

temasek — launchpad

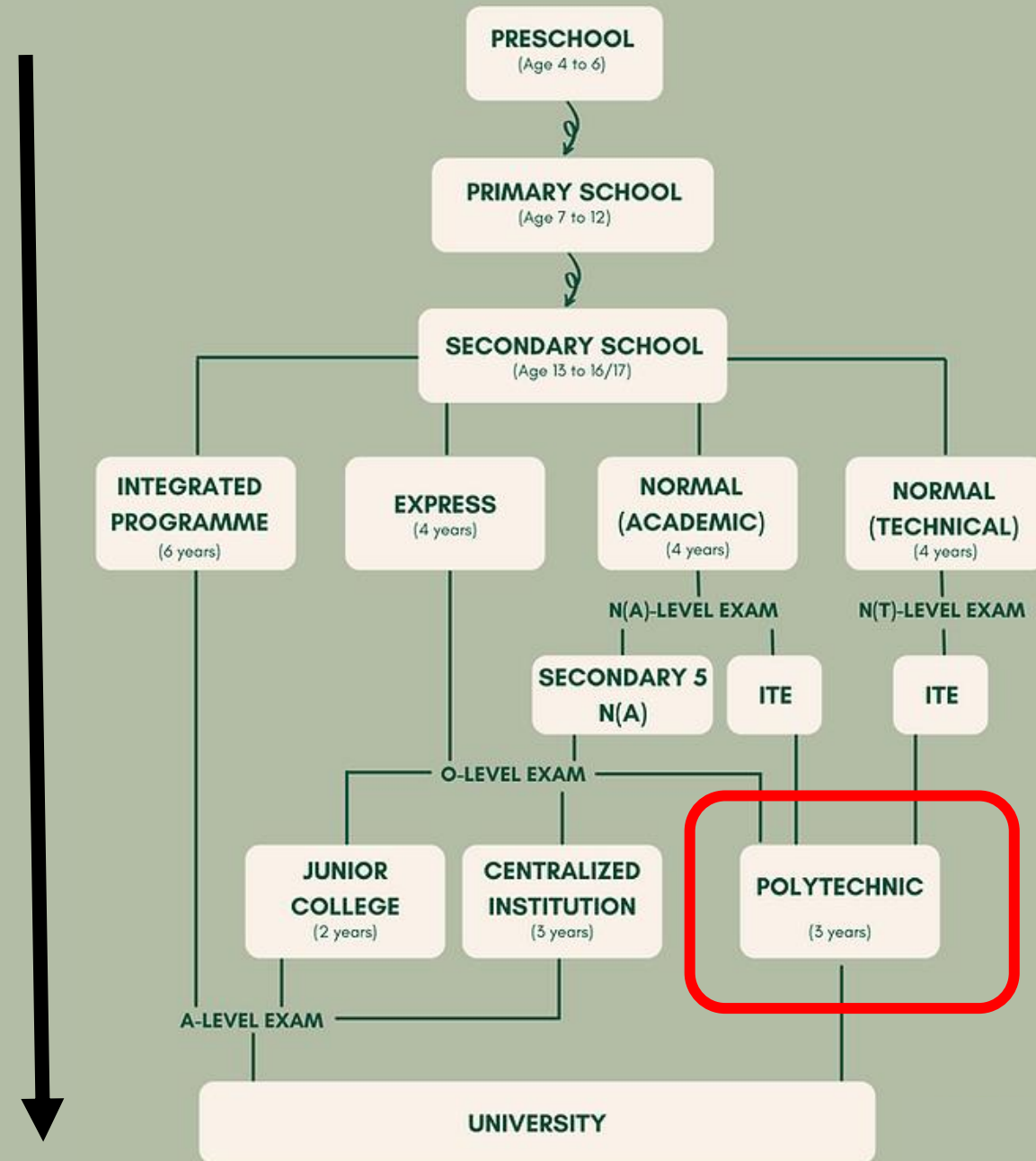


Block 30
Temasek Polytechnic, Singapore

Digital Frontiers:
Transforming Entrepreneurship in the Connected Era

