

## Belief and Reflection Probes

These measures gather data on students' perceptions of their ability to solve a problem, providing insight to how their metacognition changes throughout the problem-solving process.

### Purpose

- The probes attend to two different facets of metacognitive evaluations:
  - Reflection: how students' plans for solving have changed
  - Belief: how confident a student is in their ability to solve a problem

### Measure Details

- These probes are embedded within a mathematics learning platform while students are solving problems, and they appear at intervals based on their activity in the platform.
- The reflection probe is treated as a discrete variable with 3 different categories.



Think about your plan.  
What did you do?

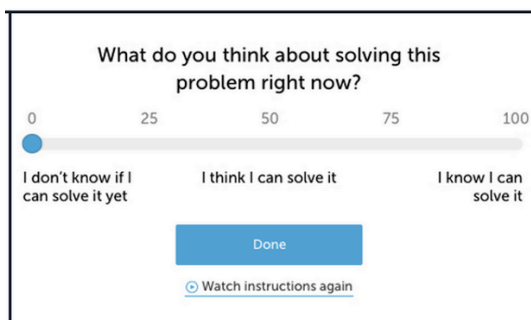
Used original plan

Thought about changing plan, but didn't

Changed plan

[Watch instructions again](#)

- The belief probe is on a continuous scale from 0 to 100 with higher values indicating higher belief in the ability to solve the problem.



What do you think about solving this  
problem right now?

0 25 50 75 100

I don't know if I can solve it yet I think I can solve it I know I can solve it

Done

[Watch instructions again](#)

## Accessing the Measure

- For permissions and clarifying questions, please contact:
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