Virtual Reality Education/Training Objective Document

Virtual Reality Applications have unlimited use cases in any kind of industry
Virtual reality is just one new tool for project-based learning. It is not everything. But it is a tool that can enrich high quality project based learning and engage employees in deeper ways.
The sky and your imagination is the limit.

Educate, Train, Test and Report Analytics
Using VR to educate and train is more immersive than conventional video or classroom training. The user trades a two-dimensional screen for a realistic 360 degree environment. Here, a user can interact directly with virtual training assets in realistic training situations - all from the safety of an office chair. The training can also include testing during or after the VR experience and the report analytics can be viewed by the trainer.

Choose - Or Let Us Help Choose - Your Media!

Use 360 panorama images of your actual environment
Our team will take 360 images or video on location and use them to train or educate the VR user in that exact environment - sounds and all. A trainer/educator can be live during the recording session or Digital Buckeye can add a scripted Virtual Trainer later. We provide the narrator!

We can model your environment
Create dangerous situations - without the danger!
Our 3D modeling team can create generic environments or we can use images, video, sketches, CAD files, architectural plans, etc to model your work environment. This is especially useful when the training documentation contains elements too dangerous to duplicate in real life. Dangerous equipment or safety violations can be duplicated with 3D modeled assets and people - with no risk to equipment or human safety! Once again, all real life sounds help immerse the user in the environment.

Best of both worlds - Use a combination of both 360 panorama and 3D models!
Use the backdrop of your environment along with 3D modeled objects and people.

Types of Virtual Reality Education/Training

Informative - Observational
Use virtual reality as an interactive explainer video or virtual tour
Trainers can use virtual reality to drop recruits/new hires into a particular environment and ask those potential employees to make observations, ask questions or even perform simple tasks.

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Educational - Preoperative Training

Use virtual reality as an entry event:
Many new processes are hard to visualize and can seem disconnected for employees. It can be challenging for employees to connect to topics they can't imagine.
Entry events in project-based learning motivate and excite employees. Trainers can use virtual reality to drop employees into particular environments and ask those employees to make observations and perform tasks.

Use virtual reality for continued learning
Continued learning helps keep veteran employees up to date on new techniques and safety hazards difficult to duplicate outside of virtual reality.
As we look at ways we can help associates with this new technology, we can turn our attention to culminating events and authentic evidence.

Pre-requirements for VR app development

Gain proper non-disclosure agreement documentation!
Every development process should start with a detailed project documentation – this is the guarantee that the VR application will exactly meet the needs of the client.
It should include all the important information about the project. Document the main idea of the VR app development and its key features. If you can, include some photos, screenshots or hand sketches to illustrate the characteristics of the application.

On location fact gathering requirements:

- NDA signed
- Images, video, sketches, CAD files, architectural plans, etc
- Meetings with subject matter experts, key authorizers, project sponsors, etc

On location image/video requirements:

- NDA signed
- Signed release forms for any actors (form provided by Digital Buckeye)
- Lighting and sound tests and setup
- Script run-through (If applicable)
- Shot schedule - document explaining location and angle of images and/or video
- Meetings with subject matter experts, key authorizers, project sponsors, etc

Example VR Production – Segment Development Outline

Example Video Project Topic/Scenario:
Example Objective Statement: Train on Correct Usage of a Tap

Introduction: (Introduce the topic to the audience and tell them what they are about to hear)

Example Opening Statement: "The purpose of this video is to explain when the usage of a tap is required and the correct procedure for using a tap safely and efficiently."

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Body: (Break the content into logical pieces or steps depending on your topic)
1) While shooting a bolt you are met with resistance do to an incorrect angle of the impact.(Usually there is a grinding noise)
2)Put impact in reverse and remove bolt. Discard bolt.
3) Insert tap into impact. With impact in forward slowly insert tap into bolt hole and clean up threads. Put impact into reverse and back tap out. Remove tap from impact.
4) Insert new bolt in impact and shoot slowly into bolt hole.
5)Confirm torque of bolt. If torque is n/g proceed with write up procedure or call for assistance.

