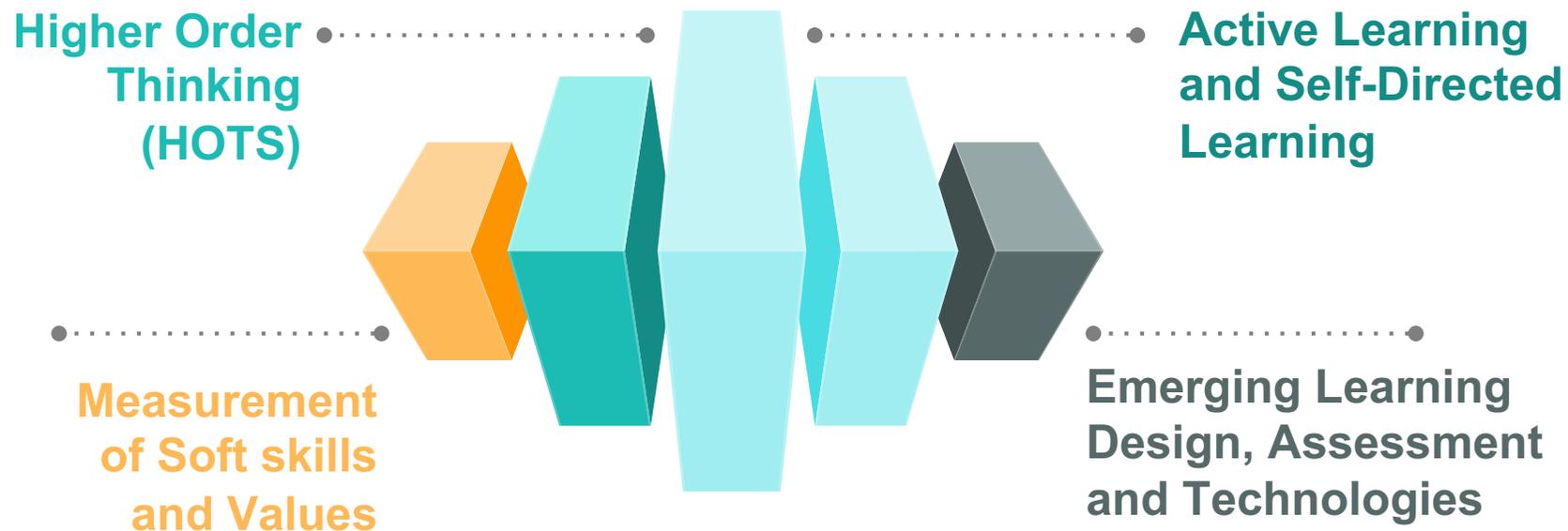
Reflective Model and Strategies

Designing Portfolio with STARR Model

2 **Tasks**

Identify the task(s) that you need to accomplish.

4 **Result**

What is the outcome of your actions? What do you want to achieve? What do you want to learn?

1 **Situation**

Describe the general context of the activity.

Describe the specific situation that you are in.

3 **Action/Activity**

Explain what you do. How do you do it? Why do you do it?

5 **Reflection**

What is your result? Discuss.
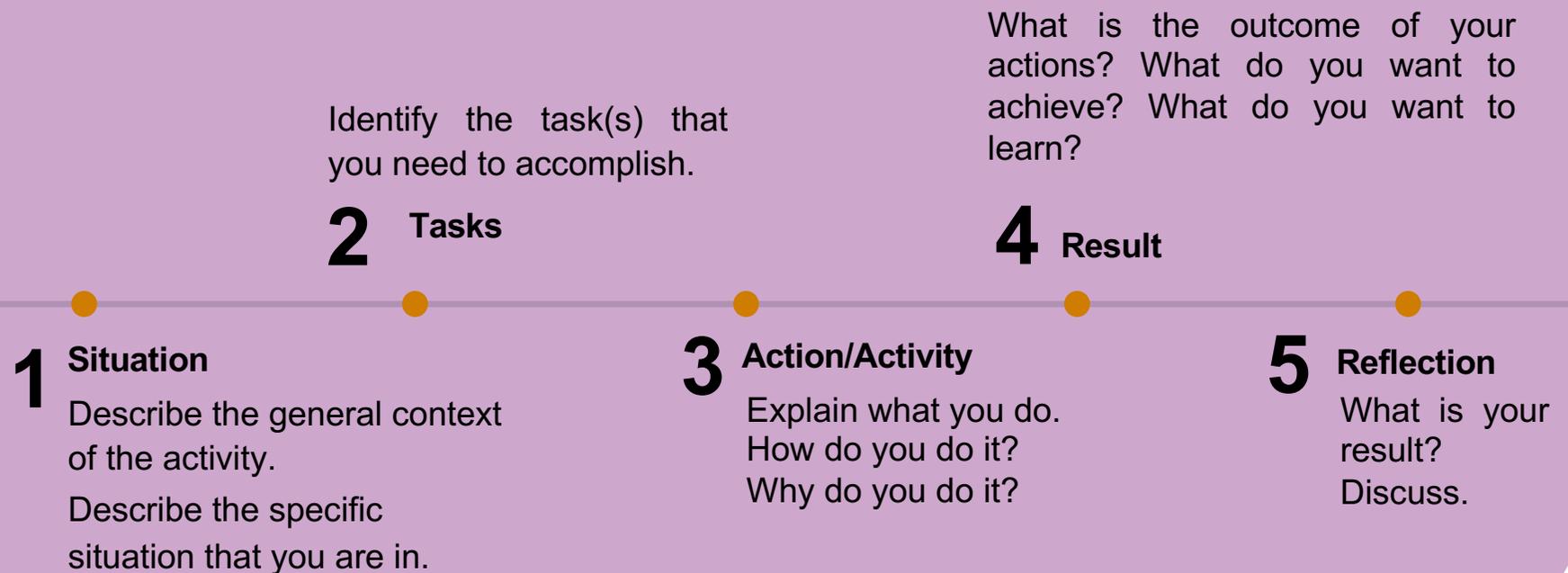
How to implement e-Portfolio with STARRR Model STARRR (Situation, Tasks, Action/Activity, Result, Rubric, Reflection)

Sample of Rubric (Assessing Digital Skills through Portfolio)

Digital Skills	Category	Exemplary (5)	Proficient (4)	Partially Proficient (3)	Incomplete (2)
Information Retrieval and and Management	Curation (2)	Able to retrieve information from maximum resources.	Able to retrieve information from many resources	Able to retrieve information form sufficient resources	Able to retrieve information form minimal resources.
	Articulation (2)	High ability to articulate references in writing	Sufficient articulate references in writing	Able to articulate references in writing	Low articulation references in writing
	Relevance (2)	Excellent appropriateness and relevance of reference	Good appropriateness and relevance of reference	Sufficient appropriateness and relevance of reference	Limited appropriateness and relevance of reference
	Self-Learning (1)	Excellent ability to self learn	Good ability to self learn	Sufficient ability to self learn	Limited ability to self learn
	Effort (1)	Excellent effort to complete task	Good effort to complete task	Sufficient effort to complete task	Minimal effort to complete task

E-PORTFOLIO ASSESSMENT BENEFITS

CULTURE

Establishment of a classroom culture that encourages interaction and the use of assessment tools.

ACTIVE LEARNING

Use of varied approaches to assessing student understanding. Active involvement of learners in the learning process.

FEEDBACK

Feedback on learner performance and adaptation of instruction to meet identified needs.

TRACKING & PROGRESS

Establishment of learning goals, and tracking of individual learner progress toward those goals.

7 Interrelated Benefits of Alternative Assessment

- Promote active debate on the nature of teaching, learning and assessment
- Strengthen professionalism
- Strengthen learner-centered approaches
- Diversify and deepen approaches to programme evaluation for accountability
- Balance structure and flexibility
- Devote the necessary resources – people, time, and money
- Strengthen the knowledge-based

Collections of Learners of Portfolio

https://mrsnazlan.wixsite.com/snazlanportfolio/student-portfolios

Collections of Learners of Portfolio
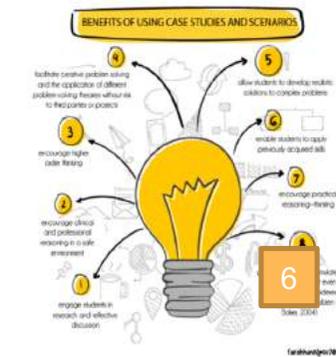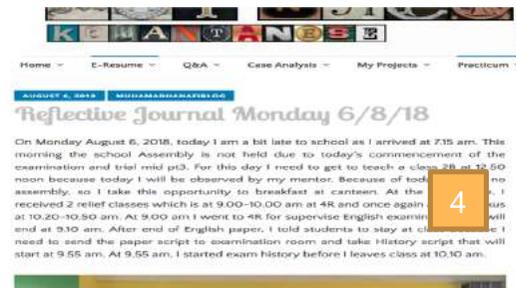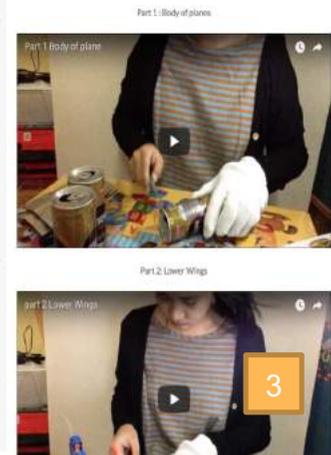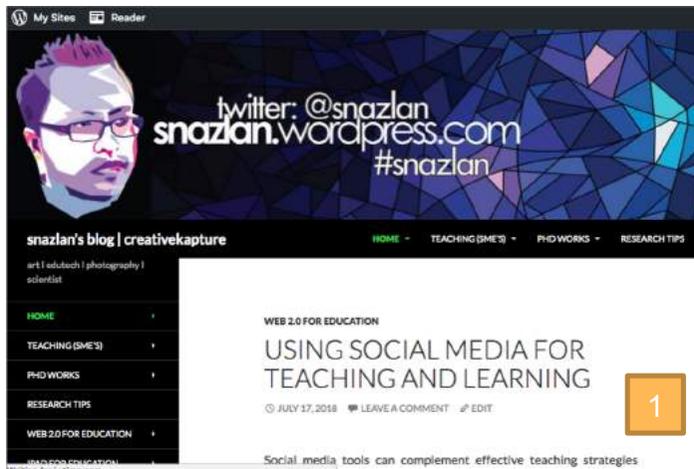
The Potential of Portfolio in Learning and Assessment

**Change of Learners'
Behavioural Intention**

**Optimizing
Individual Potential
and Strength**

**Inculcate Self-
Directed Learning**

**Assessing Higher
Order Thinking
Skills**

**Authentic Assessment
Enhances Learning**

**Employability and
Lifelong Learning**

**Process of
Constructing
Meaningful Learning**

Strategies and Way Forward on Portfolio

Employability

i. Talent profiling
ii. Visibility and virtual presence

Value-Added

i. One-stop centre for data analytics

(1) **(2)** **(3)** **(4)** **(5)**

Measurement of Effectiveness

i. Stakeholders view (Industry & MOHE)
ii. PLO Attainment upon graduation
iii. Future ready graduates

Sustainability – Institutionalisation & Enculturation

i. Funding should be made available
ii. Innovation
iii. System, resources, talents and governance

Business Opportunity

i. Platform for talent repository

*"If learning act as an exploration, then technologies equip
the explorer for the journey of lifetime." (Syamsul, 2018)*

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CHAPTER 8

VERBAL & NON VERBAL ASSESSMENT

A performance-based assessment, in general, assesses students' ability to apply the skills and knowledge gained from a unit or units of study. Typically, the task requires students to use higher-order thinking skills to create a product or complete a process.

