

# I Empirical Studies

## Supplemental notes and FOSE 2000

- ⊃ What are the various steps in an empirical study?
- ⊃ What benefits do we derive from empirical studies?
- ⊃ Should we use empirical studies to drive our research? Why or why not? What about practical decisions relative to software developments?  
Development processes?
- ⊃ What part of software engineering has well developed studies and techniques? Why?
- ⊃ What are some of the problems with empirical studies?
- ⊃ What is the structure of an empirical study?

## II Empirical Studies

- ⊕ What is a research context and why is it important?
- ⊕ What is an hypothesis, why is it important, and what do we do with it?
- ⊕ What is the structure of an experimental design?  
What role does each element in the design play?  
Why are they important?
- ⊕ What are threats to validity? What are the different kinds of threats? Why is it important to discuss them?
- ⊕ What are the critical issues in data, data analysis and its presentation?
- ⊕ What should the discussion of results and conclusions contain?

## III Empirical Studies

- ⇒ What can be done to create better empirical studies?
- ⇒ What do we need to do to create credible interpretations?
- ⇒ What are the different kinds of studies that are useful?

### FOSE 2007

- ⇒ What are considered to be primary empirical techniques? Secondary? What are the benefits of each?
- ⇒ What is their vision for empirical methods in SE?

## IV Empirical Studies

- ⇒ Given the analysis they provide of empirical studies has there been much improvement since 2000? What are the problems?
- ⇒ What do they see as their vision for better empirical studies? What is the difference here with the earlier paper?
- ⇒ What relevance problems to they find for empirical studies? Are they important?
- ⇒ Why are theories important? How well are doing with respect to theories? What are the issues and problems?
- ⇒ How do they suggest solving the problems raised?