Watershed Explorers: Designing a Virtual Reality Game to Promote Local Watershed Literacy

This work-in-progress overviews the development of a multidisciplinary place-based virtual reality learning game to increase learners’ watershed literacy by playing guided exploration of the Lehigh River watershed’s historical and environmental issues. This desktop VR game aligns to the National Geography Standards to support schools’ adopted curricula. Its design is informed by digital game-based and situated learning theories focusing on place-based and gaming features that support learning. “Watershed Explorers” may assist learners’ emotional connection to their region through authentic and relevant learning experiences that might inspire them to support their local community welfare. The usability studies with the prototype version showed that players were engaged, felt immersed, and experienced a sense of presence.