Summary: We provide evidence on whether ICT-related teaching practices affect student achievement. We use a unique student-teacher dataset containing variables on a wide set of very specific uses of computer and ICT by teachers matched with data on national standardized tests for 10th grade students. Our identification strategy relies on a within-student between-subject estimator and on a rich set of teacher’s controls. We find that computer-based teaching methods increase student performance when they increase students’ awareness in ICT use and when they enhance communication. Instead, we find a negative impact of practices requiring an active role of the students in classes using ICT. Our findings suggest that the effectiveness of ICT at school depends on the actual practice that teachers make of it and on their ability to integrate ICT into their teaching process.

Classification: D43 U73 U53 C33

Keywords: teaching practices; student performance; ICT; between-subject variation

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