

Dilbert and Evolution



I - SW Fault Study 1

- ⇒ What is the context of the study? Why are studies like this important for the project? In general?
- ⇒ What was the approach used? What was the purposes of the first phase? The second phase?
- ⇒ What were the fault categories in Phase 1? What are the different testing phases and what do they accomplish? Which phase saw the most faults? Why? When did most faults occur?
- ⇒ There are three broad sets of results. What are they, what percentage of faults for each, and what observations do they support about large, complex developments?

II - SW Fault Study 2

- ⇒ What are the goals for Phase II? How did they differ from Phase I?
- ⇒ Why study both design and coding faults?
- ⇒ What topics were included in the Phase II survey? Why was the fault set different in Phase II?
- ⇒ What is Chi-Square analysis? What does it tell us about the data? Which are the most important results in the analysis? The least? Why?
- ⇒ What do we learn from weighting the find and fix effort for each fault? Why is that important?
- ⇒ In considering underlying (root) causes, why is the "none given" category important? "other"?

III - SW Fault Study 3

- ⇒ Why is it important to ask about means of prevention? What use can we make of that information? Why is the relationship so important between underlying causes and means of prevention?
- ⇒ What is an important result relative to interface vs implementation faults? Underlying causes? Means of prevention?
- ⇒ What implications are they for software development from this study? For research?
- ⇒ Summarize the results of the study

IV - Lehman Paper

Focus on Sections II, IV and VI - Section V is useful to understanding the rationale for the laws.

- ⇒ What are software life-cycles and why are they important?
- ⇒ What are the main life-cycle phases?
- ⇒ Why is evolution important? What are the factors that lead to evolution?
- ⇒ How does Lehman derive a law? What are the laws of evolution? What do they mean? What are the implications for software development?
- ⇒ What are the main conclusions that Lehman draws?