

# WiP: Where's Eve? Evaluating Student Threat Modeling Performance & Perceptions

Carson Powers, Nickolas Gravel, Maxwell Mitchell, Daniel Votipka  
Tufts University

## Motivation

Threat Modeling (TM) is important in industry and required in some cases by federal regulation.

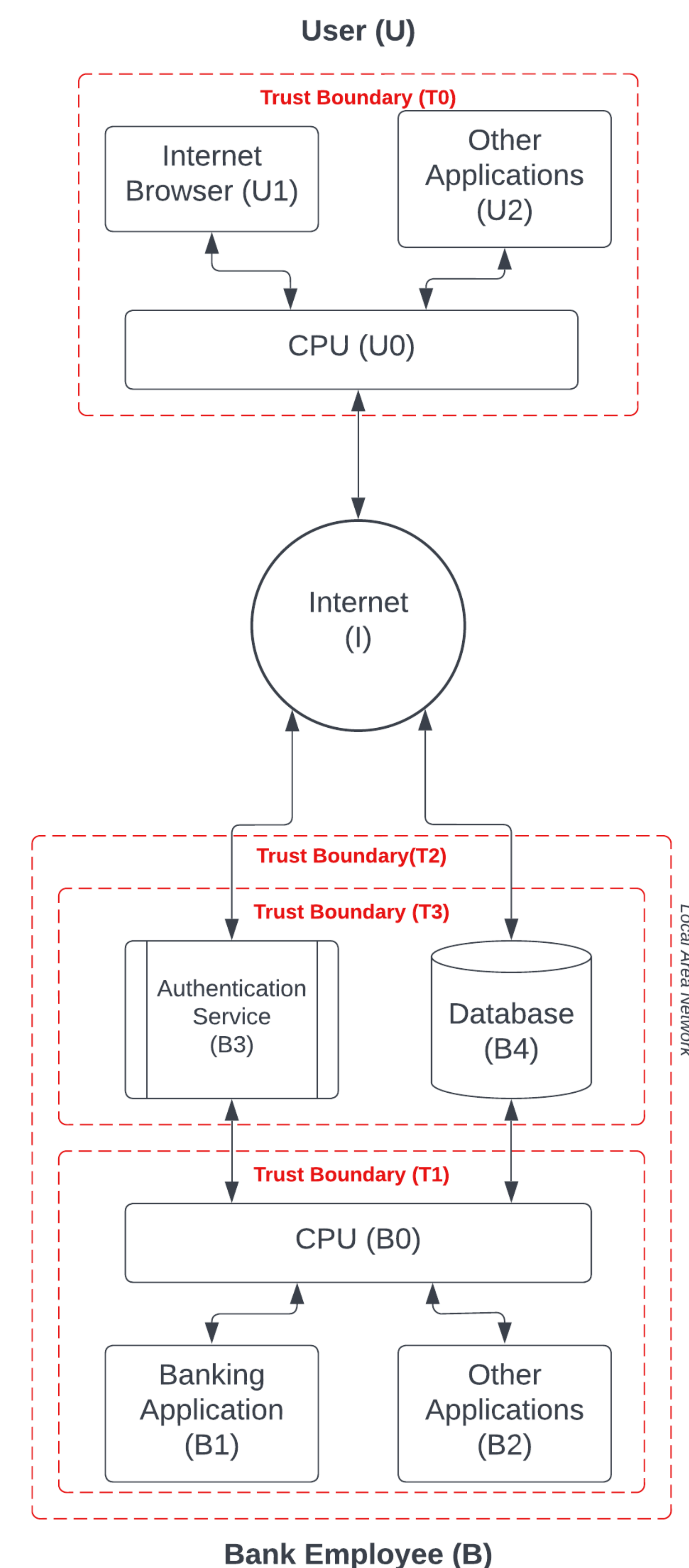
## Research Questions

1. Can students find threats in a given system?
2. Which parts of STRIDE do students find challenging?

## STRIDE Method

Spooing	Impersonating another user
Tampering	Altering data
Repudiation	Claiming you didn't do something
Information disclosure	Leaking or accessing information
Denial of service	Exhausting resources or blocking access
Elevation of privilege	Completing root-level actions