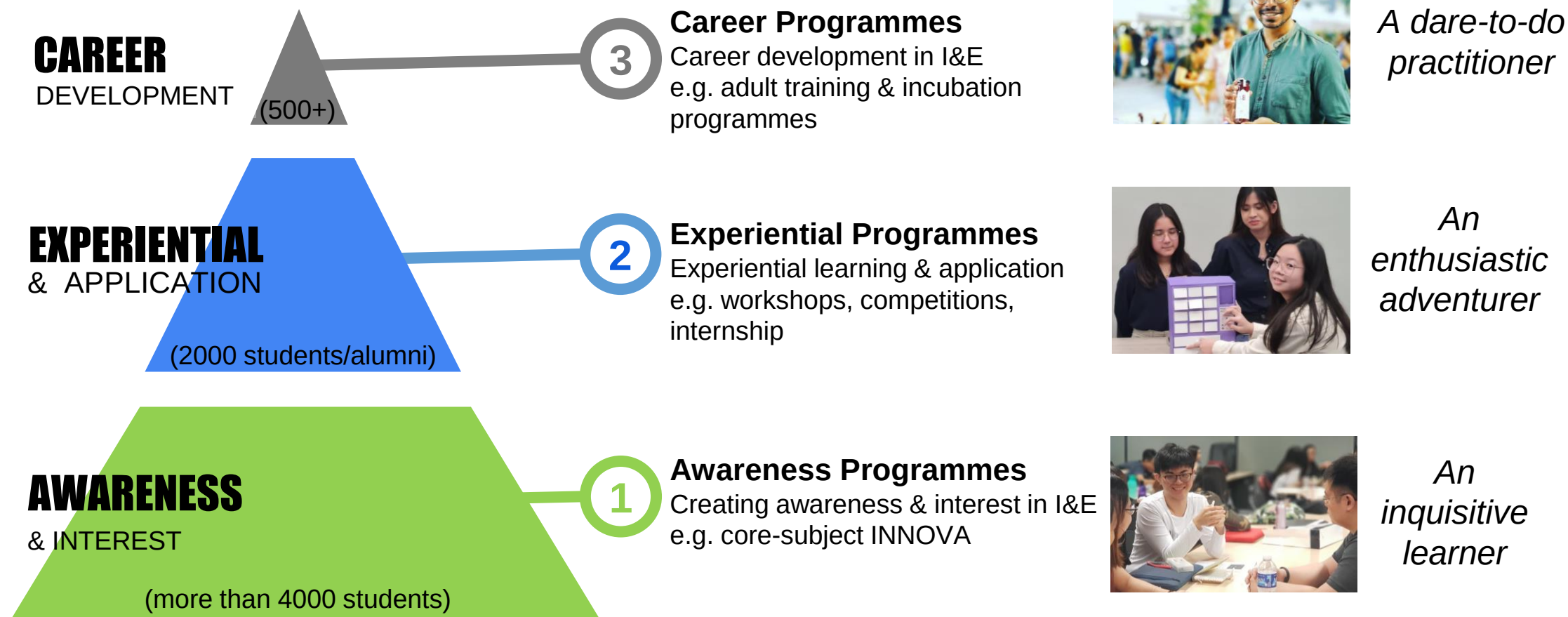
***Transforming Entrepreneurship Pedagogy :
Integrating Generative AI to Enhance Entrepreneurship Learning Outcomes
and Learners' Industry Readiness.***

