Smartphone-Based Virtual Reality as an Immersive Tool for Teaching Marketing Concepts

Haithem Zourrig, Kent State University at Stark, USA

ABSTRACT

With the advent of virtual reality (VR) technology and the ubiquity of mobile devices, smartphone-based VR has become more affordable and accessible to business educators and millennial students. While millennials expect learning to be fun and prefer working with current technology, educators are constantly challenged to integrate new technology into the curriculum and evaluate the learning outcomes. This study examines the gain in learning effectiveness and students' intrinsic motivations that would result from the use of VR as compared to the use of traditional learning activity, namely think-pair and share. The results show that students who took part in the VR simulation demonstrated a better understanding of concepts and reported a better learning experience as compared to those who participated in the think-pair-share activity. In particular, the findings show evidence of higher intrinsic motivation and better learning outcomes.

KEYWORDS

Immersion, Intrinsic Motivation, Learning Effectiveness, Marketing Education, Virtual Reality

INTRODUCTION

Virtual reality (VR) refers to immersive, interactive, multisensory, viewer-centered, three-dimensional computer-generated environment (Mandal, 2013; Toshniwal & Dastidar, 2014). Though VR was first introduced to target entertainment and gaming, recent studies have shown its potential use for educational purposes (see Choi et al., 2016 for review). With the advent of smartphone devices and free VR apps available for download (e.g., Google apps and Apple stores), VR technology has become more affordable and accessible than what it used to be a few years ago. For instance, students can use their smartphones (androids or iOS) to download free apps and slide them into the cardboard.

In fact, there is a great potential in using smartphone-based VR as a teaching tool that would complement and improve the teaching effectiveness and the overall students' learning experience (Jensen & Konradsen, 2018). In particular, many studies in management education have reported opportunities for using VR in teaching retailing principles (Drake-Bridges et al., 2011), social marketing (Dietrich et al., 2019), tourism marketing (Hassan & Jung, 2018), and brand management (Belei et al., 2011).

One of the most important courses in the marketing curriculum is marketing research. For many instructors, teaching marketing research depends heavily on concepts drawn from consumer behavior

(Bridges, 2020). While many students recognize the psychological complexities of consumer behavior, they often find it challenging to integrate the learned concepts into a coherent framework that facilitates learning (Lincoln, 2016). For instance, the concepts of hedonic shopping (i.e., the enjoyment and pleasure that consumers may experience while shopping), psychological time (i.e., the sense of the passage of time when purchasing a product), and the flow state (i.e., the sense of playfulness and distorted sense of time) are experiential by nature. They would be better taught if they are integrated within a comprehensive framework related to the consumer's shopping experience. As VR enables simulating shopping experiences, the relevance of VR to teach these concepts becomes instrumental.

Hence, the purpose of this paper is to highlight some merits of using smartphone-based VR to teach marketing concepts. This article reports on the results of a VR simulation activity used in a marketing research class to teach students a few consumer behavior (CB) concepts before setting up experimentations.

The paper is organized as follows. First, the opportunity of using smartphone-based VR as an immersive teaching tool is highlighted. Second, the paper explains how the proposed VR innovation relates to the marketing curriculum objectives. The paper also describes the VR simulation and positions its novelty with regard to learning taxonomies. Thereafter, the paper reports some findings from assessing the VR effectiveness and conclude with some challenges and the potential adaptability of the VR simulation to other marketing courses.

BACKGROUND

Learning Opportunities with VR

Marketing educators have been using a variety of learning activities to teach students marketing concepts. These include experiential projects (Morgan & McCabe, 2012; Titus & Petroshius, 1993), computer-based simulations (Carter, 2002), self-photography projects (Hartman & Braunstein, 1998), active-learning assignments (Lawson, 1995), and videography (Smith & Fisher 2006), to name a few.

While these activities foster active learning, the increasing interest in virtual reality (VR) among students provides a compelling reason to incorporate VR into the marketing curriculum. In particular, millennials are technologically literate, being immersed in a variety of emerging technologies since their birth, they often quote traditional teaching and learning environments as boring (Mangold, 2007).

As nowadays students are looking for immersive learning experiences, it is not surprising to find millennials embracing VR. Indeed, a survey conducted by *Touchstone Research* in 2015 points to the same conclusion: 73% of millennials are highly interested in VR. In the same vein, many businesses and particularly retailers (e.g., Lowes, Walmart), have been working on integrating VR into their marketing activities, to improve their customers' experience. The advent of VR technology and the ubiquity of mobile devices and free apps provide sound arguments to embrace VR while teaching marketing and preparing business students for future jobs.

Despite its popularity and unquestionable appeal to today's students, little is known about opportunities that VR would offer to marketing educators. From an instructional perspective, VR could potentially simulate a virtual store or a mall environment (Drake-Bridges et al., 2011; Van Kerrebroeck et al., 2017) and affords flexibility in outlets design and atmospherics that could be otherwise difficult to create or manipulate in a real learning environment. Such flexibility offers possibilities to marketing educators to enable illustrating a large variety of concepts, remotely in a simulated environment.

The Pedagogical Novelty of the VR Simulation

Unlike other conventional instructional methods, VR affords an immersive learning experience that helps students to grasp concepts by experiencing them fully. Indeed, when using VR activities in class, instructors could blend a constructivist approach whereby students create knowledge through

Related Content

Building Competence: A Historical Perspective of Competency-Based Education

Kristin A. Jonesand Steven G. Olswang (2017). *Handbook of Research on Competency-Based Education in University Settings (pp. 28-40).*

www.irma-international.org/chapter/building-competence/167894

Teaching Accompaniment: A Learning Journey Together

Steve Reifenberg (2023). *International Journal of Innovative Teaching and Learning in Higher Education (pp. 1-10).*

www.irma-international.org/article/teaching-accompaniment/335497

The Model of Technology-Supported Learning for Special Educational Needs Learners: Towards Inclusive Environment for Students With Disabilities (SWDs) in Malaysian Higher Education

Roslinda Alias, Nor Aziah Alias, Johan Eddy Luaran, Rosilawati Sueband Mahadi Kamaludin (2017). *The Future of Accessibility in International Higher Education (pp. 202-218).*

www.irma-international.org/chapter/the-model-of-technology-supported-learning-for-special-educational-needs-learners/181945

Accessibility of Sino-African Educational Partnerships in Higher Education: History, Achievements, Challenges, and Directions

Chak Pong Gordon Tsui (2017). *The Future of Accessibility in International Higher Education (pp. 37-50).*

www.irma-international.org/chapter/accessibility-of-sino-african-educational-partnerships-in-higher-education/181934

"The Fact That the Author Was Male Instead of Female Provided for an Objective Opinion": Implicit Bias in the Classroom

Julia Ferrara Waity, Jennifer Vandermindenand Kristin Robeson (2020). *International Journal of Innovative Teaching and Learning in Higher Education (pp. 44-60).*

www.irma-international.org/article/the-fact-that-the-author-was-male-instead-of-female-provided-for-an-objective-opinion/265506