Neuroscience and the Agile Way

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Quick Brain Activity

- Raise your left foot
- Rotate it clockwise
- While rotating – raise left hand in the air
- Draw a big #6 in the air
Today’s Objectives

• Describe Context Switching
• Neuroscience: Personalities understand ourselves
• Understand impacts to our mental health
• Leave understanding what can be done about it
• You will need
Did you know

• Office worker interruptions occur every 3 min 5 sec
• Oddly ½ of the interruptions are self-interruptions
Multitasking Components

• Background tasking
  o Helpful
  o Internal and External

• Context Switching
  o Thief of Time/Money/Sanity
Context Switching

Attempting to do multiple focused tasks at the same time

2 Hour limit

Jobs that require context switching often mandate a break every 90 minutes

- Air traffic controller
- Interpreter at the United Nations
But, Haven’t We Evolved

Prefrontal Lobe

Prefrontal Cortex

Fronto-poloar Prefrontal Cortex
Superhero Complex
Personal Story
WIP It, WIP it good

<table>
<thead>
<tr>
<th>To Do</th>
<th>Doing</th>
<th>Done</th>
</tr>
</thead>
</table>

![To Do, Doing, Done list with post-it notes and a hand diagram with 'Greydon's High FIVE!']
We use this at home
Additional Personalities

• Approach-oriented or reward-focused
  o Belief that multitasking will be rewarded

• High-sensation seeker
  o Desire constant stimulation, and enjoy new tasks

• Trouble focusing
  o Have trouble blocking out external stimuli

• Priority Pleasers
  o Make it a priority in order to please others
Agile Frameworks Promote

For Example

- Daily standups for collaboration
- Transparency for understanding
- WIP for focus
- People doing the work; determine the approach
- Team reflection – tune behavior
- Innovation and Planning
Zeigarnik Effect

• People remember uncompleted tasks better than completed tasks
• Our brains will be switching context despite what we want
Pair Programming
Advantages of Context Switching

• It keeps others from being held up
• It gives you something to turn to when you’re stuck
Management

• Context switching is a way of life
• Help yourself and manager
• Help determine the relative priority of each piece of work
Invoke Scrum Master Protection

THREE MAIN SCRUN ROLES

SM SCRUM MASTER

PO PRODUCT OWNER

SM SCRUM MASTER

ST SCRUM TEAM
Exercise

Take a piece of paper and draw 2 lines
Exercise – Round 1

30 seconds to see how far you can get

• Row 1: Let us play a game together
• Row 2: Write the numbers “1 – 22”
Exercise

30 seconds to see how far you can get

- Row 1: phrase
- Row 2: numbers count up
Let us play a game together
Exercise - Take 2

Take a piece of paper and draw 2 new lines
Round 2 rules

You are going to use the same phrase and numbers

• However, you will write 1 letter on the top line and then a number the bottom line

• Oh, by the way
  – Numbers countdown vs counting up
Round 2 rules

Only enter 1 character on a line at a time
Alternating lines – Letter then number

• Row 1: Let us play a game together
• Row 2: Write the numbers “22-1”
Take 2 rules

45 seconds to see how far you can get

• Row 1: phrase
• Row 2: numbers countdown
Let us play a game together

22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
Mental Health

- Confused about task
- Mistakes
- Amount of time increases
- Quality of work decreases
- More stress
- Mental fatigue increases
- Feeling lack of accomplishment
Efficiencies Lost

A 6 month task would take only 3.6 months without context loss

Percent of Time

Loss to context switching

Number of simultaneous tasks

Task 5
Task 4
Task 3
Task 2
Task 1
Many Housing Update Options

- Paint Boys Room ✔
- Paint Isa’s Room ✔
- Master Bath Refresh
- Main Bathroom refresh ✔
- Upstairs Carpet ✔
- Lower Level Carpet ✔
- Kitchen counters
- Deck ✔
- Stain Lower Level (On Deck)

New
Yard Regrading
Many Housing Update Options

- Paint Isa’s Room
- Upstairs Carpet
- Lower-Level Carpet
- Deck
- Paint Boys Room
- Main Bathroom refresh
- Re-paint Isa’s room (Kid room swap)
- Stain Lower Level (On Deck)
- Master Bath Refresh
- Kitchen Counters
Recap: What can we do about it

- As much as possible work on 1 task or project at a time
- Use WIP
- Know your personality type and share it
- Team up on difficult work
- Invoke Scrum Master Protection
- Help managers be mindful of requests
- Team members be open and transparent about blockers and interrupters
- Don’t be a superhero! ... Unless you can be Batman
Feedback & Questions?