

Title: Using dataloggers in physics teaching (focused on Vernier experimental system)  
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**Abstract:** Modernizing equipment enables schools to involve advanced computer-aided systems in physics teaching. This work especially focuses on systems capable of recording and storing measured data for later evaluation - the dataloggers. The introduction of this work is devoted to a survey among physics teachers that should investigate what form of instructions they prefer; then a brief search of existing materials follows.

The main part of the work consists of newly created instructions for experiments with dataloggers of the Vernier experimental system, primarily designed to serve teachers to implement physics experiments in their teaching. The instructions always include a description how to prepare and undertake the measurement, how to process the measured data and what questions and tasks for students can be connected with this part of physics. Experiments described in this work mainly focus on secondary school thermodynamics (or more precisely on molecular physics and thermals) and their thematic intersection is energy, its forms, transmission and conservation.