**Abstract**

With the development of technology, educators now have access to a wide range of resources for increasing student motivation and engagement. Gamification has been an effective approach, and research shows its positive impact on student learning outcomes. Gamification is defined as the use of game design elements in non-game contexts. However, simply incorporating game mechanics like a points system does not make the system game-like. There is a need to design a gamification framework that is based on psychological theories, knowledge of gaming experiences, individualized experiences, and ethical considerations. A design framework, thus, can help explain the relationships between gamification and its impacts, identify potential issues in the system, and direct the gamification process. This paper proposes a gamification design framework for higher education.

**Research Gap**

Literature shows that there is a lack of a comprehensive framework to guide educators and practitioners on how to design gamified learning activities. (Garone & Nesteriuk, 2019, Adams & Du Preez, 2021).

**Objective**

Developing a framework to guide educators and researchers in designing, implementing, and evaluating gamified learning environments.

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**Proposed framework**

<table>
<thead>
<tr>
<th>Psychological foundation</th>
<th>Context</th>
<th>Target audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-determination</td>
<td>Subject matter</td>
<td>Learning styles</td>
</tr>
<tr>
<td>Cognitive load</td>
<td>Level of difficulty</td>
<td>Motivation</td>
</tr>
<tr>
<td>Goal-setting</td>
<td>Expected learning outcomes</td>
<td>Characteristics (age, educational level)</td>
</tr>
<tr>
<td>Social learning</td>
<td>Delivery/communication mode</td>
<td>Academic performance</td>
</tr>
</tbody>
</table>

**Implementation Process**

- Identifying the Context and Target Audience
- Determining Psychological Foundation
- Selecting a Taxonomy for Game Elements
- Creating Tailored Gamified Course Materials
- Implementation and Evaluation

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**Why need a framework?**

- To select appropriate game mechanics and dynamics for different types of learners
- To evaluate the impact of gamification on student engagement and performance
- To avoid common pitfalls and challenges of gamification implementation
- To align gamification elements with learning objectives and outcomes

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**Game elements taxonomy and game design**

**Tailored gamified learning experience**