EDUCATION IN SINGAPORE



The 3-Tier TLP Development Roadmap

Developing innovators and entrepreneurs





CREATING A PATH FOR YOUR ENTREPRENEURIAL SUCCESS



Comprehensive Training



Mentoring & Network



Facilities Support



Funding

The 3-Tier TLP Development Roadmap

Tier-1



AWARENESS
& INTEREST

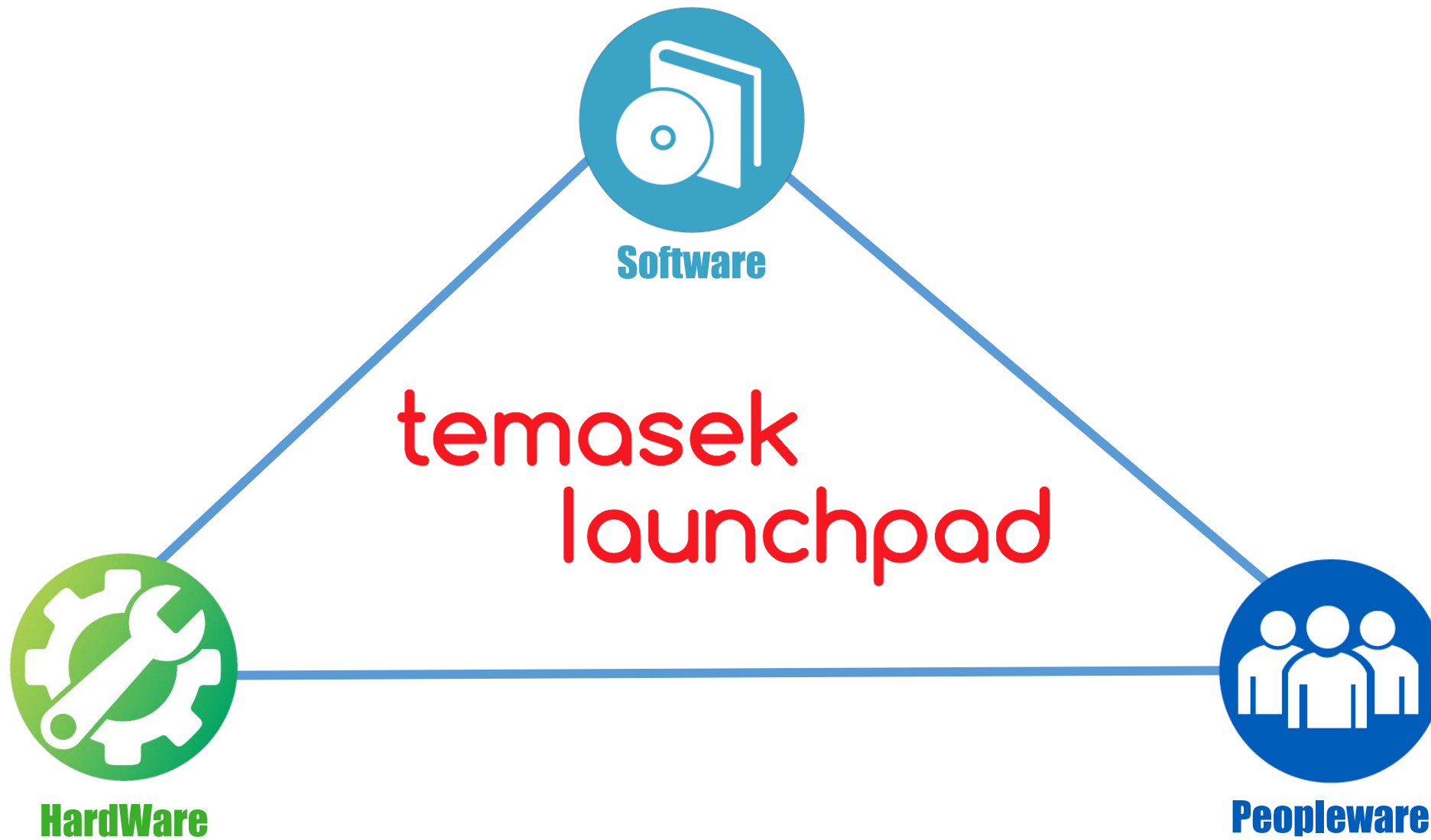
- TP-Fundamental (TPFun) Subject
- 2 credit-units
- Promote Innovation & Entrepreneurial mindset
- ***Innovation*** : Solve Problems / Identify Opportunities
- ***Entrepreneurship*** : Commercialisation of ideas/solutions
- ***MakerSpace+*** : Create prototypes



