

# **Acceptance and use of artificial intelligence among higher education students in Brunei Darussalam**

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## Background:

- The integration of artificial intelligence (Ai) in higher education is reconstructing the learning landscape, offering new opportunities for personalized learning, enhanced decision-making, and efficient administrative processes.
- Challenge: Resistance to change is inevitable
- Contribution of this proposal:
  - Offers practical recommendations for educators, policymakers, and technology developers
  - Creates more inclusive and supportive utilization of AI in higher education



## Problem statement:

As AI continues to advance, it holds the promise of greatly improving the **efficiency** and **effectiveness** of educational practices. Nonetheless, issues like **ethical considerations** and **the need for teacher training** remain significant (Duarte et al., 2023; Lampou, 2023).



## Targets:

1. To highlight the rise of digital literacy and how it helps in enhancing AI literacy with an ethical approach
2. To integrate AI in Sustainable Development Goals 4 (SDG4)

## Baseline study: Preliminary results



- Objective: Explores students' readiness to engage with AI technologies in their learning environment



- Mixed method research design: questionnaire (statistical analysis) and a focus group interview (thematic analysis)



- 103 first-year Politeknik Brunei students from engineering background
- Preliminary findings:
  - **Low acceptance** due to concern on ethical issues
  - Students **recognized and acknowledged the potential benefits of AI** in their learning to improve learning outcomes



- Machmud et al. (2021) reported:
  - ICT index amongst the ASEAN countries: Singapore (highest), Thailand & Indonesia (middle), and Myanmar (lowest).
- Anna et al. (2024) study in Indonesia:
  - A positive view of the use of AI in learning, seeing AI as a tool.



- Concerns: replacement of teachers' roles by AI, the loss of human elements in learning interactions, and data privacy issues.

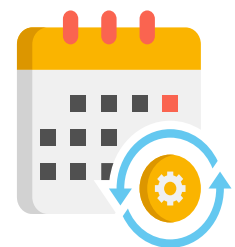
## Proposed methods



**PHASE 01: STUDY IN BRUNEI  
ACROSS HIGHER INSTITUTION ON  
ACCEPTANCE AND USE OF AI**

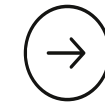


Expected outcome: Comprehensive understanding of AI acceptance and its usage across Bruneian institutions



**DURATION:**

**9 MONTHS**

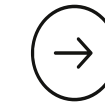


**PHASE 02: COLLABORATION  
BETWEEN RESEARCHERS WITHIN  
ASEAN REGION ON ACCEPTANCE  
AND USE OF AI**

Expected outcome: Formation of committee members

**DURATION:**

**9 MONTHS**



**PHASE 03: SUSTAINABLE POLICY  
THROUGH POLICY-SCIENCE  
INTERACTION**

Expected outcome: Review of evidence-based policies that are both scientifically informed and effective in addressing societal challenges

**DURATION:**

**12 MONTHS**

## Impacts of the proposed method



### Technological

- Students have higher confidence in using AI = improved skills
- Personalized learning needs



### Societal

- Accelerating technology transfer of knowledge
- Technological innovation
- Economic growth



### Collaborative

- Explores the acceptance of AI within ASEAN region (interdisciplinary approach)
- Data sharing
- Unified effort in achieving SDG4



Provides opportunities for collaborations among academics and researchers



More projects can be carried out in the future using AI technologies, including the human language and predictive analytics



New partnerships within the ASEAN region





The objective of this project is to develop framework and strategies for AI adoption across various sectors.



The initial phase of the project is to study the current situation in Brunei and to explore possible collaborations between researchers in ASEAN region.



The proposed project contributes towards achieving SDG4: achieving inclusive equitable quality education and to promote lifelong learning.