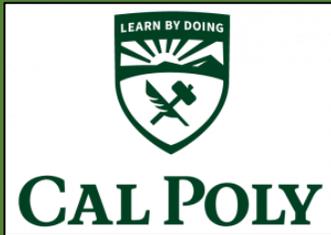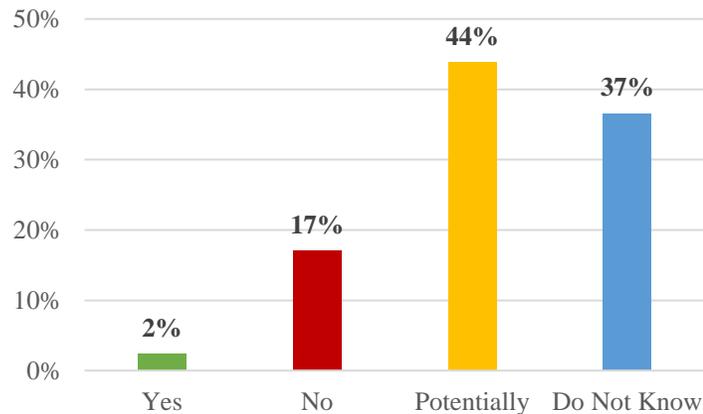# The Use of Virtual Reality in Construction Safety Training

Matthias Guegler
California Polytechnic State University
San Luis Obispo, California

The emergence of virtual reality has seemingly limitless possibilities in the construction industry. One of the most significant applications of this technology in construction, is its use in virtual reality safety training, as it allows for more immersive and retainable training programs. Construction VR training programs have been developed to allow workers to train in a safe working environment and develop the necessary skills in recognizing hazardous jobsite situations. The purpose of this study is to measure the effectiveness and potential of virtual reality construction training as it compares to traditional industry training through attitudinal research. To this end, a survey of twelve questions was sent out to construction industry members using the Construction Management Advisory Council database to gauge how widespread virtual reality training is, if it is more effective than traditional safety training, and if it should be the new industry standard for construction training. The responses to the survey indicate that virtual reality safety training is still minimally used and not fully understood in the construction industry. A minority of the respondents were familiar with the technology and could not give definitive answers regarding its effectiveness or place in the future of safety training.

Key Words: Virtual Reality, Safety, Construction Training, Effectiveness, Future Technology
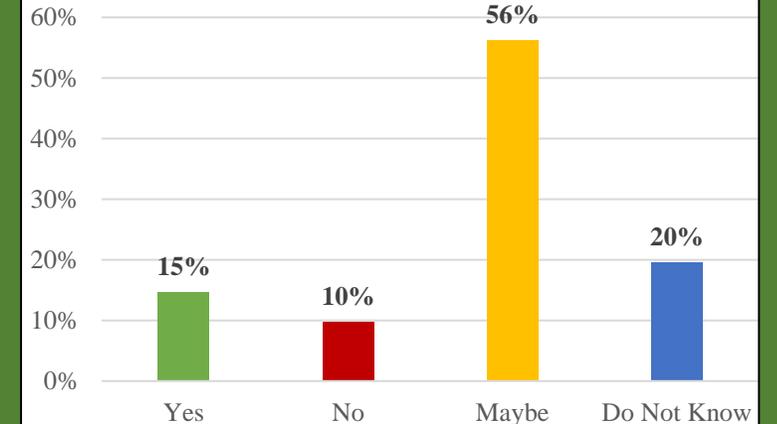
Do you believe that virtual reality is more effective than traditional safety training?

Purpose: To determine the effectiveness of virtual reality safety training and whether it should be the future of construction training.

Research Methodology: Attitudinal research through a survey sent through the CMAC database and Cal Poly Construction Management Alumni.

Results: Virtual reality technology is not fully understood in the construction industry, and therefore respondents could not make definitive statements regarding its effectiveness or future place in the industry.

Do you believe that virtual reality safety training is the future of the construction industry?