

Gamifying Feedback for Student Engagement in Research Modules: A Design-Based Research Approach

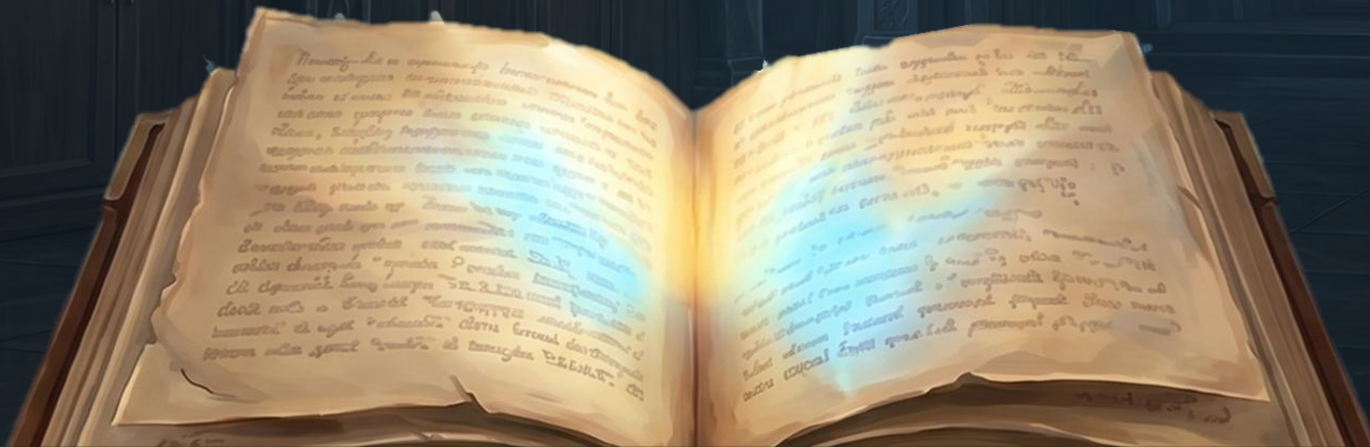
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Content

- Background and Context
- Theoretical Grounding
- Design Based Research
- The Design Process
- The Artefact
- Summary



Background & Context

Engagement in
Research Modules

[1], [2], [3]

Use of Generative
Artificial Intelligence

[4]

Lecturer Feedback
Submitted Written Work



Background & Context

Experiential Learning

[5]

Gamification

[1]

Design Based Research

[6]

Theoretical Grounding

Experiential Learning

- Student actively engaged and involved = Learning [5].
- Meaningful Experiences [7].
- Continuity & Interaction [5].
- Informed scaffolded activities.

Gamification

- Motivate engagement to achieve learning outcomes [8].
- Game mechanics, learning mechanics, and game aesthetics [9].

Design Based Research

- 👛 Design interventions to improve practice [6].
- 👛 Researcher multiple identities [10].
- 👛 Formative evaluation [11].
- 👛 Alpha and beta testing [11].
- 👛 Structured reflective organiser.