ENABLING INNOVATION | EMPOWERING ENTREPRENEURSHIP

Holistic Ecosystem
Robust Incubation Programmes
Effective Mentorship

Comprehensive Facilities
Networking & Partnership Events



temasek launchpad



- Existing students & staff
- Alumni
- The public



- MakerSpace
- Incubation Office
- EventHall
- Co-WorkSpace
- Administration Office
- School's Facilities



- Developmental Courses
- Funding Opportunities



- Mentors
- Networking
- Venture Capitalist
- Trainers
- Partners



- Administration
- Academic
- MakerCoaches
- Technical / IT support

Incorporating Generative A.I. in entrepreneurship training



INNOVA

Incorporating Generative A.I. training to INNOVA

Current Situation

- Students need improvement in :
 - verbal communication of ideas to stakeholders;
 - presentation
 - identifying insightful Point-Of-Views (POVs) for problems/opportunities

Objectives & Aims

At the end of the lesson on “**Prototyping : Storyboarding**”, students will be able to :

- Integrate Generative AI to deliver **personalised, immersive, & experiential** learning;
- generate appropriate **text prompt** to create AI images from Gen AI tools;
- create AI images to **express their ideas** accurately; and
- develop understanding on the **Ethical & Legal Aspects** of using Generative A.I. tools.

INNOVA

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Lesson Plan

Innova Lesson Plan

Lesson 5 Tutorial: Design Thinking 3 – Prototype & Test

Duration	1 hour 30 min			
Venue / Platform	Classroom/ Face-to-Face			
Pre-Tutorial Work	Set up laptop in classroom			
General Learning Outcome	2. Apply problem-solving and business tools to solve problems with validated solutions within or beyond learners' discipline of study			
Specific Learning Outcome	- Identify and describe the 5 stages of the Design Thinking Process - Identify and Describe "Prototype" and "Test" stages - Use Generative AI tools to create storyboard			
Pre-requisite	Students must complete the e-lecture cum MCQ for Lesson 5 in Brightspace before attending tutorial session			
No.	Time / Duration	Activity	Description	Training Aid / Remarks
1	00 min – 10 min	Admin cum Attendance- Taking	- Take Attendance - Check completion of : - MakerSpace Safety Quiz - Group formation - Selection of company for Ind. Assignment	MS Teams
2	10 min – 30 min	Class Activity 1 : Recap – Prototype & test	Go through and explain the MCQ questions	- Powerpoint slides - ClassPoint MCQ
3	30 min – 60 min	Class Activity 2 Create images using Gen AI tools	- Conduct class activity and obtain students' input through ClassPoint - Students can choose their own Gen AI tools - Class discussion on output	ClassPoint "Image Upload"
3	60 min – 1hr 40 min	Class Activity 3 Create Storyboard using Gen AI tools	- Follow guide provided in powerpoint slide 16 - Allow for class discussion to critique on storyboard created by classmates	ClassPoint "Image Upload"
4	1hr 40min – 1hr 45min	Summary / Reflection	- Tutor to remind students to : - Submit their choice of co/org for Ind. Assignment - Group formation for their Group Assignment	NIL

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Students' work

Storyboard

Storyboard



A student in TP is frustrated that all their school online needs are on different platforms and need to constantly jump from on platform to another.



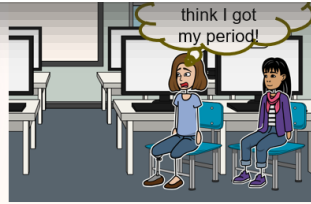
Another student notices their frustration and showed them the app CampusBuddy where they can access all of their school needs in one app.



The frustrated student tried out the app and realised how easy it is to get all the information they need for school



The student is no longer frustrated and can manage all of their school needs in one app. The student now uses CampusBuddy for all of their school needs.



think I got my period!

