

POGIL in CSCI 3300/CSCI 5300

Overview

Process Oriented Guided Learning (POGIL) is a student-centered strategy. Students work in teams on carefully designed questions to learn new material in a cycle of exploration, concept invention, and application. Each student on a team is assigned a role and is fully engaged in the learning process.

Why I Chose POGIL for Software Engineering Class

- Research shows that active inquiry is more effective and engaging than listening to a traditional lecture.
- POGIL promotes team work – a highly valued skill by employers.
- Students work on actively discovering the material for themselves rather than passively absorbing it from a lecture.
- POGIL emphasizes problem solving and critical thinking rather than getting the right answer. In many cases, especially in software engineering, many valid answers exist. The teams are encouraged to improve their process.
- Students prefer POGIL to traditional lectures. Data below represents students' responses to the following statement: *"I would recommend the method of teaching used in this course to a student taking this course next year"*. The question was asked of students in a class with traditional lecture and students in a class where POGIL was used.



POGIL Skills

POGIL teaches course content and several process skills:

- Teamwork
- Communication
- Information Processing
- Critical Thinking
- Problem Solving
- Management
- Assessment

These skills are learned as team members take on different roles. The teams will stay constant for a duration of time, and roles will rotate among team members.

POGIL Roles

Facilitator

- Make sure group starts quickly and remains focused during the entire activity.
- Takes care of time management.
- Make sure all voices in the group are heard.

Spokesperson

- Communicates group questions and clarifications with the teacher or other groups.
- Ensures all group members have had the opportunity to respond to the question before asking outside sources.
- Ensures that everyone in the group agrees on what question to ask if an outside source is needed.
- Presents conclusions of the group to the class, as requested.

Process Analyst

- Observes group dynamics and behavior with respect to the learning process, using report format.
- Reports to the group periodically during the activity on how the group performs.
- Be ready to report to the entire class about how well the group is operating.

Recorder

- Records the names and roles of the group members at the beginning of each activity.
- Records the important aspects of group discussions, observations, important insights, etc.
- The recorder's report is a log of the important concepts that the group has learned.