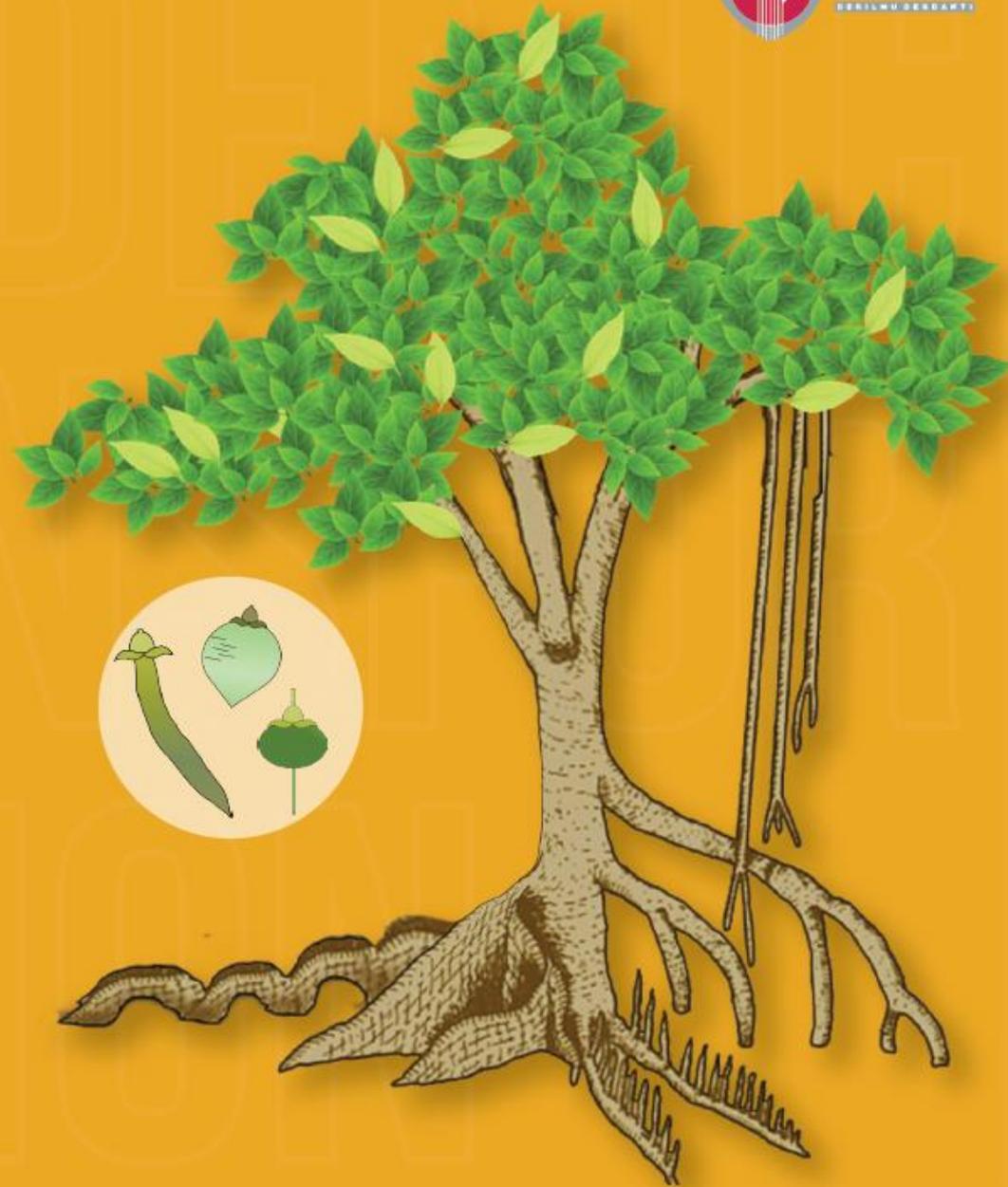


# PrIDe: Putra InnoCreative Delivery





# PrIDe:

Putra InnoCreative Delivery



2019

More interactive reading on  
PrIDe can be accessed by  
scanning this QR code





# Table of Content

Part 1: Academic Transformation Through Innovative Delivery

Part 2: PUTRA InnoCreative Educator (PreCEptor)

*Learning Designer*

*Engaging Educator*

*Compassionate Educator*

*Scholarly Educator*

Part 3: PUTRA InnoCreative Teaching Delivery (PrIDe)

**PrIDe: Putra InnoCreative Delivery**

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# ACADEMIC TRANSFORMATION THROUGH INNOCREATIVE DELIVERY

PART 1

# Producing Future-Proof PUTRA Graduates through InnoCreative Delivery

Continuous evolution is an ability to sustain and stay competitive in the changing global trends. Universiti Putra Malaysia recognises that adaptation and innovation is the recipe to stay abreast with the dramatic education reshape. Preparing PUTRA graduates to be future-proof to thrive in this complex and ever-changing future will require an equally fundamental transformation of how we currently operate.

Employers expect graduates to have good critical thinking skills, communication skills and language proficiency. At the same time, graduates need to be prepared to change from job seekers to job creators and have entrepreneurial mindset. In addition, graduates should enter the world with an ability to play the role of a good citizen and one who can be civically engaged, critically thinking, digitally literate, globally aware, dedicated collaborator and an effective communicator.



Putra Graduates need to future-proof themselves with various skills so they could sustain the challenges beyond tertiary education. Six (6) Future-Proof PUTRA Graduate attributes promoted are creative, critical thinking, communicative, collaborative, character and citizenship.

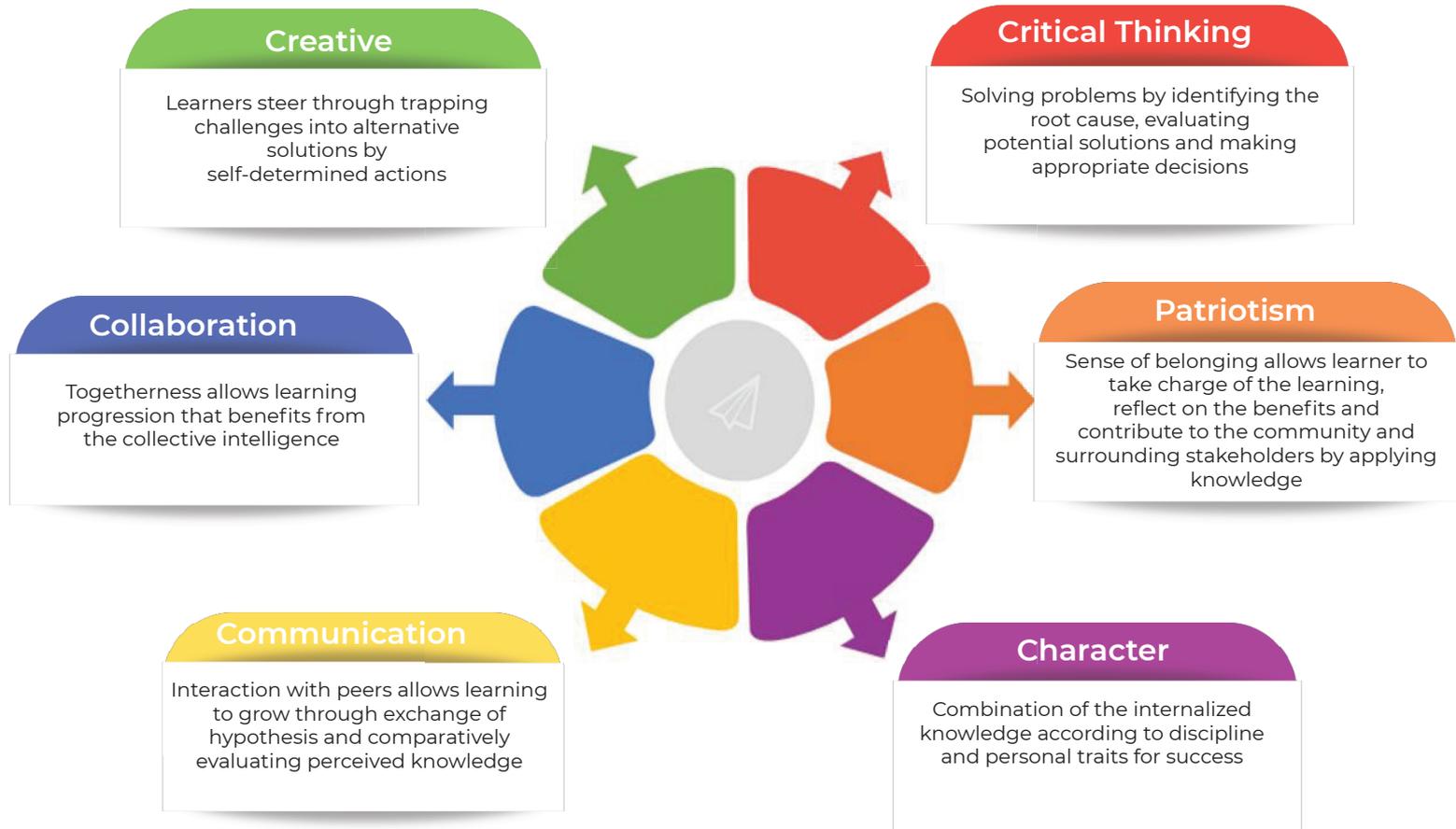
Meaningful learning experiences is among the means for them to acquire the skills whilst undergoing formal education through their courses. Establishing various activities for the students to obtain creative and critical thinking skills could be achieved through involving them to actively drive, curate, direct and participate in collaborative and cooperative learning environment; either through physical or virtual learning activities.



These qualities are important for their survivability in facing their future journey that is now disrupted by rapid digital revolution. Future-proof graduates should have the ability to solve challenges given to them in a creative manner, the solution sought through critical thinking, clear communication and built by positive collaboration with the surrounding people/ ecosystem. Characters such as resilience and adaptiveness, as well as spiritual capital including ethical and spiritual values, transparency, integrity need to be embodied for employability/ work-readiness, success in self-own enterprises and success on a global stage.



# ATTRIBUTES OF FUTURE-PROOF PUTRA GRADUATES



# MILLENNIAL'S LEARNING PREFERENCE

## Learning Preferences

**Shorter attention span** - Prefer interactive and engaging learning materials



**Aces at googling** - Value information that is relevant to their life

**Rationale** - Flexibility and recognition of the socio-emotional rationale behind new ideas



**Relaxed** - A learning environment with minimum pressure and more freedom for personal expression and creativity

**Rapport** - Perform better at work and in the classroom when instructors connect with them on a personal level



## Teaching Strategies

Active, inquiry, experiential service and challenge-based learning could engage attention span and his/her commitment



Challenge students to be analytical and creative besides allow them to apply their knowledge to real-world situations

Service learning, problem-based learning and work-based learning demand rationale of contributed ideas and relevance of knowledge



Micro-learning, gamification and immersive learning create immersive yet relaxing learning environment

Instructors coach and mentor in their training and learning progression





Photo Credit: CADe UPM

## PHILOSOPHY

*“InnoCreative teaching and learning delivery is a continuous effort towards producing future-proof graduates through impactful learning experiences designed to meet the expected learning outcome and personalized to the learner needs”.*

## **TRANSFORMATION TOWARDS INNOCREATIVE DELIVERY IN TEACHING AND LEARNING**

Adaptation through flexibility in delivery is required not simply because the new generation learners prefer experiential learning process but also in adhering to development of future-proof attributes. The rigidity and temporal inelasticity of our current curriculum and its administration makes it even more important for educators to incorporate learning activities that allow learners to identify their capabilities, strengths and weaknesses, and even passion to be successful in the future. Therefore, the aim of the teaching and learning delivery transformation is to highlight the attributes and good practices of InnoCreative delivery design, allowing educators to produce holistic and future-proof graduates.

2019

22

PTG Pilot Courses  
From  
7 Faculties

2018-2019

53

Educator 4.0

2015 - 2019

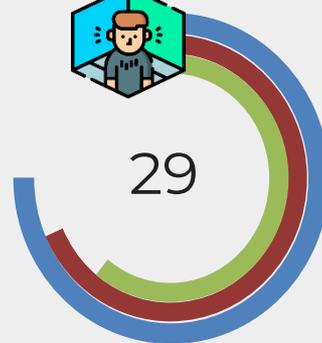
43

PutraMOOC  
Course

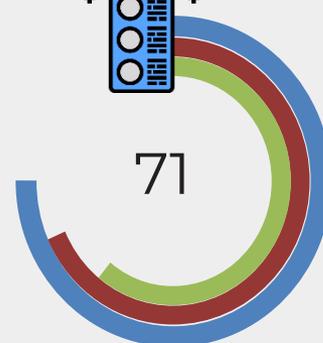
# Current Achievements

## Blended Learning Achievement

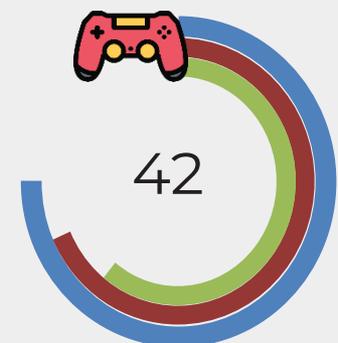
	2015	2016	2017	2018
KPM Target	30%	30%	35%	40%
KPM Achievement	30%	31.6%	35.9%	54.9%
UPM Achievement	33%	43.4%	47.9%	69.7%



Immersive Learning



Mobile Application



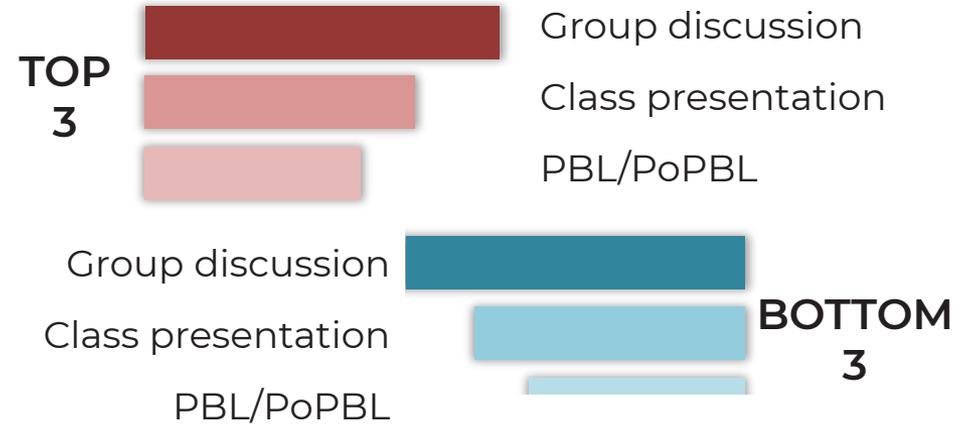
Games/Gamification

## Statistics of activity approaches used across years of service

YEARS OF EXPERIENCE	NO. OF APPROACHES		
	AVERAGE	MINIMUM	MAXIMUM
OVERALL	4.9	1	14
0-3	4.6	1	14
4-6	5.0	1	14
7-9	4.5	1	13
>10	4.9	1	14