ACTION SPEAKS LOUDER THAN WORDS

OVERVIEW OF PERFORMANCE-BASED ASSESSMENT

01
Paper-pencil tests are not enough to determine if learners know how to do something

02
Learning objectives and outcomes may call for performance

03
Keeps the learners engaged –demonstrates the relevance of what they learn

04
Can be comprehensive (assess knowledge, skills, and attitude)

ADVANTAGES

HOLISTIC
1 Can assess complex learning outcomes

NATURAL
2 Provides a natural, direct, and complete evaluation of some types of skills

MEANINGFUL
3 Meaningful learning / performance makes the learner more motivated

REAL-LIFE
4 Encourages the application of learning to real-life situations

DESCRIPTION OF PERFORMANCE BASED ASSESSMENT

DISADVANTAGES

SUBJECTIVE
1 Vulnerable to effects of rating biases (personal, generosity)

TIME
2 Requires a lot of time and effort to implement

SCORING
3 Difficult to distinguish person over group performance when assessing

LIMITED
4 When required extended responses

- Performance-based assessment is a form of assessment that moves away from the traditional paper-and-pencil assessment.
- It is based on clearly defined tasks that the learners need to perform in a context that mimics the workplace (authentic).
- It will identify whether the learners would be able to support their findings with their knowledge.

FEATURES OF PERFORMANCE ASSESSMENT

ACTIVITIES FOR WHICH THERE IS NO CORRECT ANSWER

ASSESSING GROUPS RATHER THAN INDIVIDUALS

Intended to assess what it is that learners know and can do with the emphasis on doing and have a high degree of realism about them

TESTING THAT WOULD CONTINUE OVER AN EXTENDED PERIOD

SELF-EVALUATION OF PERFORMANCES AND AIMED AT ASSESSING HIGHER LEVEL COGNITIVE SKILLS

ESSENTIAL COMPONENTS OF A PERFORMANCE-BASED ASSESSMENT

OPEN-ENDED
Having no set limits as to duration, direction, amount, number, etc.; broad, unlimited, or unrestricted

01

COMPLEX
A complex of things is a group or system of things that relate to each other in a complicated way.

02

PROCESS PRODUCT-ORIENTED
A series of actions which are carried out in order to achieve a particular result.

03

TIME-BOUND
Continuous passage of existence in which events pass from a state of potentiality in the future, through the present, to a state of finality in the past.

04

AUTHENTIC
A set of methods for assessings the academic achievement of a learner that includes activities requiring the application of acquired knowledge and skills to real-world situations and that is often seen as an alternative to standardised testing.

05

TYPES OF PERFORMANCE-BASED ASSESSMENT

1   **ROLE PLAY**

Is the act of imitating the character and behavior of someone who is different from yourself, for example as a training exercise.

2   **DEBATE**

To turn over in one's mind: to think about (something, such as different options) in order to decide.

3   **MUSICAL -THEATRE**

A play or film usually having a light story that consists of dialogue interspersed with singing and dancing.

4   **PANTOMIME**

Is the form of entertainment that involves producing a pantomime. Pantomime is acting something out without speaking.

5   **POETRY AND RHYME**

Writing that formulates a concentrated imaginative awareness of experience in chosen language and arranged to create a specific emotional response through meaning, sound, and rhythm.

6   **DANCE AND CREATIVE MOVEMENT**

Is a joyful way to explore movement through music, develop physical skills, channel energy, stimulate imagination and promote creativity.

HOW TO CREATE PERFORMANCE-BASED ASSESSMENT?

1 IDENTIFY GOALS

2 SELECT THE APPROPRIATE COURSE STANDARDS

3 REVIEW ASSESSMENTS AND IDENTIFY LEARNING GAPS

4 DESIGN THE SCENARIO

5 GATHER OR CREATE MATERIALS

6 DEVELOP A LEARNING PLAN
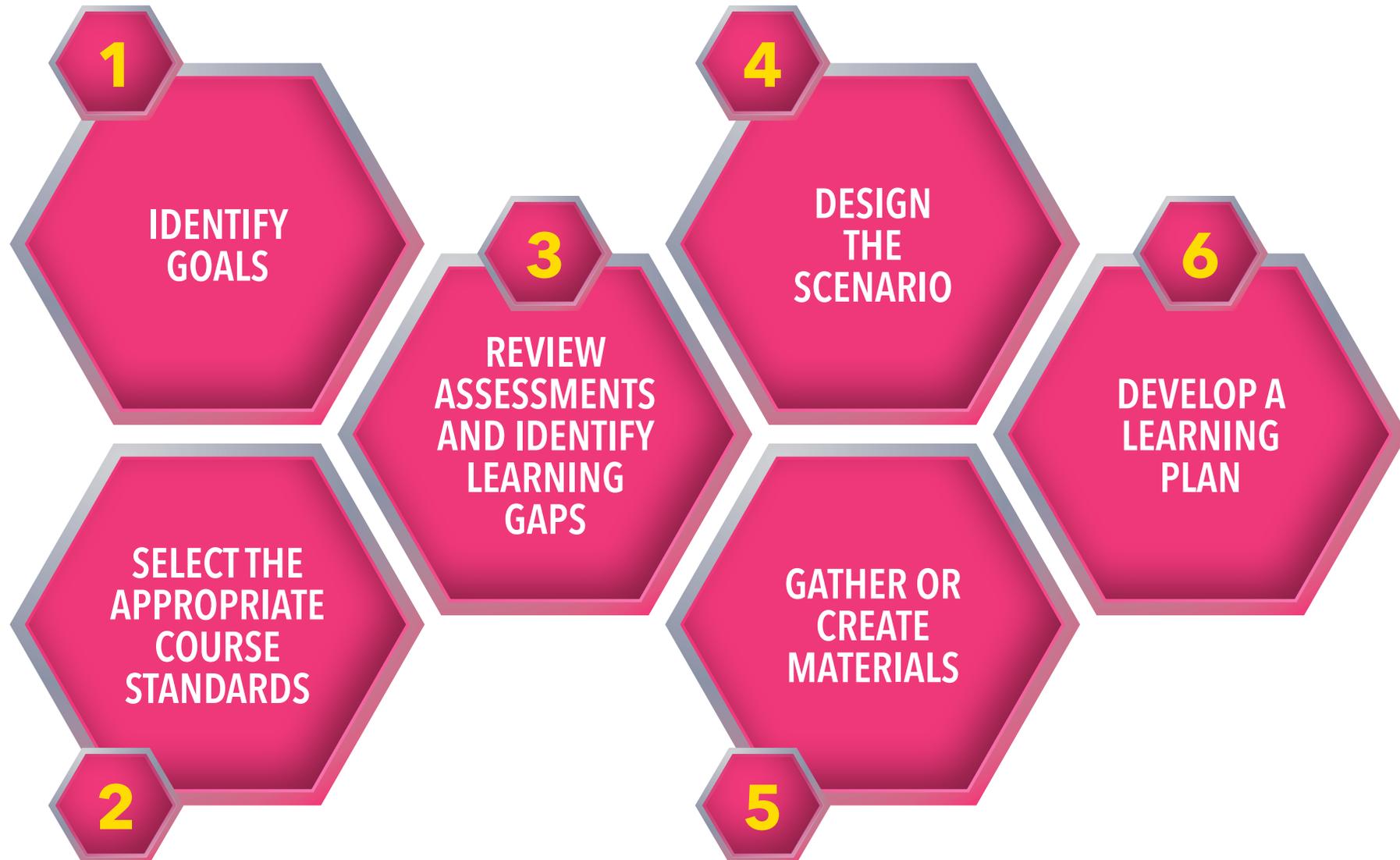
HOW TO CREATE PERFORMANCE-BASED ASSESSMENT?

IDENTIFY GOALS OF THE PERFORMANCE-BASED ASSESSMENT

The educators must encourage the learners to use critical thinking and problem-solving skills as well as to exhibit less co-dependence and more individuality while completing the assessment. Learners are independent to complete each step of the assessment.

1

SELECT THE APPROPRIATE COURSE STANDARDS

Once the goals were identified, select the common core standards to be addressed with this performance assessment. The assessment should measure learners' understanding of conditional probability and rules of probability.

2

REVIEW ASSESSMENTS AND IDENTIFY LEARNING GAPS

Look at the current worksheets that learners are completing for the unit. Next, look at what is missing and note that it is very little relevance to real-world application. As a result, create a performance-based assessment that is also reality-based.

3

HOW TO CREATE PERFORMANCE-BASED ASSESSMENT

DESIGN THE SCENARIO. FIVE KEY COMPONENTS:

1- Setting
2- Role
3- Audience
4- Time frame
5- Product

4
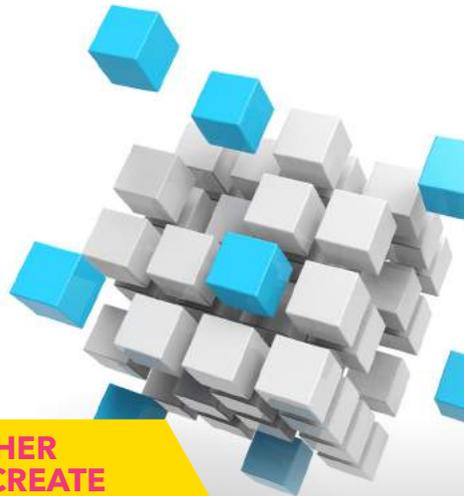
GATHER OR CREATE MATERIALS

Depending on the scenario. This step may or may not be needed.

5

DEVELOP A LEARNING PLAN

Not to "teach to the test" in preparing learners for the performance-based assessment. Strike a balance between teaching the content and preparing learners for the task. However, we also acknowledged that this part of our plan would need to be constantly reviewed and revised depending on a learner's learning outcomes.

6

PERFORMANCE-BASED ASSESSMENT RUBRIC

THE FOLLOWING ARE EXAMPLES OF RUBRIC USED AS GUIDANCE. REMEMBER ANY KIND OF RUBRIC USED MUST BE ALIGNED TO THE LEARNING OUTCOMES TO ENABLE EDUCATORS TO TRULY MEASURE THE INTENDED LEARNING OUTCOMES

ROLE PLAY

PREPARATION	EXCELLENT (5PTS)	GOOD (4 PTS)	NEEDS-IMPROVEMENT(3 PTS)	POOR(2 PTS)
	Students were on task for all of the planning time and developed a well thought out skit.	Students were on task for most of the planning time and developed a well thought out skit.	Students were off task for most of the planning time and didn't develop a well thought out skit.	Students were off task for all of the planning time and there was no thought developed.
PERFORMANCE (INDIVIDUAL)	Excellent	Good	Needs-Improvement	Poor
	Students performed using emotion, movement, facial expression, dialogue and empathy in character. Always stayed in role.	Students performed using emotion, movement, dialogue, and empathy in character. Stayed in role most of the time.	Students performed using emotion, dialogue, and movement in character. Stayed in the role some of the time.	Students performed using dialogue and movement in character. Did not stay in role.
PRESENTATION	Excellent	Good	Needs-Improvement	Poor
	Students made a strong connection to the subject during the presentation or of the material and did so in a believable manner.	Students made a connection to the subject during the presentation or of the material and did so in a believable manner.	Students made a weak connection to the subject during the presentation and strayed from the topic several times.	Students made no connection to the subject during the presentation and were off-topic throughout.
COLLABORATION	Excellent	Good	Needs-Improvement	Poor
	All students in the group worked well together.	Most students in the group worked well together.	Some of the students in the group worked well together.	None of the students in the group worked well together.

