

Quality Models in Practice: A Preliminary Analysis

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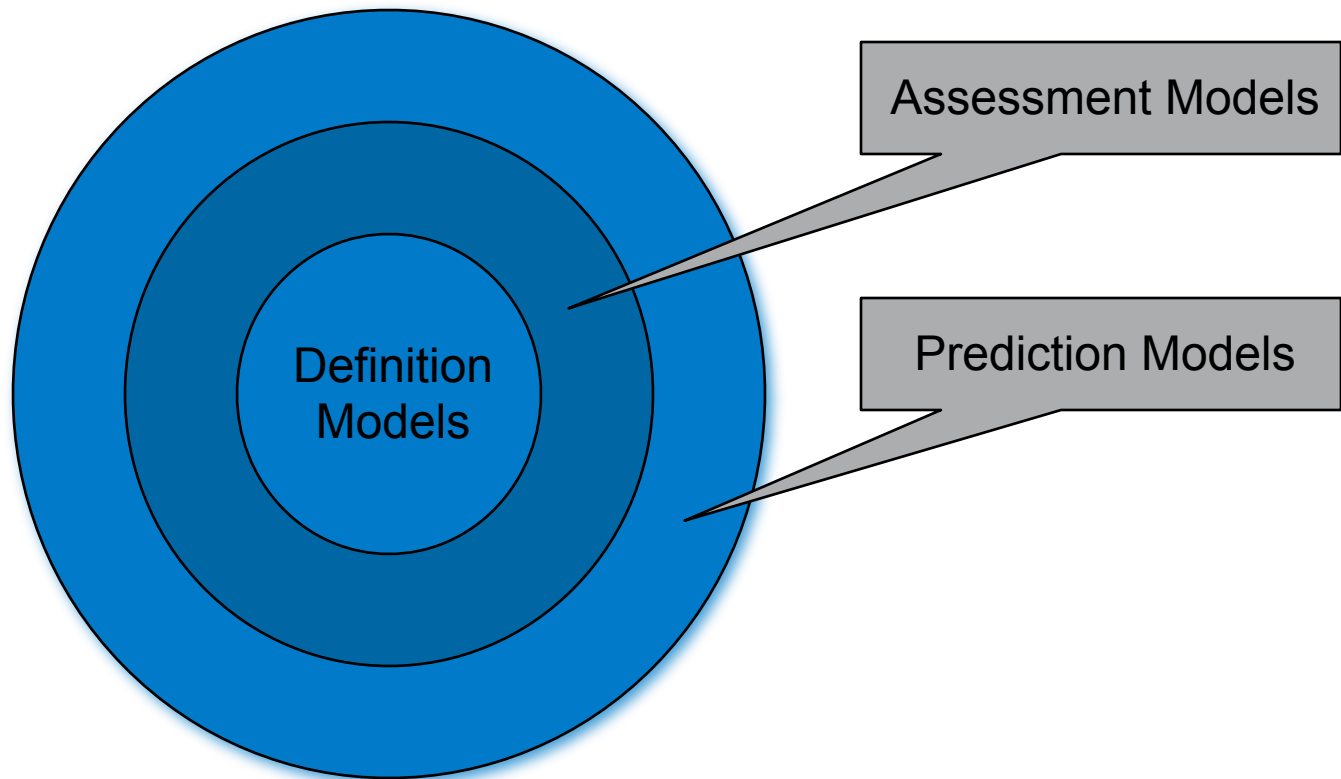
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What are quality models?

How are quality models used?

DAP Classification for Quality Models



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How are quality models used?

