

# Use of AI Tools

- 11 participants used AI tools: 3 Copilot, 9 ChatGPT (P5 used both)

ChatGPT Usage Scenario	Participants	Success Rate
Explaining code	P7	2/2
Fixing errors	P13, P17	2/2
Generating visualization code	P9, P13	3/3
Using unfamiliar libraries	P5, P9, P15, P19	1/5
Other programming tasks	P10, P13, P20	3/4

*(e.g., brainstorming a solution)*

low success rate

- Only P5 copied several suggestions into his notebook and ran them to pick the best one

**Design Opportunity:** Better AI integration in notebooks with validation support

# Results

## Explorability

Cell-output correspondences  
Cell-based inspection

Incorporating inspection code  
without clutter

## Clarity

Markdown cells  
Saving outputs

Live programming visualizations that  
work inside loops and functions

## Use of AI

Reading code  
Running code

AI Integration with validation support

Tactics for **Quality Attributes**  
& **AI Validation Strategies**

**Design Opportunities**