An exploratory study of orthoptic student satisfaction in a blended learning environment

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Introduction

• At Lisbon School of Health Technology the Orthoptic BSc degree is a 4-year program.

• In the final year of the program students develop their clinical competences (internship) and a research project.

• **e-learning** is used as a new way of teaching that aims to educate innovative, flexible and creative graduates (Brown et al., 2009).

• This learning approach enables students to carry out-group work while on clinical placement (internship) in diverse locations nationwide.
Introduction

• Students’ perceptions about the educational environment are among the factors that influence outcomes, satisfaction and success.

• The **blended learning** environment was quite novel when implemented in 2011/2012 for the module of orthoptic research.

• The purpose of this study was to describe orthoptic student satisfaction in a blended learning environment.
Methods

• Blended learning and teaching approaches that include a mix of sessions with e-learning are being used during the 1st semester.

• Students experienced different teaching approaches, which include seminars, tutorial group discussions and e-learning activities using the moodle (Modular Object-Oriented Dynamic Learning Environment) platform.

• Moodle is an open source software program designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalized learning environments.
Methods
Methods

Constructivist On-Line Learning Environment Survey

COLLES (24 questions)

5-Point Likert scale
(1 - almost never to 5 - almost always)

The sum of items in each dimension ranged between 4 (negative perception) and 20 (positive perception)
Results

- Twenty-four students replied to the questionnaire (23.04±2.37 years). There were 22 females (91.7%) and 2 males (8.3%).

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<td>20.00</td>
<td>16.46</td>
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<tr>
<td>Tutor Support</td>
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<td>20.00</td>
<td>16.29</td>
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<tr>
<td>Relevance</td>
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<td>19.00</td>
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<td>7.00</td>
<td>19.00</td>
<td>13.29</td>
<td>2.60</td>
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</tbody>
</table>
Results

- Critical reflections about learning contents were frequent (n=19; 79.17%).
  - The tutor was able to stimulate critical thinking (n=21; 87.50%), encouraged students to participate (n=18; 75%) and understood well the student’s contributions (n=15; 62.50%).
  - The majority of the students (n=18; 75%) think that the on-line learning is relevant to students' professional practice.

- Response from the colleagues to ideas (n=11; 45.83%) and valorization of individual contributions (n=10; 41.67%) scored lower than other items.
Discussion

• In a similar study in pharmacy education, students rated the highest on the aspect of professional relevance and the lowest on the aspect of interactivity (Sthapornnanon et al., 2009).

• Other studies reported similar results, which may indicate difficulties in the transition from a passive to an active learning style (Taylor & Maor, 2000; Dougiamas & Taylor, 2002).

• Rating the tutor support higher than peer support could reflect that the students are still very dependent on the lecturer (Syed-Mohamad et al., 2006).
Conclusions

• The flow back and forth between face-to-face and online learning situations helps the students to make critical reflections.

• The majority of the students are satisfied with a blended e-learning system environment.

• However, more work needs to be done to improve interactivity and peer support.

• Forums for open discussion moderated by the teacher throughout the orthoptic course need to be implemented.