Enhancing the Agile Tester's Toolbox

NANCY KELLN & LYNN MCKEE

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Agenda

- Shades of Agile
- Benefits of Testing within Agile
- Changing the Tester's Perspective
- Aligning the Development & Test Life Cycles
- Defining Effective and Adaptive Strategies
- Leveraging Varied Techniques and Tools
- Fit for Purpose Test Documentation
- Facilitating Effective Collaboration
- Evaluating & Communication Effectively
- Summary

DISCLAIMER

WARNING: Testing successfully in Agile contains a breadth of information that cannot all possibility be covered in a 60 minute presentation. This discussion will focus on some of the key tools that we have found to compliment any shade of Agile Testing. The appropriateness or degree of implementation in your Agile environment may differ. Contents of this presentation are under pressure. Shake well before using. Batteries not included, but lots of MSG and preservatives are. Avoid prolonged exposure to this presentation. Void where prohibited. Some assembly required. Use only as directed. This presentation may not be suitable for young children. Do not take orally. Side effects are not common but may include itching, redness and occasional fainting. If conditions persist, consult your physician. No fur-bearing animals were harmed during the creation of this presentation. Not responsible for direct, indirect, incidental or consequential damages resulting from any defect, error or failure to perform. Do not attend this presentation while operating a vehicle or heavy equipment. First pull up, then pull down. Call toll free before digging. Driver does not carry cash. Use only in well-ventilated area. Keep away from fire or flame. Some of the trademarks mentioned in this product appear for identification purposes only. Contestants have been briefed on some questions before the show. Limited time offer, call now to insure prompt delivery. You must be present to win. No passes accepted for this engagement. No purchase necessary. This presentation may contain peanuts, but we doubt it. Any resemblance between this presentation and others, good or bad, is purely coincidental. This presentation is meant for educational purposes only. The persons and events in this production are fictitious. No similarity to actual persons or predators, living or dead, is intended or should be inferred. Information presented in this presentation does not constitute legal advice. Reproduction strictly prohibited. Should you need legal advice, seek a legal adviser. Subject to change without notice.

Shades of Agile

Where are you in the spectrum?
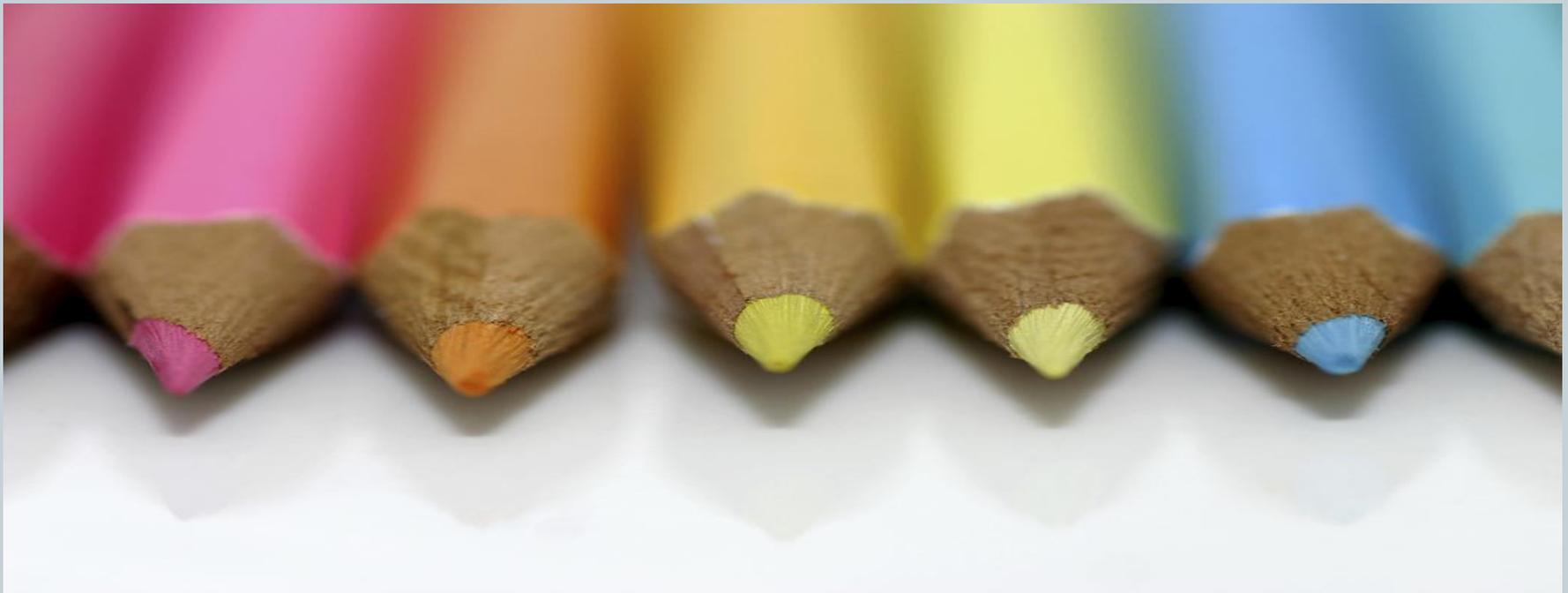
Traditional   **Agile**

