

abbvie

Manufacturing SOPs

Increasing Effectiveness, Decreasing Risks

June 2022

Meet Team AbbVie



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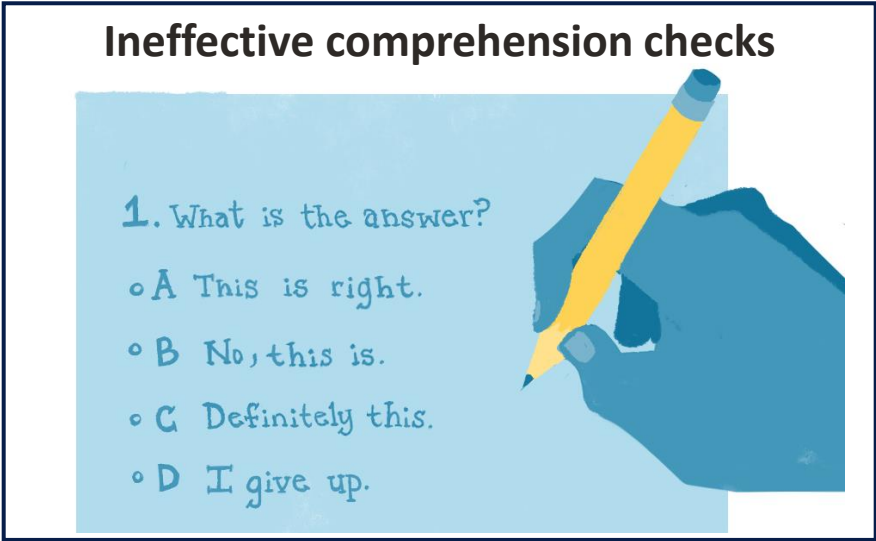
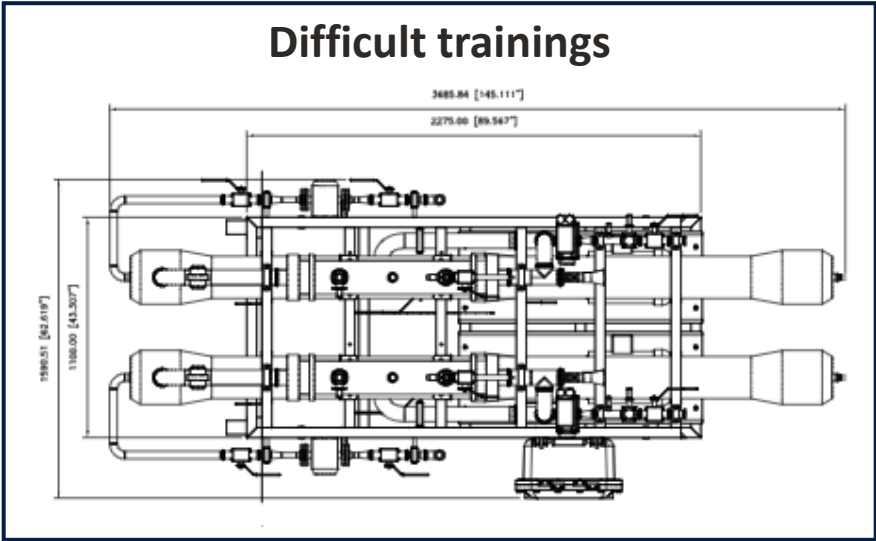


Mentor
Shannon McCumber



Could training be
fun?

Problem: Ineffective and inadequate trainings



Current Training vs VR Training

Current Training Materials

Document Number(s): SOP N 01PR 027 78
Name: SOP-004-06676
Title: 214 mQ Ultra Filter

