



Military Scrum Master Course

Revised by the Centers for Adaptive Warfighting, Naval X, Assistant Secretary of the Navy for Research, Development, and Acquisitions from the original Scrum Guide ©2017 Ken Schwaber and Jeff Sutherland the creators, under the terms of the Attribution Share-Alike license Adapted through a Creative Commons

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Facilitator Warmup

Get warm. Remember, we're here to help, use exercise time to coach.

Logistics

Supplies

- Stickies
- Markers
- Butcherblock paper
- Tape for affixing to walls
- Lanyards (red and blue)
- Sign-in sheet (use day one; use to cull certificates)
- Printer paper (enough for nametapes and airplane games)
- Breakfast and lunch?
- Scrum Reference sheet
- TV/projector (optional)
- Computer (optional)
- PowerPoint Slides (optional)
- Music for before, after, and airplane game (optional)
- Certificates
- Tchotchkes (coasters, prizes, anything else -- give to winner of RPS, high five, maybe the airplane game)

Pre – Start Preparations

- Instructor Rehearsals
- Course Scrum Board created
- Course backlog created, prioritized, instructor(s) identified for each, definition of done, effort points, Instructor warm-ups



Agenda (example)

Day 1		
Start	Time Box	Event
0830	5	Introductions
0835	15	Ice Breaker
0850	5	Operating Agreement
0855	5	What is Scrum?
0900	5	Kaizen
0905	5	Agile Manifesto
0910	5	The 3 Pillars
0915	5	Why Scrum works
0920	10	BREAK
0930	10	3 Roles
0940	15	5 Events
0955	10	3 Artifacts
1005	10	5 Values
1010	5	Time Boxing
1015	10	Select roles / Team name
1025	10	BREAK
1035	5	Team / Product Backlog
1040	5	What is Sprint Planning
1045	5	Slicing
1050	5	Impediments
1055	5	External Dependencies
1100	20	Create a Team / Product Backlog
1120	15	Definition of Done
1135	5	Gold Plating
1140	10	Prioritizing
1150	5	Sprint Review
1155	5	Sprint Retrospective
1200	60	LUNCH
1300	5	Daily Scrum
1305	15	Task Switching Name Game
1320	20	Why Metrics / Fibonacci
1340	15	Sizing game
1355	20	Size the Backlog
1415	15	Sizing reflection
1430	10	Sprint Burn
1440	10	Velocity Charts
1450	10	Team/Product Burn down
1500	20	Set up next 3 Sprints
1520	20	Create Charts
1540	10	Perform Sprint 1
1550	5	Sprint Review
1555	5	Sprint Retrospective
1600	5	Class Sprint Review
1605	10	Class Retrospective
1615		DAY 1 END

Day 2		
Start	Time Box	Event
0830	15	Ice Breaker
0845	5	New Roles
0850	5	Class Daily Scrum
0855	35	Team Sprint 2
0930	10	BREAK
0940	35	Team Sprint 3
1015	15	Buffers
1030	35	Team Sprint 4
1105	10	BREAK
1115	10	Identifying Customers
1125	10	Customer Feedback
1135	5	Waterfall or Scrum
1140	5	Class Sprint Retrospective
1145	15	Class Customer Review
1200	60	LUNCH
1300	15	Ice Breaker
1315	5	Daily Scrum
1320	15	Make me an Airplane
1335	15	Airplane Sprint 1
1350	15	Airplane Sprint 2
1405	15	Airplane Sprint 3
1420	15	Airplane Sprint 4
1435	10	Airplane Discussion
1445	15	BREAK
1500	5	Implement Scrum
1505	10	Scrum at Scale
1515	15	Naval X and CAW
1530	10	Surveys
1540	5	Course Sprint Review
1545	5	Course Sprint Retrospective
1550	20	Rose – Bud – Thorn
1610	5	Certificates
1615	5	Course Survey
1620		END OF COURSE

-Sprint 1-



Military Scrum Master Course (MSM) empowers warfighters to take control of complex work, doing more of what matters and less of what does not by breaking down barriers, enforcing team collaboration and creating transparency with a framework for developing, delivering, and sustaining complex problems, tasks, or products. Scrum is a framework, not a process, technique, or definitive method. The Scrum framework is malleable, adjustable to suit the needs of the team, not the opposite.

- A different way to prioritize requirements
- Plan deliberate workflows
- Increased iteration resulting in better outcomes, reduction in effort, increased proficiency, reduction in errors, cost savings, reducing waste.

Introduction

- Short Intro... First name, where you work, what you do.
- We will learn more about each other throughout the course

Operating Agreement

- Be on Time, Stay on Time
- Hands up for silence: Once you see someone raises their hand, you will raise your hand and stop talking until the entire class has done the same. Instructor will then answer the question for the entire group.
- Jargon Giraffe
- Rabbit - hole fingers - Use Time Wisely
- First names
- One Conversation
- Cell Phone

Ice Breaker

Ice breakers are ways to get team members to know one another through various methods designed to break through social norms, encourage interaction, and enhance team building methodologies.

Choose one (or more if time allows) Ice Breakers (Consider combining) or;

- Line up by experience with Scrum, most to least. Count off by number of tables and rearrange students in order to increase experience diversity.
- Perform “2 Minute Conversation” Ice Breaker
- any other...



What is Scrum?

Scrum (noun) Taken from the rugby term for a coordinated team driving down the field together. Describes a system for managing complex work across a team of 3-9 people, with the potential for other Scrum teams above, adjacent, or below. Builds on selected principles of agility (only produce what is useful to your customers; know who your customers are and listen to them regularly) and Continuous Process Improvement (industry best practices for instituting and enforcing ways of getting better every time you do something). Lightweight; simple to understand; difficult to master.

