

# Gamification as a Tool against Post-Pandemic Student Stress



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## Problem Statement

Following the COVID-19 pandemic, a surge in stress and anxiety among UK students persists. The strain primarily comes from academic pressures coupled with uncertainty about post-graduation job opportunities. This study aims to investigate the potential of using gamification analysis tools; an approach which might enhance student engagement, reducing their anxiety and sadness levels - giving a healthier and more positive university experience.

## What is gamification?

Gamification is the process of using elements from games in non-game contexts, like business, education, or healthcare, to increase user engagement and motivation. This is achieved by adding game mechanics like rewards, achievements, levels, challenges, and leaderboards. While gamification has a potential to motivate users, just like playing additive games, designing and analysing effective gamified activities can be complex and resource-intensive. This is where gamification frameworks come in, offering structured guidelines to simplify the process.

## Success Cases of Gamification



**Duolingo**  
Language learning platform through gamification  
Features: rewards, badges, leaderboards  
Engaging elements: Competition, Streak Maintenance

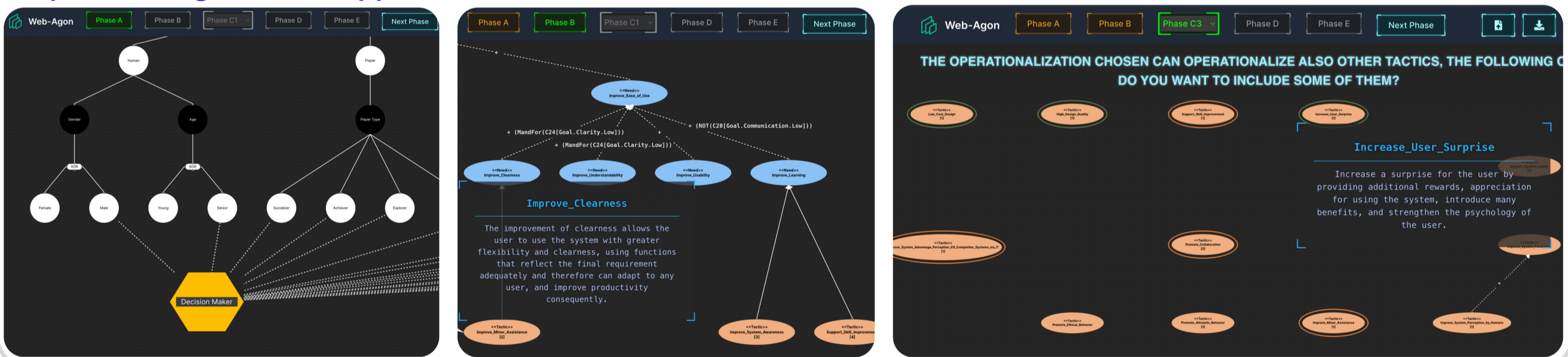


**McDonald's Monopoly**  
Pioneered gamification before it became popular  
Features: Monopoly board game elements  
Engaging elements: Fear Of Missing Out, Scarcity

## Web-Agon (A tool using Agon Gamification Framework)

This research presents Web-Agon, which is the implementation of a systematic generic framework for crafting gamification solutions. Agon, derived from the Greek word for "game" or "competition", consists of an acceptance model that captures intricate refinements for acceptance requirements alongside a comprehensive gamification model that shows how these requirements can be turned into game elements. This tool is currently available at:

<https://web-agon.vercel.app/>



The image shows three screenshots of the Web-Agon tool. The first screenshot displays a decision tree with a central 'Decision Maker' node and various branches leading to different gamification elements. The second screenshot shows a detailed view of a gamification element, 'Improve\_Cleanness', with a description: 'The improvement of cleanness allows the user to use the system with greater flexibility and cleanness, using functions that reflect the final requirement adequately and therefore can adapt to any user, and improve productivity consequently.' The third screenshot shows a grid of gamification elements with a text box that reads: 'THE OPERATIONALIZATION CHOSEN CAN OPERATIONALIZE ALSO OTHER TACTICS, THE FOLLOWING DO YOU WANT TO INCLUDE SOME OF THEM?' and 'Increase\_User\_Surprise' with a description: 'Increase a surprise for the user by providing additional rewards, appreciation for using the system, introduce many benefits, and strengthen the psychology of the user.'

## Strategy, Tool, and Expected Solutions

Creating gamification is tough and full of challenges because it needs understanding about psychology and theory of game design. We hope that Web-Agon can be a tool for constructing comprehensive analysis for a solution to gamification. Our goal is to utilize Agon for assisting software developers in creating a gamified application. This app will aid students in managing stress after the pandemic, incorporating gaming components like rewards, challenges and leaderboards. All of these features are gamified according to recommendations by Agon.

## References

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