

# Creative Classroom Project: Introducing Innovative E-learning Methodologies to Estonian Teachers

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# CONTENT

- „Creative classroom” project
- „Creative classroom” workshops
- The 3<sup>rd</sup> workshop and inquiry-based learning
  - E-tivity WebQuest
- Project results

# CREATIVE CLASSROOM PROJECT

# “CREATIVE CLASSROOM” PROJECT

Program: Erasmus+ *Key Action 2: Strategic Partnerships in the field of education, training and youth*

Consortium:

- BCS Koolitus, Tallinn, Estonian ICT training company
- Tallinn University (TLU), Estonia
- University of Ljubljana (UL), Slovenia
- University of Rijeka (UNIRI), Croatia
- Helsinki Metropolia University of Applied Sciences (MA), Finland

September 2014 – August 2016

# THE MAIN TASKS OF THE PROJECT

- Gathering and interpreting evidence of readiness of the shift to innovative education from the aspect of teachers, students and schools in Estonia
- Designing and delivering up-skilling workshops for Estonian teachers with the combined knowledge from Estonia, Croatia, Slovenia and Finland
- Developing an electronic guidebook of innovative ICT learning and teaching methodologies and tools for an open use in schools Europe-wide
- Organizing dissemination events to showcase and propagate the developed guidebook

