Anzeigeoptionen
Info: Hier können Sie optional die Anzeigeoptionen verändern. Wenn Sie eine Sprache auswählen, die keine eigenen Textelemente hat, werden die Textelemente der Standardsprache angezeigt.

Anzeigeoptionen einstellen:
- ☐ Filter anzeigen
- ☐ Pretest-Kommentare anzeigen
- ☐ Todos anzeigen
- ☐ Trigger anzeigen
- ☐ Plausichecks anzeigen
- ☐ Randomisierung abschalten
- ☐ Interne Verlinkungen ausblenden
- ☐ Nur den Fragebogen ausdrucken

Sprache: Deutsch

Einstellungen speichern

Informationen zur Umfrage Requirements Engineering Survey 2012

Umfrage-Nr.	78193
Autor	Daniel Mendez
Mitarbeiter	
Start	2012-10-17 00:00:00
Ende	2012-12-31 00:00:00

Fragebogen

1 [Seiten-ID: 381045] [L]
Startseite

Dear Survey Participant,
thank you very much for sparing 15-30 minutes of your valuable time by answering this questionnaire!

The Requirements Engineering Survey 2012 is conducted by the Technische Universität München and the University of Stuttgart and shall help us getting a better unders general industrial trends in Requirements Engineering (RE).

Goal of the survey: We are interested in your personal expectations and experiences on Requirements Engineering to understand the status quo and expectations in pra Requirements Engineering process definitions, their improvement, and their application in projects -- all relying on your personal expert opinion. This shall give you insisi trends in RE and lay the foundation to steer academic and industrial research in a problem-driven manner, i.e. it shall help detect practically relevant problems and goals Engineering.

Structure of the survey: The Requirements Engineering Survey includes (at most) 35 questions, structured into 5 categories:

1. General information about you and your company
2. Your personal expectations on a good RE
3. Status quo in RE at your company
4. Status quo in RE improvement at your company
5. Contemporary problems you experienced in RE and how these problems manifest themselves in the process

Please answer the questions as accurately as possible.

At the end of the survey, you will be asked to enter your email address. In case you agree to post your email-address, we will provide you with an overview of the surv case, please be assured that the survey follows a high academic standard and is conducted anonymously. We will not associate your email address with your answers and the adresses for purpose of providing you with the survey results.

For further information / questions, please contact:

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2 [Seiten-ID: 381055] [L]
Metadata
The following questions consider general information about your company and you.

What is the size of your enterprise?
- ◯ 1-10 employees
- ◯ 11-50 employees
- ◯ 51-250 employees
- ◯ 251-500 employees
- ◯ 501-1000 employees
- ◯ 1001-2000 employees
- ◯ more than 2000 employees

What is the main business area of your company?
- ☐ Software development (custom software)
- ☐ Software development (standard software)
- ☐ Consulting / Project management support
- ☐ Consulting / Software process (management) support
- ☐ IT Consulting & Services
- ☐ Embedded Software Systems
- ☐ Other

Does your company participate in globally distributed projects?
◯ Yes ◯ No

In which country are you personally located?

In which application domain / branch are you most frequently involved in your projects?
- ◯ Embedded systems in Automotive or Avionics
- ◯ Insurance & Trading

- ◯ Banking
- ◯ Telecommunication
- ◯ Defence & Security
- ◯ Logistics
- ◯ Public Sector
- ◯ Other

To which project role are you most frequently assigned to in those projects?

- ◯ Business Analyst / Requirements Engineer
- ◯ Project Lead / Project Manager
- ◯ Test Manager / Tester
- ◯ Architect
- ◯ Implementer
- ◯ Other

How would you classify your experience as part of this role?

- ◯ Novice (up to 1 year experience)
- ◯ Experienced (1-3 years experience)
- ◯ Expert (more than 3 years experience)

Which organisational role takes your company usually in aforementioned projects?

- ☐ Customer
- ☐ Contractor
- ☐ Product development
- ☐ Other

3 [Seiten-ID: 381096] [L]

Expectations on Requirements Engineering

The following questions consider your personal expectations on good Requirements Engineering in general.

How beneficial would you personally rate an improvement for the following development phases / disciplines in your company?

