Improving interactive learning in dental education

Language: English

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Poster Award
Bernd-Spiessl-Award: best Student Poster

Introduction

E-learning has been recognized during recent years as an essential tool to improve dental education. Empirically, the overload of information as well as the manner of how computer-assisted learning can be better provided for students and dentists is under continuous discussion. Our department developed ILKUM, an interactive e-learning-database based on the concept of the ADEE (Association for Dental Education in Europe)1 to improve the coordination between education content and performance requirements.

Methods and Material

The new databank presented here rests on the technical concept developed for the MySQL Workbench. The software runs on a highperformance Unix-based server in a Java-runtime environment and accepts all kinds of operation systems. These requirements reflect preconditions to warrant all users a high-speed and authorized (password) access to the databank.

Results

Since January 2010 ILKUM (Fig. 1) is activated for the students as an guidance structure for existing and future learning offers and is embedded in our lectures in terms of "blended Learning" . The modular contents of the e-learning-database are interactive linked to the accordingly lecture files and e-learning units (for example: clinical cases, short video sequences, scientific articles).This makes sure that the user has a fast topic-oriented inquiry of the learning content without time and local limitations as well as direct determination of the individually needed knowledge conditions. Surveys of our dentistry students in Mainz show clearly a large demand for internet based Elearning supply with integrated self testing (Fig. 4). By current technical possibilities of the mobile internet use the integration of modern learning media is very well convertible in teaching.
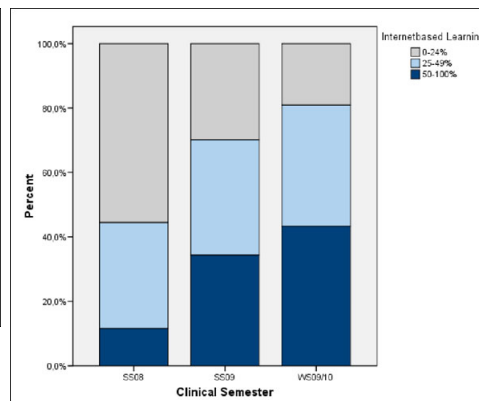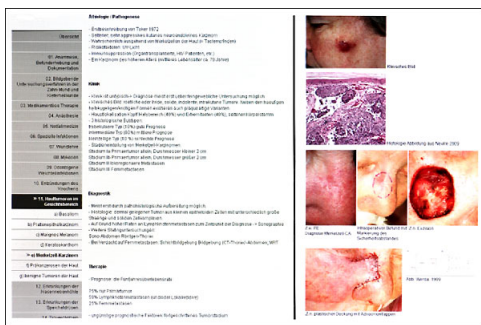

Fig. 1: Screenshot of ILKUM-Page

Fig. 2: Percentage of internet based learning

Conclusion

The broad acceptance and demand of the ILKUM on the part of the students show the development potential of the teaching project (Fig. 2, 3). In the next step of the advancement in close co-operation with the students the structure/modification of the data base will be enhanced.
By the employment of mobile interactive mediums (Fig. 5, 6) intensified integration of the ILKUM in the small group lectures in the sense of the "Blended Learning" is obtained and serves as digital support of OSCE2 (objective structured clinical examination) in the clinical training.
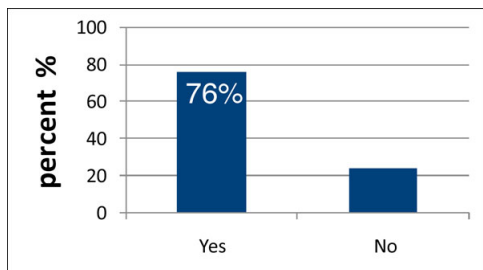
Fig. 3: How many students are interested in upgrading E-learning (n=173) in SS 2010
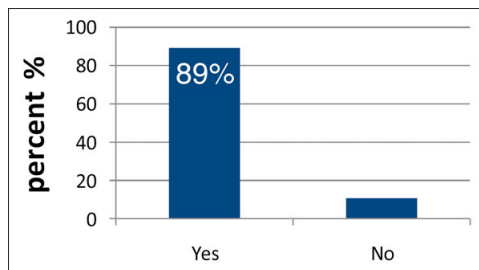
Fig. 4: How many students are interested in Self-Testing modules ? (n=174) in SS 2010
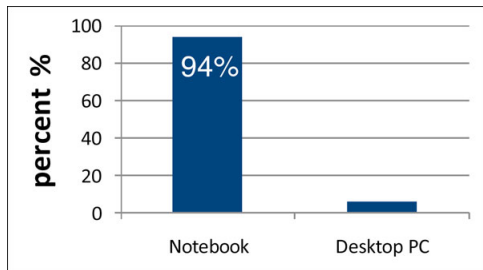

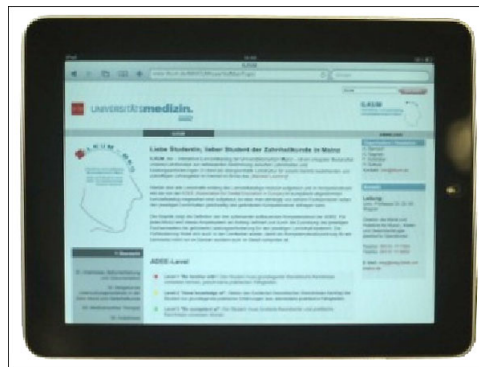Fig. 5: What kind of computer do the students use (n=175) in SS 2010

Fig. 6: iPad with ILKUM

Abbreviation

SS - Sommersemester (summer term)

Literature

1. (Cowpe J. et al. 2009) Profile and competences for the graduating European Dentist.
2. (Chenot J.-F. et al. 2003) Objective structured clinical examination (OSCE) in der medizinischen Ausbildung: Eine Alternative zur Klausur.

This Poster was submitted by Keyvan Sagheb.

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2010 bernd – spiessl – symposium

Improving interactive learning in dental education - ILKUM

(Interaktiver Lernzielkatalog der Universitätsmedizin Mainz)

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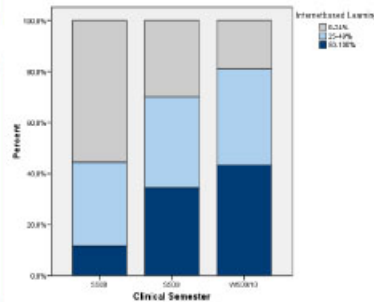
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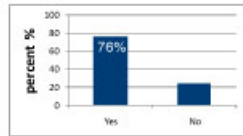**Fig. 2:** Percentage of internet based learning

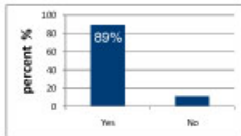**Fig. 3:** How many students are interested in upgrading E-learning (n=173) in SS 2010

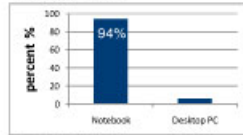**Fig. 4:** How many students are interested in Self-Testing modules ? (n=174) in SS 2010

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