

Seven Key Factors for Agile Testing Success

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With material from Lisa Crispin



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Takeaways

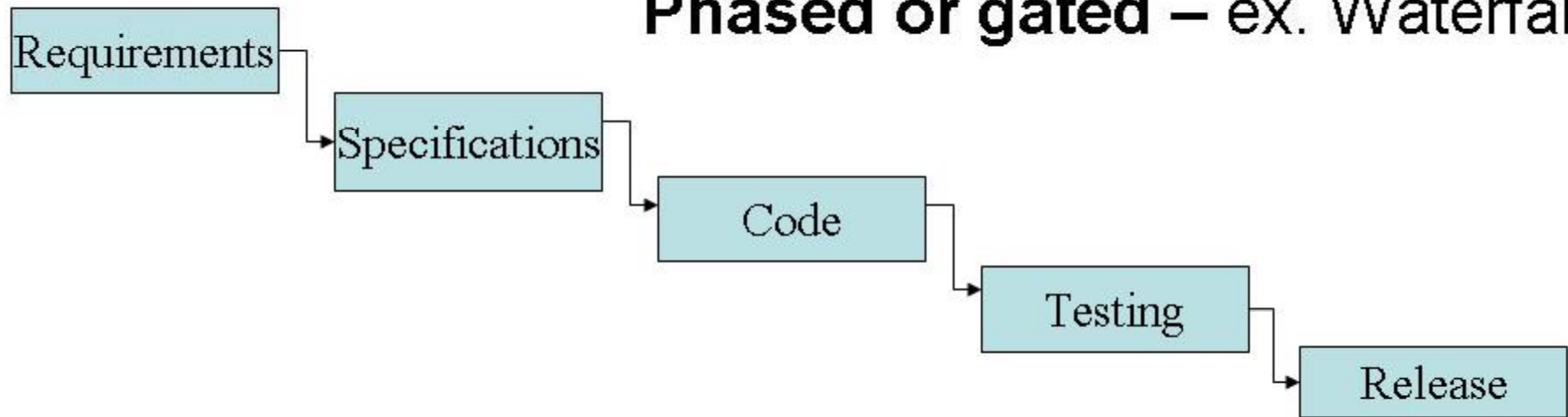
- Keys to agile testing success
- Ideas for overcoming barriers
- Practical steps you can take today
 - Even on non-agile team

..... But, first a bit of agile so everyone is on the same page



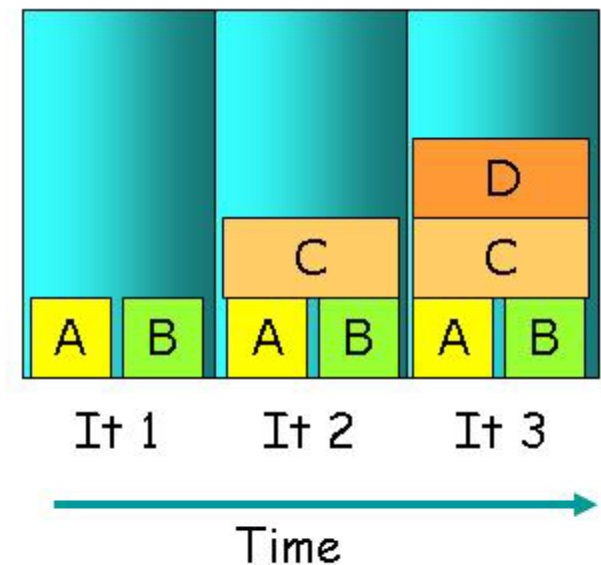
Traditional vs. Agile SDLC

Phased or gated – ex. Waterfall



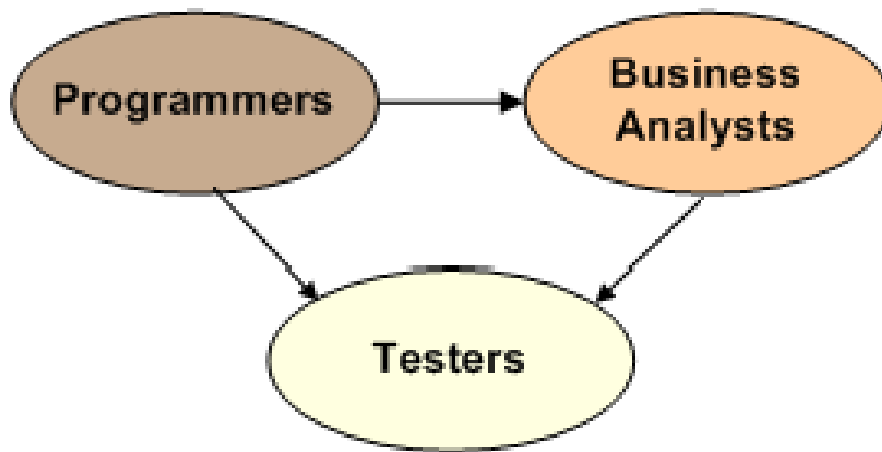
Agile: iterative and incremental

- Each story is expanded, coded and tested
- Possible release after each iteration

