

 European Commission, Horizon 2020

Didactical Guidelines

Is there high-quality instruction?



TARGET GROUP: police training coordinators & trainers

WHAT TO EXPECT: Good practices for high-quality training instruction

SOURCES: based on empirical and experiential findings of the research studies and field trials of the SHOTPROS project

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Is there high-quality instruction?

Good training instruction provides trainees with a task goal and sets the tone for the training. Through concise instruction, the trainee obtains information about the nature of the training and the relevant points that he or she needs to pay attention to. The trainer emphasises the result of actions, uses metaphors and makes deliberate choices to use implicit instruction or explicit instruction. Good training instruction has been shown to facilitate skill acquisition (Hodges & Franks, 2002).

For relevant information on how to apply the didactical concept of high-quality instruction in VR, watch this information video by scanning the QR code or clicking the link.



tinyurl.com/2p89jn92

Good practices for high-quality instruction in VR-training

Instructions to prepare for VR training

- The trainer provides a clear overview of safety measures in VR training (e.g., physical contact is not possible, a code word to immediately stop a scenario and possibilities of motion sickness).
- The trainer gives trainees a clear overview of what to expect from a VR environment and what tools are available in the VR environment (e.g., NPCs options and how to speak to them, role-player and how to interact with them).
- The trainer provides trainees with step-like instructions on how to put the VR gear on. The gear-specific instructions should be specific and explicit when needed. For example, when putting on the headphones: *“put your hand in this position and press on until you hear a click”*. These measures can be reduced depending on the expertise level of the trainees.
- The trainer asks the trainees to help each other with the set-up of the VR gear rather than prepare individually.
- The trainer asks the trainees to line up next to each other (with room to move). The trainer then gives the trainees the signal to start a joint calibration process.
- The trainer asks trainees to indicate if there are technical problems with the VR material after the calibration, for example if they have no image or the calibration does not seem to have worked (no realistic movement). If so, the trainer asks the trainee to communicate the problems to the VR operator.
- The trainer explains the purpose of the instructional scenario (tutorial) if included in the training structure.

Instructions during the VR training

- The trainer gives clear commands to trainees when they can put on and take off the visors and headphones to ensure that trainees can follow instructions.
- The trainer provides trainees with training instructions about the structure of the training, learning objectives, and what level of difficulty they can expect.
- The trainer briefs trainees with general dispatch information but does not give away how to handle the situation (*“proceed according to what the situation calls for”*).
- The trainer keeps the relevant points that trainees need to pay attention to during the scenario very limited. The trainer gives the trainees concise and single points to focus on, such as “avoid crossfire” or “make sure you scan the entire room by running the walls” or “as a group, always keep your six”. As a general rule of thumb no more than three points of attention should be given in training, but as the novelty of the VR training tool requires a large amount of the trainee’s mental capacity in VR even down tune to one or two.
- The trainer tailors the instruction to the capabilities and developmental stage of the trainees. The trainer builds up the instruction in terms of the number of points on which the trainees must concentrate during the scenario. For example, start with one or two focus points (make sure you scan the whole room by running the walls" and "as a group always keep your six"). If the trainees are successful, the trainer can give the trainees a new focus point ("avoid crossfire"), etc.
- The trainer uses the possibilities of VR to give implicit instruction rather than a specific and step-by-step verbalisation of what to do or what went right and wrong. The trainer can build a self-explanatory scenario, giving clear cues in VR (as is done in gaming) and punishing/rewarding in the VR scenario for doing wrong/good (e.g., having an NPC or role-player come from behind if the group does not keep a 360-degree overview).
- The trainer asks trainees whether the dispatch information and scenario descriptions were clear and whether they need further clarification.
- The trainer ensures the role-player's instruction is not heard by trainees to prevent them from already knowing what is going to happen
- The trainer gives the role-player instruction according to the performance of trainees in previous scenario(s).

The following guideline only applies if the trainer is wearing a VR suit.

- The trainer wears a VR-suit in trainer mode to be able to give instant instructions or cues to trainees during the scenario. The trainer can choose to be visible in the VR scenarios or remain invisible to trainees.