	Not beneficial at all		Neutral		Very beneficial
Requirements Engineering	◯	◯	◯	◯	◯
Project Management	◯	◯	◯	◯	◯
Architecture and Design	◯	◯	◯	◯	◯
Implementation	◯	◯	◯	◯	◯
Quality Assurance and Verification	◯	◯	◯	◯	◯

How challenging would you personally rate an improvement for the following development phases / disciplines in your company?

	Not challenging at all		Neutral		Very challenging
Requirements Engineering	◯	◯	◯	◯	◯
Project Management	◯	◯	◯	◯	◯
Architecture and Design	◯	◯	◯	◯	◯
Implementation	◯	◯	◯	◯	◯
Quality Assurance and Verification	◯	◯	◯	◯	◯

Please rate the following statements on Requirements Engineering (in general) according to your expectations.

	I disagree		Neutral		I agree
The standardisation of Requirements Engineering improves the overall process quality	◯	◯	◯	◯	◯
The standardisation of Requirements Engineering hampers the creativity	◯	◯	◯	◯	◯
Offering standardised document templates and tool support benefits the communication	◯	◯	◯	◯	◯
Offering standardised document templates increases the quality of the work products	◯	◯	◯	◯	◯
The structure of documents should be standardised across different project environments, but the process itself should be left open for project participants	◯	◯	◯	◯	◯

According to your experiences, how important would you consider the following aspects when defining a company-specific standard reference model for Engineering?

	Not important at all		Neutral		Very important
The definition of standardised RE artefacts/work products with document templates and / or tool support	◯	◯	◯	◯	◯
Tailoring mechanisms according to project characteristics	◯	◯	◯	◯	◯
The definition of roles and responsibilities	◯	◯	◯	◯	◯
The definition of standard methods and modelling techniques	◯	◯	◯	◯	◯
Tool support for validiation and verification of requirements specification (including ones given by customers)	◯	◯	◯	◯	◯
Support of impact analyses	◯	◯	◯	◯	◯
Deep integration with other software development phases	◯	◯	◯	◯	◯
Support for agility in the process	◯	◯	◯	◯	◯
Support for prototyping	◯	◯	◯	◯	◯

Which reasons do you agree with as a motivation to define a company-wide reference model for Requirements Engineering in your company?

	I disagree		Neutral		I agree
Compliance to regulations and standards (like CMMI)	◯	◯	◯	◯	◯
Seamless development by integrating Requirements Engineering into the development process	◯	◯	◯	◯	◯
Better tool support	◯	◯	◯	◯	◯

Formal prerequisite for project acquisition in your domain	○	○	○	○	○
Support of distributed development	○	○	○	○	○
Better support of progress control	○	○	○	○	○
Better quality assurance of the artefacts/work products (e.g., within quality gates)	○	○	○	○	○
Support of benchmarks and / or comparison of different projects	○	○	○	○	○
Support of project management and planning	○	○	○	○	○
Higher efficiency	○	○	○	○	○
Knowledge transfer	○	○	○	○	○

Which reasons do you see as a barrier to define a company-wide reference model for Requirements Engineering in your company?

	I disagree		Neutral		I agree
Higher process complexity	○	○	○	○	○
Higher demand for communication	○	○	○	○	○
Reduced flexibility	○	○	○	○	○
Lower efficiency	○	○	○	○	○
Missing change culture in project teams	○	○	○	○	○
Missing possibilities of standardisation	○	○	○	○	○

4 [Seiten-ID: 381268] [L]

Status Quo in Requirements Engineering

The following questions consider the status quo in RE in your company.

Considering your regular projects, how would you classify you / your company to be involved in Requirements Engineering?

- ○ We get (not negotiable) requirements specifications, e.g., by a customer, and work on basis of those requirements
- ○ We get (not negotiable) requirements specifications, e.g., by a customer, and transfer the content into a new structure (templates, tools, etc.)
- ○ We get requirements specifications, e.g., by a customer, and modify / refine them with the stakeholders
- ○ We elicit and speficy the requirements ourselves

If you elicit requirements in your regular projects, how do you elicit them?

- ☐ Via workshops and discussions with the stakeholders
- ☐ As part of an agile approach at the customer's site
- ☐ Via prototyping
- ☐ Via change requests
- ☐ Other

What Requirements Engineering standard (RE reference model) have you established at your company?