Scrum Theory

Created by Ken Schwaber and Jeff Sutherland was founded on empirical process control theory, commonly referred to as empiricism. **Empiricism** means *working in a fact-based, experience-based, and evidence-based manner*. Scrum implements an empirical process where progress is based on observations of reality, not fictitious plans. Scrum also places great emphasis on mind-set and cultural shift to achieve business and organizational Agility.



Kaizen. A Japanese term meaning "*change for the better*" or "*continuous improvement*." It is a Japanese business philosophy regarding the processes that *continuously improve operations* and involve **all** employees.

Agile Manifesto

- **Individuals and interactions** over processes and tools.
- **Working software [product]** over comprehensive documentation.
- **Customer collaboration** over contract negotiation.
- **Responding to change** over following a plan.

Why Scrum works

- Embraces Change
- Team members, to include leadership, participate
- Leverages Systems Thinking
- Focus Efforts
- Continuous improvements



It's the 3-5-3-5. The essential elements of a Scrum process. They include:

3 Roles

The Scrum team has three essential roles.

- **Product Owner:** Responsible for increasing value of what the team works on. Establishes clear priorities of work, ensures understanding of customer needs.

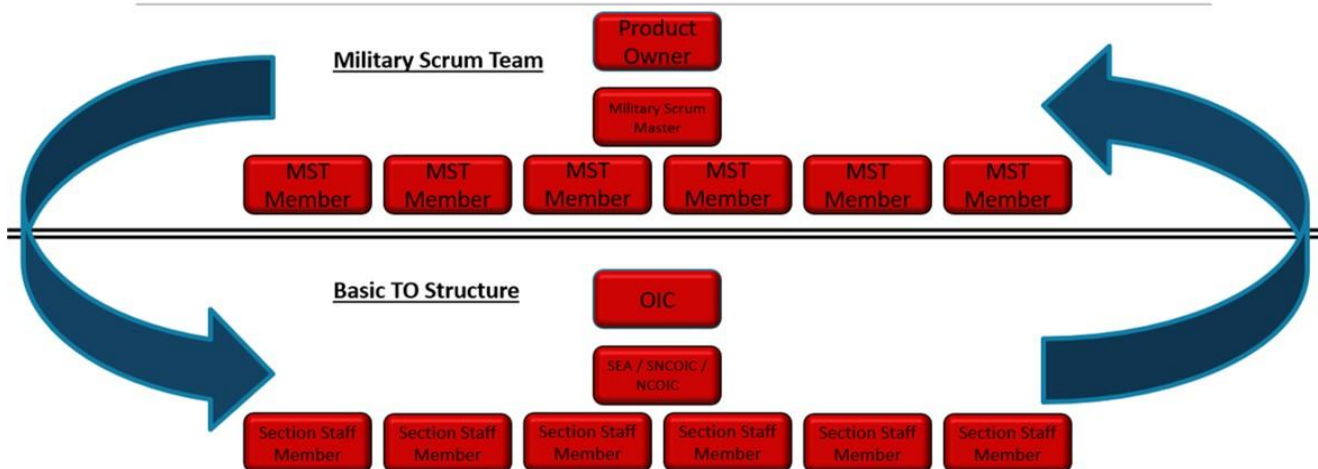
Military Translation: Commanding Officer, Executive Officer, Operations Officer, Company Commander, Officer in Charge.

- **Scrum Master:** Responsible for increasing productivity of the team's time. Protect team from impediments internal and external. Time-boxes, encourages focus, acts as advocates with external dependencies.

Military Translation: Executive Officer, Assistant Officer in Charge, Staff Non-commissioned Officer, Non-commissioned Officer.

- **Team:** Self-selecting, self-organizing. If necessary, can include the Product Owner or Scrum Master, especially in small teams. 3 – 9 team members is optimal. Less than 3 may result in less productivity gains, more than 9 may require more coordination.

Teams (different "titles", similar roles and responsibilities)





5 Events

Used to create regularity and minimize unnecessary meetings.

- **Spring planning:** At the beginning of a sprint, decide which things your team will get done.
 - **Backlog refinement:** Rearranging your Team Backlog by priority order. Slicing. Defining done. Assigning velocity points. Can be performed as a separate event, but should be constantly happening.
 - **Sprint Goal:** Identifies what needs to be achieved to make the sprint successful.
- **Sprint:** The cycle in which we'll get things done. In the military, usually a week.
- **Daily Scrum:** 15 minutes to say what you did, what you'll do today, and what impediments are keeping you from moving faster.
- **Sprint Review:** An inspection of the increment at the end of the Sprint, adjust the Team Backlog if needed.
- **Retrospective:** Ask your team, "How are we doing?" Fist to five. Suggestions for improvement. No hiding. Take feedback and adjust.

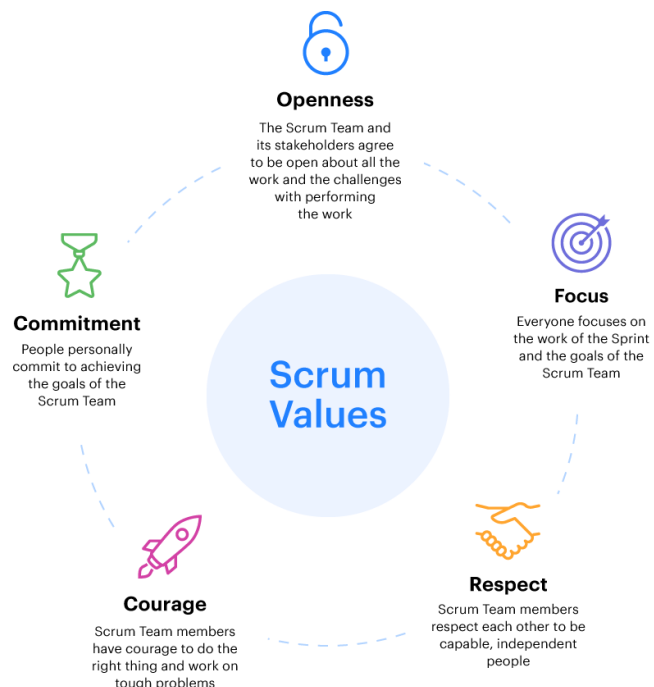
3 Artifacts

Represent work or value to provide transparency and opportunities for inspection and adaptation.