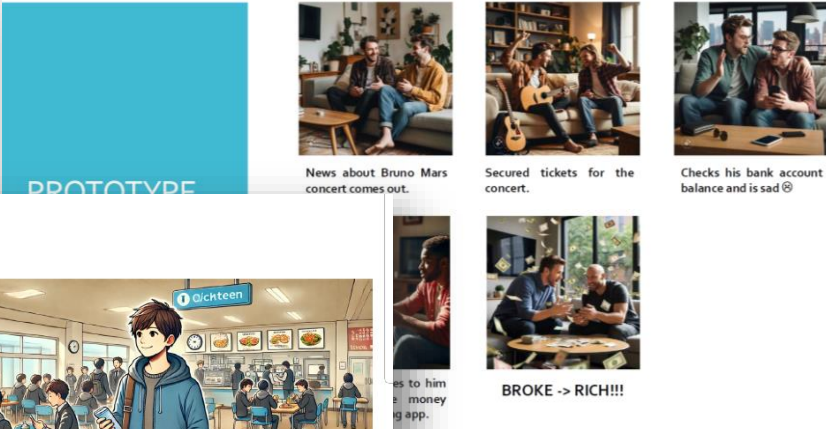
Back in the classroom

No sorry!

Do you have a pad?



Storyboard



News about Bruno Mars concert comes out.



Secured tickets for the concert.



Checks his bank account balance and is sad 😞



es to him e money ng app.



BROKE -> RICH!!!

I need to get a pad *runs back to the toilet*

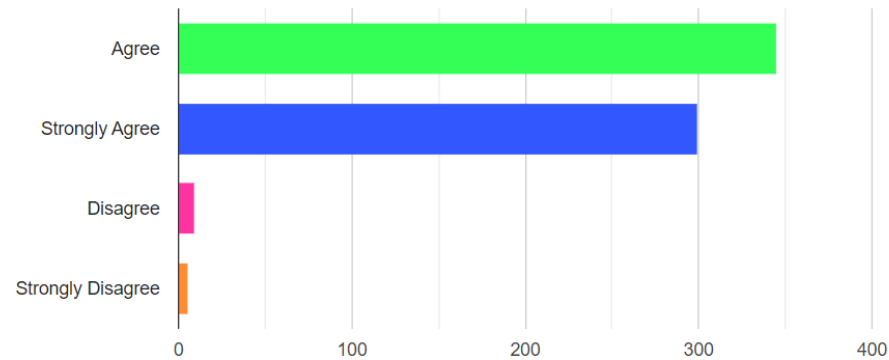
Why do they not provide us pads in the toilet?

INNOVA

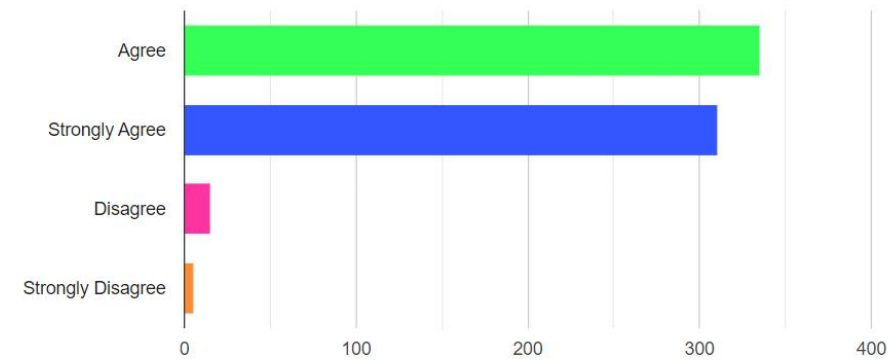
Incorporating Generative A.I. training to INNOVA

Students' Feedback – Very positive response !

