EXCEL Integration in Curriculum Design

UTM

CENTER FOR ADVANCEMENT IN DIGITAL & FLEXIBLE LEARNING

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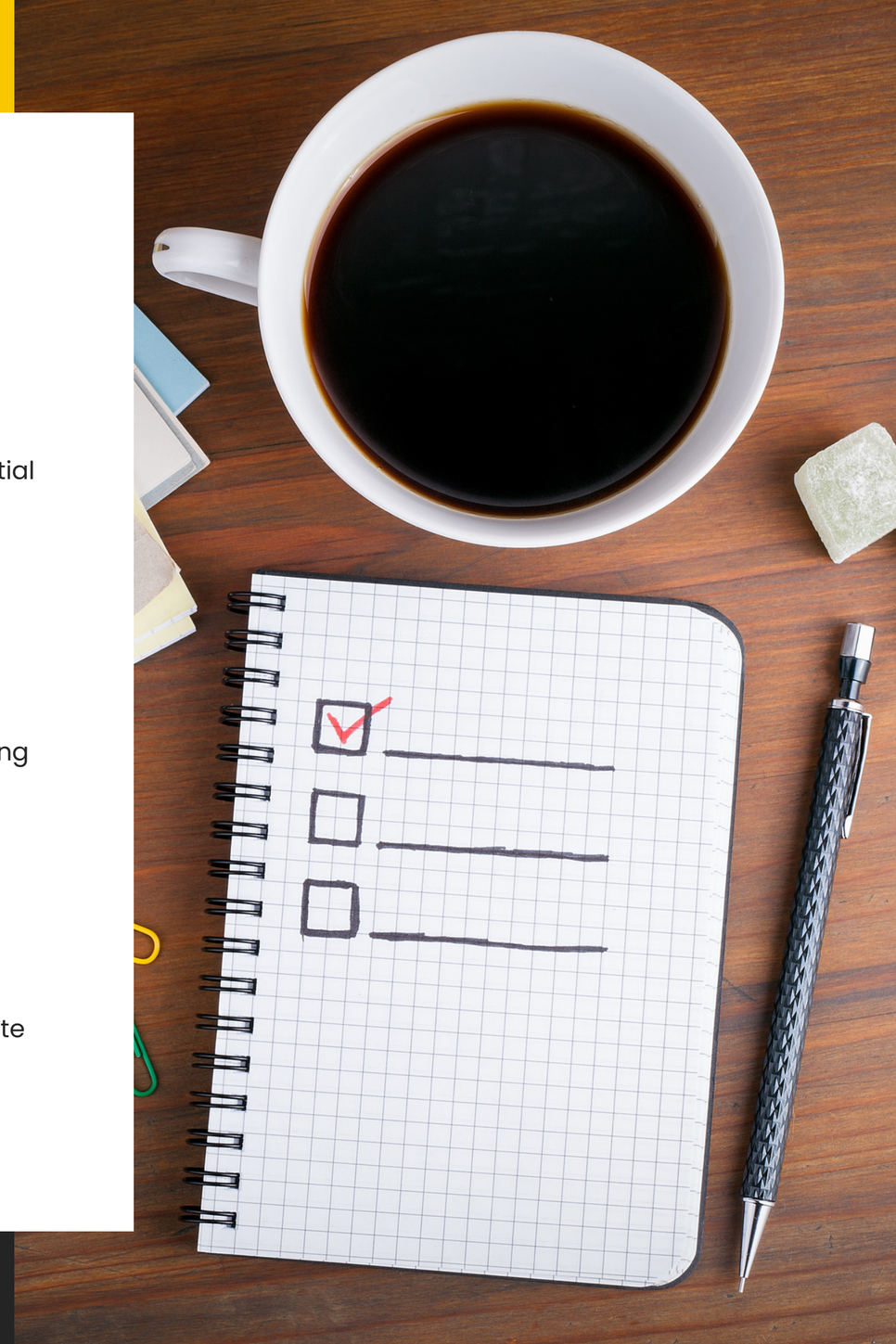


EXCEL FRAMEWORK

Experiential Learning and Competency-based Education Landscape (EXCEL) framework is introduced by Ministry of Higher Education in 2021 promote change in curriculum design among higher education institutions through 4 thrusts:

