

# Using Moodle for large-scale e-assessment: Serbian practice



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# The Context

- ☹️ still undeveloped Internet infrastructure
- ☹️ quite usable computer classrooms
- ☹️ MS Windows only
- 😊 available free software
- ☹️ lack of experience
- 😊 curious students
- ☹️ unmotivated teachers



# One simple solution: Moodle

- free open-source CMS software
- works on all platforms
- large, growing community
- on- and off-line
- available in 75 languages



# Moodle

- created in 1999 by Martin Dougiamas in Perth (Australia)
- currently in **version 1.9**
- 43,000 Web portal with 2,000,000 users
- Quiz → Ttest
- 17,000,000+ stored questions
- **IMS QTI**
- Portal for on-line assessment

# Problems

- security of items
  - dynamics of item presentation
  - diversity of software and hardware
  - computer illiteracy
- 
- solution: Do it off-line!

# Test download

Course: Kurs za organizatore e-testiranja - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://ab.phy.bg.ac.yu/moodle/course/view.php?id=16#section-0

Getting Started Latest Headlines

## Kurs za organizatore e-testiranja

You are logged in as [Srdjan Verbić \(Logout\)](#)

SePP ▶ org1

Switch role to... Turn editing on

### People

Participants

### Activities

Forums  
Resources

### Search Forums

Go  
Advanced search

### Administration

Turn editing on  
Settings  
Assign roles  
Groups  
Backup  
Restore  
Import  
Reset  
Reports  
Questions  
Scales  
Files  
Grades  
Unenrol me from org1

### Topic outline

- Svi fajlovi za test
- Podsetnik (procedura testiranja)
- Forum za organizatore e-testiranja
- Rezime instalacije glavnog testa
- Brzina

1	<input type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
4	<input type="checkbox"/>
5	<input type="checkbox"/>
6	<input type="checkbox"/>
7	<input type="checkbox"/>
8	<input type="checkbox"/>
9	<input type="checkbox"/>
10	<input type="checkbox"/>

### Messages

No messages waiting  
[Messages...](#)

### Latest News

[Add a new topic...](#)

31 Dec, 10:23  
Srdjan Verbić  
Srećna Nova godina [more...](#)

3 Dec, 12:10  
Srdjan Verbić  
najava rezultata PISA testa [more...](#)

19 Nov, 13:40  
Srdjan Verbić  
testovi i podsetnik [more...](#)

17 Nov, 19:56  
Slavoljub Mitić  
Testiranje [more...](#)

15 Nov, 23:22  
Dragan Janković  
Pokretanje probnog testa preko učenickih naloga [more...](#)

[Older topics ...](#)

### Upcoming Events

# The first pilot in May 2007

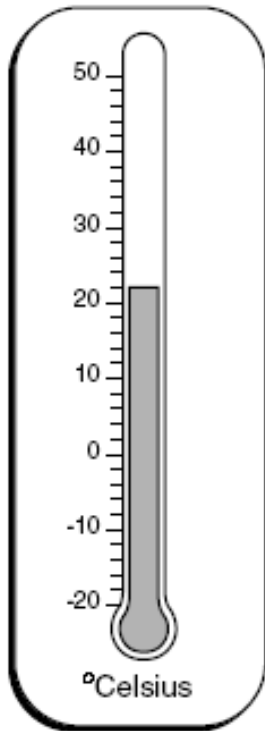
- target group: primary school, grade 4
- subject: Nature & Society
- objectives:
  - testing compatibility of P&P and CBA
  - measuring item response times
  - testing computer literacy (diacritical signs)
  - looking for common technical problems



# Some results

What temperature this thermometer shows?