# “CREATIVE CLASSROOM” WORKSHOPS

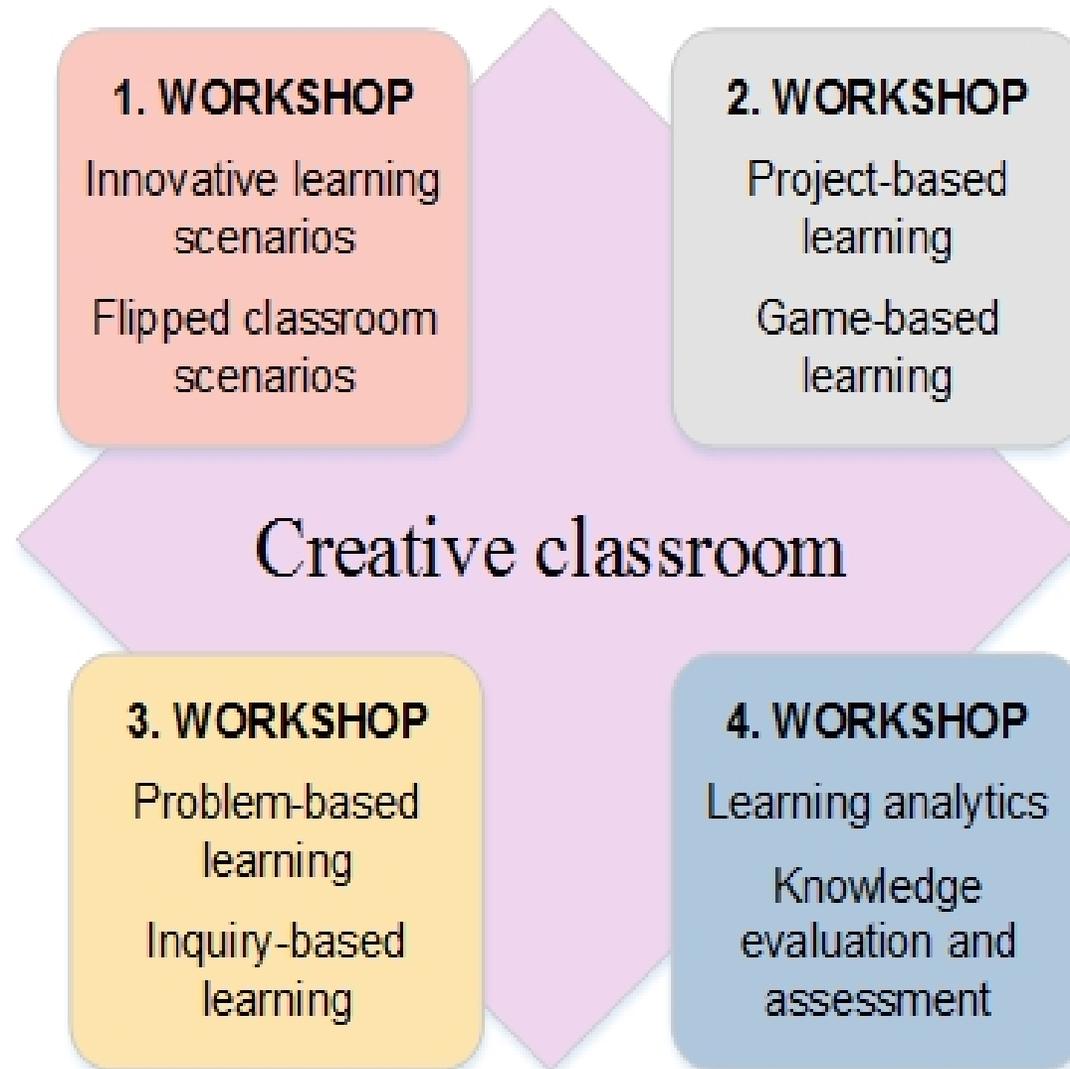
23.8.2016

16th Workshop on Software Engineering, Jahorina

# “CREATIVE CLASSROOM” WORKSHOPS

- Workshops for the focus group of 20 Estonian teachers selected from schools all over Estonia
- The focus group meets four times on two-day workshops to learn and collaborate on the topic of innovative ICT methods and tools in education
- In every workshop two methodologies are introduced with the related ICT tools, methods, and examples of best practice
- Teachers start preparing the lesson guide and continue working on it as homework

# WORKSHOPS' METHODOLOGIES



# “DIGIDIDAKTIKA” COURSE

- „Digididaktika” was created in Eliademy tool
- Eliademy is a platform for instructors to create, share and teach online courses

The screenshot shows the Eliademy course interface. At the top, there is a navigation bar with 'Eliademy', 'My Courses', 'Calendar', and 'Catalog'. A 'Go Premium' button and a user profile icon are on the right. Below the navigation bar is a green banner with the course title 'DIGIDIDAKTIKA' and an Erasmus+ logo. The course is taught by Kai Pata, an instructor with 50 students and a 5-star rating. The main content area is titled 'Digididaktika' and has tabs for 'Content', 'Webinars', 'Tasks', 'Gradebook', 'Discussions', 'Participants', 'Certificate', and 'Settings'. The 'Content' tab is active, showing a list of topics on the left and a detailed view of 'Teema 5: Uurimuslikud õpistsenaariumid komplekssete probleemidega' on the right. The detailed view includes the instructor's name, 'Nataša Hoič-Božič, Ivona Frankovič', and a lecture description: '9:30 - 10:45 Lecture: Introduction to Inquiry based learning (IBL). E-tivities as a framework for facilitating active learning in online environment. Examples of IBL e-tivities'. Below the text is a green banner with the text 'Session 5: INQUIRY BASED LEARNING (IBL) & E-TIVITIES' and the names 'Natasaa Hoic-Bozic & Ivona Frankovic, UNIRI'.

