

**Free software can satisfactorily meet  
the needs of students and faculty for  
online teaching and learning;**

## **Implementing Moodle at Medical Faculty in Zagreb**

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# Planning and design

**The aim of this presentation is to help instructors in developing a distance learning system**

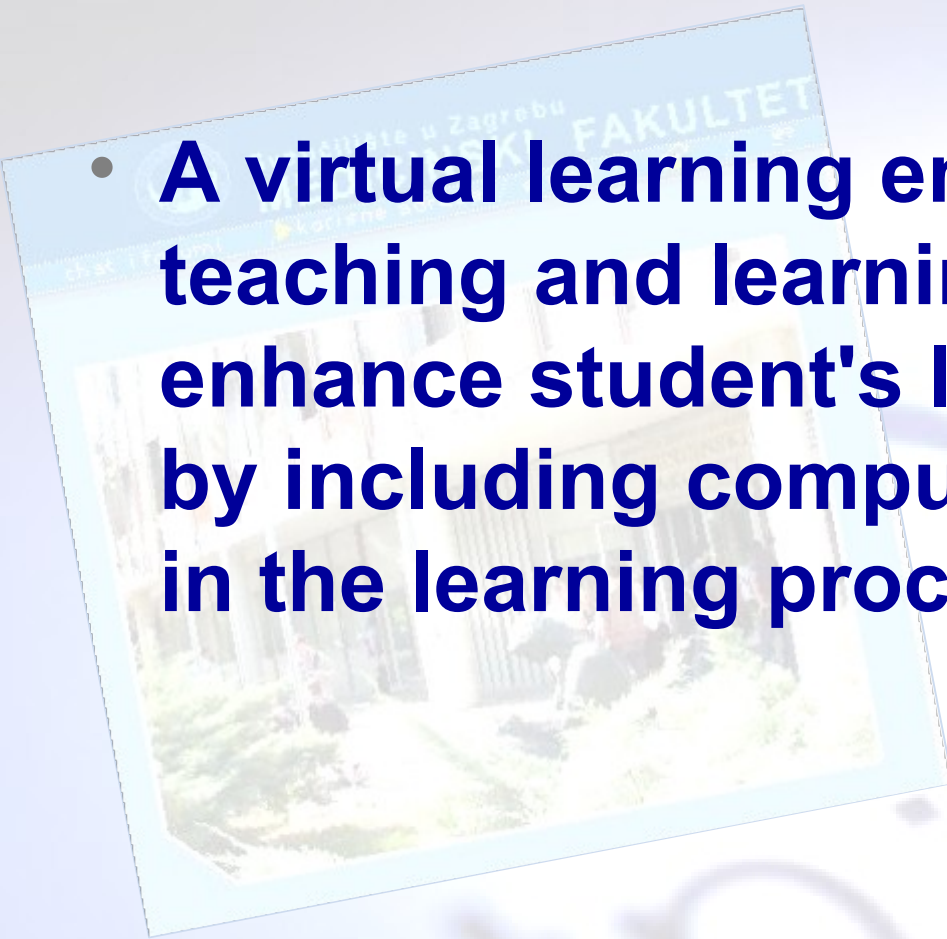
- **Introduction**
- **Choosing e-learning platform**
- **Why Moodle ?**
- **Course Platform Evaluation Report**
- **Conclusion**

# Objectives

- **Using ICT to support curriculum and quality.**
- **The provision of flexible learning opportunities.**
- **To extend learning beyond the classroom.**
- **Students track their own progress.**
- **Deliver multimedia and standard documented lesson content for learners on demand.**

# Virtual learning environment (VLE)

- A virtual learning environment is a set of teaching and learning tools designed to enhance student's learning experience by including computers and the Internet in the learning process.



# Virtual learning environment

Offer a number of benefits to universities such as:

- anytime, anybody,
- anywhere access,
- improved motivation,
- access to higher learning styles,
- opportunities for independent learning,
- better integration of information and communication technology (ICT) tools
- better track of student progress and
- administration

# Stages of development of VLE

1. "Lone rangers"
2. The pressure of lone rangers on the university administration to provide help and resources
3. The rapid uncoordinated activity
4. The development of institutional strategy
5. High quality use of e-learning



# Learning Management System

## Learning Content Management System

- **LMS** consists of an infrastructure platform that allows the tracking and assembling of courses in to collections such as academic or training programs.
- **LCMS** consists of an infrastructure designed to create, deliver, manage, and reuse instructional content.

