

Empirical Software Engineering (2023)

Report 2: Analyzing and Comparing Experiments

(20 Points, incl. 5 Points for Presentation)

You are responsible to complete a research task on identifying, analyzing and comparing experimental studies (experiments or quasi-experiments) in software engineering. In this exercise, each group needs to review the experiments from your refined selection and classification, identify and choose at least FIVE experimental studies published at the venues (journal and conferences) and the year assigned to you. With reference to the lecture notes, each group needs to extract the characteristics of these five (quasi-)experiments in terms of each property and step of experimental methodology for your report and select TWO most typical or representative ones for class presentation. You need to synthesize and compare the individual study (experiment) results by tabulating them together. A report has to be compiled to present the summary, analysis and comparison.

PRESENTATIONS: classes on May 9 & 11, 2023 (in descent order)
REPORT DEADLINE: 12:00am on (Monday) May 15, 2023

Your report should include the following sections:

Section 1: Study Summary (5 points)

Provide an overview of the experimental studies published in the assigned year. List all of them by providing full citation (bibliographic) information. Highlight at least FIVE of them with abstracts for analysis and comparison, elaborate the reasons for why you selected those experimental studies. Describe the problems (issues) you experienced as well as research knowledge gained with the study identification, selection, information extraction, analysis and comparison.

Section 2: Study Analysis & Comparison (10 points)

Tabulate and compare the methodological characteristics of the selected experimental studies in a systematic, clear and comprehensive manner. You may consider formatting your presentation in landscape orientation.

The entire report should be no more than 20 pages (A4 size).

Assignment Deliverable:

The assignment deliverable should be submitted by the deadline. Each deliverable contains a cover page that clearly states the report number, task name, your assigned search years with group members' names and student IDs, and the presenter's name, together with the presentation slides in one package.