

## Braco Veletanlic & Eric Chen

E-post: [braco.veletanlic@hkr.se](mailto:braco.veletanlic@hkr.se)

Lärosäte: HKR

Presentationsform: Paper

### Flipped Classroom Approach and its Implementation in an Online Course

Active learning is the process where students learn beyond passively listening to an instructor's lecture. In this way students are engaged in their learning activities. It has been accepted that active learning leads to deeper understanding and better learning outcomes.

The term flipped classroom has been widely used to describe a new pedagogical approach in which traditional lecture and homework elements of a course are reversed so that the initial exposure to the learning content takes place outside of the classroom. This approach frees up class time, promotes active learning and engagement in learning and facilitates student-centered learning.

In this study we experimented with flipped classroom approach in the online course Programming in C during the autumn term 2015. The purpose of the experiment was to determine whether flipped classroom can serve as an appropriate method to use in an online course and to find out to what extent flipped classroom can stimulate active learning in an online setting. Based on known concept of flipped classroom approach and literature review, we systematically reviewed YouTube videos and selected 52 video clips to use as companion course materials. We also compiled and produced 212 quiz questions to use as formative assessment. In order to promote interaction among the students, we experimented with peer-review as a part of the laboratory work process. We also provided scheduled online sessions in the form of chat rooms. Short video clips were positively received by the students. Even the peer-review approach was positively received but the students gave up this activity at the end of the course, due to the work load. Flipped classroom has potential to be used in online settings but distinction between “classroom” and “outside classroom” is not always clear.

More work is needed to make this distinction visible and to make the transition between these two learning environments smooth.