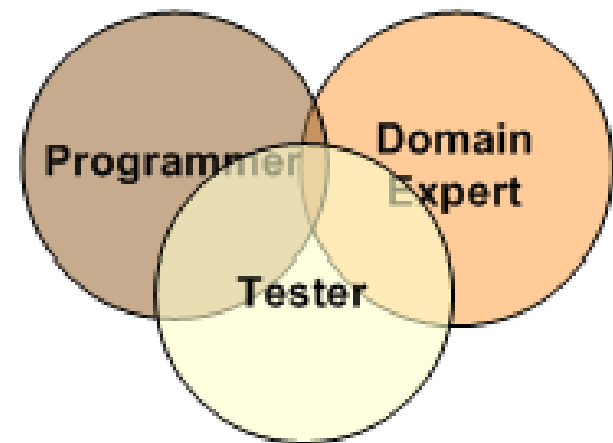


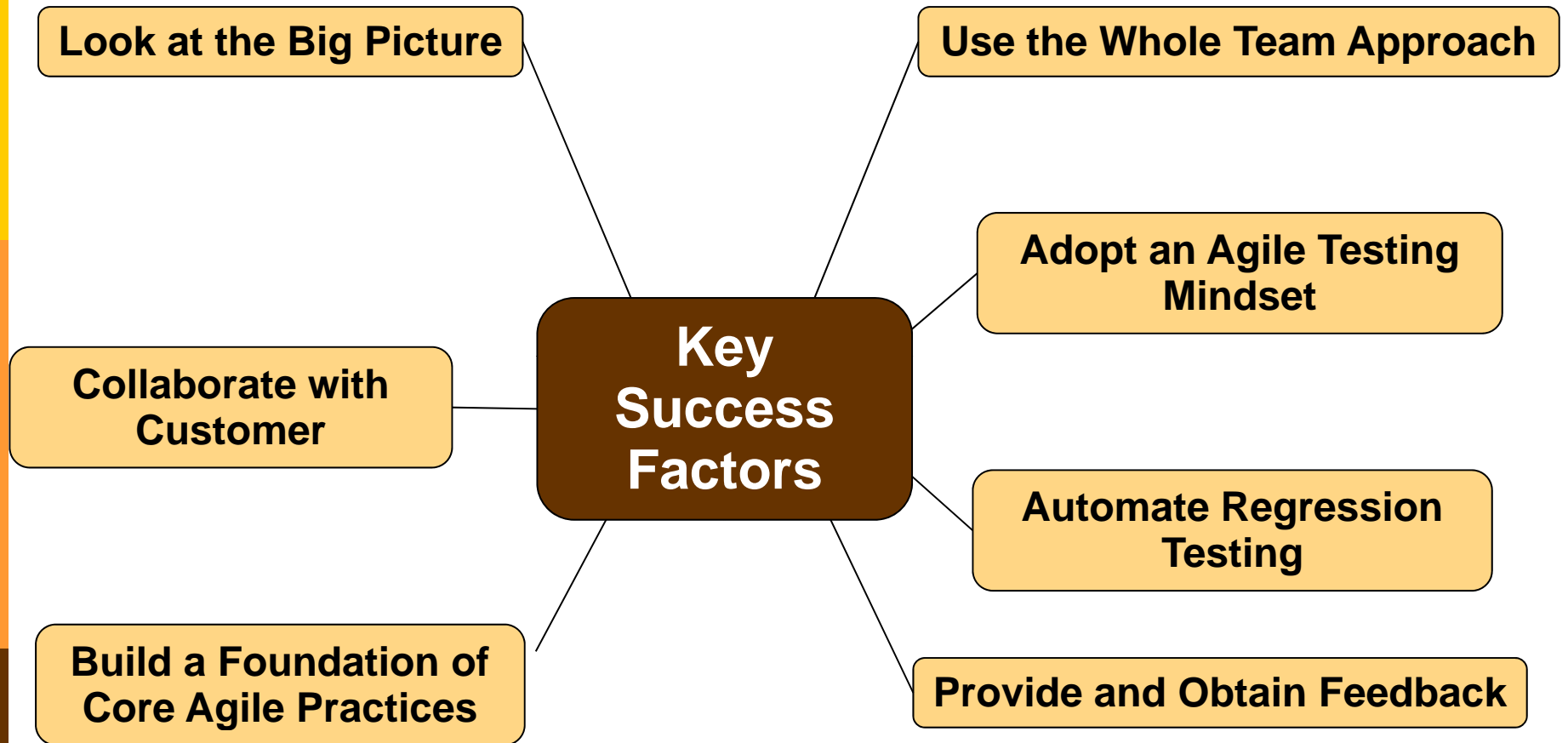
An agile tester collaborates with the rest of the team to deliver the best possible product

Functional Teams



Agile Team





The first success factor is the whole team approach. The whole team is focused on quality.