Effective Date: 14-Jun-2022
Approved Date: 14-Jun-2022

2.0 Procedure

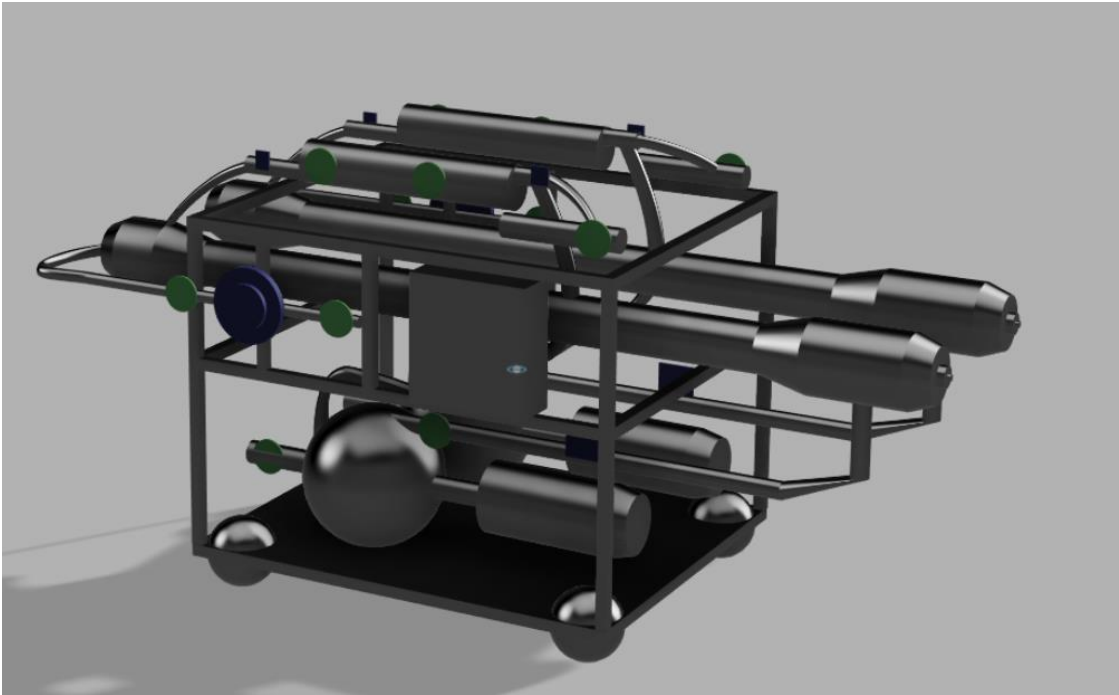
2.1

Note: For the following procedures, refer to Attachment I at the end of the document.

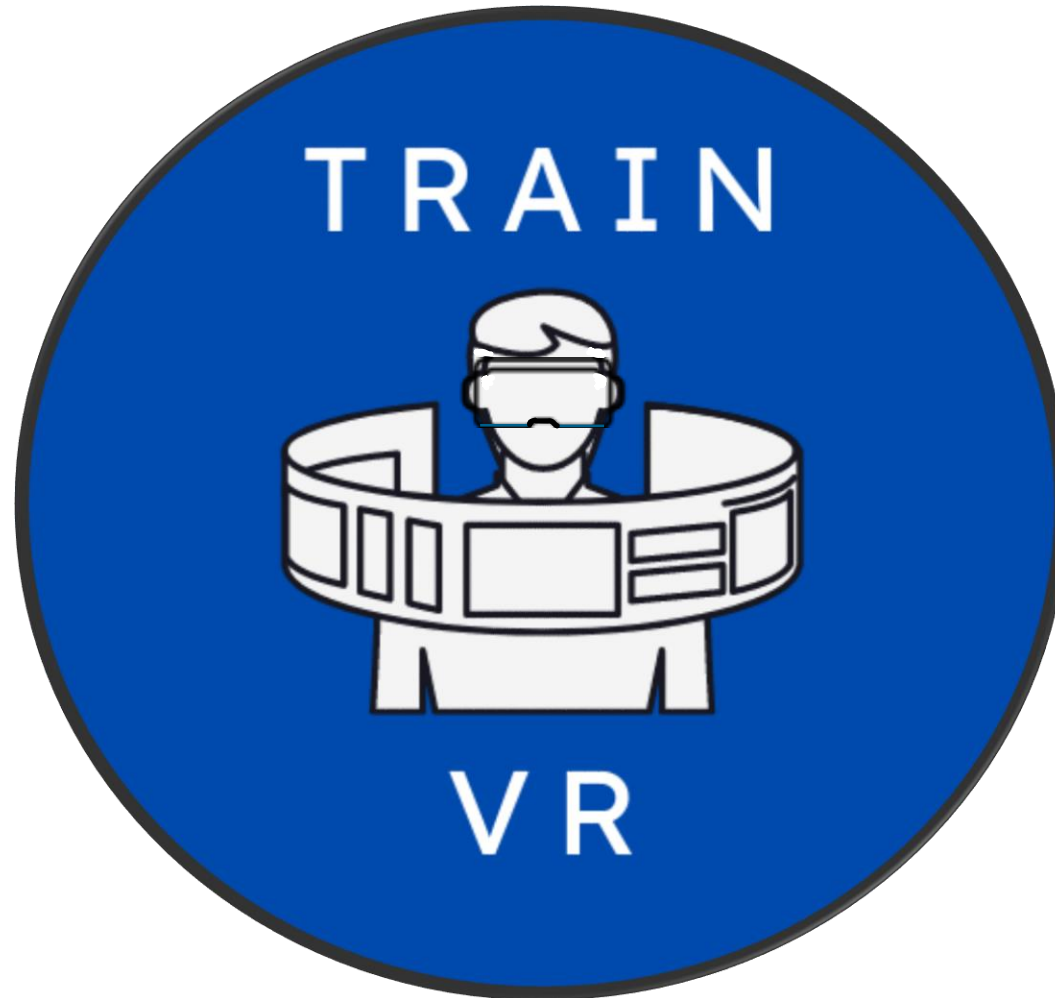
Start-Up

- Ensure membranes are clean and full of water.
Note: If membranes are being held in a preservative, flush for a minimum of 15 minutes until the retentate and permeate discharge is neutral in pH and visibly clear.
- Verify the following valves are in the listed position. See Attachment I for reference to valve numbers.
 - Open valves HV-1, HV-2, HV-3, HV-4, HV-7, HV-10, and HV-11.
 - Close all sample valves (SV-1, SV-2, and SV-3).
- Initialize the program on DeltaV.
 - Start the MSTR EM campaign.
 - Select Operate UF to run both stages.
 - Select Operate UF 1 or Operate UF 2 to run respective stage 1 or stage 2.
- When the program is started, the following will happen.
 - Open the automatic valves along the flow path through the selected stage(s).
 - Start the pump to begin flow from TA-525.
 - Once pressure reaches 30psi the UF recirculation pump will begin a rpm ramp to the rpm set point.
 - The pressure control valve will hold at 50% for 10 seconds to encourage stabilization in the system and then begin pressure control.
- Walk down the line to and from the T and UF to check for leaks. Check the UF skid itself for leaks.
Note: This is not controlled by DeltaV.
- Open the glycol valves to heat exchangers by setting the dial to desired temperature.

