

## Algorithms: Why POGIL?

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### *Process Skills and Guided Inquiry*

Although we will not use it every time, many of our class meetings will use an approach to learning called POGIL, which stands for Process-Oriented Guided Inquiry Learning. What does that mean? Let's start with "Guided Inquiry Learning".

- 1 (Review) Brainstorm a list of as many details as you can remember from the class syllabus and academic integrity policy (don't peek!).
  
- 2 How much were you able to remember? What if the instructor had gone over the syllabus instead of having you answer questions about it as a team—do you think you would you have remembered more, less, or about the same?
  
- 3 This type of format, where you work together to answer questions that guide you through a learning process, is known as *guided inquiry*. What do you think are some of the benefits of guided inquiry (as compared to listening to a lecture)?

**Learning objective:** Students will explain the benefits of a guided-inquiry approach to learning.

Don't just put what you think I want to hear—what do you honestly think are the benefits? If you don't think there are any benefits, go ahead and say that!

- 4 (3 minutes) Imagine that your team is tasked with building a large, complex piece of software. There is no way you can do it by yourselves in any reasonable amount of time. Fortunately, you have a large budget, so you are going to hire people to help you. Brainstorm a list of qualities and skills you would look for in people that you hire.
- 5 (3 minutes) Now pick the three or four of the most important qualities/skills from your list and explain why they are important.
- 6 Most likely, some of the skills you identified were content-based and specific to computer science, whereas other skills are more general “soft” skills that have to do with the *process* of solving problems, being productive, and working well with other people. We call these *process skills*. In what ways, if any, do you think working on guided inquiry activities in a learning team with assigned roles will help you develop these skills? Which process skills will it help you develop?

**Learning objective:** Students will identify process skills and explain how they are developed in a POGIL classroom.

