Exploring AP English Students' Experience with the Open World Simulation of Henry David Thoreau's Experiment

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DOI:10.59668/1269.15705



Technological advancements continue to present a variety of learning opportunities for students. The purpose of this interpretative phenomenological analysis (IPA) study is to seek an understanding about students' experiences with a virtual reality (VR) activity in an Advanced Placement English course. Analyzing the observations and interactions the participants undergo with VR informs the story of their journey with the technology. Additionally, their immersion in the VR environment emphasizes active learning and experiential learning theoretical concepts. The benefits of this study may help educators understand students' interpretations of VR and ways in which they engage with interactive digital activities.

Introduction

Initiated in the 1950s, the Advanced Placement (AP) program aimed to academically excel high-achieving students enrolled in elite prep schools and was later integrated into public schools (Schneider, 2011, as cited in Parker et al., 2013). Because AP courses are well-known for their rigor and conceptually challenging curriculum, AP students experience a disconnect with canonical texts hindering their appreciation for literature. The purpose of this study is to reveal AP students' experiences with the digital environment within a virtual reality (VR) activity, specifically, an educational game designed for ELA titled Walden: A Game.

Problem Statement

Advanced Placement (AP) programs have expanded quickly due to their reputation of holding a spotlight on college applications, for these courses offer the rigor expected from college students and potentially offer college credit based on scores on the AP exam. Given the structure of the exam, AP students are limited, for they are preparing structured responses to a multiple-choice question or a free-response prompt due to the mode of evaluation for this standardized assessment, which narrows their field of engagement with the content. Experiencing the process of reading a text opens the opportunities to form subjective connections, whether they be text-to-self (identifying oneself in the context), text-to-text (relating the content to other works), and text-to-technology (researching information or creating digital innovations based on context) (Keene & Zimmerman, 1997 as cited in DeLaGarza, 2014). Text-to-technology connections is a significant ELA strategy to develop literacy awareness, so choosing the right innovative mechanism to fulfill the learning objective, promote student engagement, and teach literary appreciation can be productive for instructional time and successful academic achievement.

Virtual reality (VR), a technologically advanced computer system-generated simulation in which the user reacts with the virtual world in a realistic manner, has recently emerged as an educational tool that highlights interactive modalities and self-directed learning (Matome & Jantjies, 2019, p.93). By utilizing computerized commands to navigate and accomplish tasks, VR provides "immersive experiences" through engagement and active learning (Hutchinson, 2018, p. 343). This multimodal activity blends visuals, sounds, and movement similar to a video game, creating "sensory experiences that involve, sight, touch, hearing, and motion to allow users to feel as though they are physically in that environment" (Hutchinson, 2018, p. 343). The text-to-technology connections bridge the gap between canonical literature and post-secondary readiness fluently, for these innovative activities elevate literary contexts through real-world tasks.

Purpose

The purpose of this study was to explore Advanced Placement (AP) students' experiences with a virtual reality (VR) activity. This purpose is driven by the significance of building AP students' literary awareness to formulate distinct textual connections to the difficult canonical literature integrated into the AP Language and Composition curriculum. Because the research question for this study examines student experiences with VR, an interpretive phenomenological analysis (IPA) is the methodology for this study, for this approach "makes sense of the participant trying to make sense of what is happening to them" (Smith et al., 2009, p. 3).

Methodology

While "the assumptions underlying qualitative research is that reality is holistic, multidimensional, and ever-changing" and therefore not validated, it is because of the human element that validates qualitative research (Merriam & Tisdell, 2016, p. 242). The phenomenon in an IPA study is "the thing itself that influences the interpretation; [essentially]] the aim is to allow the new stimulus to speak in its own voice" (Smith et al., 2009, p. 26). While "there will be multiple constructions of how people have

experienced a particular phenomenon, how they have made meaning of their lives, or how they have come to understand certain processes," (Merriam & Tisdell, 2016, p. 243) it is through these genuine responses narrated throughout the study that offers the reader the opportunity to also feel a part of the narrative.

Data Collection

The data collection for this study was conducted during the AP teacher's instruction of the transcendentalism literary genre, a unit taught over a month period covering canonical texts written by transcendentalists Henry David Thoreau and Ralph Waldo Emerson. In his autobiographical text titled Walden, Henry David Thoreau "wrote about his famous transcendental experiment of self-reliant living at Walden Pond" (Farber, 2022). Even though Thoreau highlights important "concepts of civil disobedience, and connections to the environment hold important lessons for understanding issues affecting today's world," (Farber, 2022) students tend to struggle with Thoreau's canonical literature, for his words and abstract ideas are difficult to digest.

