

INTRODUCING MOBILE MOTIVATED LECTURES

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Abstract: During the last decades we have been witnesses of a very rapid technical revolution. Today we are surrounded by smart devices. Altogether the learning methods and information gathering techniques of the youth has changed also. Therefore lecturers have to change their educational tools to be able to achieve students' attention. We worked on a bilateral Hungarian-Slovak tender (TÉT_12_SK) which dealt with teaching mobile development and using them in education. In this paper we would like to present our work.

Introduction

Nowadays everybody is surrounded by smart mobile devices.

Therefore the question was given how we could use these devices in our teaching practice.



TÉT_12_SK Project

We focus our experiments on to explore new methods of using mobile devices in education. The details are available at the link: <http://tetsk.inf.elte.hu/>.

Our personal experiences show that the classical education is



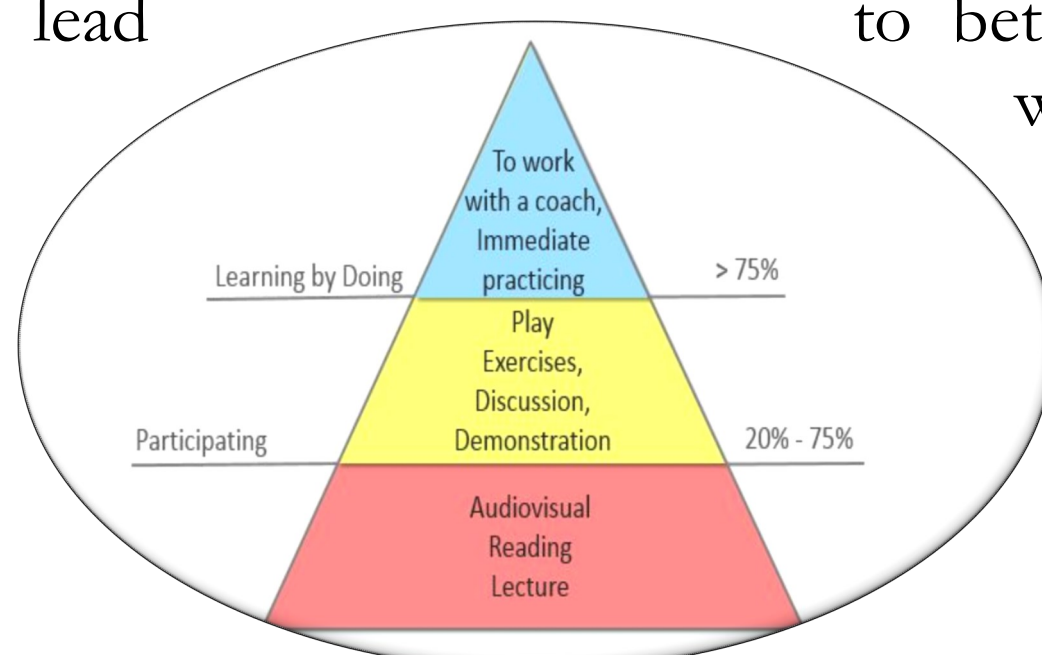
not so effective anymore!

One of the reasons is surely the spread of smart mobile devices. It is easier to click for information.



E. Dale stated that active learning methods lead

to better results, while we know that a classical lecture form is an inactive learning method.



