Submission for International MOBTS 2022

PDW/Activity proposal for presentation of best practices and interactive

Virtual reality field trips in management education: the next level

ABSTRACT

This PDW presents a best practice example and an exciting activity of virtual field trips as an approach to enhance management education encompassing virtual reality technology, two-way interaction, and multi-sensory experiences. There is a presentation of a virtual study trip to Oman conducted with two cohorts of management students over the last two years to exemplify how such technology deployment fosters understanding of management issues in intercultural settings. Equipped with virtual reality cardboards and their own smartphones, workshop participants will then join a short trip including VR streams and life two-way interaction with a representative based in Oman, sample tasks students had to perform, and reflect on learning goals and outcomes. Participants will then reflect on this learning format and sketch ideas of how to develop suitable VR field trip programs for their own teaching setting.

Keywords: Virtual reality, field trips, intercultural management

Introduction

The ongoing COVID-19 pandemic has forced higher education institutions, including business schools to shift many courses and other components of management education provision into the online realm. Many colleagues and our student constituencies have struggled to cope with the exceptional situation especially due to a lack of personal interaction. However, we noticed (and picked up from conversations with many colleagues during video conferences or online meetings) that these circumstances have also unleashed tremendous creativity and propelled the willingness to engage in digital solutions and experiment with new learning formats.

One area that holds considerable potential for the enhancement of management education, going beyond the classroom and other traditional settings is virtual reality (VR). This technology allows users "to experience immersive simulated reality" (Loureiro et al., 2020, p. 443). However, its application is not limited to artificial worlds and simulation of business (or other real-life) settings, it can also be deployed in several ways to enhance field trips – or replace them (as we had to do due to the pandemic, and which might remain on the agenda where budget cuts will curtail opportunities to travel). Field trips provide several benefits in (higher) education contexts, as they leverage learning experience and provide invaluable real-life insights for students in specific fields such as operations management (Netland et al., 2020) or in international business contexts (Donovan et al., 2010).

In this workshop, we will present and explore the potential of combining (international) field trips and creative VR elements to provide inspiring learning experiences, to foster awareness of intercultural management issues, and to amplify students' joy to experiment with gadgets. There will be a presentation of virtual tours to Oman with two-way life interaction. Participants will use VR cardboards, their smartphones and a sensory material box to live through the student experience. In addition, there will be brainstorming and discussion to develop ideas about how participants can integrate similar activity into their respective teaching settings.

Theoretical Foundation

Getting out of the classroom to enhance learning, to complement textbook and lecture contents, and particularly to explore practical insights or to understand real-life business issues first hand is a well-known successful component of higher education, including business and management studies (e.g. Earle et al., 2015). Likewise, there is ample evidence that video files or streaming and audio/podcast use enhance the learning experience beyond providing pure contents, and that such technology-based learning concepts contribute to better student results in business courses (e.g. Muller & Wergin, 2014). Even feature films have served as successful instructional tools in business or management courses (Smith, 2009).

Beyond specific knowledge in business subjects, videoconferencing technologies can support intercultural knowledge or competence building (e.g. Aslam, 2017; Durko & Martens, 2021; McBrien et al., 2009), which is an imperative in a business environment of globalized markets and against a backdrop of the increasing importance of diversity management (e.g. Scherle & Rundshagen, 2017). They can encourage students to visit other countries and learn about foreign cultures (Durko & Martens, 2021; Ritzel, 2010), or to reflect upon their attitudes towards and belief of different cultures (Lee & Markey, 2014). Especially through deep and interactive discussions, student exposure goes far beyond studying textbook contents to allow subjective cultural learning (O'Dowd, 2011). Durko and Martens (2021); Durko and Petrick (2016) show how cross-continent virtual interaction (in a collaboration between students in Texas and Germany or Texas and Afghanistan) foster cultural learning.

In addition, the importance of haptic and (multi-) sensory experience in learning is established in the literature (e.g. Phillips, 2015). Making experience as real-life as possible, emerging technologies such as holoportation, holograms, and haptic devices offer future pathways to enhance learning and student engagement in augmented learning environments (Themelis & Sime, 2020).

(Best) Practice Example and Context

One of the authors orchestrated two virtual study trips in January 2021 and in January 2022. We elaborate on the aims, methodology and achievements in the following. The aims of the study trip was to provide students an alternative to physical travel hardly possible during the COVID-19 pandemic. Students were supposed to learn and discuss applications of virtual reality technologies, doing business in other cultures whilst developing understandings of the local culture and related management implications. Together with the partnering tour operator, they discussed potential VR applications for the tourism industry. The trip in 2021 covered Oman, while the journey in 2022 virtually took students to Saudi Arabia, the United Arab Emirates and Oman.

The virtual study trip methodology included a mix of learning about VR applications through workshops with professional companies, 360 degrees livestreaming and recordings from the destination. Accordingly, a staff member of the tour operator was on site with a camera. During these interactions, all students were in a video conference together receiving instructions and enabling them to interact with the guide in the destination. This allowed a two-way interaction. Alongside the interactions students received a sensual experience box including local tastes (dates or tea), smells (perfumes or incense), and touches (pashminas) to use at moments where it would suit the interaction. Further, we arranged direct contacts with the local population, talking about either their businesses or their private life to enable the students to learn about life and management culture in Arabia.

Clasping all interactions, we met with the students virtually in the morning, handed out quizzes and other entertaining challenges and reflected with them after the sessions. Looking back on the trip, students confirmed they gained a variety of valuable experiences. The most surprising feeling participants voiced was they felt belonging to a real travel group on a field trip (although they would not want to give up real field trips, in unison with their educators).

Session Description

This workshop will present the original setup and material from two virtual, VR-aided field trips to destinations on the Arabian Peninsula and actively engage participants who will sample parts of the original trip and share the student experience first-hand. Following an introductory explanation and briefing with a focus on the rationale, learning goals, and program design, there will be a VR-360-degree streaming from Oman (or, in case of technical issues, there will be an alternative recording). Participants will use VR cardboards (provided by the workshop organizers) and their smartphones to experience the exemplary field trip to Oman that was actually conducted with two cohorts during the last two years. Participants will interact live with representatives in Oman and go through sample tasks the students had to perform. In addition, a sensory box is provided to accompany the online interaction, mirroring the original features of the student program. Then there will be reflection and discussion of that experience, which will lead over into brainstorming of ideas, and potentially rough program design sketches of how participants can deploy similar arrangements in their respective courses or teaching settings. Ideally, a pool of ideas, challenges, and potential pitfalls is assembled.

Proposed timeline (schedule can be adapted to conference program needs):

	Preferred format **90 min.**	*Alternative format* 60 min.
Introduction and technical setup	15 min	10 min.
PDW team presents topic and provides examples of VR-based field trips (covering rationale, preparation/design, organization, interaction, experiences and reflection with students), featuring video streams/live interaction and sensory box.	35 min.	20 min.
Interactive discussion and brainstorming to develop further ideas and to adapt VR field trip options for workshop participant settings, structured according to group composition.	35 min.	25 min.
Wrap-up and conclusion	5 min.	5 min.

Key takeaways: Virtual study trip pedagogies, intercultural and experiential learning insights, ideas for implementation of VR field trips into own management teaching settings.

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