

Utilizing Virtual Reality Technologies to Engage Students

Engaging students has been a challenge. Over the years, we have learned about experiential exercises, gamification, simulation and many more. During COVID times, we have used Zoom and zoom fatigue seems to have set in and engagement dropped. Using a new tool for educators, Virtual Reality in education has become the latest tool for engagement. Yet how can it be adapted to management pedagogy? In this session, we focus on the role of virtual reality tools as means to address engagement through sample tools and cases as applied to management. As part of the exercise, we provide a set of best practices for management educators to address and end with implications.

Keywords: Digital Transformation, Virtual Reality Tools, and Engagement

Introduction

Over the decades, we have seen teaching move from “sage on stage” to hands on learning. Examples include active learning, experiential learning, simulations, (Harder 2010), gamification (Deterding 2011), student as a producer (Neary et al.2014), service learning (Baum 2004), interactive storytelling (Crawford 2004) and so many more. And yet we hear stories of disengaged students every day. In a 2017 article in Edutopia by Oscar, the numbers of disengaged students increased from a 25% to 56% as per a Gallup poll.

With the advent of COVID-19 millions of students are learning remotely, the issue of student disengagement has only increased. For example, in one study in Ontario, Canada, 50.9% of students cited “engagement in learning at home” as critical to their learning and retention (Bennett, 2020). A critical question that educators now face is how they can address this gap with newer digital tools?

In this respect, virtual reality has been called the empathy machine (Constine, 2015 & Milk, 2015); this is “primarily because of the technological characteristics that strengthen the users' feelings of “being there” (Cummings and Bailenson, 2016)” (Bujic, 2020).

Given zoom fatigue and reduced levels of engagement, Virtual Reality can be a solution to students feeling “being there” and increase engagement. However, it still needs to be explored in further detail in the context of management classrooms. The purpose of the PDW is to provide the participants with a new way of teaching using Virtual Reality and specific to management pedagogy. The intended outcome is to expose participants to another way of teaching.

PDW Overview

Virtual Reality in Teaching Overview.

There is a lot of zoom fatigue with online teaching. It will still take 1-2 semesters for colleges to be back fully in person. This PDW helps educators understand how to set up a VR class and teaches them how to conduct a class with these tools.

Research on VR has shown that it has an “empathy effect” wherein the user can “feel” an action rather than just cognitively process it. It has shown it leads to greater engagement. This PDW will show the participants how to use this tool for effective teaching. A demo of the tool will be provided, and the participants will be invited to participate as students

Learning Objectives, Engagement, & Takeaway.

The PDW is intended to show educators how this new tool of VR is used to conduct classes. Each participant will attend the seminar virtually and take part in a virtual class and learn about the technology and navigate it. The key takeaway is for the participants to learn a new way of online teaching.

The learning outcomes associated with our PDW include

1. Understanding Virtual Reality Technology.
2. Learning how to set up a VR classroom
3. Finding ways to integrate it in their curriculum with specific examples to management classrooms and topics.

Session Description and Plan

To achieve our learning objectives, our session is thus planned as follows:

- **Format – Our format is an activity/demo** As part of our format we provide a general overview of Virtual Reality. We then discuss how this has been used in management education.
- **Target Audience –** Undergraduate and/or graduate students and management educators who are interested in newer ways to increase engagement
- **Materials Needed –** computer and free software
- **Time Requested –** 60 minutes

Exercise/Activity Overview

- **Part A: Overview (10 minutes)**

In this section, we will talk about VR and its genesis and its role as an empathy creator. We will also discuss how it has been used in a class setting for management teaching.

- o This part of the session will include a brief discussion and review of VR and what tools are currently used.
- o The focal point of Part A is to provide enough background into this concept. We provide sample cases here from both our classroom experience and outside work and applications on this topic.

- **Part B: Demo**

- o **Building from Part A, we introduce two parts.**

Exercise 1 (10 minutes) – In this section, we will demonstrate how this will be used in a classroom including set up and how to conduct a class. From this first exercise, we then move into a second activity where we will have the participants “virtually” enter the VR classroom.

Exercise 2 (30 minutes) – In this part of the session, participants will be able to log in and become part of the virtual class and navigate a few tools.

Part C: Debrief and Wrap-Up (10 Minutes)

- o An interactive debriefing of the exercise will conclude the session. As part of our wrap-up, we will have participants identify two key learnings and alternative areas for consideration in the use of VR for management. We will also briefly discuss our own lessons learned as instructors, and pitfalls to avoid when conducting the activity will be highlighted.

- o Note: Session participants will be welcome to ask questions, share suggestions, and brainstorm about how to integrate the assignment into their own classes. Collaboration and interactive discussion will be encouraged throughout the session.

Application to Conference Theme and Unique Contribution to MOBTS

As this year's MOBC Oceania conference focuses on experiential exercises and adaptive learning tools given the effects of COVID-19, we provide a newer set of tools and practices to educators around an increasing problem in management education – i.e., virtual student engagement.

Acknowledgements of First-Time Submission of This Work

This is the first time this proposal has been presented to MOBTC and at a conference.

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