

 European Commission, Horizon 2020

Didactical Guidelines

Is model learning used?



TARGET GROUP: police training coordinators & trainers

WHAT TO EXPECT: Good practices for model learning

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

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Is model learning used?

Model learning refers to a teaching strategy that uses demonstration as instruction for skills or movements. The trainer, a peer, or a video or picture is used as a model that shows possible solutions, decision-making and acting, and skill execution. The learner closely watches the model to acquire the modelled behaviour (Gould & Roberts, 1981). Model learning has been shown to facilitate skill acquisition, retention, and motor learning (Hebert, 2018; Hodges & Williams, 2007).



tinyurl.com/bd6haaxc

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

Good practices for model learning

- The trainer makes use of trainees as peer observational models (instead of solely relying on expert models).
 - For instance, during a training with four, two trainees are executing the training scenario in VR while the other two trainees can observe the performance on an external screen (AAR) using various viewing perspectives and a variety of abstract performance indicators (e.g., line of fire, movement paths, field of view, performance statics).
 - For instance, the trainer asks the trainees to designate a commander within the group who will lead the scenario execution and AAR. By having different commanders within the group during the course of the training, trainees can learn from each other's approaches and operating methods.
 - For instance, one of the trainees serves as a peer model on how to take off the gear in a procedural fashion (step-by-step).
- The trainer gives trainees a clear and specific viewing task related to the training or learning objective. For example, trainees may watch the execution of a scenario in three different situations (e.g. observing on the AAR screen while others are training, observing as "ghosts" in the VR environment while others are training or during a joint after action review). In all three situations, the trainer should give the trainees a clear and specific viewing task (e.g. instruct them to watch for decisive DMA moments; or evaluate a particular tactical skill; or observing a particular member of the group). This increases focus, steers the direction of the model's learning and ensures that the trainees observe the model's behaviour.
- The trainer uses the AAR as video feedback to allow the trainee to learn from their own implementation as a model.

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

- The trainer serves as an expert model for demonstration of certain skills or behaviours in the VR environment. The trainer can demonstrate sub-skills or sub-movements acting visible in the virtual environment.
- The trainer uses the VR “Ghost Mode” (see D7.6). Trainer or trainee can actively be part of the virtual environment as a “ghost” and observe the other trainees’ performance in the scenario without being visible to them.