

# Enablers, Barriers, and Precursors to the Development of Systems Thinking in Engineers

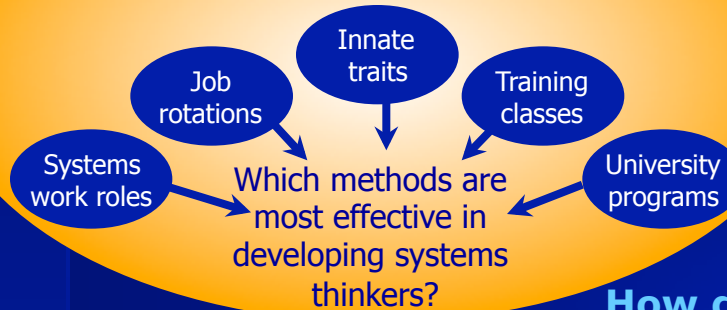
Heidi Davidz

Advisor: Professor Deborah Nightingale



## Motivation

- Increasing interest in systems thinking
- Data needed on systems thinking development



## Methodology

- ✓ 1. Literature review
- ✓ 2. Pilot interviews
- 3. Field studies on systems thinking development
- 4. Identify enablers, barriers, & precursors



How do senior systems engineers develop?

## Field Studies

- Work in multiple aerospace companies
- Interview expert panelists on how each company develops systems thinking
- Administer survey, personality test, and interview to compare characteristics and development histories of:
  1. Senior systems engineers
  2. Junior systems engineers
  3. Senior technical specialists

## Anticipated Results

- Quantitative comparisons of the three subject groups
- Information of how companies currently develop and assess systems thinking
- Analysis of enablers, barriers, and precursors to the development of systems thinking in engineers