# Current Achievements

## Best Practices in Activity

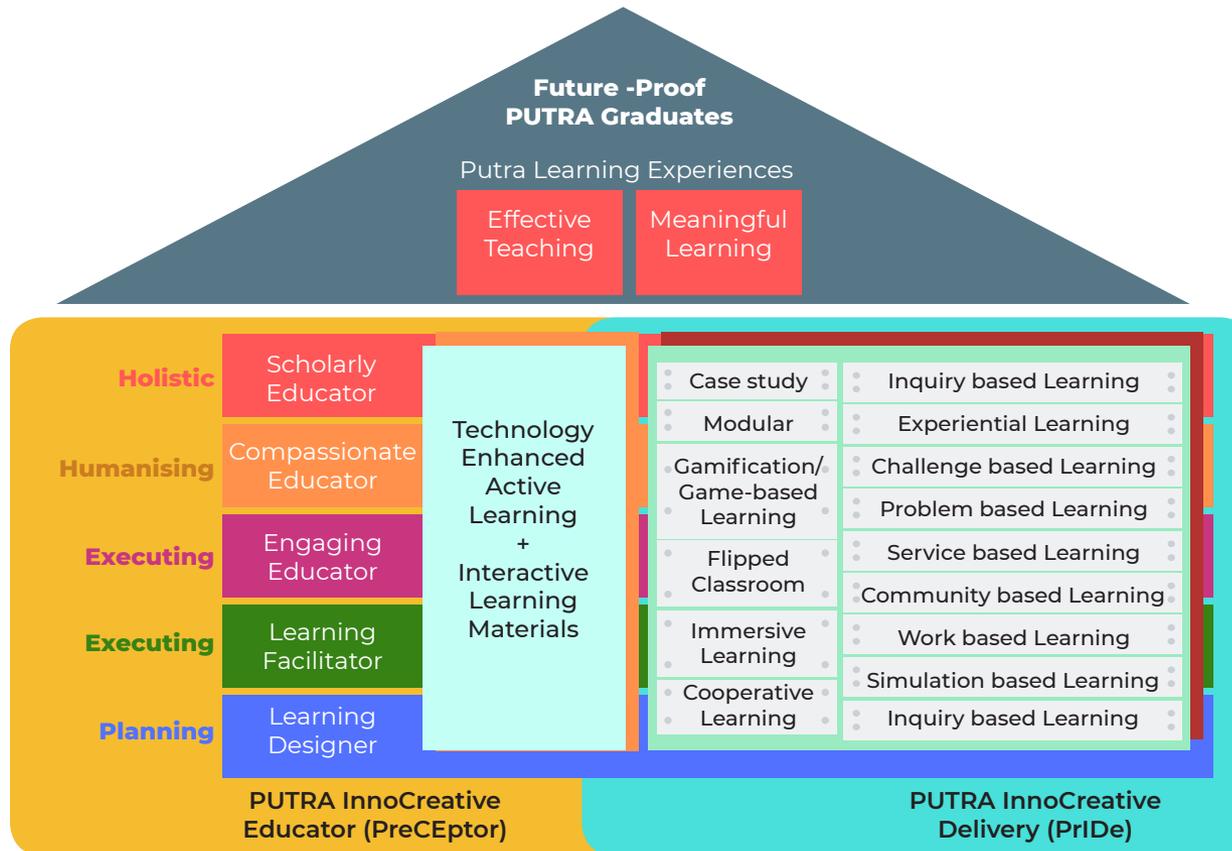


(Source: CADe Survey)

Rank	SCL Approaches
1	Class Presentation
2	Case Study
3	Problem-based Learning
4	Group Discussion
5	Independent Project
6	Field Trips
7	Computer Assisted Learning
8	Team Based Learning
9	Role Play
10	Bed Side Teaching



# InnoCreative Delivery Framework



The initiatives in the Innovative Teaching and Learning Delivery Transformation could be implemented by the PUTRA InnoCreative Educator (PreCEptor) who enables PUTRA InnoCreative Delivery (PrIDe) for effective teaching and meaningful learning towards producing Future-Proof PUTRA Graduates.

## **PUTRA INNOCREATIVE EDUCATOR (PreCEptor)**

The meaning of preceptor is teacher or instructor. A PreCEptor is defined as a PUTRA educator who aspired to be characterised by the ability to apply critical thinking skills, creative in problem solving, has good communication and collaborative ability, inherit good citizen attributes and has positive characters, compassionate in educating students, competent in the trained discipline, connected to updated knowledge and committed in delivering effective teaching.



## **PUTRA INNOCREATIVE DELIVERY (PrIDe)**

Effective teaching is delivered by PreCEptor to accomplish meaningful learning by the future-proof graduates through a designed teaching delivery comprising of an interactive lecture materials, mix of engaging activities and e-tivities that encourage development of future-proof graduate attributes, and appropriate assessments suited to the learning outcomes; supported by a compassionate and scholarly future-proof educator. A variety of teaching techniques can be curated such as problem-based learning, case study, inquiry-based learning, experiential learning, service-based learning, challenged work-based learning, passion-based learning and immersive learning.



# PreCEptor Transformation

## Scholarly Educators

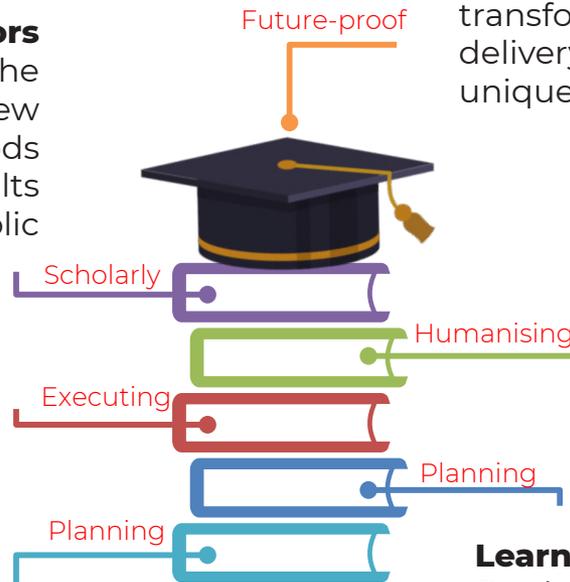
Conduct studies to improve the effectiveness or propose new innovative teaching methods and tools, and share the results with the public

## Engaging Educators

Deliver the course contents very well, with high engagement from the learners, according to the pre-planned teaching and learning activities

## Content Experts

Have mastered the necessary knowledge in the areas of the course contents



## PUTRA InnoCreative Educators

Have all the qualities to innovatively transform teaching and learning delivery, supporting the creation of unique learning experiences in UPM

## Compassionate Educators

Engage and inspire the learners beyond the classroom, creating a lasting personal learning impact and promoting life-long learning qualities in the learners

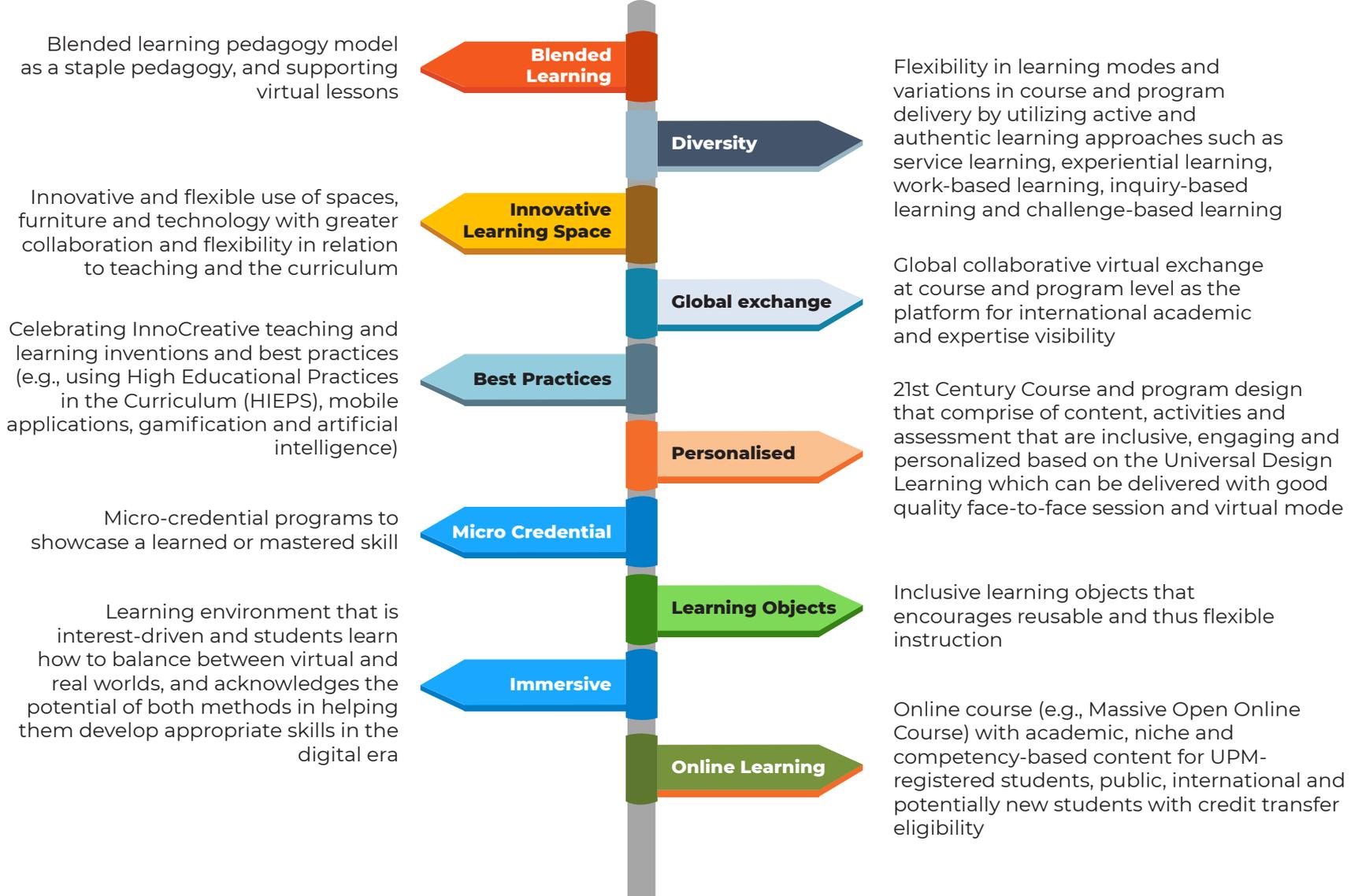
## Learning Designers

Produce a good planning of teaching and learning activities that are suitable with the contents to be delivered