Answer: \_\_\_\_\_

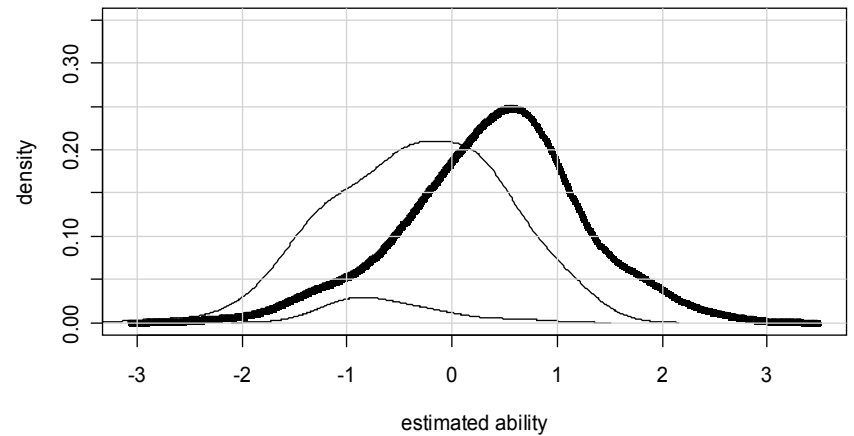
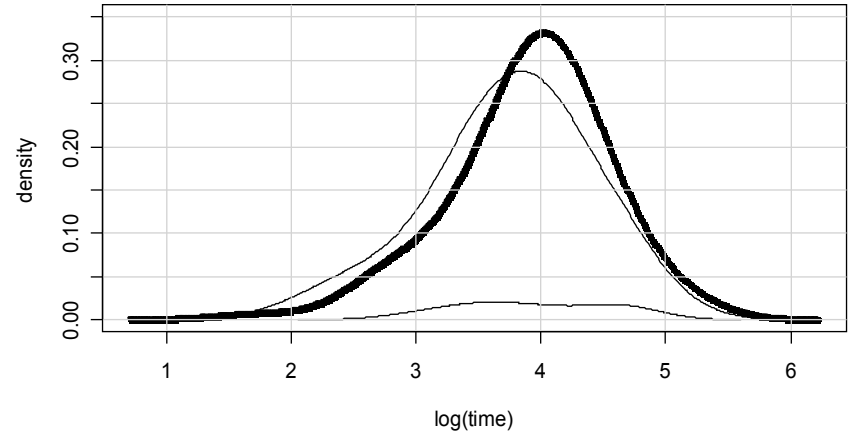
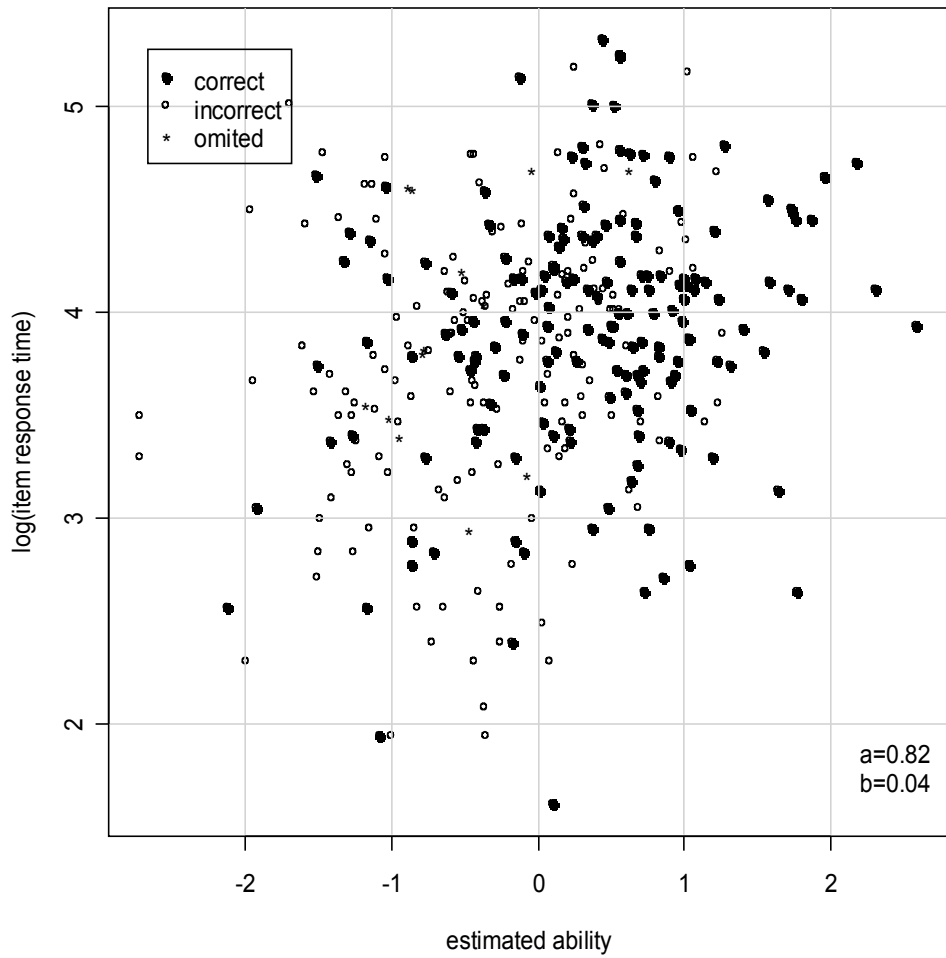


