

Unskilled & Unaware: Assessing Metacognitive Monitoring of Student Help-Seeking Behavior

TAKE-HOME POINTS

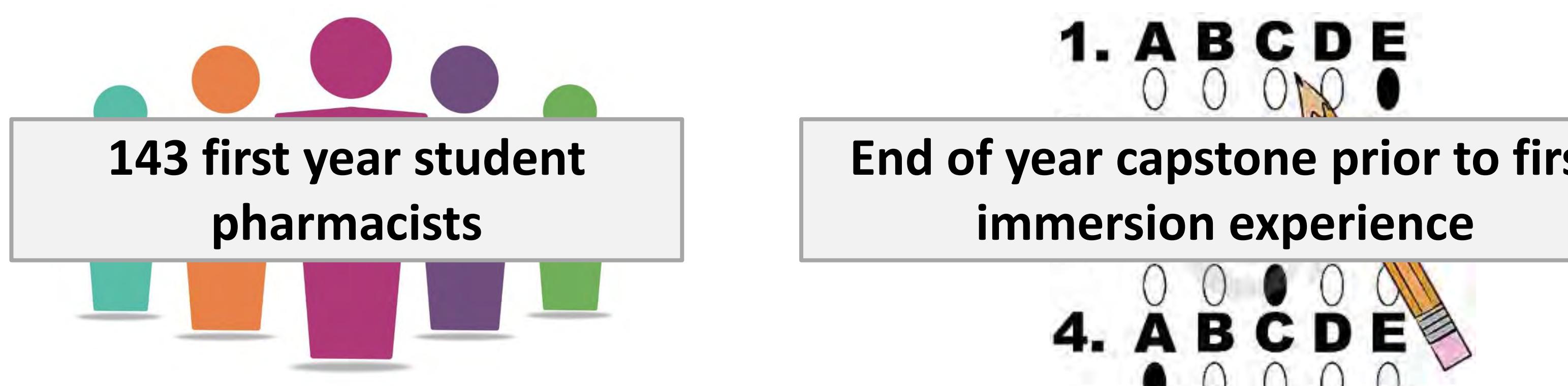
OBJECTIVE: To assess the metacognitive monitoring of help-seeking behavior

- Students were less likely to ask for help on less familiar material than more familiar material.
- Students were less likely to ask for help if they were overconfident

WHY did we do this study?

- Help-seeking behavior is a type of metacognitive monitoring
- Help-seeking is an achievement behavior involving the search for and employment of a strategy to obtain success.¹
- Students with better monitoring abilities reviewed material they have previously indicated as unfamiliar.²
- There are very limited data on assessing help-seeking behavior through assessment.

What did we DO?



Multiple Choice Question

- Drug-information type questions (open resource)
- 8 drugs were more familiar; 8 drugs less familiar

Confidence judgement

- On a scale of 0 to 4, rate your level of confidence on the correctness of the answer provided

Ask for help

- Would you ask your preceptor for help (yes/no)

TERMINOLOGY

OVER-confidence: confidence > performance

UNDER-confidence: performance > confidence

WELL-calibrated: performance ~ confidence

MORE familiar: drugs seen in multiple courses

LESS familiar: drugs used as examples or not discussed in courses

Figure 1

Confidence vs. performance and help-seeking. Confidence and performance reported as proportion (1 = 100%)

- Asked for help
- Did not ask for help

0.20

Odds of asking for help on LESS familiar material

What did we FIND?