Source: https://www.rcampus.com/indexrubric.cfm

PANTOMIME

	NEEDS IMPROVEMENT	DEVELOPING	PROFICIENT
BEGINNING	Began in a wishy-washy manner, did not establish the scene's beginning confidentially.	Scene began in the middle of action, but with some sense of confidence.	The beginning was confident and executed well. The focus was strong, and energy was present.
	2 3 4	5 6 7	8 9 10
STORY	Needs Improvement	Developing	Proficient
	The pantomime had no beginning, middle, or end. It was flat and did not take the audience through a story of the character.	Pantomime had at least a beginning, middle, and/or end but the journey of the character was not entirely obvious to the audience.	Pantomime had a full storyline of the character: beginning, middle, and end. The performance was clear in the journey of the performer.
	2 3 4	5 6 7	8 9 10
MECHANICS	Needs Improvement	Developing	Proficient
	The pantomime did not have any form to it. It was completely unclear as to what the pantomime was about and therefore unbelievable.	The majority of the pantomime was executed well. Most of the actions were clear and the action was understood by the audience.	The pantomime was executed very well. All the actions were believable and therefore, the overall action was clear to the audience.
	2 3 4	5 6 7	8 9 10
EMOTION	Needs Improvement	Developing	Proficient
	Lack of emotional connection. Flat expressions;did not change or express feelings.	Moderate emotions depicted, some change of feeling during the scene.	Excellent use of emotion and facial expression. Conveyed a sense of character and an array of feelings.
	2 3 4	5 6 7	8 9 10
FACIAL EXPRESSIONS	Needs Improvement	Developing	Proficient
	Facial expressions were SOMETIMES BIG, the actor SOMETIMES USED EYES to show thoughts and emotions.	Facial expressions were USUALLY BIG, with an ATTEMPTED USE OF EYES and eyebrows to show thoughts and emotions.	Facial expressions were ALWAYS BIG, with an OBVIOUS USE OF EYES and eyebrows to show thoughts and emotions.
	2 3 4	5 6 7	8 9 10
GESTURES / BODY LANGUAGE	Needs Improvement	Developing	Proficient
	Gestures were SOMETIMES BIG, the actor SOMETIMES USED FULL BODY LANGUAGE to show thoughts and emotions.	Gestures were USUALLY BIG, with an ATTEMPTED USE OF FULL BODY LANGUAGE to show thoughts and emotions.	Gestures were ALWAYS BIG, with an OBVIOUS USE OF FULL BODY LANGUAGE to show thoughts and emotions.
	2 3 4	5 6 7	8 9 10
TOTAL	**Needs Improvement**	**Developing**	**Proficient**

Source: https://www.rcampus.com/indexrubric.cfm

POETRY & RHYME

	Poor	Fair	Good	Very good	Excellent
BEGINNING	1 pts	2pts	3pts	4pts	5pts
	Student performs one line correctly.	Student performs two lines correctly.	Student performs three lines correctly.	Student performs all four lines correctly.	Student performs four lines correctly with excellent diction.
	Poor	**Fair**	**Good**	**Very good**	**Excellent**
STORY	1 pts	2pts	3pts	4pts	5pts
	Student starts at the wrong speed and is unsteady throughout.	Student takes the speed and fails to maintain a steady tempo after the first line.	Student takes the speed and maintains a steady beat for two lines.	Student takes the speed and maintains a steady beat almost to the end of the rhyme.	Student takes the speed and maintains a steady beat to the end of the rhyme.
	Poor	**Fair**	**Good**	**Very good**	**Excellent**
MECHANICS	1 pts	2pts	3pts	4pts	5pts
	Student does not understand the concept and performs beat instead of rhythm.	Student does not demonstrate a clear understanding of the concept and changes from rhythm to beat during the performance.	Student understands the concept but performs with more than one hesitation.	Student understands the concept but performs with one hesitation.	Student understands completely the concept and claps the words steadily and clearly.
	Poor	**Fair**	**Good**	**Very good**	**Excellent**
EMOTION	1 pts	2pts	3pts	4pts	5pts
	Student claps a line of the rhyme but is unable to use time names accurately.	Student claps a line of the rhyme using time names but very hesitantly .	Student claps a line of the rhyme using time names accurately with a slight hesitation.	Student claps a line of the rhyme using time names accurately.	Student claps a line of the rhyme using time names accurately and confidently.

Source: https://www.rcampus.com/indexrubric.cfm

MUSICAL THEATRE

	Great	Fair	Just Ok	Not good enough.. But you did it
CONTENT	The content is outstanding. At least 7 of the 8 components were included in the presentation. The content was accurate Information was uncovered that I did not know.	The content was good at least 5 of the 8 components were included. The content was more or less accurate. All surface level research.	The content was ok, but that was really it. Only half of the components were included in the presentation. The content was slightly inaccurate. The research was less than needed.	Not quite good. Less than half of the components were used. The information was inaccurate. No research evident.
	Great	Fair	Just Ok	Not good enough... But you did it
TIME	Came in between 4-8 minutes Including the song.	Came either less than a minute too short, or too long Including Song.	Came in over a minute too short, or too long Including Song.	Was so far off the time, I might as well have not even kept time.
	Great	Fair	Just Ok	Not good enough... But you did it
DYNAMICITY	The presentation was delivered in such an interesting way. The audience was clearly engaged in the entire presentation. Went well beyond just reading a written report.	The presentation was interesting but showing more creativity would have helped. Audiences seemed engaged with some parts of the presentation. Some parts of the presentation seemed like information regurgitated from a written report.	The presentation was not dynamic. Information was presented in a way that felt too safe and didn't show any creativity. Audiences seemed bored Very much felt like the presentation was just a report that was read to the class.	Not only was there no creativity in the way the information was presented, but you seemed bored with your own presentation.

Source: https://www.rcampus.com/indexrubric.cfm

DEBATE

	A -5pts	B- 4pt	C- 3pts	D-2pts
UNDERSTANDING OF TOPIC Z	The team clearly understood the topic in-depth and presented the information convincingly.	The team understood the topic in-depth and presented the information with ease.	The team seemed to understand the main points of the topic and presented those with some efficiency.	The team did not show an adequate understanding of the topic.
	A	B	C	D
OPENING STATEMENT	Opening statement clearly defines the viewpoint of the team and briefly lists their 3 major points in a clever and interesting way.	Opening statement clearly defines the viewpoint of the team and briefly lists their 3 major points in a somewhat interesting way.	Opening statement attempts to clearly define the viewpoint of the team and briefly lists 2 major points.	Opening statement doesn't define the viewpoint and doesn't list major reasons.
	A	B	C	D
MAJOR POINT 1	Point #1 clearly expresses their viewpoint, including at least 3 details and examples to support their answer in a highly persuasive manner.	Point #1 clearly expresses their viewpoint, including at least 3 details and examples to support their answer in a somewhat interesting way.	Point #1 attempts to clearly express their viewpoint, including only 2 details and examples to support their answer.	Point #1 attempts to clearly express their viewpoint, including only 1 detail and example to support their answer.
	A	B	C	D
MAJOR POINT 2	Point #2 clearly expresses their viewpoint, including at least 3 details and examples to support their answer in a highly persuasive manner.	Point #2 clearly expresses their viewpoint, including at least 3 details and examples to support their answer in a somewhat interesting way.	Point #2 attempts to clearly express their viewpoint, including only 2 details and examples to support their answer.	Point #2 attempts to clearly express their viewpoint, including only 1 detail and example to support their answer.
	A	B	C	D
REBUTTAL	All counter-arguments were accurate, relevant and strong. Was able to accurately defend position.	Majority of counter-arguments were accurate, relevant and strong. Was able to defend position.	Some of counter arguments were accurate, relevant and strong. Was somewhat able to defend position.	Counter-arguments were not accurate and/or relevant. Was unable to defend position.
	A	B	C	D
CONCLUDING STATEMENT	Concluding statement clearly sums up the viewpoint of the team and briefly lists their 3 major points in a clever and interesting way.	Concluding statement clearly sums up the viewpoint of the team and briefly lists their 3 major points in a somewhat interesting way.	Opening statement attempts to clearly sum up the viewpoint of the team and briefly lists 2 major points.	Opening statement doesn't sum up the viewpoint and doesn't list major reasons.
	A	B	C	D
RESPECT FOR OTHER TEAM	All statements and responses were respectful and appropriate. Never interrupted or talked over other team members.	Most statements and responses were respectful and appropriate. Never interrupted or talked over other team members.	Most statements and responses were respectful and appropriate. Seldom interrupted or talked over other team members.	Statements and responses were consistently not respectful. Consistently interrupted other team or talked over other team members.

Source: https://www.rcampus.com/indexrubric.cfm

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CHAPTER 9

PERFORMANCE BASED ASSESSMENT

Creative Movement & Creative Dance

The process of channeling creativity and interpretation through movement and rhythm.

The exploration of unique and creative processes through body movements

DEFINITION OF CREATIVE MOVEMENT AND CREATIVE DANCE

FLEMING (1976) HAS STATED THAT CREATIVE MOVEMENT AND CREATIVE DANCE ARE TEACHING METHODS THAT HELP TO STIMULATE CHILDREN'S THINKING PROCESSES AND DEVELOPMENT TOWARDS CHANNELING CREATIVITY, APPLIED THROUGH MOVEMENTS."

ACCORDING TO LLOYD AND SALMAH AYOB (1994) THE DEFINITION OF CREATIVE MOVEMENT IS ALWAYS CONNECTED TO TERMINOLOGIES SUCH AS MOVEMENT EXPLORATION, MODERN MOVEMENT EDUCATION, MOVEMENT EDUCATION, RHYTHMIC MOVEMENT EDUCATION, AND CREATIVE DRAMA."

LLOYD (2014) HAS FURTHER STATED THAT CREATIVE MOVEMENT HELPS TO PORTRAY SELF-EXPRESSIONS, IDEAS AND EMOTIONS. THIS AIM CAN BE ACHIEVED BY COMMUNICATING THROUGH MOVEMENT."

MORE ABOUT CREATIVE MOVEMENT AND CREATIVE DANCE

*CREATIVE DANCE INVOLVES **THE EXPRESSION OF EMOTIONS THROUGH MOVEMENTS, GIVING THE FREEDOM TO TRY AND CREATE VARIOUS IDEAS TO FORM RHYTHMIC MOVEMENTS.***

IT IS REALIZED THAT THIS FACTOR CONTRIBUTES TO THE IMPORTANT ROLE IN DEVELOPING KINESTHETIC STIMULATION (THE AWARENESS OF MUSCLE MOVEMENT). THE EXPRESSION OF EMOTION PORTRAYED BY MOVEMENT WILL LEAD TO STRONG IMAGINATION IN CONVEYING THE MEANING OF FREEDOM, IN THE CREATION OF MOVEMENTS"

(MUHAMMAD FAZLI TAIB, 2010)

5 PURPOSES

01
CONVEYING APPRECIATIONS THROUGH THE FIELD OF PERFORMING ARTS.

02
GAINING EXPERIENCE IN CREATING MOVEMENTS BASED ON OWN CREATIVITY.

03
TRYING AND CREATING MOVEMENTS BASED ON SEVERAL IDEAS, TO BE INTERPRETED THROUGH BODY MOVEMENTS, PROPS, AND OTHER TOOLS.

04
TOWARDS INTEGRATING AND DEVELOPING PHYSICAL FACTORS FOR HEALTH, BY DOING VARIOUS FORMS OF MOVEMENTS.

05
DEVELOPING ITS OWN POTENTIAL TO BECOME MORE ACTIVE AND ENERGETIC.

6 VALUES

FOSTERING THE LOVE, ENCOURAGEMENT, AND APPRECIATION OF ARTS.

01
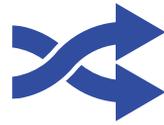
GAINING COURAGE IN MOVEMENT EXPLORATION.

02

BEING INDEPENDENT IN CREATING AND DEVELOPING MOVEMENTS.

03

BEING FOCUSED ON ALL THE THINGS TO BE DONE.

04

FEELING OF RESPECT AND RESPONSIBILITY.

05

FEELING OF LOVE TOWARDS HUMANS AND THE ENVIRONMENT.

06

ELEMENTS OF CREATIVE MOVEMENT AND CREATIVE DANCE

FREEDOM IN CONVEYING IDEAS AND EMOTIONS
01

CREATIVE IMAGINATION
02

CREATIVE INVENTION
03

BODY, SPACE, TIME AND ENERGY

WHAT ARE THE ACTIVITIES THIS YOU CAN DO?

