

Adventures in Session-based Testing

James Lyndsay
Workroom Productions

jdl@workroom-productions.com
www.workroom-productions.com



© Workroom Productions 2002
www.workroom-productions.com

Slide 1

What?



Slide 2

© Workroom Productions 2002
www.workroom-productions.com



Session-Based Testing

Manages and controls unscripted testing

- Limited Duration
- Directed Exploration
- Recorded Activities

Supports 'Agile' Process

Allows quick metrics

Has wider uses



© Workroom Productions 2002
www.workroom-productions.com

Slide 3

Adventures?

Product

- Internet application, commercial and in use

Team

- Small, inexperienced

Business context

- Rapid change
- Low trust in test team
- Commercial constraints
 - Must not find fewer / less significant bugs
 - Must not stop or slow down
 - No increase in team size / budget

Slide 4

© Workroom Productions 2002
www.workroom-productions.com



Strategy

Stay within constraints

Deal with change rather than enforce stasis

- Use lightweight methods
- Encourage learning process
- Generate dynamic, up-to-date metrics

Three goals

- Control scope
- Control work
- Measure risk and coverage



© Workroom Productions 2002
www.workroom-productions.com

Slide 5

Why Session-Based Testing?

Fitted existing methods

- Ad-hoc testing fits well into sessions

Improvement of test techniques

- Helps learning through feedback and review

Improvement of test management

- Control and measurement helped from day 1
- No step-change
- Still hit existing deadlines with good bugs



© Workroom Productions 2002
www.workroom-productions.com

Slide 6

Methods

Slide 7

© Workroom Productions 2002
www.workroom-productions.com



Methods: Overview

Control and recording

- Control Scope
- Control Work
- Recording a Session

Assessment and Measurement

- Assessing Risk
- Assessing Coverage

Infrastructure

- Real-time Metrics
- Social techniques



© Workroom Productions 2002
www.workroom-productions.com

Slide 8

Methods: Control

Scope - made of Test Points

- Test Point - piece of work
- Estimated cost
- Risk

Work done - made of Test Sessions

- Test Session - piece of time
- 1 - 4 Test Points
- Actual cost
- Coverage

Slide 9

© Workroom Productions 2002
www.workroom-productions.com



Example: Test Points

Test Point ID	Title / Description (Comments in brackets)	Risks	Estimated Time (mins)	Time spent (mins)	% Tested / Complete	Tester Name	Date	Total time	Time left
TP0100815-0001	Candidate Search Module: Candidates Search in Options now accessible through postings and requests (DP3.1 PP3.8)	3	240		0%	Peter		240	240
TP0100815-0001a	Add additional test point if needed				0%			0	0
TP0100815-0002	Candidate Search Module: Speculative application (DP3.2 PP3.7 Akash)	2	240		0%	Peter		240	240
TP0100815-0002a	Add additional test point if needed				0%			0	0
TP0100815-0003	Integration Module: Monster integration (DP4.1, PP8.5.1-2-3, James)	2	180		0%	Peter		180	180
TP0100815-0003a	Add additional test point if needed				0%			0	0
TP0100815-0004	Integration Module: CV Online (DP4.2, PP8.1.1-2, Sanjay)	2	180		0%	Peter		180	180
TP0100815-0004a	Add additional test point if needed				0%			0	0
TP0100815-0005	Integration Module: Totaljobs (DP4.3, PP8.3, Sebastien)	2	180		0%	Peter		180	180
TP0100815-0005a	Add additional test point if needed				0%			0	0
TP0100815-0006	Integration Module: Monster (DP4.4, PP8.2, Sebastien)	2	180		0%	Peter		180	180
TP0100815-0006a	Add additional test point if needed				0%			0	0
TP0100815-0007	Requests Module: Open-ended interview questions (DP5.1, PP6.3, Lloyd)	2	180		0%	Pinal		180	180
TP0100815-0007a	Add additional test point if needed				0%			0	0
TP0100815-0008	Requests Module: Additional Candidate Fields: Salary scale or grade as well as Salary value (DP5.2.1, PP6.4, Lloyd)	1	180		0%	Pinal		180	180
TP0100815-0008a	Add additional test point if needed				0%			0	0
TP0100815-0009	Requests Module: Additional Candidate Fields: Job type, classification or category (DP5.2.2, PP6.2, Sumsun)	1	120		0%	Pinal		120	120
TP0100815-0009a	Add additional test point if needed				0%			0	0
TP0100815-0010	Requests Module: Additional Candidate Fields: Description of Bank/branch location (DP5.2.3, PP6.5, Anand)	1	120		0%	Pinal		120	120
TP0100815-0010a	Add additional test point if needed				0%			0	0
TP0100815-0011	Requests Module: Additional Candidate Fields: Location "Region" for travel (DP5.2.4, PP6.6, Lloyd)	1	120		0%	Pinal		120	120
TP0100815-0011a	Add additional test point if needed				0%			0	0
TP0100815-0012	JobsatJP: Anonymous/confidential applications (DP6.1.1, PP7.1.3, Sumsun)	3	60		0%	Selena		60	60