To address Thoreau's purpose, the AP English Language and Composition instructor assigned a VR activity for homework, a web-based simulation titled Walden: A Game created by the Walden Team, led by lead designer, Tracy J. Fullerton, director of the University of Southern California's Game Innovation Lab. This VR game, free for all educators by USC Game Innovation Lab, explores the nature of Thoreau's thoughts on self-reliant living as well as his critique of the materialism he saw developing in early industrial society in America (Fullerton, 2020). Split into "a series of three 20- to 30-minute standalone episodes with supporting lessons" for educators (Farber, 2022), the AP teacher assigned the "Self-Reliance" episode as the required activity to fulfill the assignment on Google Classroom, the AP teacher's learning management system (LMS). The AP teacher posted the other two episodes, "Where I Lived" and "What I Lived For" as extra credit on Google Classroom as well. The teacher instructed the students to complete the activities individually in their home environment, for it is pertinent that each student experiences the VR activity without frequent distractions or influence from others.

Research participants were high school students in an AP English Language and Composition course. Students who were eligible to participate in the study were those who had completed at least two Walden: A Game episodes at home and who chose to submit the player reflection journals for the episodes on Google Classroom. Completing two episodes and reflection journals took about one hour and 20 minutes, two hours if the student chose to complete all three episodes. After reviewing the students' submissions, seven students were eligible and participated in the research study. Participants' names remained confidential in this study, for I assigned a number to each participant and then randomly matched these numbers to a pseudonym as follows: Participant 1-Betty, Participant 2-Emily; Participant 3-Rebekah; Participant 4-Mary; Participant 5-Abigail; Participant 6-Esti; Participant 7-Taylor.

I conducted seven semi-structured interviews, during which I recorded my own notes to identify patterns among the participants' responses to the interview questions. In addition to the interview recordings, transcripts and notes, I collected a total of 20 participant reflection journal entries from the seven eligible participants. The students' reflection journal entries were scanned for common words or threads of categories to compare to the conversations in the interviews in the NVivo version 14 computer software for data analysis. By comparing the participant responses for commonalities within their statements, I was able to identify themes applicable to broader contexts (Creswell & Poth, 2018). I documented the coding process as well as the findings to emphasize transparency and maximize the study's reliability and validity.

Hermeneutics is essential to analyzing data for IPA, for making sense of and interpreting the communication provided from each of the participants entails careful analysis. Examining each participant's story of their lived experiences for "how the story is constructed, what linguistic tools are used, and/or the cultural context of the story" (Mischler, 1995, as cited in Merriam & Tisdell, 2016, p. 36) should not be tainted by my interpretation of their narrative. I retold the respondents' accounts through my analytic redescriptions, for through my research strategies, data samples, transcription procedures, and interpretive perspectives, (Mischler, 1995, as cited in Merriam & Tisdell, 2016, p. 36) I, too, told their story.

Findings

While this study does not explore students' experiences with VR headsets, it does find that students make connections with the literature they read in ELA courses through digital immersive environments that simulate the contexts of the books incorporated in the curriculum. VR does not need to be a time-consuming lesson, nor does it need to involve expensive tools. VR's digitized immersion is an experience that brings educational context to life through its visual, audible, and kinesthetic means of engagement.

Mary's positive evaluation of the game in her reflection journal demonstrates the impactful contributions of Walden: A Game: "This experience shed light on Thoreau's assertion that enjoyment could be derived from the simplest and humblest of lives. The audible and visual effects from gameplay "allowed [the participants] to truly envision Thoreau and his life at Walden Pond. The game incorporated the actual map of Walden [Pond] and made it come to life" according to Mary (Fig. 1).

Figure 1

Game Map of Walden Pond; Red triangle indicates Player Location



Through this VR experience "students are encouraged to think at a metalevel and to make connections between their world and the world of the text" (Moran & Woodall, 2019, p. 91). Mary explained the concept of being self-reliant: "You have to survive on your own and that's part of the objective. It's your main focus." Esti, specifically, spoke to her connection to nature when she described fishing in her journal reflection: "Fishing was quite fun, and I appreciated the way the arrow popped on the screen showing me how to complete a task the right way with the mouse" (Fig. 2).

Figure 2

Demonstrating the Motion of Fishing



To achieve self-reliance as a transcendentalist, this philosophical experiment focuses on one's connection to nature and its beauty. Participants were given ample opportunities to spend time with their own thoughts, to reflect on the meaning of life by drowning out the sounds of the busy world; it is a "therapeutic experience," according to Taylor.

Overall, through this experience with the immersive simulation Walden: A Game, most of the participants claimed that they gained a better understanding of Thoreau, expressing that the game "enhanced their understanding of the text" (Mary) because "it helped go into his mindset" (Abigail). The VR experience provided realistic feelings applicable to the process of developing self-reliance, appreciation for nature, reflection, and independent thinking. This study sheds light on the potential benefits of pairing a canonical text with a twenty-first-century technology tool, highlighting the deeper understanding gained by encouraging the student participants of this study to experience how differently place and time may mean for the events and concepts of the book.

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