

ZMATH 2015d.00978

Fredriksen, Helge

A case study of an experiment using streaming of lectures in teaching engineering mathematics.

Teach. Math. Appl. 34, No. 1, 44-52 (2015).

Summary: To support the possibility of taking an online engineering degree programme, Narvik University College has chosen to facilitate a streaming service of all lectures conducted by the college. At the Bodø college campus, in the academic year of 2012/2013, these online lectures were used as a central component in a didactic innovation project. The aim was to test and evaluate the capabilities and limitations that web-based communication provides both academically and socially. This innovation was viewed within a Vygotskian theoretical framework linked to a social constructivist facilitation of students' learning. A survey among the students was performed in the mid-semester. The results of the analysis show that the renewal of the teaching was well received by the students in the group. However, the social learning environment suffered, since students failed to participate in the sessions created in connection with the web lecturing. Thus, the social learning context that we initially sought to strengthen was fragmented and lacked momentum as a result of the change.

Classification: U55 D45 C75 C65

Keywords: engineering students; engineering mathematics; streaming of lectures; e-learning; social learning environment

doi:10.1093/teamat/hru029