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Promoting quantitative reasoning in the PET curriculum with supplemental invention tasks KELSEY MORK, ANDREW BOUDREAUX, Western Washington Univ — At Western Washington University, preservice elementary teachers take a required content course taught with the Physics and Everyday Thinking (PET) curriculum (Goldberg, Robinson, and Otero, 2008). While PET has led to consistent, strong gains in conceptual understanding and qualitative reasoning, informal observations of students have suggested that basic quantitative reasoning is not as well supported. Invention tasks, based on the approach of Dan Schwartz and colleagues, have been used to supplement the PET activities. In these tasks, students construct quantitative measures to make meaningful comparisons between contrasting cases. This poster describes the invention tasks and presents preliminary assessment data to both identify specific difficulties with quantitative reasoning and evaluate the effectiveness of the supplemental tasks.

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