Benefits of Testing within Agile

Early Engagement

Getting Closer to the Technical Design

Lightweight Test Documentation

Daily Team Updates via Stand Ups

Helping Build the Plan

Qualitative Measurements

Effectively Factoring Testing into the Timeline

Gathering Requirements from the Source

Partnering with Developers

Demos with the Customer

What is in your Tester Toolbox?

Good testers only need one tool
– the Magic Mallet of Quality!

Changing the Tester's Perspective

- Consider the testers role, activities and deliverables may change
- Look at the big picture
  - Ensure the test effort is aligned with stakeholder goals
- Encourage collaboration; building strong relationships and focusing on team collaboration is key to the role of testing
- Be quick and nimble; testing within agile needs to be adaptive and scalable

Change in Perspective – Examples

Before

- Where is testing in the project plan?
- I can fully pre-plan and script my work
- I will test every requirement
- When will development be done for me to get started?
- Darn those developers!
- I must ensure zero defects!
- Testing is the Gatekeeper

Now

- Here is my testing input to the project plan
- My plans will be effective and adaptive to project changes
- I will test in context
- Testing early and often is highly valuable!
- Developers are my friends
- My job is not to assure quality…I convey insightful information in context

Aligning Development & Testing

- Identify the development methodology
- Clarify the project needs for testing:
  - Activities
  - Deliverables
  - Communication
- Are they aligned?
- Collaborate to resolve gaps and align at onset

Defining Effective Strategies

- What is a Test Strategy?
- What influences a Test Strategy?
- What makes a Test Strategy effective?
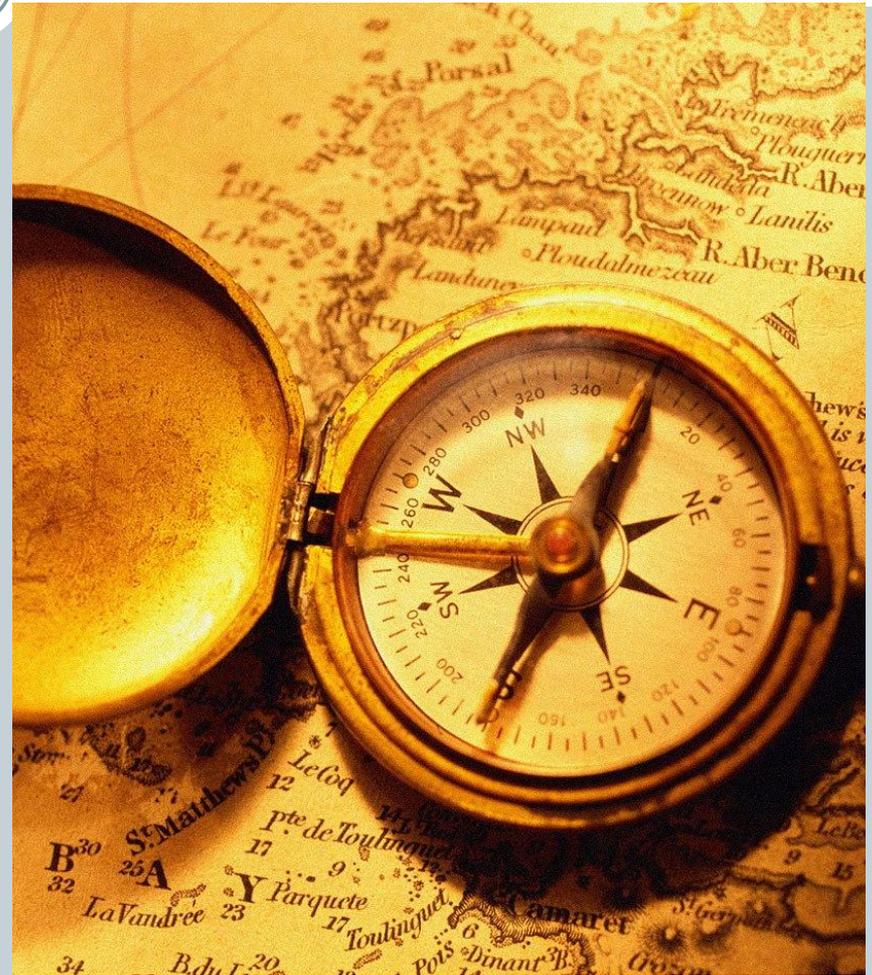
Considerations for Test Strategies