TrainVR

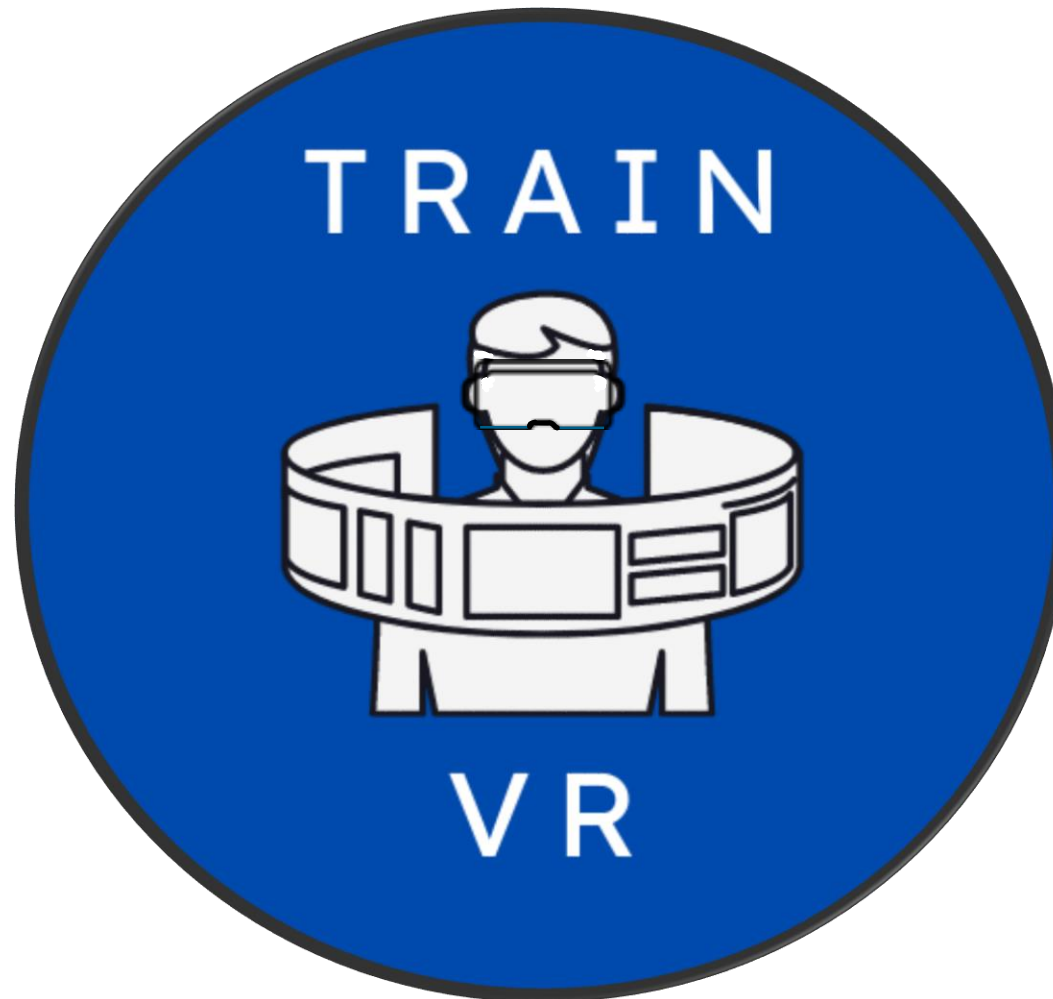


VR Training Solution



TrainVR Specific Benefits

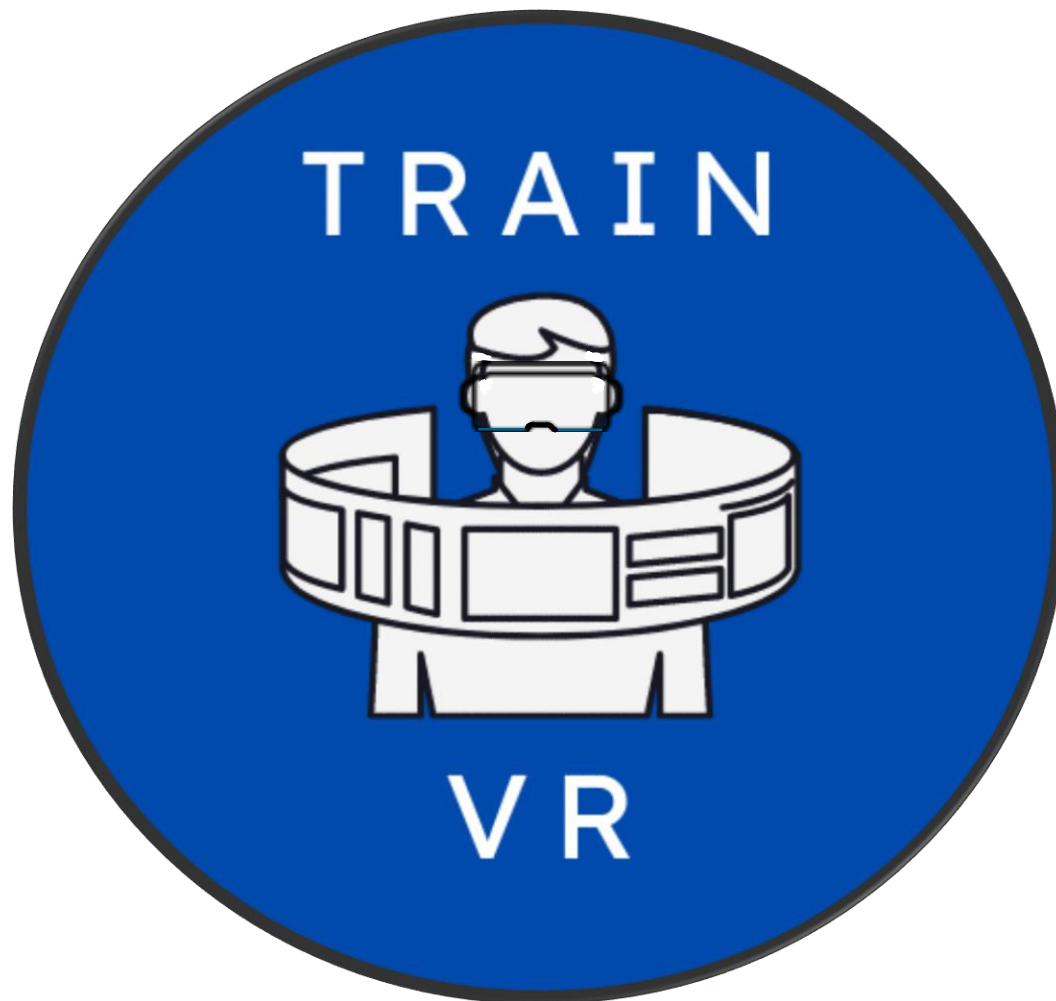
Simulates the
equipment the trainee
will be working with



