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Measuring student learning across the physics curriculum¹

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The ability to measure what students are learning (or not) is a crucial component of crafting effective learning environments. In particular, low-stakes, standardized diagnostic assessments can provide a valuable tool for tracking student learning over time and between instructional approaches to identify effective strategies that improve students understanding of core physics content. While the field of physics education research (PER) has created a number of these assessment instruments targeting content from introductory mechanics up to senior-level thermal physics, there are still many barriers to broad adoption of these assessments. In this talk, I will articulate the value of these standardized assessments in the context of improving physics programs broadly, some of the barriers instructors encounter in identifying and implementing these assessments in their courses, as well as some of the techniques and approaches assessment developers have identified to overcome these barriers.

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