Algorithms: Why POGIL?

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!).

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

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)?

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.

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

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?