BODY MOVEMENTS

=

EXPLORATION

+

ENRICHMENT

COPY OF ACTIONS
+
ANIMALS
+
SINGING
=
DANCING PERFORMANCE

CREATIVE MOVEMENT & CREATIVE DANCE AS PERFORMANCES

Helping the learners to develop their aspects of:

PHYSICAL, MENTAL, SOCIAL, AND EMOTIONS

PHYSICAL	MENTAL	SOCIAL	EMOTIONS
The use of body to create and form movements.	The cognitive ability which involves calculating and directing structured movements.	Interactions with peers.	Portraying emotional directions such as happiness, sadness, anger and love.

LEARNING DOMAINS IN CREATIVE MOVEMENT AND CREATIVE DANCE

Objectives in the planning of creative movement and creative dance activities can be achieved through the development processes of *psychomotor*, *cognitive*, and *affective* (Kassing and Jay, 2003).

PSYCHOMOTOR	COGNITIVE	AFFECTIVE
Refers to the application processes, namely the demonstration of movements at the beginning and middle stages to fulfill the achievement of each movement activity.	Identifying the movement forms and structures and conveying these by means of the teacher giving instructions, for the learners to follow. Next, they will share the experience of forming movements with their peers.	After the process of demonstrating movements by oneself at the psychomotor level, the focus is given next on showing and performing these movements to the audience. This will help to develop and encourage one's own self-esteem.

METHODS IN CREATIVE MOVEMENT
AND CREATIVE DANCE ACTIVITIES

ACTIVITY: WARMING UP	ACTIVITY: MOVEMENT OBSERVATION	MOVEMENT ACTIVITY: BEGINNING, MIDDLE STAGES, END, SHARING OF EMOTIONS	COOLING DOWN
5 MINUTES	5-7 MINUTES	10 -15 MINUTES	5 MINUTES
PART 1	PART 2	PART 3	PART 4

(Lloyd & Salmah Ayob, 1994)

PRINCIPLES OF
CREATIVE MOVEMENT & CREATIVE DANCE

Balance

Aplomb

Counter-balance

Counter pull

Squareness

Pull-up-or lift

Distribution of weight

Transfer of weight

Turnout

Alignment

Stance
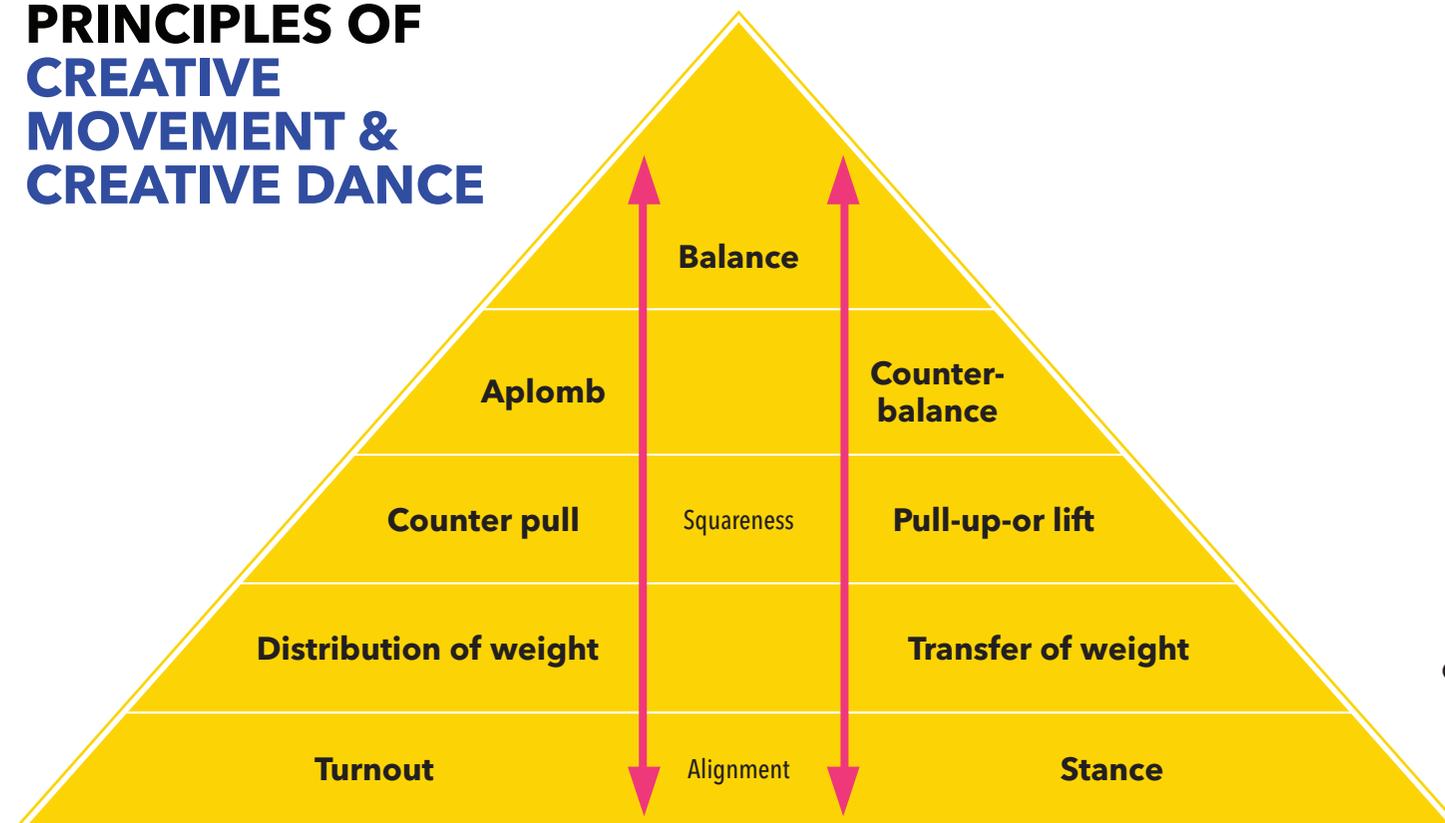
Movement Principle of Creative Movement and Creative Dance

(Kassing & Jay, 2003)

PRINCIPLES OF CREATIVE MOVEMENT
AND CREATIVE DANCE CHOREOGRAPHY

CHOREOGRAPHIC ELEMENTS	CHOREOGRAPHIC STRUCTURES	CHOREOGRAPHIC DESIGNS	CHOREOGRAPHIC DEVICES	CHOREOGRAPHIC RELATIONSHIPS
Motive Phrase Theme and variation	Simple music forms • AB (binary) • ABA (ternary • Rondo • Theme and variation Contrapuntal forms • Canon (round) • Fugue Others • Narrative (story) • Open (free)	Dancer's body shape Dancer's pathway through space Visual design • Symmetrical • Asymmetrical Symbolism • Representational • Abstraction • Distortion Relationship • Unison • Sequential • Successional • Oppositional • Complementary	Repetition Reverse Alter • Addition or subtraction • Directional change • Facing or focus • Level • Dimension • Tempo • Rhythm • Quality or effort action • Positioning • Movement section	Solo Duet Trio Quartet Small & large groups

(Kassing & Jay, 2003)

EXAMPLES OF ELEMENTS IN CREATIVE MOVEMENT AND CREATIVE DANCE

TRADITIONAL DANCE ELEMENTS

SPACE	TIME	FORCE	RELATIONSHIP
Directions Dimensions Levels Shape Pathways Focus	Duration Tempo	Movement qualities Sustained Percussive Swinging Suspended Collapsing Vibratory	Among body parts Among people Between people and props

LABAN'S DANCE ELEMENTS

SPACE	TIME	WEIGHT	FLOW
Direct or indirect	Sudden or slow	Light or strong	Bound or free
Effort actions (use space, time and weight) - Dab - Flick - Punch - Slash - Glide - Float - Press - Writing			

(Kassing & Jay, 2003)

EXAMPLES OF THEMES TO EXPLORE

**WATER
AIR
PLANTS
ANIMALS
WEATHER
SOLAR ENERGY**

Global Warming
Air Pollution
Sound Pollution
Earth Pollution
Disposal of Toxic
Wastes

THERE ARE FOUR COMPONENTS THAT FORM THE FOUNDATION OF CREATIVE MOVEMENT TEACHING

EXPECTATIONS

This refers to what should be achieved through activities carried out, for example, the focus on the proper and efficient positioning of the body to achieve intended movements.

CONTENT

This refers to the need to understand mental and physical aspects, for example, introduction to the application of body movements through warm-up activities that are formed by various creative responses.

FORM OF THE CREATIVE DANCE

This refers to the elements of creative movement, namely the usage of body, space, time, and energy.

RESULTS

This refers to the aim and process developed, on whether they are able to achieve the intended movements.

RUBRIC FOR CREATIVE MOVEMENT ACTIVITIES

	EXCELLENT - 4	GOOD - 3	SATISFACTORY - 2	NEEDS IMPROVEMENT - 1
Bodily Skills	The axial and locomotor movements are memorized and performed with control and skill.	The axial and locomotor movements are most often memorized and performed with some control and skill.	The axial and locomotor movements are somewhat memorized and performed with little control and skill.	The axial and locomotor movements are not memorized and performed without control and skill.
Theme / Focus	The movement language is unique and reflects the theme or idea of the compositional problem.	The movement language is often unique and, most of the time, reflects the theme or idea of the compositional problem.	The movement language is seldom unique and seldom reflects the theme or idea of the compositional problem.	The movement language is not unique and does not reflect the theme or idea of the compositional problem.
Movement Abstraction	The movement has been abstracted through one or more of the elements of dance.	The movement is partially abstracted through one or more of the elements of dance.	The movement has moments of abstraction using one or more of the elements of dance.	The movement is literal without any evidence of abstraction through one or more of the elements of dance.
Compositional Structure	The composition has a clearly defined structure, which is repeatable.	The composition has a structure, which is defined and repeatable.	The composition has a loosely defined structure and is repeated in its entirety.	The composition lacks a repeatable structure.
Performance	The student is focused, concentrated and committed to the performance of the movement.	The student is often focused, concentrated and committed to the performance of the movement.	The student is seldom focused, concentrated and committed to the performance of the movement.	The student is not focused, concentrated and committed to the performance of the movement.

(www.uen.org)

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CHAPTER 10

DEMONSTRATED PROJECTS

Having the knowledge of a particular skill or scope only indicates what the learners know but it does not reflect what they are able to do with the knowledge. Demonstrated project is a type of assessment where a task or activity is given to the learners. This allow them to display their ability to apply the knowledge and skill they have learned to perform a complex task under the observation of the educator. The educator will assess the learner using well-defined scoring guide such as rubric.

INTRODUCTION AND PURPOSE

WHAT

Learners demonstrate their ability to perform a certain task.

Learners work on a task/problem either in groups or individual that requires planning, discussion and execution.

WHY

Allow learners to work as a team.

Enhance critical thinking and problem-solving skills.

Determine the ability of the learners to apply their knowledge and skills.

Can be used to measure learners' higher thinking skill.

HOW

Learners are given a project.

They need to work individually or in groups to complete the task within a specified time.

The performance will be evaluated with specified criteria using a rubric.

*WHERE
LEARNERS
DEMONSTRATE
THEIR
LEARNING"*

To help readers understand the design of demonstrated projects,
examples from two courses will be used in this chapter as exemplars.

EXAMPLE 1

FIS2701 : PROCESSING AND MARKETING OF FISHERIES PRODUCTS

COURSE LEARNING OUTCOME :
Students should be able to discuss the innovative and quality in methods of aquatic products processing based on the product innovation assessment at the end of the semester via oral and written evaluations.

HOW

Learners were briefed at Week-2 prior to the implementation of the innovation lab.

Basic concepts were set for learners to come up with products made from otoshimi or surimi.

Learners were required to choose one otoshimi/surimi-based product and proposed their ideas at Week-4.

The product formulation was carried out from Week-4 to Week-9 after being approved by the lecturer on the chosen product.

ASSESSMENT

Assessment was conducted primarily based on the originality of the idea and the concept employed in producing the product.

