FLEXIBLE MATHEMATICS CONTENT PREPARATION

TIME2010, Malaga, July 10th, 2010

FLEXIBLE MATHEMATICS CONTENT PREPARATION

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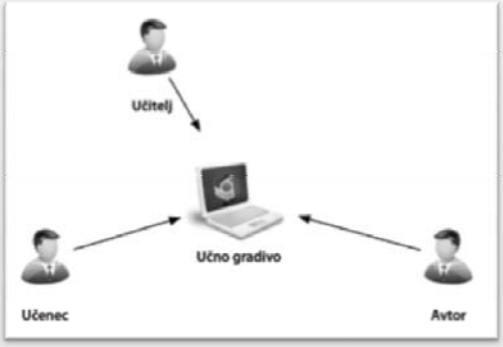
The NAUK research group

- NAUK (advice / study)
  - **NA**predne **U**čne **K**ocke – NAUK
  - Advanced Learning Blocks

NAUK projects

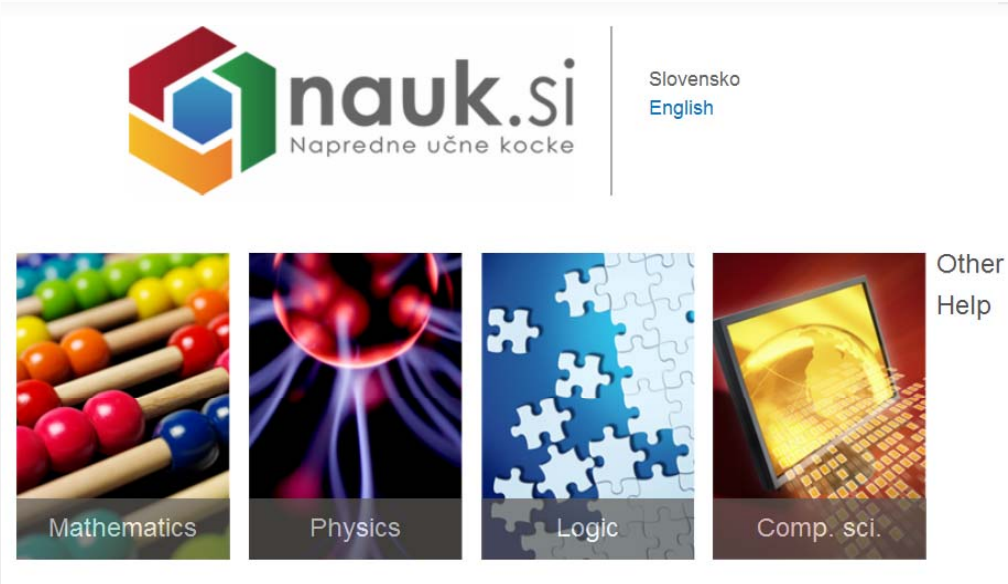
- Aim: to create a computer-powered system for managing and serving e-learning content that will be extremely suitable for teachers.
- Instead of the author-learner relation, we want to introduce the three-way author-teacher-learner relation.