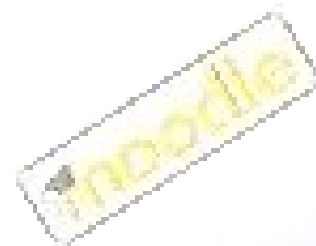
# Two Choices

- **component**
  - off-the-shelf software that allows creation of course materials, audio slide lectures, animations, discussion forums, chat groups, e-mail, and so forth
- **integrated packages**
  - that contain a number of the same features, but are lacking in other significant areas



# Software for Online Teaching

- **Commercial products**
  - product bombardment (more than 3000)
- **Hosting service**
  - supported web hosting
- **OpenSource**
  - build from free code



# Choosing

- How much will we manage?
- What features are of highest importance?
- What do we want/need?
- Do we need to be standards compliant (IMS, SCORM, etc.)?
- How much connectivity with other systems in the institution will we need?
- What kind of support will we need?
- What is the strength of our Information Technology department and how much support will they provide to us?
- How much will we spend?
- Is distance learning worth it?

# Systems evaluated

- We installed, tested, and evaluated about 40 open source courseware.

.LRN	Eledge	LearnLoop	OpenACS
ATutor	ePICE	LogiCampus	OpenLCMS
Bazaar	Fle3	LON-CAPA	OpenUSS
Bodington	Electure	Manhattan VC	OSPI
CHEF	e-Tutor	MimerDesk	Sakai
Claroline	ILIAS	MIT OCW	Segue
ClassWeb	Interact	Moodle	Stud.IP
COSE	e-Jones	OKI	Whiteboard
CourseWork	KEWL	OLAT	Zope4Edu
Dokeos	LAMS	OLMS	

# Systems evaluated

- **Guidance**

- **Reference center for evaluation of courseware in e-education**

- (<http://www.carnet.hr/referalni/obrazovni/oca>)

- **Edutools**

- (<http://www.edutools.info/course/compare/>)

- **UNESCO**

- ([http://www.unesco.org/cgi-bin/webworld/portal\\_freesoftware/cgi/page.cgi?g=Software%2FCourseware\\_Tools%2FIndex.shtml&d=1](http://www.unesco.org/cgi-bin/webworld/portal_freesoftware/cgi/page.cgi?g=Software%2FCourseware_Tools%2FIndex.shtml&d=1))

- **Seul/Edu**

- <http://richtech.ca/cgi-bin/seul/seulview.pl?category=Courseware>

# Choosing Moodle instead of a commercial VLE

- Of the systems evaluated, Moodle offered the greatest range of features and ease of use.
- Moodle is supported by a large developer community and it is free.
- We noticed no significant functionality that is not supported by Moodle.
- Moodle has been integrated with a variety of other systems (Debian package, Mambo).
- The only thing missing is the price tag for the software.
- URL address: <http://moodle.org/>






# Using Moodle in the world


- 
- **nearly 7 000 sites**
  - **in 142 countries with**
  - **over 1.6 million users in**
  - **160 000 courses**
  - **from a single-teacher site to a 40,000-student University**
  - **70 language**



# Results

Sveučilište u Zagrebu  
MEDICINSKI  
FAKULTET







web.mef


E-obrazovanje


Login


GLAVNI IZBORNIK


 OPĆE NOVOSTI


 OPĆI FORUM


 KONZULTACIJE (CHAT)

 ZADACI


 TESTOVI ONLINE


 Čavrljanje (chat)


 RJEČNIK


 Radionica


Tečajevi


 FIZIOLOGIJA


 IMUNOLOGIJA


 JESMO LI KISELI?

 OFTALMOLOGIJA


 PROCJENA ZNANJA

 TELEMEDICINA

 UMIJEĆE NASTAVE

 OSTALI TEČAJEVI

OPĆE NOVOSTI



RADIONICA IZ PROCJENE ZNANJA U E-OBRAZOVANJU

autor: Prof. dr. Milan Taradi - utorak, 3 svibanj 2005, 10:28

Otvorena je trosatna radionica za samoprocjenu i procjenu znanja u e-obrazovanju. To je dio aktivnosti Referalnog centra "Samoprocjena i procjena znanja u e-obrazovanju" kojeg je osnovao CARNet, a čiji sam voditelj. Više o našem kao i ostalim RC za e-obrazovanje, možete saznati na **izvornom web sjedištu**.

