



Co-funded by the  
Erasmus+ Programme  
of the European Union

**Establishing Modern Master-level Studies in Information Systems  
561592-EPP-1-2015-1- FR-EPPKA2-CBHE-JP**

**WP3**

**3.1. Pilot teaching MSc**

**Piloting Report of the MASTIS course  
Management of IS Projects (IS PM)  
Kherson State University**

## 1. Please provide shot description

The MASTIS course “Management of Information Systems Projects” (IS PM) was organised in pilot format of the master's program "Quality management of electronic educational resources". The course was conducted from 05.02.2018 to 28.05.2018 for 15 students of masters of specialties "Computer Science and Informatics Technology" and "Software Engineering".

Lectures were carried by Associate Professor H.Kravtsov and the practical and laboratory part of the course was carried by the senior teacher O.Hniedkova.

15 students passed this course using materials developed by ERASMUS+ MASTIS consortium and by teachers of Kherson State University.

## 2. How were the courses delivered?

|                                                          |                                                                                   |
|----------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Who led the Piloting of the course</b>                | Hennadiy Kravtsov (KSU)                                                           |
| <b>Who were the lecturers who delivered the course</b>   | Hennadiy Kravtsov (KSU)<br>Olha Hniedkova (KSU)                                   |
| <b>What was the Piloting period</b>                      | 05/02/2018 – 28/05/2018                                                           |
| <b>How many students were enrolled and who were they</b> | 15 Master students<br>of Informatics and Program engineers<br>(1st year students) |

## 3. Please provide a table which containing the names of the students who were involved in the piloting of the IDP courses

| #  | Name              | Result of evaluation |
|----|-------------------|----------------------|
| 1. | HANNA BAKHMACH    | A                    |
| 2. | DMYTRO DROZD      | B                    |
| 3. | NADIYA GUBSKA     | C                    |
| 4. | OLEKSANDR KARANDA | B                    |
| 5. | ARAM KASPAROV     | A                    |
| 6. | MYKOLA KOROTAEV   | B                    |

|     |                     |   |
|-----|---------------------|---|
| 7.  | ANASTASIYA KUTSEVOL | A |
| 8.  | ANDRIY LUBCHUK      | A |
| 9.  | MARYNA MARCHUK      | C |
| 10. | DENYS MELNYK        | D |
| 11. | IHOR MYKOLYUK       | B |
| 12. | EVHEN SAVCHENKO     | D |
| 13. | OLEKSANDR SNIGOVYY  | A |
| 14. | KATERYNA TARLOVSKA  | C |
| 15. | OLEKSANDR SHUMEYKO  | C |

#### 4. What were the E-learning materials used?

- Provide links to the Platform used to pilot the IDP courses

<http://dls.ksu.kherson.ua/dls/Library/Catalog.aspx?section=6a1b1e2b-bacb-45cb-bdcc-561d4460515a>

**Kherson Virtual University**

Search...

Welcome, Геннадий Михайлович  
Profile / Exit

For Entrant For Student For Tutor For All

Site → e-Library → Quality management of electronic educational resources

**Уведомлення**  
У вас єсть 3 заявки на поступление в группы обучения. Перейти к заявкам

**e-Library**

Section Chosed: **Quality management of electronic educational resources**

The list of publications of electronic library is below submitted. Choose the publication and press "Go to publication" to look a table of contents.

| Title                                                               | Author(s)    | Date of the publication     |
|---------------------------------------------------------------------|--------------|-----------------------------|
| Управління якістю електронних освітніх ресурсів (лекції)            | Кравцов Г.М. | 2nd february 2017, 12:15 AM |
| Управління якістю електронних освітніх ресурсів (практичні заняття) | Кравцов Г.М. | today, 2:07 PM              |
| Управління якістю електронних освітніх ресурсів (робоча програма)   | Кравцов Г.М. | 2nd february 2017, 12:24 AM |

Go to publication

**More Commands**

**Voting**  
How easy is it to use the system "Kherson Virtual University"?

|    |    |
|----|----|
| 1  | 57 |
| 2  | 16 |
| 3  | 21 |
| 4  | 14 |
| 5  | 38 |
| 6  | 27 |
| 7  | 43 |
| 8  | 41 |
| 9  | 39 |
| 10 | 97 |

In Total Votes: 393  
Results...