## Threat Model Activity



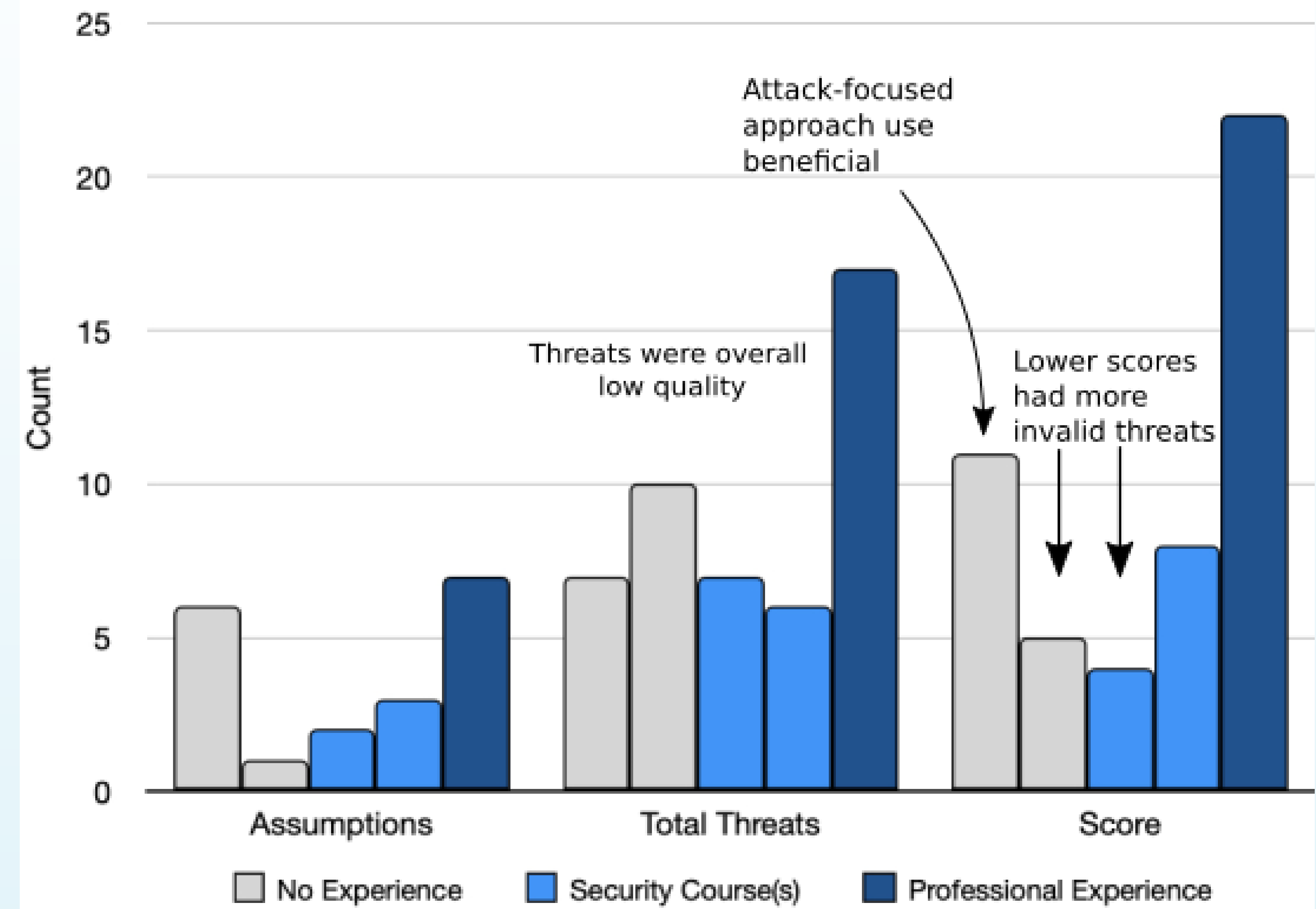
## Participants

Junior/Senior undergrad CS students at Tufts University:

- 2 - no security courses
- 1 - cyber warfare course only
- 1 - intro security course only
- 1 - intro security and internship

## Preliminary Results

Participant Threat Modeling Performance



## Perceived Utility and Usability

Which parts of STRIDE are most difficult?

**Repudiation** was most difficult. Both definition of the term and where it applies were confusing.

Which stages of TM is STRIDE most useful for?

Requires further investigation. One student liked that it elicited both technical and nontechnical threats.

