DIGIEDUHACK SOLUTION CANVAS

Title of the solution: PLAYTEC

Challenge addressed: Decreasing Attention Spans

Team name: MindWave

Challenge category: Beginners, Learning Spaces & Pedagogies

Background of the team:
(multiple selections possible in case of mixed teams)

- ☑ Higher Education Students
- ☐ Teachers
- ☐ Others (please specify)
- ☐ Researchers Primary
- ☐ School Students
- ☐ Professionals
- ☐ Secondary School Students

Describe it in a tweet

How would you describe your solution in a short catchy way with maximum 280 characters?

PlayTec is a gamified digital ecosystem for ages 12-18, focused on STEM education. Its core, PlayTopia, is a virtual learning space on a gaming platform. Students explore topics, complete mini-game Challenges to earn Learning Points, and trade them for in-game rewards to build a curriculum in THE HUB.

Innovativeness

Can your solution partly or fully be used in other education/learning contexts or disciplines? Could you provide any example?

PlayTec is distinct for its open-access platform where learning meets fun. It uses AI to track student progress and provides teachers with valuable insights. PlayTec ensures secure credentials that validate and track achievements. While many educational games lack engagement, transparency, or are costly, PlayTec's approach is accessible, affordable, and impactful, bridging the gap between fun and meaningful education with real-time tracking and credentialing innovation.

Solution description

What is the final product/service/tool/activity you're proposing? What are its main elements, technologies and objectives? Could you please include a brief implementation plan with some key overall milestones, resources required and eventual barriers foreseen? How could your solution be used to enhance digital education nowadays? How could its success be measured?

PlayTec: A Gamified Digital Learning Ecosystem

Project documentation:
https://www.canva.com/design/DAGWlfu4t7M/hvbp-dhBGWKNiGZZV1CgbA/edit?utm_content=DAGWlfu4t7M&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

Link to pitch:
https://www.canva.com/design/DAGWlcMrjhU/DH9K7UkH7ukkuTtsYCvFPg/edit?utm_content=DAGWlcMrjhU&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

Target group

Who is/are the target group/s of your solution and how will they benefit from it? Why is your solution relevant to them? how do you plan to engage these groups so you fully meet their specific needs?

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 teenagers 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.

Transferability

Can your solution partly or fully be used in other education/learning contexts or disciplines? Could you provide any example?

Our solution is versatile and can be scaled for various educational contexts. Although currently aimed at children aged 12-19, it can be adapted for younger children with engaging, age-appropriate games or for university students with more advanced, discipline-specific content.

For example, platforms like Roblox capture young audiences, but using Unity, we can create tailored educational games—such as anatomy simulations for medical students or robotics assembly games for engineering courses.

Context

What is the current or future problem you're trying to solve? How does your solution align with DigiEduHack 2024 annual theme? How does your solution confront the challenge posed by the hackathon organiser and how does it address the challenge category?

Attention deficit issues will create problems for a person of any age, but especially for children who are still in school learning.

We are addressing the issue of decreasing attention spans among children, exacerbated by the constant use of social media platforms. As social media usage increases, attention spans tend to decrease, which raises numerous concerns about children's development and learning abilities. Our solution directly confronts this challenge by leveraging the engaging nature of games to enhance learning and provide accreditation.

Impact

How will your solution catalyse changes in education and what impacts will it have at social and environmental level? Could you provide examples or scenarios illustrating how such changes and impacts might unfold?

Our solution will focus on changing education by transforming traditional learning methods into interactive, game-based experiences that engage students aged 12-19 and improve attention spans affected by social media.

By incorporating gamification, we promote interest and knowledge retention, providing micro-credentials and global opportunities to develop essential skills. Socially, this encourages inclusive learning and prepares students for future careers, while environmentally, it promotes digital learning, reducing the need for physical materials. For example, using tailored Unity games we can captivate students in STEM subjects, integrating seamlessly into school curricula and adapting for different age groups. We plan to launch our first MVP in schools across Tlaxcala and expand its implementation to the mechatronics program at the Tecnológico de Monterrey.

Sustainability

Once you have a prototype, what are your plans for a further development, implementation upscale and replication of the solution? How do you see it working in the mid- and long term?

For the future development of the proposal, we are looking for collaboration with different schools in order to reach a wider audience, as well as looking to develop our own platform if it is considered to be more successful.

In addition to collaborating with schools, we are also looking for collaboration with different micro-certification (inside of Blockchain) services and courses so that the student has a greater choice based on their needs and the direction they wish to take.

Team work

Present the members of your team. Why are you the perfect team to develop this work and what are the competencies you all bring in so the solution is developed successfully? What is your expertise within the thematic field concerned? Are you planning to continue working as a team in the future? If so, why?

We are PlayTec, a team composed of two mechatronic engineers with extensive programming and project development experience, two biotechnology engineers with sustainability expertise, and an entrepreneur with the vision to scale the project successfully.

This balanced mix of engineering and entrepreneurial skills ensures diverse perspectives essential for success. While some members focus on software development and emerging technologies, others bring leadership and strategic direction with a focus on sustainability. Our expertise spans AI, blockchain, big data, project development, and sustainability, making us well-equipped to execute this project. We plan to continue collaborating as a team to drive this vision forward, leveraging our combined strengths for future growth.

European Commission