Experiment report structure

Marco Torchiano

January 21, 2016

Abstract

Template of the final experiment report structure for the course "Empirical Methods in Software Engineering" at Politecnico di Torino. Use a structured abstract including:

- Context: the important of the research questions addressed
- Objectives: the research question(s) addressed
- Methods: data sources, study selection, quality assessment and data extraction
- Results: main findings including meta-analysis results , and sensitivity analysis
- Conclusions: implications for practice and future research

1   Introduction

This document represents a template of the final experiment report structure for the course "Empirical Methods in Software Engineering" at Politecnico di Torino [1].

The experiment is conducted according to the guidelines by Wohlin and colleagues [2].

2   Design

Report about:

- Goal
- High Level Hypotheses
- Measures
- Approach (experiment, observational study, SLR) design

3   Analysis method

Report how you will analyze the measures, possible detailed hypotheses and how you will test each hypothesis (if any).

4   Results

Provide:

- characterization of the population (participants in the experiment, observed units, reviewed studies),

- descriptive statistics for the measures
- Hypothesis testing (if any)

Essentially numerical outcomes of the analysis.

5 Discussion

Interpretation of the results, in terms of the original research questions.
Practical impact of the findings.

6 Conclusions

- summary of the main outcome
- limitations of the study and possible threats to the validity

References

[1] M. Torchiano. Empirical methods in software engineering. Available at http://softeng.polito.it/EMSE/, 2015.

[2] C. Wohlin, P. Runeson, M. Höst, M.C. Ohlsson, B. Regnell, and A. Wesslén. *Experimentation in Software Engineering - An Introduction*. Kluwer Academic Publishers, 2012.