

On the Understanding of BDD Scenarios' Quality: Preliminary Practitioners' Opinions

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Agile Requirements - Card, Conversation and Confirmation

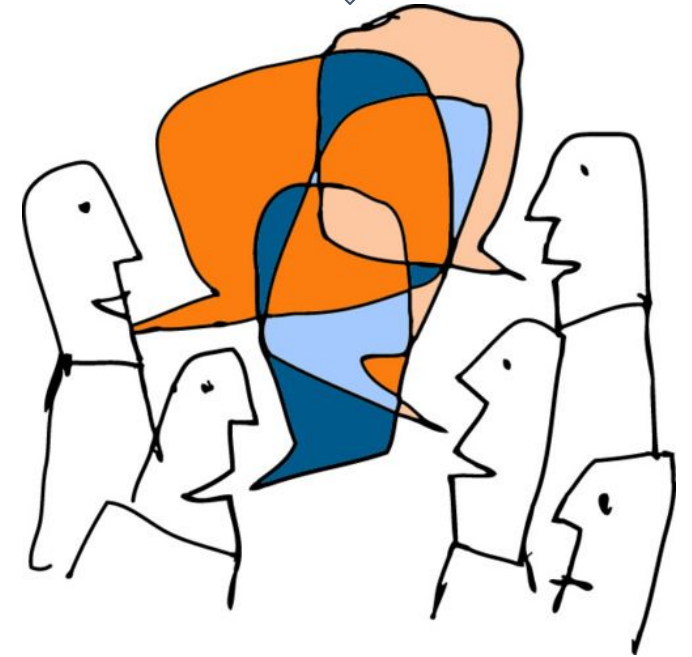
Title: *User cancels reservation*

Description

As a user with a reservation, I want to cancel my reservation so that I get a refund.

Success Criteria

- *Given I am a premium member, when I cancel under 24 hours, then I incur no penalty.*
- *Given I am a non-premium member, when I cancel less than 24 hours in advance, then I pay 50% fee.*
- *Given I am a site member, when I cancel my reservation, then I am emailed a confirmation.*



Agile Documentation: Definition and Quality Criteria

Title: *User cancels reservation*

Description

As a user with a reservation, I want to cancel my reservation so that I get a refund.

Loosely defined reminders for conversations



Success Criteria

- *Given I am a premium member, when I cancel under 24 hours, then I incur no penalty.*
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Convey details in an executable format (BDD scenarios)

Lack of criteria to evaluate them

Research Gap

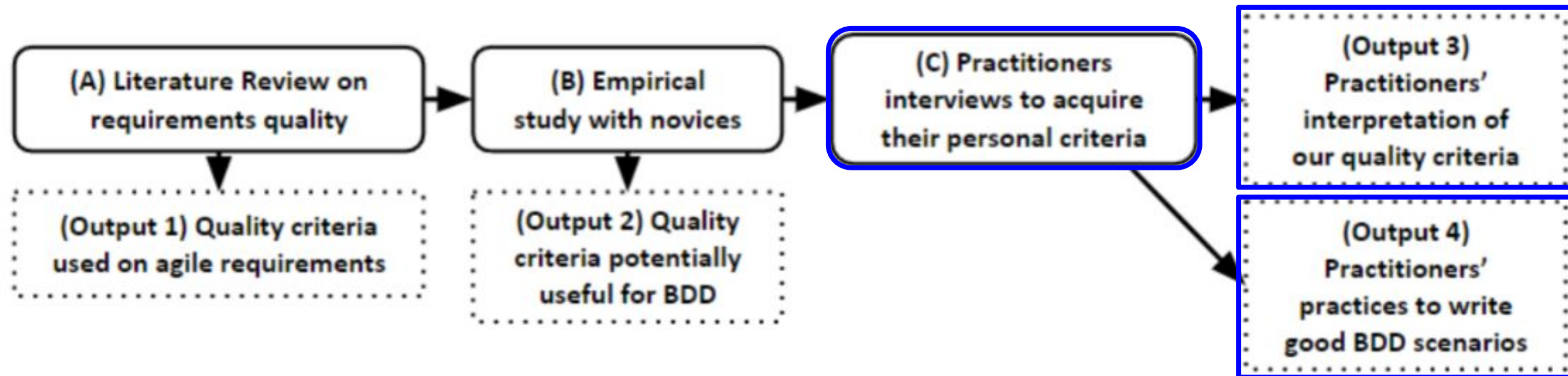
How does one know if a BDD scenario is well written?