BYOD — Bring Your Own Device

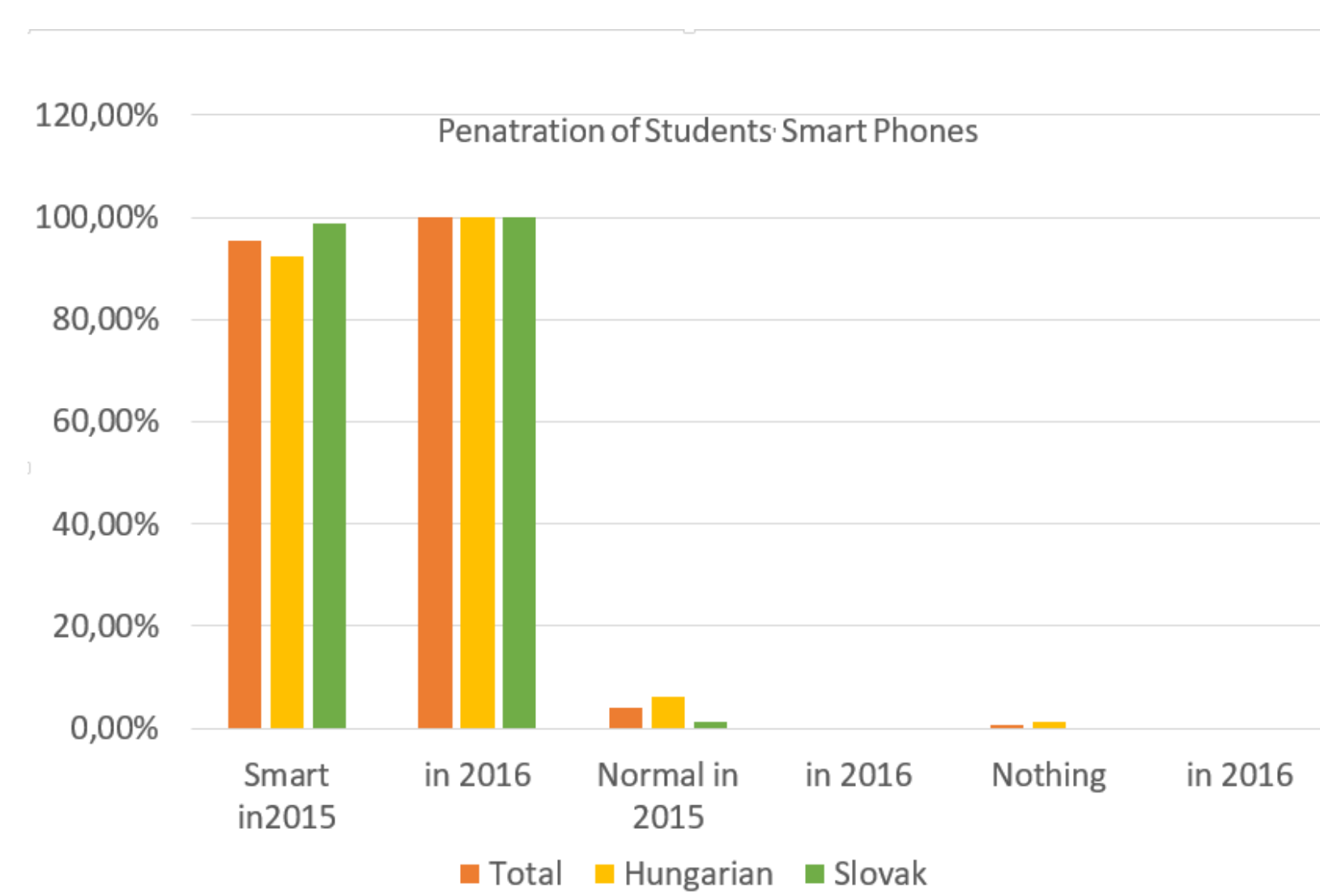


There are several examples in several countries to use students' mobile devices in the learning process.

We had to get information about the penetration of mobile devices among our students.