**Your calendar**  
June 2018

|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| Su | Mo | Tu | We | Th | Fr | Sa |
|    |    |    |    |    | 1  | 2  |
| 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

Add event

Figure 1 - E-learning Materials for the course “Quality management of electronic educational resources projects”

**4.1. Please explain very briefly how these were made available to students**

The course was posted at the e-learning portal of KSU (<http://dls.ksu.ks.ua/dls/>). This portal is available for all KSU students (to get access to distance course students use their personal logins and passwords).

**5. How was delivery organised?**

|                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Level of course unit</b>                                       | Masters level                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Number of ECTS credits allocated</b>                           | <b>Credit weighting:</b> 3 ECTS<br><b>Lecture hours:</b> 20<br><b>Workshop hours:</b> 16<br><b>Independent study hours:</b> 54<br><b>Examination (final test):</b> 2<br><b>Total Student Effort:</b> 90 hours                                                                                                                                                                                                                                              |
| <b>What kind of the training methods and activities were used</b> | A lot of facilitation techniques were used within training which includes project briefings; peer learning; self and peer assessment; group discussions, reviews, and critiques; working on live projects; case study discussions and practical implementation of some of the topics by trainees. The multitude of training methodologies was utilized in order to make sure all the participants get the whole concepts and they practice what they learn |

**5.1. Course content**

List of the main topics of the course.

**Topic 1. The quality management system for electronic educational resources (EER)**

1. Quality management for EER as a component of project management
2. Modeling of the quality of electronic information and educational resources as a subject of research

3. Quality management EER as part of the strategic plan for the introduction of information systems and technologies in the concept of university development
4. EER Quality Management System at the University

**Practical component:** Using MindManager from Mindjet as a tool for ensure that a coherent concept, plan or project is displayed in a single dynamic view

### **Topic 2. International EER Standards**

1. The role of standards in quality management EER.
2. Quality management system based on ISO standard series 9000/9001.
3. IMS standard specifications. Technological requirements of the standard SCORM.

**Practical component:** Forum, group discussions, reviews

### **Topic 3. Indicators and quality criteria of EER**

1. Classification of types of EER. Types of EER in distance learning systems.
2. Requirements for the means of ICT for educational purposes.
3. Features of elaboration of criteria for EER quality assessment.
4. Parametrization of indicators and EER evaluation methodology.
5. Quality criteria for EER.
6. Promising ways to evaluate the quality of cloud-oriented educational systems.

**Practical component:** Group method analysis, scaling method

### **Topic 4. EER evaluation. Expert evaluation of EER**

1. Methods and criteria for selecting experts
2. Delphi method of organizing the work of the expert commission for the assessment of the quality of the EER
3. Tasks of the expert commission
4. Functions of the expert commission in the quality management system of the EAU at the university
5. Methods for assessing the coherence of the work of experts

**Practical component:** Delphi method, the multiple group method of factor analysis, reviews

### **Topic 5. Services of the quality management system EER**

1. Quality Monitoring Service EER
2. EER Quality Assessment Service
3. Service of maintenance and modernization of EER
4. Organization of feedback with EER users

**Practical component:** Project reporting documentation development

### **Topic 6. Method of expert evaluations of quality EER**

1. Aims and tasks of the examination
2. Objects and parameters of EER evaluation
3. Stages of expertise
4. Program-technological, psychological-pedagogical and ergonomic examination
5. Application of expertise in pedagogical experiment

**Practical component:** Method of expert evaluations, project reporting documentation development, statistical processing

### **Topic 7. Test method EER. Feedback with users**

1. Objectives and tasks of the method of testing EER
2. Organization of the experimental group of users of the EEA and the method of using EER assessment by users by the method of testing.
3. The role of feedback in the quality management system of EER