# THE 3<sup>rd</sup> WORKSHOP AND IBL

23.8.2016

16th Workshop on Software Engineering, Jahorina

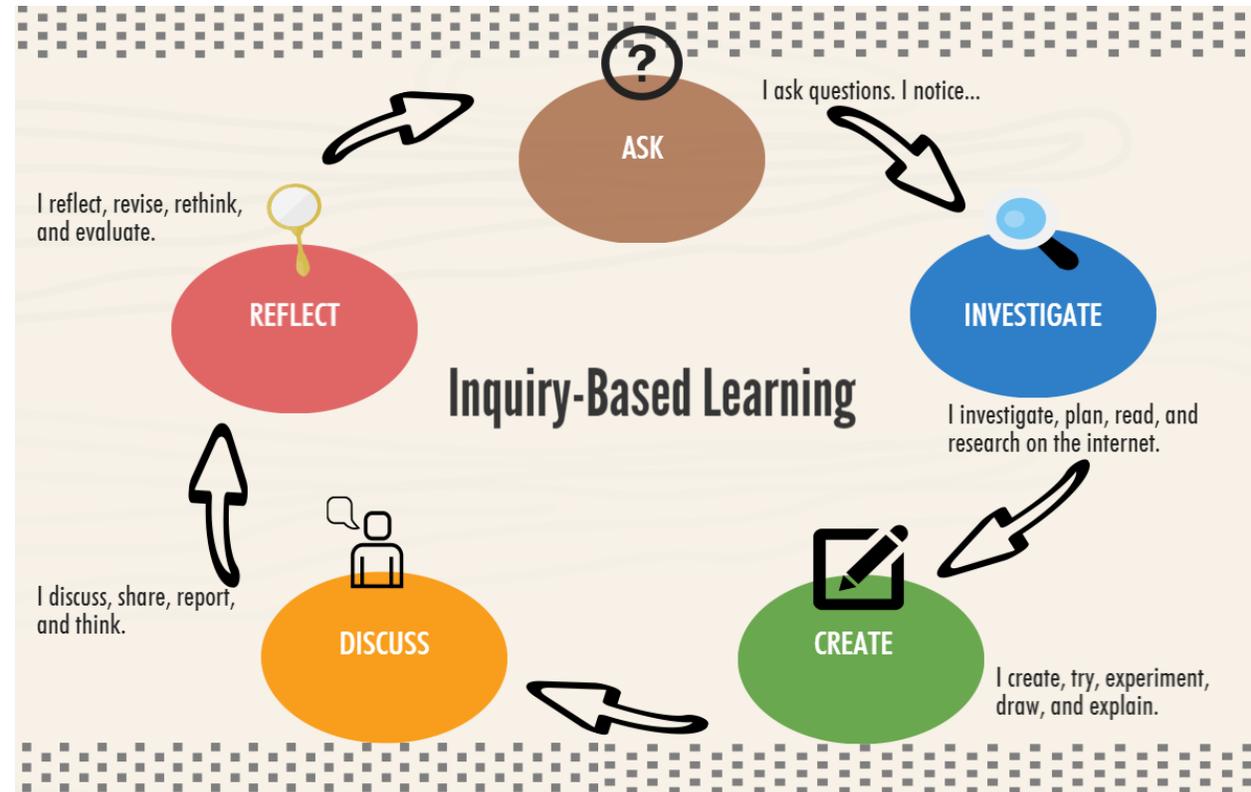
# THE 3<sup>rd</sup> WORKSHOP

- Problem-based learning (PBL) → experts from the Helsinki Metropolia University of Applied Sciences
- Inquiry-based learning approach and e-tivities → experts from the University of Rijeka, Department of Informatics
- Lesson scenario building tool LePlanner → experts from University of Tallinn

# WHAT IS INQUIRY BASED LEARNING?

- IBL is **question-** or **problem-**driven approach to learning based on seeking new knowledge and understanding
- Involves students' performing **investigations** of some sort to address questions or solve problems
- **student-centred** and student-directed approach with **teachers** acting as **facilitators**

# 5 PHASES OF INQUIRY-BASED LEARNING CYCLE



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**Piktochart**  
make information beautiful

Available from:

<http://marsscott.com/teachinglearningandassessments/iste-1-teacher-standard-facilitate-and-inspire-learning-and-creativity/>

# E-TIVITIES

# E-TIVITY - E-LEARNING ACTIVITY

- a term used to describe a framework for facilitating **active learning** in an **online** environment
- involves learners interacting with one another and with the teacher (e-moderator) in an online environment in order to complete a particular task
- '**spark**' - small piece of information, stimulus or challenge provided by teacher at the beginning of e-tivity
- students take part in the e-tivity by responding to the 'spark'
- E-tivities use **Web 2.0 tools** (e. g. Wikispace, Diigo, MindMeister)
- E-tivities can be designed in line with the IBL approach

# E-TIVITY IBL EXAMPLE

- **Webquest**: a group of students would explore Web resources to find out „what is X” and write a summary with definitions and examples
  - X = “inquiry based learning”
  - X = „fruit decomposition”
  - X = „World War II”
  - X = „Estonian history”
  - X = „Croatia”
  - ...

# WEBQUEST: Learning about Croatia

- Group activity: an IBL example e-tivity
  1. Choose collaborators (groups of 3-4 participants)
  2. Look the „spark” – video
  3. Formulate up to 3 inquiry questions
  4. Investigate web resources, use mindmap tool and Diigo
  5. Create wiki
  6. Create blog (follow-up activity)