Everything starts with an idea

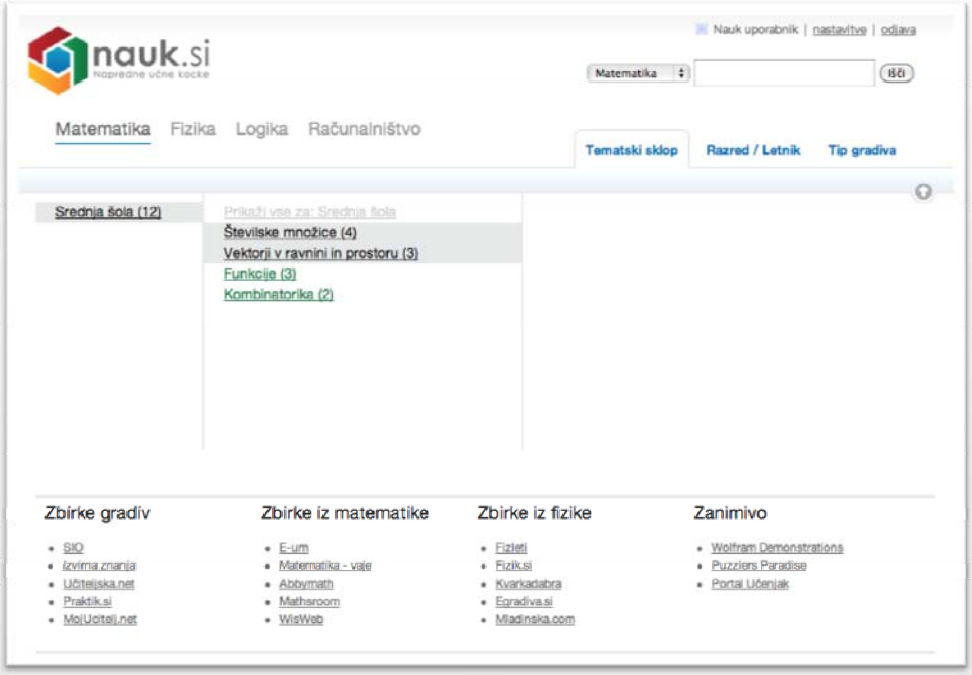
- The teacher should be able to take teaching materials from different online sources, and change and combine them to make a lesson that suits his or her style of teaching and the current situation in the classroom.
  - Using the resulting content in different situations.
  - Different ways of export, that conform to the most important up-to-date standards.