- **Team/Product Backlog.**
 - A prioritized list of things that a team can do to generate value.
 - Prioritized by the Product Owner.
- **Sprint Backlog.** A subset of things from the product backlog.
- **Product increments.** Completed functionalities

5 Values

- Courage
- Commitment
- Focus
- Respect
- Openness





The Military Scrum Team

Research suggests that people perform better when motivated. Scrum Teams are motivated through;

- **Autonomy:** The desire to be self-directed. Increases engagement over compliance.
- **Mastery:** A desire to improve personal skills.
- **Purpose:** The desire to do something that has meaning and is important.

Time-boxing

- **Ask:** “Who has ever been on a staff with meetings that would never end?”
- **Explain:** “Scrum has a different operating system; the scrum team sets the time. When the time is up, Hard Stop! This. Is what urgency feels like. Keep the team focused.”

- Exercise -

Self-Select Roles

- Using a blue lanyard (Product Owner) red lanyard (Scrum Master), decide who will serve as Product Owner and who as Military Scrum Master.

DoD: Roles are assigned.

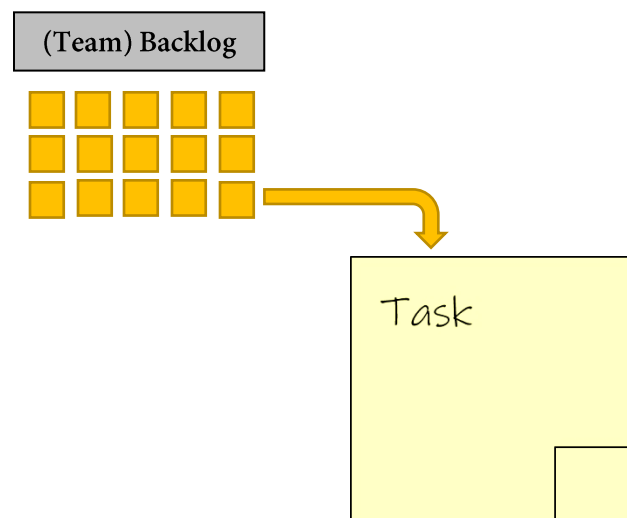
Team Name, Team Board

- Each team will create a team name and placard if applicable.
- Must be legible from the front of the room.
- Board created with artifacts (Backlog, To-do, Doing, Done)

Note: Opportunity to mention this is their first chance to use student Product Owners and Scrum Master's to get something done.

Finesse: Assign the task giving 10 minutes in which to complete, while sharing the time for a break.

DoD: Team name placards and boards are completed and discussed.





Team/Product Backlog

A prioritized list of requirements, tasks, missions or products for future Sprints. The Team Backlog evolves over time for various reasons, more so to meet the demand / requirements. In Scrum, the Product Owner is solely responsible for the Team Backlog.

Increment. The sum of the Team Backlog items completed during a sprint and the value of the increments of all previous sprints.

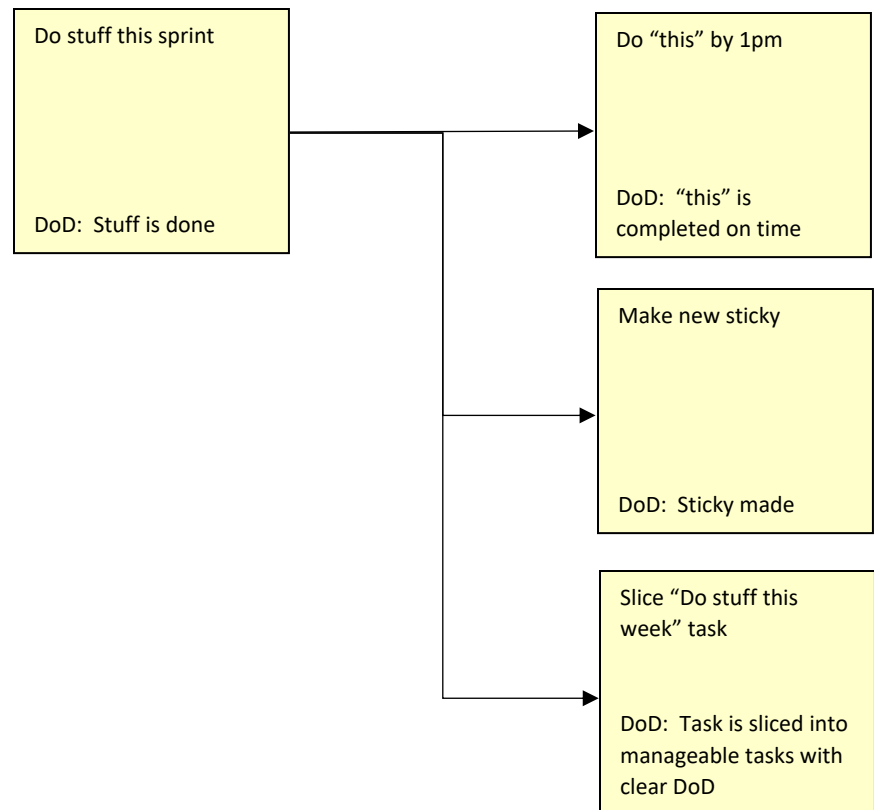
What is Sprint Planning?

A time boxed meeting, approximately two hours for a one-week Sprint, to plan the work to be performed during the next Sprint. Consists of **Backlog refinement** and establishing the **Sprint Goal**. Sprint Planning answers:

- What can be completed in the next Sprint [to support the increment]?
- How will the work required to complete the increment be achieved?