Ovdje se radi samo o praktičnom dijelu radionice tj. prikazu primjera i isprobavanju alata za pripremu testova online u e-obrazovanju.

Molim kolege koji žele razgledati i isprobati sustav za e-obrazovanje da se najprije registriraju, a zatim pri prvom ulasku u MefModlu u svojim podacima u rubrici "Opis" navedu želju za upis u Procjenu znanja. Tada ću ih ja upisati kroz najduže 2. dana. Ukoliko je to prekomplikirano mogu mi se samo javiti e-mailom.

Srdačan pozdrav, M. Taradi

Ovo je interaktivni sustav za e-obrazovanje.

Radi se o velikom sustavu vrlo složenih brojnih web alata za podržavanje učenja na daljinu upotrebom Interneta. Program je modificiran prema izvornom programu MOODLE (Modular Object-Oriented Dynamic Learning Environment) moodle.com (by Martin Dougiamas, a PhD candidate at Curtin University).

Odabrao sam ga zato što uz mnoštvo opcija nudi jednostavan pristup kroz preglednik (Netscape, IE), **bez ikakve instalacije na strani klijenta**. Pri upotrebi ne traži poznavanje HTML koda, Ftp-iranja, html editora i sl., pa se može preporučiti i korisnicima koji su početnici.

Nedavna aktivnost

Aktivnost od srijeda, 2 studeni 2005, 02:25

Potpun izvještaj nedavne aktivnosti

<http://web.mef.hr/moodle/>

# Resources

- **Hardware**
  - The system resides on a 2 processor PC based server.
- **Software**
  - OS is Solaris 9 (prior was Linux)
  - All software is Open Source (Apache, Moodle, Edukalibre Moodle Collab, PHP, Perl, MySQL, PostgreSQL, Sendmail, Webmin, LDAP)

# General

- **Easy installation**
- **Multilingual**
- **Student's Environment**
- **No frames**
- **Flexible Authentication Scheme**
- **Security**

# Characteristics

- **functionality**
- **integration with other systems and services**
- **easy configuration**
- **ease maintain**
- **reliability**
- **scalable**





# Development

- **We begun with**
  - **static web site (1995)**
    - document, power point presentations,
  - **a shift from the idea of static to dynamic content (1999)**
    - forums, asynchronous communication, forms
  - **a shift from the idea of the web as medium to the idea of the web as platform**
    - the implementation of an e-learning system (2001)
- **With Moodle (version 1.0.0.) we started in august 2002.**

# Gathering and Organizing Content

- **Static content**
  - includes web pages, documents, images, audio and video.
- **Interactive content**
  - includes quizzes, animations and other related materials.
- **Social Interaction**
  - includes discussion boards, chat, email exchanges and related interactions.



# 3 years later

- the number of courses is 18
- the number of teacher is 8
- the enrollment is about 120 students per year
- 1 GB of teaching material produced
- total count of user login is about 100 000
- the system is stabile
- easy maintain

# The courses 3 years later

- Regulation of Acid-base Balance,
- Physiology, Immunology (courses in MD programs in Croatian and in English),
- Self-assessment and Summative Assessment in E-education,
- The Art of Medical Education (courses for younger teachers),
- Ophthalmology: Tears System (permanent doctors education)
- Telemedicine (PhD program).

# Example of course

OFTALMOLOŠKI TEČAJ - Microsoft Internet Explorer

 **OFTALMOLOGIJA DANAS - SUZNI APARAT** (05.2003.)

[home](#) [sadržaj](#) [obavijesti](#) [konzultacije](#) [forum](#) [o nama](#)

 **OFTALMOLOGIJA**

[MedModla - stalna edukacija liječnika](#)

Doc.dr.sc. Renata Iveković:

[Privatni folder](#) | [Test](#) |

## ISPITIVANJE SEKRECIJE I EKSKECIJE SUZA

Prednja površina oka vlaži se suzama, koje izlučuju suzna žlijezda i akcesorne suzne žlijezde u spojnici vjeđa. Postoje dva osnovna oblika sekrecije suza: refleksna parasimpatička sekrecija i temeljna suzna sekrecija. Količina izlučenih suza, koja nastaje djelovanjem oba oblika mjeri se Schirmerovim testom. Schirmerov test uveden je u oftalmologiji od 1903. godine kao standardna pretraga. Razlikujemo Schirmerov test I i Schirmerov test II (slika 1.)



