

Level Up Learning:

A Gamified Approach to Boost Student Motivation

By: Brigette Hacia, Huiyi He, and Nicholas Ogawa-Monroe





Motivation





Pain Points



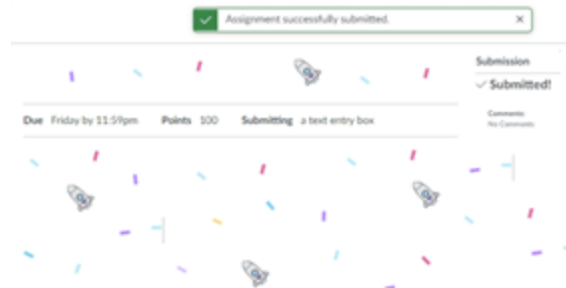
- Students often fall behind in coursework
 - Lack of motivation
 - Lack of engagement with course materials
- Conventional methods of instruction are too linear and traditional
 - Struggles to capture student interest
 - Doesn't support diverse learning styles





Proposal

- Application of game design features in learning environments
 - Increase interaction and engagement
 - Increase motivation to complete assignments
- More specifically, we aim to increase student motivation at UCSD by elevating gamified features on Canvas



Submit your late work here Imported Assignments	Aug 7 by 11:59pm	0 / 0	1
Discussion 12- Chinese Paintings are Secular? Imported Assignments	Aug 10 by 11:59pm	0 / 10	1
Submit your Final Term Paper Here Imported Assignments	Aug 10 by 11:59pm	50 / 50	1
Final Exam Imported Assignments	Aug 11 by 11:59pm	100 / 100	1
Imported Assignments		85.08%	536.00 / 630.00
Total		85.08%	536.00 / 630.00

Related Works



Topic 1: Gamification in Educational Settings and Student Engagement

[Gamification as a driver of motivation in the organizations: A Bibliometric Literature Review](#)

- Explores the intersection of worker motivation and gamification in organizational settings
- Aims to understand the impact of gamified strategies on employee behaviors



Topic 2: Implementation and Evaluation of Gamified Learning Environments

[Gamify-IT – A Web-Based Gaming Platform for Software Engineering Education](#)

- Proposes a web-based gaming platform for software engineering education called Gamify-IT
 - Integrates immersive gaming elements, including role-playing, exploration, and various minigames tailored for both programming and generic content
- Aims to enhance student engagement and learning outcomes through gamification



Method





Why Use a Survey?

- We determined that using a survey to collect responses from college students would be the best route in our project.
- A survey would allow us to quickly collect opinions and experiences from various participants in order to find a diverse, broader, and more encompassing trend rather than conduct interviews on a select few participants.
 - As such, the interview would have been our alternative method for collecting deeper information had the survey not produced sufficient data to analyze or discover a relationship.
- Also, self-reported information about how our participants feel about gamification is likely to be accurately reflective.

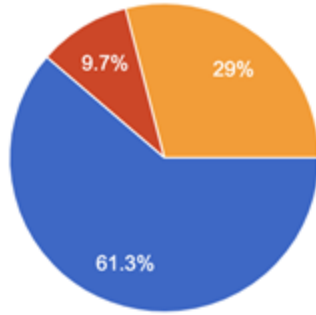


Creating Survey Questions

- We designed questions to first probe whether or not students had interacted with Canvas and how often these interactions were. We asked about their current learning preferences and habits to gain insight into whether there is a trend for specific learning type relationships to gamified learning.
 - Additionally, we asked about the effectiveness of existing methods for learning, like lectures.
- Later, we followed by asking how they felt about various features of gamification on Canvas, whether or not such features were effective in their role for increasing motivation, what could be improved or changed in those features to boost motivation, and what other methods beyond gamification they may have to increase their own motivation.
 - Example images and descriptions were provided for context about the exact features expressing gamification.

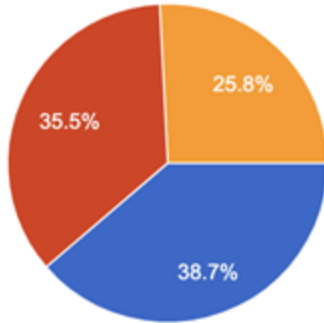
Results





- Visual
- Auditory
- Kinesthetic

Most people think visual learning is the most beneficial way of learning



- hands-on activities
- lectures
- group discussions

Regarding classroom dynamics, the preferences varied: 38.7% preferred hands-on practice, 35.5% favored lectures for precise information delivery, and 25.8% valued group discussions for diverse viewpoints.

✓ Enhance motivation

Mastery Path

The screenshot shows a 'Mastery Paths Example' interface. On the left, a list of assignments is displayed: 'Initial Assignment' (10 pts), 'Path 1 - Reading' (10 pts), 'Path 1 - Quiz' (1 pts), 'Path 2 - Reading' (10 pts), and 'Path 2 - Quiz' (1 pts). A context menu is open over the 'Path 2 - Quiz' item, showing options: 'Edit', 'Move to...', 'Increase Indent' (highlighted), 'Mastery Paths', 'Remove', 'Send To...', 'Copy To...', and 'Share to Commons'.

Point System

The screenshot shows a 'Point System' interface. On the left, a sidebar lists navigation options: 'Home', 'Announcements', 'Syllabus', 'Modules', and 'Grades'. The main content area displays a list of assignments with their due dates and point values. A summary table at the bottom shows the total score and percentage.

Assignment	Due Date	Points
Initial Assignment	Aug 7 by 11:59pm	10 / 0
Path 1 - Reading	Aug 10 by 11:59pm	0 / 10
Path 1 - Quiz	Aug 10 by 11:59pm	50 / 50
Path 2 - Reading	Aug 11 by 11:59pm	100 / 100
Path 2 - Quiz		
Total		85.08% 536.00 / 630.00

✗ Enhance motivation

Confetti

The screenshot shows a 'Confetti' interface. At the top, a green banner indicates 'Assignment successfully submitted.' Below this, a submission confirmation screen displays 'Submitted!' with a rocket icon and confetti. A 'Leaderboard' section shows a list of students and their scores. A text box at the bottom right states: 'lecturers can enable aliases instead of using real names.'

Rank	Name	Score	Details
1	Adhikar	3 of 7	Details
2	Vishnu	3 of 7	Details
3	Healthy Pika	2 of 7	Details
4	Worshipful	2 of 7	Details
5	Disputed	2 of 7	Details
6	Creative	2 of 7	Details
7	Capitalizing	2 of 7	Details
8	Penny	2 of 7	Details
9	Chowdhury	2 of 7	Details

mixed reactions



Thank you!