<u>code</u>	<u>n</u>	<u>p-val.</u>	<u>corr.</u>	<u>time</u>	<u>se</u>
0	159	46.2	-0.22	42	3
<b>1</b>	<b>170</b>	<b>49.4</b>	<b>0.29</b>	<b>50</b>	<b>3</b>
9	15	4.4	-0.18	51	9



# Analysis

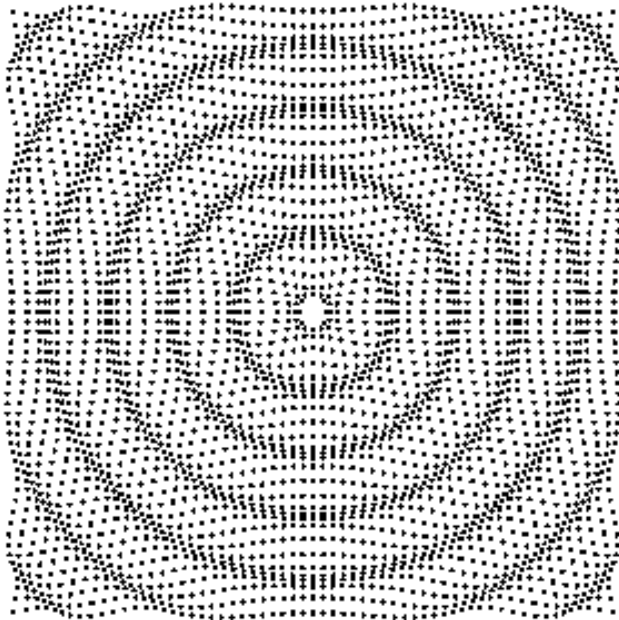
Item #24



# Some opportunities

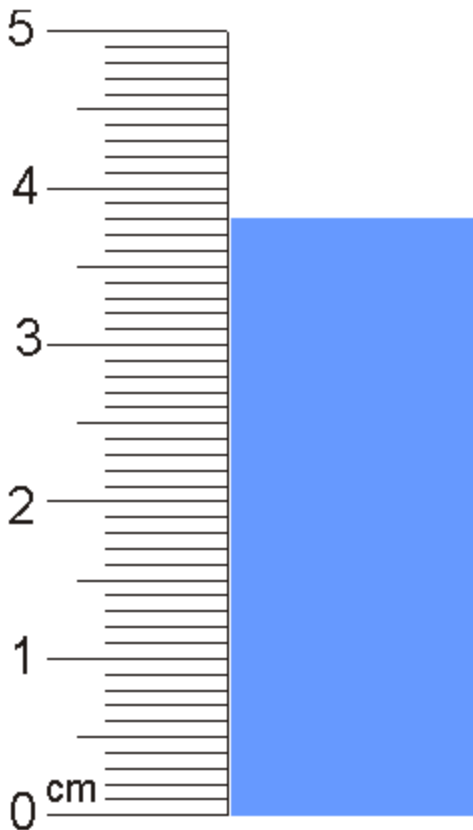
- raising motivation of students at low-stake examinations
- new tool for identifying bad items
- identifying odd testing behavior
- measuring item efficiency (information/time)
- new item types (more convenient for higher cognitive skills)

# Which natural phenomenon is presented in this animation?



- matter circulation
- reflection
- radiation
- wave

Water level in a narrow channel presented on the screen is quickly changing. Value of water level can be presented as  $4.7 \pm \underline{\hspace{1cm}}$  cm. What is the missing value?