The Whole Team Approach

- Team committed to testing, quality
- Daily collaboration
- Testers get support, training
- Anyone can do any task
- Testers transfer testing knowledge
- Get the right people



Who's On Your Team?

- Separate test team?
 - How could you integrate more with developers?
 - How could you collaborate more with customers?
- Does your team have all the roles, skills needed?



2 - Adopt an agile tester mindset

Instead of

– We're here to break the software!



Think

– What can we do to help deliver the software successfully?



Agile Testing Mindset

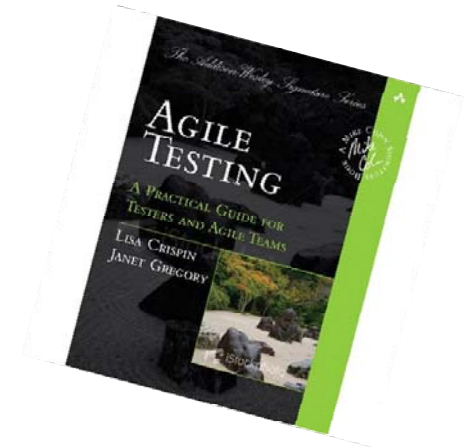
- Apply agile principles and values
- Continually improve
- Not the 'Quality Police' or gate-keepers



What Can a Tester Do?

