

Abstract Submitted
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Do You Know if You Know?¹ AMANDA BRIGHTON, STEVEN GARDNER, BYU-Idaho — Two typical introductory Physical Science classes were asked to give answers to five questions about motion. An additional question was associated with each of these five questions to ascertain how confident each student was in their answer. The student's metacognitive ability to determine correctly what they know or do not know was evaluated. The student's inability to self-assess understanding was as common as the converse. When the data was analyzed by gender, attempting to identify differences between males and females in terms of this metacognitive skill, no statistically significant difference was found. Additionally, we identified widespread alternate conceptions when large numbers of students were very confident in the same incorrect answer. These findings confirm previous studies regarding misconceptions in this area.[1]

[1] A. Arons, Teaching Introductory Physics, Wiley (1997) p.37

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