

Re-energize Students: Using the Metaverse to Immerse Students in their Learning Experience Online.

The Challenge

The Educative Rallies arose as an answer to mitigate the fatigue caused by video conferencing tools during the COVID-19 pandemic. The rally also helps the student understand the theoretical content because it enables the student to explore the virtual environment as they would the real world.

The Solution

The educational design in the metaverse provides us with several opportunities to interact and the possibility of incorporating more appropriate teaching strategies for both individual and group educational activities, particularly for university education.

During the educational rallies, the students had to visit different stations located around the entire metaverse. In each station they had to perform certain actions that would allow them to discover the next hint, in order to go to the next station, and ultimately the team that reached the end of the rally first was the winner.

The innovation had active learning as its starting point, and that is how a series of dynamic activities were created for the students to reaffirm the course learnings, and had the chance to resolve any possible questions through fun activities. The rally, therefore brought together the learnings, the technology and the digital space to support active learning within a challenging digital environment.

The education rallies based their design in the SAMR Model, the pedagogy and technology wheel as well as the user experience map that instruct the process that should be followed to improve integrating educational technologies.

The Learning Impact Outcomes

The rallies were organized by the faculty staff of two university courses, The myths that inhabit us: from Prometheus to Marvel and Strategic Dimension of Human Capital, as well as in one high school course, Philosophical Thought, having the following results.

The undergraduate students of the online class: **'The myths that inhabit us: From Prometheus to Marvel'** stated the following:

- 47 out of 55 students were more focused on the activity than they would be with external distractions.
- 50 out of 55 agreed that an education rally makes their collaborative work experience more imaginative and interesting.

- 48 out of 55 students felt excited because they were involved in the activity (active learning) and they felt curiosity about how the activity would evolve.

The undergraduate students of the hybrid course **'Strategic Dimension of Human Capital'**, stated the following:

- 13 out of 16 students mentioned that the activity has allowed them to deepen their learning and the concepts in the course, and that they were more involved and motivated than during the regular sessions.
- 14 out of 16 students felt a greater intellectual challenge while performing the activity, and they had the chance to develop problem solving skills.

The Highschool students of the online **'Philosophical Thought'** satated the following:

- 11 out of 15 students agreed that virtual reality captured their attention, and that it was possible to dive deep into and understand the concepts of the subject.
- 10 out of 15 students mentioned that they felt motivated and focused without external distractions.

This project is a step towards institutional improvement through technological tools, showing that its use makes it possible to expand the learning frontier, showing how a well-planned activity can encourage the students creativity and avoid their lack of interest.

The Return on Investment

The metaverse creates a virtual environment that simulates the conditions that are very similar to the conditions that were prominent at the Tec de Monterrey campus. With visual, sound, and tactile effects designed, this innovation makes it possible to interact with fellow students living the experience on another level: it awakens their curiosity, motivation, and creativity because it is favorable to comprehending and assimilating content in a natural way that is appropriate for their intellectual needs.

This project is a step towards institutional improvement through technological tools, expanding the learning frontier, showing how a well-planned activity can have such successful and high-impact results in the learning process of students, and also encourage their creativity and avoid their apathy.