# PreCEptor Transformation Milestone Rubric

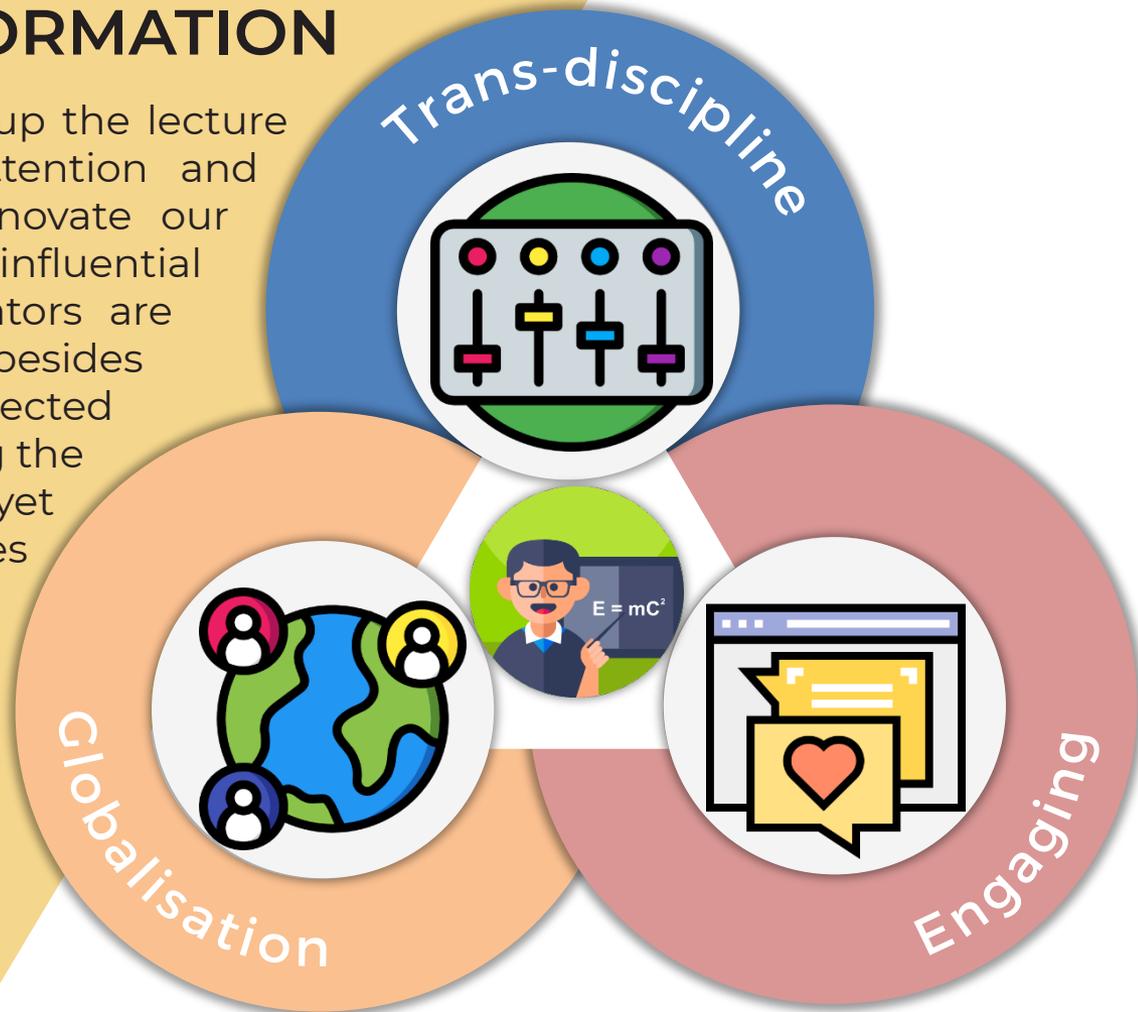
Standards Roles	Adequate	Developing	Skilful	Excellent
<b>Learning Designer</b>	Able to identify learning needs, conduct minimum learning activities that suit the learning outcomes, and usually has a rough plan on how the lesson and assessment will be conducted using available resources and materials.	Able to imitate available learning design and customize it to the needs of his/her classroom. Able to craft learning activities and assessments that are more structured and involve learners' participation. Reflects and revises the implementation of the learning design.	Able to imitate innovative learning design, and personalize the course delivery through the creation of new personalized learning materials and activities. Able to integrate active and participative learning activities and assessment according to the needs of his/her classroom. Planning strategies to improve learning design through reflection and revision, and implements the strategies reciprocally.	Comes up with innovative pedagogies and/or resources that may be adaptable and/or replicable to other areas. Able to integrate inclusiveness, equitability and meaningful learning experience in the planning of the lesson and assessment. Reflection and revision of learning design has become habitual.
<b>Learning Facilitator</b>	Uses common learning materials and techniques for course delivery that can provide nudges for learners.	Combines and integrates learning materials and techniques for course delivery that can enhance students' learning experience.	Scaffolding activities are evident in course delivery that are customized to the needs of his/her classroom.	Exhibits natural attributes of an accommodating educator. Able to sustain harmonious scaffolding activities that are personalized to the needs of his/her classroom.
<b>Engaging Educator</b>	Able to involve learners in learning activities.	Able to integrate teaching resources/materials and techniques in teaching and learning activities that can trigger learners to be participative and opinionative.	Creates an exciting learning atmosphere in the classroom through several nudges (in the form of resources/materials and/or techniques) that can encourage learners to be participative and opinionative in learning activities.	Creates a mellifluous active learning classroom culture that is inclusive and can instil heutagogical skills and soft-skills that are beyond those listed in the course outcome.
<b>Compassionate Educator</b>	Acknowledges and responds to students' learning needs and/or challenges.	Offers alternatives and/or options to learners to address their learning needs or overcome their learning challenges.	Recommends customized and personalized solutions that can address several learning needs and challenges to learners. Encourages learners to seek for opportunities to polish their potential.	Empathizes with students' needs and challenges. Exercises organic and flexibility in teaching and assessment, establishes good rapport with learners, and builds opportunities and platforms for learners to optimize their potential.
<b>Scholarly Educator</b>	Able to imitate best teaching practices, conduct simple classroom research and unofficially share them with other people.	Comes up with an improvised teaching practices and assessment that resonates his/her own teaching philosophy, conducts classroom research, and shares the findings on official platforms.	Able to readjust teaching philosophy that aligns with students' learning needs and challenges. Teaching, learning and assessment activities are original. Conducts comprehensive classroom research and publishes the findings in multi-platforms.	Continuously formulates innovative teaching and learning approaches. Consistently conduct assessment and classroom research, publish findings in a multitude of ways. Able to assist others to do the same, advocates scholarship in teaching and learning, and promotes for wider implementation of scholarship of teaching and learning.

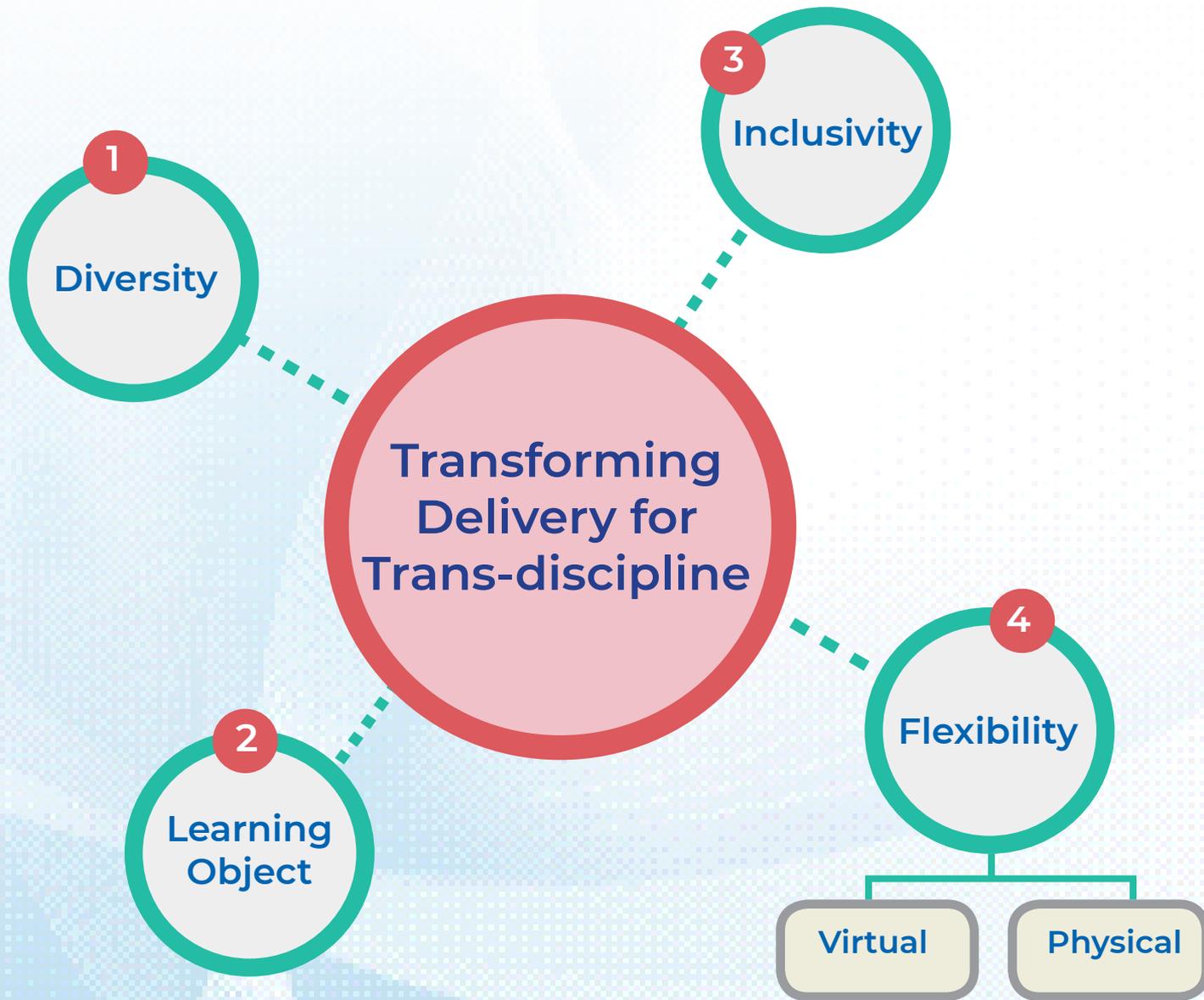
# 10 Initiatives in InnoCreative Teaching and Learning Delivery Transformation Suggestions and Recommendations

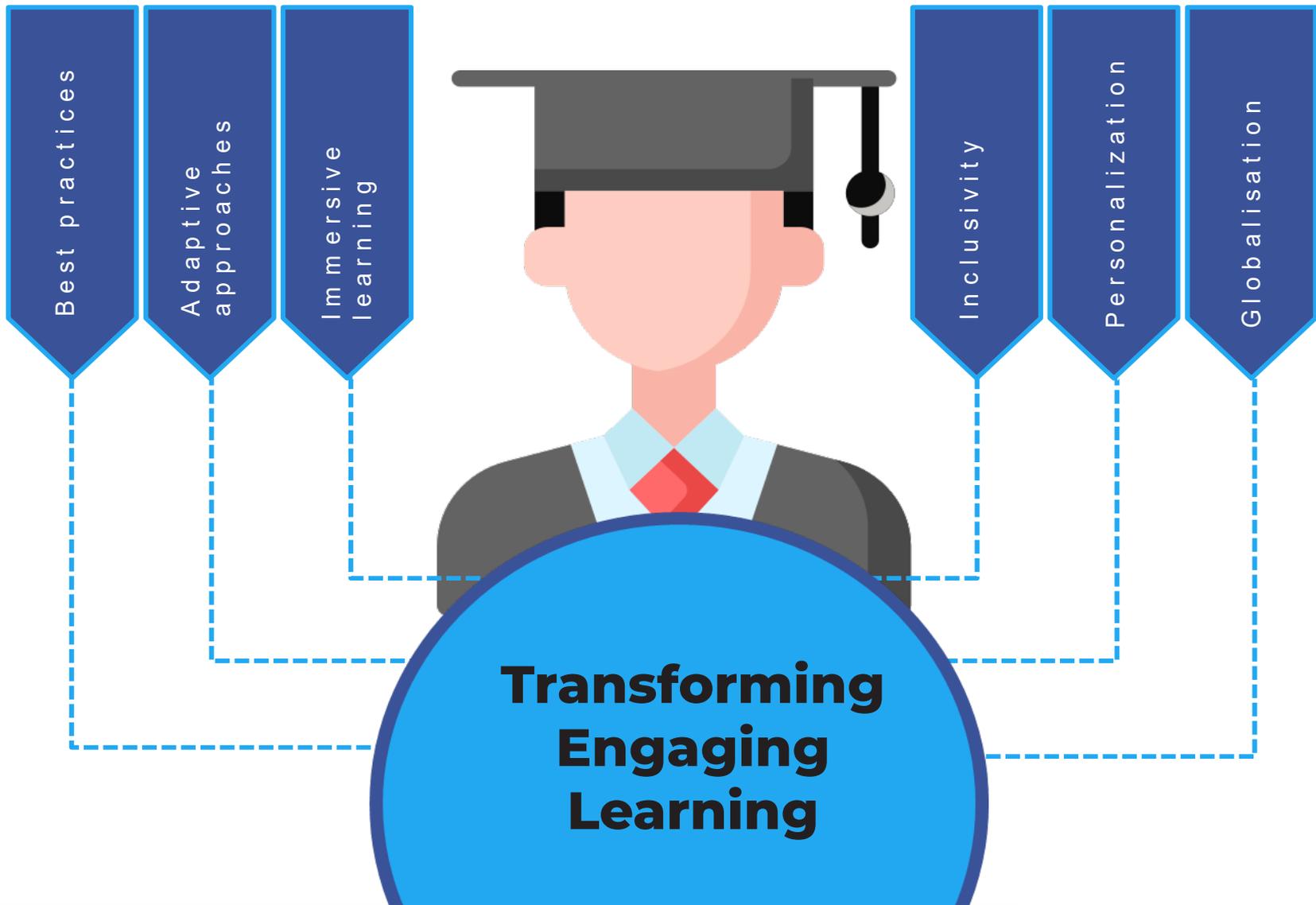


# Principles of DELIVERY TRANSFORMATION

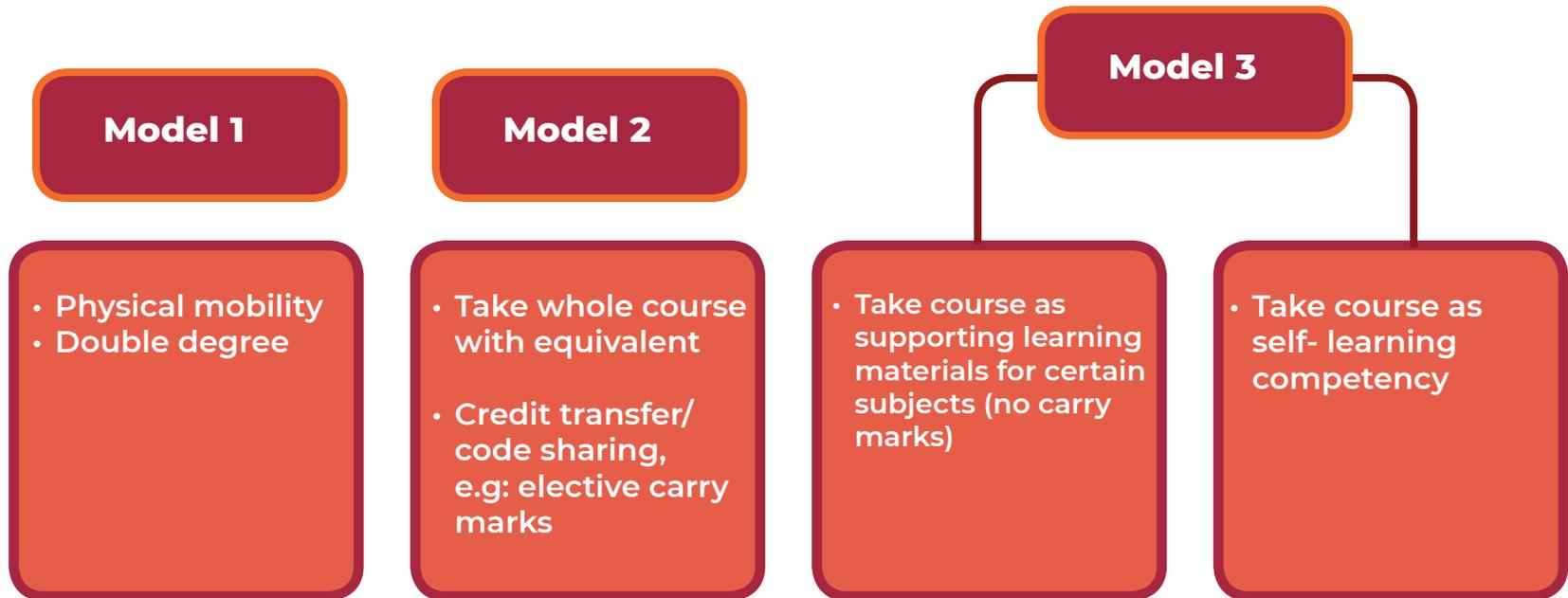
The millennials who are filling up the lecture benches demand different attention and require us to continuously innovate our teaching. Essentials to be influential lecturer to them mean educators are critically and digitally proficient besides communicative, creative, connected and compassionate in designing the course and program delivery yet ensuring the learning outcomes are met and they possess future-proof attributes.