http://www.nauk.si

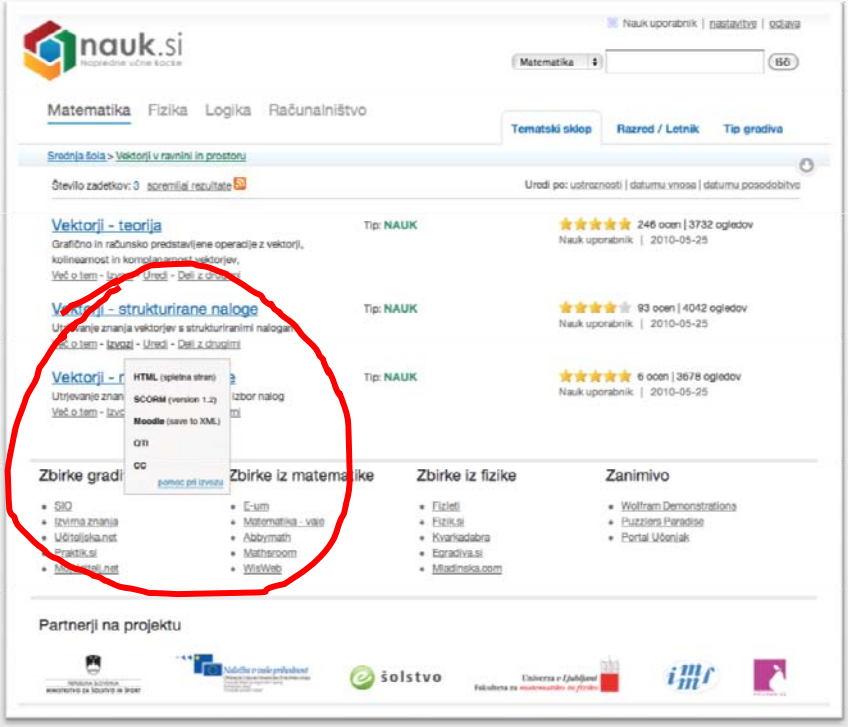


DEMONSTRATION

Browsing through repository

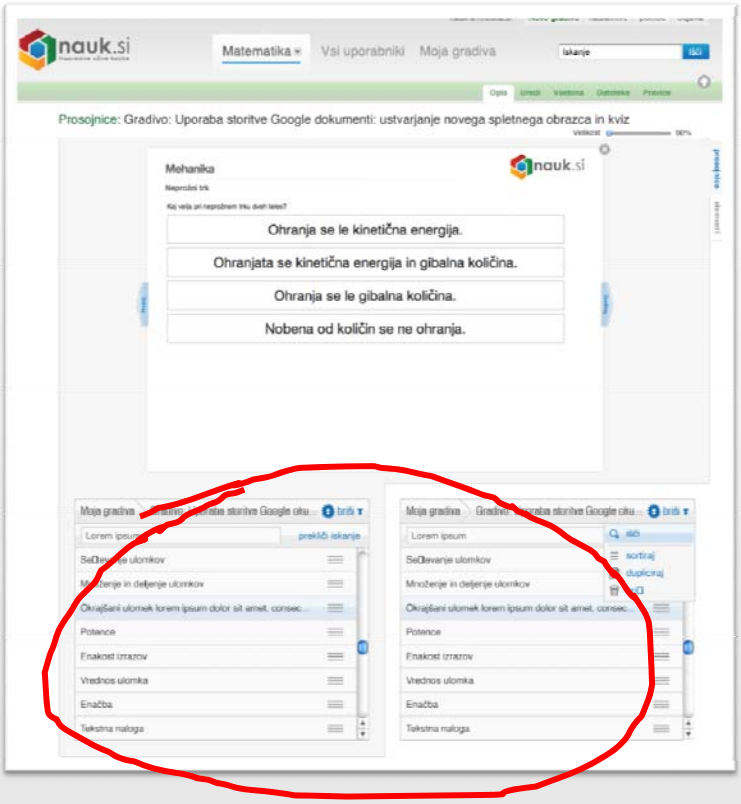


Different output formats



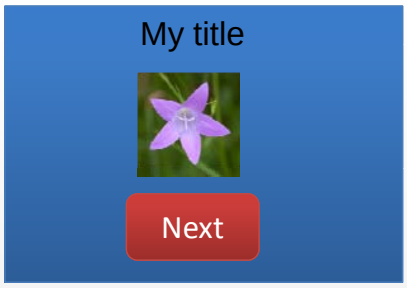
Different export formats.

Changes in basic block composition



Web based simple editor with GUI.

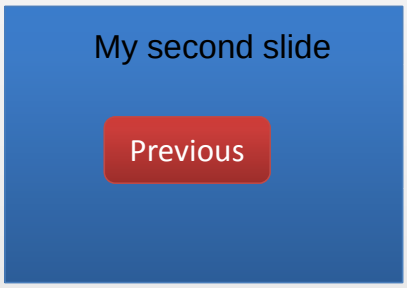
Everything is about the content



= My title| slide1 =

[[image: flower.jpg]]

[[button:+ | Next]]