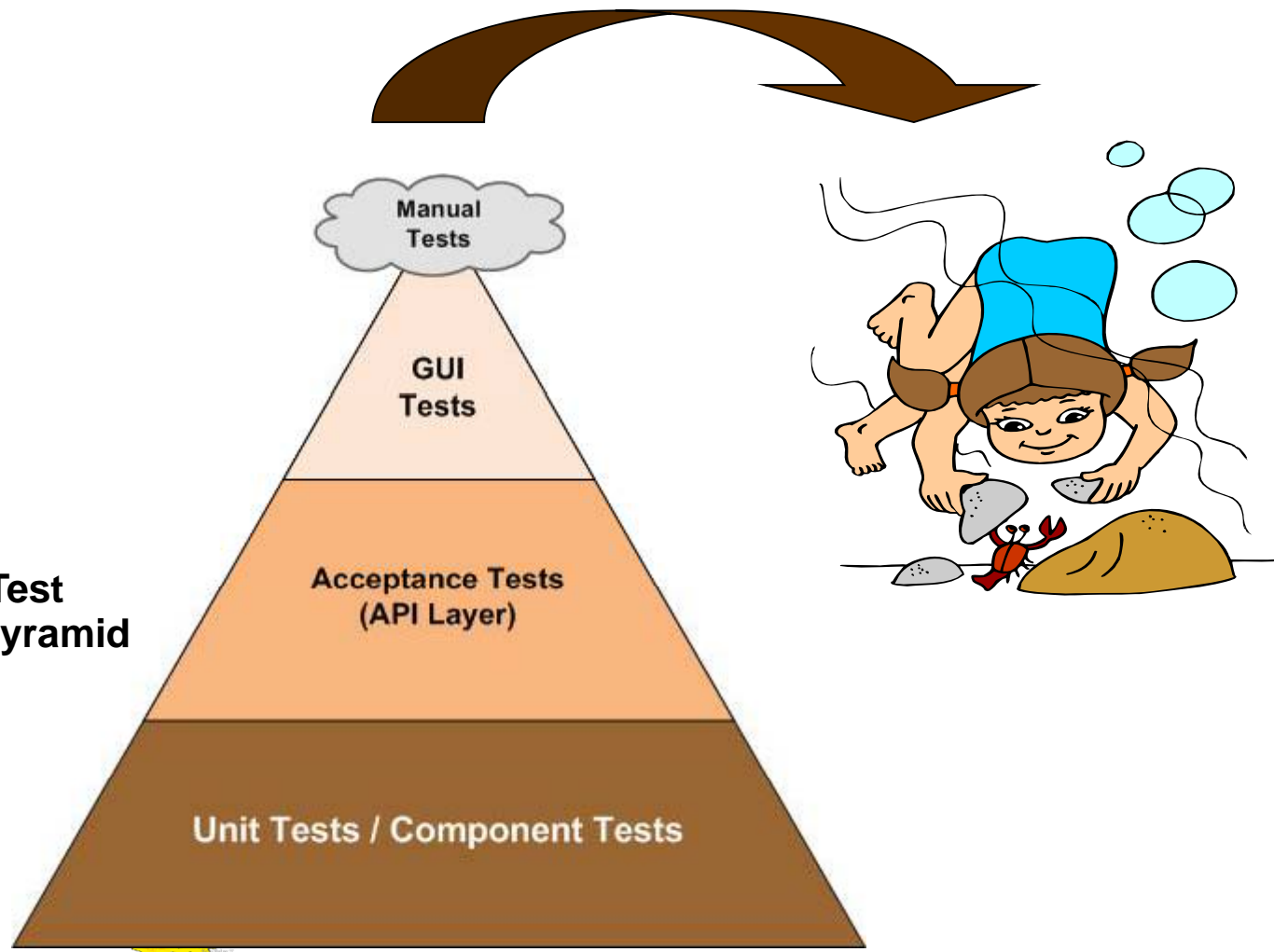


- Be Proactive – Try new things
- Don't sit and wait for things to come to you
 - Take responsibility for your own personal development
 - Read books
 - Join the yahoo testing group



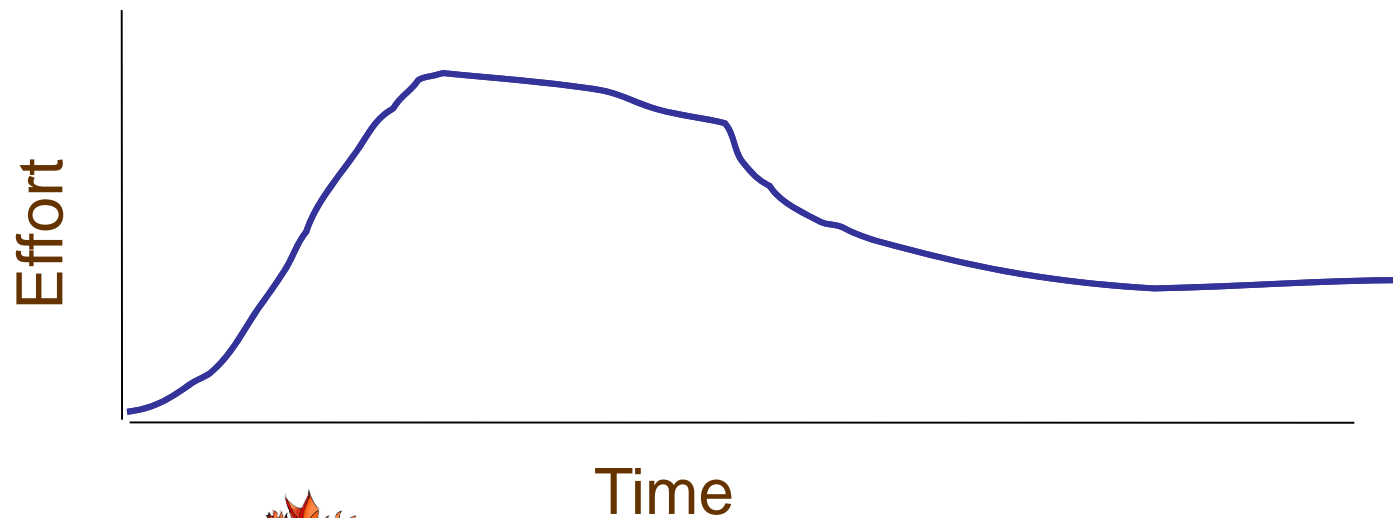
The 3rd success factor is 'Automate your regression testing'. That will enable you to do more exploratory testing.

Mike Cohn's Test Automation Pyramid



Regression Test Automation Issues?

- Make it a team problem to solve
- Get over “hump of pain”
- Unit tests have best ROI
- GUI smoke tests option for legacy code
 - But choose tool carefully



Regression Test Automation Issues?

- Drive development with tests
- Design for testability
- Team chooses tools
- Team effort
- Start simple

Add Employees

Build Employees Fixture												
userid	dob	doh	doe	dot	directOwnerPct	lookbackTotalOwnerPct	lookbackAnnualComp	annualComp	deferral	eligibleComp	match	add!
1001	01-01-1950	01-01-1993	01-01-1994	null	0	0	101500.00	102500.00	16000.00	102500.00	16000.00	true
1002	01-01-1960	01-01-1993	01-01-1994	null	4	3	102500.00	102500.00	13000.00	102500.00	13000.00	true
1003	01-01-1960	01-01-1993	01-01-1994	null	5.01	5.01	30000.00	30000.00	7500.00	30000.00	7500.00	true
1004	01-01-1960	01-01-1993	01-01-1994	null	10	10	20000.00	30000.00	3000.00	30000.00	3000.00	true
1005	01-01-1960	01-01-1993	01-01-1994	null	8	0	40000.00	40000.00	8000.00	40000.00	8000.00	true
1006	01-01-1960	01-01-1993	01-01-1994	null	5.01	0	150000.00	150000.00	13000.00	150000.00	13000.00	true
1007	01-01-1960	01-01-1993	01-01-1994	null	0	0	100000.00	100000.00	0	100000.00	0	true
1008	01-01-1960	01-01-1993	01-01-1994	null	0	0	40000.00	50000.00	3000.00	50000.00	3000.00	true

