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Agile Dev WEST

A TECHWELL EVENT

# Essential Patterns of Mature Agile Testers

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## Presenter

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- 20+ years of multi-domain experience
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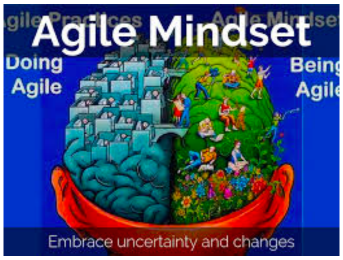
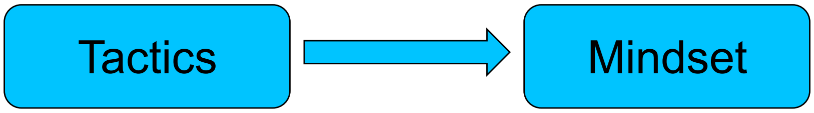
## “Doing” vs. “Being” Agile?

- One debate in the agile community surrounds agile maturity. A way of characterizing it surrounds
  - **Doing Agile** – focusing towards is tactics, ceremonies, and techniques
  - **Being Agile** – focusing towards team mindset, leadership mindset, behaviors, organizational adoption, etc.
- The Mature Patterns workshops crosses both, with emphasis towards the Being-side of the equation.





Tactics → Mindset

## Agile Testing vs. Traditional Testing

### Traditional

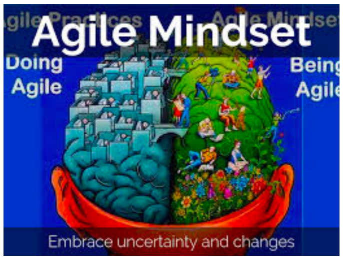
- Testing-focus
- Reliant on detailed requirements and documentation
- Plan-driven approach
- Functionally silo test teams by domain and technology
- Test management tools and Big “A” automation tools

### Agile

- Quality-focus
- Focused on team interaction/ conversations for requirement clarity
- Minimal test plans
- Higher competency across multiple domains and technologies
- Open Source automation models

## The Agile Tester’s Mindset

- Skepticism (versus pessimism)
- Curiosity
- Emotional Intelligence
- Team-oriented
- Learning and Observation
- Persistent
- Try to Break the System



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## The Agile Tester’s Perspective

- Must have a combination of:
  - Analytical / Technical skills
  - Customer / Value Perspective
  - Soft / Influence / Communication skills
- Champion of Quality (not the owner)
  - Understand the difference between QA and testing
  - **Communicate** the value of defect prevention and defect detection
  - Expose risk to people who matter, when it matters
  - Rally the team to a QA perspective

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## Agile Test Maturity Patterns Outline

1. Ruthless KISS
2. Swarm to the Top
3. Whole Team QA Ownership
4. Quality on ALL Fronts
5. Active Done-Ness
6. Communicate Early and Often
7. Continuously Engage the PO
8. Build Trust with the Developers
9. Test Case Failures – What if its not a bug?
10. Agile Test Automation – aka Flip the Triangle
11. Continuous Learning
12. Yes, There is Planning in Agile
13. Metrics (What to Measure?)

## 1) Ruthless KISS

- Get LEAN deep in your DNA
  - Fight Gold-plating your test plans, test cases, and test coverage
- Utilize Acceptance Criteria like a Charter in Exploratory Testing
- Think in terms of MITs – remember there will be other sprints
  - Positive tests first
  - Just enough negative testing
  - Don’t duplicate multi-layered tests (transparency builds trust)

## 2) Swarm to the Top

- Minimize multi-tasking
  - Focus on top stories/tasks
  - Focus on MITs
- Comfortable with on-the-fly test analysis
  - Exploratory Testing
- Document test plans, test cases, and defects only as necessary
  - Test strategy and plans at Release level
  - Tests within the sprint
  - Defects if/when they cross sprints