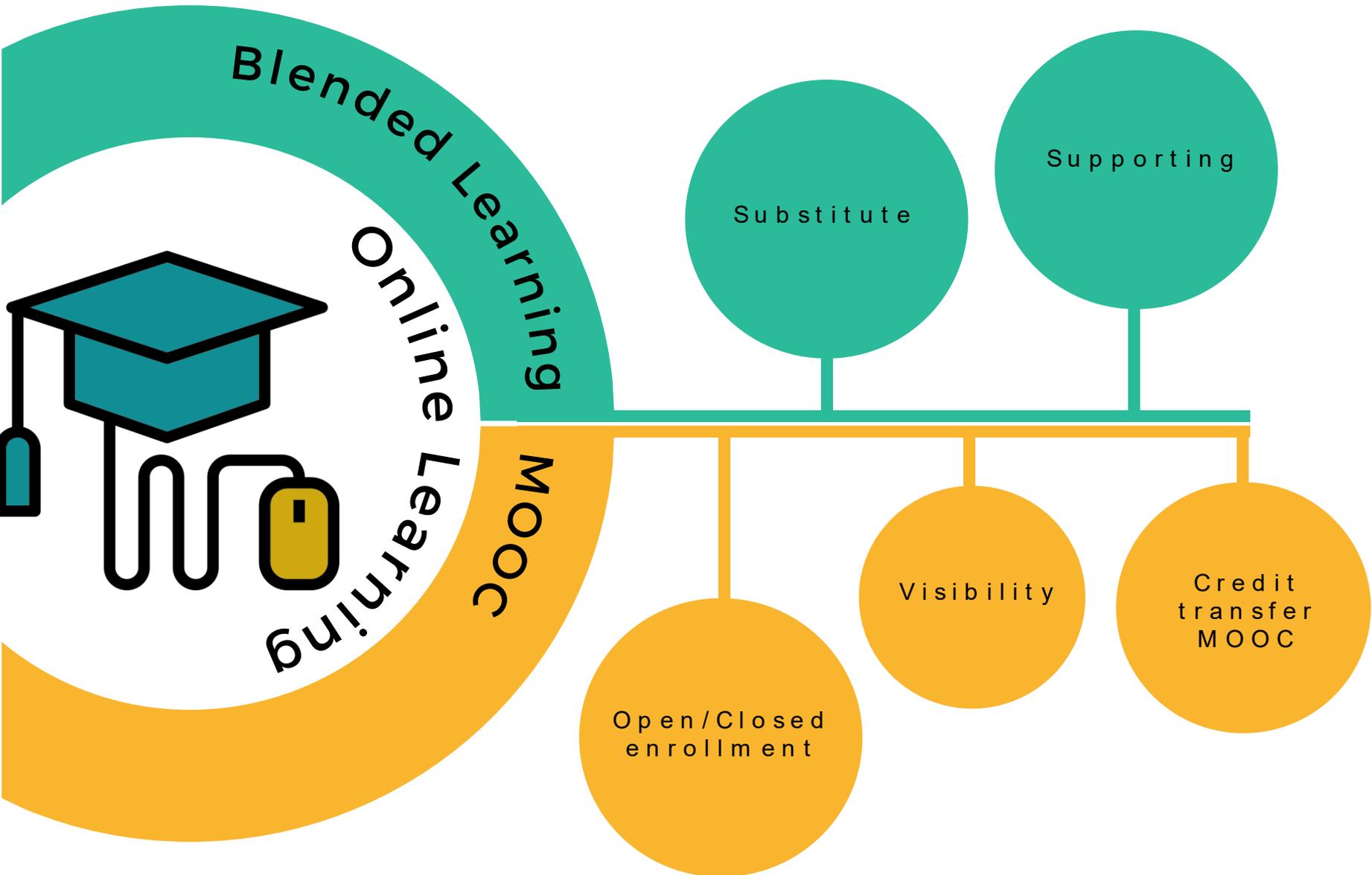




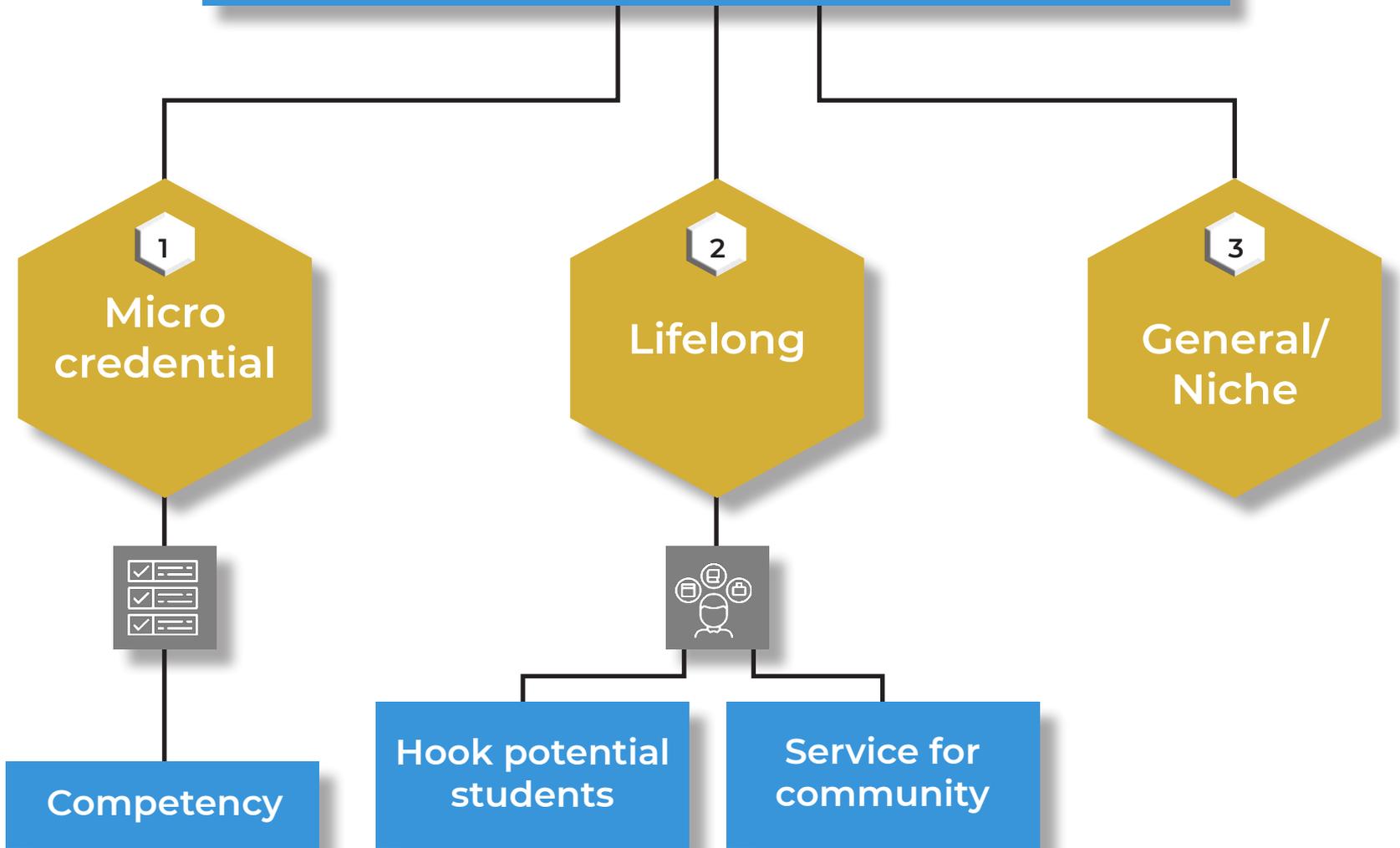


# Transforming Learning with Globalisation





# Credit Transfer MOOC



## The characteristics of effective learning space are as follow:

- Adjustable to meet the learning activities
- Allow for movement
- Allow for various groupings
- Allow for hands-on exploring, making, and building
- Allow for curriculum integration, including the arts
- Support social interaction and development
- Support cognitive skills and development
- Support the integration of technology
- Provide opportunities for students to learn through examples

Photo Credit: CADe UPM

<p><b>Simulative industrial experience</b></p>		
<p><b>Makerspace</b></p>	<p><b>Experimental behavior observation space</b></p>	<p><b>Green learning space</b></p>
		<p><b>Immersive learning space</b></p>
<p><b>Global learning</b></p>		

More details about each learning space at glossary

**PART 2**



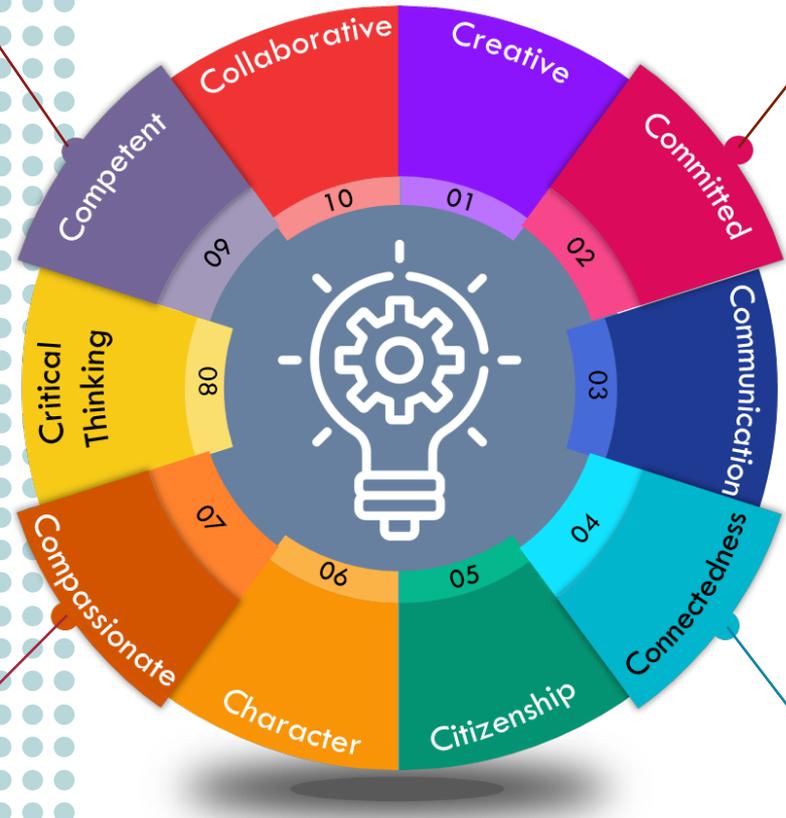
**PUTRA  
INNOCREATIVE  
EDUCATOR  
(PreCEptor)  
Transformation**

## Attributes of PUTRA InnoCreative

PreCEptor is the key enabler of PrIDE for the transformation towards producing future-proof PUTRA Graduates. InnoCreative Educator is a term to model an educator who has the ability to ensure meaningful learning using designed, engaging, personalized and scholarly teaching delivery. The attributes of an InnoCreative Educator is the extension of the Future-Proof PUTRA Graduates attributes which are critical thinking, collaborative, creative, communicative, character and citizenship.

Subject-matter expert should be the basic of teaching to ensure accurate content delivery.

Educator is aspired to design the teaching strategies according to the learning needs.



This ensures that learners have the soul to go beyond acquiring the expected learning outcome.

Access and dissemination of updated relevant knowledge and interaction with learners through a variety of connectivity means.

## CREATIVITY

The creation of new ideas or techniques or strategies in teaching and learning and evaluation. Creativity is measured based on the novelty of ideas and the use of the latest elements (technology/ICT/current teaching strategies) in teaching and learning and evaluation (Anugerah Pengajaran, Anugerah Akademik Negara, 2018)

## INNOVATION

An effort to increase the value of teaching and learning as well as evaluating the courses taught. The success of innovation is measured by its impact on improving the motivation and quality of student learning. (Anugerah Pengajaran, Anugerah Akademik Negara, 2018)

## TECHNOLOGY

Defined as the use and knowledge of tools, techniques, systems or methods to solve a problem or serve some purpose and this definition refers not only to tangible materials such as, tools, hardware, or software, but also to knowledge, processes, or strategies and tactics (Twymann & Heward 2018)



Photo Credit: CADE UPM

# INNOCREATIVE DELIVERY FOR PUTRA LEARNING EXPERIENCE

**InnoCreative** Delivery is rooted from the words Innovation and Creativity – by which “Innovation” is defined as the effort to increase the value of teaching and learning, as well as evaluating the courses taught; and Creativity is defined as the creation of new ideas, techniques and/or strategies in teaching, learning, and evaluation. In Universiti Putra Malaysia, the spirit of InnoCreative Delivery lies in the effort of an educator to consistently increase his/her quality of teaching and conduct of assessment through a multitude mode of novelty pedagogies and leveraging relevant (digital and non-digital) technologies at the same time, to promote a meaningful and impactful learning experience to his/her students

**InnoCreative** Delivery of an InnoCreative Mind can be understood as the interplay of an educator’s knowledge about a content, teaching methods (strategies and techniques), learning theories, and (digital and non-digital) technologies or tools that he/she uses in his/her instruction – that is fresh, contemporary, and of a novelty value, which can deliver impactful teaching and meaningful learning experience to his/her students. Having an InnoCreative mind enables an instructor to visualize and structure his/her classroom to provide an optimum teaching and learning experience while incorporating digital or non-digital technologies.