OPERATE ON INPUT BY RUNNING ADP TEST

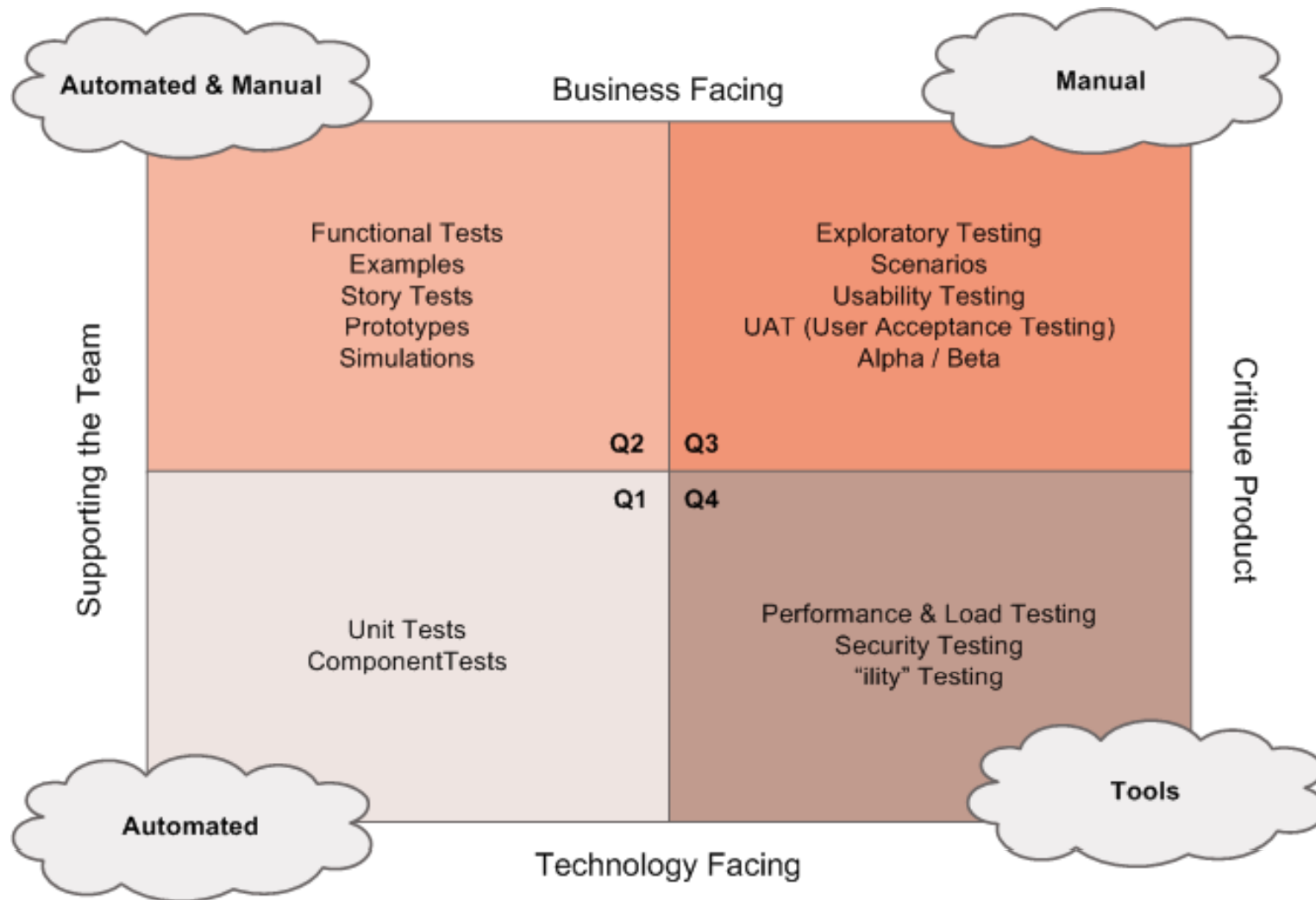
Operate Adp Test Fixture	
operate!	
true	