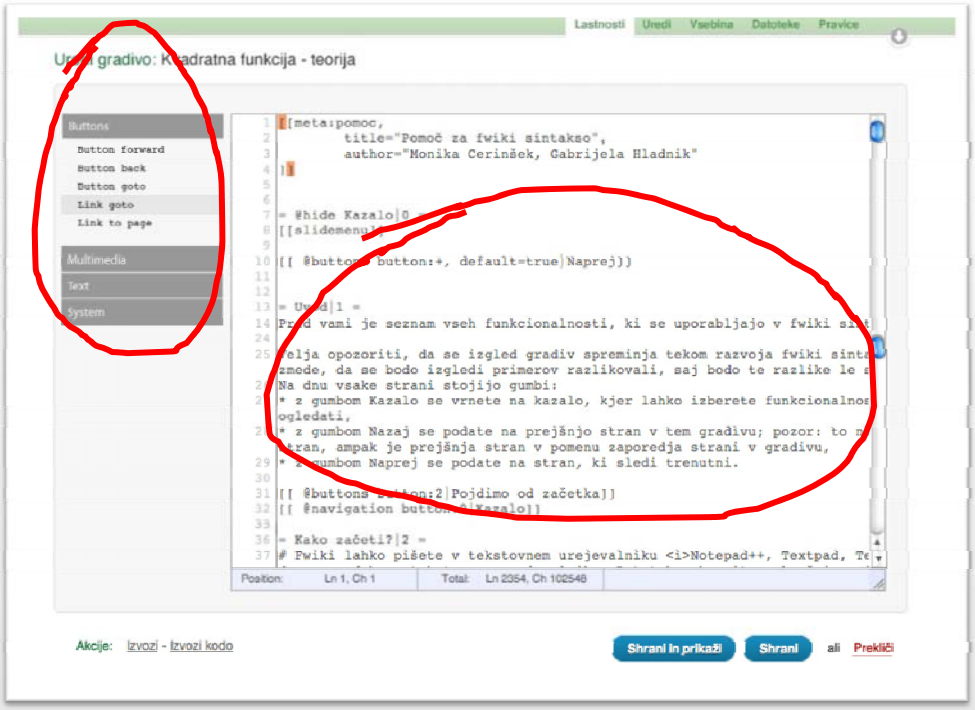


= My second slide| slide2 =

[[button:slide1 | Previous]]

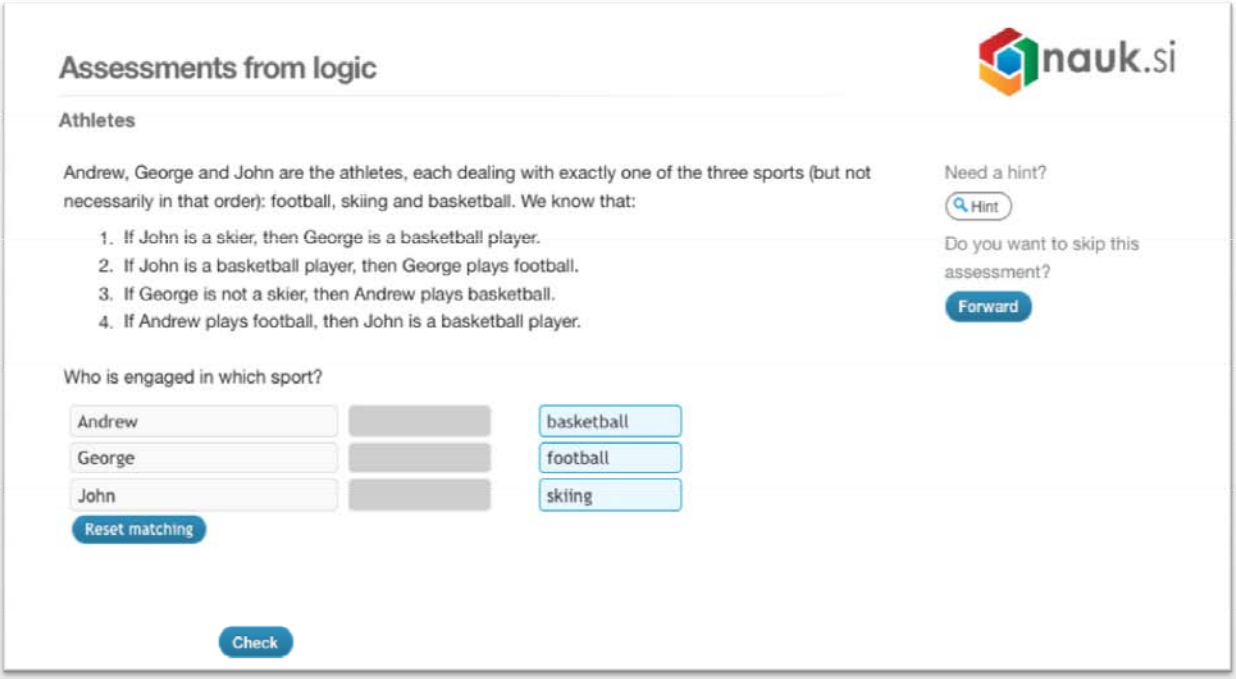
The scenario of the e-learning content is "one-to-one" description of the presentation – without the detailed design instructions.

