Outline of the training methods studied in this thesis

DVD skill training
Learners practise AED skills in a single, uninterrupted session watching a 4.5 min training DVD while using a personal manikin and ‘mouse pad’ AED. The DVD demonstrates the following aspects of using an AED: indications for use, switching on, attaching the electrodes, keeping a safe distance and delivering a shock. There is no instructor present and no scenario training is given. Participants have to check responsiveness, check for normal breathing, raise the alarm, turn on the AED, attach the electrodes (the AED initially advises ‘no shock’), give CPR, allow the AED to give one shock and resume CPR.

DVD scenario training
Learners practise AED skills in a single uninterrupted session watching a 9 min training DVD while using a personal manikin and ‘mouse pad’ AED. In addition they work through two scenarios on the DVD which require them to practise AED skills. The DVD demonstrates the following aspects of using an AED: indications for use, switching on, attaching the electrodes, keeping a safe distance, delivering a shock. There is no instructor present. Participants have to check responsiveness, check for normal breathing, raise the alarm, turn on the AED, attach the electrodes (the AED initially advised ‘no shock’), give CPR, allow the AED to give one shock, resume CPR. In scenario 1 bystander CPR is already in progress. Participants are expected to take over, connect the AED, and deliver one shock. Scenario 2 is an unwitnessed arrest in which participants are alerted by the victim by phone just before he collapses.

DVD video only
Learners watch a 2.5 minutes DVD demonstration of the use of an AED in a single uninterrupted session, without hands-on practice. The DVD demonstrates the following aspects of using an AED: indications for use, switching on, attaching the electrodes, keeping a safe distance, delivering a shock. There is no instructor present, nor is scenario training given during the DVD demonstration.
Instructor-led training
Learners receive 90 minutes of instruction from an instructor, conforming to the training programme of the European Resuscitation Council and containing short demonstrations of patient assessment, attaching an AED, then delivering one shock, first without and subsequently with, verbal explanation from the instructor. There is then a third demonstration by the instructor with commentary from the participants and hands-on training. Several scenarios of single shock success, no shock required, and shockable rhythm proceeding to non-shockable are used.

Poster-based training
Learners practise CPR/AED skills themselves at a convenient time. For this, one or more training rooms are equipped with an AED training device, a manikin, and a wall poster. The training facilities in the training rooms are available 24 h a day. The poster shows indications for use, switching on, attaching the electrodes, keeping a safe distance and delivering a shock. The poster gives the participants cues on how to practise to check responsiveness, check for normal breathing, raise the alarm, turn on the AED, attach the electrodes (the AED initially advised ‘no shock’), give CPR, allow the AED to give one shock, resume CPR. Peer tutoring is allowed during training, but only in pairs.

Web-based training
Learners use a web-based application that can be reached from wherever an internet connection is available. The application consists of 11 sections covering the theory of CPR and AED use: Why resuscitate?, check response, basic life support, using the AED, the Chain of Survival, starting and stopping, about circulation (recognizing a cardiac arrest), extra information (legal aspects, ethics, etc.), airway devices, special situations (children, pregnancy, etc.), about the AED. The last five sections consist of background information only. There is also a section for self-assessment of knowledge, a micro-simulation section, where the learner has to react to each scenario by making the correct decisions, and a section for checking if these decisions are correct. Learners do not get any hands-on practice, nor demonstrations by an instructor.