Learners were required to present and promote their products to seven appointed judges selected from various backgrounds for comments and feedback.

The presentation outlined mostly on the classification of innovation, the hurdles prior to innovation, and how they offer ways to increase the commercial value of the products.

Assessment will look into the products and how learners could discuss the innovative approaches taken.

RUBRIC FOR FISHERY PRODUCT INNOVATION

Learners presenting their product innovation to the panel of judges

NO	CRITERIA / ATTRIBUTE	SCALE				SCORE
		POOR (1)	MODERATE (2)	GOOD (3)	EXCELLENT (4)	
1	Product name and description	Provide the product name but the description is missing.	Provide product name but an unclear explanation on the product description.	Product name is descriptive. Clear explanation on the product description but an unclear of the uniqueness and does not meet a specific consumer need.	Product name is original, descriptive, and marketable. Clear explanation on the product description, unique and meets a specific consumer need.	
2	Originality/ Innovation of the product	No effort exhibited. Product is a copy of an existing product.	Product represents only minor modifications of an existing product.	Product is mostly original/low innovation but is based on modifications of an existing product.	Product is completely original/innovative.	
3	Target market	Target market is missing.	Target market is poorly defined.	Target market is broadly defined.	Target market is clearly defined and an explanation is provided as to why the particular audience was chosen.	
4	Package design and material selection	No effort exhibited. Package or package design or material selection information is missing or shows little effort.	Visual design is professional and appeals to the target market, but product information is incomplete. An incomplete explanation of the selection of package materials and design is provided.	Visual design is professional, appeals to the target market, and provides descriptive product information. A general explanation of the selection of package materials and design is provided.	Visual design is professional, appeals to the target market, and provides descriptive product information. A clear, detailed explanation of the selection of package materials and design is provided.	
5	Marketing plan	A Marketing plan is missing or shows little effort.	A Marketing plan is inappropriate for the target audience, provides an incomplete explanation of marketing techniques to be used and/or lacks professionalism and creativity.	A Marketing plan is appropriate for the target audience, provides partly complete explanation of marketing techniques to be used and displays professionalism and creativity.	A Marketing plan is appropriate for target audience, provides detailed explanation of marketing techniques to be used and displays professionalism and creativity.	
6	Plating quality	Plating is unattractive. Text is unclear and contains many grammatical, spelling, or typographical errors.	Plating is attractive. Text is unclear and/or contains less grammatical, spelling, or typographical errors.	Plating is attractive. Text is clear and contains less grammatical, spelling, or typographical errors.	Plating is attractive. Text is clear and no grammatical, spelling, and typographical errors.	
7	Processing flow	Incomplete diagram process flow.	Partly complete diagram process flow.	Complete diagram process flow but incomplete explanation.	Complete diagram process flow and complete explanation.	

EXAMPLE 2

STM3403 COMMERCIAL FOOD PRODUCTION

COURSE LEARNING OUTCOME :
Students should be able to organize food production and services as a group leader.

HOW

Each group needs to operate a food service outlet which involves the kitchen as well as food and beverage unit.

Each group will have a Head Chef, Assistant Head Chef, Supervisor and Assistant Supervisor.

Each learner will experience the role of a Head Chef, Assistant Head Chef, Supervisor or Assistant Supervisor.

The head chef is required to lead the group in planning, organising and operating the food service outlet according to the standard operating procedure

A series of consultations between lecturers and learners will be carried out to implement the activities.

ASSESSMENT

The group leader will be assessed before and during the operation.

Assessment criteria involve time management, attitudes, interaction with staff, ability to give orders and lead the team, ability in adhering to procedures, ethics as well as ability to work in a team.

Assessment will be made by both lecturer and team members at a different weightage of marks, 80% to 20% respectively using a rubric.

RUBRIC FOR LEADERSHIP ASSESSMENT

ITEM	ATTRIBUTE	VERY POOR (1)	POOR (2)	SATISFACTORY (3)	GOOD (4)	VERY GOOD (5)
1	Knowledge and understanding about leadership	No evidence of displaying knowledge and understanding about leadership based on the action displayed.	Able to display knowledge and understanding about leadership based on the action displayed by the leader but need a lot of improvement.	Able to display knowledge and understanding about leadership based on the action displayed by the leader but needs minor improvement.	Able to display good knowledge and understanding about leadership based on the action displayed by the leader.	Able to display very good knowledge and understanding about leadership with clear evidence based on the action displayed by the leader.
2	Effective leadership	No evidence of displaying the ability to lead a group to achieve the objectives of the task.	Able to lead a group to achieve the objectives of the task but with limited effect. The leader was less effective to organise and delegate the task to the team members.	Able to lead a group to achieve some of the objectives of the task. The leader was able to organise and delegate the task to the team members.	Able to lead a group to achieve all the objectives of the task. The leader was able to organise and delegate the task to the team members.	Able to lead a group (with clear evidence) to achieve all the objectives of the task effectively.
3	Establishing Good relationship among team members	No evidence of displaying the ability to establish a good relationship among team members.	Display limited ability to establish a good relationship and cooperation among team members. Conflict with team members occurs frequently.	Display moderate ability to establish a good relationship and cooperation among team members. Conflict among team members was less frequent.	Display a good ability to establish a good relationship and cooperation among team members. Conflict among team members rarely occurs but was handled well.	Display a very good ability to establish a good relationship and cooperation among team members. The leader shows great effort to establish a good relationship and teamwork among team members.
4	Respect and accepting opinion	Does not show respect and refuses to accept opinions from team members.	Showing less respect and accepting opinions from team members.	Respect and accept opinions from team members to achieve the objectives of the task. However, some of the opinions by the team members were ignored with no action.	Showing good respect and accepting the opinions from team members to achieve the objectives of the task. The leader was able to discuss the opinions from the team members to decide appropriate action.	Showing high respect and accepting the opinions from team members to achieve the objectives of the task. The leader was able to discuss the opinion from the team members and made thorough discussions and critical analysis to decide appropriate action.

The Supervisor are briefing the staff on the day of operation

Learners are operating the Cafeteria

Learners are getting ready for 'action stall'.

Service team for an outlet are offering fine dining service.

BENEFITS OF DEMONSTRATED PROJECTS ON LEARNERS' LEARNING

▶ **Expose learners to real-world situations or problems**

▶ **Encourage creativity and development of soft skills**

▶ **Assess learners' ability to apply knowledge into practice**

▶ **Measure learners' higher thinking skills and problem-solving skills in a given situation**

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CHAPTER **11**

ALTERNATIVE ASSESSMENT IN DIGITAL LEARNING

Introduction

In the era of the fourth industrial revolution that we current live in, there is a need to understand approaches of alternative assessment integration in the digital learning space. The chapter discusses three approaches that can be applied with regards to alternative assessment, which are "assessment of digital learning", "assessment for digital learning", and "assessment as digital learning." The chapter is then continued with a discussion on the digital tools that can be integrated in teaching and learning, by mapping the tools in the context of the three approaches of alternative assessment in digital learning. The chapter ends with a framework mapping the future directions in alternative assessment crossing the physical, digital, and biological worlds.
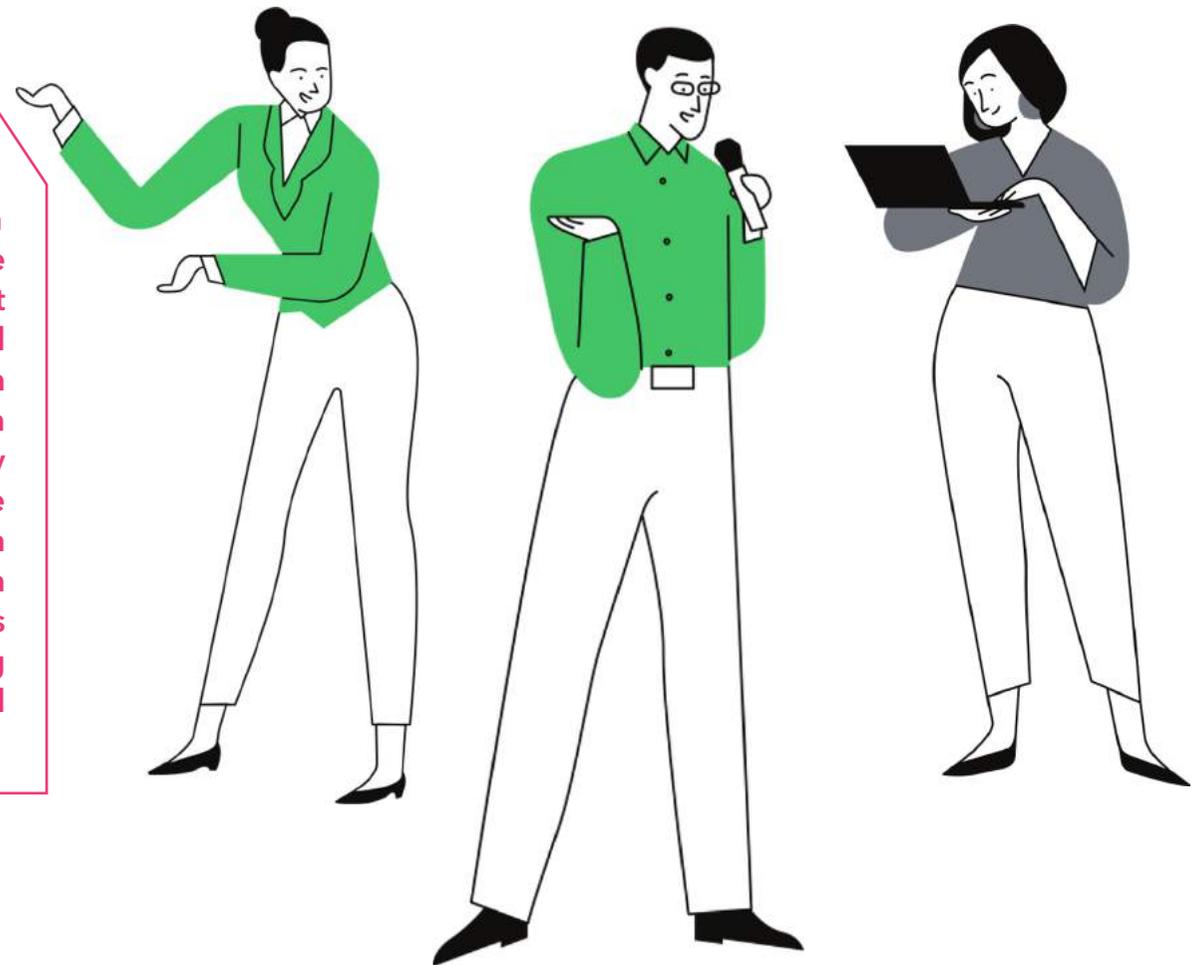
Assessment **of** digital learning

✓ Assessment of digital learning usually consist of summative assessment

✓ Assessment is mostly conducted at the end of learning

Assessment **for** digital learning

✓ Assessment for digital learning focuses on formative assessments

✓ The assessment is mostly conducted during learning

Assessment **as** digital learning

✓ Assessment as digital learning involves a process of learners learning about their how their learn and about their roles in learning

✓ Learners reflect on their learning regularly

which assessment is for you?

Assessment **of** digital learning

✓ Level of control over designing assessments is higher for educators

educator

Assessment **for** digital learning

✓ Level of control is moderate – can be higher for educators or learners

Continuum of control levels for assessment design

Assessment **as** digital learning

✓ Level of control is higher students where learners are empowered to be more responsible for their own learning

learner

empowering educators bs learners?

Assessment **of** digital learning

✓ Educators' roles for assessment of learning include statements of intended learning

✓ Educators also provide a range of alternative techniques for similar outcomes

educator roles?