© Workroom Productions 2002
www.workroom-productions.com

Slide 10

Methods: Control

Recording a Test Session

- Plan, Expectations, Actions, Observations
- Bug details
- Actual Cost
- How done are we? → Coverage

Allows

- Review
- Forgetting
- Retrospectives

Slide 11

© Workroom Productions 2002
www.workroom-productions.com



Example: A Test Session

Test Description		
Test ID	Risk	Date + time done
Your name	IDs, Machines, Files and other resources used	
Estimated time	How much more testing does this need?	
Actual time	% complete?	

Plan

Notes

Slide 12

© Workroom Productions 2002
www.workroom-productions.com



Methods: Assessment

Risk

Cost of failure	Risk	Likelihood of failure	
		High	Low
High		3	2
Low		2	1

Coverage

- Ask the Experts - the testers!
- How done are you? How much is left?
- Collect many subjective → few objective assessments
- Overall figures can go down as well as up
- Ongoing learning - estimates improved



© Workroom Productions 2002
www.workroom-productions.com

Slide 13

Methods: Support

Real-time metrics

- Immediate feedback
- State of *testing*, not of system
- Fast, frequent, informed re-planning

Soft skills/Social Techniques

- Experimental Approach
- Ongoing learning
- Communication
- Empowerment

Slide 14

© Workroom Productions 2002
www.workroom-productions.com



Example: Metrics

We are 95% complete
 38% of our tests have been successful
 We think we have 7 hours left

No. failed tests	55
No. fixed not tested	1
% planned tests complete	95%
Time taken so far	125.15
Est. time for these	100.7
	total left
Pre-test estimate of time	105.7 -19.45
Post-test new guess	132 7

	All tests		Planned tests		Completed Tests		Successful	Completion	
	Number	Hours	Number	Est. Hours	Number	Actual Hours spent	Number	%Done	%Successful
Total	139	182.5	94	92.6	89	106.1	34	95%	38%
H High risk	26	20.1	23	17.1	20	18.9	6	87%	30%
M Med risk	68	80.4	48	46	46	54.5	18	96%	39%
L Low risk	45	82	23	29.5	23	32.8	10	100%	43%

	All retests		Planned retests		Fix tested		Successfully fixed	Completion	
	Number	Hours	Number	Hours	Number	Actual Hours spent	Number	%Done	%Successful
Total	64	13.3	63	13.1	63	19.05	49	100%	78%

The spreadsheet looks consistent

Slide 15



© Workroom Productions 2002
 www.workroom-productions.com

Did it work?



Slide 16

© Workroom Productions 2002
www.workroom-productions.com



Results

Short-term

- Stayed within business constraints
- Improved accountability, reporting, trust
- Manager and team 'in control'

Long-term

- Still in use a year later
- Metrics used within business as a benchmark
- Initial processes enhanced and expanded
- Improved motivation, reduced 'churn'
- Used for all testing - included scripted and automated



© Workroom Productions 2002
www.workroom-productions.com

Slide 17

Lessons Learned

Slide 18

© Workroom Productions 2002
www.workroom-productions.com



Lessons Learned

Improvements

- Four Groups
 - New - driven by changes
 - Retests - driven by fixes
 - Regression
 - Investigatory
- Document tracking
- Earlier involvement
 - Design
 - Just before delivery to test - late unit test



© Workroom Productions 2002
www.workroom-productions.com

Slide 19

Lessons Learned

Useful, visible, up-to-date metrics

- Increase openness, reduce surprise, blame
- Popular and increasingly well-used

Actively encourage learning process

- Feedback has improved estimating skills
- Session review has improved test techniques
- Test Point ownership has improved planning and scoping skills
- Weekly 2-hour self-training session as a team
- Greater interest in testing, greater motivation



© Workroom Productions 2002
www.workroom-productions.com

Slide 20

Conclusion

Communication

- Sessions gave us the tools to communicate
- Better communication improved trust and effectiveness

Empowerment

- Improved analysis and estimation skills
- Increased morale

Openness

- All figures available, all of the time, always current
- Encouraged trust and interest



© Workroom Productions 2002
www.workroom-productions.com

Slide 21

Conclusion

**Test Sessions are an effective tool to
bring control to unscripted testing**

Overall lessons

- Simple measures are the best
- Favour effective communication over knee-jerk documentation
- Unobtrusive, immediate metrics allow real-time control



© Workroom Productions 2002
www.workroom-productions.com

Slide 22

More

Further details:

- Paper, updates, references etc.
 - www.workroom-productions.com
- Contact:
 - James Lyndsay
 - Jdl@workroom-productions.com

Slide 23

© Workroom Productions 2002
www.workroom-productions.com