# Characteristics of InnoCreative Delivery

InnoCreative delivery is characterized by impactful learning experiences achieved through meaningful learning by the students through the synergy with an effective teaching by the educator(s) in a supportive learning atmosphere (physical and virtual) through a designed course that comprises of well-curated content (using both digital and non-digital technologies), engaging activities and e-tivities (by mixing teaching methods and learning theories in the instruction) and appropriate assessment (for learning and of learning) that matches the Course Learning Outcomes.



Photo Credit: Muta Harah Zakaria



Photo Credit: Nurfaadhina Mohd Sharef

Meaningful learning implies deep understanding through the feeling that all the pieces of idea, theory, concept and argument fits together. It is achievable through learning that is active, engaging, constructive, and durable. The educator needs to help students activate what they already know to introduce them to new knowledge. Students will feel that the information is useful, not limited to only memorizing it and involve linking and relating new information to existing knowledge.



### **EFFECTIVE TEACHING**

There are various factors of an effective educator including preparedness, clearly set and fair expectations, positive attitudes and invested with appropriately customisable delivery skills to accomplish meaningful learning for the students.



### **MEANINGFUL LEARNING**

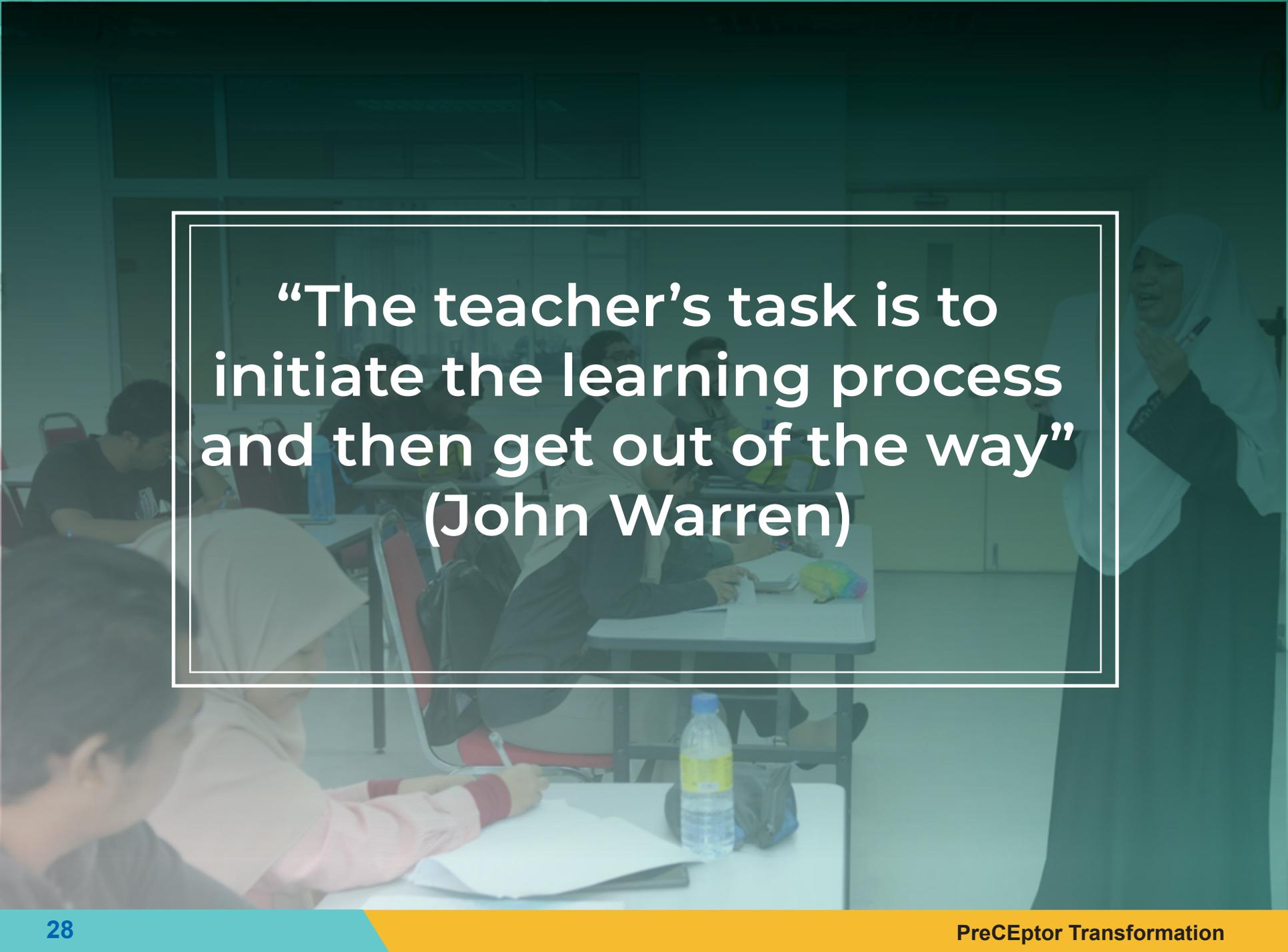
The learner could relate to newly acquired knowledge with the existing one and able to apply the learned knowledge given appropriate contexts.



### **IMPACTFUL LEARNING EXPERIENCES**

An effective teaching could accomplish meaningful learning for the students to achieve an impactful learning experiences. Impactful learning experiences is among the factors of nourished love of knowledge which encourages lifelong learning and returning alumni.

Photo Credit: CADe UPM

A photograph of a classroom with students seated at desks. A teacher in a white hijab and dark dress stands on the right side of the frame, holding a book. The scene is overlaid with a semi-transparent teal filter. A white-bordered box in the center contains a quote in white text.

**“The teacher’s task is to initiate the learning process and then get out of the way”  
(John Warren)**

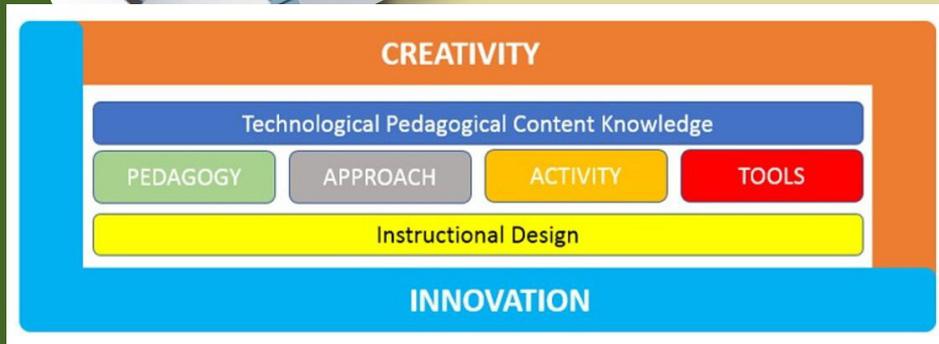


# LEARNING DESIGNER

Teaching is a catalyst of learning. At the lowest level of the innovative teaching and learning delivery framework, the educator is expected to be able

to creatively and innovatively design an effective teaching process to ensure the attainment of intended learning outcomes. This is achieved by emphasizing on student-centered learning through well-planned lessons

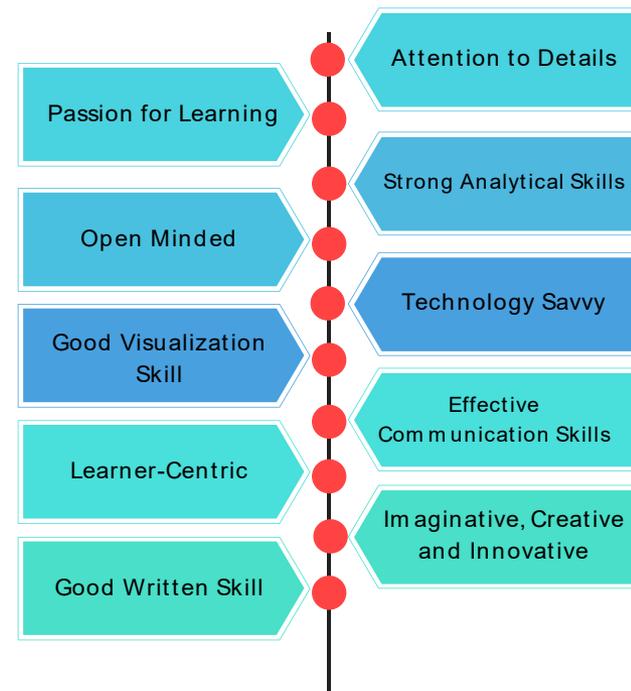
delivery. To become a good learning designer, the educator should possess the necessary skills to make effective use of appropriate tools and resources to enhance the teaching and learning delivery process. The learning design requires appropriate instructional design process such as ADDIE (Analysis, Design, Develop, Implement, Evaluate process) and incorporating specific elements of Technological Pedagogical Knowledge (TPACK).

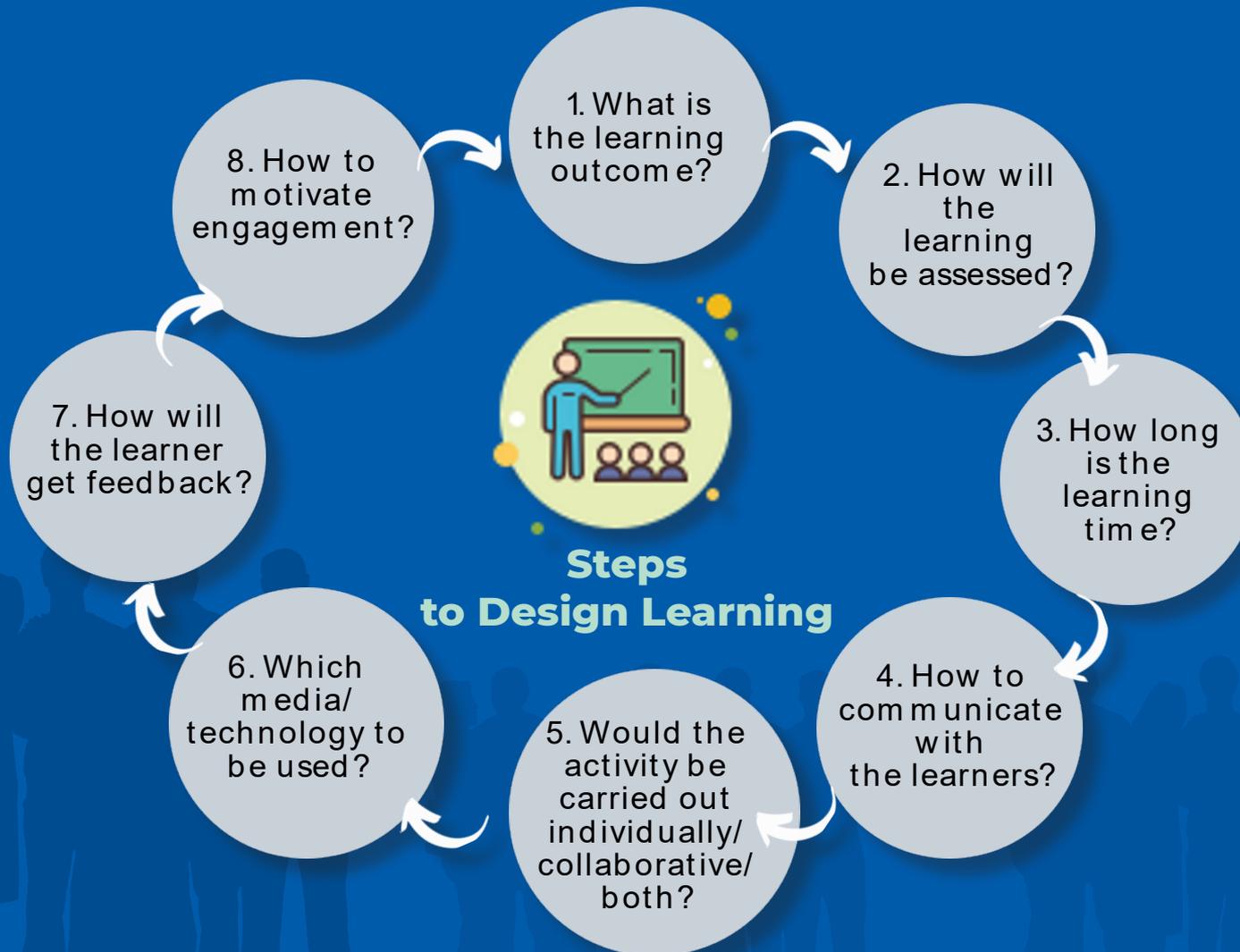


# Attributes of Learning Designer

Every appointed educators are experts in their field of knowledge, which can expand from time to time through self-exploration or self-learning. The educators should have mastered all the necessary knowledge to effectively deliver the course contents assigned to them.

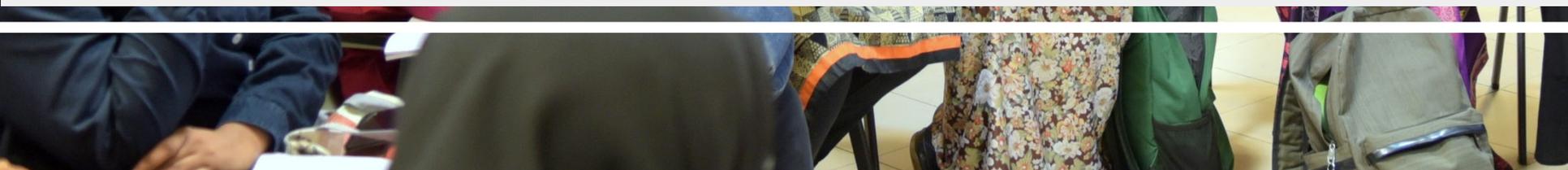
Apart from having the knowledge to deliver the course contents to the learners, effective teaching and learning process also requires the educators to be able to design a good course delivery plan. This entails the educators to equip themselves with the knowledge of available teaching and learning methods and tools, and the skills to decide what best suits the delivery of the course contents.







“I NEVER TEACH MY PUPILS. I ONLY ATTEMPT TO PROVIDE  
THE CONDITIONS IN WHICH THEY CAN LEARN.”  
(ALBERT EINSTEIN)



# RESPONSIBILITIES of LEARNING FACILITATOR

Facilitating an effective and engaging delivery requires identification of several aspects. The choice of each aspect is an interconnected decision to optimize the learning. Continuous improvement of the delivery plan (comprising the learning outcome, delivery and assessment) should be in place to ensure that the targeted outcome is achieved.

