Lanette Creamer
How to Coach Exploratory Testing Sessions

AUGUST 5-9
WASHINGTON D.C.
AGILE 2019

@Lanettecream
Workshop Agenda Part 1

Introduction to Exploratory Testing

- Basics
- Group activity
- Obstacles and false beliefs
- How do we know what to test?
- Isolate, record and show detailed results
- Writing charters
  - Activity to write charters
  - Charter prioritization activity
- Create checklist of what we need to start the exploratory testing session
- Select a charter with some software to test appropriate for your pair

@Lanettecream
Workshop Agenda Part 2

Practice

• Actually run and lead an exploratory testing session with a partner
• Switch leading with performing the charter with partner(s)
• Debrief
• Summarize findings

@Lanettecream
Exploratory testing is

• For anyone who has an interest in the quality of the software
• Unscripted (but not unplanned)
• Creative (but not ad hoc)
• A practice or approach to testing with a focus on discovery
• Time boxed, often practiced using a “Charter”
  - Time boxes are at least 40 minutes, uninterrupted, and may last up to 2 hours
  - May include a debriefing to share findings
Activity 1: Exploratory Testing of an Object

As one large group, take 5 minutes to test the object presented
Activity 2: Debrief

What was that like? Learn anything? How did it feel?

@Lanettecream
Obstacles and False Beliefs

The biggest obstacle to exploratory testing is the false assumption that there isn’t much to find.

- We use TDD, so we have enough quality
- Our test automation covers everything that we care about
- Unit testing or a high code coverage percentage means we don’t need exploratory testing
- Only experienced testers or subject matter experts can do testing
- Only technical or experienced coaches can lead exploratory testing sessions
- Exploratory testing is only about finding bugs
- Developers don’t need to test

@Lanettecream
How do we know what to test?

Testing is the process of comparing our internal expectations with what is happening. Ways we can validate and verify both our expectations.

- Requirements and User Stories
- Other software
- Past versions of the same software (precedent)
- Platform guidelines.
- Any usability data (devices, browsers, network, number of users).
- OWASP top 10 [https://blog.sucuri.net/2019/01/owasp-top-10-security-risks-part-v.html](https://blog.sucuri.net/2019/01/owasp-top-10-security-risks-part-v.html)
- Recent code changes
- Recent environment changes
How do we know what is happening?

Part of effective exploratory testing is accurately capturing actual results.

- Screen capture, screen shots, video
- Logs
- Crash reports
- Debugging
- Instruments, UI Automation, Logs, Scripts
- Basic 50/50 isolation method
- Pairing and mobbing
- Demonstration
- Performance benchmarks (stopwatch) basic averages
- Pattern matching of the human brain. Ask: Compared to what?
A one sentence mission statement that explains the scope of testing and the purpose.

Examples:

- Sail west using Viking Longboats to discover plunderable assets
- Explore log-in using the production server to understand error handling
- Use google documents with multiple users across browsers (Edge, Chrome, Safari Mobile) to compare the experience on different platforms
- Translate popular search terms to and from various languages to discover consistency in translations across languages
- Navigate the app using voice only to better support accessibility
Activity 3: Write Charters

Write Charters - 10 minutes

Examples:

• Sail west using Viking Longboats to discover plunderable assets. Explore log-in using the production server to explore error handling
• Use google documents with multiple users across browsers (Edge, Chrome, Safari Mobile) to better understand the experience on different platforms
• Navigate the app using voice only to better support accessibility

Q: What if I don’t know what to test?
A: Any website that both people can access will do. If really stuck, use https://primes.utm.edu/curios/includes/primetest.php or https://wordsmith.org/anagram/anagram-check.html or https://lingojam.com/
Activity 4: Review/Edit/Prioritize Charters

Review Charters

- Put charters into order of priority
- Edit and update the charters freely
- A good charter sets a general mission, but allows freedom to set the path and vary the journey

Q: What if I still don’t know what to test?
A: Any website that both people can access will do. If really stuck, use https://primes.utm.edu/curios/includes/primetest.php or https://wordsmith.org/anagram/anagram-check.html or https://lingojam.com/ExtraThiccText
Activity 5: Prepare for Session

Consider use of containers to help sessions start with a setup environment. Cloud and container solutions are useful here.

Make sure both partners have what is needed to test.

• Access to the software under test
• Ability to take notes
• Understanding of the charter
• A working connection (application, build)
• All distractions put away
What does the coach do?

Make sure both partners have what is needed to test.

- Plan and preflight the test setup
- Make sure everyone has access to the environments and accounts needed
- Helps isolate bugs as needed
- Helps any participant get unstuck
- Tests the charter while not helping anyone else
- Keeps track of the time so everyone else can focus
- Prompts and listens to the debrief
- Moves the charters & reports non-bug results at the end
What does the participant do?

Test following the charter as a main mission, but wander strategically.

- Avoid distractions
- Ask the coach if stuck
- Isolate and report findings
- Debrief by sharing findings with the coach
- Enter final isolated bug reports in whichever way is best for your team
Lanette Creamer
How to Coach Exploratory Testing Sessions Part 2

AUGUST 5-9
WASHINGTON D.C.
@Lanettecream

AGILE 2019
Activity 6: Exploratory Testing of an Object

As one large group, take 5 minutes to test the object presented

@Lanettecream
Activity 7: Run Exploratory Testing Session - 25 minutes

Test as a pair, with one taking the coaching role and the other the participant role. Work through the charters you sorted together in priority order. When you aren’t finding anything of interest, or learning anything new, move to the next charter.

Q: What if I don’t know what to test!
A: Any website that both people can access will do. If really stuck, use https://primes.utm.edu/curios/includes/primetest.php or https://wordsmith.org/anagram/anagram-check.html or https://lingojam.com/ExtraThiccText
Activity 8: Run Exploratory Testing Session - 25 minutes

Test as a pair, swapping roles. Work through the charters in priority order. When you aren’t finding anything of interest, or learning anything new, move to the next charter.

Q: What if I don’t know what to test!
A: Any website that both people can access will do. If really stuck, use https://primes.utm.edu/curios/includes/primetest.php or https://wordsmith.org/anagram/anagram-check.html
Activity 9: Debrief - 10 minutes (5 for each coach)

What were your findings?
How would you share the non-bug findings with your team?
Don’t forget to share what worked well with the developers.
Ways to Share Results

• Mind maps (Also outlines for those who aren’t visual thinkers).
• Diagram the workflow to show an overview (with blocking issues).
• Move charters to done (When using boards with columns).
• Consider keeping the charters you decided not to do to improve incrementally over time.
• Other ideas?
Activity 10: Workshop Debrief

What were your findings?
What was the hardest part?
What did you find most useful?
What would you tweak for your team?
Lanette Creamer
Questions/Discussion

AUGUST 5-9
WASHINGTON D.C.
AGILE 2019

@Lanettecream