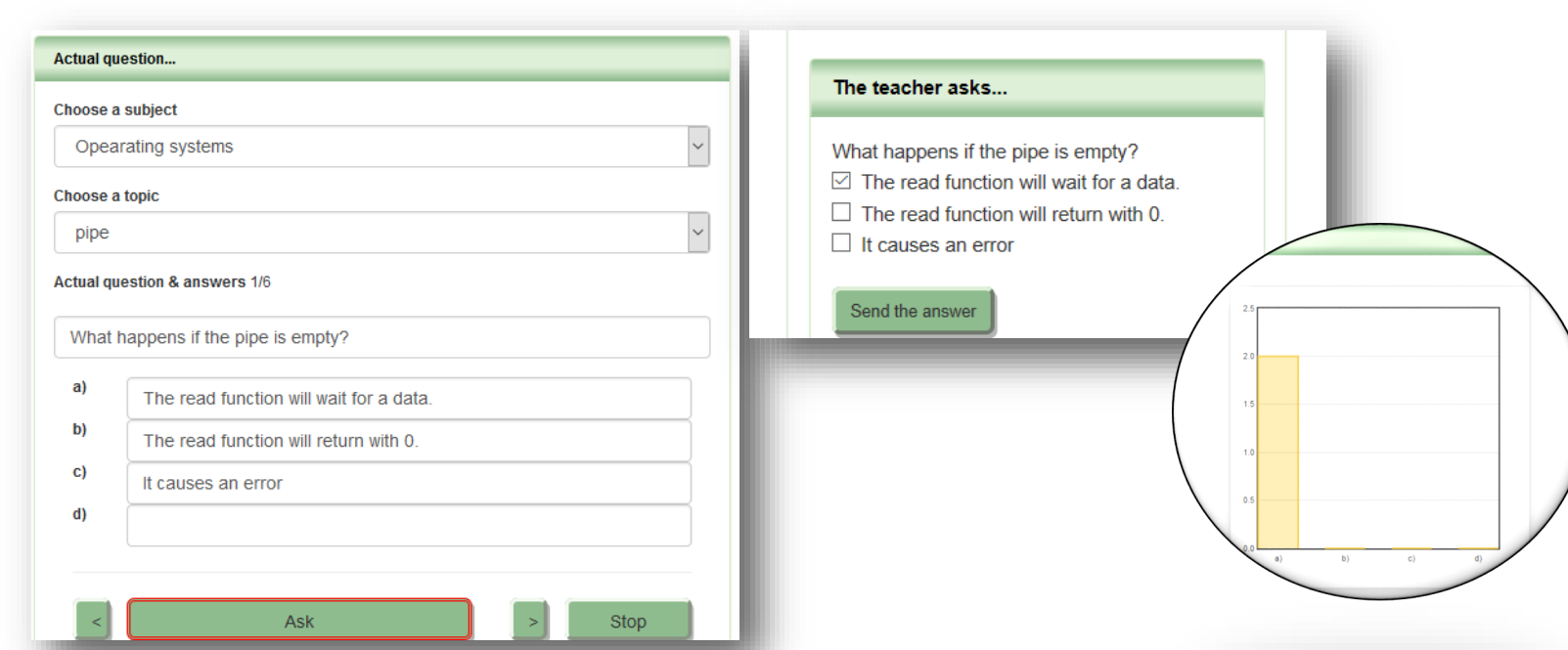
SURVEY

Due to the survey ([http:// bit.ly/1eGP5Hm](http://bit.ly/1eGP5Hm)) our universities are technically ready to apply BYOD concepts.

