

PlayTec: A Gamified Digital Learning Ecosystem

Link to project documentation:

https://www.canva.com/design/DAGWifu4t7M/hvbp-dhBGWKNiGZZV1CgbA/edit?utm_content=DAGWifu4t7M&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

TARGET: Students aged 12–18, focusing on STEM subjects (expandable curriculum).

PlayTec combines gamification with education to encourage learning and networking. It features two core components:

PLAYTOPIA:

A gamified digital experience hosted on platforms like Roblox.

FEATURES:

- Students select their grade and subject before entering a learning pod, where they engage with topics via videos and simulations.
- Knowledge is tested through timed mini-games or obstacle courses known as “Challenges”. If a student completes a challenge, they earn Learning Points (LP).
- Learning Points can be exchanged for in-game items or transferred to the HUB with parental approval.
- Future collaboration with popular games for rewards like temporary passes or in-platform items.

THE HUB:

Focused on students aged 15–18, accessible via PlayTopia or directly online.

FEATURES:

- Recommends competitions hosted by global universities and companies.
- Suggests courses (e.g., Coursera, Google Courses) based on student preferences and skills.
- Links with PlayTopia by allowing the transfer (must be approved while the student signs up to THE HUB) of Learning Points accumulated.

MILESTONES:

- November 13, 2024: Primary development and first mock-up.
- November 14, 2024: First prototype developed on Roblox, featuring a QR code directing to the HUB.
- December 2, 2024: Minimum Viable Product (MVP) to be showcased at an educational fair in Tlaxcala, Mexico.
- December, 2024: Begin small-scale project implementation at Tecnológico de Estudios Superiores de Monterrey, Campus Puebla

NOMBRE DE LA IDEA:

ECOSISTEMA STEM DE APRENDIZAJE Y COLABORACIÓN DIGITAL

PROBLEMÁTICAS QUE ATIENDE:

- El intervalo de atención de los niños es cada vez menor, y los métodos tradicionales de aprendizaje no responden completamente a sus necesidades.
- Hay una falta de motivación del aprendizaje fuera de la escuela. Lo que se busca es incentivar el trabajo fuera del aula por medio de actividades atractivas y familiares para el alumno.

DATOS RELEVANTES SOBRE EL PROBLEMA:

¿Cuánto dura el intervalo de atención de la persona promedio? ¿Por qué está empeorando?

Shift al aprendizaje virtual

MERCADO:

ECOSISTEMA DE APRENDIZAJE Y COLABORACIÓN DIGITAL:

Sistema de aprendizaje por juegos en una plataforma reconocida internacionalmente. Al jugar, el estudiante va acumulando puntos que se utilizan para generar credenciales virtuales personalizadas que recomiendan cursos en STEM y concursos para jóvenes alrededor del mundo.

MODELOS DE NEGOCIO:

Tras el lanzamiento inicial:

- Ingresos por el Programa de Desarrolladores
- Programas de afiliación con plataformas de aprendizaje en línea: Coursera, Udemy, Google Courses.

Proyecciones a futuro:

- Personalización: El contenido del juego se adapta al curriculum de tu escuela.

MODELOS DE IMPACTO SOCIAL:

- Access to education: Productos / servicios / iniciativas / programas con el propósito específico de hacer que la educación y el desarrollo personal sean más accesibles y agradables para sus usuarios finales.
- Civic/Social Incubator or Accelerator (Incubadora o aceleradora cívica / social): Un programa especializado que brinda la capacitación y los recursos necesarios para ayudar a los emprendedores en el desarrollo / lanzamiento de un producto o servicio que genera un impacto social, cívico o ambiental.
- Common Core (Núcleo común): Un programa del gobierno que exige un conjunto de estándares en el desarrollo del plan de estudios, para su uso en las aulas públicas con el fin de garantizar que los estudiantes cumplan con criterios predeterminados.
- Digitization (Digitalización): Proporcionar recursos en un formato digital para un fácil acceso, que de otro modo sólo estarían disponibles en forma impresa.
- Earn and Learn (Gana y aprende): Proporcionar a los usuarios tareas de aprendizaje sencillas que se incentivan con el pago.

PRINCIPALES STAKEHOLDERS:

- Organizaciones educativas sin fines de lucro
- Escuelas
 - Profesores
 - Padres de Familia

Tecnologías:

- Microcredenciales
- Realidad aumentada y virtual (AR/VR)
- Microcredenciales y aprendizaje continuo
- Enfoque en STEM y STEAM
- Educación digital y aprendizaje híbrido

Demografía cliente del producto: Decidir

- Universidad
- Profesores
- Alumnos

Rango de edades proyectadas para el juego: 12-19 años.

Modelos de negocio e impacto social:

CON EL PDF VERIFICAR

- 1: Ingresos por el programa de creadores
- 2: Convenio, compensación por los alumnos que se envíen a las plataformas de cursos: Udemy, Coursera, Google courses, etc.
- 3: A futuro, personalización del programa para adaptarse al curriculum de instituciones más grandes (IBERO, TEC DE MONTERREY, ANÁHUAC, PREPAS UNAM, ETC)

IDEA: Pases de juego o espacio de donaciones.

