

Section: E-Learning und Simulation

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Abstract-Title:

EVALUATION OF BIOCHEMISTRY WEB BASED COURSE UNITS IN MEDICAL EDUCATION – A COMPARISON (EVALUATION VON WEBBASIERTEN KURSEN DER BIOCHEMIE IN DER MEDIZINISCHEN AUSBILDUNG - EIN VERGLEICH)

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Abstract-Text:

Purpose Establishing e-Learning as an enrichment for medical education requires the detention of a high level of usability and quality of learning units. Those factors play a crucial role ensuring the effectiveness and success of e-education which can be only reached if means and content are seen as beneficial and hence are being accepted by teachers and students. The Institute of Medical Informatics provides e-learning content for medical education in the context of the ELAN project in Lower Saxony/Germany and is also observing the impact of e-learning content on learning process and the acceptance of each party involved to improve their medical education to a higher qualitative level.

Methods In our examination we are extracting the trend of students' perceptions in working with the offered learning material in the ILIAS System by comparing the evaluation results of two surveys conducted in the Winter Term 04/05 and 05/06. Participants were students in their 3rd semester taking a course in biochemistry and new students of the consecutive Winter Term taking the same course. Both groups were using the same additional but voluntary e-learning offer. The surveys were carried out as an online questionnaire outside the learning environment containing 34 questions about aspects like · Experiences and competences the students do dispose of · Frequency and intensity the course units have been used · Ease of handling of ILIAS2 · Benefits of the additional e-learning offers for the students (do the students consider it to be a way of successful learning) · How do the students relate to e-learning in general Whereas in 2004/2005 only 73 participants were counted, in 2005/2006 there were already 120 participants filling in the survey completely.

Results Both surveys presented steady and similar statements. There was a slightly increase of students, having a DSL broadband access to the Internet compared to 2004/2005, which is interesting for e.g. the use of video streaming. Around 93% of the participants in 2004/2005 and 85% in 2005/2006 have been using the learning units at least frequently or occasionally. The usability of the ILIAS2 learning management system was stated as very intuitive by more than around 96% in both terms. The length of the learning units was also perceived as appropriate since around 95% of both terms said that they would always work straight through the course units. The beneficial effect for the students is remarkable, since 81,9% of the students in 2004/2005 and 82% if the students 2005/2006 were convinced that the learning success is appropriate to the time spent with the course units. Furthermore, in 2004/2005 89% of the students would invest more time with the computer, if there would be more course units offered, whereas in 2005/2006 there are now even 96% agreeing with this statement.

Conclusion As we can state, e-

learning offers are of good quality and have a significant support of the learning process as being perceived by the students. The similarity of both results in 2004/2005 and 2005/2006 show a solid picture and by means of strong increasing logins in the observed term periods we can state, that the e-learning system is constantly getting in place as an additional valuable source of learning for the medical students in the MHH. Since usability plays a very crucial role beside the content quality we are expecting a significant positive impact in our next evaluations because the MHH has recently switched from ILIAS2 to the new generation ILIAS3 providing e.g. better navigation and communication facilities.