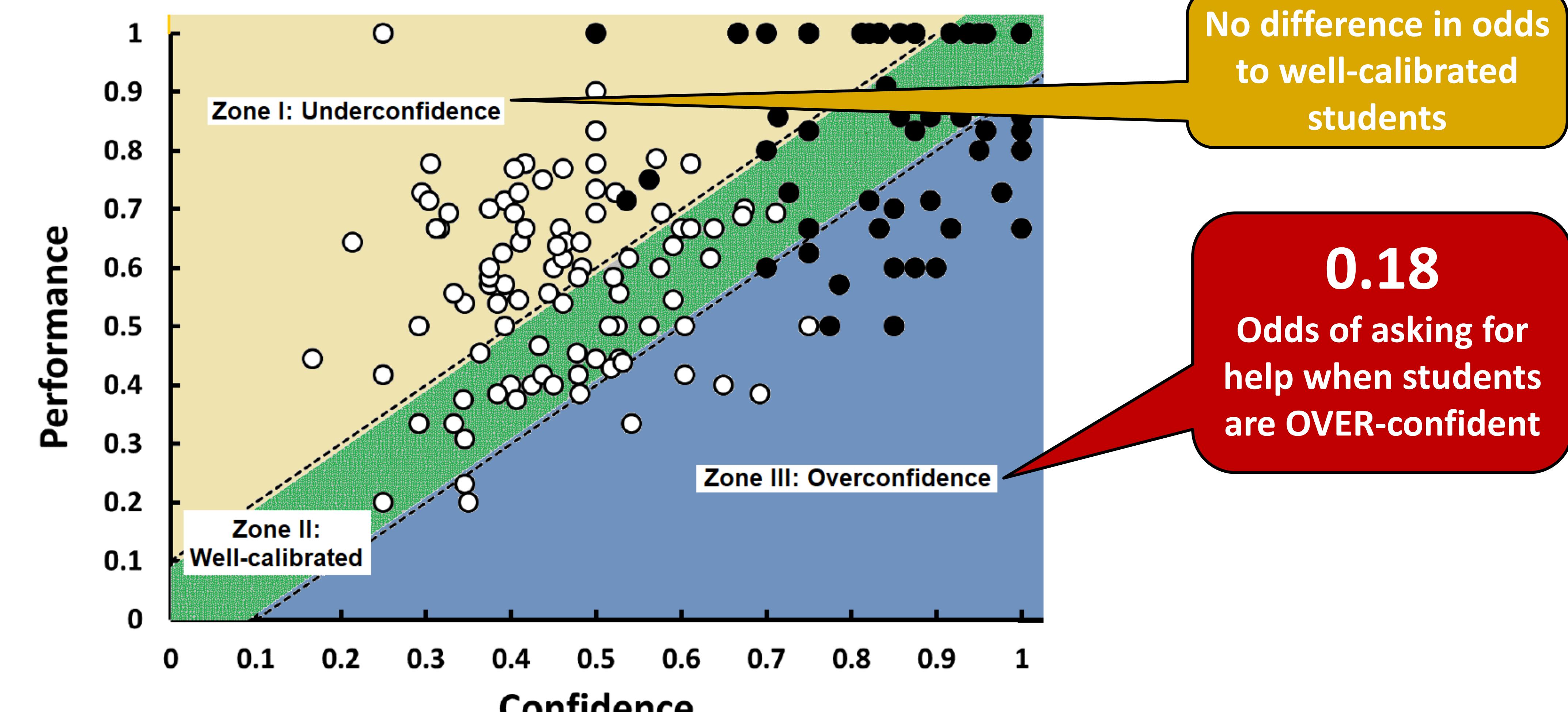