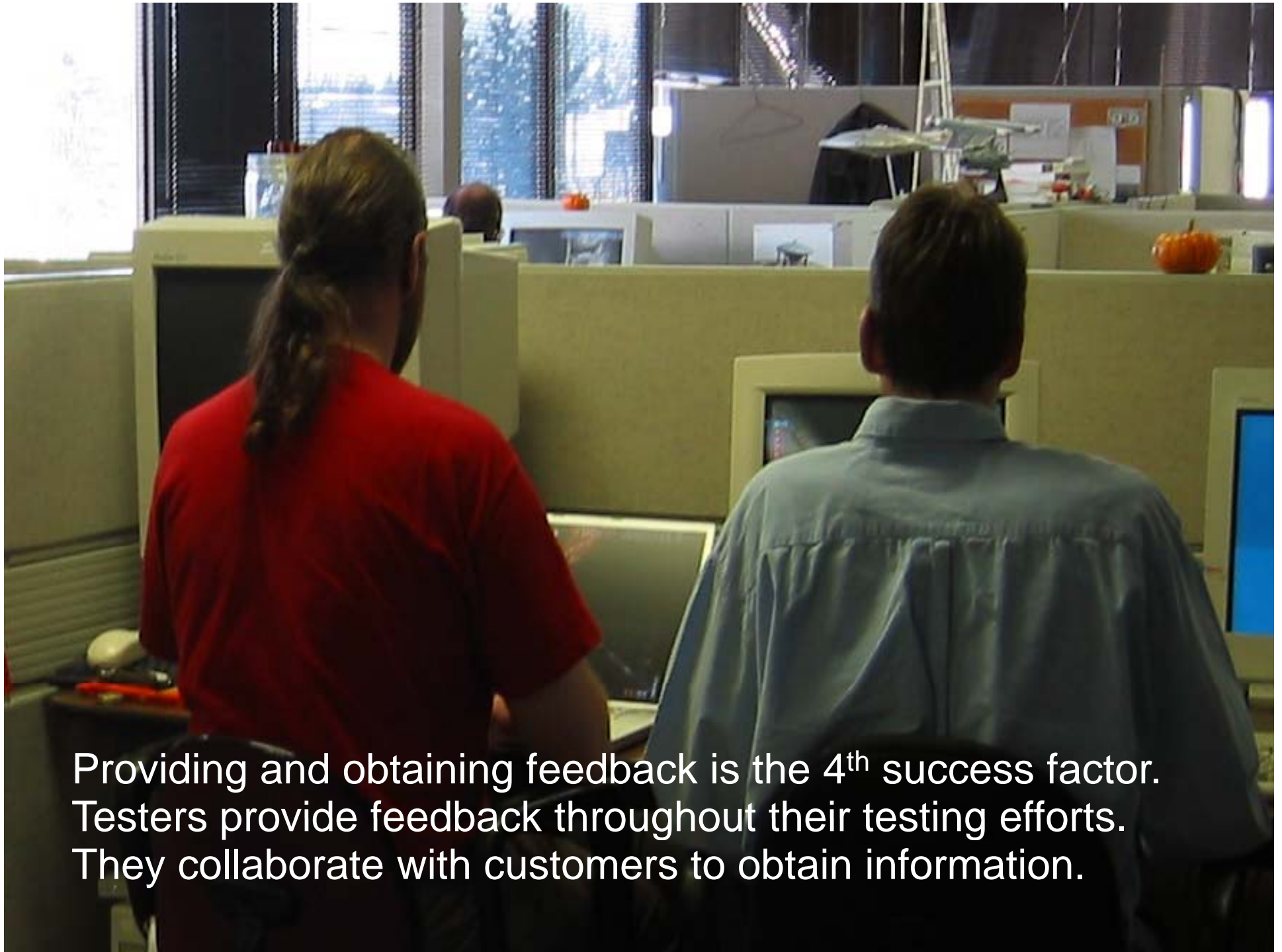
MAKE ASSERTIONS ABOUT ADP TEST RESULTS

Check Employee Fixture				
userId	isHce?	isEligible?	acr?	acr?
1001	true	true	12.682927	15.61
1002	true	true	12.682927	12.68
1003	true	true	25.00	25
1004	true	true	10.00	10
1005	true	true	20.00	20
1006	true	true	8.666667	8.67
1007	true	true	0	0
1008	false	true	6	6



Agile Testing Quadrants

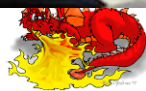




Providing and obtaining feedback is the 4th success factor. Testers provide feedback throughout their testing efforts. They collaborate with customers to obtain information.

Feedback

- Core agile value
- Team uses feedback to improve
- Testers are expert feedback providers
- Feedback lets team make course corrections



Focusing on Feedback

- Big Visible Charts
- Retrospectives
- Email test results from build process
- Take advantage of short iterations
- Discoveries during exploratory testing
- Collaboration with users, customers





**Make information
visible**

The image shows a large corkboard with a wooden frame, densely populated with various types of information. On the left, a vertical strip of paper contains handwritten notes, including "it's not", "NED UP", and "info in the". The main area of the board is covered with numerous sticky notes in shades of blue, pink, and yellow, many of which contain handwritten text. Some notes are pinned in a grid-like fashion, while others are more haphazardly placed. In the center, a larger white sheet of paper with a printed table is pinned. To the right, a blue folder or binder is visible. At the bottom of the board, two printed charts are pinned: one is a line graph with multiple colored lines (red, yellow, blue) and the other is a bar chart. The overall scene suggests a collaborative workspace where information is being organized and made accessible to everyone.

