

Student acceptance of the Simodont (Pilot study)

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Introduction

The Simodont has been developed to replace traditional lab conditions. The Simodont offers the opportunity to develop manual dexterity independently as the system provides direct visual feedback. Also students can develop clinical competencies preclinical as realistic pathologic conditions are incorporated in the system.



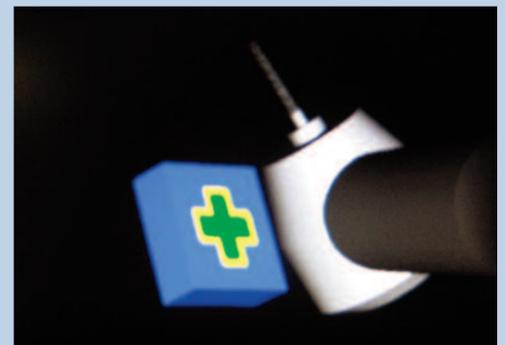
Aims

The aim of this pilot study was to investigate the perception of students of the ergonomics, the usability and the realism of the Simodont.

Material and Methods

Twenty-three students participated in the study, 14 female and 9 male students; 15 students were completely unfamiliar with the Simodont. All participants were experienced working on traditional phantom heads with plastic teeth.

The participants carried out a manual dexterity drilling exercise on the Simodont and then filled out a questionnaire on their opinion about the ergonomics, usability and realism of the training system with the incorporated courseware.

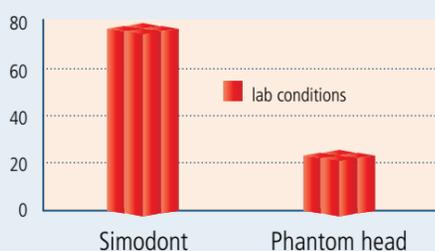


Results

Ergonomics

The results show that with respect to the ergonomics 77% of the students prefer working on the Simodont.

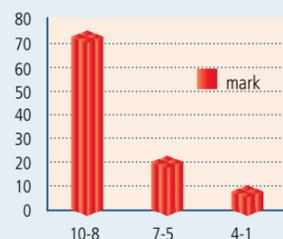
- Positive about the visual system and the hand support during drilling.
- The Simodont stimulates to work in an upright position.
- The exercise was too short to measure stress factors such as wrist complaints.



Usability

The students are very positive about the courseware (marks from 1 until 10). Furthermore:

- The instructions are clear (70%).
- The courseware is easy to manipulate (...%).
- Simodont can't replace the teacher (100%).
- A teacher should give further feedback (80%). (the feedback is still under construction).



Realism

The students were positive about the realism of the Simodont.

- 70% of the students think the present type of the Simodont is useable to train manual skills.
- 54% suggested the Simodont should also simulate spray and smell.

Conclusion

The students are positive about the ergonomics, usability and realism of the Simodont. The Simodont is experienced as useful in training manual skills.

Further research will be carried out to find out if student learn faster and as well training on the Simodont compared to training at the traditional preclinical lab.