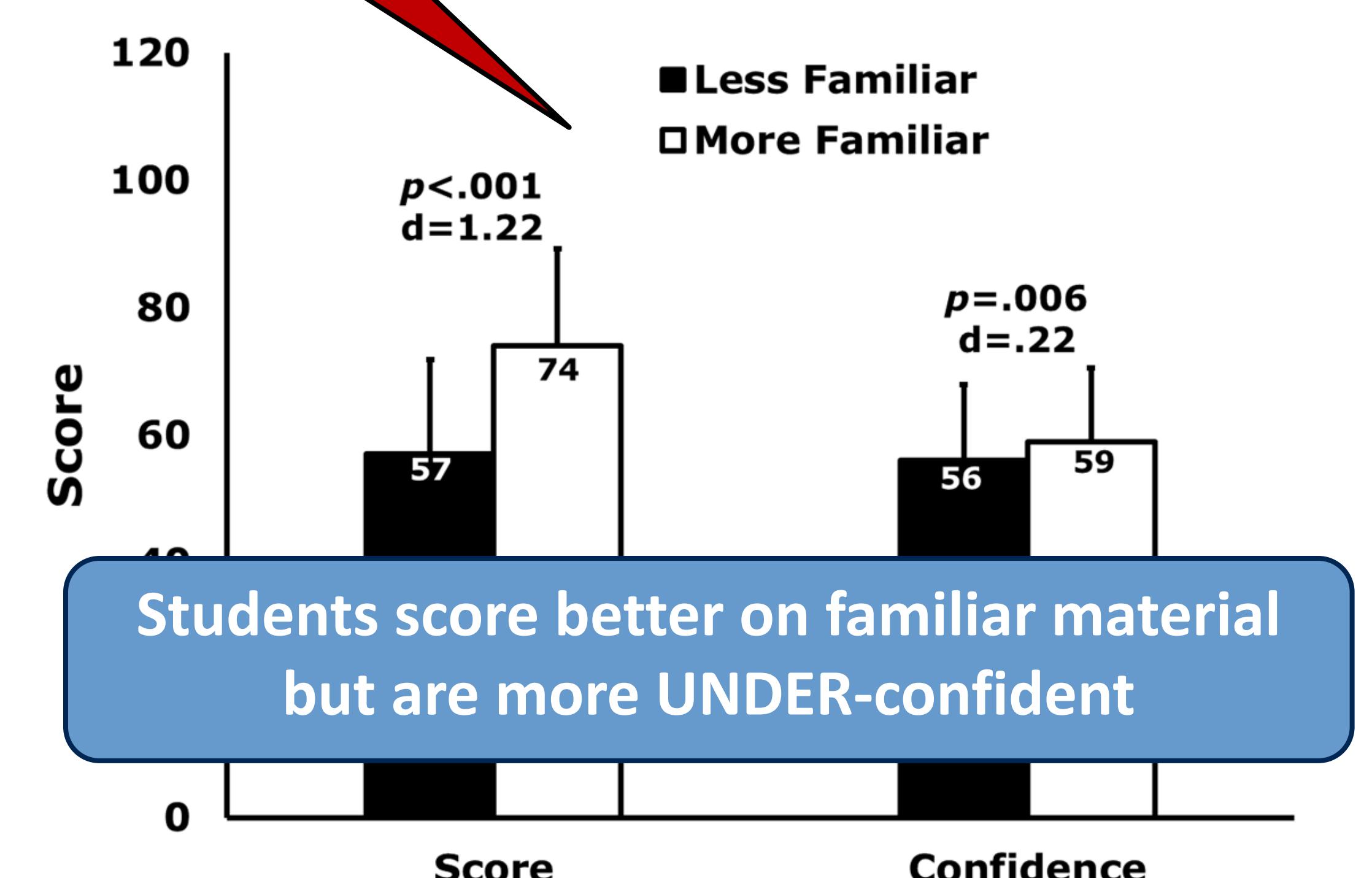


