

ACTIVATING STUDENTS OR ACTIVATING TEACHERS?

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ABSTRACT

Although we can learn without a teacher, and - unfortunately - we can teach without anyone learning, I believe teaching and learning should exist in symbiosis. The old adagio: “teaching is useless unless it is unnecessary” should be seen under the new light of teachers as guides who can activate students’ individual and collective learning. This probably requires more effort than traditional lecturing, but the many resources available today make this effort feasible; in exchange, students activation provides immense return in term of student-teacher rapport, boosts motivation to understand the world in physical terms, and hopefully also provides a better long-lasting learning experience.

I will be presenting the structure of a standard introductory physics course for first year engineering students (mostly Mechanics & Thermodynamics) I am teaching this semester. Course material and homework activities are based on the Moodle platform. The course tries to blend in a meaningful way work in class and at home, group activities and individual work. I adopted the Peer Instruction model (Mazur, 1997) with a Just-in-Time strategy (Novak *et al.*, 1999). The course material includes textbook reading, web video resources, animation and simulation applets.

Finally, I will show how I used Moodle to try activating students before the course, and to keep contact with them and with their learning progress during the whole semester.