Agile for Instructional Design

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Purpose

TO: Provide instructional designers with guidance on how to get started with agile

BY: Reviewing the history, principles and terminology of agile before providing examples of how agile can be applied to instructional design and performance improvement

SO THAT: Participants can commit to an action plan for leveraging the benefits of Agile
Audience Analysis

Please indicate your agreement with these statements:
1. I hear the buzzword ‘agile’, but I have no clue really what it is.
2. I know at least a little about Agile.
3. I practice some form of Agile now.
4. I am an Agile expert.
5. Agile is a bunch of hooey.
Agenda

1. What is agile?
2. How do you apply agile principles to instructional design?
3. How do you get started with agile as a non-software team?
4. Open discussion
What is Agile?
Agile

A set of work methods characterized by responsiveness to change and a relentless focus on collaboration
Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

**Individuals and interactions** over processes and tools
**Working software** over comprehensive documentation
**Customer collaboration** over contract negotiation
**Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Kent Beck  
Mike Beedle  
Arie van Bennekum  
Alistair Cockburn  
Ward Cunningham  
Martin Fowler

James Grenning  
Jim Highsmith  
Andrew Hunt  
Ron Jeffries  
Jon Kern  
Brian Marick

Robert C. Martin  
Steve Mellor  
Ken Schwaber  
Jeff Sutherland  
Dave Thomas

February, 2001
BENEFITS OF AGILE

Top 3 Benefits of Agile

87% Ability to manage changing priorities
85% Increased team productivity
84% Improved project visibility
Why?

“We're tired of writing crap. We are tired of embarrassing ourselves and our employers by delivering lousy software. We have had enough of telling our customers to reboot at midnight. We don't want bug lists that are a thousand pages long. We don't want code that grows more tangled and corrupt with every passing day. We're tired of doing a bad job. We want to start doing a good job.”*

*http://thecleancoder.blogspot.com/2011/01/software-craftsmanship-what-it-all.html?_sm_auc7qf1MvHz7

Uncle Bob Martin
Original Agile Manifesto Signatory
Waterfall vs. Agile

Waterfall

Agile
The 5 Big Things about Agile Methods

• Work on the most important things first
• Limit work in process (WIP)
• Frequently deliver in small increments
• Make it a team sport
• Continuously improve
Agile in Practice/ID
“I’d like to request a gigantic training program....”

Waterfall
1. Articulate learning objectives
2. Create correspondingly gigantic project plan
3. See you in 6 months

Agile
1. Find out what would add the most value right now
2. Commit to an experiment
3. Demonstrate what you have after two weeks*
4. Re-plan

*If viable, customer has something they can use after 2 weeks.

Agile Manifesto, Principle #1
“Our highest priority is to satisfy the customer through early and continuous delivery of valuable <software>.”
This Really Happened*

Request: An eLearning that includes a series of 16 short training videos to show software testers “best practices”

Business Problem: Software testers are causing system outages from not following these 16 best practices

Analysis Revealed: Outages are happening nearly every day. Looking at the outage reports, only 4 behaviors were causing outages. Also, they need more servers.

Our approach: Develop one video based on the most egregious (tester behavior) cause. Demonstrate and release that one video before working on the other three.

Agile Manifesto, Principle #3
“Deliver <working software> frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.”

*Agile Performance Improvement, Chapter 3
### The Results – Total Cost of Training

<table>
<thead>
<tr>
<th></th>
<th>As Requested</th>
<th>As Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees trained</td>
<td>800</td>
<td>400</td>
</tr>
<tr>
<td>Time to take training</td>
<td>1 hour</td>
<td>0.25 hour</td>
</tr>
<tr>
<td>Value of an engineer's time</td>
<td>$150/hr</td>
<td>$150/hr</td>
</tr>
<tr>
<td>Cost of time for employees to take training x $150/hour</td>
<td>1 hour x 800 employees x $150/hr = $120,000</td>
<td>0.25 hour x 400 employees x $150/hour = $15,000</td>
</tr>
<tr>
<td>Cost to develop the training at $90/hour*</td>
<td>100 hours labor x $90/hour = $9,000</td>
<td>25 hours labor x $90/hour = $2,250</td>
</tr>
<tr>
<td>(100 hours of labor per 1 hour of training)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL COST OF TRAINING</strong></td>
<td><strong>$129,000</strong></td>
<td><strong>$17,250</strong></td>
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</tbody>
</table>

*These cost/hour averages refer to full-time employees with benefits, and they are rough blend.

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**Agile Manifesto, Principle #10**

Simplicity--the art of maximizing the amount of work not done--is essential.
What Questions Do You Have?
The Commitment
Simple But Not Easy?!?!

Scrum
SAFe
Sprint
Retrospective
Backlog
Agile Manifesto
Standup
Scrum Master
Continuous Integration
Burndown Charts
Self-Directed Work Teams
Automated Testing
Refactoring
Kanban
Product Owner
Lean
Decide Where to Start

What is holding your team back from doing better?

What success measure will tell you know if team performance is improving?

What one action can we take right now that will make the greatest difference?

I said: ONE thing, not EIGHT things!!!!

**Agile Manifesto, Principle #12**

“At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.”
Bob Assesses His Experiment
Course Evaluation

1. What is the most valuable thing you learned today?

2. What is next for you with respect to Agile?

3. Rate your level of agreement: “How likely would you be to recommend this presentation to colleagues or peers?” (10=totally; 1=not at all)
CA Enterprise Agility
@EnterprzAgility
#FollowTheLove

Let’s Discuss!
@TheBobWinter
#AgileHPT
http://thebobwinter.blogspot.com/

Agile Performance Improvement
Apress.com
Amazon.com