Assessment **for** digital learning

✓ Educators' role in assessment for digital learning include active interactions with learners on identifying needs of learners

✓ Educators also create opportunities for helping learners more their learning forward

Assessment **as** digital learning

✓ Educators' role in assessment of their own learning, in setting their own goals, and monitoring their own progress

✓ Educators guide learners in designing their own self-monitoring mechanisms and feedback

Digital Tools

Alternative assessment **of** learning

Online quizzes or "open book exams?
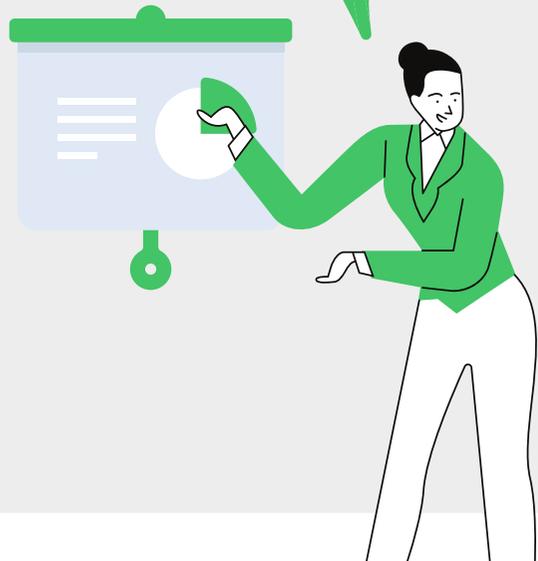
Techniques

1 Online quizzes/ examinations
– Online quizzes and examinations can be done with inclusion of proctoring and question randomisation

2 Online "open–book exams"
– Online writing assessments and evaluations can be done individually and collaboratively
– Open–ended and semi–structured questions can be given as tasks

Tools

Google Forms, Quizizz, ExamSoft

Pages (collaboration mode), Google Docs, OpenOffice
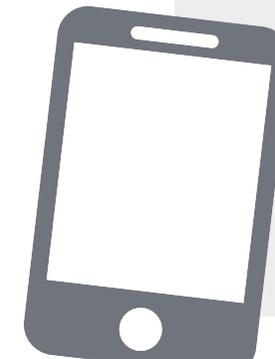
Digital Tools

Alternative assessment **of** learning

> Online presentations or e-portfolios?

Techniques

3 Online synchronous presentation sessions

– Synchronous presentation session can be used for presentations of projects for summative assessments of learning
– "Breakout rooms" can be used for individual or group sychnronous assessments

4 e-Portfolios and online showcases

– Portfolios and product showcases can be used in final or summative assessment of learning. For more information on e-portfolios, refer to Chapter 7.

Tools

Zoom, Microsoft Teams, Google Meet, Webex, FaceTime

Keynote, PowerPoint, Google Slides, Biteable, Notability, BlendSpace

Digital Tools

Alternative assessment **for** learning

Online chapter markers vs online discussions?

Techniques

1 Online questioning using chapter markers

– Online chapter markers are a great way to conduct alternative assessment for online learning
– Markers can be used to stop videos at certain particular times for prompting open or closed questions

2 Online discussions – via forums

– Online discussions can be carried out basically anywhere digitally ranging from LMS–based forums to forums on social media and Web 2.0 tools such as wall wishers

Tools

EdPuzzle, Panopto

Forum feature on Moodle LMS, Facebook, Instagram, WhatsApp, Telegram, and Padlet

Digital Tools

Alternative assessment **for** learning

Learning analytics vs game-based assessments

Techniques

3 Learning analytics

– Analytics can help educators understand learning patterns of students and monitor their learning developments
– Educators can also use analytics for learning intervention to increase learner engagements

4 Game-based assessments

– Game-based assessments and gamification can be used as alternative assessment for learning to immerse learners during learning

Tools

Analytics provided by learning tool used
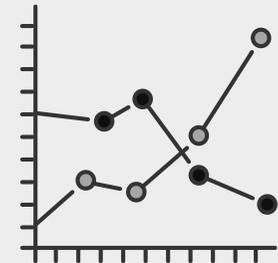
Kahoot, serious games such as Pokemon Go

Digital Tools

Alternative assessment **as** learning

Techniques

Online brainstorming vs online monitoring?
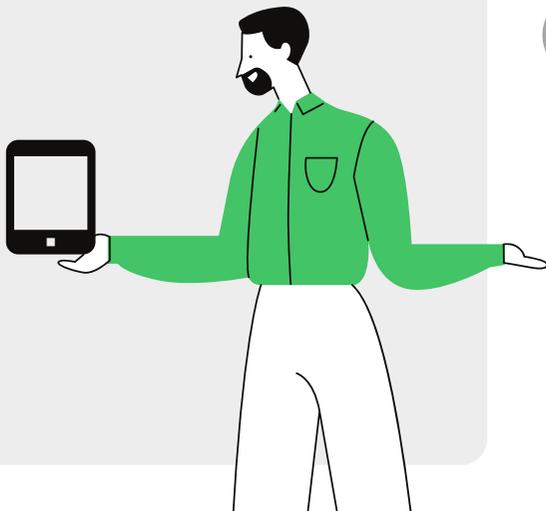
1 Online brainstorming – Coggle

– For assessment as learning, educators can guide students via online collaborative brainstorming using apps for creating collaborative mind–maps

2 Online monitoring – project management

– For empowering students to conduct online project management, educators can assist them in task delegation and project monitoring and milestone achivements

Tools

Coggle, Ideament, Popplet, SimpleMind

Trello, MeisterTask, Asana, FreedCamp

Future directions in alternative assessment

Assessments in the digital world using technology such as augmented reality and virtual reality

ALTERNATIVE ASSESSMENT IN THE FOURTH INDUSTRIAL REVOLUTION

Assessments in the physical world using technology such as drones
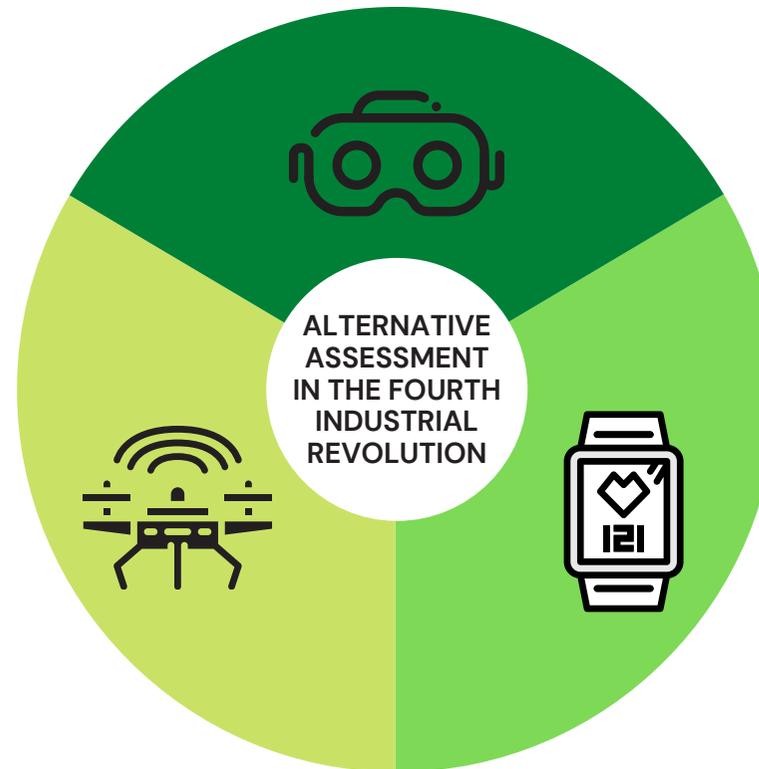
Assessments in biological world using technology such as wearables

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CHAPTER 12

ASSESSMENT USING DIGITAL TOOLS IN TERTIARY CONTEXT

INTRODUCTION

There are numerous digital tools, apps, and media that can be used by educators to measure their learners' performance and elicit evidence of learning. This chapter illustrates some examples of alternative assessments using digital tools. Educators with next-generation learners will find several options to assess soft skills and higher-order thinking skills.

DIGITAL TOOLS FOR LEARNING AND TEACHING

COLLABORATION-BASED   **01**

Padlet, Whatsapp, Trello, Nearpod, G-Suite, Mentimeter, Poll-Everywhere, Popplet, Discord

02   **WEBINAR**

Webex, Zoom, Microsoft Teams, Google Meet

PRESENTATION-BASED   **03**

Microsoft Power Point, Canva, Prezi, Lucidchart, Youtube, Camtasia, Screencast-O-Matic

04   **ASSESSMENT**

Quizlet, Kahoot, ClassMarker, Socrative, Nearpod

SOME EXAMPLES

Benefits of digital tools in assessment:

- Provide immediate feedback
- Identify areas of improvement
- Facilitate collaboration among learners

- Create an interactive and interesting presentation
- Score instantly
- Store large submission of assignments

EXAMPLES OF ASSESSMENT USING DIGITAL TOOLS

These examples were provided to illustrate the use of digital tools to measure learners' performance.

Three examples of assessment taken from two undergraduate courses will be shared. The two courses are: (1) ENDOWMENT (*WAQF*) AND *BAITULMAL* MANAGEMENT (2) ASSESSMENT IN EDUCATION.

An example from the Endowment (*Waqf*) and *Baitulmal* Management course: Immersive Remote Service Learning

An example from the Assessment in Education course: "*7 Hari Mencintai Assessment*"

An example from the Assessment in Education course: Using ClassMarker for Technology-Enhanced test

IMMERSIVE REMOTE SERVICE LEARNING IN THE ENDOWMENT (*WAQF*) AND *BAITULMAL* MANAGEMENT COURSE

COURSE NAME
Endowment (*Waqf*) and Baitulmal Management

CLO
To describe the affairs of *Waqf* as the role in the economic development of the nation (ummah) to the local community

LOC/PLO
Interpersonal Skill

DEFINITION OF IMMERSIVE REMOTE SERVICE LEARNING

Remote service-learning (RSL) is a form of learning activity that involves student-community engagement conducted fully or partially online (Waldner, Widener, & McGorry, 2012). This form of pedagogy is very powerful to create a learning space for learners to engage with a wider community geographically (ChanLin, Lin, & Lu, 2016). Previous studies have acknowledged that RSL activity can have impacts on learners' soft skills such as responsibility towards the community, decision making, critical thinking, leadership, and innovative thinking.

PROJECT SUMMARY

Learners from BPMS2083 *Endowment (Waqf) and Baitulmal Management* course are required to perform RSL with *Masjid Ibnu Sina* community. This project involves student-community engagement to raise funds for the refurbishment of an existing meeting room to become a multi-purpose room. It is aimed that the newly renovated multi-purpose room can be used for any activity to develop community well-being. This aim is aligned with the course learning outcome (CLO), which is to describe *Waqf* as the role in the economic development of *ummah*. Learners are required to form a group of four or five members. Each group is required to describe the action plan to collect funds for the project. Learners may use all the digital tools that can help them to achieve the CLO. They must keep all the evidence that they use throughout the process to complete the assignment using digital tools.
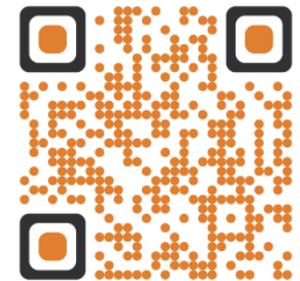
DESIGN OF REMOTE SERVICE LEARNING ACTIVITIES

- RATIONALE
- SYLLABUS – CLO AND TOPICS
- CLEAR GUIDELINES
- SELECT LEARNING TOOLS
- SELECT ASSESSMENT METHODS
- IMPACTS OF RSL

PROCESS FLOW OF THE ASSESSMENTS: FROM FORMATIVE TO SUMMATIVE ASSESSMENTS

Learners conduct the Project

First Formative Assessment - Educator/ Community Feedback

Learners continue the Project with Intervention based on First Formative Feedback

Second Formative Assessment - Educator/ Community Feedback

Learners continue the Project with Intervention based on Second Formative Feedback

