Simulation of working with an individual education plan for a virtual pupil

Goals
Virtual case systems have been used in healthcare education for long with good results. We wanted to use the same methodology, but for teacher training. However, such VC systems do not exist yet. Therefore, we set up a goal to make an adaptation of an existing virtual web-based patient simulation program (Web-SP) for students in special educational needs teacher training.

Another goal is to support students in teacher training in their learning about establishing Individual Education Plan (IEP), with the virtual simulations that make the task more realistic.

The third goal was to provide a web-based learning activity that required increased collaboration between the students.

The project was also expected to increase the students’ engagement, to develop a deeper understanding of complexity of educational situations, and to raise their capacity to solve problems creatively.

Relevant results
The results are relevant for those that want to introduce virtual simulation elements in Higher Education, professional development and teacher training.

We expect that the Virtual SEN Student Plan simulation can be used in all courses for SEN teacher training at Stockholm University.

Eventually, we are going to develop the Virtual SEN student case library and to make it accessible in the future for broader teacher groups.

Transparency/ reliability
The results build upon the students’ answers (N=49) to a questionnaire before and after the virtual simulation training. The survey contains data on students’ background, a section on their competence in establishing IEP for SEN students, and a section on their attitudes about IEP.

After the IEP simulation training, the students evaluated the learning unit with open questions directly after the session and at the end of the semester with a questionnaire on students’ beliefs and attitudes towards the usefulness of IEP for SEN students.

The questionnaire on IEP was developed for this purpose that is based on previous experiences of teaching about IEP in these programs and contains five scales (detrimental, unnecessary, useful,
equitable, and instrumental) with three indicators each, in a 5 points Likert scale. There were clear instructions and all the students who participated to the learning activity answered to them.

**Growing body**

Virtual simulations of cases with digital techniques have been used in other educational programs for various professions as for example the medical, because they are particularly useful in developing the ability to make the appropriate choices, to identify a diagnosis and suggest relevant treatments. In the social sciences, for professional training in Sweden (as special needs teacher, social workers) such digital virtual simulation programs have not been developed yet.

With this project, we want to develop an application in the educational field of tools that have been developed for other professions and have been reported in several articles (Botezatu, Hult, & Fors, 2010; Zary, Nabil, Johnson, Gunilla, Boberg, Jonas, & Fors, Uno, 2006).

**Results**

In the program the students (N=49) were asked to solve a virtual case by gathering information about a pupil and his/her learning environment and thereafter to establish an IEP. After submitting the IEP, the students gained access to the feedback module.

The results indicate that the adaptation of the virtual simulation program was perceived as useful in the training of SEN Teachers. Forty-two students declared that they found the activity interesting and stimulating. Two students were partially critical because of trickiness of the program, and fem did not declare their opinion. Technical issues related to the database server can be an obstacle, e.g. making the students unable to access the information, the program has thus to be stable and adequate to the number of students online.

The collaboration activity with the virtual simulation was perceived as fruitful by thirty-one students. They considered that their knowledge and understanding of IEP were increased by the program.

**Improvement of practice and learning**

This kind of digital tools with virtual simulations can be used with profit in order to increase the level of students’ activity and their collaboration with peers. It can also contribute to make the professional educational programs more practical and problem-based. Finally, it is also possible to develop and offer tailored training cases to students in various specialized programs.

**Interactive**

A part of the virtual simulation program will be shown to the participants so that they will get a feeling of the visual presentation and how the program works. If it will be possible, the participants with Swedish language knowledge can be allowed to log in to the program, test it and discuss it further in a Sakai-based learning platform at Stockholm University (Mondo) during or - more likely - after the conference.