Wiki-style syntax



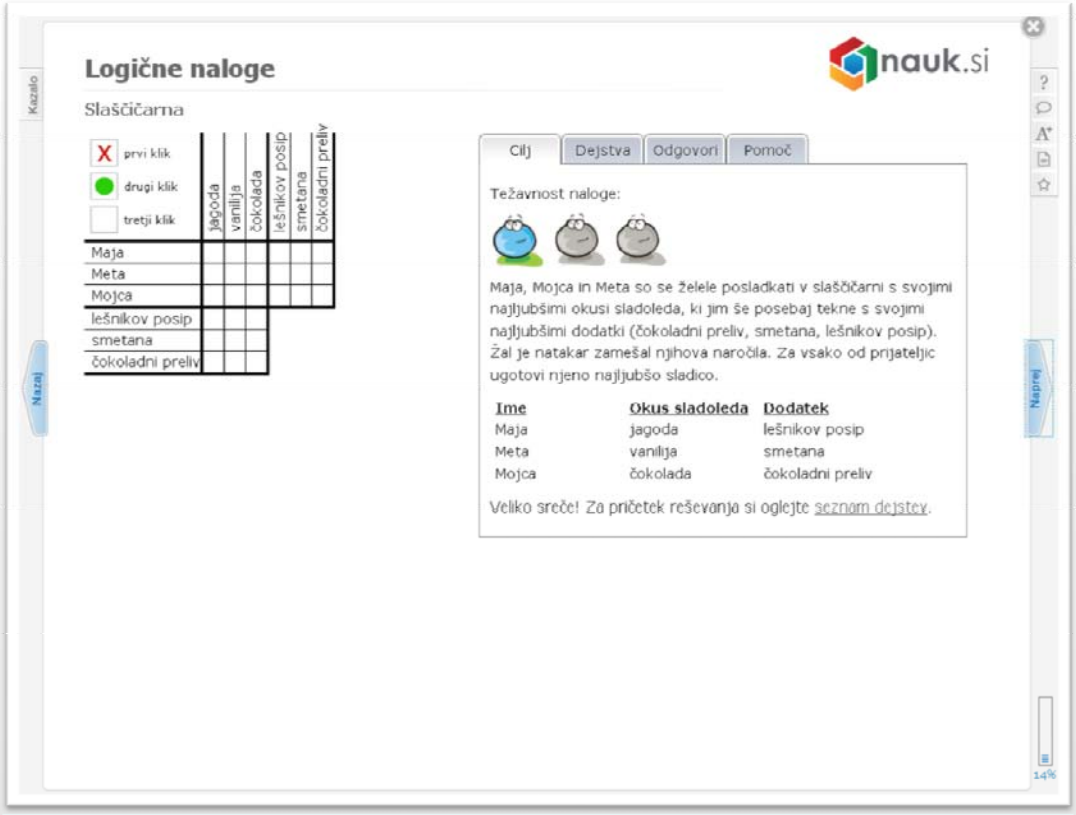
Separating content from presentation

Presentation



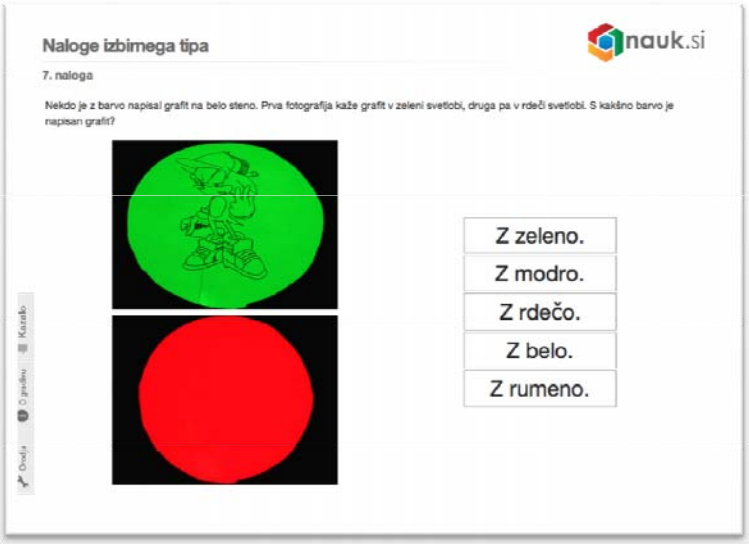
Representation depends on the output media – teacher needs no specific technical skills.

