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RETAIL QUEST: STUDENT PERCEPTIONS OF A VIRTUAL FIELD TRIP APP

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ABSTRACT

Aim/Purpose	Two popular methods for encouraging active learning are Augmented Reality (AR) and Virtual Field Trips (VFTs). This exploratory case study examines college students' perceptions of a prototype AR and VFT app as an active learning strategy.
Background	AR allows students to learn as they physically explore a destination, while VFTs give students the opportunity to visit exciting destinations without leaving their homes. AR and VFTs promote active learning, which has been shown to increase college student success in Science, Technology, Engineering, and Math (STEM) courses. The aim of the VFT app in this study is to provide college students in a STEM course with an interactive lesson on modeling information systems using diagrams.
Methodology	This exploratory case study is intended to serve as a condensed case study performed with the prototype version of a VFT app before implementing a large-scale investigation of students' perceptions of a more refined version of the app. The study employed a qualitative approach involving a survey with open-ended questions to gather college students' perceptions of learning with a VFT. The data were analyzed using inductive coding. The participants are students at a mid-sized, urban, public university.
Contribution	This exploratory case study serves as a proof-of-concept and starting point for other faculty who may be interested in developing their own AR and VFT apps to engage students in active learning. Releasing the app to a common Open Educational Resources (OER) repository will give other faculty easy access to reuse the app and build upon it to create their own virtual field trips. OER are learning materials that are freely available for students and faculty to download and use in their coursework.

The full paper was previously published as the following and is being presented at this conference:

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Findings	Students overwhelmingly perceived the VFT app helped them learn about the subject that was presented, citing the visual nature of the app, the real-life scenarios presented in the app, and the app's ease of use as reasons why. The majority (over 89%) also agreed that the app motivated them to learn more about the subject, mainly due to the app's real-life scenarios, and over 83% of students cited at least one benefit to learning with the app, such as the navigation/location features, the easy-to-use interface, and the real-world scenarios.
Recommendations for Practitioners	The pedagogical implications of this study are that faculty should adopt VFTs as an active learning strategy, particularly in STEM college courses, based on the students' positive perceptions of learning, motivation, and benefits of VFTs.
Recommendations for Researchers	Researchers can expand on this exploratory case study by conducting a larger-scale study of the VFT app employed in the case study, or by developing their own VFT app based on the one in this study, to capture a broader group of students' perceptions of VFTs as an active learning strategy.
Impact on Society	The broad impact of this research on society is encouraging the adoption of VFTs as an active learning strategy since active learning strategies are shown to increase college students' success and engagement.
Future Research	Future research will be conducted in subsequent terms to gather additional data on students' perceptions of the VFT app, as well as their perceptions of the relationship between learning and the VFT technology. Further research is also needed to survey faculty on their perceptions of how engaging with the app impacts student learning, particularly in regards to the VFT technology within the app.
Keywords	Augmented Reality (AR), Virtual Field Trip (VFT), active learning, Systems Analysis and Design (SA&D), Science Technology Engineering, and Math (STEM)

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