Building a foundation of core agile practices is success factor 5.

- Continuous integration
- Test environments
- Manage technical debt
- Working incrementally
- Make coding & testing part of one process
- Synergy between practices



Another core value is simplicity. Ask what is the simplest thing that can possibly work?



Implementing Core Practices

- Self-organizing team
- Plan stories/tasks to build infrastructure
- “Refactoring iterations”
- Baby steps – address one thing at a time



Number 6 is Customer Collaboration.

- Set priorities
- Elicit examples
- Power of 3



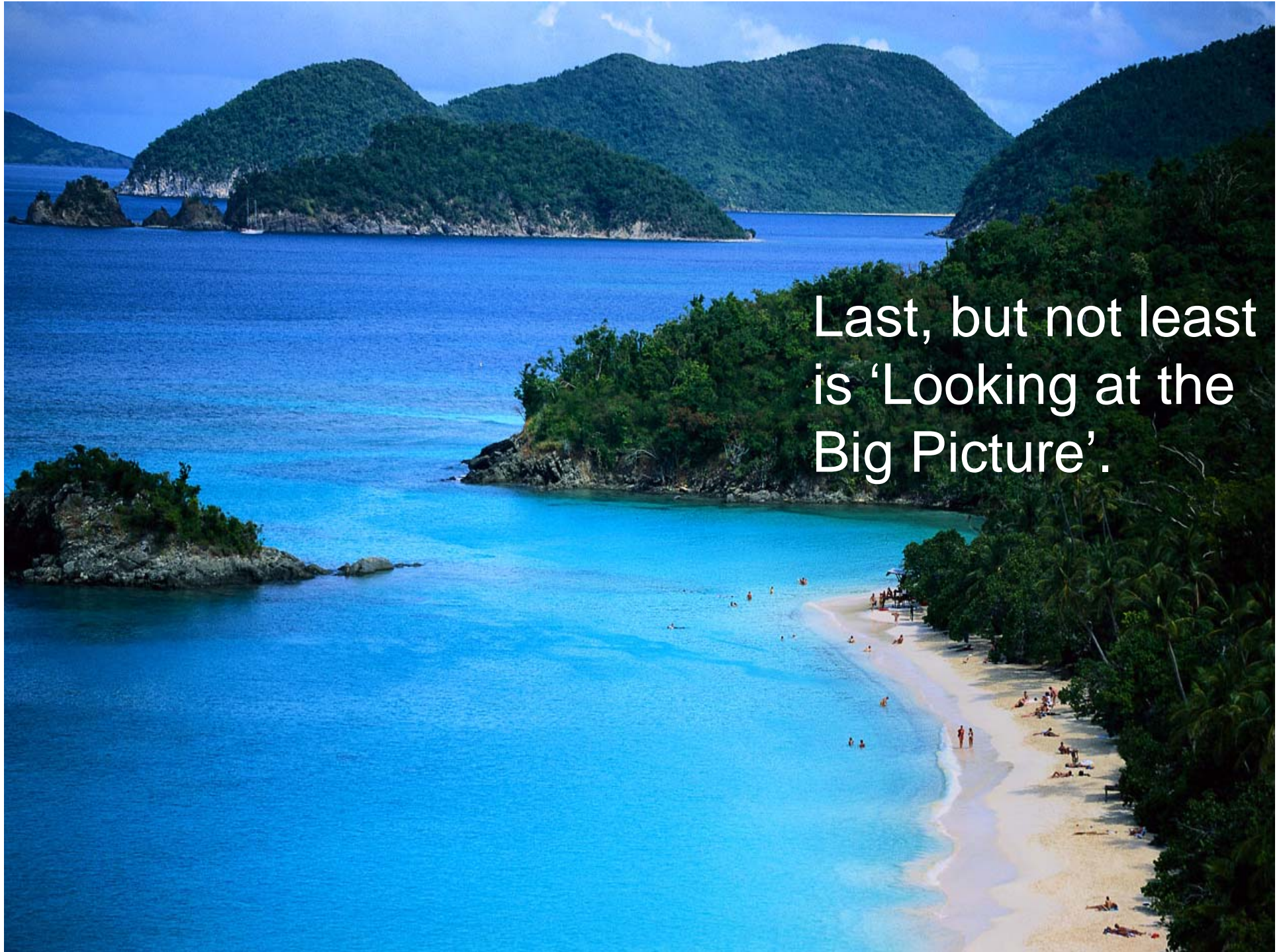
- Ask what problem are they trying to solve?
- Work with the customer to understand their true need
- Identify risks so customer can make best decision



Getting Customers on Board

- Build trust
- Learn their jobs
- Ask for concrete examples, scenarios
 - “How will you use this?”
 - “What’s the worst that can happen?”
- Facilitate developer-customer communication
 - But don’t get in the way





Last, but not least
is 'Looking at the
Big Picture'.

