

9 Appendix: Certificates of the course participants (example)





Certificate

Triin Laasi

has participated on a simulation pedagogy course 2-3.6.2015

Simulation Pedagogy Course

- Content** Designing and instructing simulation scenarios
 Providing effective feedback and debriefing
 Assessing of the use of simulation pedagogy
- Lecturers** Senior lecturers Päivi Smahl and Marja Silén-Lipponen,
 Savonia University of Applied Sciences

3.6.2015

Savonia University of Applied Sciences

Markku Viita, Research Manager

Relate



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10 Appendix: Description about the course

SIMULATION AS A COMPREHENSIVE LEARNING AND EVALUATION METHOD

Advantages of simulation

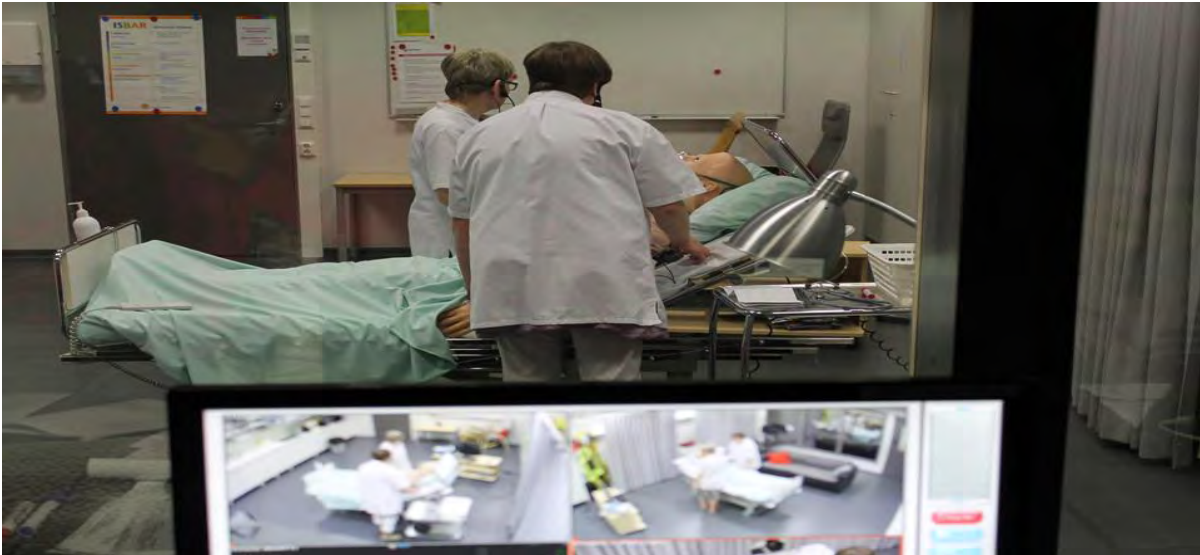
Hands-on practical learning is essential in many disciplines, but educators and managers are worried about practicing in real clinical settings, which occasionally can cause mistakes or errors. Simulation as a combination of pedagogy and technique allows practicing in situations similar to the real life without placing customers or patients at risk. The possibilities to apply simulation into education are various and designers continuously improve the technology of simulators.

Even though the costs of simulation training are high, it is a worthwhile investment for the long term because effectiveness of simulation-based training improves clinical competence and hopefully later customer/patient safety as well. So far it has been noticed that simulations have made possible to expose students to the conditions that were often missed during the usual training and thus **improves students' technical-**, communication and problem solving skills. **Moreover, simulation has fostered students' confidence and** helped them to participate in teamwork more fluently during their clinical practice.

Simulation pedagogy

Simulation is a technique to replace or amplify real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner. The base of simulation is on socio-constructivism and experiential learning; it aims to enhance learning and helps to construct new skills and knowledge on base of the previous competence. Kolb has been described the experiential learning cycle as containing four related parts: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Simulation offers the opportunity of practiced experience in a controlled fashion, which can be reflected on at leisure. Experiential simulation learning is particularly suited to professional learning, where integration of discipline theory and practice needs to be combined.

Simulation suits in all disciplines, which allow trainees to model situations and practice skills in a risk free environment. It improves technical-, communication and problem solving skills, fosters overall confidence and helps to participate in teamwork fluently. Simulation also gives opportunities to learn from each other and reflect on the learning together. Moreover, it improves safety or quality of the given care or service and thus gives opportunity to replace experience that are too dangerous or too difficult to do for real. Simulation can be used with all kinds of learners, because the simulator can be stopped, paused, restarted, forward etc. Also time compression or expansion can be used to make things happen more quickly or less quickly than in real life.



Picture 1. Maarit and Hanna practicing in caring situation scenario.

Even though simulation aims to modify reality or authenticity as perfect as is possible, the perfect reality isn't always desirable. In simulation can be used various kinds of unreality to maximize learning. Thus instructor is an example of cognitive scaffolding; helping the learners so they don't have to manage everything themselves. Learners can concentrate on learning a few things while the instructor gives them cues and clues they wouldn't certainly have in real situations.



Picture 2. Vivienne as an old lady in home health care and Hanna and Susanne as students.