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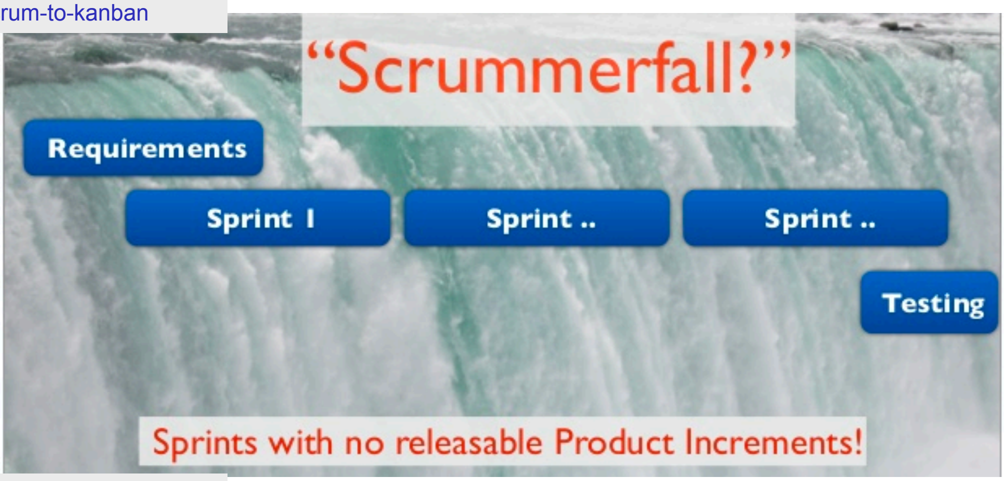
## Beware Scrummer-fall

By Rachel Davies:
https://www.slideshare.net/RachelDavies/moving-from-scrum-to-kanban



"Scrummerfall?"

Requirements

Sprint 1 | Sprint .. | Sprint ..

Testing

Sprints with no releasable Product Increments!

Our YouTube video:
https://www.youtube.com/watch?v=1LPZa-hbJ2s

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## 3) Whole Team QA Ownership

- Leaving behind the notion that testers "own" quality
- Create healthy relationships w/
  - Developers (break down the silos)
  - SMs (look to for advice and input)
  - POs (give/receive feedback on AC, test cases, defects)
- Opportunistic pairing
- *Don't fear passionate debate & healthy conflict*
- Stop thinking of "Dev Complete" & "Test Complete"

## 3) Whole Team QA Ownership

- Create an environment where the whole-team embraces and helps with testing
  - Test Strategies / Designs / Plans
  - All types of test cases (manual, automation, performance)
  - Never letting tests break
  - Pair w/ Dev to build in testability
- Create a shared QA goal across the team
  - Influence development priorities
  - Negotiate with the PO & Dev team members
- Ensure test estimates are part of work estimation
- Perform Root Cause Analysis as a team

# 4) Quality on ALL Fronts

- ➢ Rally the team to focus on defect prevention not just defect detection
- ➢ Cultivate professionalism within the team
  - Doing the right things…doing things right (design inspections, requirements discussions, code reviews, etc.)
  - Shift-Left Thinking
  - Alter team's mindset and actions from I-shaped to T-shaped
- ➢ Encourage self-inspection; self-policing
- ➢ Focus on *Craftsmanship and Professionalism*

# 5) Active Done-Ness

As a tester what does "I'm done with the story" mean?

- ✓ Test cases designed with a broad view to test cases (unit, functional, acceptance, performance, regression)
- ✓ Test cases pair-reviewed with dev & test team members
- ✓ Test cases - checked into repository
- ✓ All test cases tied to Acceptance Criteria have been automated and passed
- ✓ Test automation built into Continuous Integration environment

## 6) Communicate Early and Often

- Identify questions/concerns in stories, estimates, tasks, etc.
- Embrace the 3 Amigos
- Active Pairing w/ Dev
  - What should be tested
  - Who will test
  - How should it be tested
  - What data is necessary
- Blockers and impediments
  - Don't wait for the stand-up
  - Ask for help (PO, SM, Dev, anybody on the team really…)

By Frits Ahlefeldt

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## 3 Amigos: Dev + Test + Product

- Are often used as a metaphor for improved backlog refinement
  - 3-Amigo meetings
  - Story Owners or shepherd
- Multi-perspective conversations during the life-cycle of the story
  - From Concept (Epic) to Story delivery - done
- Doesn't always limit to 3 perspectives

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# 7) Continuously Engage the PO

- ➢ Make the PO your new BFF
- ➢ Get to know the “why” behind the stories
- ➢ Help develop the acceptance criteria – influence as necessary
- ➢ Focus on his/her priorities using that input to inform a risk-based testing approach
- ➢ Get his/her input on defects
  - What’s the defect priority? Effort? Focus?