- ☐ A standard that is predefined according to a regulation (e.g., ITIL)
- ☐ A standard that is predefined by the development process (e.g., Rational Unified Process)
- ☐ An own standard that defines the coarse process with deliverables, milestones, and phases
- ☐ An own standard that defines the process including roles and responsibilities
- ☐ An own standard that defines work products and offers document templates
- ☐ None
- ☐ Other

5.1 [Seiten-ID: 381735] [L]

Status Quo in RE Process Standard

The following questions consider the status quo in your company-specific RE standard including its application in projects, and, if reasonal controlling.

Which of the following reasons apply for the definition of a Requirements Engineering standard in your company?

- ☐ We decided for it due to company-specific demands
- ☐ Explicit demand from our customer
- ☐ Important argument from our sales department
- ☐ Other

How would you rate the following statements to apply to your Requirements Engineering standard?

	I disagree		Neutral		I agree
Our Requirements Engineering standard..					
... relies on an architectural model with different levels of abstraction	○	○	○	○	○
... includes a differenciated view on different classes of requirements and their dependencies	○	○	○	○	○
... includes a differenciated view on different classes of requirements, but not their dependencies	○	○	○	○	○
... includes tracing relationships among different contents, e.g., between use casses and goals	○	○	○	○	○
... includes a differentiated view on non-functional requirements with different types of non-functional requirements	○	○	○	○	○

How is your change management defined regarding your Requirements Engineering?

(With "change management", we consider the management of changes in requirements.)

- ☐ We have a continuous change management as part of our agile RE approach
- ☐ We have a change management approach that applies after formally accepting a requirements specification
- ☐ We have a change management that applies during during RE
- ☐ We do not consider a change management in RE

Which of the following statements apply to the project-specific application of your Requirements Engineering standard?

- ☐ All projects have to work according to the standard
- ☐ Different business units have different standards
- ☐ Each project can decide whether to use the standard

How is your Requirements Engineering standard applied (tailored) in your regular projects?

- ☐ We have defined a tailoring approach that continuously guides the application of the standard in our project
- ☐ We have tool support for tailoring our Requirements Engineering standard
- ☐ At the beginning of a project, the project lead / requirements engineer tailors the standard based on experiences
- ☐ Other
- ☐ We do not consider a particular tailoring approach

How is the application of your Requirements Engineering standard controlled?

- [ ] Via project assessments
- [ ] Via analytical quality assurance, e.g., as part of quality gates
- [ ] Via constructive quality assurance, e.g., via checklists or templates
- [ ] Other
- [ ] It is not controlled

6 [Seiten-ID: 381737] [L]
REImprovementQuestion

Is your Requirements Engineering continuously assessed and improved?

( ) Yes ( ) No

7.1 [Seiten-ID: 381276] [L]
Status Quo in Requirements Engineering Improvement

The following questions consider the status quo in Requirements Engineering improvement in your company.

What would you consider to be the motivation for a continuous improvement?

- [ ] It helps us to determine our strenghts and weaknesses and act accordingly
- [ ] An improvement is expected by our customer
- [ ] An improvement is demanded by a regulation (e.g., CMMI)
- [ ] Other

Which of the following statements applies to your company regarding the continous Requirements Engineering improvement?

- [ ] We systematically improve our Requirements Engineering via an own business unit / role
- [ ] We systematically improve our Requirements Engineering via an external consultant
- [ ] We systematically improve our Requirements Engineering via:
- [ ] We do not systematically improve our Requirements Engineering, it remains the responsibility of our project participants

Do you use a normative, external standard for your improvement?

( ) Yes, we use an external standard for assessing RE (e.g., CMMI for RE)
( ) No, we use an internally defined (company-specific) standard for improving RE

If you use an internal standard for improving your Requirements Engineering and not an external one, what where the reasons?

Which methods do you use for your Requirements Engineering improvement (regarding assessments / audits)?

- [ ] We qualitatively analyse our projects, e.g., with interviews to gather lessons learned
- [ ] We refer to particular metrics and measurements to automatically assess our projects
- [ ] Other

If you use metrics and measurements to assess your RE in the projects, which ones would you deem most important?

8 [Seiten-ID: 381613] [L]
Contemporary Requirements Engineering Problems

The following questions of the questionnaire consider contemporary problems you experienced in RE including the company standard and experiences. Please answer the questions the most possible honest way.

Please rate the following statements for your Requirements Engineering standard according to your experiences.