Finesse. The team works together to decide what should be pulled from the Team Backlog. The Product Owner ensures the team is pulling from the top, the highest priority.

DoD. No Questions



Slicing: Breaking Down Complex Tasks

- Complex tasks can be broken down into more manageable tasks.
- When slicing from the backlog, ask “can this all be done in one Sprint?”
- Either Slice it all and move what is manageable into the Sprint or, only slice out what is manageable in the next sprint.
- New “tasks” sizing does not have to add up to the task sliced from.
- External Dependencies / Impediments

Scenario (example). The PCS (Epic); The family has been medically cleared (feature); as a service member, you are required to obtain a complete shot record before being cleared for travel. (story: [possibly] too big for one sprint). Task: Get an MRR immunization.



Practical Application, Board Slicing. Have teams return to their boards, assist with slicing one story, teams will slice the remaining.

DoD. No questions on slicing.

- Practical Application -

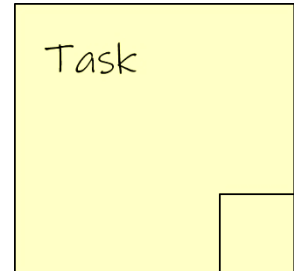
Create a Team/Product Backlog

Scrum is designed for distributed, complex tasks. The next exercise is simple, and relatively familiar to most, yet hits all the requirements for learning Scrum, more specifically creating a team [product] backlog.

Story: You decided to implement Scrum within your organization.

- Identify all the projected requirements for the next two months with your team

DoD: Projected tasks are on the left of the scrum board.



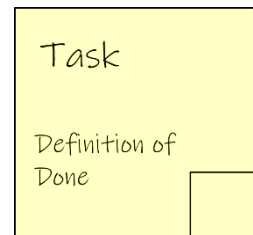
Definition of Done (DoD)

Explain: A critical component of Scrum that removes confusion and misinterpretation. A team backlog item or increment must have a shared understanding of what it means for the work to be considered complete, the definition should be clear and concise.

The definition of done should be clear enough for anyone to confirm “True” or “False”, meaning there is no room whatsoever for interpretation.

Practical Application: Have the students return to the boards, write a definition of done on each task.

DoD: There are no questions.

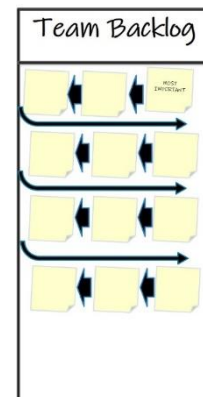


Prioritizing

Explain: Prioritizing does not always mean that one item is more important than the other, only that it needs to be done before another item.

Practical Application. Have the students return to the boards and prioritize the backlog.

DoD: Tasks are prioritized in the backlog.





Gold Plating is when one continues to repeat themselves, or add information that does not provide value.

- Practical Application -

Sprint Review

Explain: “At the end of each sprint, the team conducts a sprint review.”

- A review of what was done during the sprint;
- Discuss what went well, any problems, and how problems were solved;
- Product Owner discusses the Backlog to project future due outs based on current progress.

Practical Application.

- Summon Team Product Owners to the front.
- The class Product Owner shall inform the Team Product Owners to gather questions and or comments from their teams and report back to the Class Product Owner.
- Discuss with the class all of the questions/comments/recommendations.

DoD: All questions/comments/recommendations have been addressed.

Sprint Retrospective

Explain

- An opportunity for the team to reflect on how the sprint went in regards to people and processes.
- Identify what went well and where improvements are needed;
- Develop a plan for implementing solutions for improving those areas.

Practical Application

- Fist to five. Facilitators will conduct a fist to five in front of the class, openly discuss their reasons for their number.

Finesse: Starting with lowest to highest number ask, why are they feeling that way.

- Inform the individual teams to take 5 minutes to conduct a fist to five, discuss the results within their group.

- LUNCH BREAK -

-Sprint 2-



Daily Scrum

- Review remaining agenda
- Answer any questions

DoD: No further questions.

- Exercise -

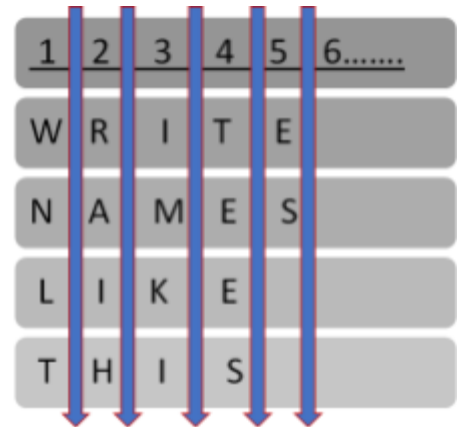
Task Switching Name Game

Rules

- No talking
- Do not start until instructed to do so
- Each table self-select a scribe (cannot be the Product Owner or Scrum Master)

Round 1

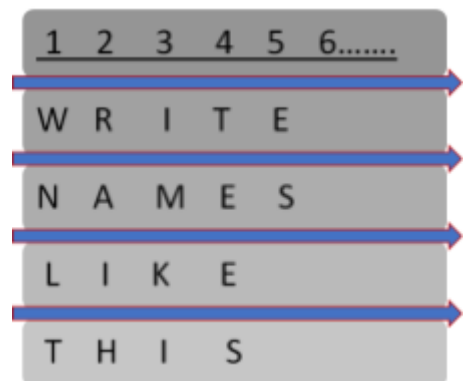
- The SCRIBE shall write each team members' full name starting with all the first letters of each first name, followed by all the second letters of each name and so on, going down a column.
- Scrum Master: Write down the time when the FIRST FULL name is completed and the time when all names are completed.
- Product Owner: Turn recorded times over to the Class Product Owner.