**Practical component:** Test method, survey method, statistical processing

### **Topic 8. Organization of quality monitoring of EER**

1. Organization of work of the quality monitoring service EER
2. Organization of the work of the quality assessment service EER
3. Automation of EER quality assessment

**Practical component:** Forum, group discussions, reviews, writing essay

### **Topic 9. Methods and technologies for exploring and improving the EER quality**

1. Management of the quality of EER development
2. EER life cycle

### 3. Organization of work of maintenance and modernization of EER **Practical component:** Teamwork, group method analysis

#### 6. Online support offered by teachers during piloting

During the piloting process, students could contact tutors with questions via Telegram channel (Fig. 2) e-mail and internal forum and chat of KSU e-learning portal “Kherson Virtual University”.

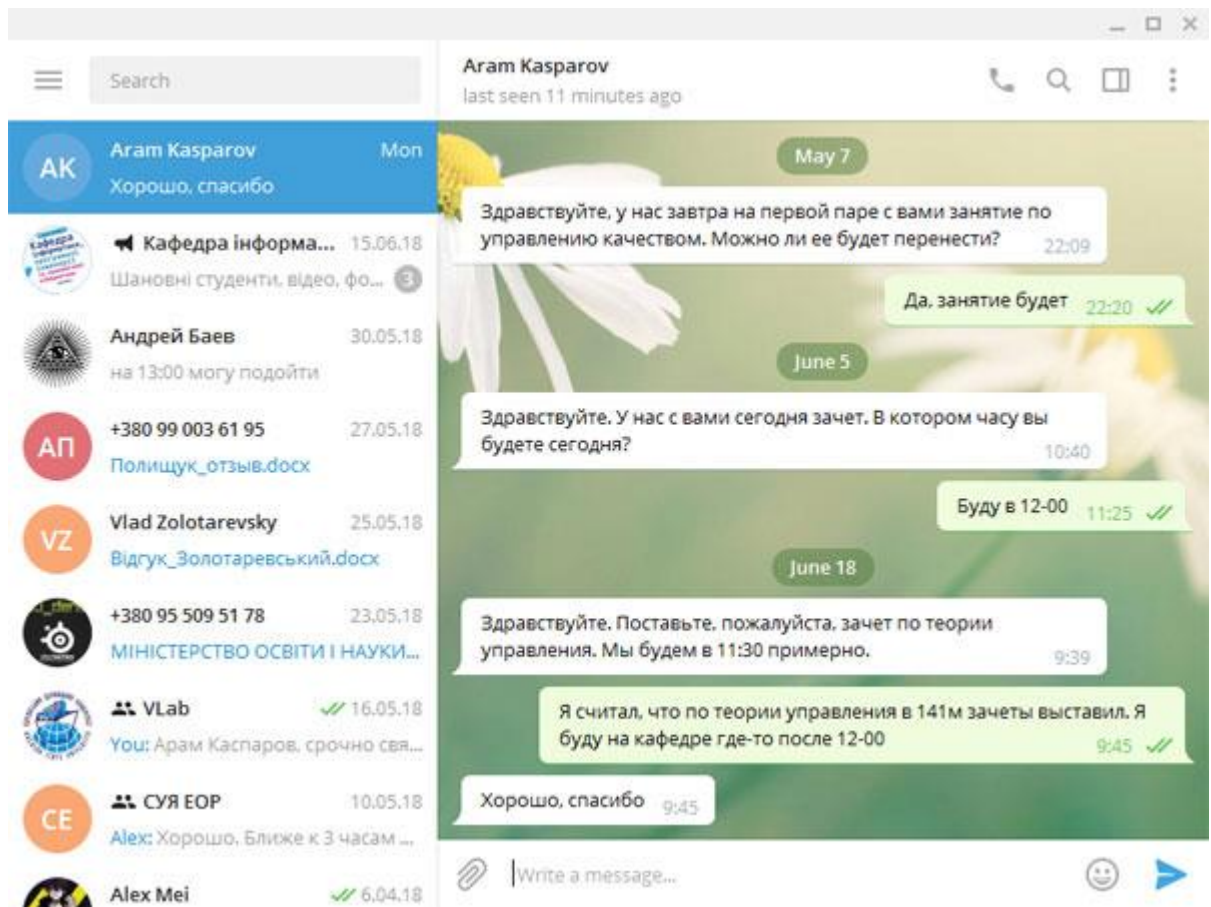


Figure 2 – Channel for communication via Telegram

*The forum module* of KSU e-learning portal is an activity where students and teachers can exchange ideas by posting comments. Forum posts can be graded by the teacher or other students. The forum contributed significantly to successful

communication and community building in an online environment during the piloting period.