	I disagree		Neutral		I agree
Our Requirements Engineering standard...					
...is too hard to understand	( )	( )	( )	( )	( )
...is too complex	( )	( )	( )	( )	( )
...is too abstract	( )	( )	( )	( )	( )
...does not support the specification of precise requirements	( )	( )	( )	( )	( )
...does not scale to our projects' high complexity	( )	( )	( )	( )	( )
...is too heavy weight for our projects (e.g., it does not support agility)	( )	( )	( )	( )	( )
...is not flexible enough (e.g., it offers no means to tackle moving targets / change-intensive requirements)	( )	( )	( )	( )	( )
...does not sufficiently define a clear terminology	( )	( )	( )	( )	( )
...gives no guidance on how to create the specification documents	( )	( )	( )	( )	( )
...does not sufficiently allow for deviations according to project circumstances that cannot be formalised (e.g., politically motivated underspecified requirements)	( )	( )	( )	( )	( )
...does not sufficiently define roles and responsibilities	( )	( )	( )	( )	( )
...isn't sufficiently integrated into Project Management	( )	( )	( )	( )	( )
...isn't sufficiently integrated into Design and Architecture	( )	( )	( )	( )	( )
...isn't sufficiently integrated into Risk Management	( )	( )	( )	( )	( )
...isn't sufficiently integrated into Test Management	( )	( )	( )	( )	( )

Considering your personal experiences, how do the following (more general) problems in Requirements Engineering apply to your projects?

	I disagree		Neutral		I agree
Communication flaws within the project team	( )	( )	( )	( )	( )
Communication flaws between us and the customer	( )	( )	( )	( )	( )

Terminological problems	○	○	○	○	○
Unclear responsibilities	○	○	○	○	○
Incomplete and / or hidden requirements	○	○	○	○	○
Insufficient support by project lead	○	○	○	○	○
Insufficient support by customer	○	○	○	○	○
Stakeholders with difficulties in separating requirements from previously known solution designs	○	○	○	○	○
Inconsistent requirements	○	○	○	○	○
Missing traceability	○	○	○	○	○
Moving targets (changing goals, business processes and / or requirements)	○	○	○	○	○
"Gold plating" (implementation of features without corresponding requirements)	○	○	○	○	○
Weak access to customer needs and / or (internal) business information	○	○	○	○	○
Weak knowledge of customer's application domain	○	○	○	○	○
Weak relationship to customer	○	○	○	○	○
Time boxing / Not enough time in general	○	○	○	○	○
Discrepancy between high degree of innovation and need for formal acceptance of (potentially wrong / incomplete / unknown) requirements	○	○	○	○	○
Technically unfeasible requirements	○	○	○	○	○
Underspecified requirements that are too abstract and allow for various interpretations	○	○	○	○	○
Unclear / unmeasurable non-functional requirements	○	○	○	○	○
Volatile customer's business domain regarding, e.g., changing points of contact, business processes or requirements	○	○	○	○	○

Considering your personally experienced problems (stated in the previous question), which ones would you classify as the five most critical ones (order relevance).

	Problem experienced in your projects:
Problem #1 (most critical one)	Please make a selection Communication flaws within the project team Communication flaws between us and the customer Terminological problems Unclear responsibilities Incomplete and / or hidden requirements Insufficient support by project lead Insufficient support by customer Stakeholders with difficulties in separating requirements from previously known solution designs Inconsistent requirements Missing traceability Moving targets (changing goals, business processes and / or requirements) "Gold plating" (implementation of features without corresponding requirements) Weak access to customer needs and / or (internal) business information Weak knowledge of customer's application domain Weak relationship to customer Time boxing / Not enough time in general Discrepancy between high degree of innovation and need for formal acceptance of (potentially wrong / incomplete / unknown) Technically unfeasible requirements Underspecified requirements that are too abstract and allow for various interpretations Unclear / unmeasurable non-functional requirements Volatile customer's business domain regarding, e.g., changing points of contact, business processes or requirements
Problem #2	Please make a selection Communication flaws within the project team Communication flaws between us and the customer Terminological problems Unclear responsibilities Incomplete and / or hidden requirements Insufficient support by project lead Insufficient support by customer Stakeholders with difficulties in separating requirements from previously known solution designs Inconsistent requirements Missing traceability Moving targets (changing goals, business processes and / or requirements) "Gold plating" (implementation of features without corresponding requirements) Weak access to customer needs and / or (internal) business information Weak knowledge of customer's application domain Weak relationship to customer Time boxing / Not enough time in general Discrepancy between high degree of innovation and need for formal acceptance of (potentially wrong / incomplete / unknown) Technically unfeasible requirements Underspecified requirements that are too abstract and allow for various interpretations Unclear / unmeasurable non-functional requirements Volatile customer's business domain regarding, e.g., changing points of contact, business processes or requirements