The custom presentation



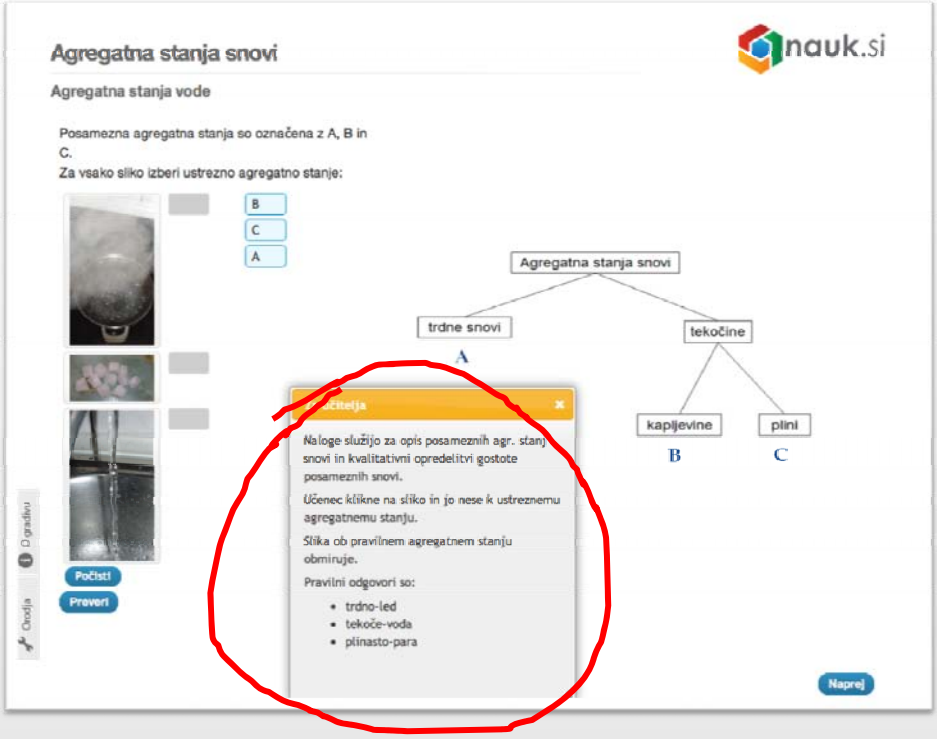
The author can easily describe the custom content with a lot of functionality and interactivity.