After times are collected, facilitator will declare the times are “no good”, scribes are fired and rotate to another table/team.

Round 2

- New scribe, self-selected. Write each team members first and last name one letter at a time.
- Scrum Master: Record the time when the FIRST FULL name is completed and the time when all names are completed.
- Product Owner: Turn recorded times over to the facilitator.



Ask: Was it the scribes that made it better? It should be the method. (send scribes back to original groups).

Explain: Task Switching; it makes you tired, neuro-science claims one cannot actually multi-task – in this exercise you proved just that, it is difficult and makes your head hurt. We probably shouldn't do it.

DoD. No further questions.



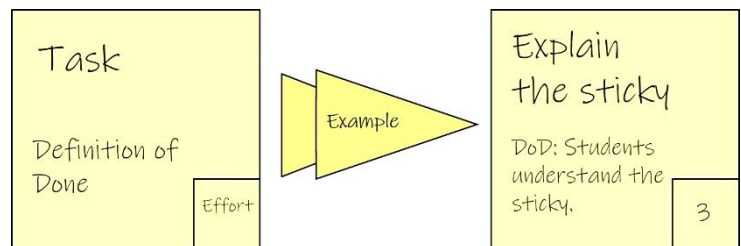
Fibonacci Sequence

Explain

- A set of numbers that starts with either zero or one, followed by one, proceeding based on the Fibonacci rule, each number is equal to the sum of the preceding two numbers.

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89...

- Can be used in almost all aspects of life.
- Used to predict the behavior and growth or decay of things such as the stock market index.
- In Scrum, it is used to place items in sizing categories.
- Team members vote on the “size” for each item, majority wins.
- Delphi method, dispersion solutions, how to conflict resolve. Builds team mutual understanding and cohesiveness.



- Exercise -

Animal Game

Preparation. Using sticky notes and a wall space, create and place the following labels; *Extra Small, Small, Medium, Large, Extra Large*. Ensure to leave enough space between the labels for other stickies.

Rules

- Have students grab a sticky pad and marker, have them gather around a pre-determined wall area.
- Write down any animal, large or small, preferably an animal the majority is familiar with.
- Using a wagon wheel rotation, students will place their animals in the size category of their choosing.
- No talking
- Continue the wagon wheel, students are allowed to move one sticky at a time to another category.
 - Place a tick mark on stickies moved to a different category.
 - Stickies may only be moved three times.

Ask: Does anyone feel deeply that any of the animals are more than 1 category off?

Finesse: Humans can put things into relative bins / categories fairly efficiently. Explain relative sizing using a few animals. Need to be able to estimate task SIZE in terms of effort, not time.

DoD: All animals are in groups.



Animal Reflection

Ask: What just happened? Random people, random animals, a few minutes to perform the task and there were no disagreements with the categories once the time was up.

- No reason to argue the difference between 5 and 6
- Little to no argument happens when numbers (or sizes) are further apart, such as 8 and 13 or extra small and large.

DoD: No further questions.

- Practical Application -

Size the Back Log

Teams return to their boards, using the Fibonacci sequence and voting, size all the backlog items.

Finesse. We do not estimate for time, rather effort. Humans are terrible at estimating time however really good at estimating effort.

DoD. All Backlog items are sized.

Sprint Burndown

Tracking productivity daily and weekly will reduce opportunities for not hitting the mark. Start with the total amount of points from the Sprint; draw a straight line from the total of the points to zero.

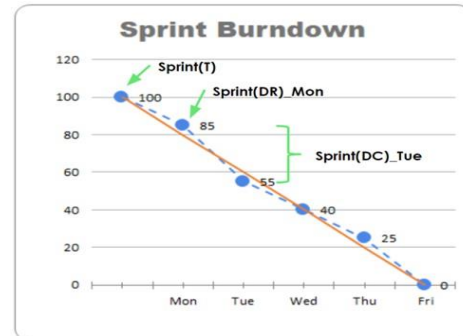
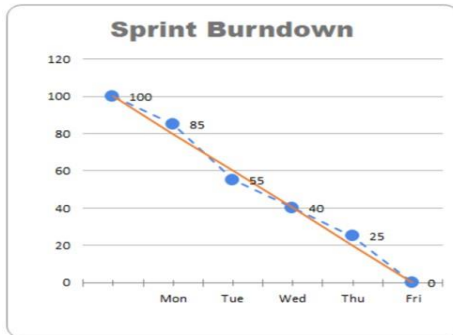
- **Total Estimated Sprint Points (To Do).** All the points in you Sprint Backlog.
- **Daily Completed (Done).** Everything you completed during the daily increment.
- **Daily Remaining (To Do).** Everything remaining in the 'To Do' for the remainder of the Sprint.
- **Total Estimated Sprint Points (To Do).**
SPRINT(T) = All the points in the Sprint Backlog.
- **Daily Completed (Done).**
SPRINT(DC) = Everything the team completed during the daily increment.



- **Daily Remaining (To Do).**

SPRINT(DR) = Everything remaining in the ‘To Do’ for the remainder of the Sprint.

