

Virtual Reality for behavioral research - A Unity workshop

Michael Wiesing¹, Farbod Nezami², Manuel Bayer¹, Linus Tiemann²

¹ Institute for Experimental Psychology, Heinrich Heine University Duesseldorf, Germany

² Institute of Cognitive Science, University of Osnabrueck, Germany

Virtual Reality (VR) holds great promises as a research tool in neuroscientific and psychological research. However, the development of *VR experiments* comes with new challenges as the software greatly differs from common experimental toolboxes. Typically, experiments are developed using generic game engines, such as Unity or Unreal Engine, which can be quite overwhelming to grasp at first.

During this workshop we will go through the different steps necessary to create a basic behavioral experiment, starting from configuring Unity and designing the virtual environment. We will also cover how to set up hand animations using SteamVR's skeletal input system as well as object interactions. We will cover setting up the trial structure and data collection.

At the end of the workshop, you will have developed a fully working behavioral VR experiment.

Prerequisites:

Unity (2020.3.11f1), Visual Studio/Rider, Windows 10 computer

You are very welcome to participate without possessing of a VR headset, however, please note that having any Steam VR compatible HMD with motion controllers is advantageous during the working as you can completely replicate and test the task alongside us.

Maximum (participant) intake:

50

Course Schedule

Day 1 (Saturday, Sep 11th)		Day 2 (Sunday, Sep12th)	
14:00	Welcome Day 1 – Introduction into Unity	14:00	Hand and object interactions
15:00	Setting up the environment	15:00	Responses and data collection
16:00	Break	16:00	Break
16:15	Setting up the task	16:15	Game engines and sampling rates
17:15	Discussion – Q/A	17:15	Discussion – Q/A
17:45	End of day 1	17:45	Farewell

Additional:

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