Mistakes



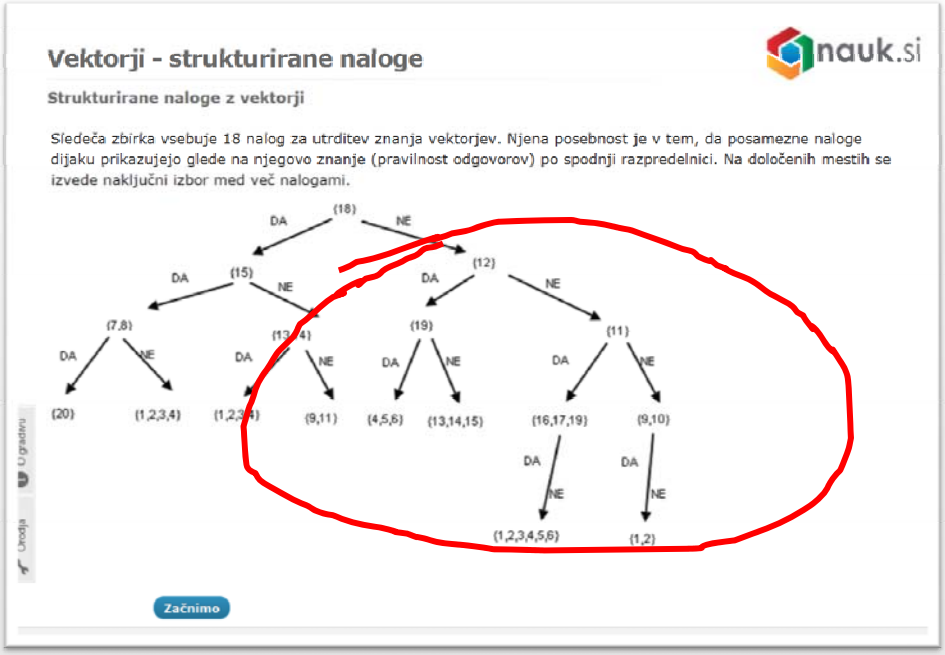
After a mistake is made, a hint is displayed.
If too many mistakes are made, the correct answer is given.

Authors help teachers



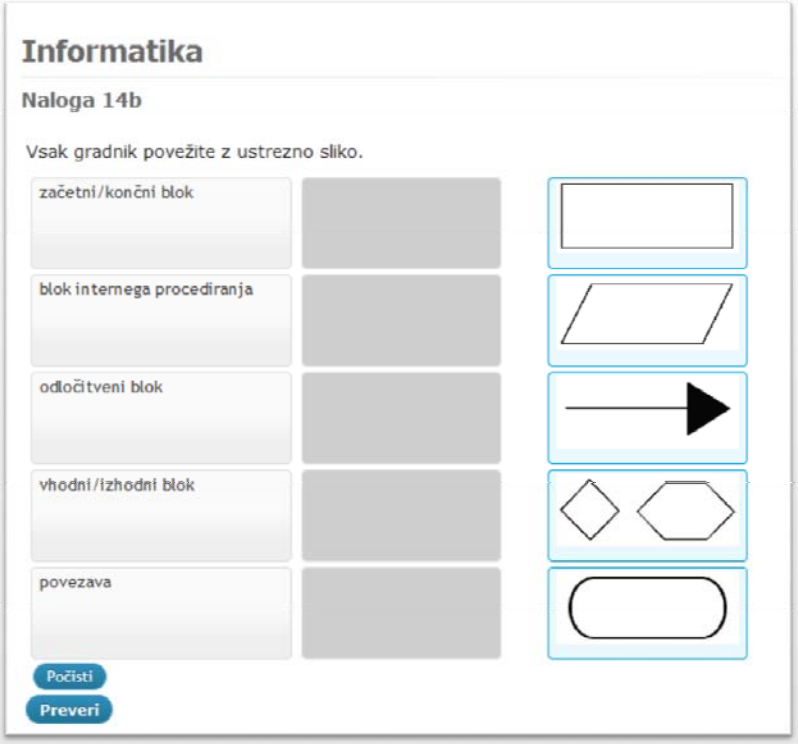
Instructions for teachers.