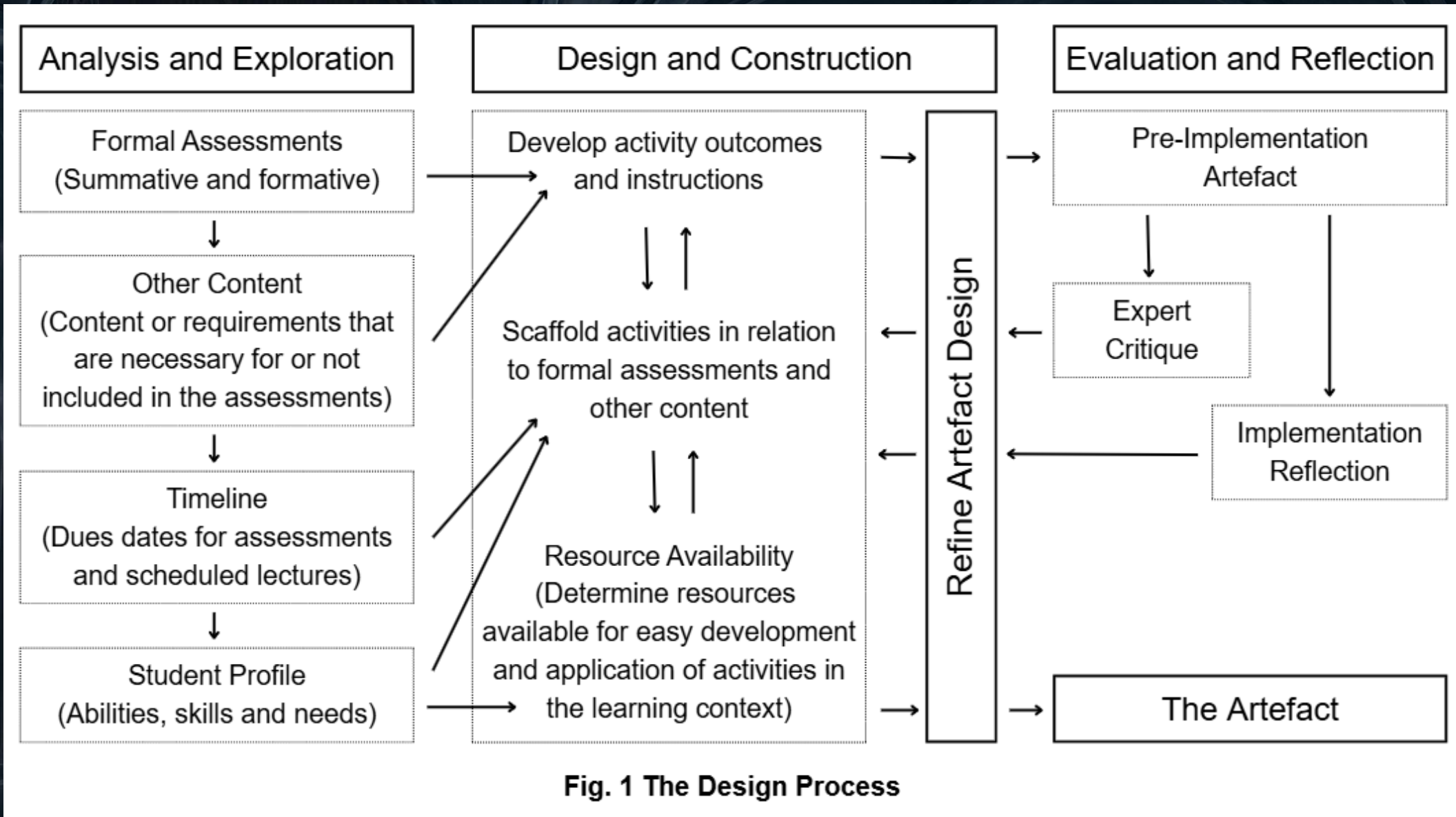


Fig. 1 The Design Process

The Artefact

Token Activities

Formative Assessments

Summative Assessment

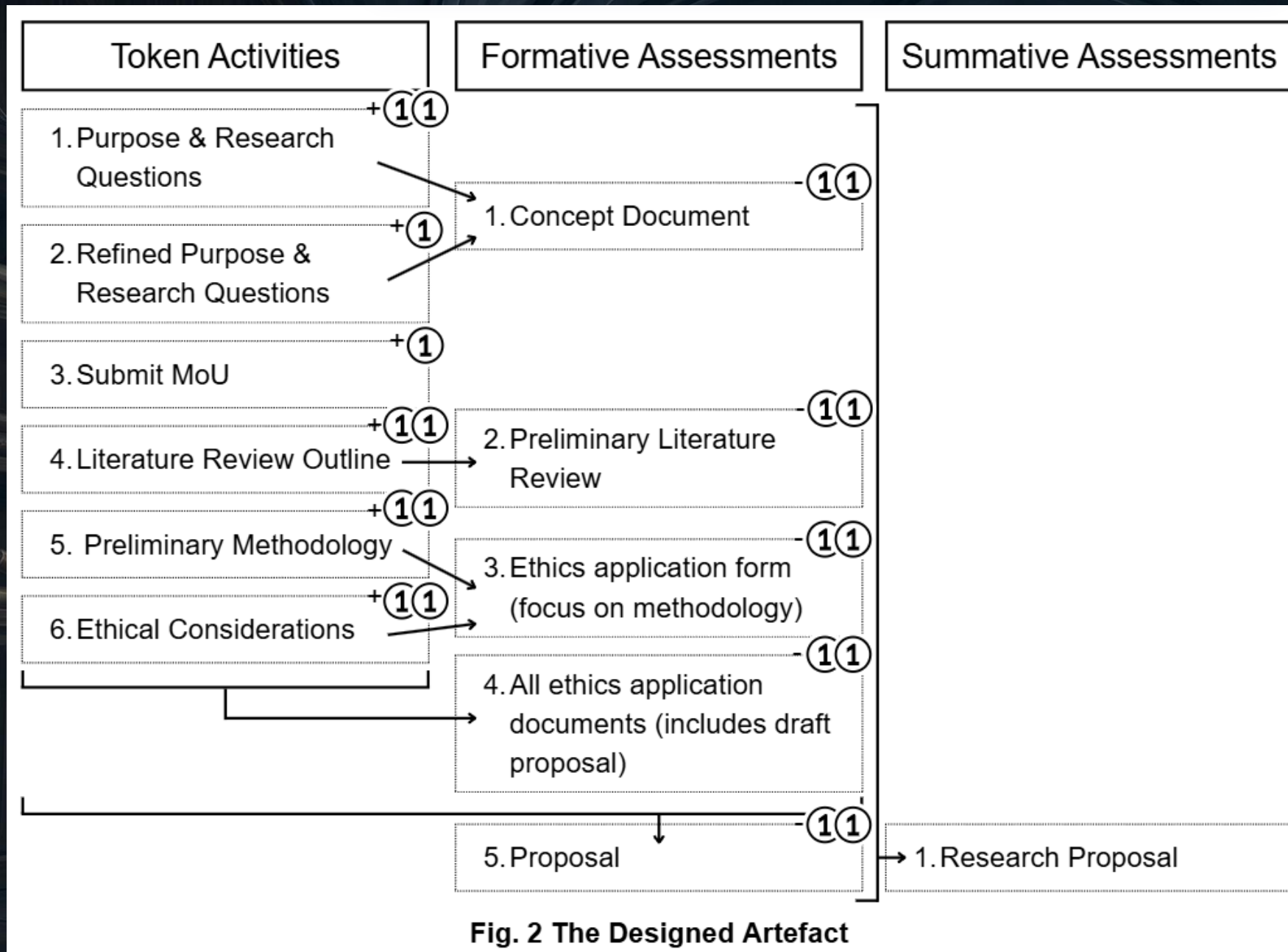






















Fig. 2 The Designed Artefact

The Artefact

MASTER RESEARCHER FEEDBACK

<input type="checkbox"/>	Token Activities  			
<input type="checkbox"/>	Available Feedback Tokens 	Formula	-	10
<input type="checkbox"/>	Feedback Tokens Spent 	Numeric	-	10
<input type="checkbox"/>	Purpose and Research Q's  	Numeric	Discussions 	2
<input type="checkbox"/>	Refined Purpose and Research Q's  	Numeric	Assignments 	1
<input type="checkbox"/>	Submit MoU  	Numeric	Assignments 	1
<input type="checkbox"/>	Preliminary Methodology  	Numeric	Discussions 	2
<input type="checkbox"/>	Literature Review Outline  	Numeric	Discussions	
<input type="checkbox"/>	Ethical Considerations  	Numeric	Discussions	

There are three levels of feedback available:

1. Basic feedback (0 tokens)

This level requires no tokens and consists of brief, one-word comments on sections of your document. Examples include *“expand”* or *“clarify”*.

2. Mid-level feedback (1 token)

This level provides a short explanation of why the comment has been made. Examples include *“expand on this specific concept, idea, or argument”* or *“clarify this specific word and what you mean here.”*

3. In-depth feedback (2 tokens)

This level includes both basic and mid-level feedback and goes a step further by offering guidance and direction. Examples include *“expand on this specific concept by referring to these ideas and arguments”* or *“clarify this word by explaining how it relates to your study.”*

