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### Virtual hospital game as a learning environment for aseptic practice in nursing

The presentation describes the development of a virtual hospital game in nursing education. Development process started in 2009. The present-day version can be found in the internet at [mediansa.tamk.fi](http://mediansa.tamk.fi). In the infectious diseases ward of the virtual hospital students can practise aseptic work and nursing procedures used with infectious and contagious disease patients. The virtual hospital patient 1 is suspected to have MRSA, the patient 2 has clostridium difficile, and the patient 3 tuberculosis. Aseptic guidelines have to be followed carefully in nursing the patients to avoid the infections from spreading to the staff or other patients. The learning environment consists of authentic hospital panorama photographs and a game-like interactive user interface. The gamer "virtual nurse" receives points if (s)he follows the right protective clothing, hand hygiene and aseptic procedures when nursing the virtual patient. The game includes a variety of learning assignments, information texts, and videos. Development of teaching methods in nursing of infectious diseases patients is quite a topical theme. It is difficult to practise nursing of isolated patients and the related aseptic procedures in real life due to shortage of such facilities. The game-like online environment is quite innovative in nursing education and also a suitable tool for nursing staff's extension studies. A lot of attention has been paid on infection control and hand hygiene in the past years but hand hygiene has faced passive and subconscious resistance among both nursing staff and doctors. Improvement of hand hygiene requires multiform work and further development of hand hygiene promotion methods because spreading of for example MRSA is not under control. Virtual games seem to make possible to create authentic nursing situations and contexts, and strengthen the development of mental models for nursing.

### Biography

Sari Himanen works as a Senior Lecturer and Head of Degree Programme at Tampere University of Applied Sciences. She is working on her Doctoral thesis, which focuses on information and communication technology applications in nursing education. She has developed diverse ICT-based teaching methods in nursing education and studied their effects on learning.

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