## Learning outcomes

Clear intended outcomes or objectives for the teaching and learning process allows more effective and efficient design planning of the instructional materials, delivery activities

## Continuous Improvement

A good learning design considers the knowledge or experiences gained from the previous execution, making it better with every iteration of improvement.



## Well-defined Sequence

The teaching and learning delivery process should be robust and systematic, having logical sequence of activities that highly support the attainment of the outcomes.

## Student-centred

The content delivery is designed such that the learners become active participants in the teaching and learning process, enabling the focus on the learners and their specific

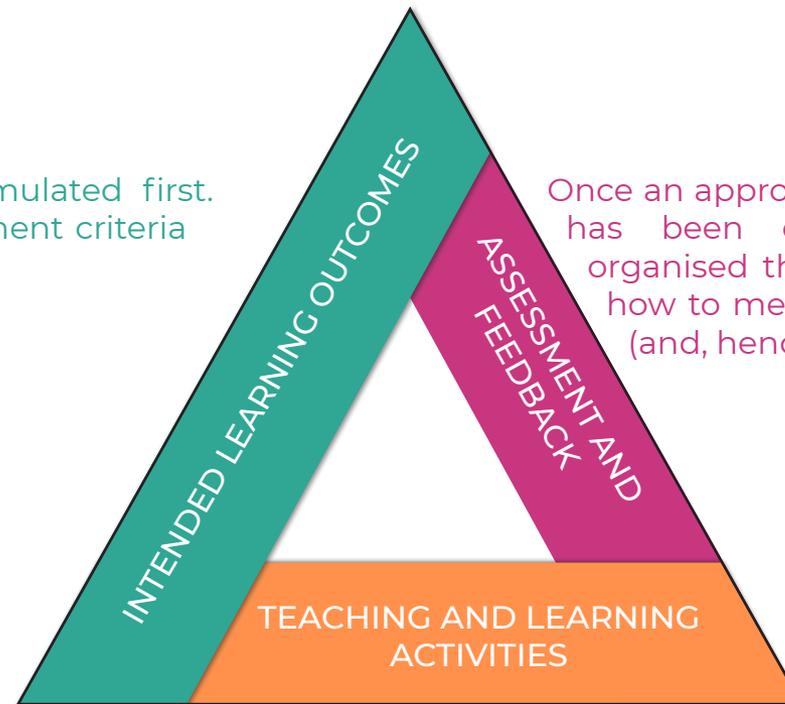
## Holistic

A well-crafted learning design or lesson plan considers the “big picture” view of the teaching and learning process’ goals, where every aspect and their

# CONSTRUCTIVE ALIGNMENT

Constructive alignment is a principle used for devising teaching and learning activities, and assessment tasks, that directly address the intended learning outcome (Biggs, 2003). Learning designer should contribute to ensure coherence between assessment, teaching strategies and intended learning outcomes in an educational programme.

The outcomes are formulated first. From these the assessment criteria are developed.



Once an appropriate assessment regime has been designed, activities are organised that will teach the student how to meet the assessment criteria (and, hence, the outcomes).

What the teacher does and what the students do are aimed at achieving the outcomes by meeting the assessment criteria.

# DESIGNED ACTIVITIES FOR MEANINGFUL LEARNING DELIVERY

*Provide students with opportunities to develop themselves and achieve meaningful learning*



*Design appropriate assessment by mapping questions to learning outcomes and*



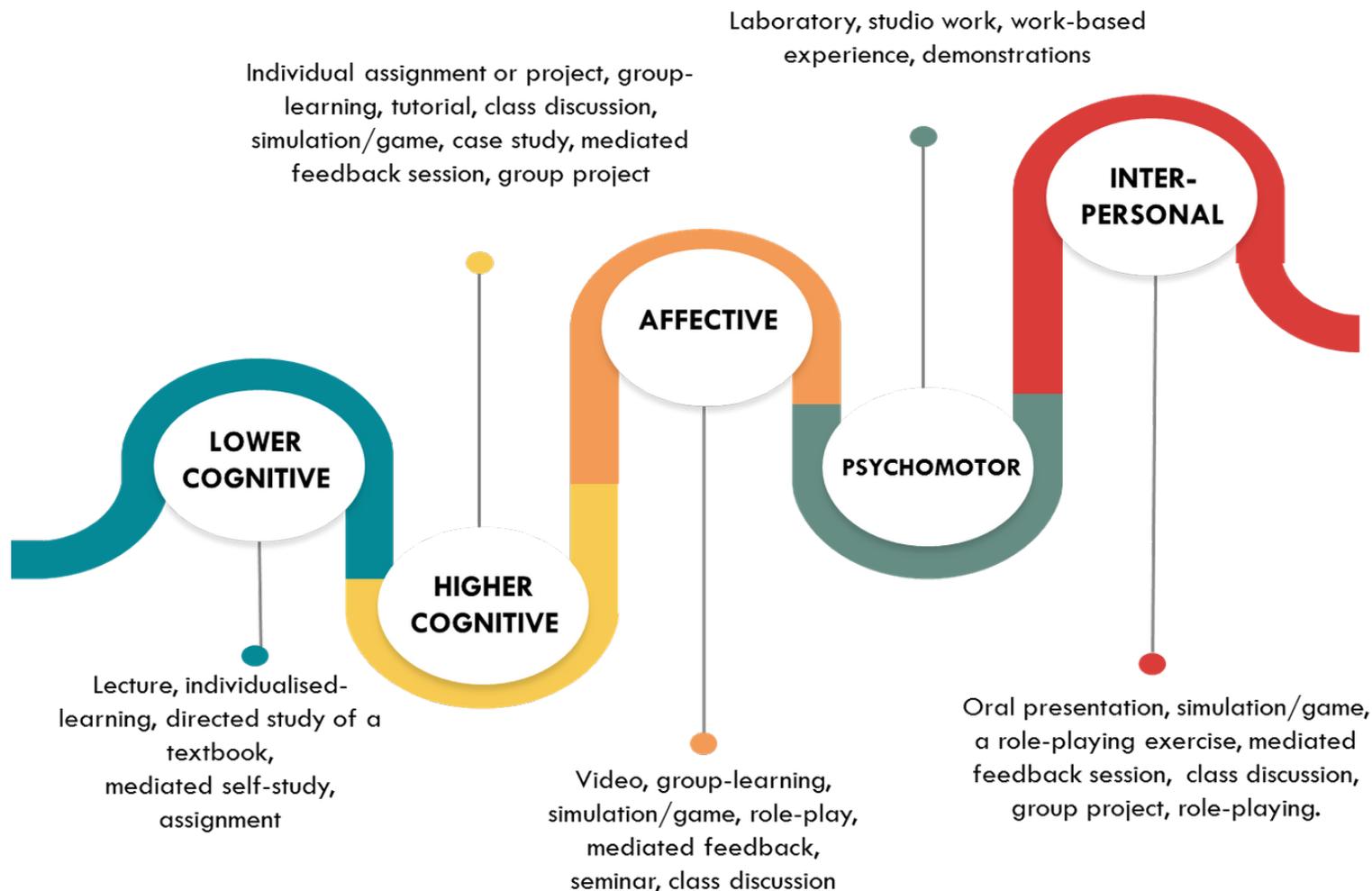
*Define pedagogical tools for course*



*Monitor the learning*

A GOOD LEARNING DESIGNER IS ABLE TO CONDUCT SUITABLE ACTIVITIES TO ASSIST MEANINGFUL LEARNING. A PROPERLY DESIGNED ACTIVITY COULD FACILITATE THE STUDENTS TO ACQUIRE THE FUTURE-PROOF GRADUATES ATTRIBUTES

# DESIGNED ACTIVITIES FOR EFFECTIVE TEACHING DELIVERY





“THE BEAUTIFUL THING  
ABOUT LEARNING IS THAT  
NO ONE CAN TAKE IT AWAY  
FROM YOU”

(B.B. KING)

Photo Credit: CADe UPM





# ENGAGING EDUCATOR

InnoCreative Educator could ensure engaging learning by utilizing various tools (digital and non-digital) for an active learning, conducted according to the expected learning outcome.

One definition of student engagement is “the amount, type, and intensity of investment students make in their educational experiences (Dahl, 2015).

Engaging learning environment can be obtained through interactivity by making the learners feel welcomed and **involved in their own learning**; setting the initial mood or climate of the environment. A clear learning outcome, schedule of various activities and constructive feedback helps to ensure learner-centered approach is achieved.

Teaching in the online environment is quite different from teaching in a face-to-face environment. Being an effective e-educator requires knowledge on online learning facilitation and engagement. The Community of Inquiry (Garrison, Andersen and Archer, 2000) is one of the techniques of enabling and promoting learning in an online environment. Various techniques can be applied:

- communicate in multiple formats
- provide active learning opportunities
- make learning social
- gamify with badges and certificates
- provide timely and useful feedback
- add self-assessment opportunities
- make course inclusive

## HOW TO DELIVER AN ENGAGING LECTURE?



## The key to meaningful learning is **ENGAGEMENT**

Instructional design is one of the essentials of engaging delivery. The instructional design process consists of determining the needs of the learners, defining the end goals and objectives of instruction, designing and planning assessment tasks, and designing teaching and learning activities to ensure the quality of instruction. The nine events of cognitive process should satisfy or provide the necessary conditions for learning and serve as the basis for designing instruction and selecting appropriate media (Gagne, Briggs & Wager, 1992)

A graphic in the top left corner features a large teal arrow curving downwards and to the right. Inside the arrow's path are four overlapping circles: a purple one with a person at a whiteboard, a blue one with a laptop, an orange one with a document and pencil, and a yellow one with a smartphone. 

# TEACHING AND LEARNING ACTIVITIES

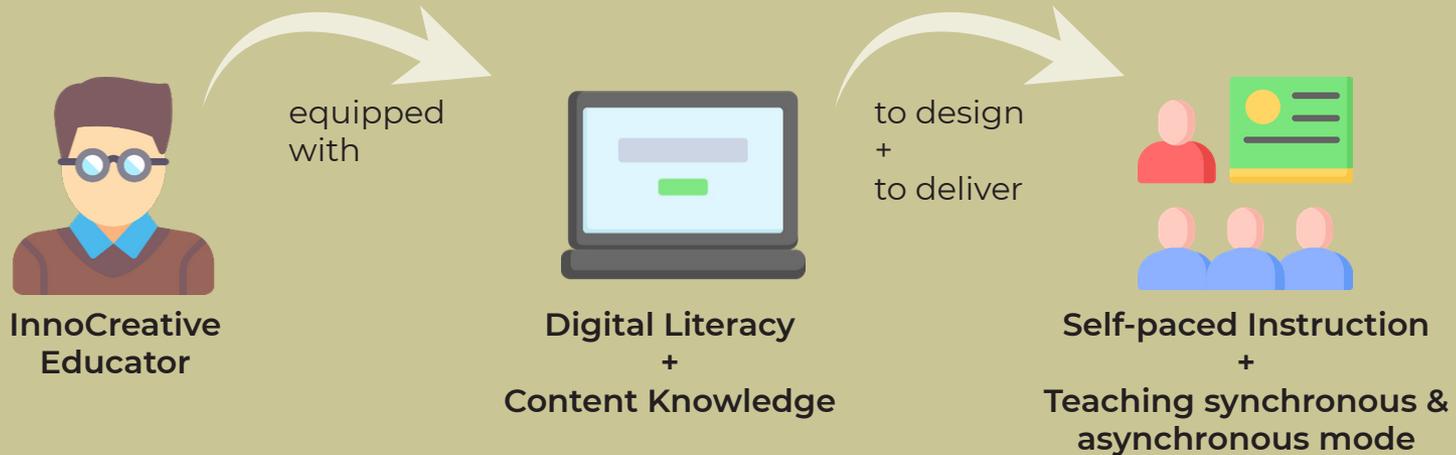
- 1 minute reflection
- 3-minutes review
- Augmented reality
- Blog
- Brainstorming
- Business proposal writing
- Buzz group
- Categorizing
- Chat
- Checklist
- Choice
- Class discussion
- Colloquia
- Concept map
- Contracts
- Debate
- Demonstrations
- Discussion
- Drill of practice
- Exit slip
- Explanation
- Flipped Classroom
- Field trip
- Fishbowl
- Flow diagram
- Forum
- Game Based Learning
- Games
- Group Project
- Industrial Talk
- Investigation
- Jigsaw
- Labeling
- Laboratory
- Localizing
- Mind-mapping
- Mix-matching
- Muting
- Open ended question
- Oral presentation
- Organizers
- Parody
- Pitching
- Pro-cons grids
- Project proposal writing
- Project report writing
- Quescussion
- Quiz
- Recitation
- Role play
- Roundtable
- Scavenger hunt
- Simulation
- Sticky note clustering
- Student critique
- Studio work
- Think-Pair-Share
- Video presentation
- Work-based experience

Various activities can be conducted to support teaching and learning, either physically and virtually. The activities function as a scaffold to ensure that the learning outcome can be achieved.