REAL THRUST

Research Infused Experiential Learning

CARE THRUST

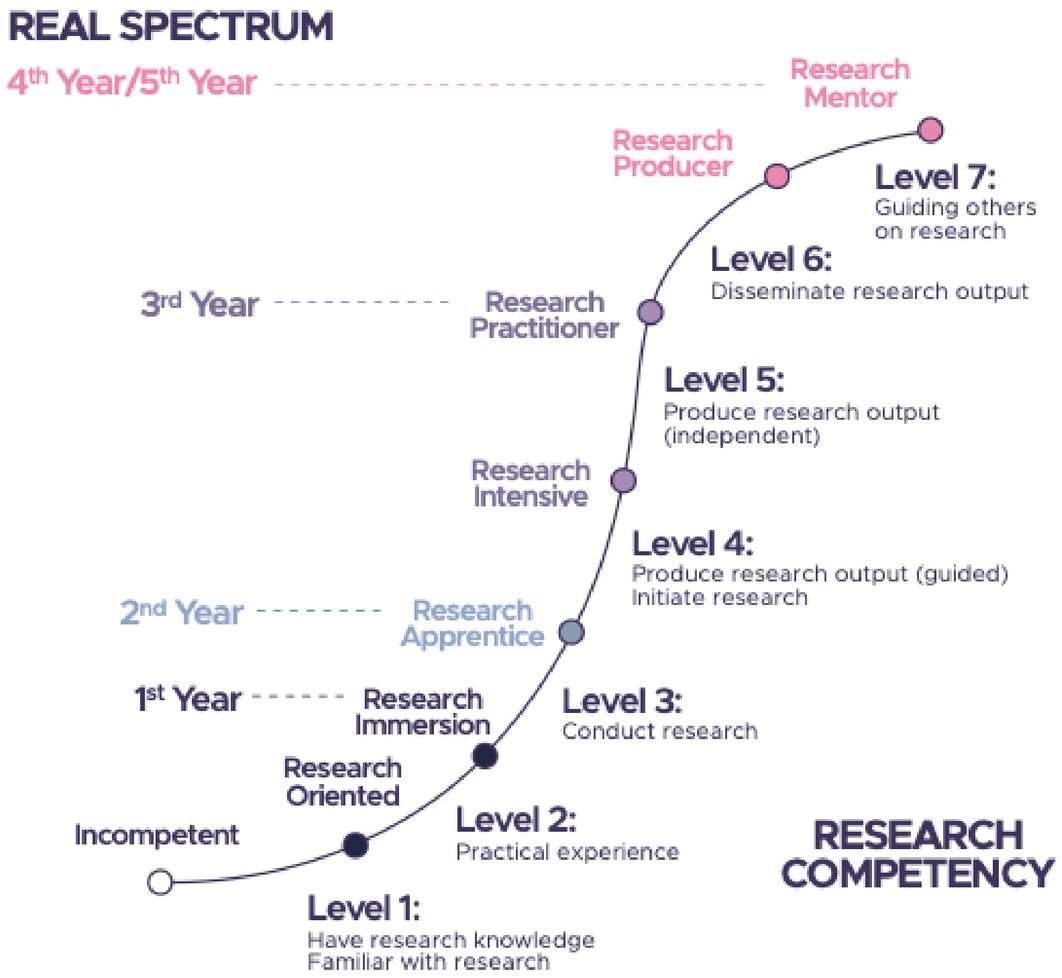
Community Resilience Experiential Learning

IDEAL THRUST

Industry Driven Experiential Learning

POISE THRUST

Personalised Experiential Learning



REAL THRUST

Research Infused Experiential Learning (REAL) promotes research learning experience in curriculum. It can happen through several levels as shown in the REAL Spectrum.

REAL AS A CURRICULUM FRAMEWORK

- A REAL Program is achieved whenever **50 -70% of programme learning outcomes** (based on the **core discipline**) are mapped to the **REAL taxonomy**.