- ## Objective
  - The testing roadmap!
  - To ensure the completeness and accuracy of the business and technical requirements in alignment with the quality objectives and within the project constraints.

- ## Identify and mitigate risks through the analysis and types of testing, techniques and rigor applied

- ## Developing the Test Strategy requires understanding the context:
  - Business Need – What is the business need?
  - Technical Solution – What is being developed to solution the business need?
  - Project Timelines, Resources & Budget – What are the constraints on the test effort?
  - Quality Objectives – What are the quality objectives?

Effective Strategies – Strategy Workbook Sample

<Project Name>: System Breakdown

| System Name | System Breakdown | High Level Functionality | Scope | Release Impact | Business Priority | Business Risk Analysis | Technical Risk Analysis | Business Owner(s) | | | | | | Planned Testing Intensity | Based on Quality Characteristics, Types of Testing to be Applied | Other System(s) Integration | Peripherals | Comments |
								HR	Corporate Services	Finance & Accounting	IT	Market Services	Operations & Reliability					

Leveraging Varied Tools & Techniques

- ## Kinds of Tools
  - Planning
  - Communication
  - Automation
  - Tracking
  - Etc
- ## Varied Techniques
  - Black/white/clear box
  - Scripted vs Unscripted
  - Exploratory
  - Session Based
  - Heuristics
  - Mnemonics
  - Etc

Varied Techniques – Mnemonic Examples

HICCUPPS

An oracle determination mnemonic. Use it to find information when determining whether tests pass or fail. This is a useful analysis and planning tool, and is also useful when testing.

H - History
Is the product consistent with previous versions of the product?

I - Image
Is the current product consistent with the image of the company?

C - Claims
Is the product consistent with the claims we are making about it?

C - Comparable Product
Is the product consistent with comparable products?

U - Users
Is the product consistent with our user's expectations?

P - Product
Is the product consistent with itself?

P - Purpose
Is the product consistent with its purpose?

S - Statutes (Laws)
Does the product conform to relevant laws, rules, legislation, etc?

SFDPOT(San Francisco Depot)

A test coverage and analysis mnemonic. Use it when test planning, and when creating test ideas.

S - Structure
What the product is composed of.

F - Function
What the product does.

D - Data
What the product processes.

P - Platforms
Where the product runs.

O - Operations
How the product is used.

T - Time
Any relation time has on the product.

Mnemonic's Created by James Bach - 2001

Varied Techniques – Session Based

- Components of Session Based Testing
  - Charter
  - Time Box
  - Reviewable Result
  - Debriefing
- Session Tester Tool
  - Features
    - Mission
    - Session Length
    - Idea Primers
    - Reminders
    - Tags
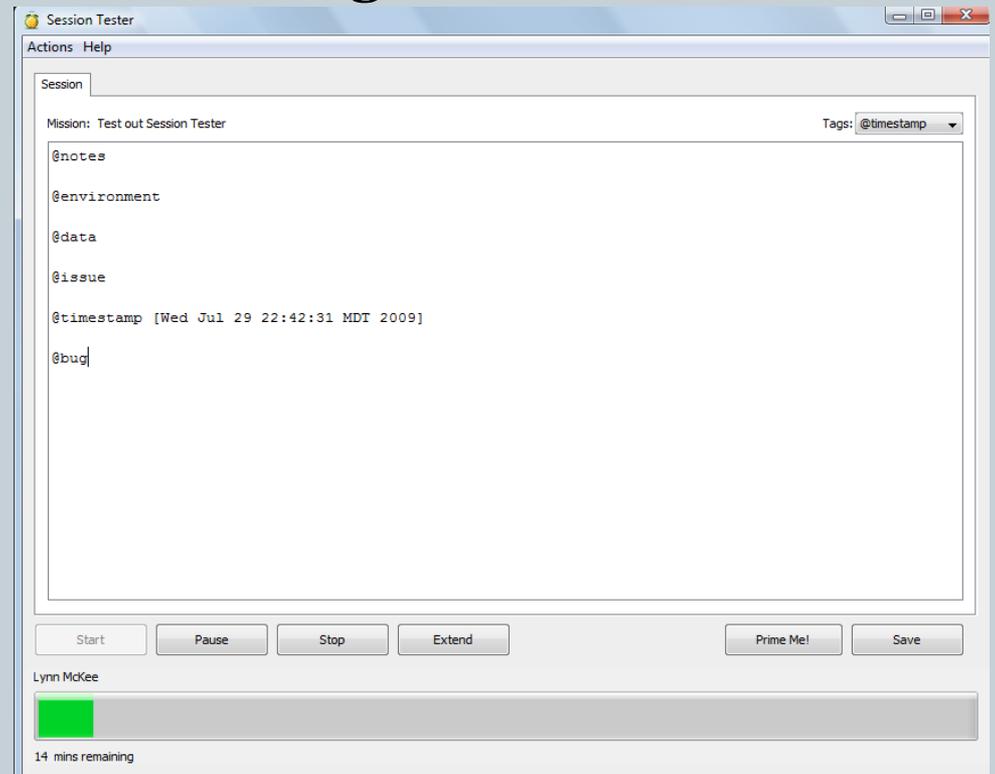   - Start/Pause/Extend/Stop