TOKEN ACTIVITIES

The Artefact

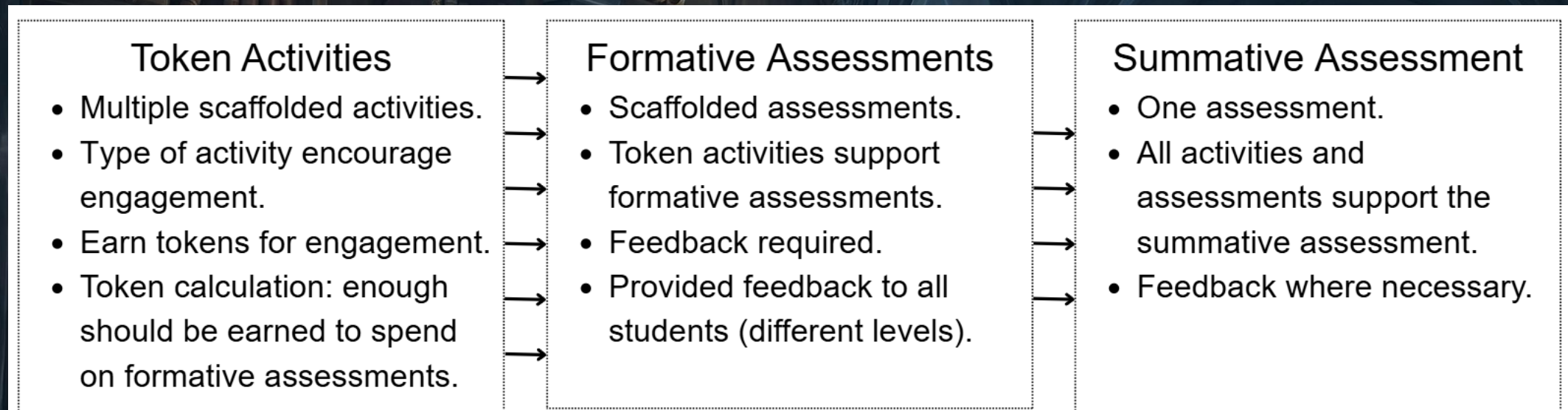
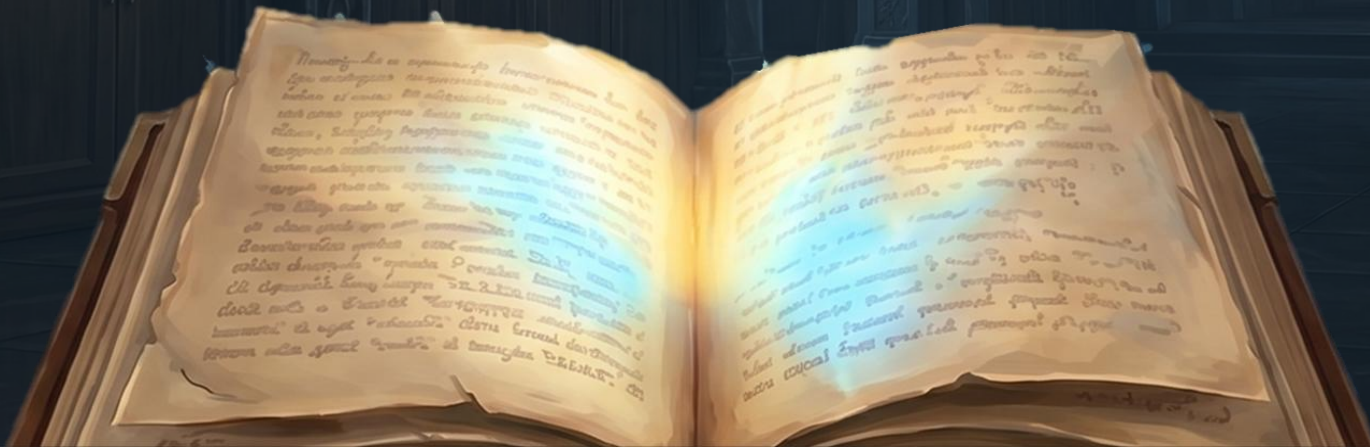


Fig. 3 Structure Gamifying Feedback in Research Modules

Summary

- 👛 Further refinement – Inclusion of additional tasks, possibility of gifting tokens, exchange excess tokens, and providing additional feedback options.
- 👛 Further research – Formal implementation and testing.
- 👛 Assigning value to the human (lecturer).



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Disclosure of AI use

During the research study:

ChatGPT3.5 was used to standardise grammar, language and clarity across all activity and assessment instructions. Used January 2026. Link to chat:

<https://chatgpt.com/share/695cd9f1-9f98-800d-9b92-85ca018fb40b>

In preparing the presentation:

Gemini Pro was used for background image and other decorative images used in the presentation. Used May 2026. Link to chat:

<https://gemini.google.com/share/eaf4853120bb>



Thank you!