- The **minimum REAL level** for a REAL programme is the **Research Intensive / Research Practitioner level (Level 4 & 5).**

REAL TAXONOMY

1

50 - 70% of Programme Learning Outcomes (based on core disciplines) have to map to this taxonomy for a programme to be a REAL programme

REAL Spectrum	Research Competency	Description	COMPETENCY								TAXONOMY
			Familiarity	Have knowledge	Practical experience	Conduct research	Initiate research	Produce research output	Disseminate research result	Guiding others on research	INDICATORS
Level 1: Research Oriented	Have research knowledge Familiar with research	Students are provided with research knowledge and scientific methodological skills to progress from awareness to understanding of research	√	√							Students must be exposed to the knowledge and scientific skills through formal courses
Level 2: Research Immersion	Practical experience	It focuses on the development of research and inquiry skills and techniques through research practical sessions or attachment with scientists/researchers on an on-going research project; students may become observers/assistants	√	√	√						Students must be involved (assist or observe) in the research activities
Level 3: Research Apprentice	Conduct research	Students are assigned to work with supervisors an on-going research project. They will be guided on how to perform research tasks and have the opportunity to collaborate with other researchers	√	√	√	√					Supervisors provide students with the research proposal/ideas/title to be conducted
Level 4: Research Intensive	Produce research output (guided) initiate research	Students become active participants, rather than passive recipients, to develop research ideas and contribute to the production of knowledge under closed guidance by experienced researchers/scientists. Students are personally and professionally supported to develop their research skills	√	√	√	√	√	√			Students generate their own ideas but closely guided (more than 70% of efforts) by supervisor to refine it
Level 5: Research Practitioner	Produce research output (independent)	Students become active participants, rather than passive recipients, to develop research ideas and contribute to the production of knowledge under minimal guidance. Students are personally and professionally supported to develop their research skills	√	√	√	√	√	√			Students generate their own ideas but minimally guided (less than 30% of efforts) by supervisor to refine it
Level 6: Research Producer	Disseminate research output	Students demonstrate individual capability to disseminate research output through publications (in respective fields) and communicate the research findings at various platforms	√	√	√	√	√	√	√		Students MUST publish research findings independently OR Students MUST exhibit research findings independently at national level
Level 6: Research Mentor	Guiding others on research	Students become mentors to guide, coach or train the inexperienced juniors to pursue their interests and goals in research. They provide supports and opportunities to the inexperienced juniors to find their research interests and areas	√	√	√	√	√	√	√	√	Guide level 3 REAL juniors to perform research

2

Minimum REAL level for a REAL programme

IDEAL THRUST

Industry Driven experiential learning (IDEAL) is a curricular thrust that promotes experiential learning with the industries.

IDEAL AS A CURRICULUM FRAMEWORK

- Involvement of industry in **curriculum, delivery, assessment and management**.

- Can be done using the following approaches:
  - **Industry infused** through industrial training course, Final project, Work-based Learning, etc.
  - **Coop education** (work term every other semester, 2u2i)
  - **Apprenticeship** (recruitment and mentorship by industry)

IDEAL **SPECTRUM**

Experiential Learning	Description
Industry Infused	1. Infuse work-based experience through POPBL/WBL delivery, elective courses, Clinical course, Industrial Training course, Final Project and others. 2. 15% - 20% time spend for WBL, mostly at HEP.
Cooperative Edu	1. Work term every other semester. 2. Requires extension depending on level of cooperation. 3. 2u2i is an example of coop edu. 4. 30% - 50% time spend for WBL at workplace.
Apprenticeship	1. Recruitment and mentorship by industry. 2. 70% - 80% time spend for WBL at workplace (on the job training).

