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Efficacy of the Writing Integrated Teaching (WIT) Program in Undergraduate Physics Laboratory Courses

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Laboratory courses are a fundamental part of physics education with proficiency in scientific writing being one of their key learning outcomes. While research has been conducted into how to teach this skill in various STEM field, no such effort has been reported for physics. We attempt to address this by measuring the impact of the (WIT) program on student self-reported confidence in a variety of skills that characterize scientific writing. This program, pioneered at the University of Toronto, of has been successfully implemented in several departments within the faculty of Arts and Science, most recently including junior laboratory courses (Practical Physics I & II) at the Department of Physics. The course structures have been adjusted to allow for review and resubmission of the laboratory report, allowing students space to practice and improve, simultaneously to the development and compilation of writing resources, teaching assistant training, and focus on feedback. Initial results of the study show improvement but lead to the conclusion that further work and refinement is needed, especially when it comes to providing feedback and curating the repository of resources.

Keyword-1

scientific writing

Keyword-2

laboratory courses

Keyword-3

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