Summative Assessment – Final Mark
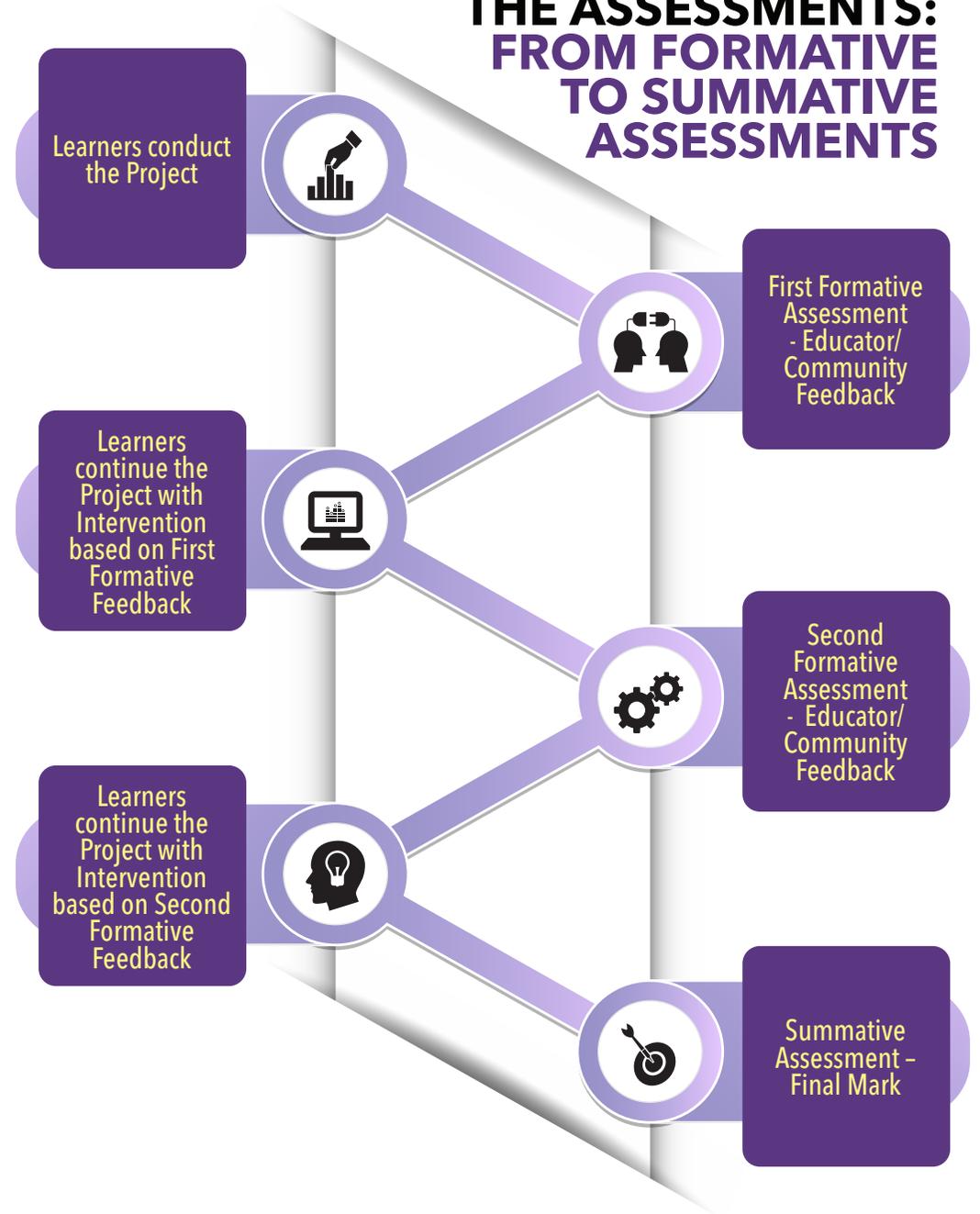
EXAMPLES OF FORMATIVE AND SUMMATIVE ASSESSMENTS VIA WHATSAPP

WhatsApp is one of the learners' preferred digital tools for receiving feedback from educators. Based on a few formative assessments, learners gradually improve the quality of their written assignment.

FORMATIVE ASSESSMENT 1
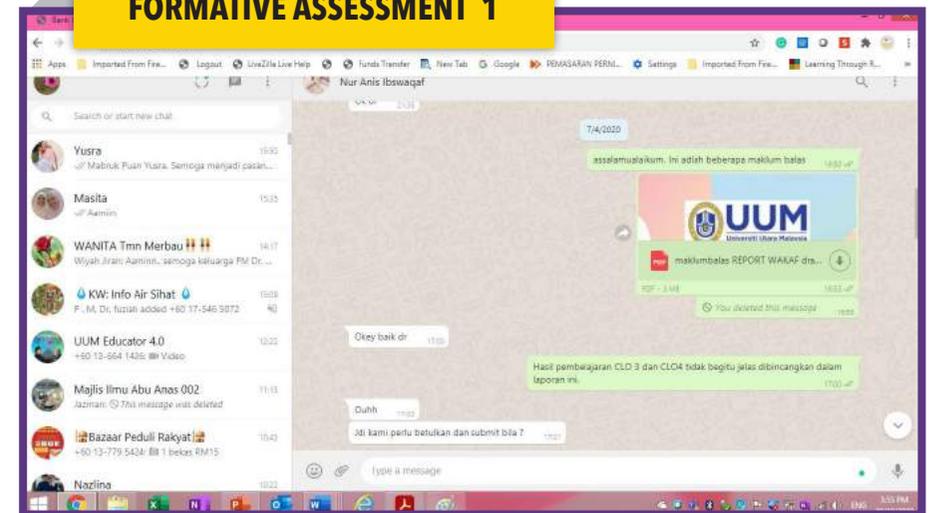
FORMATIVE ASSESSMENT 2
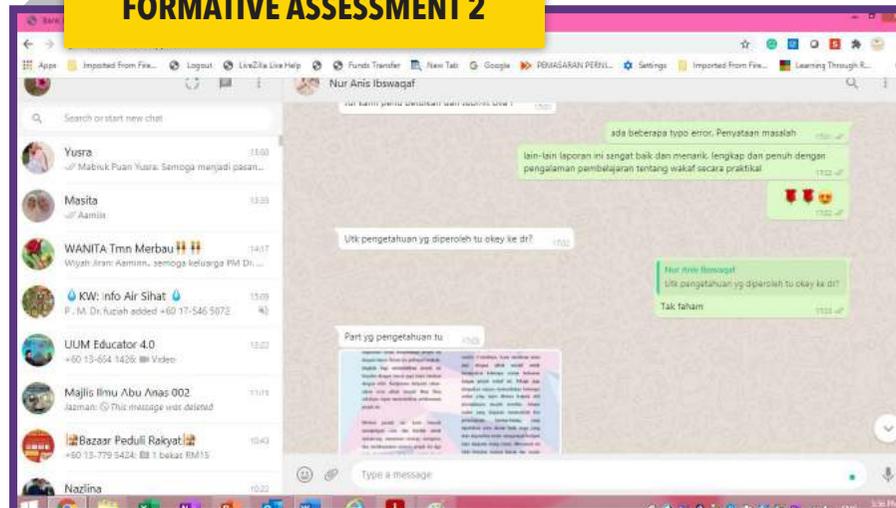
SUMMATIVE ASSESSMENT – FINAL SUBMISSION
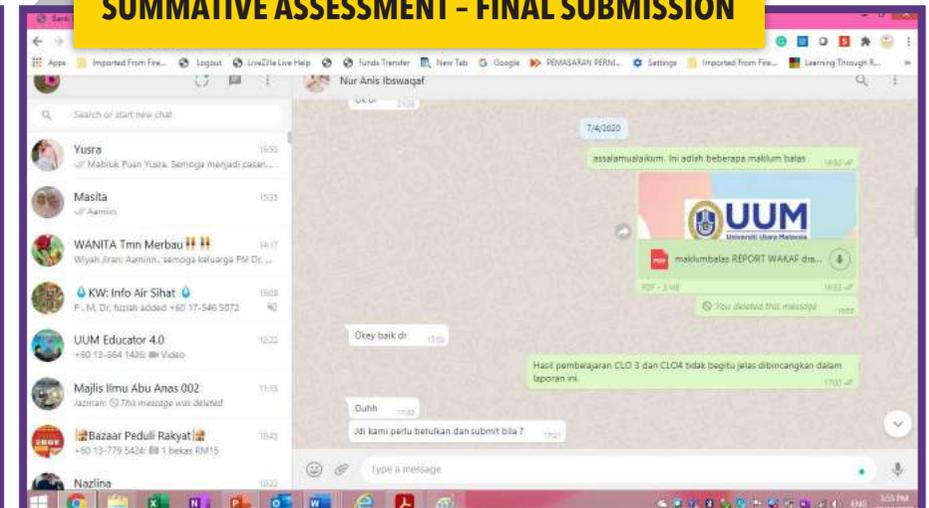
EXAMPLE OF
FORMATIVE
ASSESSMENT:
Learners' Interaction
and Feedback from the
Community via WEBEX
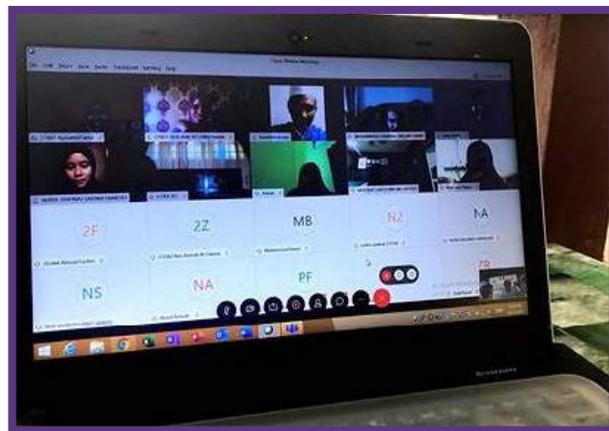
EXAMPLES OF
DIGITAL TOOLS
FOR SUMMATIVE
ASSESSMENTS:
Learners' Presentation

Cisco
webex

Prezi

P

Canva
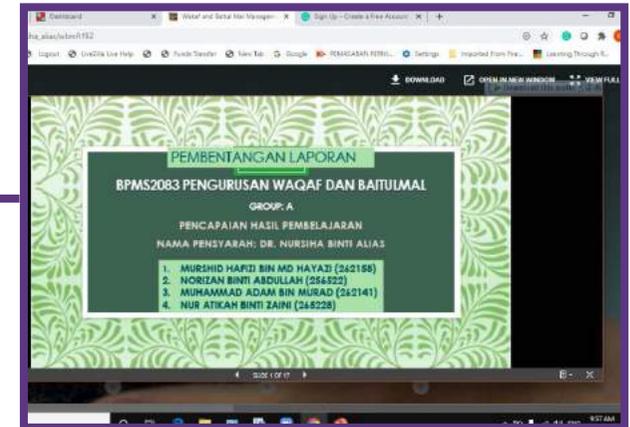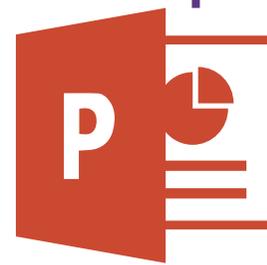
EXAMPLE OF REMOTE SERVICE-LEARNING ACTIVITIES AND ASSESSMENTS VIA PADLET

THE RUBRIC FOR REMOTE SERVICE LEARNING PROJECT

Islamic Business School (IBS), Universiti Utara Malaysia

INTERPERSONAL SKILL RUBRIC

Student Name:				Matric No.:	
Lecturer Name:					
Course Code:	BPMS2083 ENDOWMENT (*WAQF*) AND *BAITULMAL* MANAGEMENT				
Topic:					

	1 = Poor	2 = Fair	3 = Good	4 = Excellent	Marks
Relationship building	**Poor ability** of teamwork collaboration in reaching consensus on an issue.	**Satisfactory** ability of teamwork collaboration in reaching consensus on an issue.	**Good** ability of teamwork collaboration in reaching consensus on an issue.	**Excellent** ability of teamwork collaboration in reaching consensus on an issue.	
Self-expression	**Limited** self-confidence in doing a task.	**Sometimes** demonstrate self-confidence.	Frequently demonstrate self-confidence.	Always display self-confidence.	
Active Listening	**Little effort and tolerance** in listening to a discussion.	**Satisfactory efforts and tolerance** in listening to a discussion.	**Tolerant** in listening and provide feedback.	**High tolerance** in listening and provide appropriate responses.	
Respect for others	**Little sensitivity** towards the rights and needs of other individuals.	**Show sensitivity** to the rights and needs of other individuals.	**Show respect and appreciation** for the rights and needs of other individuals.	**Show high respect and appreciation** for the rights and needs of other individuals.	
Contribution to society	Take the initiative to be engaged in the community when requested.	Satisfactorily responsible and taking initiative to be engaged in the community.	Responsible and always take the initiative to be engaged in the community.	Able to act as an agent of change (such as maintaining, improving, stabilizing moral values and norms) in the community.	
Total Marks:					/28

_____
_____
_____
_____
_____

ASSESSMENT IN EDUCATION COURSE: *"7 HARI MENCINTAI ASSESSMENT"*

The *"7 Hari Mencintai* Assessment" assignment is one of the course assessments that is assigned in Padlet. The educator optimises the use of columns in Padlet to assign group tasks on a daily-basis (Day 1 to Day 7). This assignment has the potential to cover all CLOs and can be assigned as a group work.