Slika 1. Schirmerov test

- **Permanent doctors education**

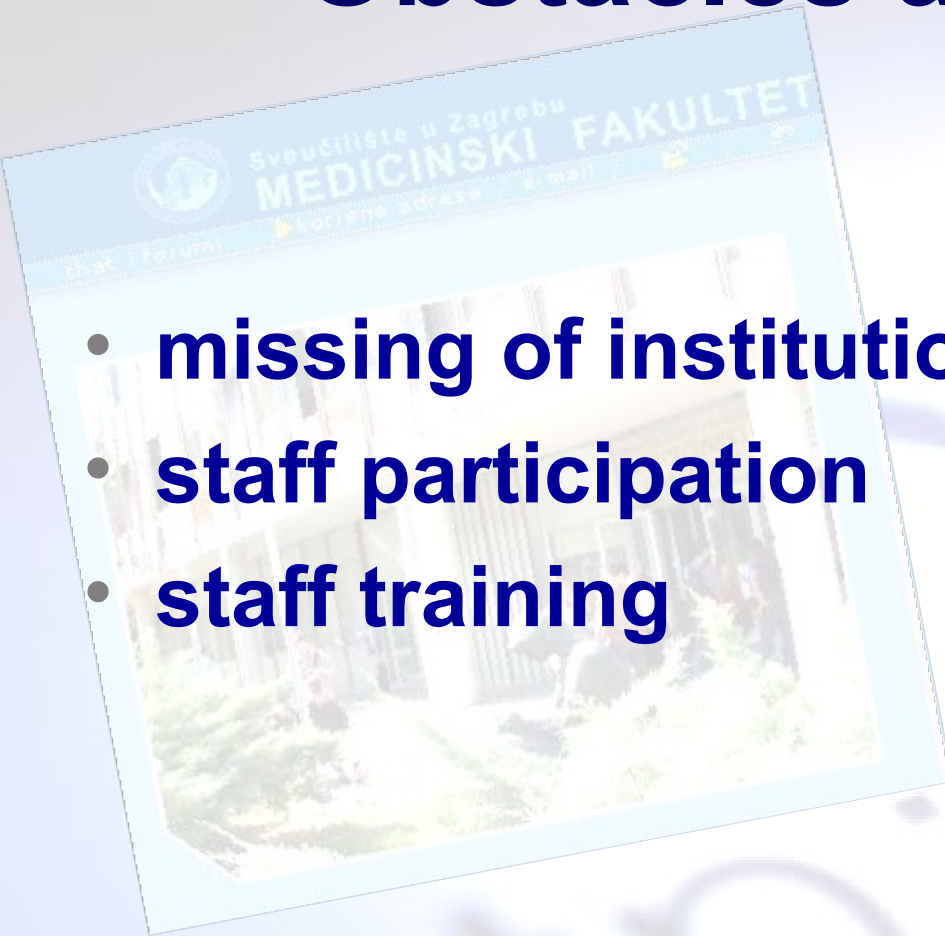
**Schirmerov test I** govori nam o količini suza izlučenih temeljnom i refleksnom sekrecijom. Test se izvodi tako da se u područje donjeg forniksa vjeđa postave ili posebno proizvedeni Schirmerovi papirići ili lakmus papirići ili filter papirići širine 5mm i dužine 35 mm. Papirići nakon postavljanja ostaju u području donjeg forniksa 5 minuta, a ispitanika zamolimo da nježno zatvori oči. Ako je dužina papirića natopljena suzama veća od 30 mm sekrecija je normalna ( ne računajući savinuti dio papirića).

# Students' opinion

- **Students' experiences and viewpoints where gathered through surveys.**
- **Students not only learned more when online lectures were added to traditional courses, but student interaction and satisfaction improved as well.**
- **The best way is blended learning, which combines online with face-to-face learning.**

# Obstacles and solutions

- **missing of institutional support**
- **staff participation**
- **staff training**





# Challenges

- The biggest problem and challenge facing most web learning sites is simply getting people to use them and to visit regular.
- Building a community of learners and creating an environment for learning is by no means a simple task.



# Going further: Future plans and projects

- **Encourage staff and student participation in contributing to VLE resources.**
- **Ensure content remains current**
- **Build the VLE into delivery, both in and out of classes.**
- **Provide access to VLE resources for mobile devices**

# Conclusions

- **Free software, such as Moodle, can satisfactorily meet the needs of students and faculty for online teaching and learning.**

