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?