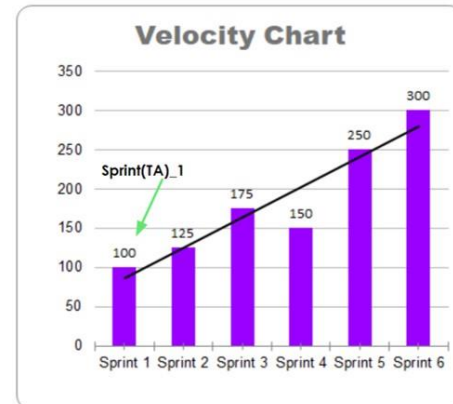
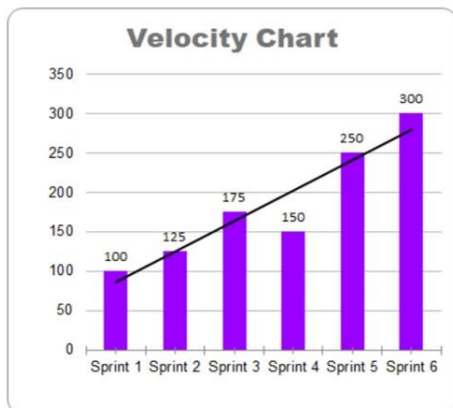
Equation: $SPRINT(DR) = SPRINT(T) - SPRINT(DC)$



Velocity Chart

- **Total Actual Sprint Points (Done) $SPRINT(TA)$** = The sum of all the points in the ‘Done’ column at the end of the Sprint.

Equation: $SPRINT\ 1 = SPRINT(TA)_1$



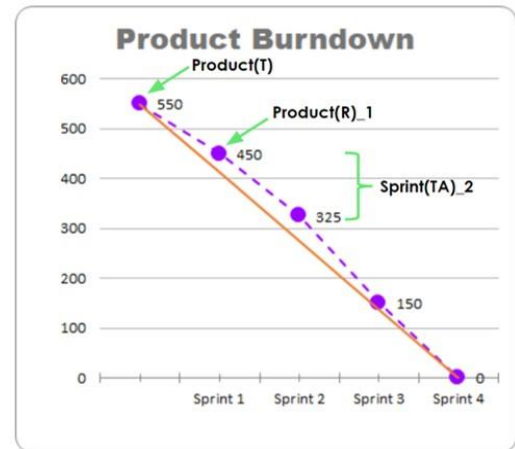
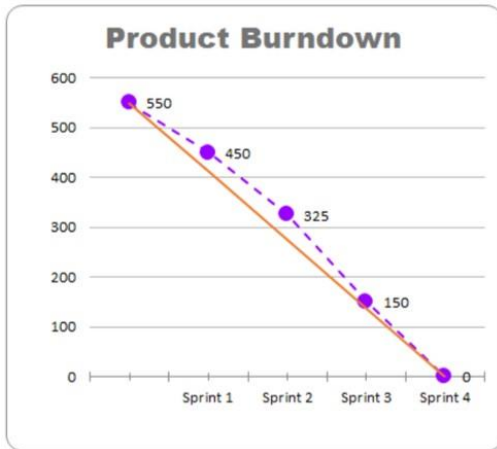
Team/Product Burndown

Tracks the burndown rate for the *epic*, or a *team backlog*, maintaining visibility on long term objectives ensuring the team is on track to make any / all milestones.

- **Total Estimated Product Points(T).** All the points in the Sprint Backlog (To Do & Backlog points for the increment).
- **Sprint Actual (Done)(TA).** Actual Sprint points completed during a single Sprint.

Daily Remaining (To Do)(R). Everything remaining in the ‘To Do’ after the day is complete.

$$\text{Equation: } \text{PRODUCT(R)} = \text{PRODUCT(T)} - \text{SPRINT(TA)}$$



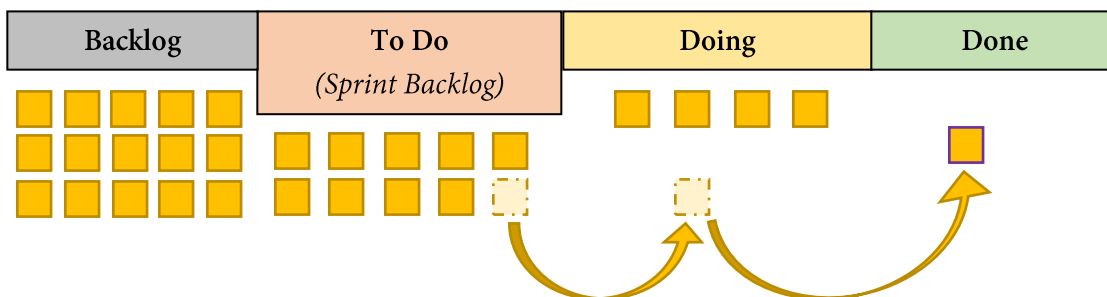
- Practical Application -

Perform a Sprint / Plan Backlog

Task

- Teams will return to their boards and move only what they feel they can accomplish in either a 1 week or 1-month Sprint (Lead instructor shall decide) from the ‘Team Backlog’ into the ‘Sprint Backlog’.
- Setup the next two Sprints in the Team Backlog. (The remainder of the stickies, which have not yet been refined, will make up the fourth Sprint).
- Setup the Sprint Burndown, Velocity, and Team Burndown charts. No estimating yet, setup the axes and the burndown total.

DoD. Each board has a single Sprint in either the ‘Sprint Backlog’ or ‘To Do’ column and two - three Sprints in either the ‘Sprint Backlog’ or ‘Team Backlog’. (Location depends on the board makeup).





Sprint 1

- The Sprint Backlog is ready, as a team walk through your first Sprint.
- Two items are not completed.
- Update charts
- Perform Sprint Review
- Perform Sprint Retrospective

Sprint Review (Class)

- Discuss everything accomplished in day one class Sprint 2.

DoD. All complete in the 'Done', Sprint burndown and velocity charts completed. No further questions.

Sprint Retrospective (Class)

- Allow time for questions.
- Teams and instructors will conduct a 'fist to five', discuss the results within respective teams.

DoD. No further questions.

- Day 2 -

Ice Breaker

Assign / Self-Select Roles

- New Product Owner and Military Scrum Master, preferably those who have not been in the position yet.

DoD. Each team has new PO / MSM

Daily Scrum

- Class instructors shall guide the Daily Scrum discussing the remaining backlog items.

DoD. No further questions

*Share a Military Scrum Master Success Story/Tour, if able.



