

Notes on Tempus project
"Network Education at Faculties
of Sciences in Serbia" and
advices on how to record the
talking heads

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Network:

- ◆ Faculty of Science
University of Novi Sad
- ◆ Faculty of Mathematics
University of Belgrade
- ◆ Faculty of Science
University of Kragujevac
- ◆ Faculty of Science
University of Niš

Network education at Faculties of Science in Serbia

- ◆ Tempus Structural and Complementary Measures SCM C036A06
- ◆ Project objective:
To contribute to the actual changes in high education in Serbia, by improving specific contemporary aspects of teaching, communication and studying possibilities.



Project partners:

EU partners:

- ◆ University Mateja Bela, Faculty of Natural Sciences, Banska Bystrica, Slovakia (Grant holder)
- ◆ Lappeenranta Technical University, Finland
- ◆ University of Oviedo, Spain



Partners from West Balcan Countries (Serbia)

- ◆ University of Novi Sad (coordinating institution)
- ◆ University of Belgrade
- ◆ University of Kragujevac
- ◆ University of Niš



- ◆ Duration: 1 year
15 June 2007 – 14. June 2008
- ◆ Budget 117,015.00 Euro



Tempus SCM project

- ◆ OUTCOME 1
Establishing Internet based network framework among faculties of sciences in Serbia.
- ◆ OUTCOME 2
Preparing joint courses for all universities in Serbia (about 10 in this pilot phase).
- ◆ OUTCOME 3
Preparing Internet based network framework for joint courses EU - Serbia.



Main activities

- ❖ Training course in Novi Sad
- ❖ Decision about courses
- ❖ Training visit of teachers from Serbia to Slovakia
- ❖ Preparation of courses and of teaching material and implementation of courses
- ❖ Training visit of teachers from Serbia to Spain
- ❖ Training visit of teachers from Serbia to Finland



Transfer of good practice:

LUT, Finland:

- ◆ **Teaching Mathematical Modelling National Network Project**
- ◆ Participating institutions
 - Tampere University of Technology
 - Helsinki University of Technology
 - Lappeenranta Univ. of Technology
 - University of Helsinki
 - University of Joensuu
 - University of Jyväskylä
 - University of Kuopio
 - University of Oulu
 - University of Tampere
 - Centre for Scientific Computing

- ◆ University of Oviedo, Spain belongs to Group 9 of Spanish universities, which have joint an Internet-based study programmes.
- ◆ Faculty of Sciences and Mathematics, University Matej Bel Banska Bystrica have developed teaching and communication with students through Moodle.

Requirements:

- ◆ 4 video cameras (with microphones and tripods).
- ◆ Software for making internet presentations (Microsoft producer or Adobe premier,...).
- ◆ At each university computer specialist trained to technically prepare courses.

- ◆ Teachers should be trained for some basics methods on preparing lectures for Web.
- ◆ Moodle platform at the university.
- ◆ Teachers and students should learn basic elements of Moodle (or other similar course management system).

Methodology of preparing courses

- ◆ Introductory lectures for every course.
Mixed video and power point presentations.
- ◆ Prepared material for every lecture:
power point presentation and written teaching material (text books).
- ◆ Student from one university can chose a course from another university.

- ◆ Student can access the course material through Web.
- ◆ Communication teacher-students and students-students is done by Moodle as well as by e-mail, forums, chats etc.

- ◆ Courses from higher years of studies are chosen:
 - Smaller number of students in each center.
 - Lack of teachers for specialized courses.
 - Students of higher years are more familiar with communication through computer.

Web site:

[Network education of faculties of science in Serbia - Tempus SM SCM-C024B06-2006 \(RS\)](#)

◆ **Example:**

[Coding and information theory](#)

Open questions:

- ◆ Formal aspects (recognition of courses chosen at other university).
- ◆ Distance knowledge evaluation.

Practical question (in Serbia):

- ◆ Does every student has a computer
OR
- ◆ whether there are computers at the department for students' disposal?

Student questionnaire (for students on first year of studies at related 4 universities).

Examples of questions:

- Do you have your own computer?
- Do you have computer at your disposal at the department?
- Do you have your e-mail address?
- Do you already have communication with some of your teachers through internet?
- What do you think about distance learning?
- What do you think about evaluation of knowledge through internet?

◆ At University of Novi Sad (Computer Science) 100% of students have their own computer, 100% of them had communication with teachers through internet , etc.

◆ At University of Kragujevac 69.57% have their own computer, 47.83% can use computer at the department, 0% had communication with teachers through internet.

- ◆ The idea is that students from other universities can attend courses developed at University of Novi Sad.
- ◆ Not all students at other universities have their own computers and departments do not have enough computer classrooms.

Advices on how to record the talking heads

Guidelines-lectures

- ◆ Lecturer should use slides or digital presentation, like PowerPoint.
Blackboard should be avoided.
- ◆ Pure (static) PPT slides should be used
 - Better not (animated) gifs, movies (links to additional materials should be provided instead)
- ◆ Each slide should have name and number.
- ◆ All material should be ready before the video lecture.

Guidelines-lectures (cont.)

- ◆ Slides should be shown in order and never back (if some slide should be repeated, then it should be repeated in the presentation).
- ◆ Each slide should be shown long enough so that students have time to go through it's content.
- ◆ Questions that students make should be repeated.

Guidelines-lectures (end.)

- ◆ Lecturer should look to the audience and not to the slides
- ◆ Should be passionate (no talking heads)
- ◆ Value should be added (i.e., not just read the slides).

Guidelines - cameraman

- ◆ Digital format for shooting the video, dv, should be used
- ◆ Good microphones should be used.
- ◆ They should be tested before shooting.
- ◆ Time stamp should be made every time slide changes.
- ◆ Plastic transparencies should be scanned as gif-format and added later to the slideshow.
- ◆ Data file of the cassette for archiving purposes should be made.

Options: studio vs. lecture hall

Studio

- ◆ Quiet
- ◆ Lightning is easy to adjust
- ◆ Steady shooting
- ◆ No audience
- ◆ Might start to look like weather forecast

Lecture hall

- ◆ Noisy, due echoes and audience
- ◆ Lightning might be problematic
- ◆ Living situation
- ◆ Audience
- ◆ More like 'real' teaching experience

Important things not to forget

- ◆ Agree beforehand some signal what cameraman shows to the lecturer when tape starts to end.
- ◆ Make sure you have rights to use video material, copyrights.
- ◆ Charge batteries beforehand both for camera and for wireless microphones.
- ◆ Reserve extra tapes in case lecturer does not want to stop.

Some things to remember

- ◆ Agree beforehand some signal what cameraman shows to the lecturer when tape starts to end.
- ◆ Make sure you have rights to use video material, copyrights.
- ◆ Charge batteries beforehand both for camera and for wireless microphones.
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Thank you for your attention!