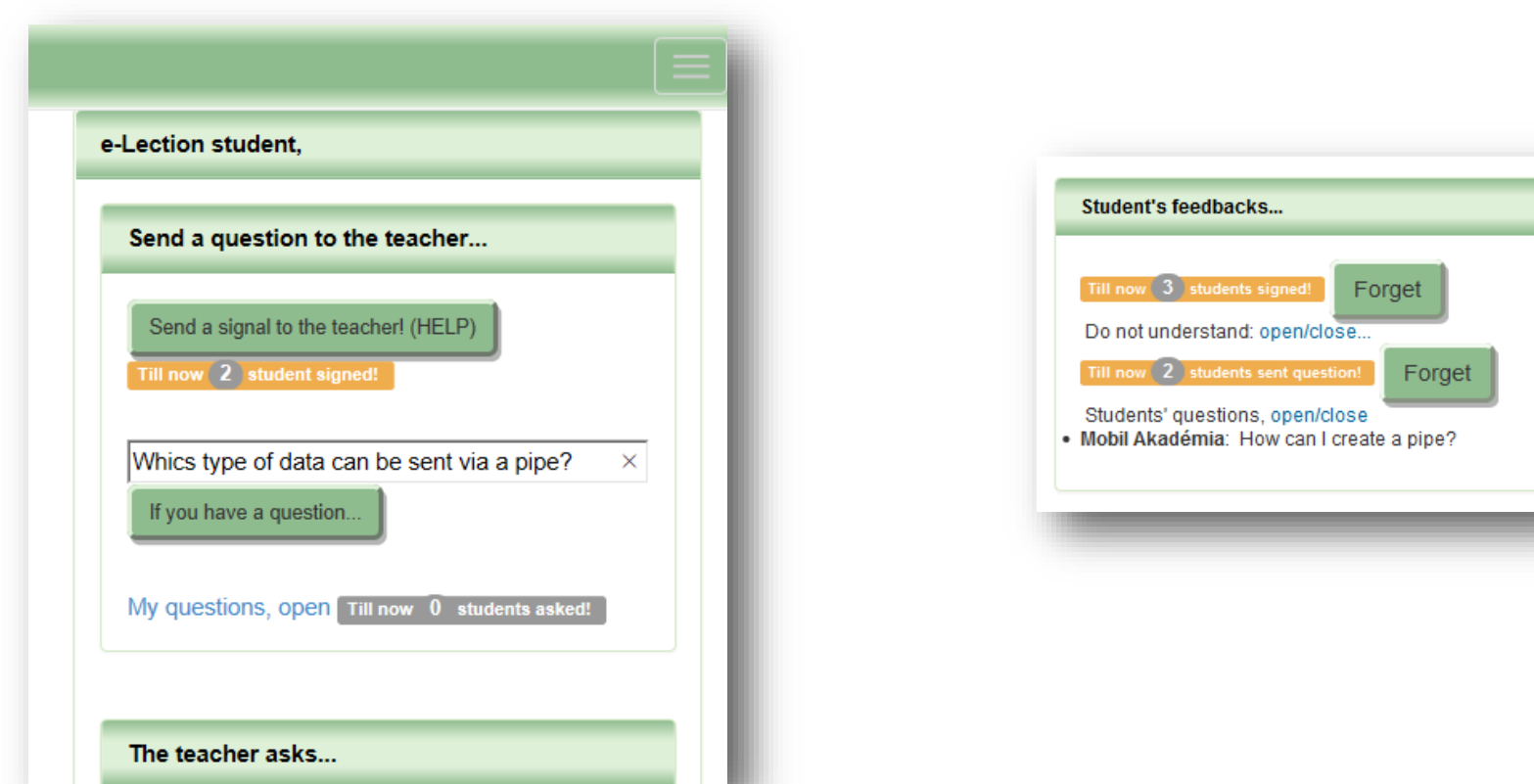


The bidirectional conversation

We implemented e-Lecture application with which the lecturer may put questions and students may answer using their own smart devices similar to a voting system.



