Assessing Your Agility: 
Introducing the Comparative Agility Assessment

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Agile Development Practices 
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Who We Are

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  ◀ Early-market thought leader in Object Technology / Smalltalk
  ◀ Certified Scrum Trainer

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  ◀ Author of two popular books on agile development
  ◀ Co-founder of Agile Alliance and Scrum Alliance
  ◀ Certified Scrum Trainer
Scenario

Our company has decided to use agile
We get training and maybe some coaching
After six months, management wants to know:

“How are we doing at adopting agile?”

Some specific questions

Are we where we should be?
In which areas do we need to improve?
In which areas are we excelling?
How are we doing relative to others?
How are we doing relative to our competitors?
We need an assessment framework

- An instrument for “measuring” agility
- Desirable attributes
  - Must evaluate multiple dimensions of agility
  - Must lead to actionable recommendations

Agenda
- The Assessment Framework
- Assessment Process
- Preliminary Industry Results
- Sample Company Results
Assessment framework

Dimensions (7 total)

Characteristics (3–6 per dimension)

Questions (~125 total)

Seven assessment dimensions

- Teamwork
- Requirements
- Planning
- Technical practices
- Quality
- Culture
- Knowledge creation
An Example

Characteristics
- Planning levels
- Critical variables
- Progress tracking
- Source
- All upfront

Planning (dimension)
- Created at multiple levels of detail;
  frequently updated;
  created by team with full buy-in

Questions
- We do the right amount of upfront planning;
  helpful without being excessive.
- Effort spent on planning is spread
  approximately evenly throughout the project.

Responses
- True
- More true than false
- Neither true nor false
- More false than true
- False

The Requirements Dimension

Requirements
- Document-centric; collected
  upfront; little acknowledgement of
  emergence

Collected at different levels of detail;
progressively refined; conversation-focused,
augmented with documentation

- Four characteristics
  - Communication focus
  - Level of detail
  - Emergence
  - Technical design
Requirements.
Communication Focus

- Written requirements are augmented with discussion.
- The details of a feature are fleshed out in just-in-time discussions.
- Our product owner is available to discuss features during the iteration.
- We acknowledge that not all details can be conveyed in written specifications.

Requirements.
Level of detail

- Teams are able to start projects with incomplete requirements.
- During an iteration the specific details of some features are negotiable.
- Requirements are represented at different levels of detail based on how soon we expect to implement them.
**Requirements. Emergence**

- Change is a natural part of our business; we accept it and embrace it at reasonable times.
- Product owners can change requirements without a lot of fuss.
- Development teams can request and negotiate requirements changes with product owners.
- Product owners acknowledge that sometimes features turn out to be bigger than anyone thought.

**Requirements. Technical design**

- Projects begin with a big, distinct technical design phase.
- Technical design occurs iteratively throughout a project.
- Technical design is a team activity rather than something performed by individuals working alone.
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Assessment approaches

- Consultative
  - Administered to a team of people by a consultant
  - Consultant fills in the questionnaire based on responses collected during interviews
- Self-administered
  - Individuals working on projects complete either paper or online version of the survey
- Online version is at
  - www.ComparativeAgility.com
Assessment philosophy

- Not trying to determine maturity levels
- Organizations do not need to be perfect
  - Only better than their competitors
- Lead to the idea of a Comparative Agility Assessment
  - “How am I doing compared to my competition?”

Sample from online survey
Agenda

✓ The Assessment Framework
✓ Assessment Process
• Preliminary Industry Results
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As you respond to this survey, will you be thinking mostly about your:

- Team (63%)
- Department (16%)
- Division (17%)
- Organization (4%)

How long had this group been doing agile development prior to starting this project?

- 0-6 Months (54%)
- 7-12 Months (11%)
- 1 Year (15%)
- 2 Years (13%)
- Longer (7%)
Which best characterizes this project?

- Commercial Software: 33%
- Web Development: 25%
- Internal Software: 26%
- Contract Development: 14%
- Other: 3%

About how many people were or are on the project being assessed?

- 1-10: 38%
- 11-25: 12%
- 26-50: 31%
- 51-100: 9%
- > 100: 11%

Seven Dimensions
All data

- Teamwork
- Requirements
- Planning
- Technical Practices
- Quality
- Culture
- Knowledge Creation

-2 Std Devs
-1 Std Dev
+1 Std Dev
+2 Std Devs

Thursday, November 13, 2008
Technical Practices
All data

Test-driven development
Pair programming
Refactoring
Continuous Integration
Coding Standard
Collective Ownership

Quality. Timing

Testers are productive right from the start of each iteration.
All types of testing (performance, integration, scalability, etc.) are performed in each iteration.
At the end of each iteration there is little or no manual testing required.
There is no big handoff between programmers and testers either during or at the end of an iteration.
All bugs are fixed during the iteration in which they are found.
Interesting results: Length of agile experience

- Knowledge creation
- Culture
- Quality
- Technical practices
- Planning
- Requirements
- Teamwork

Agile web development

- Compared to the overall sample, web projects:
  - Are more likely to contain duplicated code, less likely to have a coding standard, and do less refactoring
    - Are these things less important on web projects?
  - Are less likely to be built automatically once a day
  - Are more likely to have collocated product owners
    - And more likely to have product owners who respond in a timely manner
  - Are more likely to be done in mini-waterfalls
What do you think the average answer was to these questions?

| Teams know their velocity |  
| Product owners provide acceptance criteria for each feature |  
| We don't cancel training, holiday, and vacation time when behind schedule |  
| Testers are productive right from the start of each iteration |  

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How does a company use this data?

- Stock their improvement backlog with items for teams (including non-delivery teams) to work on
- Identify Big Hairy Audacious Goals (BHAGs) to ask teams to meet
  - Identify leading and lagging indicators of success to gauge and measure progress

Dimensions of an example company

<table>
<thead>
<tr>
<th>Teamwork</th>
<th>Directed; individuals work in silos; multiple locations; multiple projects</th>
<th>Self-organizing, cross-functional teams; dedicated team members; collocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements</td>
<td>Document-centric; collected upfront; little acknowledgement of emergence</td>
<td>Collected at different levels of detail; progressively refined; conversation-focused, augmented with documentation</td>
</tr>
<tr>
<td>Planning</td>
<td>All-encompassing, task-oriented plans created upfront; reluctance to update plans; little buy-in to dates from team</td>
<td>Created at multiple levels of detail; frequently updated; created by team with full buy-in</td>
</tr>
</tbody>
</table>
“Hmm, those Technical Practices and Quality scores look low compared to other companies. Let's dig deeper.”
Technical Practices characteristics

- Continuous integration
- Refactoring
- Test-driven development
- Coding standards
- Collective ownership
- Pair programming

Quality characteristics

- Customer acceptance testing
- Timing
- Automated unit testing
Teams feel an appropriate amount of pressure to meet deadlines.

Product owners are willing to consider delivering less than 100% of a solution.

Developers and product owners participate equally in release planning.

Product owners understand that sometimes solving 20% of the problem delivers 80% of the value.

We don’t cancel training, holiday, and vacation time when behind schedule.

Management allows team members to make the decisions that should be theirs to make.

We maintain a high rate of productivity without being overworked.

How you can participate

• Take the survey, it’s free!
• Get a report summarizing your answers
• We’re working on getting comparative reporting available
  • Timeline is somewhat dependent on how much more data we get and how fast
• You can opt-in to a notification list to stay in touch with new reporting features
• Visit the website for details:
  • www.ComparativeAgility.com