

How Do API Documentation and Static  
Typing Affect API Usability?



# Experiment

- Five hours max duration!
- 20-30 participants
- Documentation: plain text (?)
- Language: Dart (?)

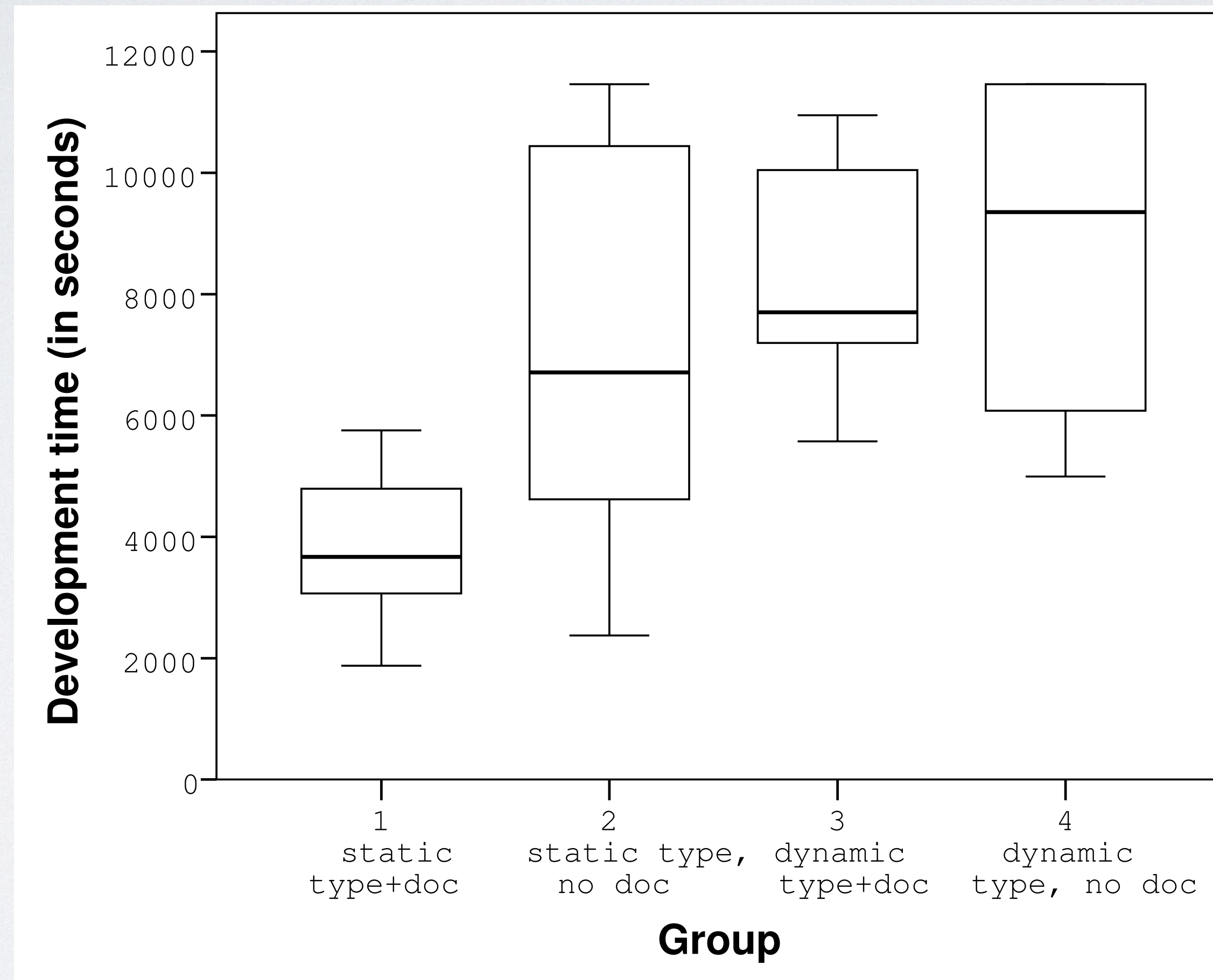


# Design

- 2x2 design
  - IVs: type system, documentation
  - DV: development time



# Results



**Figure 3: Boxplot for raw development time measurements**



# Discussion

- Why do people insist on using dynamically typed languages?
- Can we show they're better (in some cases)?
  - If so, what might the implications be?
- Gradual typing to the rescue?



# External Validity

- Dart?



# Type Systems Research Exercise

- First, identify hypotheses: what are the usability implications of types?
- Then: how might we test them?