Simulation is also a powerful technique for performance assessment. The metrics and psychometrics of simulation based assessment require more study and practice, but it is a unique window on performance and therefore can already be used even for high stakes exams. That is why in Relate project it will be pilot tested in RPL. However, before being able to use simulation as an evaluation method it should be concretely understood as a practical pedagogy. In this summary simulation is shortly described as a method and later on after the pilot tests (Fall 2015) as an assessment method.

Planning a Simulation Scenario

There are plenty of different models for simulation; virtual simulation, role plays, skill practise and full scale simulation. In full scale simulation all the steps of the simulation are planned, the scenario is standardized and thus is reproducible and it always contains debriefing. The planning contains at least the following aspects:

Setting learning objectives (or outcomes) for the Simulation

- Set 2-3 clear learning objectives (or outcomes)
- Describe the objectives so that they show what learners are able to do after the exercise

Choosing the subject/topic for the simulation scenario

- Choose the subject/topic which supports the achievement of the objectives
- **Take into account the learners' prior competence**

Practical solutions of the scenario e.g. the background of the customer

- Prepare the students beforehand with e.g. reading, test or questions, with which they prepare for the simulation
- Plan the customer case; preliminary information and background of the customer/patient
- Prepare the authentic environment
- Prepare what kind of equipment, furniture etc. are needed in the simulation
- Choose the simulator or coach the standardized patient
- Plan step-by-step how the scenario proceeds
- Plan the closing criteria
- Plan the life-saver

Plan for the debriefing

- Plan how the debriefing proceeds
- Have a list for the questions to guide debriefing

Debriefing

Debriefing is an important aspect of simulation pedagogy. There are number of models for debriefing, but the core of the structural elements of facilitation are common to most forms. Some parties identify seven common structural elements involved in the debriefing process. The first two elements are the debriefer(s) and those to be debriefed. The third element is the experience itself (eg. the simulation), and the fourth is the impact this experience has on the participants. The concept of impact is important because adult learners typically need to be emotionally moved by the event, and the event needs to be relevant to their everyday lives to make an impact. The fifth and sixth elements involve recollection and report. Reporting of the event, although usually carried out in a verbal manner, may be written or involve the completion of a formal questionnaire. The seventh element is time: the experience will be seen differently depending on how much time has passed before the debriefing. Although most debriefing approaches are conducted very soon after the experience, some allow more time for formal reflection, with reporting long after the event via a written report of an individual event or through keeping a journal.



Picture 3. Relate simulation pedagogy course participants in Debriefing.

A number of models exist incorporating the structural elements and describe various debriefing or facilitation styles. These models probably all evolve out of the natural order of human processing: to experience an event, to reflect on it, to discuss it with others, and learn and modify behaviors based on the experience. Although reflection after a learning experience might occur naturally, it is likely to be unsystematic. It may not occur at all

especially if the pressure of events prevents focusing on what has just transpired. Conducting a formal debriefing focuses the reflective process, both for individual participants and for the group as a whole. Debriefings may move of their own power through three phases: description, analogy/analysis, and application. However, without a facilitator participants may have trouble moving out of this first descriptive phase. The challenge for the facilitator is to allow enough time for defusing to occur, but direct the discussion in a more objective and global perspective, away from the individual to the group, and the person to the event.

The design of the debriefing session is tailored to the learning goals/ objectives and the participant and team characteristics. Objectives may be well defined, and specified beforehand, or may be emergent and evolve within the simulation. For well-defined objectives, such as a technical skill or a particular team behavior, the debriefing session **affords the opportunity to examine how closely participants' performance has approached** a known target, and what needs to be done to bridge any observed gaps between performance and target.

Arranging a simulation pedagogy course on 2-3.6.2015

Finnish SUAS participants of Relate project arranged and modified a simulation pedagogy course to the project partners to help them evaluate the method as a possible RPL assessment method. In the participants were taught about simulation as an learning and assessment method, planned a simulation scenario and facilitated debriefing. During the course was used a pedagogical mentoring process for the participants. The mentoring model included all the simulation phases from planning a scenario, briefing and facilitation to the debriefing.



Picture 4. Relate participants active participation in the simulation pedagogy course.

In mentoring process simulation facilitators guided to create scenarios with clear learning goals emulating real life situations; planning the environment, technology, the time allotted for the simulation and choosing the standardized patient or manikin. During the simulations facilitators got guidance in ensuring the students' positive learning experiences. They were troubleshoot with technological problems and offered encouragement. Debriefing was mentored going through the learning experiences and facilitators actions during simulations.

The focus and the programme for the simulation pedagogy course was as follows:

The focus of this course is to learn how to

- design and develop simulation scenarios
- facilitate simulation pedagogy
- provide effective feedback and debriefing
- evaluate the use of simulation pedagogy

Tuesday 2.6.2015, 9-18
Simulation pedagogy course opening. Simulation as a pedagogical method.
Debriefing as an powerful and imperative element of simulation pedagogy.
Presentation of using simulators and AV technique in teaching (Nordic Simulators).
Lunch
Planning a simulation scenario. Planning a simulation scenario in small groups with mentor.
Coffee-break
How to instruct and conduct a simulation; a demonstration of a simulation scenario and debriefing. Finalizing simulation scenario in small groups and setting up simulation environment.
Wednesday 3.6.2015, 9-17
Simulation scenario 1

Simulation 2
Lunch
Simulation 3
Conclusion
Relate meeting



Picture 5. Triin as a facilitator in group situation scenario and Bärbel practicing a pedagogy student role.