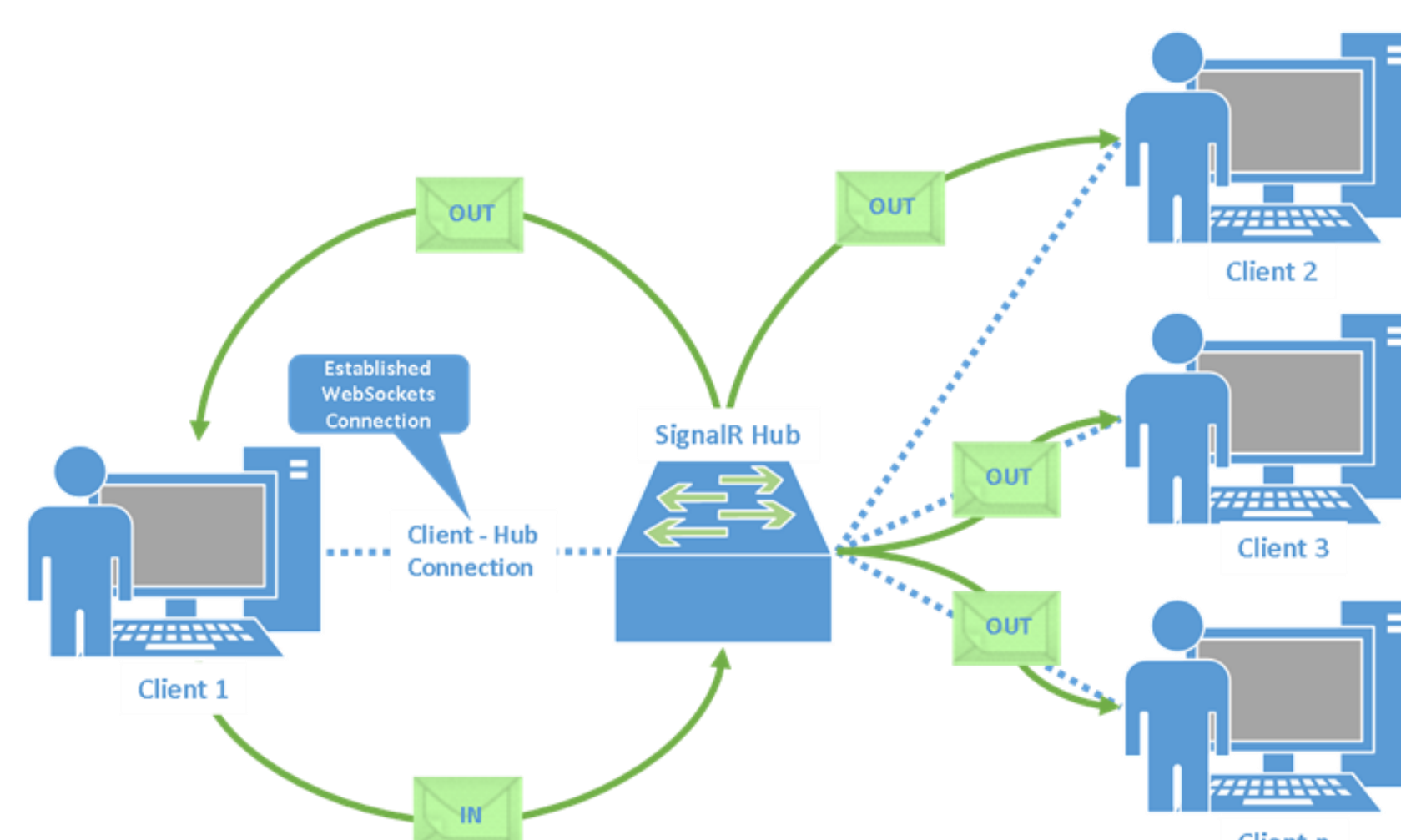
The innovation of our system is that students also may send questions or "do not understand" signals real-time to the lecturer.



E-Lecture project and the technology behind it

To avoid implementing the application to several different platforms we designed a web-based real-time system.

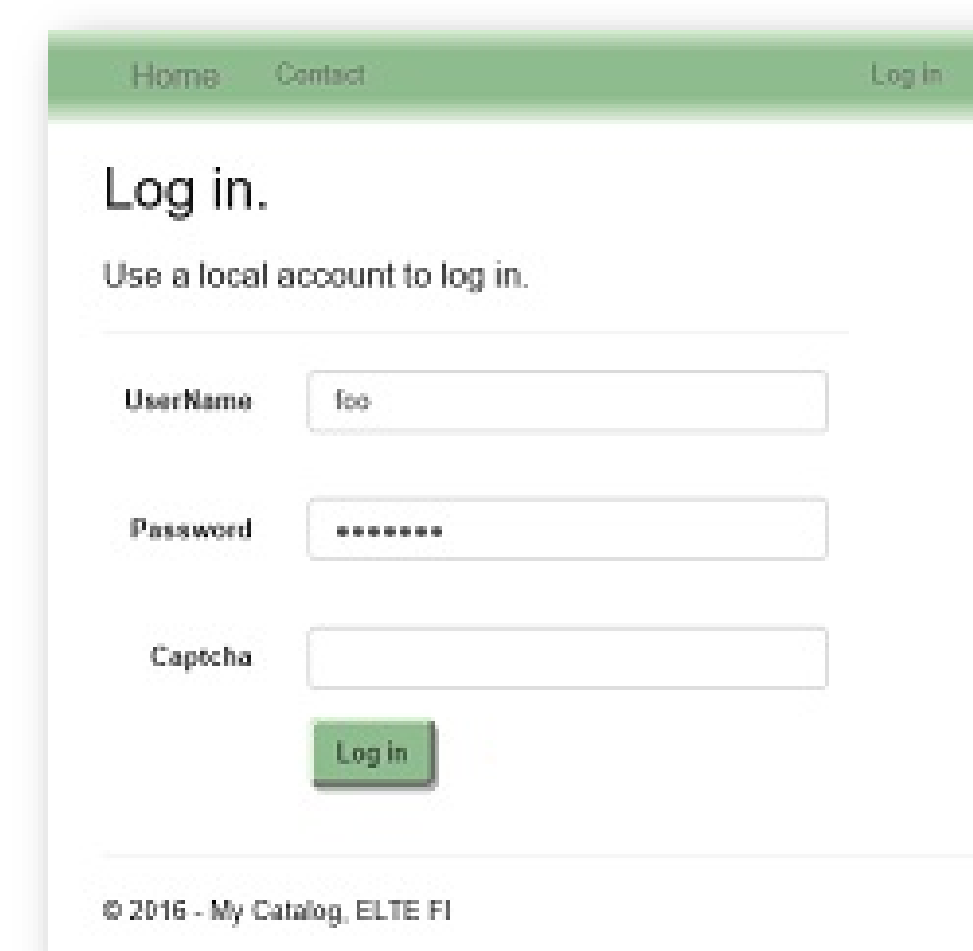
The code itself was written in ASP.NET using C#, the data is stored in MSSql, and we choose the support of the real-time module SignalR.