Image of *Session Tester* tool from: http://sessiontester.openqa.org

Nancy Kelln & Lynn McKee

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Fit for Purpose Test Documentation

- Challenge yourself to a new approach
  - Ensure it is lightweight and adds value to the project team
  - Avoid developing artifacts that will gather dust!
  - Reconsider the development of extensive test plans
  - Test design evolves as the tester engages in execution and reacts to the outcomes

- Testing needs to be an interactive thinking process

Test Documentation – Sample Coverage Outline

<Project Name>: Test Coverage Outline

System Name:	
Category Name:	

Notes:	<Use this section to track any questions, action items, ideas, etc you may have as you are developing or executing the scenarios.

Test Planning				Test Execution							
Scenario ID	Sub Category	Scenario Description	Business Risk Analysis	Observations	Test Progress	Test Intensity	Quality Analysis	Next Steps	Date Tested	Tested By Initials	Additional Comments
					Follow Up Required	2	Yellow				
					Not Yet Run	0	Not Rated				
					Completed	2	Green				
					Blocked	0	Not Rated				

Test Documentation – Sample Checklist

| Step 1 Validations			
Rule	**Behaviour**	**Pass**	**Fail**
Required Fields: From City To City Departing Date Returning Date (not for one-way) 2nd From City (only multi-city) 2nd To City (only multi-city)	Error Message	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐
Departing date later than Returning date	Error Message	☐	☐
# Infants > # Guests	Error Message	☐	☐
Incorrect Promo Code	Red Error Message at the top of the screen	☐	☐
Unique To/From City	If a city has been selected for the "To" or "From" field, it will not appear in the other field. Lite Sites will generate an Error Message if the same city is selected for both the "From" and "To" field.	☐	☐
Departing Calendar	Only dates between today's date and the returning date (when entered) can be selected. (Does not apply to Lite Sites)	☐	☐
Returning Calendar	Only dates between the departing date and the end of scheduled service can be selected.	☐	☐

Facilitating Effective Collaboration

- Collaboration is imperative across the team:
  - Project Managers, Customers, Business Analysts, Developers, Fellow Testers

