

## Poster presentation:

### Topic: Pre-hospital care- Education and training of ambulance professionals

#### Abstract

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### Simulation in Virtual World to Promote Communication

#### Introduction

Communication between ambulance professionals and patients is essential for understanding the patient's life-world (Wireklint Sundström & Dahlberg 2010). Simultaneously, communication is challenging to teach and learn within the framework of specific courses. However, simulation in virtual worlds can support the development of new skills such as communication (Combs, Sokolowski & Banks 2016).

#### Aim

The aim of this work was to design a simulation-based platform for communication training among ambulance nurse students (ANS).

#### Methods

A qualitative action research approach was used (Coghlan & Casey 2001). Second Life® (SL) was selected since it was an existing virtual world. SL is a web-based flexible three-dimensional platform that allows customization. Interaction and communication with other virtual people can be done through avatars in real time (Hodge, Collins & Giordano 2011). Three ANS and five teachers participated, none of the participants had prior experience of SL. Observations and interviews were used as data and analysed using thematic analysis.

#### Results

The participants' experiences generated three themes:

##### *Understanding the virtual world*

It was easy to interact and communicate with other virtual people. However, it took time to feel comfortable to navigate in SL.

##### *Technological challenges*

One challenge was related to audio-visual problems e.g. not compatible headset, interfering echoes and that the image was distorted at times, which made it difficult to act and move the avatar. Another challenge was associated with the 3D modelling e.g. the capability to use of coordinates, positioning, object dimensioning and the fact that accidental deletions could not be restored. A third challenge that influenced the communication was the difficulty of visualizing clinically relevant care measures such as diagnostic examinations or drug treatment. Finally, there was a challenge to customize the avatars to look like ambulance professionals or a severely ill patient.

##### *Learning through avatars*

Learning through avatars requires that the participants take responsibility for delivering a convincing performance. Immersion was limited since actions do not take place from a first-person viewpoint. There is a need that the scenario is based on realistic conditions e.g. interiors, equipment, clothing, avatar appearance and behaviour.

#### Conclusion

The present system is not suitable for training of medical assessment. Teachers who are considering using virtual worlds in the training for future ambulance professionals should note that an appropriate design is crucial for how the simulation is experienced.

#### References

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