Physics Writing Skills – what was the problem?

Faculty note that students lack STEM writing skills.

Furthermore, physics faculty training typically does not involve significant preparation about how to teach students better writing.

Professional physicists communicate via a variety of forms of writing, or genres, including:

- Abstracts
- Formal presentations
- Technical reports
- Laboratory notebooks
- Letters to colleagues
- Research articles
- Review articles
- Research posters
- Proposals

Proposed solution: Explicit student instruction in the genres of Physics!

Explicit Genre Instruction to improve Physics writing

Identify key genres of Physics and exemplars of genre

Collect student writing in these genres from three consecutive Physics courses

Develop rubric to code and evaluate student writing

Code and correlate data

Develop instructional and curricular materials

HOW the STUDY WORKED

Discoveries about Student Writing in Physics

Students scored higher for style than for genre, audience, and structure before explicit genre instruction

What comes next: Do students do better in the new curriculum? To answer this question, we will continue to collect and rate writing in this longitudinal project.

Collaborative Team Roles

Physics faculty who teach undergraduate curriculum – Bill Briscoe and Gary White

Writing Faculty with experience designing study and designing curricular materials – Carol Hayes and Rachel Riedner

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