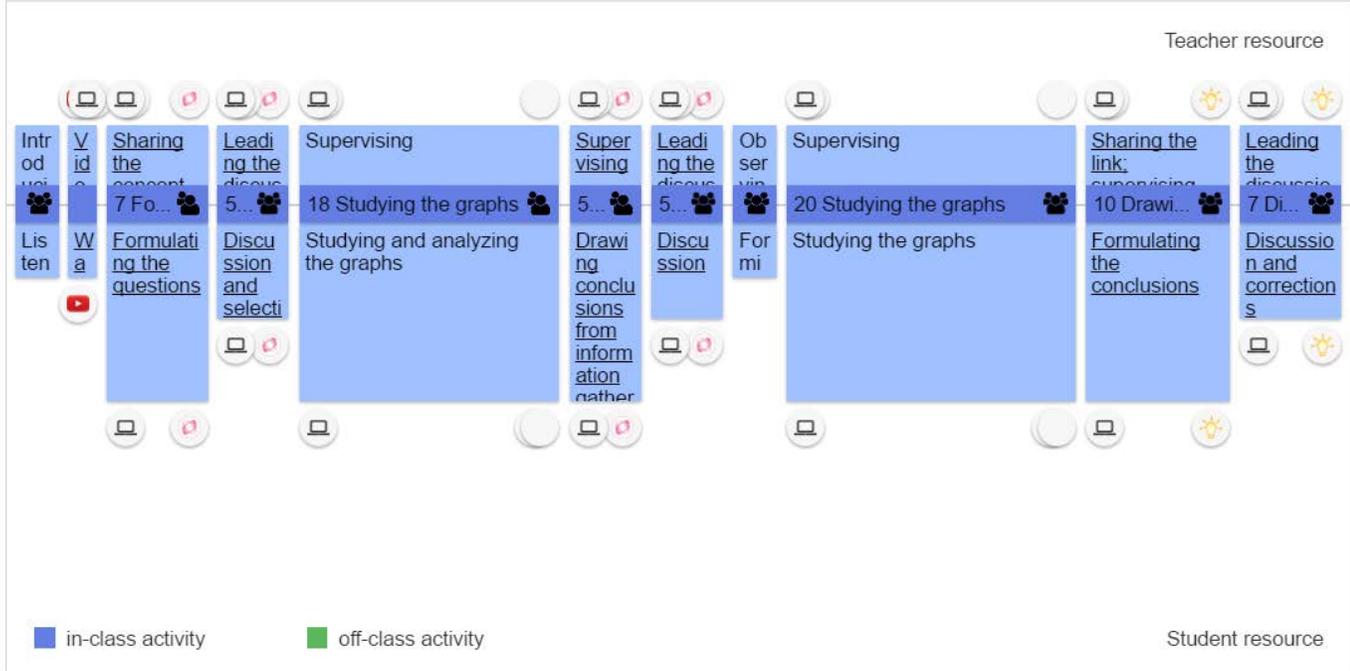
# E-TIVITY DESCRIPTION FORM

Name of IBL e-tivity	WebQuest – Learning about Croatia
Subject and grade	Geography, history, (or general knowledge) ... Could be adapted to different learners
Purpose/Learning outcomes	<p>WebQuest activity engages learners in the use of the WWW in order to complete a task related to the course or some topics. As a collaborative learning activity, WebQuests can be used to focus groups of learners on task while providing a variety of online resources necessary for completing their assignments.</p> <p>Goals:</p> <ul style="list-style-type: none"> <li>• Learners will utilize Web resources to complete a task</li> <li>• Learners will work with their peers to complete a course-related task</li> <li>• Learners will build skills for interacting with other learners in course</li> <li>• Learners will get familiar with several Web 2.0 tools.</li> </ul> <p>During this specific WebQuest, learners will try to found out some facts about Croatia having in mind Croatia as a popular touristic destination.</p>
Collaborative Learning	Groups of 3-5 students
Time required	3 to 5 days (simple version: 1 day)
Tools	<p>- Access to the World Wide Web</p> <p>- Web 2.0 tools:</p> <ul style="list-style-type: none"> <li>• MindMaster or similar tool for brainstorming</li> <li>• Diigo for collecting and organizing bookmarks and other resources</li> <li>• Wikispace for creating wikis as summary</li> <li>• Blog for keeping learning diary with reflections to the learning process</li> </ul>
Spark	<p>Popular short video about Croatia</p> <p><a href="https://www.dropbox.com/s/dkir4n6xd53yt8w/croatia.mp4?dl=0">https://www.dropbox.com/s/dkir4n6xd53yt8w/croatia.mp4?dl=0</a></p> 
Structure/actions	<b>1. Ask</b>

# IBL LEARNING SCENARIO IN LePlanner

**LePlanner** Search scenarios  Log in 

Teacher resource



■ in-class activity ■ off-class activity

Student resource

 **Properties of the graphs of linear functions** [Log in to favorite](#)

Mathematics

# EVALUATION OF THE WORKSHOP

- an anonymous survey at the end of the workshop with a goal to establish in which measure participants were satisfied with the workshop content and instructors
- completed by 14 participants (70% teachers who were enrolled in the project)
- teachers were mostly rather happy or very happy with relevance of the workshop topics, learning materials, e-learning environment Eliademy, competence of lecturers, and training facilities

