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**A Tool for Closing the Loop on Common Assessments** PAUL WALTER, GARY MORRIS, BRENNAN THOMPSON, St. Edward's University, SPENCER SKEES, Valparaiso University — We introduce a new tool for adoption by high school and college level physics teachers who use a common assessment such as the Force Concept Inventory (FCI). The tool uses a spreadsheet application to create a simple matrix that identifies the percentage of students that who select each possible pre-/post-test answer combination on each question of the diagnostic exam such as the FCI. From this, it determines changes in students understanding of concepts and common misconceptions. For those students that selected the wrong answer to a question on both of the pre-/post-tests, we also determine whether they are moving toward a “better” wrong answer. Feedback from the tool allows us to close the loop on assessment and better meet the needs of our students by tailoring our instruction in an informed way.

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