Look at the Big Picture

- Use business-facing tests and examples
 - to drive development
- Not only stories, but features, and workflow
- Use real world test data
- Think about impacts on other areas
- Use exploratory testing
- Use the Agile Testing Quadrants

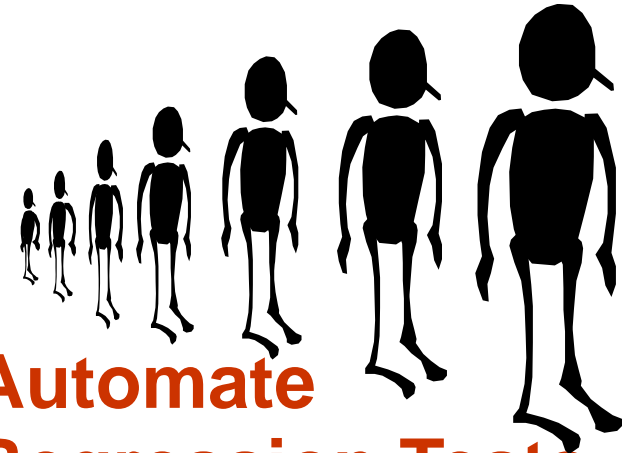




**Whole
Team**



Mindset Change

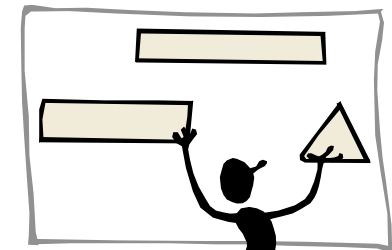


**Automate
Regression Tests**

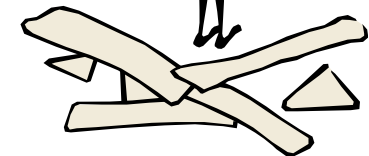
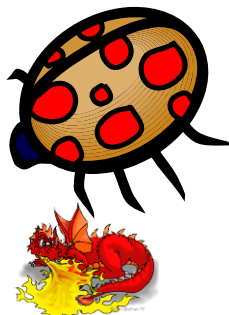
**Core Agile
Practices**



**Customer
Collaboration**



**Provide
Feedback**



Big Picture View

As an agile tester, stretch
yourself and expect
changes in your new
agile life.



Now Available

Agile Testing: A Practical Guide for Testers and Agile Teams

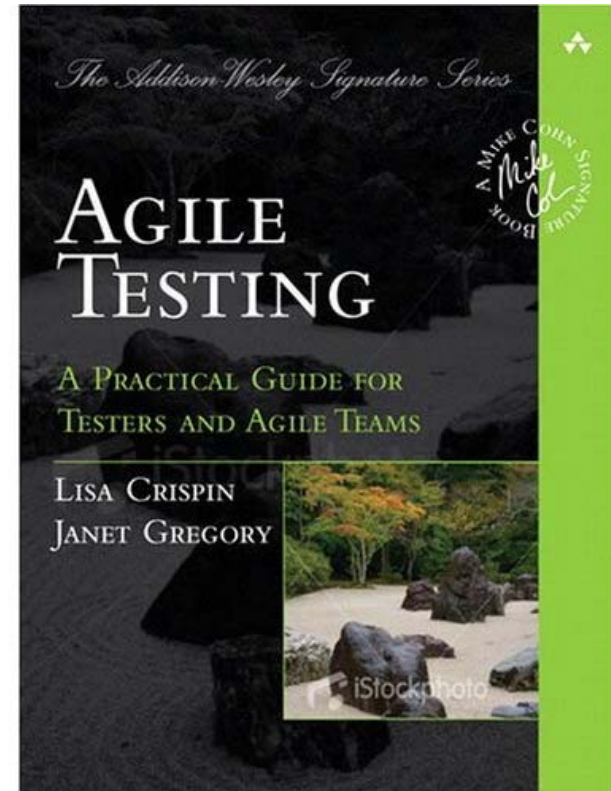
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Agile Testing Resources

- www.lisacrispin.com
- agile-testing@yahoogroups.com
- <http://www.exampler.com> - Brian Marick's web site
- www.testobsessed.com
- www.testingreflections.com
- www.mountangoatsoftware.com – Mike Cohn's web site (and all his books)
- Agile Manifesto: <http://agilemanifesto.org/>
- Mary Poppendieck and Tom Poppendieck, *Lean Software Development*, 2003 Addison-Wesley
- Jean Tabaka, *Collaboration Explained*, 2006 Addison-Wesley
- Lisa Crispin and Tip House, *Testing Extreme Programming*, 2002 Addison-Wesley



Any more questions ?



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