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Opportunities to Learn in Physics Instruction in the Czech Republic: Findings of the IRSE Video Study¹

Abstract

The paper presents findings of the IRSE Video Study Physics, a research project that was carried out in the Institute for Research in School Education at the Faculty of Education of Masaryk University in Brno. Physics instruction was analysed in the conceptual framework of opportunities to learn. The sample consisted of 62 lessons of physics taught at various lower-secondary schools in Brno, the Czech Republic. The lessons were video-recorded, transcribed and coded, and the data were analysed with regard to the aspects under investigation. The paper presents findings on: a) organisation of classroom activities; b) sequencing of the teaching process; c) using didactic tools and media; d) using experiments. The results show that lower-secondary physics instruction is teacher-oriented to a great extent, which is indicated by the organisation of classroom activities. Modern media (ICT, audio and video recordings) were scarcely employed: the teachers' primary didactic tool was the blackboard. The teachers did not employ experiments very often – when an experiment occurred, it tended to be the teacher to carry it out.

Key words: *opportunities to learn, physics instruction, video-based research on instruction, video study.*

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