1

Minimum IDEAL level for an IDEAL programme

CARE THRUST

Community resilience experiential learning (CARE) is a curricular thrust that **promotes student learning by addressing community needs.**

CARE AS A CURRICULUM FRAMEWORK

- Communities can be **local residents, non-profit organisations, governments and community-based organisations.**

- CARE is a **curriculum structure** for an academic program while SULAM is a **teaching and learning method.**

CARE LEVEL

CARE Level	Description	Criteria				Identified Competency
		Two SULAM embedded courses using two different SULAM approaches	Minimum three SULAM embedded courses using any of the four approaches and one with international partner	Minimum four SULAM embedded courses inclusive of minimum of 1 semester of research in community - CARE + REAL). Example: 3u1c or 2u1c model	Minimum four SULAM embedded courses inclusive of minimum of 1 semester of research in community and 1 semester of placement in industry/ agency - CARE + REAL + IDEAL/POISE). Example: 2u1i1c model	
Level 1 (Community Infused)	Students are exposed to the SULAM concept and able to interact with the community while conducting the community service	√				Ability to develop inter- and Intrapersonal skills in civic engagement
Level 2 (Community Immersion)	Students are assigned to collaborate with at least one external stakeholder (i.e. industry/ government agency/NGO - Quadruple Helix concept) and one international partner in carrying out SULAM projects which are embedded in the courses	√	√			Ability to work collaboratively within Quadruple Helix framework and may include International partner
Level 3 (Community Practice)	Students actively involve in SULAM projects and work closely with various stakeholders (industry/government agency/ NGO - Quadruple Helix) in conducting final year research in community focussing on Social Innovation Project	√	√	√		Ability to conduct research in community focussing on SDG
Level 4 (Community Innovation)	Students undergo Work-based Learning (WBL) by spending a minimum period of one semester at industry/government agency/ NGO before conducting final year research in community focussing on Social Innovation Project	√	√	√	√	Ability to provide research-based industry solutions in community