Problem #3	Please make a selection Communication flaws within the project team Communication flaws between us and the customer Terminological problems Unclear responsibilities Incomplete and / or hidden requirements Insufficient support by project lead Insufficient support by customer Stakeholders with difficulties in separating requirements from previously known solution designs Inconsistent requirements Missing traceability Moving targets (changing goals, business processes and / or requirements) "Gold plating" (implementation of features without corresponding requirements) Weak access to customer needs and / or (internal) business information Weak knowledge of customer's application domain Weak relationship to customer Time boxing / Not enough time in general Discrepancy between high degree of innovation and need for formal acceptance of (potentially wrong / incomplete / unknown) Technically unfeasible requirements Underspecified requirements that are too abstract and allow for various interpretations Unclear / unmeasurable non-functional requirements Volatile customer's business domain regarding, e.g., changing points of contact, business processes or requirements
Problem #4	Please make a selection Communication flaws within the project team Communication flaws between us and the customer Terminological problems Unclear responsibilities Incomplete and / or hidden requirements Insufficient support by project lead Insufficient support by customer Stakeholders with difficulties in separating requirements from previously known solution designs Inconsistent requirements Missing traceability Moving targets (changing goals, business processes and / or requirements) "Gold plating" (implementation of features without corresponding requirements) Weak access to customer needs and / or (internal) business information Weak knowledge of customer's application domain Weak relationship to customer Time boxing / Not enough time in general Discrepancy between high degree of innovation and need for formal acceptance of (potentially wrong / incomplete / unknown) Technically unfeasible requirements Underspecified requirements that are too abstract and allow for various interpretations Unclear / unmeasurable non-functional requirements Volatile customer's business domain regarding, e.g., changing points of contact, business processes or requirements
Problem #5	Please make a selection Communication flaws within the project team Communication flaws between us and the customer Terminological problems Unclear responsibilities Incomplete and / or hidden requirements Insufficient support by project lead Insufficient support by customer Stakeholders with difficulties in separating requirements from previously known solution designs Inconsistent requirements Missing traceability Moving targets (changing goals, business processes and / or requirements) "Gold plating" (implementation of features without corresponding requirements) Weak access to customer needs and / or (internal) business information Weak knowledge of customer's application domain Weak relationship to customer Time boxing / Not enough time in general Discrepancy between high degree of innovation and need for formal acceptance of (potentially wrong / incomplete / unknown) Technically unfeasible requirements Underspecified requirements that are too abstract and allow for various interpretations Unclear / unmeasurable non-functional requirements Volatile customer's business domain regarding, e.g., changing points of contact, business processes or requirements

9.1 [Seiten-ID: 382176] [L]
ContemporaryProblemsManifestation
The last questions of the questionnaire consider contemporary your experiences with the severity of the contemporary problems you expe
Please answer the questions as accurately as possible.

Considering your personally experienced most critical problems (selected in the previous question), how do these problems manifest themselves in the requests for changes?

#v_342#

#v_344#

#v_346#

#v_348#

#v_350#

Considering your personally experienced most critical problems (selected in the previous question), which would you classify as a major cause for proje all)?

- ☐ #v_342#
- ☐ #v_344#
- ☐ #v_346#
- ☐ #v_348#
- ☐ #v_350#

10 [Seiten-ID: 381638] [L]

Extra question and Email

Is there any other aspect that you experience in your RE process and that remains unaddressed in the questions until now?

In case you would like to be notified about the results, please fill in your email-adress.

11 [Seiten-ID: 379916] [L]

Endseite

Thank you very much for participating in this survey.
We very much appreciate the effort you spent in answering the questions that help us investigating trends in industrial RE. In case you entered your email in the previous notify you about the results as soon as possible.

Sincerely yours,
Dr. Daniel Mendez
http://www4.in.tum.de/~mendezfe