Optimized Learning with Virtual Reality

**Plan**

Questions

Can VR improve learning of skills more efficiently than video?

What methods of teaching in VR work better?

Expected Deliverables

Virtual Learning Environments for skills

Lesson videos for skills

Experiment results

Report on preliminary research, experimental procedure, experimental results, and analysis

Presentation on expectations, experiments, and implications of results

Thesis

Providing information for many senses when teaching new skills results in greater success in the learning objective. Since virtual reality technology stimulates the tactile sense unlike video, while still providing visual and auditory information, it will allow people to learn skills faster and with greater ability to perform them.

Experiment

Two skills to learn (for interest of time)

Teach x control subjects with video and x experimental subjects with VR

Flow of experiment will be teach A -> teach B -> test A -> test B (to allow time for measured longevity of learned information)

Metrics for tested skills: time to complete task, accuracy, quality (depending on skill)

Average metrics for control group and compare to experimental group averages