Valerio Zanini

Certified Scrum Master (CSM)

SAMPLE OF Handbook and Study Guide

Truly Scrum

Learning objectives

Upon successful completion of the CSM course, the learner will be able to …

Lean, Agile, and Scrum foundations

… describe Scrum's relationship to the Agile Manifesto

… define the three pillars of empirical process control

… explain the Agile values and principles

… explain the Scrum values

Scrum framework

… explain the three Roles in Scrum

… identify Scrum artifacts and the Definition of Done

… describe the Scrum events and their purpose

Developers

… describe the role of the Developers

… define the key accountabilities of the Developers

Product Owner

… describe the role of the Product Owner

… define the key accountabilities of the Product Owner

Scrum Master

… describe the role of the Scrum Master

… define the key accountabilities of the Scrum Master

… explain the Scrum Master as a servant-leader to the Developers, to the Product Owner, and to the Organization

… describe the difference between coaching, facilitating, teaching, and mentoring

Product Backlog

… explain how evolutionary product planning in an empirical environment differs from traditional fixed planning

… identify key characteristics of the Product Backlog

… describe responsibilities of the Developers, the Product Owner, and the Scrum Master in managing the Product Backlog

… describe the Product Backlog Refinement activities and the role of each member of the Scrum Team

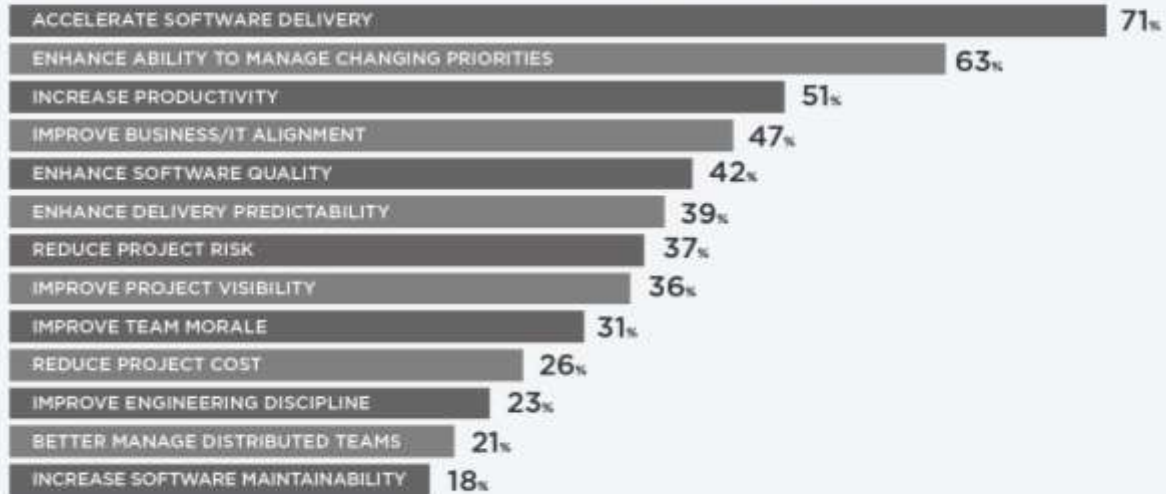**Engineering practices**

… define technical debt and the impact of accumulating it

… describe best practices that help the Scrum Team develop high-quality product

Why are companies adopting Agile?

