

As the construction industry gears toward adopting data sensing technologies, there is a demand for creating and sustaining a workforce with skills for implementing the technologies and analyzing the resulting data to support decision-making. It is also essential to improve awareness of this Science, Technology, Engineering, and Mathematics (STEM) career option among all students, develop their understanding of the applications of data sensing technologies and improve their computational thinking skills in manipulating and using data. This project aims to investigate an immersive virtual reality-based learning environment for developing middle school students' computational thinking skills necessary to address construction challenges and improving students' engagement and attitudes towards STEM-related careers in the construction industry.