- 0.05 cm
- 0.1 cm
- 0.2 cm
- 0.4 cm

# What is frequency of the faucet dripping presented on the screen?



Note: Press the space bar to start the stopwatch.

Answer: \_\_\_\_\_ Hz

# Possible co-operation

- developing new types of items
- creating and piloting new items
- developing of interoperable itembank
- ...

# If you want to find out more about SePP: <http://sepp.phy.bg.ac.yu/moodle>

Sistem za elektronsko procenjivanje učeničkih postignuća - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address [http://sepp.phy.bg.ac.yu/moodle/index.php?lang=sr\\_lt\\_utf8](http://sepp.phy.bg.ac.yu/moodle/index.php?lang=sr_lt_utf8) Go Links

## Sistem za elektronsko procenjivanje učeničkih postignuća

Prijavljeni ste kao Srdjan Verbić (Odjava)

Srpski (sr\_lt)

### Aktivni korisnici

(poslednjih 5 minuta)

- Srdjan Verbić
- Stevan Davidović

### Poruke

Nema poruka na čekanju  
Poruke...

### Glavni meni

- Radionica za test iz Fizike
- SePP novosti
- poseban forum
- Rečnik termina
- Vaše sugestije: Šta dalje
- Prva verzija on-line banke zadataka
- Osnovne informacije o e-testiranju iz Fizike

### e-Testiranje u OŠ "Đura Jakšić", Kragujevac





### Seminari za organizatore e-testiranja iz Fizike će biti održani 10. novembra u Beogradu (u osnovnoj školi "Vojvoda Radomir Putnik") i 17. novembra u Ivanjici (u osnovnoj školi "Milinko Kušić").

Ako ste zainteresovani da se testiranje obavi i kod vas u školi, javite se što pre na [e-seminari@ceo.edu.yu](mailto:e-seminari@ceo.edu.yu).

- primer test 1/2
- primer test 2/2
- primer test, Fizika 8. razred
- Primer-test: Priroda i društvo, 4. razred

### SePP novosti

[Dodajte novu temu](#)

### Ispisivanje iz ovog foruma



Uključite uređivanje

Pred vama je Web portal za razvoj sistema za elektronsko procenjivanje učeničkih postignuća. Projekat se realizuje kao deo redovnih aktivnosti Zavoda za vrednovanje kvaliteta obrazovanja i vaspitanja.

Želja nam je da u 2006. i 2007. godini napravimo što bolju mrežu saradnika sa ciljem da u narednih pet godina razvijemo potpuno funkcionalan sistem za elektronsko procenjivanje znanja sa pouzdanom on-line bankom zadataka i velikim brojem dobro obučениh korisnika širom Srbije.

### Nastavak rada na SePP-u

napisao/la Srdjan Verbić - Thursday, 6. September 2007., 01:34

Pošto je eksperiment sa četvrtacima i e-testovima uspeo (uskoro ćete videti i detalje), za ovu jesen smo planirali rad sa starijim učenicima: **Fizika, 8. razred**. Ne bojte se, to vas, učitelje, ne isključuje iz učešća u projektu. I dalje ima mnogo toga što zajednički možemo da uradimo. Za oktobar smo planirali seminar za obuku organizatora i administratora e-testiranja. Ako znate nekog od kolega fizičara ili informatičara koje bi ovo interesovalo, recite im da se jave. Ako, međutim,

Internet

# IMS QTI

- The IMS Question and Test Interoperability Specification (**QTI**) defines an **XML** language for interchanging questions and assessments between different systems.
- QTI defines structures of questions, sections, assessments and results.
- The XML binding is widely used for exchanging questions between different authoring tools and by publishers.
- The assessment and results parts of the specification are less widely used.