



Micro Video Games for Training

National Institute of Environmental Health Sciences

Best Practices in Using Technology in HAZMAT Training

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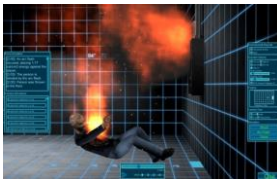
Simcoach Games Background



Carnegie Mellon University
Entertainment Technology Center

Spinout of CMU's ETC in 2005

Vision was to build video games for workplace learning



Initial focus on workplace safety

Developed the **simcoach**[™] process for learning game development

Now developing microgames for the

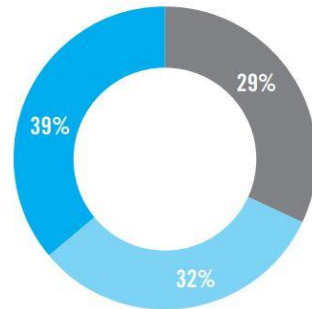


Why video games for training?

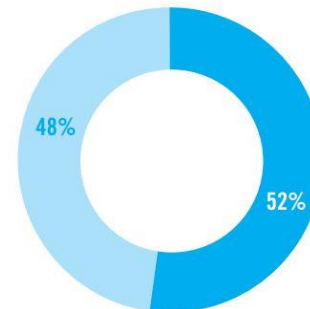


Who plays video games?

Over 183 million Americans play video games
Americans spend upwards of 3 billion hours a week engrossed in a game
77% of U.S. adults own a smartphone (up from 35% in 2011)



AGE
of Game Players
29% under 18 years
32% 18-35 years
39% 36+ years



GENDER
of Game Players
52% male
48% female

Source: Pew Research Center 1/12/2017

Case Study

Challenge: retailers facing an increasing number of lost time incidents for cashiers

- Solution
 - Video game to enhance current training and serve as a annual refresher
 - Training game teaches key concepts to reduce sprains and strains
 - not over-reaching, proper grip, lifting heavy items and bags with two hands, turning not twisting, stretching, and using the hand scanner
- Results at regional grocer
 - 11,000+ cashiers played the training game over a three month period
 - Significant retention of key concepts 30+ days after training
 - 100% - at lease one key concept, 88% - at least two concepts, 60% - three concepts
 - 30+% reduction in seven-day lost-time incidents in first year, 30% more in second
- Trainee feedback
 - 93% - said it was relevant to their work
 - 88% - have a better understanding of how to prevent strains and sprains”
 - 87% - would like more game-based training “I liked how it addressed situations I encounter every day in my job.”

Sample Game

See It Own It: Infection Control Risk Assessment (ICRA)