- Appreciate individual perspectives

- Build Trust, Value Everyone, Deliver with Honesty & Integrity

Perspectives - Do You See What I See?
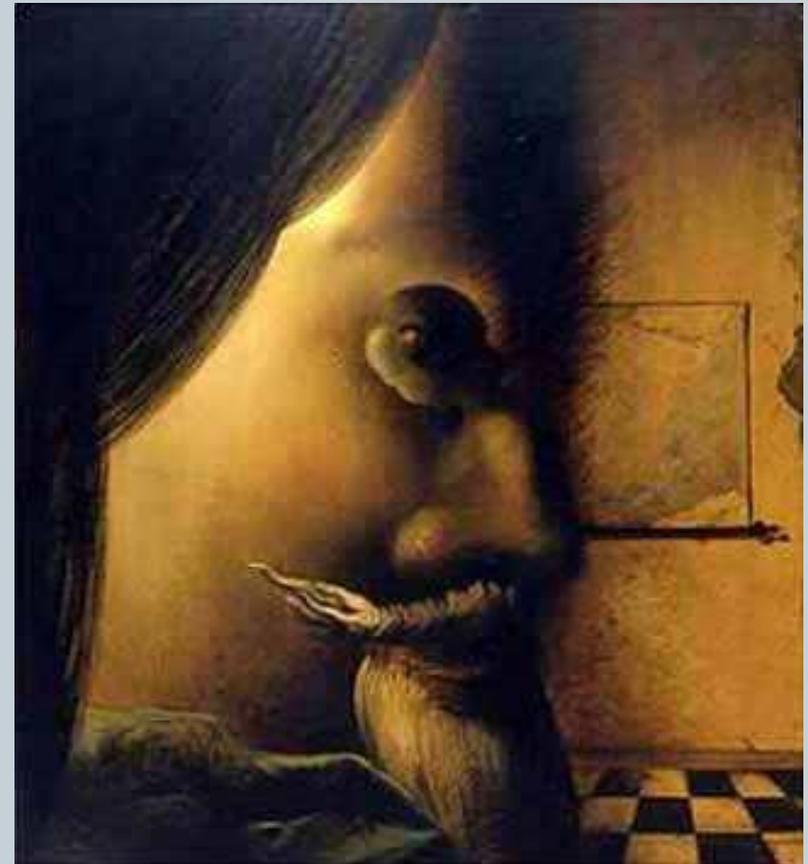
Evaluating & Communicating Effectively

- Evaluating the test progress needs to be multi dimensional and qualitative

- Communication with stakeholders needs to representing the outcomes in alignment their expectations

- Ensure the communication enables stakeholders to make informed decisions

Communicating Effectively – Establish Clarity

- Collaborate and define the areas of focus for communication early in the project
- Set expectations on what will be communicated within the definition, implementation and evaluation of the test effort
- Consider the timing, frequency, format, audience, etc
- Consensus on the planned communication will limit surprises and potential concern

Effective Measures – Multi Dimensional/Qualitative

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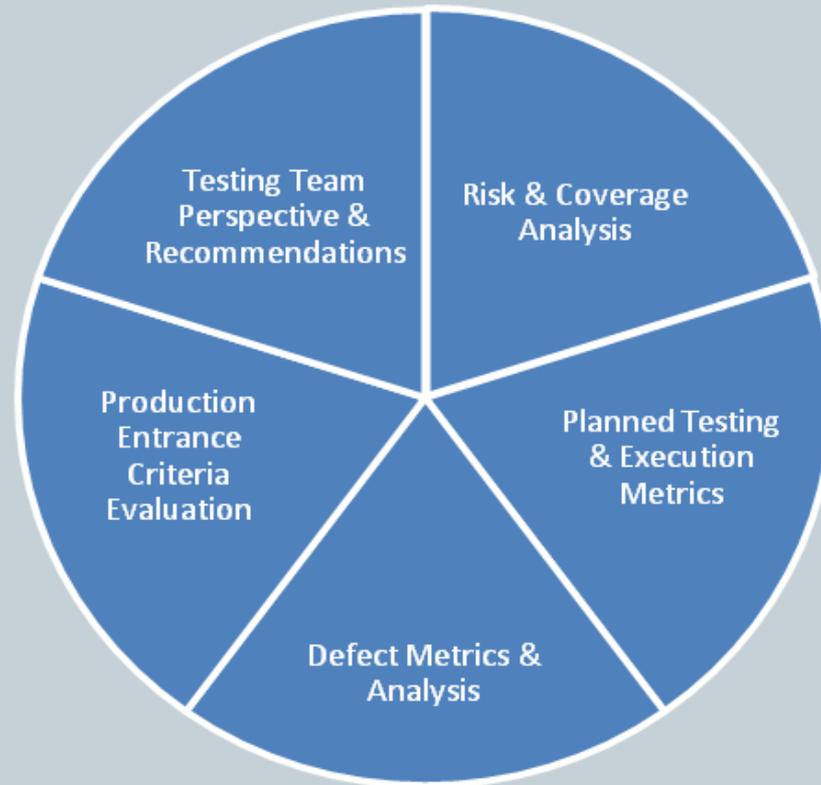
Summary

What tool are you most likely to use right away? Why?

Changing Perspective

Facilitating Collaboration

Aligning Development & Testing

Leveraging Varied Techniques

Fit for Purpose Documentation

Effective & Adaptive Strategies

Evaluating & Communicating Effectively

Questions?

Nancy Kelln
Calgary, AB Canada
nancy.kelln@shaw.ca

Lynn McKee
Calgary, AB Canada
lynnmckee@shaw.ca