# PROJECT RESULTS

# LEARNING SCENARIOS

The screenshot shows the LePlanner website interface. At the top, there is a search bar with the text "Search scenarios" and a magnifying glass icon, a "Log in" button, and a UK flag. Below this, the main heading is "#CreativeClassroomCollection (50)". There are four tabs for sorting: "Latest", "Most Viewed", "Top favored", and "Top commented". The first scenario is titled "Countable/uncountable nouns (a problem-based scenario)" and is categorized under "Home economics" and "English". It is by "Creative Classroom", dated "30.05.2016", and has "107" views, "0" likes, and "0" comments. The description reads: "Students try to solve the following problem: why is it that in all the food recipes, some ingredients are specified by their number (e.g. '1 egg') and others are specified by mass or capacity (e.g. a teaspoon of salt, 100g of butter). Course of the task: students put together a 3-4 member research ...". There is an "Open" button with a right arrow. The second scenario is titled "Inquiry-based learning with elements of a project – Indrek Hargla's historical crime fiction series about Melchior the Apothecary" and is categorized under "Geography", "Civic education", "Literature", "Estonian", and "History". It is also by "Creative Classroom".

- Electronic lesson guide book in Estonian and in English, developed in the LePlanner environment
- The collection contains 50 selected learning scenarios prepared by Estonian teachers

<http://beta.leplanner.net/#/tags/CreativeClassroomCollection>

# METHODICAL MATERIALS

CREATING INNOVATIVE LEARNING SCENARIOS



## Project Creative Classroom

### Creative Classroom collection

- Trialogical learning design
- Flipped classroom
- Project-based learning
- Problem-based learning
- Game-based learning
- Mathematics learning game Smart consumer
- Developing and sharing learning scenarios with LePlanner.net
- Creative Classroom scenarios in LePlanner.net



## Triological Learning Design

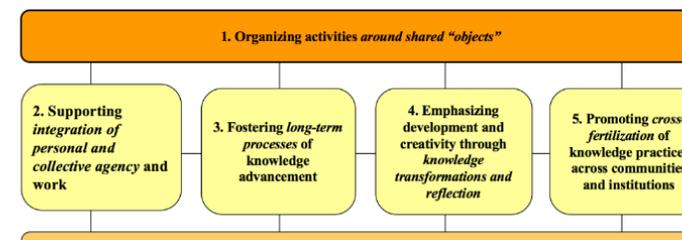
Sami Paavola

The purpose of the trialogical learning design (Paavola & Hakkarainen, 2009; Paavola, 2015) is to focus the learning process on different aspects of how knowledge (known information, skills, attitudes, practices) is born. In the course of learning, joint knowledge is built up and shared among a group or community (organisation). This kind of learning design enables to experience a constant process of development together with concurrent feelings of creativity and success, thereby inspiring one to learn.

Combining digital technologies with traditional learning technologies supports the goals of trialogical learning design: digital tools and resources help to conduct certain knowledge-based activities better, e.g. by assisting with the transmission of knowledge and its maturing from individual learner's knowledge to communal knowledge, all the while enabling it to pass from certain forms of representation and digital vehicles to others.

### Design principles for the trialogical pedagogy

(Paavola & Hakkarainen, 2009; Paavola et al., 2011; Paavola 2015)



About Creative Classroom project

In Estonian

COLLECTION

Creative Classroom scenarios in LePlanner.net

Mathematics learning game Smart consumer

LEARNING RESOURCES

Creative Classroom collection

Creating innovative learning scenarios

Triological Learning Design

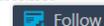
Flipped classroom

Project-based learning

Problem-based learning in task-based and inquiry scenarios

Gamified teaching with digital technology

Developing and sharing learning scenarios with LePlanner.net



Creative Classroom collection, <https://creativeclassroomproject.wordpress.com/>

# CONCLUSION

- The main result of the project is the developed electronic lesson guide book in the LePlanner environment
- The project has provided teachers with a community to exchange ideas and experiences on innovative usage of ICT in teaching practices
- The project's consortium is hoping that the project will be an encouragement for the shift to the 21<sup>st</sup> century education both in Estonia and Europe-wide



# Creative Classroom

Project No. 2014-1-EE01-KA201-000525

[creativeclassroomproject.wordpress.com](http://creativeclassroomproject.wordpress.com)

THANK YOU!



Univerza v Ljubljani