TrainVR Specific Benefits

Simulates the
equipment the trainee
will be working with

Delivers real-time
feedback

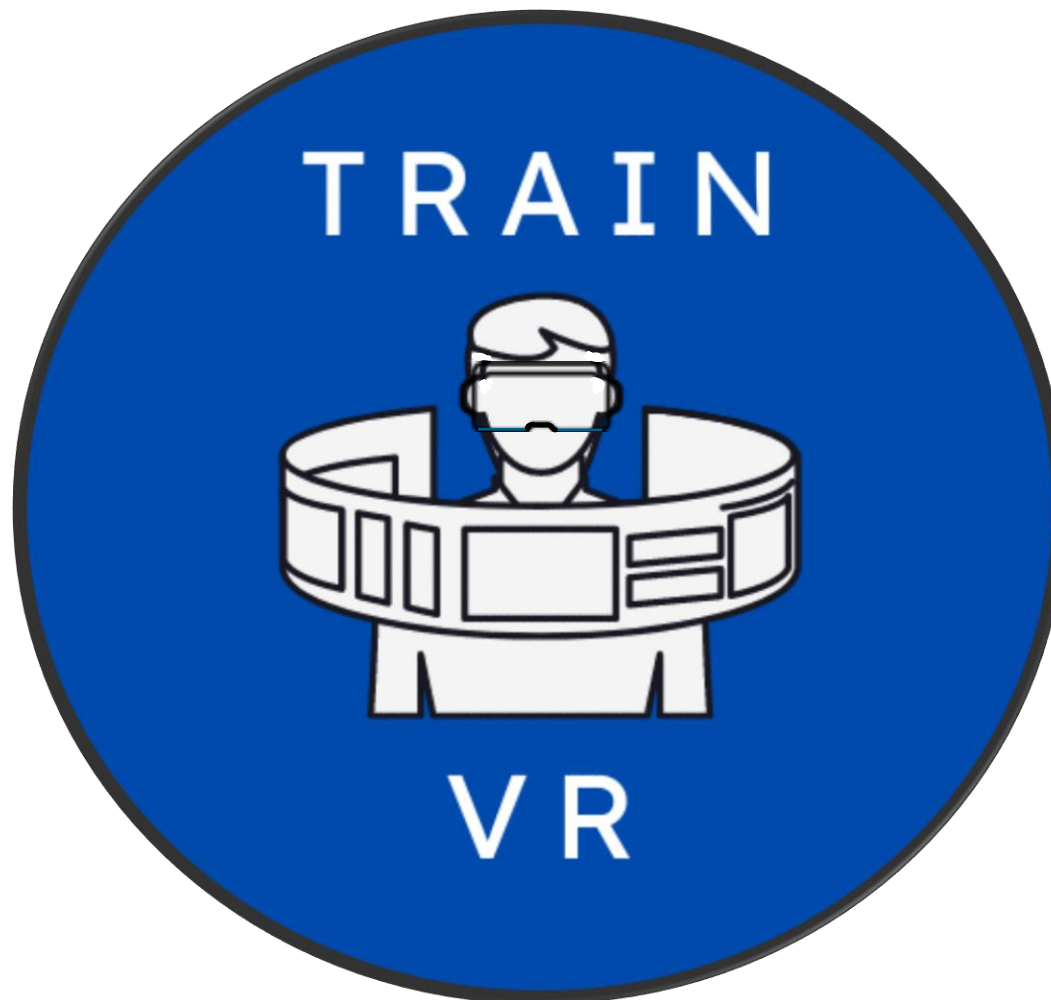


TrainVR Specific Benefits

Simulates the equipment the trainee will be working with

Delivers real-time feedback

Provides hands on experience without safety risks

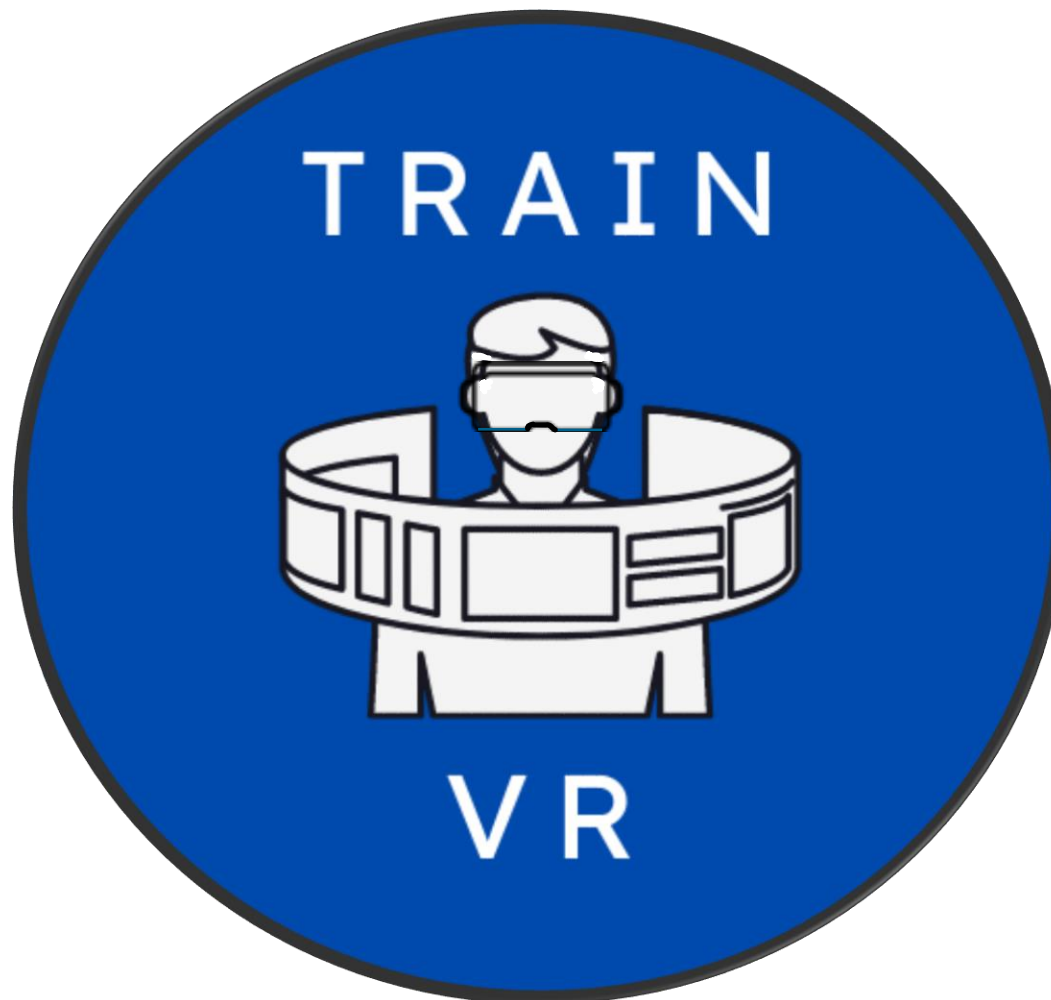


General Benefits of VR Training

Simulates the equipment the trainee will be working with

Delivers real-time feedback

Provides hands on experience without safety risks



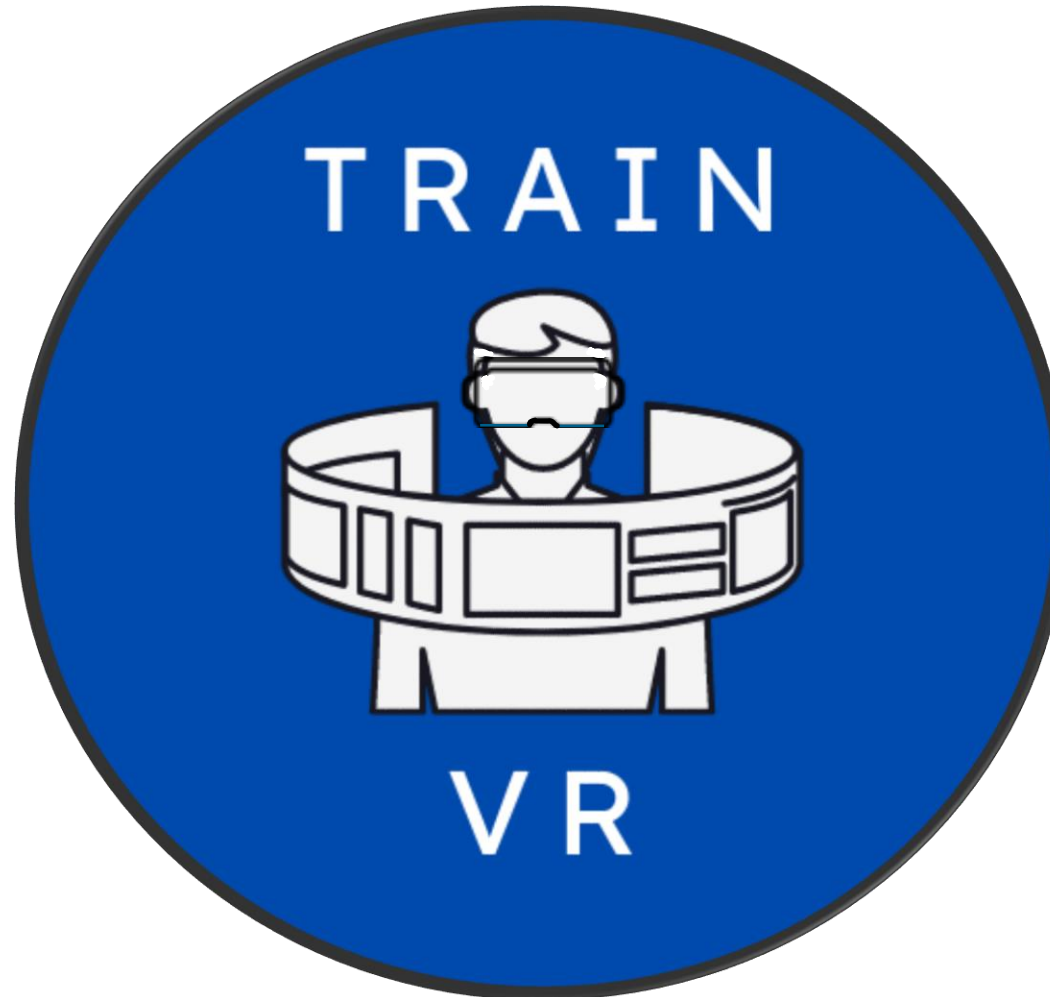