- Practical Application -

Sprint Planning: Establish your Sprint Backlog

- A set of items selected from the Team Backlog for the next Sprint.

Sprint 2

- Set up Sprint 2 and plan Sprint 3 (in not done so already)
- Perform Sprint 2
- Three items are not completed.
- Update charts
- Perform Sprint Review
- Perform Sprint Retrospective

Sprint 3

- Plan Sprint 3 and set up Sprint 4 in the backlog.
- Perform Sprint 3
- Update charts
- Perform Sprint Review
- Perform Sprint Retrospective

Buffers

When the unexpected happens, plan for it.

- Return to the boards.
- Using the last three Sprints, average the effort points not completed.
- Factor the buffer into Sprint 4.
 - Stay at the boards.

DoD. Buffer is determined.

Sprint 4

- Sprint 4 in the Sprint Backlog.
- Perform Sprint 4
- Update charts
- Perform Sprint Review
- Perform Sprint Retrospective

Identifying Customers. In order to effectively communicate with customers, it is imperative to identify who the customer is, ensure the customer knows what the production team does for them.

- Could be 'higher', 'lower', 'adjacent'

- Any person, team, organization who depends on the team to accomplish and or provide a product or service.

DoD. No further questions.



Minimum Viable Product (MVP) is a product that has enough detail to make the product useful. The product is put into the hands of the customer early on in order receive feedback as quickly as possible. The idea is to validate the product early on in the development cycle, iterate and improve the product based on customer feedback, or scrap the idea.

DoD. No further questions.

Customer Feedback

- Critical to making rapid changes that fit the customers' needs.
- Ask for the End State up front. What is it that they need [to do for them]? Similar to determining the 'Definition of Done', clear, concise, can be answered with 'True or False'.
- Understand the customers 'needs' not what they think they need. Often, the customer is not clear on what they need; understanding what they need the final 'thing' to do for them is critical. Consulting with 'experts' to determine feasibility in order to ensure suitability.

DoD. No further questions.

Waterfall compared to Scrum

- The 'Waterfall' effect does not allow for the customers to speak with the product development team.
- Minimum Viable Product requires customer communication with the production team in order to save time and money creating the RIGHT product faster. A fundamental process of Scrum.

DoD. No further questions

Sprint Review (Class)

- Discuss everything accomplished in day one class Sprint 2.

DoD. All complete in the 'Done', Sprint burndown and velocity charts completed. No further questions.

Sprint Retrospective (Class) / Customer Review

- Allow time for questions.



- Teams and instructors will conduct a ‘fist to five’, discuss the results within respective teams.

DoD. No further questions.

- LUNCH BREAK -

Ice Breaker

Daily Scrum

- Review remaining agenda
- Answer any questions

DoD: No further questions

- Exercise -

Make me an Airplane

How to play. Teams are tasked with creating as many paper airplanes in the time allotted. The exercise should iterate 3-4 times in order to simulate the development cycle.

Prep. Have teams create new Scrum boards or make room on their current boards.

- 3 – 4 iterations
- 5 minutes per iteration.
- 2 minutes of Sprint Planning before each iteration identifying the Sprint Goal.
- 2 minutes of Sprint Review / Retrospective after each iteration.

The class Product Owner summons the Team Product Owners to the front of the class to provide instruction on the ‘customers’ needs for a paper airplane to meet their definition of done.

Rules / Tasks

- **Product Owner** is the only person from the team that may talk to the ‘customer’.
 - Responsible for sharing customer information with the team.
 - Responsible for turning in the Pass, Fail, work in progress (WIP), Time of First Flight into the Class Product Owner at the end of each iteration.
 - Responsible for conducting a 2-minute Sprint Review at the end of each iteration.
- **Team Scrum Master** tracks the time, writing down the time of the first test flight, regardless if the flight is pass or fail.
 - Keep track of the total Passed and Failed test flights.
 - Total up and record all ‘Waiting in Production’ (WIP) at the end of each iteration. WIP is any paper that has been folded in attempt to ‘manufacture’ another plane OR any finished planes that did not make it to the test flight.
- Conduct test flights.
 - **Pass:** Plane travels at least 10 feet in the air.
 - **Fail:** Plane does not travel 10 feet in the air.

- All team members shall participate and understand their role within the team.
- Utilize the Scrum board.



Finesse. Assistant instructors shall serve as the ‘customers’ in the roles of ‘Engineer’, ‘Pilot’, ‘Logistician’, and or any other roles that fit the story. The ‘customers’ should be planted around the room away from the Class Product Owner. When the Class Product Owner requires information from any one of the ‘customers’, they must go to or request their presence, in order to simulate time lost. Ensure to use their role names vice real names to help clearly define who is serving in what ‘role’. Consider name tags for the visual que.

Intent. Demonstrate minimum viable product; rapid customer feedback; team collaboration IOT make adjustments to meet the needs of the customer.

DoD. No questions.

How might we...implement Scrum?

- Team ‘~~buy-in~~’, “participation” of starting.
- Identify Roles
- Create a board
- Create a backlog
- Run a Sprint or two or three;
- Accept mistakes, make adjustments, implement other key components when comfortable; definition of done, sizing, slicing, etc.

Scrum at Scale

- Multiple Scrum teams working towards on a common goal (increment).
- Naming of roles in Scrum at Scale differ slightly than one Scrum team.

Naval X / CAW one pager

Level 2 Certification

Sprint Review (Class)

- Class Product Owner conducts a final review of what was covered in day 2.

DoD. No further questions.

Sprint Retrospective (Class)

- Teams and instructors will conduct a ‘fist to five’, discuss the results within respective teams.

DoD. Course complete.



Rose, Bud, Thorn

The course critique is an invaluable assessment used to adjust course materials and facilitation.