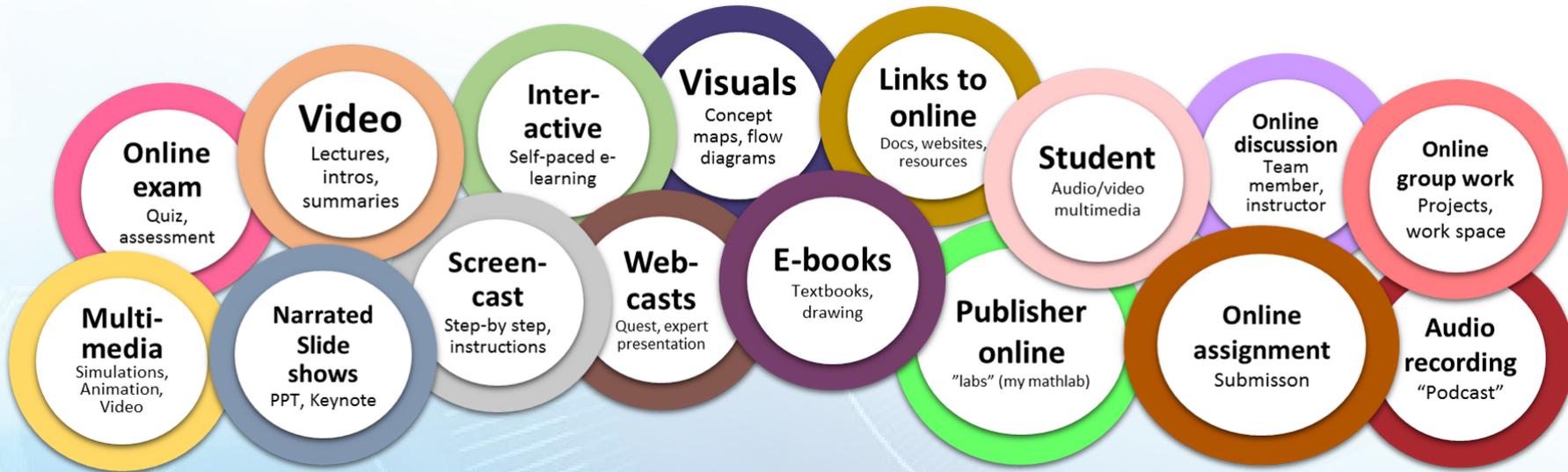
Photo Credit: Nurfadhlina Mohd Sharef, Hizmawati Madzin





## Blended Learning

Teaching with technology can engage and deepen student learning by supporting instructional objectives. Technology is the use and knowledge of tools, techniques, systems or methods to solve a problem or serve some purpose and this definition refers not only to tangible items such as materials, tools, hardware, or software, but also to knowledge, processes, or strategies and tactics (Twymann and Heward 2018). Blended learning is one of the tools in teaching where lesson is delivered through the combination of online and physical face-to-face session. The learners can control the time, pace, and place of their learning. Online technology is no longer optional and is the preferred learning mode by the millennial generation.



## DESIGNED ONLINE DELIVERY FOR MEANINGFUL LEARNING

InnoCreative Educator should be equipped with digital literacy to design the self-paced, engaging and interactive instruction through synchronous (e.g., teleconferencing, webinar and chat) and asynchronous mode (e.g., narrated slides, video lectures and animation). e-tivities can be conducted using online games, forum, survey and assignment. Lecture materials can be made interactive by embedding e-tivities and e-assessment modules using software such as H5P, EdPuzzle and even PowerPoint. An engaging educator should also have the ability to design the delivery of the course to encourage virtual knowledge exchange by facilitating interactive discussion and engaging course participants using suitable learning milestones.

# BLOOM'S DIGITAL TAXONOMY AND VERBS

Do you know? PutraBLAST runs on Moodle. Moodle is an open source course learning management system (LMS).

Bloom's Digital Taxonomy (2008) was developed by Andrew Churches as an extension of the original Bloom's Taxonomy to account for the emerging behaviours, actions and learning opportunities.



Source: TeachThought Staff

**“The mediocre teacher tells. The good teacher explains.  
The superior teacher demonstrates. The great teacher  
inspires. “**

**(William Arthur Ward)**





# COMPASSIONATE EDUCATOR - SKILLS

Adaptive teaching is one of the important skills of a compassionate educator.

Adaptive teaching is the ability to provide personalised learning according to students need by applying different instructional strategies to different groups of learners so that natural diversity prevailing in the classroom does not prevent any learner from achieving success (Borich, 2011)

- 1 Aware of the social dynamics of the classroom
- 2 Able to address such variations in order to enhance learning among the learners
- 3 Able to blend the curriculum, instructional delivery, and assessments to provide a more holistic understanding of learners needs
- 4 Respond to the learners as they proceed, and reading the signals of the learners is crucial in ensuring a higher level of learning
- 5 Encourage the highest number of learners in the class by challenging learners to share experiences and be involved in critical thinking exercises.

# Compassionate Educator Attributes



**ARE ADVOCATES FOR THE PROFESSION**  
An adaptive educator should be an advocate not only for their learners but their profession.



**ARE FORWARD THINKING**  
An effective 21st-century educator thinks about their learners' future and is aware of the career opportunities that may arise from them. They should be able to plan in advance.



**KNOW HOW TO COLLABORATE**  
An effective educator must be able to collaborate and work well within a team and share ideas and knowledge with others.



**ARE TECH SAVVY**  
Technology is changing at a rapid pace and that means that a 21st-century educator is right along for the ride. An effective educator knows that learning about the latest gadget can truly transform their learners' education.



**LIFELONG LEARNERS**  
These educators do not just expect their learners to be a lifelong learner, but they are as well. They stay up-to-date with current educational trends and technology and know-how to tweak their old lesson plans from years before to make them more current.



**THEY ARE ADAPTIVE**  
They are able to adapt to whatever comes their way. Being an educator in today's world means that you have to adapt to the ever-changing tools and changes that are being implemented in the schools.

# HOW TO PERSONALISE LEARNING



01

ENCOURAGE SELF ASSESSMENT

04

SWITCH TO STANDARD-BASED GRADING AND REPORTING

02

PREPARE VARIOUS CONTENT MODALITIES (IMAGE, VIDEO, AUDIO)

05

SET PERSONAL LEARNING PLAN

03

MATCH VISUAL/ AURAL/ TACTILE LEARNING STYLES.

06

OFFER VARIATIONS OF LEARNING PATHWAYS

Celebrate diversity and support inclusivity for personalized learning delivery as students has various learning styles. They also go beyond formal meeting hours during the classroom to be able to scaffold students' learning achievement. They are connected emotionally and digitally with suitable resources to accomplish quality graduate attributes.



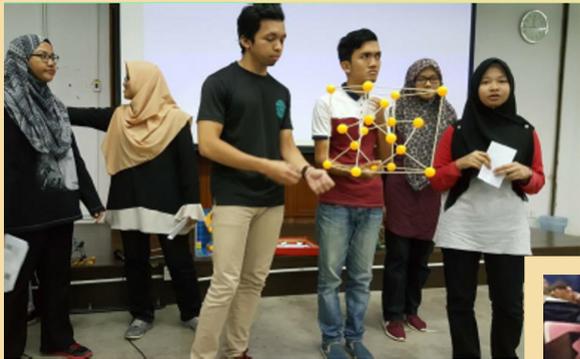
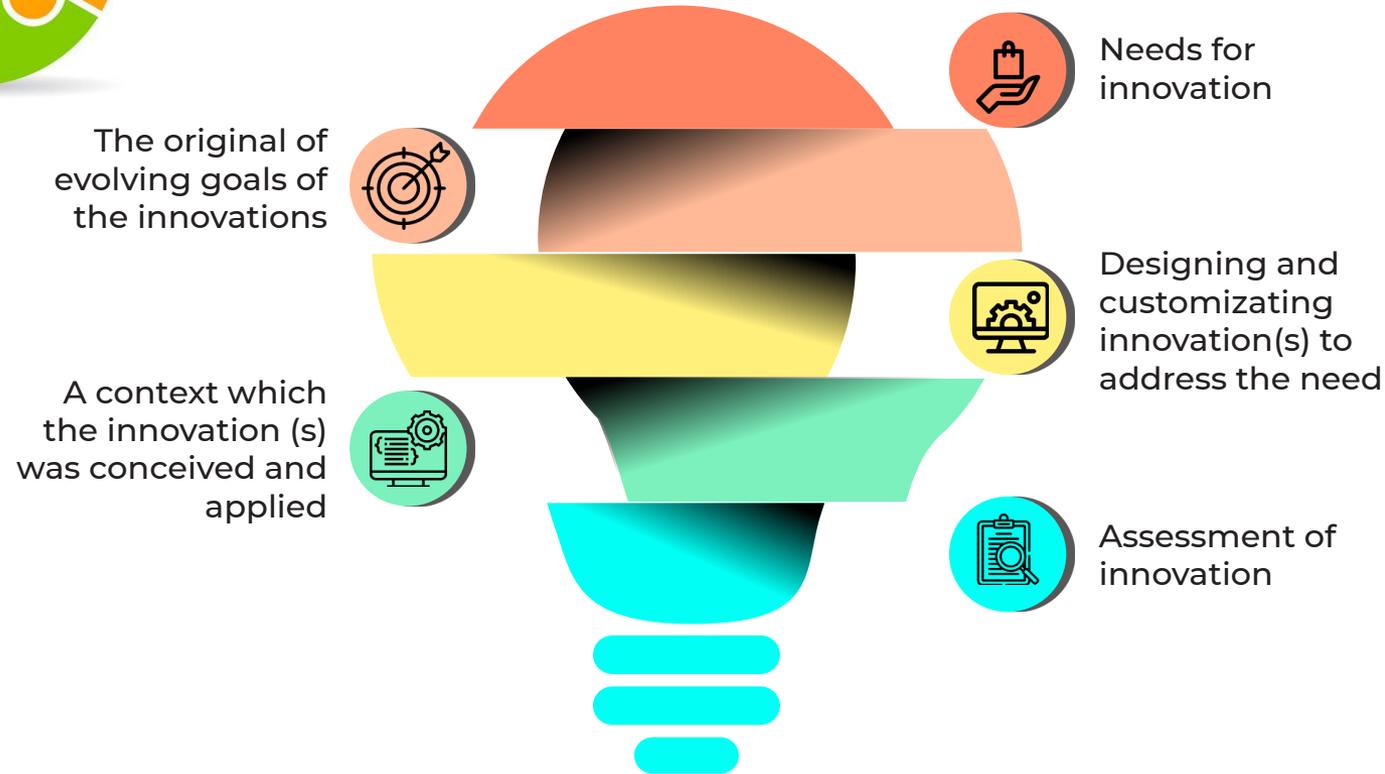


Photo Credit: Syafinaz, Suriati, Goh Yong Meng



# SCHOLARLY EDUCATOR



A scholarly educator makes a significant contribution to pedagogical knowledge by engaging with a scholarly approach to their teaching practice and contributing to the scholarly research literature. Successful candidates would influence educational practice as well as educational knowledge. Scholarly educators are grounded in a student-centered perspective and share their findings with institutional colleagues, promoting communities of practice around their educational research.

# What is Scholarly Educator?

01



A SCHOLARLY InnoCreative Educator catalyzes a designed, engaging and compassionate delivery through innovation of teaching best practices to ensure continuous improvement of the teaching and learning quality.

02



The innovation requires the skills to adapt, customize and improve suitable teaching pedagogies, approaches, activities and tools to sustain the relevance of the teaching to the learning needs.

03



The scholarly educator also has high motivation to disseminate best practice discoveries and could inspire colleagues to form a larger scholarly community.

# Attributes of Scholarly Educator





# **PUTRA INNOCREATIVE DELIVERY (PrIDe)**

**PART 3**



Role Models

### T&L Competition



Winners



### Excellence Lecturer Award



AFNC



Young Lecturer Award

Winners

Competitiveness for higher education would be achieved through a culture of innovation in the profession of educators to diversify teaching and learning methods. PrEceptor is the main player to implement PrIDe initiatives for global prominence through online learning and pedagogy that cultivate self-driven and life-long learners. Students should be inspired to learn beyond classrooms and trained to equip themselves with skills which will enable them to reach their full potential and develop skills that will help them thrive in the future.

Photo Credit: CADe UPM

# INNOCREATIVE TEACHING DELIVERY TECHNIQUES AND APPROACHES

INQUIRY-BASED  
LEARNING



COOPERATIVE  
LEARNING



PROBLEM/  
PROJECT -ORIENTED  
BASED PROBLEM



EXPERIENTIAL  
LEARNING



CASE STUDY



IMMERSIVE  
LEARNING



SERVICE/  
COMMUNITY-BASED  
LEARNING



CHALLENGE-BASED  
LEARNING



WORK-BASED  
LEARNING



SIMULATION-  
BASED LEARNING



MODULAR



GLOBAL/ ONLINE  
LEARNING



GAMIFICATION/  
GAME -BASED  
LEARNING



PASSION-BASED  
LEARNING

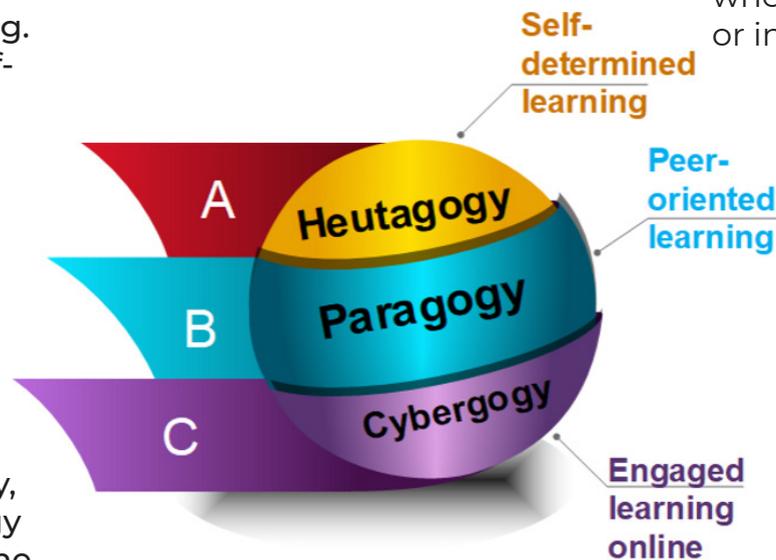


FLIPPED  
CLASSROOM



# PEDAGOGIES FOR INNOCREATIVE DELIVERY

The age of connected learning has changed the way teaching should be. **Andragogy** is the theory of adults teaching. **Heutagogy** refers to self-directed learning while **paragogy** (also referred to as peeragogy), is a theory of peer-to-peer learning. **Cybergogy** means a theory for online-based learning. For innovative teaching and learning at tertiary level, the knowledge on the theory of heutagogy, paragogy and cybergogy are essential to suit to the adult's needs.



Self-determined or self-directed learning, i.e. learning occurs when the learner is ready and not when the teacher expects or intends it.

Learning is through co-learning and co-creation; endeavors to both describe the phenomenon of effective peer learning, and to prescribe key aspects of its best practice.

Focuses on learning by facilitating and technologically enabling learner-centered, autonomous and collaborative learning in a virtual environment.

# INNOCREATIVE TEACHING DELIVERY

## TECHNIQUES AND APPROACHES

### INQUIRY-BASED LEARNING



This student-driven knowledge exploration emphasizes on the students to pose questions to learn about the topic or hands-on exercise. The steps are interaction (exploration revolving topic), clarification (summarizing understanding), questioning (asking more self-directed learning), design (curiosity-driven action to justify inquiry).

