



Case Studies in Software Engineering

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[Case Study]

- Case Study is an empirical strategy that draws on multiple sources of evidences
 - It relies on one instance (or small set of instances) within its real-life context
- It normally aims at tracking a specific attribute or at establishing relationships between attributes

[Case Study Arrangements]

- A case study can be applied as a comparative research strategy
 - A comparison of results using a new method against historic data
 - A sister project: one using a new method and another using the typical method
 - It may be applied to some components of a larger project and results compared with other components

[Confounding Factor]

- It is hard to distinguish the effects of two factors from each other in case studies
 - Example: A better result may be either due to a new tool or due to the user experience
- Confounding factors are common in case studies due to low level of control

[Advantages and Drawbacks]

- Advantages

- Case studies are easier to plan
- Results are more realistic

- Drawbacks

- Data are hard to interpret
- Results are difficult to generalize

[Survey vs. Case Study]

- Survey is usually done in retrospect
 - Case study is done while a project is executed
- The purpose of surveys is to understand the population
 - Case Study targets a particular project

[Bibliography]

- C. Wohlin et al. **Experimentation in Software Engineering**, Springer. 2012.
 - Chapter 2 - Empirical Strategies (Section 2.3)