Reduces onboarding time

General Benefits of VR Training

Simulates the equipment the trainee will be working with

Delivers real-time feedback

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Reduces onboarding time

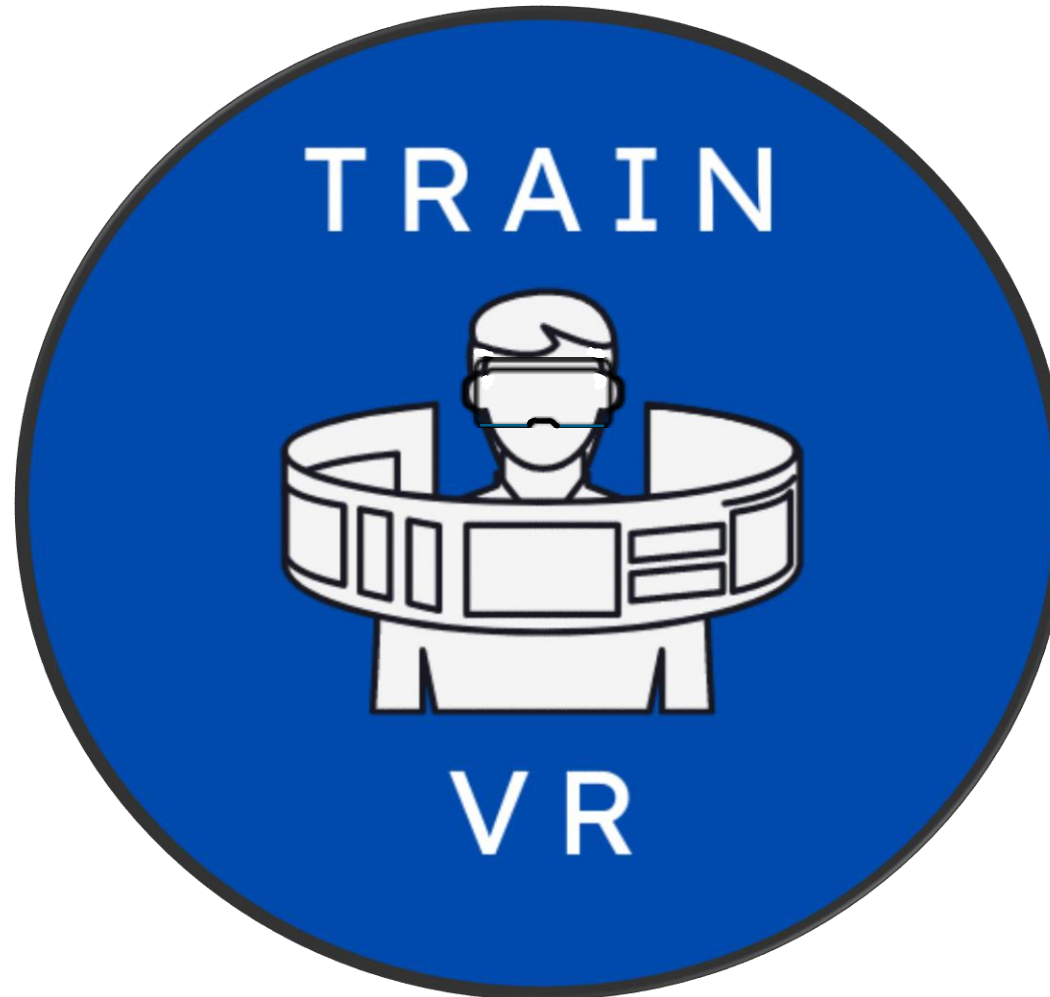
Decreases incident costs

General Benefits of VR Training

Simulates the equipment the trainee will be working with

Delivers real-time feedback

Provides hands on experience without safety risks



Reduces onboarding time

Decreases incident costs

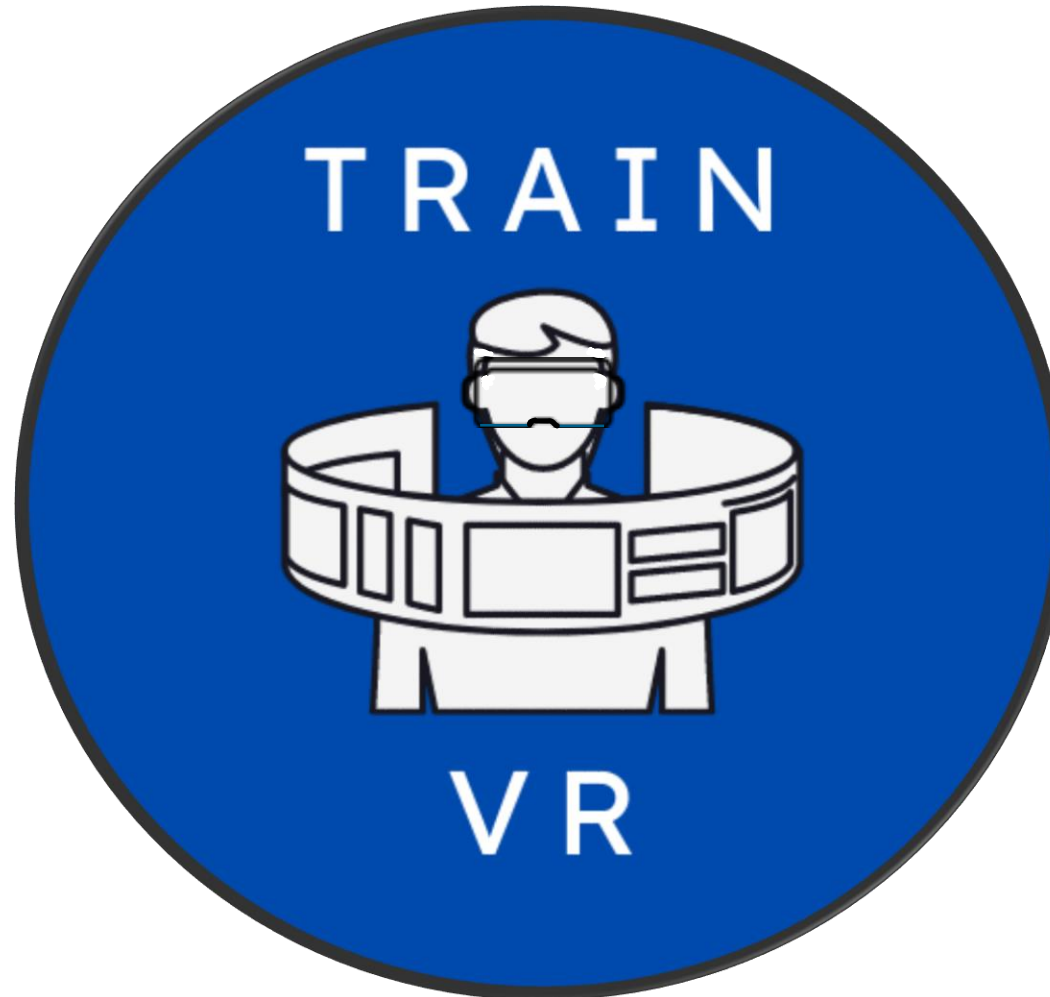