The tutor set-up discussion streams for students:

1. Discussions & questions forum. It was used for encouraging discussion of leadership and project management issues.

**Kherson Virtual University**

Welcome, Геннадий Михайлович  
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For Entrant For Student For Tutor For All

Site → Forum → Section

Уведомления  
• У вас есть 3 заявки на поступление в группы обучения. Перейти к заявкам

**Section of a forum «Management of Information Systems Projects»**

| Topic / Author                                                                                     | Last message                                    | Answers | Views | Command |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------|---------|-------|---------|
| Quality management as a component of project management<br>Кравцов Геннадий                        | From Кравцов Геннадий (20th may 2018, 2:47 PM)  | 0       | 31    |         |
| Analysis of the quality evaluation results of electronic educational resources<br>Кравцов Геннадий | From Кравцов Геннадий (9th april 2018, 2:57 PM) | 0       | 18    |         |

**More Commands**

- Mark all topics as readed
- Start new topic
- Search forum
- Search in this section
- Go back to forum

**Voting**  
Did you participate in distance learning?  
I'm not interested 37  
No, but I want to try 133  
Yes, in the role of tutor (student) 122  
In Total Votes: 292  
[Results...](#)

**Your calendar**  
June 2018  
Su Mo Tu We Th Fr Sa  
3 4 5 6 7 8 9  
10 11 12 13 14 15 16  
17 18 19 20 21 22 23  
24 25 26 27 28 29 30  
[Add event](#)

Figure 3 – Discussions & Questions Forum

The chat activity module allowed participants to have a real-time synchronous discussion in e-learning course. This was a useful way to get a different understanding of each other and the topic being discussed.

The mode of using a chat room is quite different from the asynchronous forums. Chat has an advantage over a forum in that it takes place in real time. During piloting period it was especially beneficial when the group chatting was not able to meet face to face. The chat regular meetings enabled students to share experiences with others on the same course.