- ➢ Voice of the customer
- ➢ Understanding value proposition

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# 8) Build Trust with the Developers

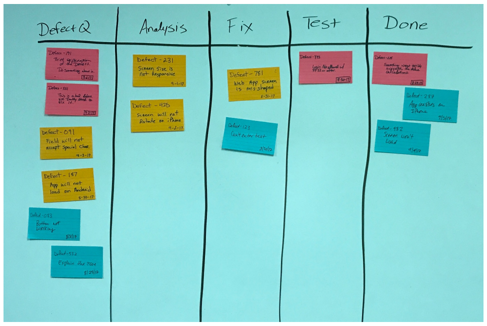
- ➢ Ask questions – learn what they do and how they do it
- ➢ Ways to build trust
  - Don’t be a chicken little
  - Don’t cry wolf
  - Don’t call their baby ugly
  - Take responsibility
  - Investigate issues
- ➢ Communicate, communicate, communicate

Sorry I said your baby was ugly. What I meant was your baby is uniquely unattractive.

someecards user card

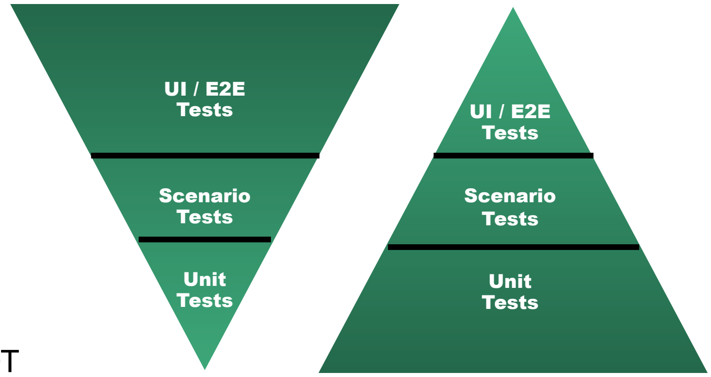
## 9) Test Case Failures – What if its not a bug?

- If a test fails, did you find a defect?
  - Can the failure be duplicated?
  - Was the test properly executed?
  - Was the failure due environmental or data issues/configurations?
  - What error message was generated?
  - What is the nature of the failure and what are the potential causes?
- Assume the failure isn't a bug until you can prove otherwise
- When you find a defect
  - Conversations first and documentation second
  - White board & sticky before tool

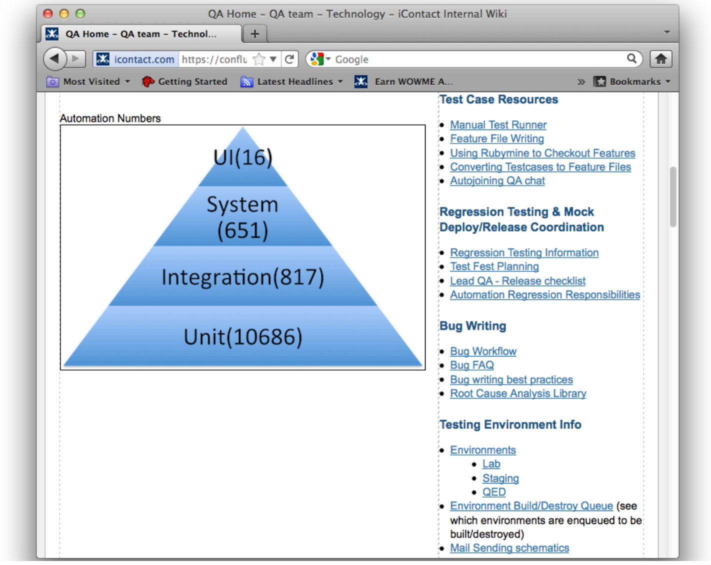


## 10) Agile Test Automation – aka Flip the Triangle

- Invest in test automation (part of DoD)
- Test Automation Focus shifts to
  - Lots of unit tests (TDD)
  - Some scenario-based, API tests (BDD)
  - Few UI (Traditional)
- Key goal is continuous & fast feedback
  - CAUTION: 100% automation is NOT the goal