CHECKLIST:

PROBLEMÁTICA:

DATOS RELEVANTES SOBRE EL PROBLEMA:

PROYECTO:

BREVE CARACTERIZACIÓN:

MERCADO:

DATOS GENERALES SOBRE LA PLATAFORMA:

MOCK UPS Y PROTOTIPADO:

- DISEÑO DE LOS JUEGOS
- MODELOS DE IMPACTO SOCIAL:
- MODELO DE NEGOCIO:
 - VIABILIDAD:
 - FIABILIDAD:
 - DESEABILIDAD:

<https://www.playerauctions.com/player-count/roblox/>

<https://mmo-population.com/r/roblox>

<https://create.roblox.com/docs/es-es/>

Stakeholders

Estadísticas

Target group

The primary target audience for this solution is students aged 12 to 19, particularly those who are interested in or skilled in STEM (Science, Technology, Engineering, and Mathematics). These adolescents commonly experience problems in middle and high school, such as short attention spans and a lack of interest in learning outside of the classroom. Our strategy aims to solve these issues by using gamified learning experiences to inspire students and improve their recall. In addition to providing access to international courses and competitions, these experiences assist people in developing vital skills for their academic and professional prospects. Changing traditional teaching methods into more engaging, technologically sophisticated ones that appeal to this generation's preferences is the aim of the solution.

Along with the support platform and microcredentials, we plan to promote the game to educational institutions looking to promote dynamic and interactive teaching methods. We are committed to customizing the gaming experiences to meet the specific needs of every school, ensuring that they align with their curricula and teacher requirements in order to maximize its educational impact. Our strategy includes developing challenging and rewarding interactive games, integrating the platform into school curricula, and giving parents tools to monitor and support their kids' growth. This approach not only encourages students to learn but also provides them with access to worldwide possibilities and helps them acquire critical skills for their personal and professional growth.

PlayTec is a digital ecosystem that encourages learning and networking through gamification of the learning process. It is aimed primarily for ages 12-18 and will cover mostly STEM subjects, though the curriculum can be expanded later on.

The project has two main components:

A) PlayTopia: Virtual Learning Room.

PlayTopia is a digital experience (game) hosted in a popular gaming platform.

1. When students enter the game, they will be asked to choose their grade and preferred subject.
2. The experience will then lead them to a learning pod, where they can learn about various topics with the help of videos or in-game simulations.
3. After students have reviewed a topic, they will enter a Challenge. Challenges are timed mini-games or obstacle courses that "test" the knowledge retained by students.
4. If a student completes a Challenge successfully, they will be rewarded with Learning Points (LP) that can be traded in-game for platform items in the lobby.

From the Lobby, Students can also access the Hub, Play Tec's Skill and Discovery platform. If approved by a parent, a Student's Learning Points can also be saved and transferred to the HUB.

In the future, PlayTopia will collaborate with popular (age-appropriate) games in the platform and offer temporary game passes in exchange for Learning Points as an incentive.

B) The HUB

The HUB is PlayTec's Skill and Discovery platform. Its primary target is students ages 15 to 18 years old. Students can access The HUB through search engines or through PlayTopia's Lobby. Students that come from PlayTopia will have the option to transfer their Learning Points to the HUB. Learning Points in The HUB will match Students with their areas of interests. Based on Profile type, The HUB will recommend contests hosted by Universities and Companies all over the world. It will also recommend online courses from platforms like Coursera, Google Courses, etc, based on the student's preferences and skill level.

MILESTONES:

1. November 13, 2024: Primary Development and 1st mock up.
2. November 14, 2024: The 1st Prototype was developed under the name PlayTec. Playtopia is accessible through Roblox, an online gaming platform. Inside the game, players will find a QR-Code that directs them to The HUB.
3. November 15, 2024:
4. December 2, 2024: The Minimum Viable Product will be produced by this date and later showcased on a state-wide Fair of Education, on Tlaxcala, Mexico.
5. December, 2024: Finalize the implementation plan of a gamified curriculum with PlayTec, for the School of Engineering, in Instituto Tecnológico de Monterrey, Campus Puebla.
6. February, 2024: Implementation of the project on a smaller scale, in Instituto Tecnológico de Monterrey, Campus Puebla.

BARRIERS:

Some concerns were raised over the online security of minors using our platforms. MANAGI

Rangos de edad grandes, seguridad

Seguridad de los datos

Tema ambiental

Validación de las micro-credenciales

RESOURCES:

Pruebas con público objetivo

Apoyo para el desarrollo de los juegos (developmentally appropriate)

PITCH: EN INGLÉS

SUBIR TODA EVIDENCIA DEL JUEGO, DE LA PLATAFORMA WEB, de LOS MILESTONES

EVIDENCIA DE LOS MILESTONES:

- Mandar correo a los profesores de mecatrónica
- Mandar correo sobre la feria