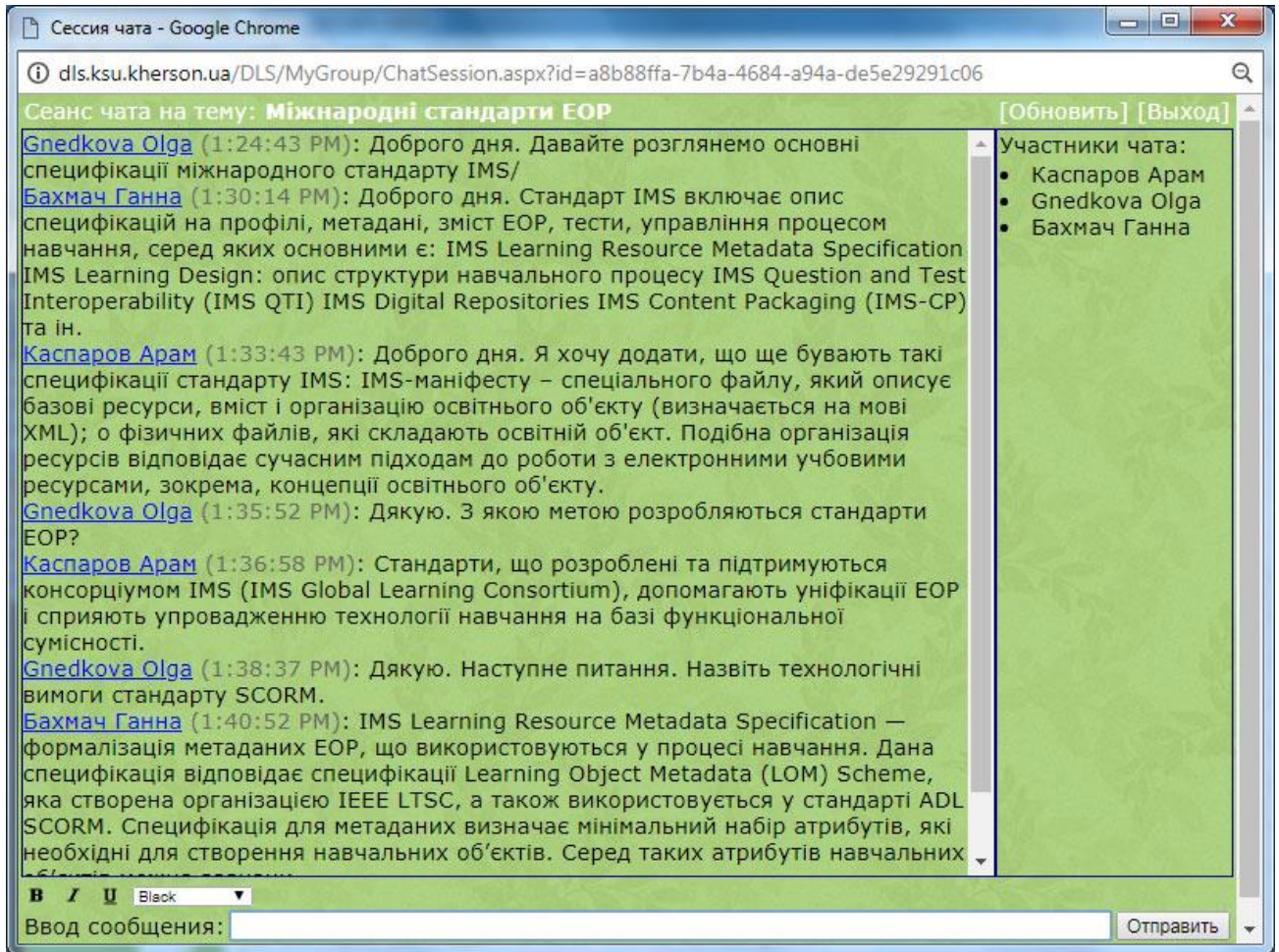


Figure 4 – The Chat Activity Module

## 7. Evaluation of student knowledge and competences

An assessment regime allows students to develop skills and knowledge and apply them through a formative/summative coursework assessment. All learning outcomes are assessed in relation to differing substantive areas in both course-works and examination. The examination tests a range of the substantive areas and the skills relevant. Progress and learning was assessed not only at the end but throughout the entire course. Students' grades were determined by individual and group assignments:

1. Current assessment of group work – 40%
2. Project presentation – 20%
3. Final assessment (individual test) – 40%


Students' results:

| ECTS | Percentage |
|------|------------|
| A    | 33,3%      |
| B    | 26,7%      |
| C    | 26,7%      |
| D    | 13,3%      |
| E    | -          |

### 8. Students' evaluation of the Piloting of the courses

The results of the anonymous questionnaire showed that the most of students put the highest evaluation of the training. They were satisfied with training content, learning materials, teaching methods, atmosphere. Participants mentioned that knowledge and skills, which were obtained within training will be used in further professional life.

An example of the questionnaire is given below:



**Students' evaluation on teaching contents, methods and tools**  
Course: Management of IS projects  
Lviv Polytechnic National University