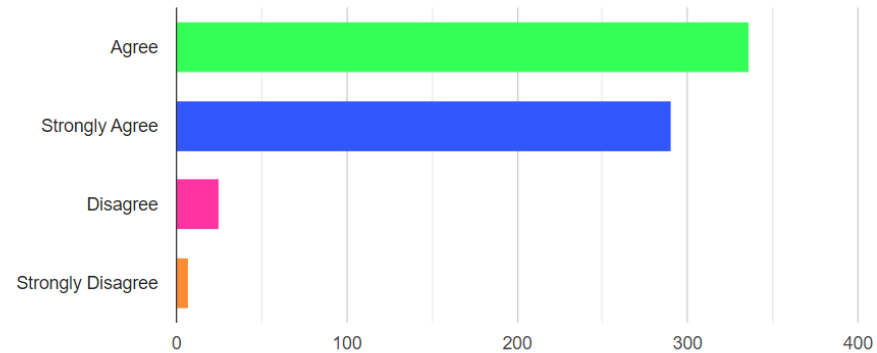
3. The lesson instruction and explanation were clearly provided.



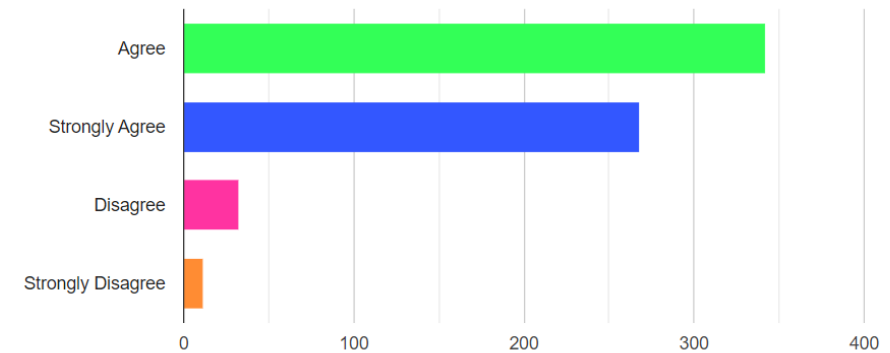
4. After this lesson, I have gained a better understanding on how to use Generative AI tools to create images and storyboards.



