

Accuracy vs. Precision

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To encourage students to consider measures of variability that relate cases to the center of the distribution, Units 3 and 4 focus on student invention of a measure of precision—the consistency of measurement from one measurer to the next. But, we found that students often confounded the idea of the precision of a measurement with its accuracy—the extent to which a measurement process produces an unbiased estimate of the measure, as in a true weighing scale. In order to differentiate these two concepts, we used some science resources to help make these somewhat abstract ideas more tangible. Our science text is *Science Explorer* (see below) by Prentice Hall. It includes an explanation of the distinction. For example, in the second panel, darts that are clustered tightly but far from the target are precise but not accurate. In contrast, the darts that are in the bottom panel represent accurate and precise throws. Students, especially my English Language Learners, were able to talk more clearly about precision vs. accuracy after this conversation. Other teachers found resources on UTube:

www.youtube.com/watch?v=5APhVxCEPFs and www.youtube.com/watch?v=Hw2U0SbQ2fc