| Evaluation of the quality: "4" - high; "3" - adequate; "2" - average; "1" - low |                                                           |   |   |   |   |
|---------------------------------------------------------------------------------|-----------------------------------------------------------|---|---|---|---|
|                                                                                 | To what extent?                                           | 4 | 3 | 2 | 1 |
| 1                                                                               | Usefulness of studying materials                          |   |   |   |   |
| 2                                                                               | Educational value of assignments                          |   |   |   |   |
| 3                                                                               | Contribution to your knowledge in the subject area        |   |   |   |   |
| 4                                                                               | Overall rating of the course                              |   |   |   |   |
| 5                                                                               | Knowledge of the subject                                  |   |   |   |   |
| 6                                                                               | Methods of evaluating student performance                 |   |   |   |   |
| 7                                                                               | Success in communicating or explaining subject matter     |   |   |   |   |
| 8                                                                               | Preparation for classes                                   |   |   |   |   |
| 9                                                                               | Willingness to help students outside the class            |   |   |   |   |
| 10                                                                              | Clarity of assignments                                    |   |   |   |   |
| 11                                                                              | Administration of class                                   |   |   |   |   |
| 12                                                                              | Case studies on each class theme                          |   |   |   |   |
| 13                                                                              | Proposed readings                                         |   |   |   |   |
| 14                                                                              | Working in group                                          |   |   |   |   |
| 15                                                                              | Presentation of criteria adopted for evaluating workgroup |   |   |   |   |
| 16                                                                              | Overall rating of instructor                              |   |   |   |   |

Very positive aspects of the course

.....

Negative aspects (if any) of the course

.....

Connections with other courses

- o Possible useful integrations with other courses (please specify course and topics):
- .....
- .....
- o Overlaps or useless duplications (if any) with other courses (please specify course and topics):
- .....
- .....

Do you have any specific suggestion to improve contents, teaching method and organization of the course?

.....

.....

Any other observation or suggestion (feel free...)?

.....

.....

Thank you for your collaboration!

The results of the anonymous questionnaire are shown in Fig. 5.

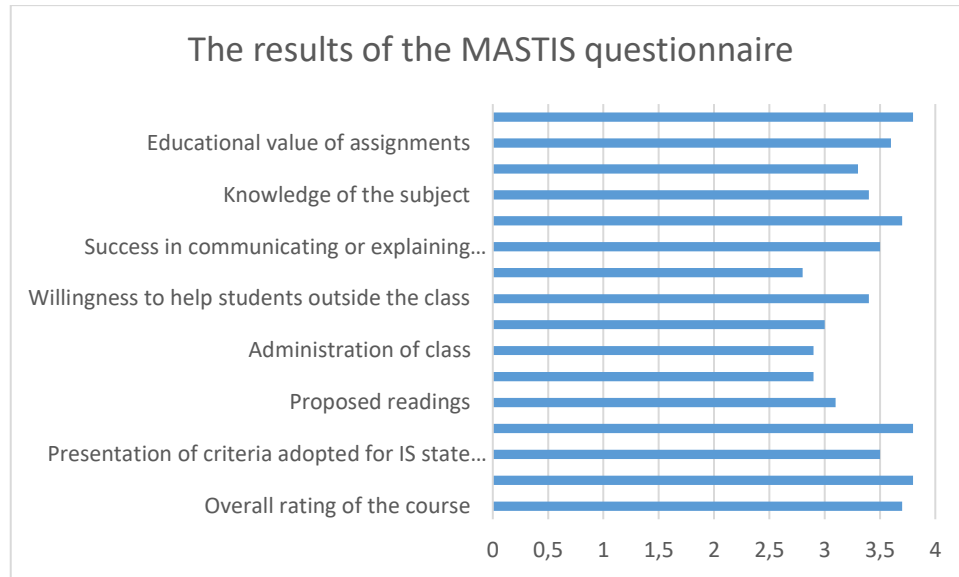


Figure 5 – The results of the MASTIS questionnaire

## 9. Lessons learned from Piloting

In order to enhance the content, structure and mode of delivery of the MASTIS courses we should take into consideration the following recommendations:

- to invite more specialists directly from production to learning process;
- to use as more types of e-learning activities which are available at the e-learning platform.

Based on a students' feedback, we present the following recommendations:

- to use role-playing games in practical and laboratory classes to improve practical skills;
- to use interactive and adaptive program objects in lectures to illustrate theoretical positions.
- to increase the practical skills of using the methods of expert evaluation of the IS state

## **1 Appendices**

Photos of course piloting