Each member of the class is provided a total of 9 post it notes, divided evenly between red, blue, and green. Ask the students to provide a response to each category, in 3-5 words;

- Red Roses: Like
- **Green Buds:** Opportunities, whether or not they were present in any form
- **Blue Thorns:** Did not like. Improve!



- Provide approximately 15 minutes to complete. Once complete, drop all notes in a box and mix around. Make sure they understand that these will be anonymous.
- Prep butcher-block paper on the wall.
- Each participant will pull one sticky from the box, read out aloud and stick to the butcher-block paper. Wagon wheel. Repeat until all notes are on the wall.
- *[If there's time]* Cluster! Colors should end up mixed. What you'll see here is a heat map, with red (warm) being the things that are working best, blue (cold) being the things that need the most work, and green (for spring!) being the things that folks are most excited to see introduced. Use Sharpies to outline the different sections. Yellow stickies for cluster labels.]
- *[If there isn't time]* Do the clustering for them during lunch. Provide a reflection session before the afternoon, if possible.]
- Notes are retained IOT capture in final after action to requesting Host.
- Take a picture of the board.

Certificate Presentation

Course Survey QR code

Facilitator Closeout



Key Terms and Definitions

Adaptation: Continuous improvement, the ability to adapt based on results of the inspection.

Agile Manifesto: Individuals and interactions over processes and tools.

Working software [product] over comprehensive documentation.

Customer collaboration over contract negotiation.

Responding to change over following a plan.

Artifacts: Represent work or value to provide transparency and opportunities for inspection and adaptation.

Autonomy: The desire to be self-directed. Increases engagement over compliance.

Buffers: Effort set aside for when the unexpected happens, such as unplanned tasks.

Burndown: Tracks the rate of effort. Maintaining visibility on short- or long-term objectives ensuring the team stays on track.

Commitment: People personally commit to achieving the goals of the Scrum Team.

Courage: Scrum Team members have courage to do the right thing and work on tough problems.

Customer: Anyone who may be affected by the outcome of any task(s).

Daily Scrum: 15 minutes to say what you did, what you'll do today, and what impediments are keeping you from moving faster.

Definition of Done: A team backlog item or increment must have a shared understanding of what it means for the work to be considered complete, the definition should be clear and concise.

Doing: The task one is presently working on; one task at a time.

Done: The task is complete, nothing else can be done.

Empiricism: Working in a fact-based, experience-based, and evidence-based manner.

External Dependencies: Tasks that require external effort in order to be completed; the team has no influence over but relies on the external dependency to complete before being considered done.

Fibonacci: A set of numbers that starts with either zero or one, followed by one, proceeding based on the Fibonacci rule, each number is equal to the sum of the preceding two numbers. In Scrum, it is used to place items in sizing categories.

Focus: Everyone focuses on the work of the Sprint and the goals of the Scrum Team.

Gold Plating: When one continues to repeat themselves, or add information that does not provide value.

Impediments: Anything that may get in one's way from accomplishing their task(s).

Increment: The things completed during the Sprint (found in the Done)

Inspection: The team inspects, not one person.

Jargon Giraffe: One says something others may not understand.

Kaizen: A Japanese term meaning "change for the better" or "continuous improvement." It is a Japanese business philosophy regarding the processes that continuously improve operations and involve all employees.

Mastery: A desire to improve personal skills.

Minimum Viable Product: A product that has enough detail to make the product useful.

Openness: The Scrum Team and its stakeholders agree to be open about all the work and the challenges with performing the work.

Prioritizing: Putting the backlog in order of what needs to be accomplished first, does not mean one is more important than the other.

Product Increments: Completed functionalities

Product Owner: Responsible for increasing value of what the team works on. Establishes clear priorities of work, ensures understanding of customer needs.

Purpose: The desire to do something that has meaning and is important.

Rabbit-hole: Dragging on, talking off the point.

Respect: Scrum Team members respect each other to be capable, independent people.

Retrospective: Ask your team, “How are we doing?” Fist to five. Suggestions for improvement. No hiding. Take feedback and adjust.

Roles: The Scrum team has three essential roles (the people).

Scrum: Describes a system built on selected principles of agility and Continuous Process Improvement for managing complex work. Lightweight; simple to understand; difficult to master.

Scrum Master: Responsible for increasing productivity of the team’s time. Protect team from impediments internal and external. Time-boxes, encourages focus, acts as advocates with external dependencies.

Self-Select: Volunteering, choosing your work.

Scrum Theory: Scrum implements an empirical process where progress is based on observations of reality, not fictitious plans.

Slicing: Complex tasks broken down into smaller, more manageable tasks.

Sprint: The cycle in which we’ll get things done. In the military, usually a week.

Sprint Backlog: A subset of things from the product backlog.

Sprint Backlog Refinement: Rearranging your Team Backlog by priority order. Slicing. Defining done. Assigning velocity points. Can be performed as a separate event, but should be constantly happening.

Sprint Goal: Identifies what needs to be achieved to make the sprint successful.

Sprint Planning: At the beginning of a sprint, decide which things your team will get done.

Sprint Review: An inspection of the increment at the end of the Sprint, adjust the Team Backlog if needed.

Team: Self-selecting, self-organizing. If necessary, can include the Product Owner or Scrum Master, especially in small teams. 3 – 9 team members is optimal. Less than 3 may result in less productivity gains, more than 9 may require more coordination.

Team/Product Backlog: A prioritized list of things that a team can do to generate value. Prioritized by the Product Owner.

Time-Boxing: The maximum time allowed. Time ends, hard stop.

To Do: Tasks the team pulls from the backlog they feel they can accomplish during the Sprint.

Transparency: Presenting the facts as is.

Values: Courage, Commitment, Focus, Respect Openness

Velocity: Increased productivity/output over the course of several Sprints.

Waterfall: The process where the project starts and continues through completion without periodic customer review.