Accelerates speed to proficiency

Proposed Solution

Simulates the equipment the trainee will be working with

Delivers real-time feedback

Provides hands on experience without safety risks

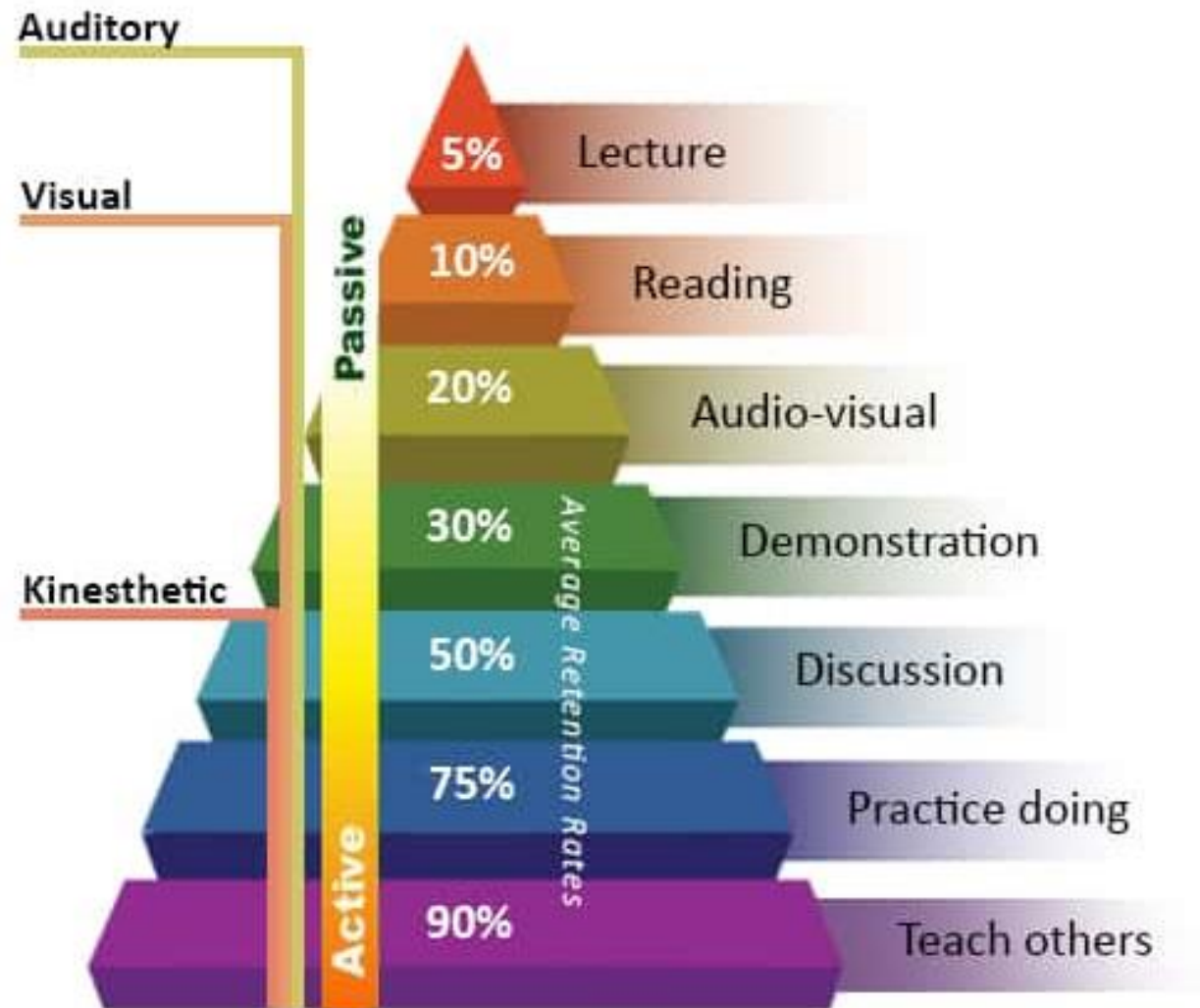


Reduces onboarding time

Decreases incident costs

Accelerates speed to proficiency

Learning Pyramid



TrainVR



Demo

Insert demo video

Future vision using virtual reality

Prior to arrival

- Library of VR trainings (developed with subject matter experts) to be completed before employees even arrive
- Expedite on-boarding
- Modular trainings to be reused across the company

On-site training

- Complement augmented reality (AR) and/or in-person training to reinforce prior knowledge
- Ease of knowledge transfers
- Eliminate the risk of work accidents and prevent financial liabilities
- Ensure smooth audits from potential vendors or government

Re-training

- Readily accessible training for review without the need for a trainer
- Refreshers for employees returning after extended leave or vacations
- Reduce employee turnover

Why TrainVR?

"At AbbVie, we know supporting the development of our employees impacts our ability to develop and deliver innovative medicines to patients around the globe. That's why we invest in our people and their growth, helping them gain specific enterprise-critical capabilities to develop, build and find purpose in their careers."

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The integration of Virtual Reality will provide employees with effective, efficient, and compliant training **starting day one** of their AbbVie journey.



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Q&A





Thank You!