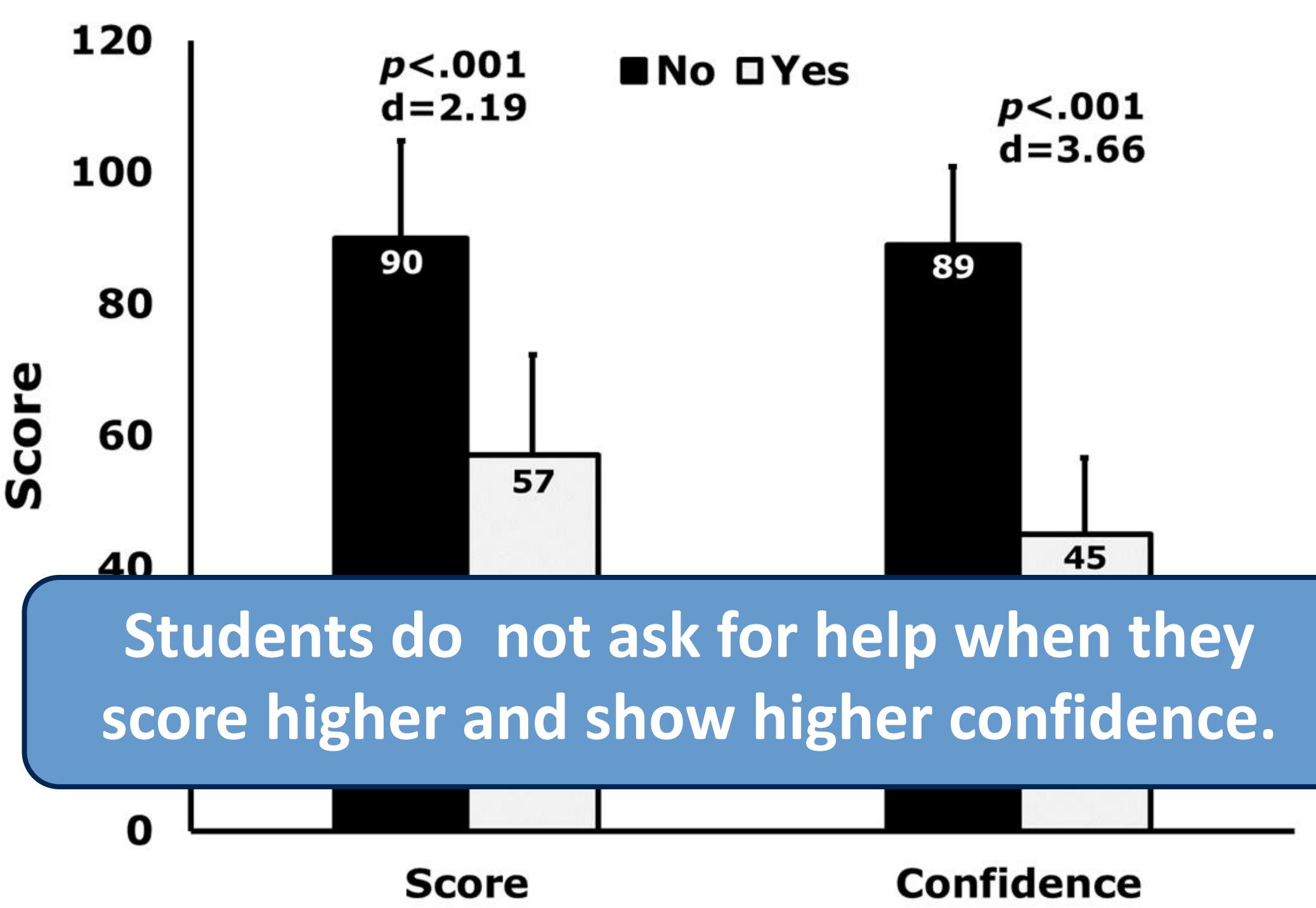
Figure 2
Performance and confidence based on familiarity



What does this MEAN?

- Students performed better on more familiar material than less familiar material and reported higher confidence on more familiar material than less familiar material. (Figure 2)
- More familiar material influence students' likelihood to ask for help more than their level of confidence or how well they performed.
- Students were more likely to ask a preceptor for help for more familiar content.
- Students who asked for help were more underconfident. (Figure 1)
- Metacognitive ability may differ by academic ability – better performing students may be better judges (data not shown)

Figure 3
Performance and confidence for whether students asked for help



How does this IMPACT TEACHING?

- Students need **data** to become better judges of their knowledge
 - 1.Stage:** Stage tasks that provoke students to make many mistakes when the stakes are low so they can focus on the learning rather than the grade.
 - 2.Act:** Have students to act immediately on new information
 - 3.Coach:** Provide feedback that is constructive, actionable, and goal-oriented
- Students may need explicit instruction on how to monitor their thinking and when to ask for help

REFERENCES

- Ames R, Lau S. An attributional analysis of student help-seeking in academic settings. *Journal of Educational Psychology*. 1982;74(3):414-423.
- Stavrianopoulos K. Adolescents' Metacognitive Knowledge Monitoring and Academic Help Seeking: The Role of Motivation Orientation. *College Student Journal*. 2007;41(2):444.