Virtural Reality In the Wrokplace

ID Solutions
Immersive Learning
with Virtural Reality

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What is VR Used For

26%

WORKFORCE DEVELOPMENT

of businesses are using VR/AR to train employees (TechRepublic, 2020

75%

KNOWLEDGE RETENTION

VR training has a retention rate of 75%, beating out lectures (5%), reading (10%), and audio-visual learning (20%) (FrontCore, 2020).

55%

LEARNING EXPERIENCE

of VR users found the experience to be extremely or moderately satisfying (AR Insider, 2020).

Imersive Learning

Virtural Reality

Virtural Reality, VR is described as the use of immersive simulations created through computer technology to present participants with the opportunity to engage in environments that are similar to real-life objects and events (Rutkowski et al., 2021).

LEARNING AND DEVELOPMENT PROGRAMS FROM COMPANIES WITHIN NORTH AMERICA HAVE SPENT MORE THAN 165 BILLION DOLLARS IN TRAINING DEEMED INEFFECTIVE (TRAINING INDUSTRY, 2021)

The multimedia principle of learning design states learners learns better from images and text vs. text alone. One could further expand learners learn better using interactive images and text versus Static images and text. **Virtual Reality, VR, is a first-person point-of-view of a replicated real-life scenario that engages learners through interactive images and text** (Mayer, 2009)**.** VR is not a new technology as military and medical professionals have used it for decades, yet it is just now slowly gaining headway in the workplace due to the increase in remote work environments caused by the current pandemic. Instructional designers and innovative companies should evaluate if VR is a feasible facilitation approach. VR offers wins for both companies and employees, **creating rich experiences that directly impact business**. As the COVID-19 pandemic is easing, many remote employees wish to continue to work in a completely remote or a hybrid approach with both remote and in the office requirements (Courtney, 2021). Just as the pandemic shifted the workforce home, the traditional face-to-face environments had to shift to virtual facilitation. As **workers continue to work in a remote environment, instructional designers need to create «life-like» experiences which place employees outside of the office environment**

Corporate Uses

Scenario-Based Learning

Through an "active learning" approach, using real-life situations,, **provides a relatable and highly relevant learning experience** to the learners. The real-life immersive approach creates a **highly engaged and motivated** learners (Pandey, 2019).

Technical Skills

Technical skills in the workforce provide **the abilities and experience needed to perform** a particular job. Technical skills often appeal to self directive learners; as they **require training and a lot of practice** to be proficient at them. (Glass Door, n.d.).

Multi-Step Tasks

Task learning requires learners to **complete a list** of defined objectives to demonstrate knowledge acquisition. The objectives of both internal and external knowledge expressions are usually **observed and measured as qualitative** data.

Onboarding

Onboarding is the process in which **organizations equip new employees with the knowledge and skills they need to succeed** at their jobs. The employee onboarding process starts with the first contact with a new hire and continue **through their first year on the job** (ATD, n.d.).

Simulations

Simulation-based learning integrates cognitive, technical, and behavioral skills into an environment where **learners believe the setting is real**, **act as they would** responding in the field, **and feel safe to make mistakes** for the purpose of learning from them (AAP, n.d.)..

Case Studies

Current Examples of VR Training in the workplace

Verizon Wireless

S.A.F.E Emergency Responce

Learners are immersed in a scenario where a robbery is occurring. Following safety and security procedures, learners navigate through the module.

- High-Risk Simulation
- Multi-Step Process
- Emotional Engagement Tactics

Strivr - Protecting Verizon's workforce with Immersive Learning

Walmart

In-store Pick Up Tower

Learners interact with a new in-store pick up tower prior to the tower's instalation.

- Technical Skills
- Multi-Step Process
- Hands-on Learning Simulation

Walmart- VR Headsets Train Associates In-Store

Case Study Verizon

Learning Objective:
Place employees in extremely realistic simulation to test their response "in the moment", increasing training impact and effectiveness (Strivr, 2021).

HIGH-RISK

The environment in which an emergency situation would occur is not easily duplicated in a training environment. Using VR technology, instructional designers can maintain the learner's safety yet offer a realistic environment.

POINT-OF-VIEW

VR provides a first person view of the retail robbery. Learners are fully immersed in a 3D world. Learners are the main character in the vir tural simulation, promoting cognitive processing, and meta cognition..

ENGAGMENT

Learners gain «hands-on» experience-driven through intense and emotion-filled interactions. VR requires learner interaction increasing knowledge retention.

EXPERIENCE

When placed in a high-risk environment, VR provides a scenario-based learning experience that immersed learners. The viewpoint gave learners a sense of heightened anxiety and provided an emotional experience. The emotional connection with the instructional content gave learners a memory that was stored for later relevant context.

97%

of 22.000 participats felt more prepared in an emergancy situation (Strivr, 2021)

10%

overall customer satisfaction score increase (Strivr, 2021)

FEELING SAFE AND SECURE IN YOUR WORKPLACE IS INTEGRAL TO THE DECISIONS PEOPLE MAKE ABOUT WHERE THEY'RE GOING TO COME TO WORK.

MICHAEL MASON, CHIEF SECURITY OFFICER, VERIZON

Case Study Walmart

Learning Objective:
To employees on the new Pickup Tower units in their stores, before the towers are even installed (Incao, 2018).

SKILLS

The Pickup Tower is essentially a 16foot tall vending machine. A store employee loads the order into the tower and sends a notification when it's ready. The process and procedure require learners to recall the systematic way to properly perform the skill.

HANDS ON

Embracing technological advancements, the Pickup Tower required employees to interact, loading and to unload the machine. In the pilot, the towers were not installed. However, employees used VR controllers to use hand-eye coordination to develop their technical skills.

TIME / COST

Implemting a VR method, training time has been reduced from 8 hours to approximately 15 minutes, and it has eliminated the need for launch coaches to travel to store sites. (Strivr. n.d.).

EXPERIENCE

Associates who participated stated the training better prepared them for their day-to-day roles and rare, high-stakes situations. Most importantly, it provided associates with the knowledge to operate the Pickup Tower and instilled confidence in performing the task.

12%

associates felt a boost in confidence and knowledge retention (Incao, 2018)

30%

associates reported 30% higher employee satisfaction (Incao, 2018)

"WHEN YOU WATCH A MODULE THROUGH THE HEADSET, YOUR BRAIN FEELS LIKE YOU ACTUALLY EXPERIENCED A SITUATION."

ANDY TRAINOR, WALMART'S SENIOR DIRECTOR OF WALMART U.S. ACADEMIES

ID Solution: Piolt Study

COMPARE THE LEARNING RESULTS

A semi-random selection of 50 employees is needed to participate in collecting data from traditional 2D digital training methods and data from the same training, utilizing virtual reality as the content delivery method. The selection of employees is must be evenly distributed between three key elements to ensure the data is robust—the gender of the employee, employee tenure, and employee performance levels.

PREPARE BY SIMULATING REAL LIFE EXPERIENCES

Guidelines and Setup

The selected group of participants are divided randomly into two different groups. One group will use traditional remote learning methods such as e-Learning and or an instructor-hosted video conference. The second group will use VR to create an immersive learning experience.

- Learning objectives and the entire instructional content must be presented to the employee by the end of the module.
- Learners will have thirty minutes to complete the training.
- Knowledge is quantitatively measured to ensure knowledge transfer and retention

LEARNER EXPERIENCE

FACILITATION OBSTICALS

COST ANALYSIS

HIGH LEVEL OBJECTIVES

HAND EYE CORDINATION

KNOWLEDGE AND SKILL RECALL

PROFORMANCE

LEARNER OBSERVATIONS

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