Case Study

Canvas for logical branching

Overview

This project aimed to address the challenge of low student participation by introducing a gamified learning approach using Canvas for logical branching and rewarding student user interfaces. The research encompassed a comprehensive analysis of existing literature, user feedback, and the implementation of various design interventions. Prospective Field Experiments underscored the benefits of gamification for enhancing student engagement and motivation. The study underscored the importance of iterative design, user-centric testing, and ongoing data-driven refinements to optimize the learning experience.

Contributors

Lead Designer: Sarah Johnson, Senior Technologist

Role: Senior Product Designer specializing in UX/UI design for educational technology platforms, with expertise in Canvas LMS customization and gamification strategies.

Problem statement

Traditional Canvas LMS implementations lack engagement and motivation for students, leading to low participation and suboptimal learning outcomes. This research aims to address this challenge by leveraging gamification principles within the Canvas platform, specifically focusing on enhancing user interfaces and rewarding student participation through logical branching.

Target users

- **Undergraduate students:** Individuals responsible for managing their own academic progress.
- **Teaching Assistants:** Individuals responsible for facilitating student engagement and ensuring adherence of the content publishing process for high-engagement.

Scope

- Implementation of an extra-credit reward for complete reward-based tasks.
- Gamification through Canvas-based activities as part of a blended learning approach.

Constraints

- The real-time implementation is potentially limited to a number of classes and students, hindering broader scalability.
- Canvas lacks native gamification features, necessitating the implementation of third-party tools or workarounds.
- Consideration of the impact on faculty workload is crucial, ensuring the ease of use and minimal disruption to their existing teaching methods.

UX Plan

Objectives

- Enhance the user experience of student workers and patient advocacy by simplifying the process of accessing Canvas-based tasks.
- Increase student participation in Canvas-based activities.
- Reduce the time taken to complete tasks by 30%.
- Improve user satisfaction ratings related to Canvas-based tasks.

UI Plan

Research Methods

- **User Interviews:** Gain qualitative insights into user experiences, challenges, and motivations with the current Canvas platform. Participants (users chosen based on their current task-centric and gamification preferences) will provide valuable insights into their current engagement and their level of gamification and rewarding preferences/expectations. This information will inform design decisions and ensure the gamification strategy resonates with the target audience.
- **Prototype Creation:** Develop low-fidelity and high-fidelity prototypes incorporating the gamification elements identified through the user interviews.
- **Usability Testing:** Conduct usability testing with the prototypes to evaluate the effectiveness of the gamification elements in enhancing user engagement and motivation. This testing will assess the ease of use, intuitiveness, and overall user experience of the gamified interfaces.
- **Iterative Design:** Based on the feedback gathered from the usability testing, iterate on the design to address any identified issues and improve the overall user experience.

UI Plan

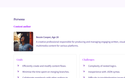
Wireframes

- User journeys.
- Prototypes.
- Wireframes and interactive prototypes.
- Usability testing reports.
- Iteration & Design.

UI Plan

Timeline 30 weeks

Design process



UX/UI Design workflow

Observations

A comprehensive overview of the observations collected from different sources:

- 48% users find current reward swapping cumbersome.
- 25% Users simple solution for rewarding and tracking tasks: Intervals.
- 30% Users 50% and minimal effort sharing with social media platforms.
- Current reward system lacks immediacy and personalization.
- Users prefer a system that automatically rewards them for high-quality contributions.
- Gamification elements like leaderboards and badges could boost engagement and motivation. Users' feelings
- 40% of participants cited a lack of understanding towards XP, Levels, Quests, Other feelings

Personas

Student worker

Bryant Cramer, Age 19
Sophomore at Brown University pursuing a degree in Computer Science, Linguistics, and Cognitive Neuroscience. Actively participates in various extracurricular activities, including volunteering at various organizations and participating in various clubs and organizations.

Goals

- Maintain a healthy social life and academic balance.
- Actively participate in extracurricular activities.
- Contribute consistently with minimal effort.

Challenges

- Overcoming lack of motivation.
- Maintaining a social life while active.
- Difficulty in consistently earning rewards that other students find valuable.

Motivations

- Desire to achieve high-quality contributions quickly.
- Seeking recognition and rewards for their contributions.
- Desire for meaningful rewards that aligned with their interests.

Personality Technology Preferences

- Detailed but streamlined tutorials.
- Gamification elements that provide immediate feedback and rewards.
- Customizable reward options that cater to their interests.

Pain points

- Frustration with the current reward system's limited and ineffective nature.
- Difficulty in finding rewards that aligned with their interests.
- Time-consuming process of accessing and redeeming rewards.

Personas

Patient Advocate

Angela Rivera, Age 34
Dedicated professional responsible for producing and managing engaging content, tracks, and assessments tailored for various platforms.

Goals

- Ensure content meets quality standards before launch.
- Maintain high-quality content and engagement levels.
- Streamline the content publishing process.

Challenges

- Balancing workload with other responsibilities.
- Ensuring consistent quality across all content.
- Managing diverse user feedback and providing relevant support.

Motivations

- Desire to achieve high-quality, error-free content.
- Seeking recognition for their contributions.
- Desire for streamlined processes and tools to improve efficiency.

Personality Technology Preferences

- Prefers intuitive, user-friendly, efficient workflows.
- Values clear guidelines and templates.
- Appreciates automation for repetitive tasks.

Pain points

- Time-consuming manual quality checks.
- Managing diverse user feedback and providing relevant support.
- Ensuring consistent quality across all content.

Empathy Map

Student Worker persona

Says

- Creating a lot of content can engage learners.
- Rewards of some sort will go a long way.

Does

- Use Canvas to keep up with the course.
- Complete tasks quickly.
- Use Canvas to keep up with the course.
- Use Canvas to keep up with the course.

Think

- Experimenting with different ways to engage students.
- Feel that there are no discussion forums.

Feels

- Overwhelmed by complex systems.
- Stress about meeting deadlines.

Bryant Cramer

Sees

- Peers who are engaged with Canvas.
- Peers who are not using Canvas.

Hears

- Peers buzz in the classes.
- Peers talk about Canvas.

Bryant Cramer
Says
Does
Think
Feels
Sees
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Rewards of some sort will go a long
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Feel that there are no discussion forums.
Overwhelmed by complex systems.
Stress about meeting deadlines.
Peers who are engaged with Canvas.
Peers who are not using Canvas.
Peers buzz in the classes.
Peers talk about Canvas.
User Experiences Analysis
Pain Points
Gains
Learning Time
Time Consumption
Lack of Motivation
Lack of Rewards
Lack of Engagement
Lack of Support
Lack of Clarity
Lack of Time