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Impact of Reflective Writing and Laboratories on Student Understanding of Force and Motion in Introductory Physics

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We examine a way to deal with alternative student conceptions about force and motion in a university introductory physics course. The course combines Reflective Writing, an activity that engages students in textual material metacognitively, and Laboratories, an in-class active learning intervention. The analysis is based on both pre- and post- interview statements, to give a picture of the students' initial state and evolution in their understanding of force and motion. All interviewees mentioned reflective writing as one of the activities that helped them move from their knowledge about these two concepts at the beginning of the semester to their present ideas. Semi-structured interviews and student writing provide evidence of conceptual change

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