BDD writers have no criteria to rely upon

“Bad scenarios documentation can lead to misleading information that will negatively impact the tests ability to reflect the system coverage and the team confidence on them”

*Continuous Delivery? Easy! Just Change Everything (Well, Maybe It Is Not That Easy)
Neely, Steve and Stolt, Steve (2013)*

Research Design



Practitioner's interviews inputs


Branch: develop diaspora / features / desktop / help.feature Find file Copy path

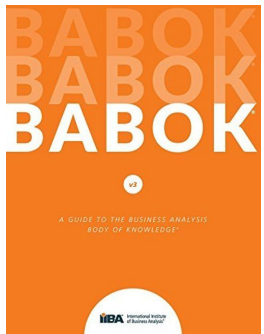
svbergerem Add help page cuke ab0a769 on Nov 26, 2016

1 contributor

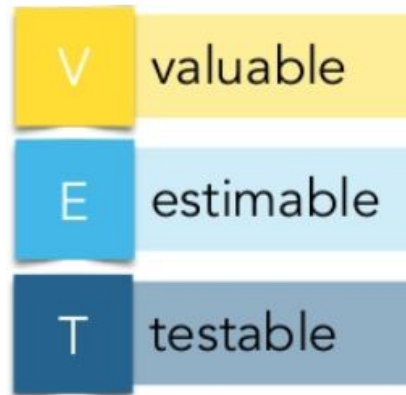
9 lines (7 sloc) 252 Bytes Raw Blame History

```
1 @javascript
2 Feature: Getting help
3
4 Scenario: Visit help page
5   When I am on the help page
6   Then I should see "diaspora* FAQ"
7   When I follow "Mentions"
8   Then I should see "What is a "mention"?" within ".faq_question_mentions .question"
```

 diaspora* social network 
<https://diasporafoundation.org/> team@diasporafoundation.org



concise
feasible
prioritized
small
understandable
unambiguous



(C) Practitioners
interviews to acquire
their personal criteria

(Output 3)
Practitioners'
interpretation of
our quality criteria

(Output 4)
Practitioners'
practices to write
good BDD scenarios

Respondents Profile

| | M/F | Experience | Write scenarios... | Work Place |
|----|-----|------------|------------------------------|----------------------------|
| P1 | F | < 3 years | after conversations w/ team | startup company (< 50 ppl) |
| P2 | M | < 3 years | before conversations w/ team | self-employed consultants |
| P3 | M | < 3 years | before conversations w/ team | small company (< 200 ppl) |
| P4 | M | < 3 years | after conversations w/ team | big company (> 3000 ppl) |
| P5 | F | < 1 year | before conversations w/ team | big company (> 3000 ppl) |
| P6 | M | < 1 year | before conversations w/ team | self-employed consultants |
| P7 | M | < 3 years | before conversations w/ team | small company (< 200 ppl) |
| P8 | M | < 10 years | before conversations w/ team | self-employed consultants |

Results: quality attributes for BDD scenarios

| Attribute | Interpretation | Bad Patterns | Good Patterns |
|-----------------------|--|--|--|
| <i>Concise</i> | “To the point”, few and small steps | Unnecessary details Mixing steps order Data tables | Declarative writing Short statements Only essential details |
| <i>Testable</i> | Single and clear goal and clear outputs | Keyword Repetition Mixing steps order | Declarative writing Title matching Then 1 or 2 Given Steps Only 1 Then step |
| <i>Understandable</i> | Consistent use of business terms | Technical jargon Mixing steps order Data tables | Declarative writing Data tables Fictional characters |
| <i>Unambiguous</i> | Single action, scenario cover one behavior | Mixing steps order Keyword Repetition Weak words | Only 1 When step Fictional characters |
| <i>Valuable</i> | Why this scenario exist | Mixing steps order | Expressive feature and scenario description |

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Personal Recommendations in Requirements Engineering: The OpenReq Approach (Research Preview)

What can we do now that we could not do before?

- proposed framework to recommended systems

How sound is the solution?

- too early to say

What is the next step to take?

- a prototype to perform one of the 5 proposed tasks

Whose goals are served or helped by this?

- unify in the same model multiple RE tasks

Why wouldn't I use the same approach?

- Lack of data considerations
 - where the data will be hosted?
 - how long the training/set-up would take?