5. I am encouraged to use Generative AI tools to create content after this lesson.

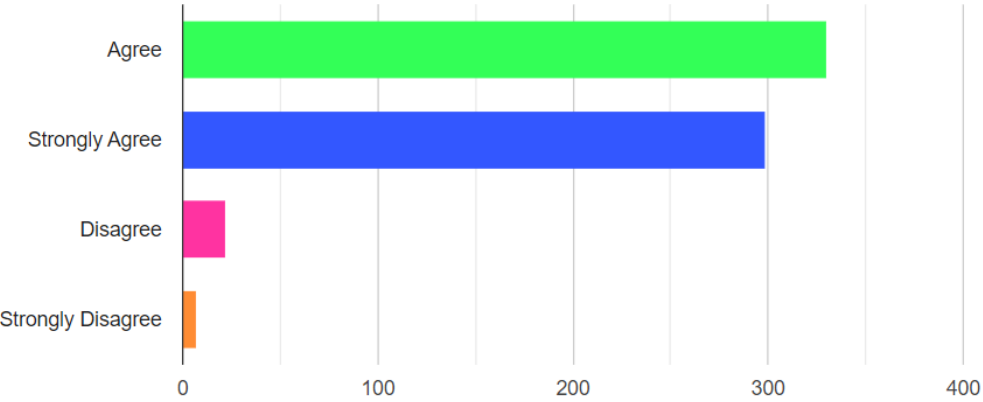


6. I am keen to learn more about Generative AI tools after this lesson.

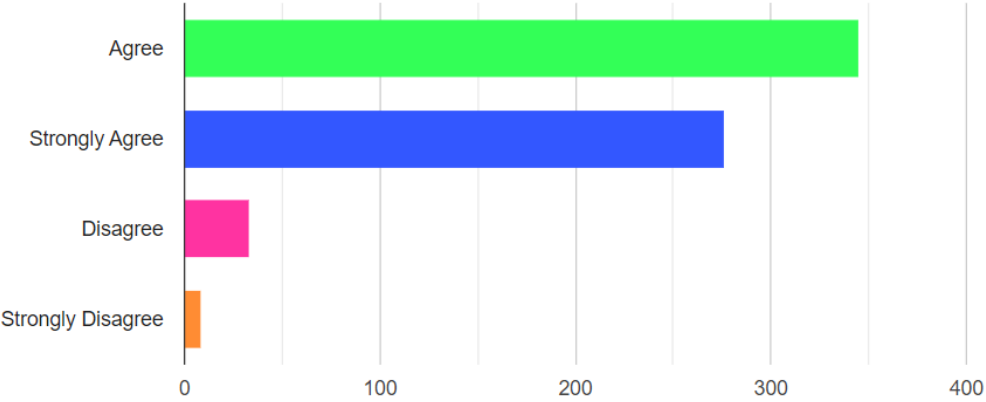


Students' Feedback

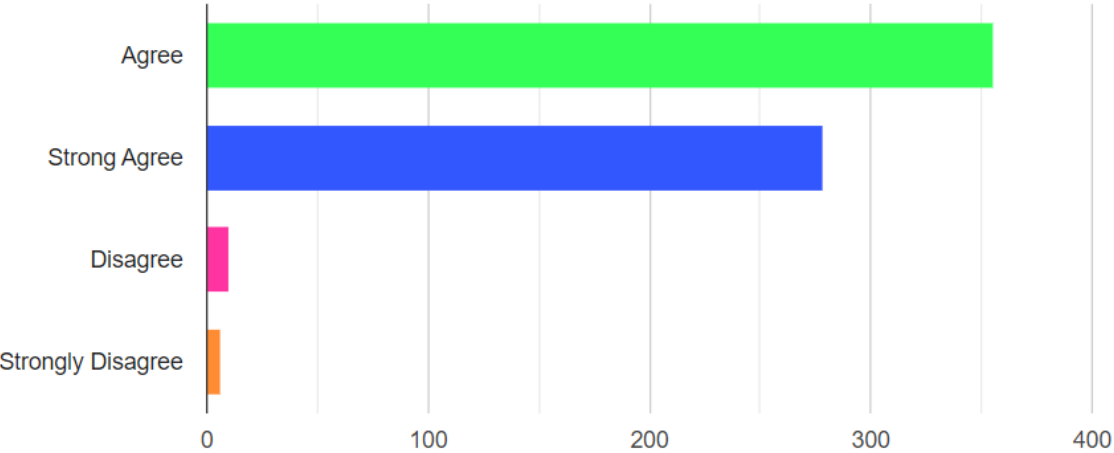
7. The class activities were fun and interesting.



8. INNOVA should incorporate Generative AI concepts in more topics.



9. Overall I am satisfied with how the lesson on "Using Generative AI tools" was conducted.



The Discovery

The entire process allow students to :

- leverage on technology to create effective storyboards
- understand that they now have more options to achieve their objectives/goals/tasks assigned
- develop effective communication skills when creating text prompts
- think deeper and more holistically in their iteration and ideation processes

Many more exciting projects on the way

Teaching

- **e-Lecture videos creation**
 - use software such as Synthesia, HeyGen, etc
 - Time- & Resource-efficiency
- **Lesson Plan development**
 - Additional layer of quality control & review
 - Fresh & objective perspective to enrich
- **Assist in assessment planning**
 - Support the crafting of thought-provoking & nuanced assessment questions that stimulate critical thinking & foster deeper understanding of concepts taught

Learning

- **Generate effective output / deliverables**
 - Use text prompts to generate output for assignment / class activities
- **Research & Idea Generation**
 - Enhance effectiveness & efficiency in research
- **Additional option in Formative Assessment**
 - “Creation reflects understanding”
 - Use Gen AI creation process to assess learning progress

Thank You