### COOPERATIVE LEARNING



The process of breaking a classroom of students into small groups so they can discover a new concept together and help each other learn.

### PROBLEM/PROJECT-ORIENTED BASED PROBLEM LEARNING



Uses an open-ended/complex problem with a myriad of solutions, (or no solutions at all). Students work collaboratively in groups to define the problem from the given content, ultimately arriving at a solution(s), while fulfilling the intended learning outcomes.

# INNOCREATIVE TEACHING DELIVERY

## TECHNIQUES AND APPROACHES

### EXPERIENTIAL LEARNING



Students prepare for employment by exposing them in learning about work, learning through work, and learning at work. Involves authentic learning method that uses industry's or real-world scenario.

### CASE STUDY



Students review a real-life situation and through discussion explore how they would approach or even resolve the issues. The technique generally requires students to read the case or watch a video that summarizes the case. Students then work in small groups or individually to solve the case study. The instructor sets milestones defining what students should accomplish to help them manage their time.

### IMMERSIVE LEARNING



Places individuals in an interactive learning environment, either physically or virtually, to replicate possible scenarios. Involve the use of a simulated or artificial environment.

# INNOCREATIVE TEACHING DELIVERY

## TECHNIQUES AND APPROACHES

### SERVICE/ COMMUNITY-BASED



A form of experiential education where learning occurs through a cycle of action and reflection as students work with others through a process of applying what they are learning to community problems, and at the same time, reflecting upon their experience as they seek to achieve real objectives for the community and deeper understanding for themselves (Eyler and Giles, 1999).

### CHALLENGE-BASED LEARNING



The approach comprises of “Engage”, “Investigate”, and “Act”. Students prepare for employment by expose to real-world challenges which are solved collaboratively. The learning is purely directed by the students where learning is through acting.

### WORK-BASED LEARNING



Authentic learning experience can be delivered through work-based learning (WBL) as students undergo real-life work experience. WBL gives students the opportunity to explore what they have learned in the classroom within a real-world context.

# INNOCREATIVE TEACHING DELIVERY

## TECHNIQUES AND APPROACHES

### SIMULATION-BASED LEARNING



Simulation-based learning is a constructivist learning model that provides learners with an experience of working on a usually simplified simulated world or system. This approach is used extensively, especially in medical education.

### MODULAR



A module is a self-contained educational unit that performs a specific task; which a single topic or a small section of a broad topic is studied within a period of time.

### GLOBAL/ ONLINE LEARNING



It concentrates on connections and interdependence that can help students develop an awareness of others out of their realm, sharing and gaining perspectives with diverse people outside their community and from other parts of Malaysia and around the globe. It involves critical analysis of and an engagement with complex, interdependent global systems and legacies (such as natural, physical, social, cultural, economic, and political) and their implications for people's lives and earth's sustainability (AACU, 2008).

# INNOCREATIVE TEACHING DELIVERY

## TECHNIQUES AND APPROACHES

### GAMIFICATION/ GAME-BASED



Gamification is the application of game-design elements and game principles in non-game contexts. It can also be defined as a set of activities and processes to solve problems by using or applying the characteristics of game elements. [Wikipedia, 11th Oct 2019]. Game-based learning (GBL) is a type of game play that has defined learning outcomes. Generally, game-based learning is designed to balance subject matter with gameplay and the ability of the player to retain and apply said subject matter to the real world..

### PASSION-BASED LEARNING



Passion based learning is a process by which the instructor is able to make his/her passion infectious to his/her learners, or let the learners find, explore and embrace their passion through projects, with intense enthusiasm. The central theme to passion-based learning is drawing learners in using the passion “bait,” and keeping them engaged in the learning process. Through this approach, instructors are able to connect with their learners when they can understand their learners’ interest better. Learning are much meaningful when learners are able to construct new knowledge by embracing their interest and expressing their passion.

### FLIPPED CLASSROOM



Flipped classroom, also known as inverted classroom, is an instructional strategy and a type of blended learning that reverses the traditional learning environment by delivering instructional content outside of the classroom. Students are introduced to the learning material before class and the classroom time is used to deepen their understanding through discussions with peers and problem-solving activities facilitated by the educators.

# TECHNOLOGY ENHANCED ACTIVE LEARNING

 <p><b>Online Meeting</b></p> <ul style="list-style-type: none"> <li>• Zoom</li> <li>• Skype</li> <li>• Zeetings</li> <li>• Google Hangout</li> <li>• Big Blue Button</li> </ul>	 <p><b>Screencasting Tools</b></p> <ul style="list-style-type: none"> <li>• Camtasia</li> <li>• Screencast-O-Matic</li> <li>• Bandi Cam</li> <li>• Cam Studio</li> <li>• Audacity</li> </ul>	 <p><b>Augmented Reality</b></p> <ul style="list-style-type: none"> <li>• Blippar</li> <li>• Vuforia</li> <li>• HP Reveal</li> <li>• Articulate</li> <li>• Zapworks</li> </ul>	 <p><b>Infographic Tools</b></p> <ul style="list-style-type: none"> <li>• Piktochart</li> <li>• Canva</li> <li>• Mural</li> <li>• Animaker</li> <li>• Adobe Illustrator</li> </ul>	 <p><b>Mind mapping Tools</b></p> <ul style="list-style-type: none"> <li>• MindMeister</li> <li>• Wisemapping</li> <li>• Popplet</li> <li>• MindMup</li> <li>• Coggle</li> </ul>
 <p><b>Gamification Tools</b></p> <ul style="list-style-type: none"> <li>• Kahoot</li> <li>• Quizizz</li> <li>• Quizlet</li> <li>• H5P</li> <li>• Mentimeter</li> </ul>	 <p><b>Real-time Quizzing Tools</b></p> <ul style="list-style-type: none"> <li>• Goformative</li> <li>• Socrative</li> </ul>	 <p><b>Video based Quizzing Tools</b></p> <ul style="list-style-type: none"> <li>• EDPuzzle</li> <li>• TED-ED Lesson</li> <li>• H5P</li> </ul>	 <p><b>Curation Tools</b></p> <ul style="list-style-type: none"> <li>• Pinterest</li> <li>• Blendspace</li> </ul>	 <p><b>Brainstorming Tools</b></p> <ul style="list-style-type: none"> <li>• Poll Everywhere</li> <li>• Padlet</li> </ul>
 <p><b>Presentation Tools</b></p> <ul style="list-style-type: none"> <li>• Prezi</li> <li>• E-Maze</li> </ul>	 <p><b>Animation Tools</b></p> <ul style="list-style-type: none"> <li>• Adobe Animate</li> <li>• Sparkol</li> <li>• Biteable</li> </ul>	 <p><b>Video Authoring</b></p> <ul style="list-style-type: none"> <li>• Powtoon</li> <li>• VideoScribe</li> <li>• GoAnimate</li> </ul>	 <p><b>Interactive Content</b></p> <ul style="list-style-type: none"> <li>• ThingLink</li> <li>• Nearpod</li> <li>• InsertLearning</li> </ul>	 <p><b>Scavenger Hunt</b></p> <ul style="list-style-type: none"> <li>• GooseChase</li> <li>• Scavity</li> <li>• Actionbound</li> <li>• Scavr</li> <li>• Huntzz</li> </ul>

# TECHNOLOGY ENHANCED ACTIVE LEARNING

Web 2.0 tools for education is becoming a staple of learning because digital literacy enables interactivity, personalization of learning styles and flexibility to access of content. Various applications can be used to support the teaching and learning activities.

Photo Credit: Nurfadhlina Mohd Sharef



# BEST PRACTICES FOR ONLINE COURSE DESIGN

## *Intentional Technology*

Create assignments that imitate real-world situations and use suitable technologies to deliver engaging learning.

## *Personalized Feedback*

Monitor student's progress closely, question and provide positive first, then constructive feedback. Giving and receiving feedback helps to compensate for the lack of physical cues in the online environment.

## *Active Learning*

Facilitate the deeper learning that occurs when students interact with their classmates through questioning and feedback, debate, video sharing, pitching and presentation.

## *Good instructional practise*

Creating interactive course materials that are accessible to diverse students and technologies. Interaction should happen between students, student and content and instructor-student.

## *Clear Expectations*

Provide guide of activities and assignments, and inform students as to what they should be able to do once they have completed a module or topic so that they are clear that learning objectives is met.

## *Community of Inquiry*

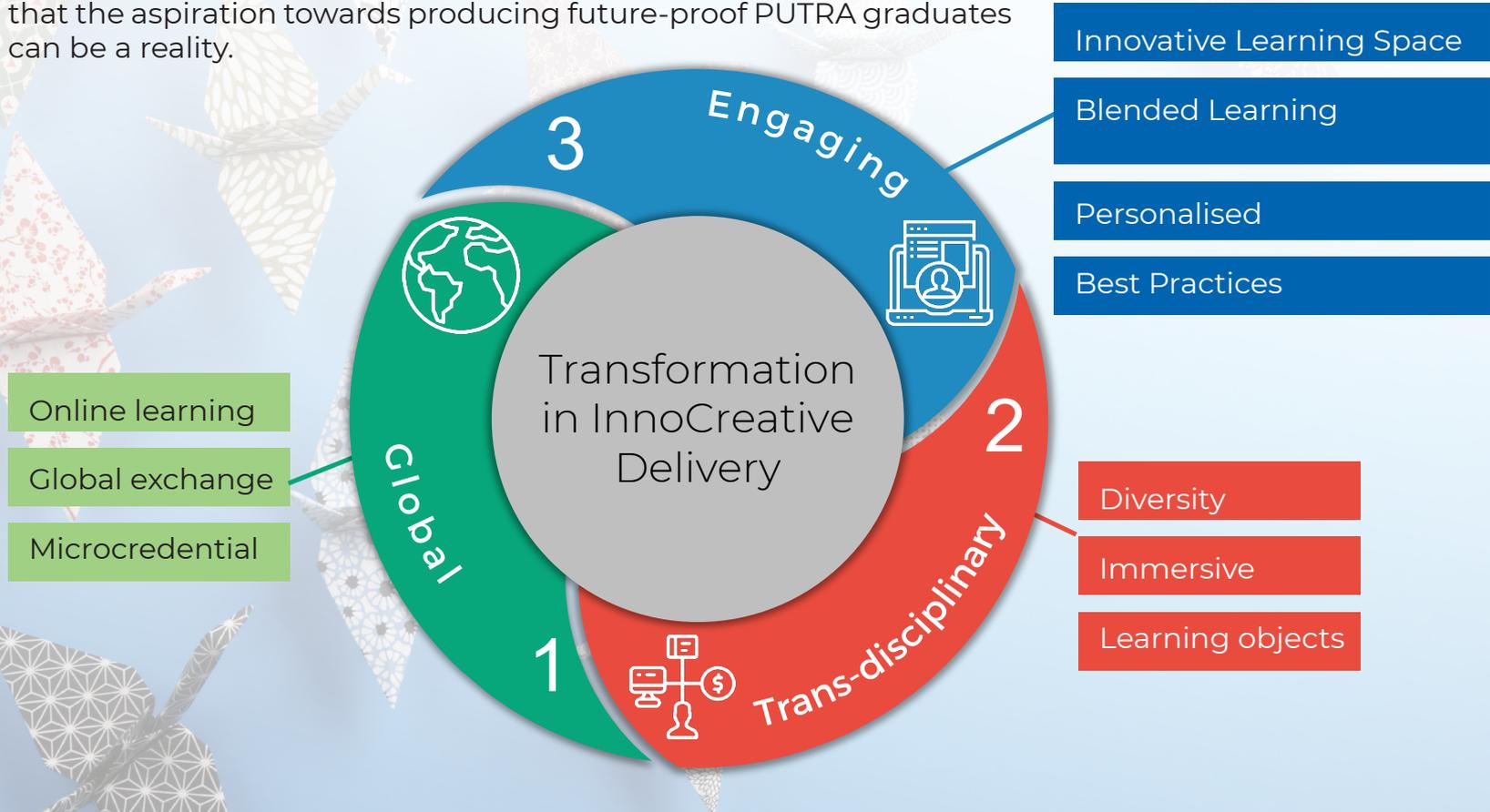
Facilitate the deeper learning that occurs when students interact with their classmates through questioning and feedback, debate, video sharing, pitching and presentation.

## *Instructor Presence*

Create a virtual learning ambience by logging in regularly and interacting with the students through a mixture of online conferencing and message postings.

# Way Ahead

In order to execute the UPM Academic Transformation, innovative delivery transformation needs to happen at individual (e.g., PrEceptor and PrIDe), course and program levels. The way ahead for innovative delivery requires support and collaboration by all the stakeholders so that the aspiration towards producing future-proof PUTRA graduates can be a reality.



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# Glossary

## Innovative Learning Space

Functions	Description
Simulative industrial experience	Simulating the work setting allows students to situate learning in the real context (eg: mock court setting for future lawyers, mock operation theatre which will benefit students in medical sciences who would have limited opportunities to enter the real operation theatre).
Experimental behavior observation space	To be able to understand natural behavior, observation from a hidden angle may help (eg: counseling, psychiatrist, consumer behavior, sports study)
Global learning	Global collaborative online learning is a pedagogy that could prepare students who have respect for diversity (i.e., ethnicity, ability), has connected skills (human and digital), and high communication and collaboration skills.
Collaborative learning space	This is the basics and stated as the must-haves in the 21 <sup>st</sup> century learning environment. The space could support bring your own device (BYOD) concept and has a layout suitable for both formal and non-formal learning requirements.
Immersive learning space	This learning space prepares students for the digital being, where learning is situated in a virtual world with assistive device. Students could learn collaboratively and engagement with human and learning materials happen in both physical and digital world
Makerspace	This learning space is designed to support multidisciplinary learning activities and range from creative content production studio (which could benefit multimedia related studies), and could be also set up as a lab that involves product testing, mechanical, motoring, circuit, robot, embedded system, painting, manufacturing purposes (which could benefit architecture, engineering, computer science, education, multimedia)
Green learning space	Studies related to agriculture, forestry and veterinary could benefit the integration of technology into their normal learning space so they could extend and relearn from the collection of big digital data (e.g., smart farm, precision agriculture, climate-smart forestry)

# Meet the TEAM



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# Special Thanks

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