REASONS FOR ADOPTING AGILE

Accelerating software delivery and enhancing ability to manage changing priorities remain the top reasons stated for adopting Agile. Respondents indicated this year that reasons for adoption were less about reducing project cost (26% compared to 41% last year), and more about reducing project risk (37% compared to 28% last year).
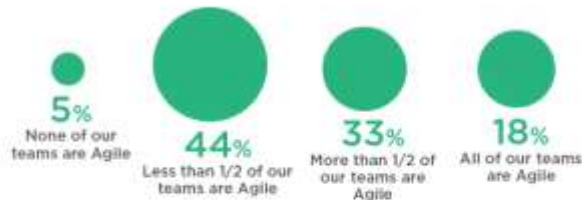
Reason	Percentage
ACCELERATE SOFTWARE DELIVERY	71%
ENHANCE ABILITY TO MANAGE CHANGING PRIORITIES	63%
INCREASE PRODUCTIVITY	51%
IMPROVE BUSINESS/IT ALIGNMENT	47%
ENHANCE SOFTWARE QUALITY	42%
ENHANCE DELIVERY PREDICTABILITY	39%
REDUCE PROJECT RISK	37%
IMPROVE PROJECT VISIBILITY	36%
IMPROVE TEAM MORALE	31%
REDUCE PROJECT COST	26%
IMPROVE ENGINEERING DISCIPLINE	23%
BETTER MANAGE DISTRIBUTED TEAMS	21%
INCREASE SOFTWARE MAINTAINABILITY	18%

*Respondents were able to make multiple selections

PERCENTAGE OF TEAMS USING AGILE

82% of respondents indicated that not all of their company's teams have adopted Agile practices signaling that there is still growth to come for enterprise Agile adoption.

- 5% None of our teams are Agile
- 44% Less than 1/2 of our teams are Agile
- 33% More than 1/2 of our teams are Agile
- 18% All of our teams are Agile

AREAS OF ORGANIZATION PRACTICING AGILE

Agile practices are not limited to software organizations. A new question to the survey this year inquired about which areas of the organization have adopted Agile principles and practices.

- 37% Software Development
- 26% IT
- 12% Operations
- 7% Marketing
- 6% HR
- 5% Sales / Sales Op

*Respondents were able to make multiple selections

The 14th annual STATE OF AGILE REPORT

From: 14th annual state of Agile report – digital.ai 2019

Agile Manifesto:
Agile Values

We are uncovering better ways of developing
software by doing it and helping others do it.
Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on
the right, we value the items on the left more.

Kent Beck	James Grenning	Robert C. Martin
Mike Beedle	Jim Highsmith	Steve Mellor
Arie van Bennekum	Andrew Hunt	Ken Schwaber
Alistair Cockburn	Ron Jeffries	Jeff Sutherland
Ward Cunningham	Jon Kern	Dave Thomas
Martin Fowler	Brian Marick	

Agile Manifesto:
Agile Principles

https://agilemanifesto.org/

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

4. Business people and developers must work together daily throughout the project.

5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

7. Working software is the primary measure of progress.

8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

9. Continuous attention to technical excellence and good design enhances agility.

10. Simplicity--the art of maximizing the amount of work not done--is essential.

11. The best architectures, requirements, and designs emerge from self-organizing teams.

12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

Kent Beck
Mike Beedle
Arie van Bennekum
Alistair Cockburn
Ward Cunningham
Martin Fowler

James Grenning
Jim Highsmith
Andrew Hunt
Ron Jeffries
Jon Kern
Brian Marick

Robert C. Martin
Steve Mellor
Ken Schwaber
Jeff Sutherland
Dave Thomas

© 2001, the above authors
this declaration may be freely copied in any form, but only in its entirety through this notice.

PERSONAL COPY – DO NOT DISTRIBUTE WITHOUT PERMISSION

Discuss the Agile Principles

Activity

Select one principle from the Agile Manifesto that you consider important. Write below the answers to the questions:
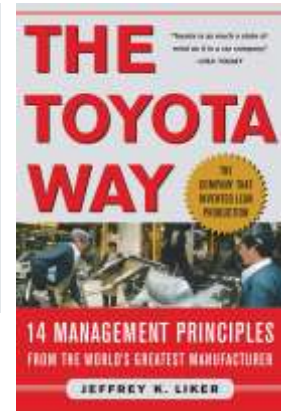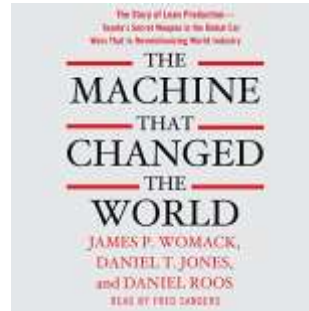

BENEFITS: What benefits would you get by applying or adopting that principle fully?