Conclusion: (Tell them what you told them, then close)
* Close by providing next steps or a call to action such as "for more information refer to the operations manual, page…".
* This is the place in the video you close the loop and can make a final emphasis on the "Who, What and Why" of the video.
"Fixing a cross threaded bolt takes on a matter of seconds, but you must follow the correct procedure stated above."

Don't forget the user story, specify which problems your potential user has and how the VR application is going to solve them.
With precise documentation, we will be able to offer the best solution according to the needs of the customer. Describe the journey through the VR app development, where does the user start, which actions does he take, how much time does he spend with your virtual reality app and in which way will your project make the employee's life better.

Sometimes better solutions can be found.
In some cases VR is not the best solution. After initial review and discussion with the client, Digital Buckeye may suggest presenting the material through a different media. For example, if the content does not benefit from the ability to view an entire 360 degree environment, or can benefit equally from conventional video, we will adjust the documentation accordingly and send it to our Video Department for review! The video production team will contact the client to help redirect the project plan.

We can help with documentation.
Feeling overwhelmed? The talented creative team here at Digital Buckeye can help with written and visual documentation of your training material. In the case when the customer decides to order such a service it takes 3 to 10 days. While our initial consultations are free, project documentation for VR app development is an added cost included in our project schedule.

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VR Development Estimation

Depending on the complexity of the app the development time can vary from 1 month up to a year and beyond. Cost is based on the complexity and length of the content, how the content is presented and the detail of the presentation. This list will give you a brief overview about the development time and cost of VR/AR products starting with the simplest and up to the most complicated ones.

Small Project (Less than $15,000 - 3 days to 6 weeks)
One simple 3D modeled environment (5 or less assets) or 360 Image/Video Panorama slideshow (3 or less locations)
A single training material/section
Virtual trainer with narration

Medium Project ($15,000-$50,000 - 6 weeks to 6 months)
3D modeled environment (6-15 assets) or 360 Image/Video Panorama tour (4-10 locations)
Multiple training materials/sections
Virtual trainer with narration
Animated 3D modeled assets (rotating parts, exploded views, etc)
User testing and report analytics

Large Project ($50,000 plus - 6 months to year plus)
3D modeled environment (15-50 assets) or 360 Image/Video Panorama tour (10-25 locations)
Multiple training materials/sections
Virtual trainer with narration
Animated 3D modeled assets (rotating parts, exploded views, etc)
Animated 3D modeled assets (ability to drive or operate models, walking human models, etc)
User testing and report analytics

* This pricing schedule is provided to potential customers as an estimated cost of an interactive virtual reality application project and is based on an exchangeable set of requirements. Therefore a detailed cost analysis with Digital Buckeye will be required to move forward on any project.

Virtual Reality Project Development Outline

Describe your vision through the VR app development

Where does the user start?

Which actions does the user take?

How much time does the user spend with your virtual reality app?

How will your project make the employee's life better?

Production

What is the topic or scenario?

Objective statement (What will the application accomplish?)

Introduction: (Introduce the topic)

Virtual Reality Project Development Outline

Body: (Break the content into logical pieces or steps)

Conclusion: (Tell them what you told them, then close)

Where does the virtual training take place?

Will you use a human trainer? (film recorded)

Will you use a virtual trainer? (animated 3D model)

How long does the current training method take?

Does your content involve…

Any sudden or drastic movement of the user?

The need to move from environment to environment?

The need to move from area to area within the same environment?

Situations too dangerous to safely perform for training?

Virtual Reality Project Development Outline

Does the app require…

A physical controller (other than the system's native controller) to interact?

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* After completing the form, please "save as" to rename the form "yourCompanyName_vr_outline.pdf" (ex. digitalbuckeye_vr_outline.pdf) and email to sales@digitalbuckeye.com

Or...

If written, please scan the document, then rename and send via sales@digitalbuckeye.com

Or...

* Please visit digitalbuckeye.com and follow the links to our VR Project Document Form. Here you will be able to upload images, videos, sketches etc, along with your contact information to help explain your project.
You can upload a filled out form of this document as well.