Augmented Reality as a Training Solution for Manufacturing
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Workplace training environments using augmented reality (XR), mixed reality (MR), and extended reality (XR) technologies are becoming more popular and have the potential to contribute to more effective learning, especially in complex or dangerous environments that require high levels of human-machine interaction. This poster describes the development and implementation of an augmented reality training solution for a manufacturing company. A Midwestern manufacturing organization needed workplace training that could be delivered in a consistent manner in an extremely loud and hot environment. Their previous training materials were low quality, lacked clarity, were not available in digital format, and human trainers were not effective. Informed by learning research we developed an augmented reality solution which allows learners to quickly access expert information about a complex machine interface. One primary goal was to create shared conceptualizations of knowledge in order to facilitate the transition from novice to expert for new employees. Results show that learners found the technology tool to be more engaging and to provide more consistent on-the-job information in a way that human trainers could not. This case study, demonstration project highlights the value of applied psychology research using a scientist-practitioner approach (e.g., Gelso, 2006) and provides an example of the value of collaboration among graduate students in psychology, faculty members, and corporate partners.