

Eva-Lena Cederman, Svíþjóð

I will share some information regarding a pilot study with pupils in grade 5. The pupils have used GeoGebra to solve a geometry problem and recorded that work with screencast technology. The pupils also viewed a screencast video and described in writing what they noticed. Some different results and thoughts on this will be shared.

Marie Utterberg, Svíþjóð

This pilot study is focused on pupils in grade eight where GeoGebra and screencast technology is implemented with pupils using iPad. The pupils create short video clips which have been shown in class by their teachers and used as a starting point for discussions among the pupils. The pupils also watched video clips, showing mathematical concepts which the teachers want to make visible. The aim is to allow for greater conceptual understanding and to develop the students' communication and reasoning competences.

Ilze France og Anete Zaca, Lettlandi Learning inquiry skills through GeoGebra in Latvia

Research is about the way GeoGebra usage is introduced at school mathematics lessons for Grade 7 and the way it develops needed skills for inquiry. Firstly students are using Geogebra for drawing. Secondly they use animations and screen casts to learn to ask questions, to formulate hypothesis and questions to be examined furthermore. It is important for teachers understand and then precise formulate the goals that students have to achieve using the screen cast. An important task for the teacher is to ask questions, especially, if the screen cast is used without voice.

Sirje Philap, Eistlandi

In my presentation I will introduce the master thesis of Mari-Liis Kolk, who will make four sets of teaching materials. The materials will be for teaching the cone, cylinder, solving a right triangle and Pythagorean theorem to the pupils in the 9th grade with learning difficulties. The sets will include:

- 1) the lesson plan;
- 2) screencast;
- 3) GeoGebra file which is used in the screencast;
- 4) Hot Potatoes test, which will be taken after watching the video. The video could be watched several times;
- 5) GeoGebra worksheet.

Jonas Hall og Håkan Elderstig, Svíþjóð

We have constructed templates in GeoGebra to be used by teachers wishing to create dynamic learning objects for their students. There are 2-3 templates each of instructional templates and practice templates. Instructional templates typically allow the teachers to include both text and objects in a pedagogical presentation on a timeline. Practice templates allow for random questions, calculating points, time limits etc. The description of these templates and how to make and modify them have been described in screencasts and a "flipped" course for teachers has started, combining online sessions with physical meetings if possible.

https://www.youtube.com/playlist?list=PLfjXcqX_s8_eN8f5NIBeWGC7T6OwGvkMr

Book: <http://www.geogebraTube.org/student/b78399>

Rokas Tamosiunas og Marius Zakarevicius, Litháen

Lithuanian team will present their explorations in an attempt to create screencast based GeoGebra tasks. The main idea is to make videos without verbal explanations. These videos enhance pupils explorational skills. Such tasks can be used in any country and thus are suitable for research about cultural learning features.