## Agile Test Automation Pyramid - Mike Cohn; Lisa Crispin & Janet Gregory



**Test Case Resources**

- Manual Test Runner
- Feature File Writing
- Using Rubymine to Checkout Features
- Converting Testcases to Feature Files
- Autojoining QA chat

**Regression Testing & Mock Deploy/Release Coordination**

- Regression Testing Information
- Test Fest Planning
- Lead QA - Release checklist
- Automation Regression Responsibilities

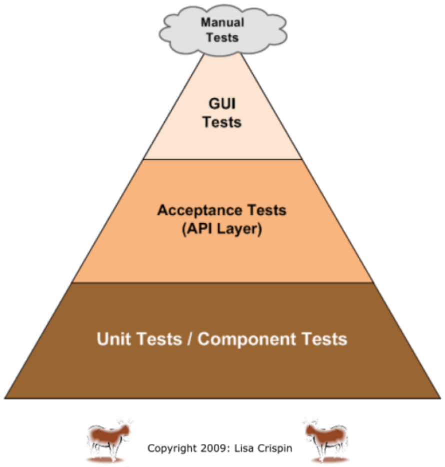
**Bug Writing**

- Bug Workflow
- Bug FAQ
- Bug writing best practices
- Root Cause Analysis Library

**Testing Environment Info**

- Environments
  - Lab
  - Staging
  - QED
- Environment Build/Destroy Queue (see which environments are enqueued to be built/destroyed)
- Mail Sending schematics

Test Automation Pyramid



Copyright 2009: Lisa Crispin

## 11) Continuous Learning: Yours + Team

- 90% of testing remains the same
- Determine what you don't know and create "learning goals"
  - Sprint 1 – how scrum works
  - Sprint 2 – how to estimate all work
  - Sprint 3 – database development
  - Sprint 4 – automation
- Think in terms of Shu Ha Ri
- Identify a mentor and/or establish a Community of Practice around
  - Agile, Test Automation, Testing (plans, designs, cases, etc.)

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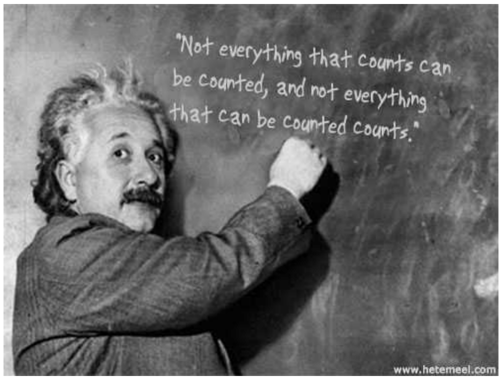
## 12) Yes, There is Planning in Agile

- Apply Risk-Based Testing techniques to all of your team's testing
  - Daily level
  - Sprint level
  - Release level
- Plan test strategy as a team
  - Part of Sprint Planning
  - Release (PI) Planning
  - Who's plan is it?
- The plan is irrelevant; whole, agile team planning is everything.

## 13) Metrics, i.e. What to Measure?

- Traditional metrics measured test team and tester:
  - Test cases, coverage, bugs, time, etc.
- Don't do that any more. Now it's about the TEAM!
- Measure:
  - Velocity, Flow, Throughput, Predictability
  - Escapes, DoD exceptions, story slips
  - Value delivered, ROI, customer satisfaction
  - Team happiness


"Not everything that counts can be counted, and not everything that can be counted counts."
www.hetemeel.com

## Wrap-up

- What were the most compelling patterns?
- What essential patterns did we miss?
- Final questions or discussion?

Thank you!

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