Teacher decides on the scheme



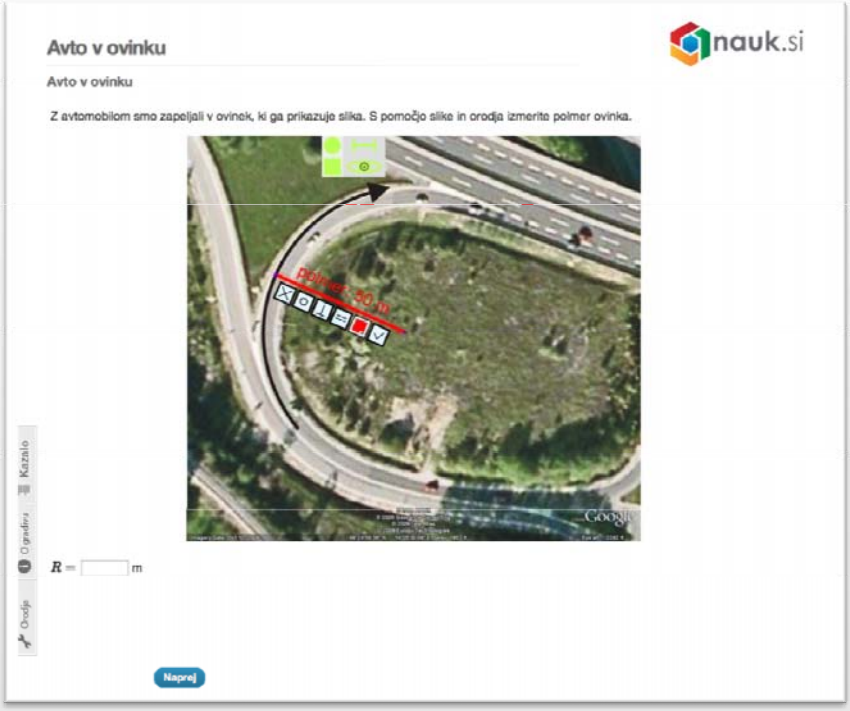
Adaptable – different learning paths

Interactivity



The task is to drag the images from the right column to the correct question on the left column.

More interactivity

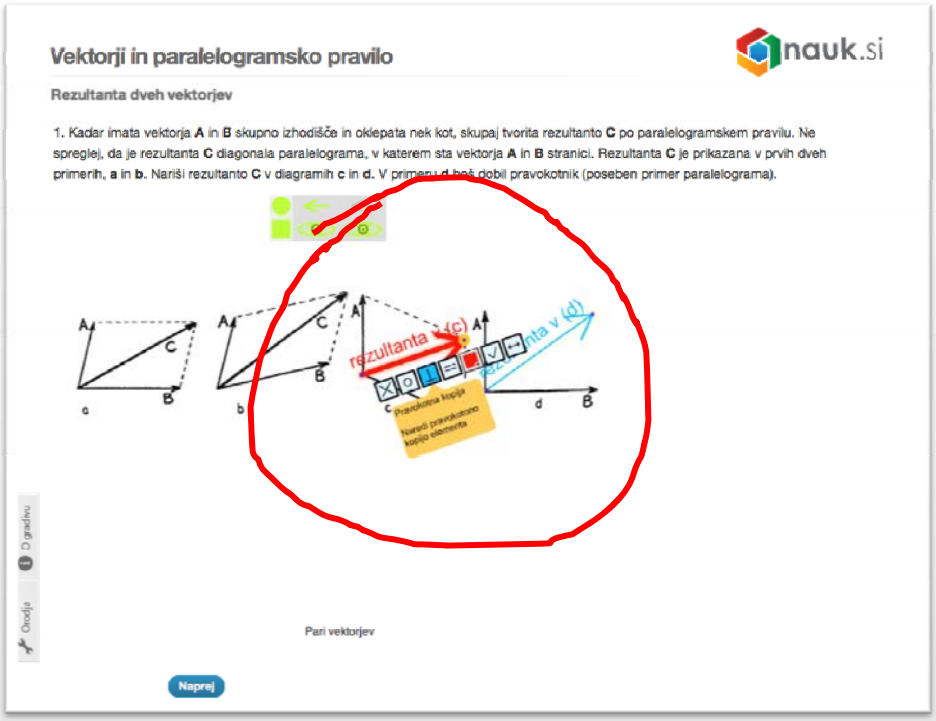


An example of an exercise from e-learning content from physics for secondary school.

The task is to determint the radius of the turn.

By using a ruler.

Even more interactivity



Really interactive content. The task on this step is to draw a sum of two vectors – the answer is a vector.