

**This interview was made by e-mail with Prof. Jos van der Werf from Rijksuniversiteit Groningen and Ir. Aaldrik Sillius from University Medical Centre Groningen. They are designing non-digital educational role playing games, which use ICT as additional tools. Their main project is GIMMICS, the pharmacy practice game.**

**The interview was made in February 2006.**

**1) What is your name and title?**

Prof.dr. Jos J. van der Werf (Rijksuniversiteit Groningen)

Ir. Aaldrik W. Sillius (University Medical Centre Groningen)

**2) What kind of educational and training games do you design?**

We design role playing games that are played face to face, not by computer. We put our players in a setting which closely resembles their future working environment and confront them with all kinds of assignments and interventions which are typical for that working environment.

We do use ICT in our game, but its use is aimed at keeping the game manageable and controllable.

Our main project is GIMMICS, the pharmacy practice game. All our answers on the questions below refer to this game.

**3) What is the target group of the games?**

GIMMICS, the pharmacy practice game, is aimed at pharmacy students in the masters phase of the curriculum. However: students from pharmacy assistant schools and students from high schools also take part in GIMMICS.

#### **4) What is your approach to designing a game for educational purposes?**

The key words in our approach are 'commitment of teachers' and 'flexibility':

- we start with forming a small group of teachers who are enthusiastic about the idea of using games in education;
- we involve them deeply in designing a first version of the game: the setting and contents of the game are predominantly based on their ideas and suggestions;
- then we start playing the game; it may not be perfect yet, but it is essential to start collecting practical experiences from playing the game quite soon;
- evaluate the practical experiences, adjust the game where needed and gradually enhance it and make it more complex;
- when the management and control of the game become more and more difficult, start introducing ICT tools to overcome these problems.

#### **5) What kind of pedagogical theories are your games based on?**

The key words here are: learning by doing, learning from practice, learning in a context rich environment, learning through self reflection, competence based learning.

#### **6) What kind of reactions have your games got?**

GIMMICS was designed in 1998 and it was enhanced and made more and more complex over the next four years (1998-2002). In 2003 its management and control became troublesome, so we started introducing ICT-tools to overcome these problems (2004-2005).

Throughout all these years, students have consistently stated that playing GIMMICS is great fun , which is truly a very important statement for all game

builders alike. Students also state that playing GIMMICS helps them achieve several learning goals; they say that they:

- feel better prepared for their next internships;
- have enhanced their reflective skills;
- have learned to cope better with situations in which information is incomplete or uncertain,
- have learned to apply separately acquired knowledge and skills in an integrated way.

**7) What is your solution to the dilemma that different types of learners / different genders tend to like different kind of games?**

We feel that in role playing games like GIMMICS there is no such dilemma: the learning environment is so rich that it accommodates to any type of learner and to male and female gamers alike.

Our experiences with GIMMICS also suggest that there is little difference in the way the element of competition – which is a leading element in our game – is appreciated by male and female gamers.

**8) How should an educational game be designed to make sure that a player doesn't skip important educational parts of the game?**

In GIMMICS players are organized into teams and these teams compete to become the best pharmacy practice. Each assignment in the game is assessed on a team level. This implies that if a player is deliberately underachieving (e.g. not putting in as much effort as the rest of the team), he is not contributing to the overall result of the team. Surely his teammates won't tolerate this and they will strongly urge him to change his behavior.

**9) What is your opinion on educational and training games in general?**

Young people spend a lot of time playing games and there is no one who tells them to do so. They are intrinsically motivated to keep on playing a game, trying to beat their own high score, trying to enhance their game skills or just being eager to explore new (virtual) territories. If games can make this all happen 'by themselves', we definitely must follow this lead and put a lot of effort in developing games for educational purposes.

**10) Have you been designing commercial entertainment games?**

No.

**11) Have you used any open source software in designing and developing educational games?**

When developing ICT tools to facilitate the management and control of GIMMICS, we have been using PHP and MySQL.