CHALLENGES: Why is it difficult? What are some challenges you may be facing?

(You may repeat the activity by selecting another Agile Principle)

https://agilemanifesto.org/

Origins of Agile and Scrum's Influence

Lean Manufacturing (~1965)

The New New Product Development Game (1986)
https://hbr.org/1986/01/the-new-new-product-development-game

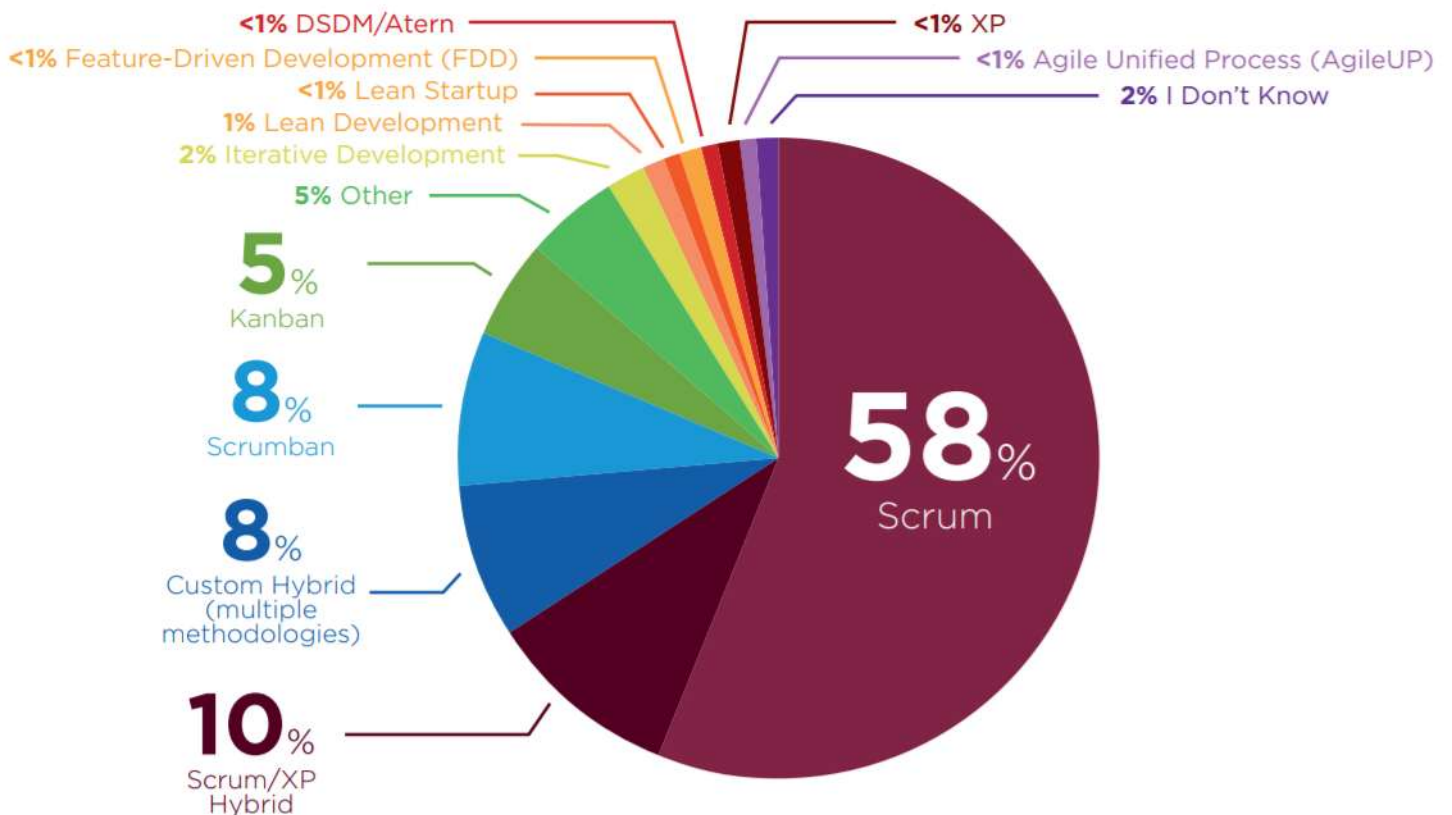**Extreme Programming (XP ~1990s)**