Study Definition

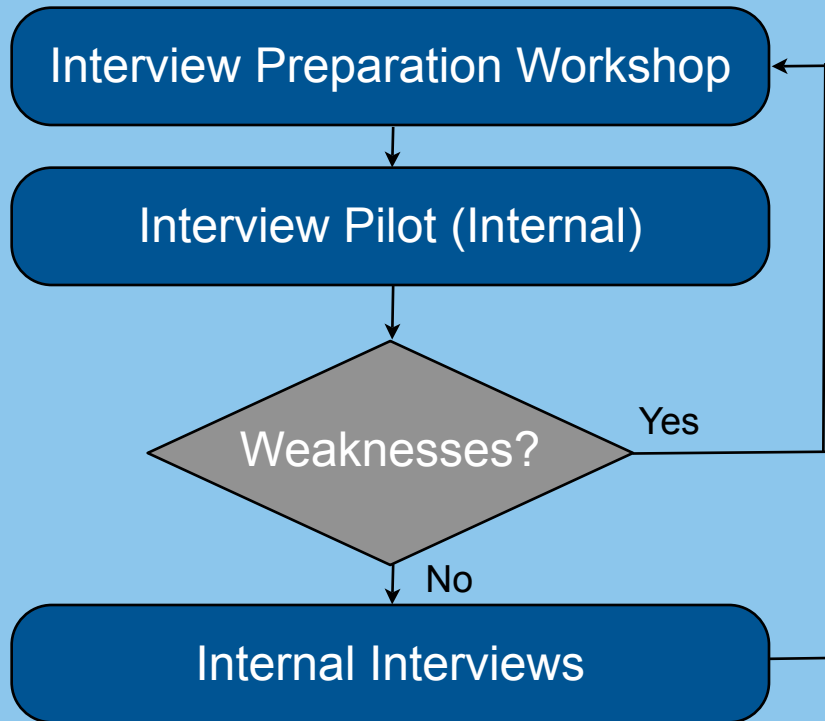
Analyze product quality models
for the purpose of characterization
with respect to the usage (where and for what) and possible
improvement potentials
from the viewpoint of quality managers and quality model users
in the context of (1) specific industry partners
(2) software developing industry

Research Questions

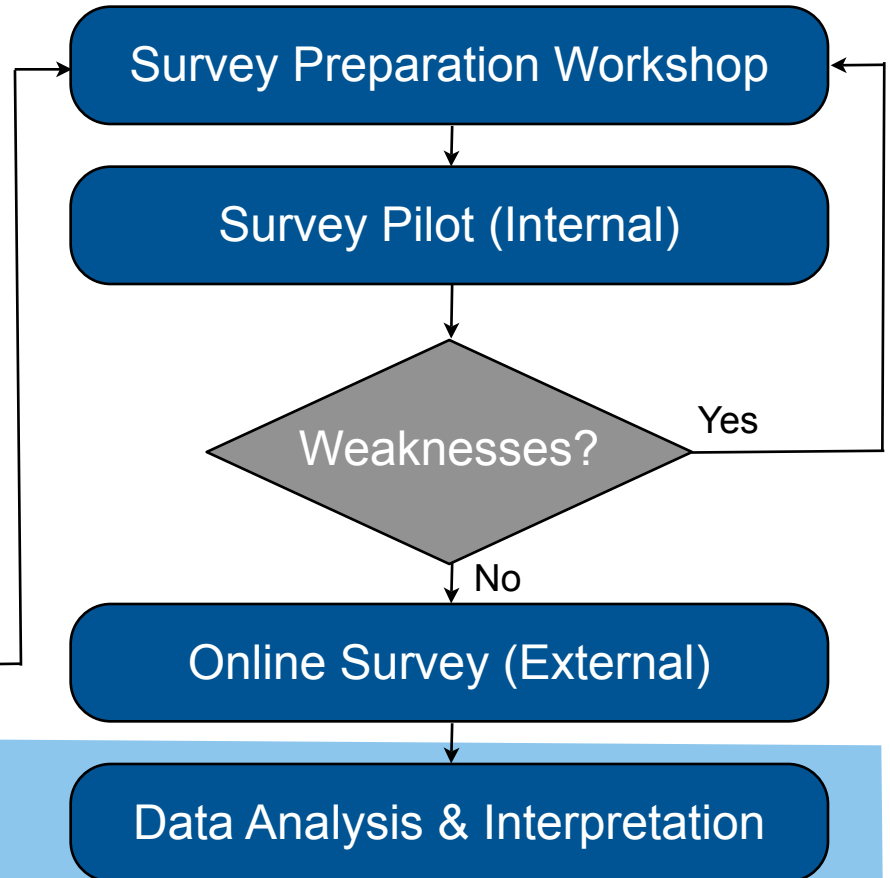
- RQ1.** *What quality models (including standards and laws) are used in which contexts?*
- RQ2.** *How is quality assurance influenced by quality models?*
- RQ3.** *What are current problems with quality models and which potentials for improvement exist?*