1

Minimum CARE Level (Level 3 or 4) for a programme to be a CARE programme

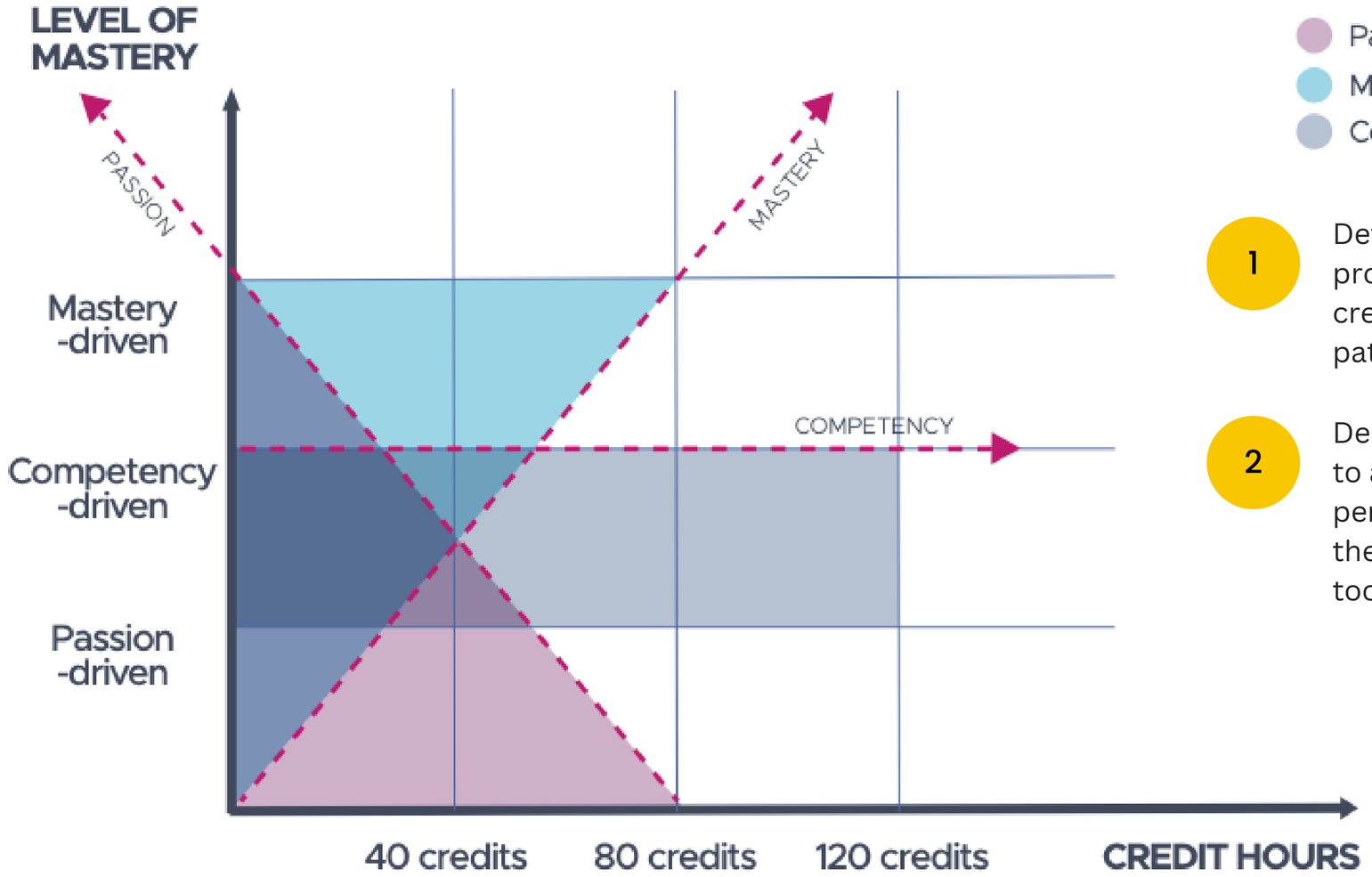
POISE THRUST

Personalised experiential learning (POISE) is a curricular thrust that **promotes access to learning based on diverse interests in obtaining academic qualifications.**

POISE AS A CURRICULUM FRAMEWORK

- Curriculum design can be:
  - Passion-driven
  - Mastery-driven
  - Competency-driven
- Flexible learning time with maximum 7 years of study duration
- For Competency/Mastery driven program, naming of program is based on major
- For Passion-driven program, naming of program is based on the highest percentage of Body of Knowledge of the Program.
- Can be in the form of stackable degree from micro-credential courses

POISE MODEL



- Passion-driven
- Mastery-driven
- Competency-driven

1. Determine the model/ pathway of a programme based on number of credits that a learner took for each pathway/model

2. Decide on the degree to be awarded to a learner based on the higher percentage of Body of Knowledge in the pathway/model that the learner took.

REVIEWING EXCEL ELEMENTS IN AN ACADEMIC PROGRAMME

Kod Kursus	Nama Kursus	Bilangan Kredit	Peratus (%)
eg. SHPP 3203	Best Practices in Teaching & Learning	3	

1

State the related course that is EXCEL infused

2

Calculate the percentage of credit for the EXCEL related course based on the following formula:

Percentage of EXCEL related course =
(Number of EXCEL Course Credit / Total of Credit in the Programme) x 100

REVIEWING EXCEL ELEMENTS IN AN ACADEMIC PROGRAMME

TERAS	TAHAP	Tandakan 1 sahaja
REAL	Level 1 (Research Oriented)	
	Level 2 (Research Immersion)	
	Level 3 (Research Apprentice)	
	Level 4 (Research Intensive)	
	Level 5 (Research Practitioner)	
	Level 6 (Research Producer)	
	Level 7 (Research Mentor)	

Indicate the level of research infused in the curriculum based on % of PLOs mapped to the REAL taxonomy

REVIEWING EXCEL ELEMENTS IN AN ACADEMIC PROGRAMME

TERAS	TAHAP	Tandakan 1 sahaja
IDEAL	Industry Infused	
	Cooperative Education	
	Apprenticeship	

Indicate the level of industry infused in the curriculum based on percentage of time spent in industry

REVIEWING EXCEL ELEMENTS IN AN ACADEMIC PROGRAMME

TERAS	TAHAP	Tandakan 1 sahaja
CARE	Level 1 (Community Infused)	
	Level 2 (Community Immersion)	
	Level 3 (Community Practice)	
	Level 4 (Community Innovation)	

Indicate the level of community infused in the curriculum based on number of SULAM courses embedded in the programme

REVIEWING EXCEL ELEMENTS IN AN ACADEMIC PROGRAMME

TERAS	TAHAP	Tandakan 1 sahaja
POISE	Passion-Driven	
	Competency-Driven	
	Mastery-Driven	

Indicate the pathway of the programme based on number of credits student can take in the pathway