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Simulated Interviews for the training of the abilities implicated in the diagnostic interview

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New technologies, as Virtual Reality, are getting higher importance in the educational ambit, nowadays. As suggested by several authors (Roussos et al., 1999; Stansfield et al., 2000). Virtual Reality represents a promising area with high potential of enhancing and modifying the learning experience: virtual environments can provide a rich, interactive, engaging educational context, supporting experiential learning.

A Multimedia environment, consisting of graphic simulations, was created with the aim of training last year Psychology students in the abilities required to perform a correct clinical interview. The clinical interview is the starting point of the psychopathological exploration, and one of its principal goals is to generate diagnostic hypothesis. By these interviews the students can guide psychopathological exploration sessions with different types of patients.

For the time being, two levels of simulation have been developed: one of them is textual and the other is graphic, which includes basic representations of patients by audio and facial expressions.

Why to choose Graphic Simulations as an educational method?

- To practice with real patients during the studies is very difficult, so a good alternative is to train the students with virtual patients, which approaches more to reality than traditional methods (textual books).
- They facilitate the self-training and overlearning, since students can repeat the situation as many times as they want.
- Specific learning hierarchies can be designed.
- It's an activity almost totally guided by the student, which promotes the development of operational and formal thinking, because it facilitates the exploration of different possibilities.
- This kind of educational method adapts to the student's pace, timetable, and needs.

Our study

A study was conducted that explored a multimedia environment as a educational tool. The environment consisted of several simulated interviews with patients that had different disorders (depression, anxiety, etc.). The aim of this study was to evaluate the level of learning acquired by the students

Our sample

53 students (Psychology, University of Barcelona)
Ages between 20-30

They answered a test about their previous knowledge of clinical skills before training with graphic simulations. After the training they answered the same test again, and also after 10 days of follow-up, as well as another test asking for the subjective utility and motivation.



Principal results

Learning Level

A Repeated Measures Analysis showed significant differences between pre-test and pos-test scores ($F = 128,38; p < 0,0001$), being the mean score of the pre-test 4,27, and 6,80 of the pos-test. The same analysis showed significant differences between pre-test and follow up ($F = 89,343; p < 0,0001$; follow-up mean = 6,56), but not between pos-test and follow-up.

Subjective utility and motivation

The means of subjective utility and motivation were very high, which shows that students enjoyed the experience and found it very educative. The means were 7,78 for subjective utility and 8,18 for motivation.

Graphic Simulations

Graphic simulations start by an initial description of the problem. Starting from these data, students can formulate diagnostic hypothesis or choose one of several questions offered by the simulation. Among the different alternatives of questions offered at each moment of the exploration, there is only a correct one, according to the hierarchic systems of differential diagnosis based on the DSM-IV (Diagnostic and Statistical Manual of Mental Disorders). After the student chooses one of the questions, the system presents one screen telling him if his choice is the correct one depending on the data collected until the moment. As the interview goes on, the diagnostic hypothesis cut down. The questions offered by the program also allow the student to learn correct strategies to obtain information in each type of patient and disorder. Feedback is given to the student each time he chooses a question or an hypothesis, telling him why his choice is correct or not, so the student learns with each answer given by the system.

Future Projects

- Produce simulations for other mental disorders.
- Evaluate the impact of these procedures over the student's learning and motivation comparing them with traditional education methods