Study Design

Phase 1



Phase 2



Interviews

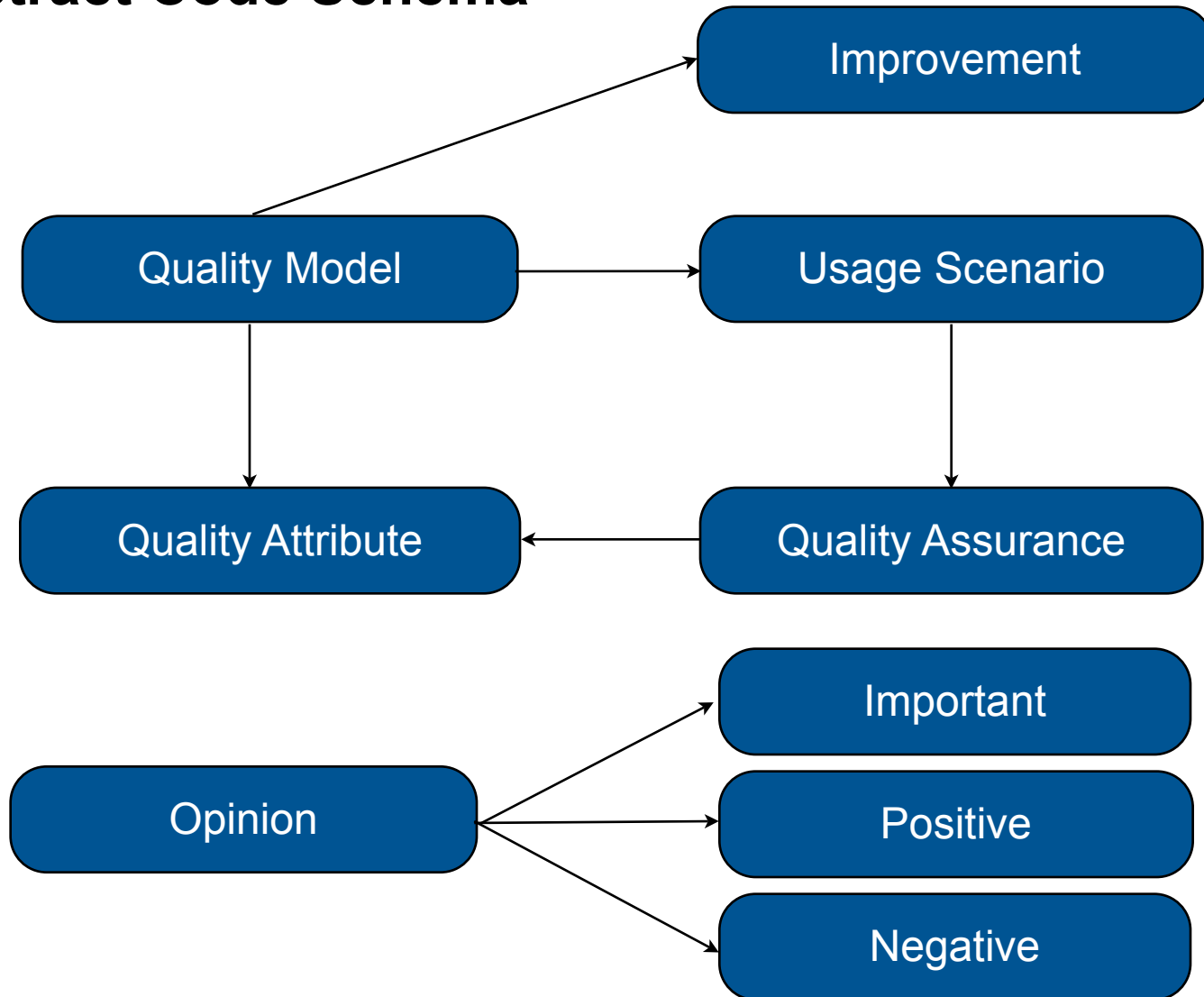
- Face-to-face mode, some telephone
- Questionnaire with semi-structured and structured parts
- 15 open and 12 closed questions
- Asked for first-hand experience
- Two interviewers
 - One primarily asking questions
 - One primarily taking notes

Study Population & Execution

- 25 interviews
- 40-60 minutes
- General manager and quality manager
- Coding schema for qualitative analysis
- Inter-coder reliability: 0.54