DAY 01	DAY 02	DAY 03	DAY 04	DAY 05	DAY 06	DAY 07
DAILY NEWS	**INTERVIEW YOUR TESTER**	**PLAN2TEST**	**KNOW & CAN DO**	**STATS4LIFE**	**POSTMORTEM**	**BAD VS. GOOD**
Learners provide comments on assessment issues in Malaysia.	Learners interview local educators on their testing practices before and during COVID-19.	Learners write their course learning outcomes using appropriate verbs and criteria for learning.	Learners watch two videos and identify assessment-related issues/ lesson from the videos.	Learners answer selected statistical questions using calculator, or spreadsheet application.	Learners conduct item analyses based on given testing data.	Learners improve poorly written test questions using educational testing principles.

DAY 1 TO DAY 7 ASSESSMENTS VIA PADLET

DAY 2: COVID-19 AND TESTING: INTERVIEW YOUR TESTER

Online interview via Webex

Face-to-face interview (following SOP)

Course Name
Assessment in Education

CLO
To describe the concepts of educational measurement and assessment

LOC/PLO
Knowledge and understanding

Learning Activity
Interview Your Tester

Assessment
- Interview an educator on testing practices during Covid-19
- Provide transcription and evidence of the interview

Digital Tools
Padlet, Webex, word

"7 HARI MENCINTAI ASSESSMENT"
DAY 2: INSTRUCTIONS AND ANSWER SCHEME

INSTRUCTIONS

Conduct a short interview (f2f/online) with an instructor (can be anyone; e.g., your school teacher, your lecturer, your teacher colleague).

Ask the following question:How would you compare your school/faculty/department's assessment practices before and after the COVID-19 pandemic?

Share the interview transcripts along with evidence (selfie/wefie/screenshot of online meeting/video). Make sure you follow the SOP to prevent COVID-19, especially physical distancing, when conducting this assignment.

Total Score = 10 marks

ANSWER SCHEME			
DAY	CRITERIA OF TASKS	MAXIMUM SCORE FOR EACH PART	SCORING STRATEGY
2	·Instructor's point #1 (testing before Covid-19)	1	TOTAL = **10 marks**
	·Instructor's explanation on point #1	2	
	·Learners' probe to elicit answer (if any)	1	If learners did not have to probe to elicit an answer from the instructor, their score on the probing part can be assigned to the instructor's explanation.
	·Instructor's point #2 (testing during Covid-19)	1	
	·Instructor's explanation on point #2	2	
	·Learners' probe to elicit answer (if any)	1	
	·Evidence (picture or video recording)	2	

EXAMPLES OF MULTIPLE-CHOICE QUESTIONS WITH STIMULUS IN

ClassMarker ✓

Question 1

Your local police force wants to install cameras that can catch drivers who run red lights. They choose a busy road, install a camera, and determine whether each car stops safely or runs the light.

Pasukan polis tempatan anda mahu memasang kamera yang boleh mengesan pemandu yang melanggar isyarat lampu merah. Mereka memilih jalan yang sibuk, memasang kamera, dan menentukan sama ada setiap kereta berhenti dengan selamat atau melanggar isyarat lampu merah.

Choose the correct scale of measurement.
Pilih skala pengukuran yang betul.

- ○ **A)** interval
  sela
- ○ **B)** ratio
  nisbah
- ✓ ○ **C)** nominal
  nominal

Question 2

Your local police force wants to install cameras that can catch drivers who run red lights. They choose a busy road, install a camera, and determine how many car stops safely or runs the light.

Pasukan polis tempatan anda mahu memasang kamera yang boleh mengesan pemandu yang melanggar isyarat lampu merah. Mereka memilih jalan yang sibuk, memasang kamera, dan menentukan berapa banyak kereta berhenti dengan selamat atau melanggar isyarat lampu merah.

Choose the correct scale of measurement.
Pilih skala pengukuran yang betul.

- ○ **A)** interval
  sela
- ✓ ○ **B)** ratio
  nisbah
- ○ **C)** nominal
  nominal

AN EXAMPLE OF A MATCHING QUESTION WITH IMAGE STIMULUS AND ITS SETTING OPTION TO REDUCE CHEATING IN CLASSMARKER ✔

The answer key is good and appropriate as more low ability students selected it.
Kunci jawapan adalah baik dan sesuai kerana ia dipilih oleh pelajar-pelajar yang berkeupayaan rendah.

Choose ⌄

| Choose |
| True \| Benar |
| False \| Palsu |

Option B is a good distractor as it is selected by both high and low ability students.
Opsyen B ialah pengganggu yang baik kerana ia dipilih oleh kedua-dua pelajar berkeupayaan tinggi dan rendah.

Choose

Option C is a good distractor as it is selected by the high ability students.
Opsyen C ialah pengganggu yang baik kerana ia dpilih oleh pelajar-pelajar berkeupayaan tinggi.

Choose

Option D should be changed into a better option.
Opsyen D perlu diubah kepada opsyen yang lebih baik.

Choose

Points Available

❓ 4

Shuffle Mode

- ⦿ Shuffle Matches Only ❓
- ○ Shuffle Clues Only ❓
- ○ Shuffle Clues and Matches ❓

Grading Scale

- ○ Off ❓
- ○ Partial with deduction ❓
- ⦿ Partial without deduction ❓

	Number of Students' Responses for each Option			
	A*	B	C	D
High Ability Students	4	3	9	0
Low Ability Students	8	6	2	0

*Answer Key

	Bilangan Respon Pelajar bagi setiap Opsyen			
	A*	B	C	D
Pelajar Berkeupayaan Tinggi	4	3	9	0
Pelajar Berkeupayaan Rendah	8	6	2	0

*Kunci Jawapan

The table above shows students' responses from the high ability and low ability groups for a test item.
Jadual di atas menunjukkan respon-respon pelajar berkeupayaan tinggi dan rendah bagi satu item ujian.

Determine whether each of the statement below True or False.
Tentukan sama ada setiap pernyataan di bawah Benar atau Palsu.

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CONCLUSION

Alternative assessments provide options for educators to explore and obtain evidence of their learners' learning provided it is constructively aligned to the learning outcomes. Some various strategies and techniques can be used for conducting alternative assessments. However, when using alternative assessments, measuring tools like rubrics are commonly used. Regardless of whether having test questions in high stake exams or authentic performance-based tasks, which require the use of rubrics, these instruments, or tools for measuring learning, need to be valid and reliable. Only then educators, without a doubt, will be able to confidently ensure that learning has evidently occurred in achieving the learning outcomes regardless of contexts (face-to-face or virtual/online). Using digital tools in 21st century education as an alternative assessment is crucial. Truly, if done creatively, learning and assessment can be indeed fun.

ALTERNATIVE ASSESSMENT

COMING TO A FULL CIRCLE

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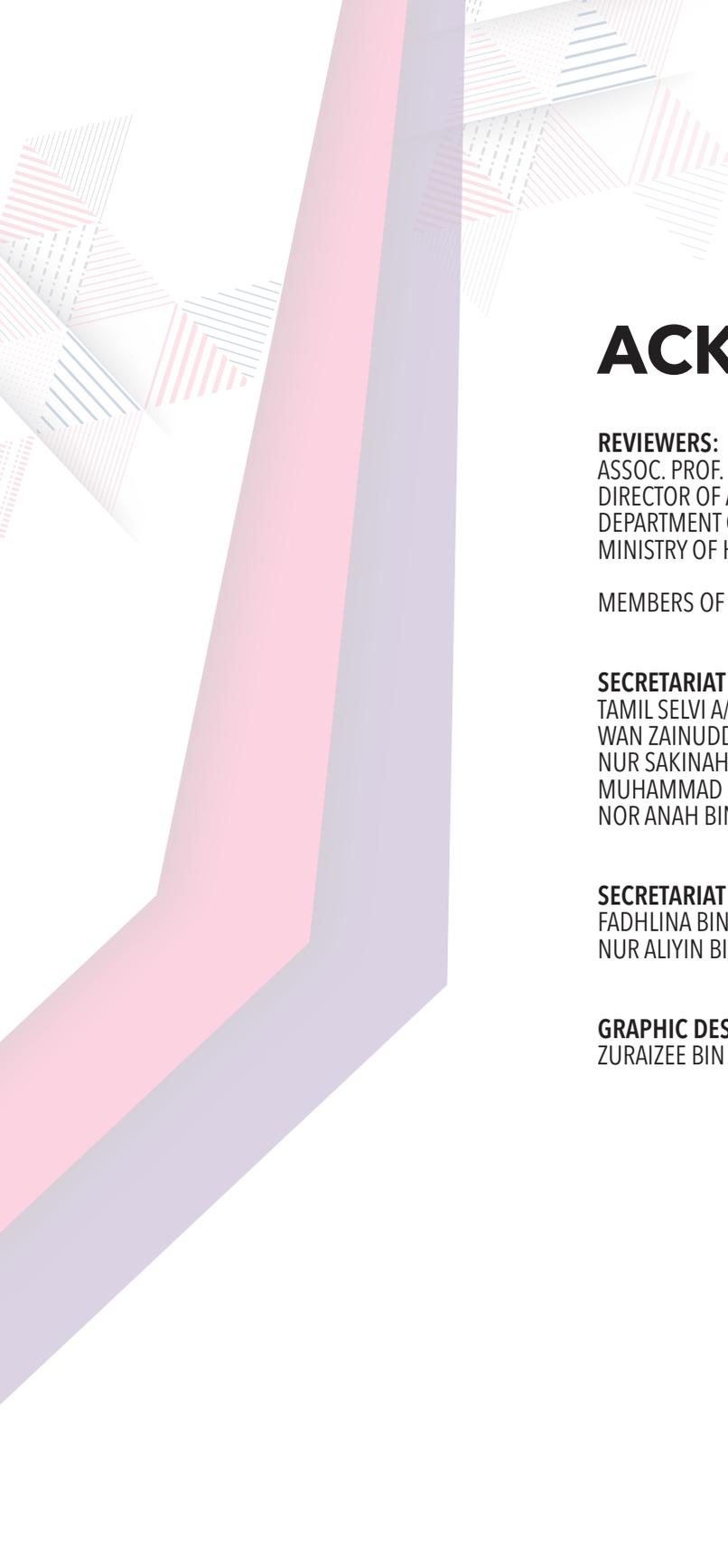
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This is a comprehensive book that serves as a practical guide for educators to assess their learners' learning. We have learned from the various chapters in this book that the inevitable need to change the way we assess our learners is given that the world is also changing, volatile, and uncertain.