

EAGER: Peer Instruction for Cybersecurity Education

Challenge:

- Improve student learning experience in cybersecurity courses

Solution:

- Use peer instruction methodology for cybersecurity education
- Develop and evaluate the effectiveness of peer instruction questions in three cybersecurity courses

- A conceptual and multiple-choice question is asked to students
- Two to three minutes for reply
- Group discussion of students
- Students reply to the question again
- Instructor may further discuss the answers

Peer Instruction Methodology

Scientific Impact:

- Explore peer instruction as a new teaching methodology in cybersecurity field
- Measure the effectiveness of peer instruction on creating a mindset necessary for combating with ever-evolving sophisticated, novel, stealthy, and zero-day cyber attacks

Broader Impact:

- The proposed work will make training of cybersecurity professionals more effectively
- Involve several graduate students in cybersecurity, enhancing both their technical and teaching abilities