Organisation	Number of interviews
Capgemini sd&m	3
itestra	2
SAP	15
Siemens	5

Abstract Code Schema



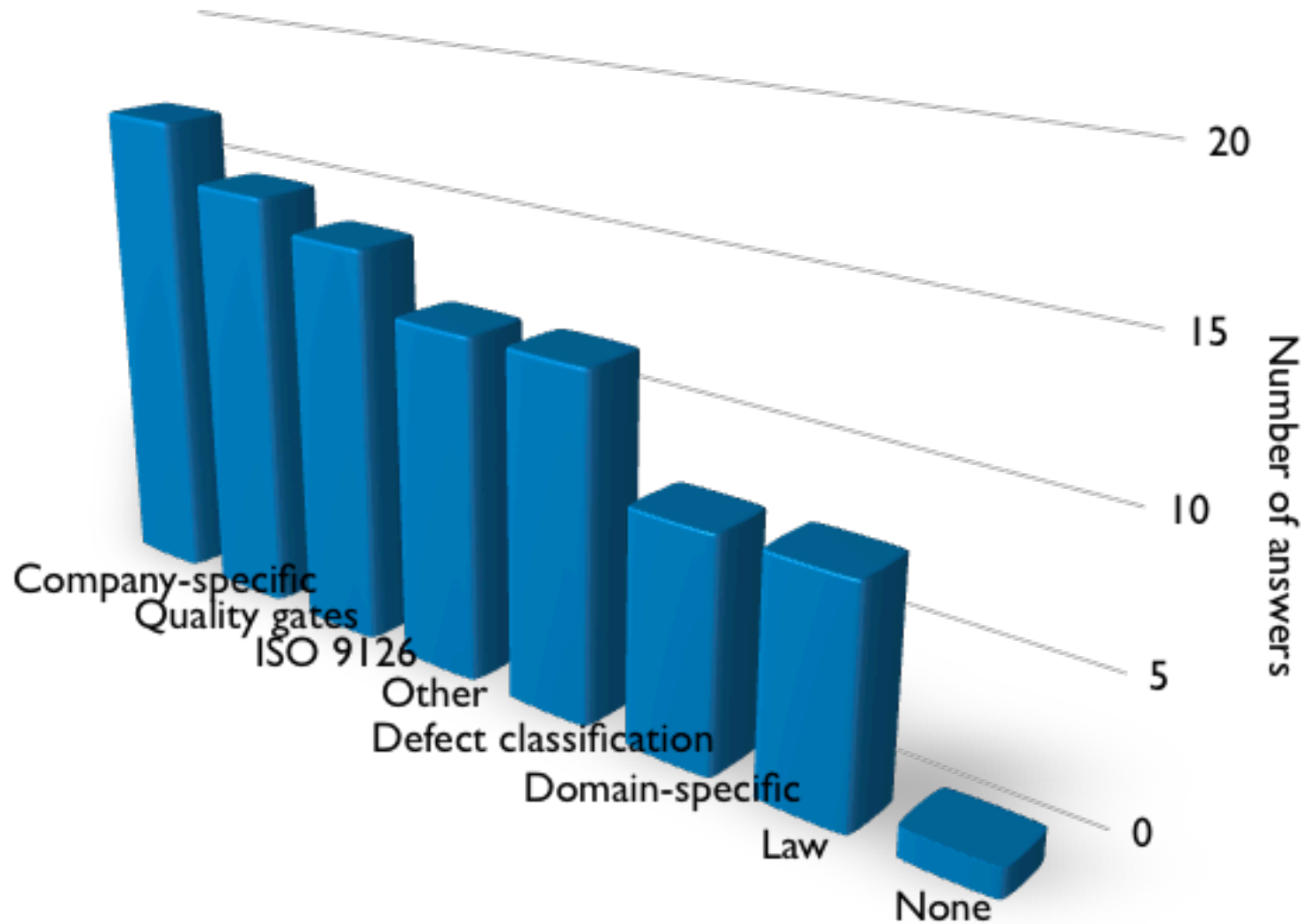
Some Qualitative Results

- Wide variety of quality models:
- Models are requirements so
- Used for review checklists
- Used for quality assessment
- Problems
 - „Operationalization (break down to technical attributes) is difficult.“
 - „The -ilities are good for management talk only.“

„The requirements mainly come from the company wide

„Quality models play a central role in quality analysis projects. They are used to be able to make a quality statement.“

Quantitative Result: Which Quality Models?



Summary

- In depth analysis of the use of quality models
- Very detailed qualitative analysis in phase 1
- Phase 2 brings broad results
 - Online survey is finished
 - Results are being analysed at present
- Future work: More focused interviews

Quamoco
Der Qualitätsstandard für Software



Bundesministerium
für Bildung
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