The Authentication Method

We check the IP addresses.

Furthermore the teacher creates a six character long captcha code which is valid only for a given amount of time.



Pedagogical Benefits

The benefit of it is double:

- At first it breaks the monotony of listening to the lecturer – so it would be more interesting and engaging.
- Moreover it **increases the activity** and - as we know due to the results of E. Dale - activity increases the rate of learning efficiency.

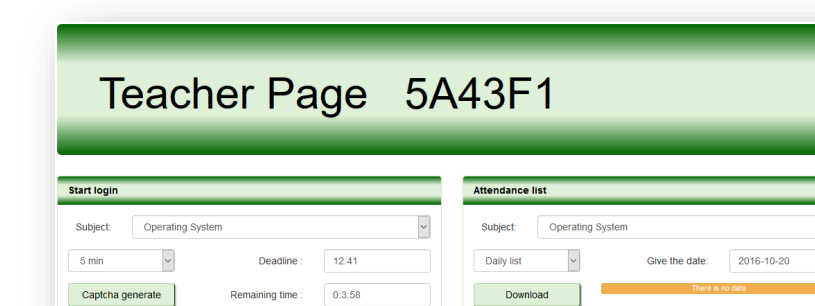
New modules

PERSONALIZED EVALUATION SYSTEM

By collecting questions during the term we may create a QUIZ for students to practice and measure their knowledge and give feedbacks to them.

CATALOG SYSTEM

In our university it is obligatory to attend lectures during the BSc trainings. The application accepts the logins from the students' own devices and writes the data into a database.



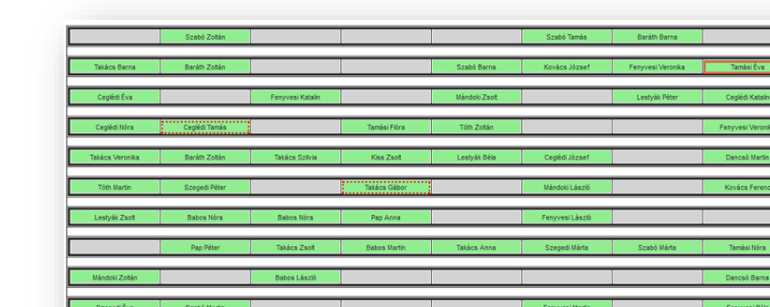
MENTOR NET

A mentor system is working at our faculty. Mentors are able to download the attendance information of students who belong into the given group.



SYSTEM OF PERSONALIZATION

Demonstrating caring is one of the most powerful ways to build positive relationships with students. The system writes the names of students on the map of the lecture -room.



Summary

The first decades of the 21st century according to the increasing penetration of mobile devices have caused a real revolution in education.

We have implemented a real-time presentation management tool e-Lecture with which we may activate and motivate students better even in huge lecture rooms!