

# FINNISH LANGUAGE PHYSICS VIDEOS TO PROMOTE ENGAGING TEACHING METHODS

P. Koskinen, Jan Sarén, Olli Tarvainen, J. Jussi Toppari, and Taneli Kalvas

Department of Physics, University of Jyväskylä, P.O. Box 35, FIN-40014 University of Jyväskylä, Finland  
email: [pekka.j.koskinen@jyu.fi](mailto:pekka.j.koskinen@jyu.fi)

Teaching methods involving student engagement have frequently been shown to improve learning outcomes when compared to traditional lecturing. Such methods include flipped learning, peer instruction and various flavors of collaborative learning. One has to remember, however, that these methods rely heavily on students' self-studying. Moreover, on elementary physics courses self-studying is challenging, because books are mostly in English and students may still have underdeveloped study skills. Here we present a new series of physics videos, aimed to help the students in their self-studies at the level of basic university physics. The central features in the videos are their compactness, textbook independence, focus on conceptual physics, and — in particular — Finnish language. Student experiences and our analysis indicate that students watch these videos conscientiously, thereby make reading of textbooks easier, and thus form a productive self-studying process. The videos are freely available on *Opi fysiikkaa* – channel in YouTube.[1] At the moment the channel contains some 100 videos and the aim is to make videos for all central topics in basic university physics. We hope this effort would help physics teachers in gradual migration towards engaging teaching methods.

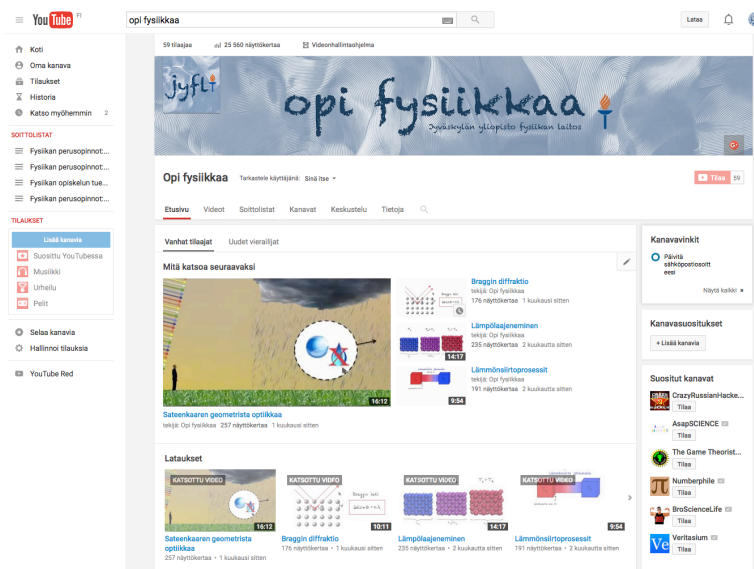


Figure. *Opi fysiikkaa* –channel in YouTube.

[1] <http://www.tinyurl.com/opifysiikkaa>