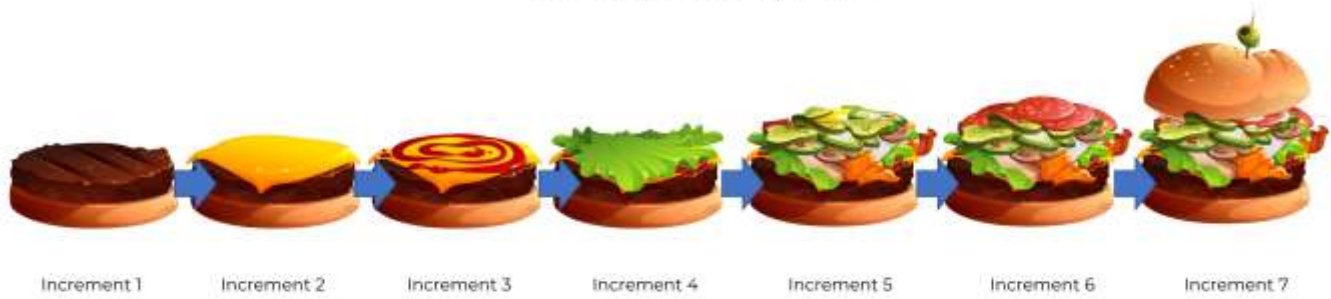**Scrum (1995)**

Agile Manifesto (2001)

Agile frameworks

Agile frameworks are frameworks that apply the Agile values and principles with a set of rules, responsibilities, and practices. One example of Agile frameworks is Scrum, but there are others.
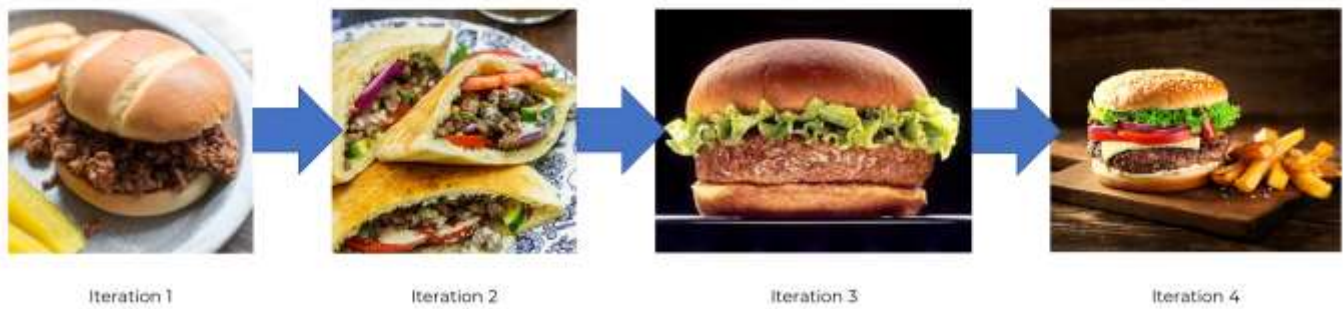

Source: 2017 State of Agile Development Survey, VersionOne

Scrum is incremental and iterative

Incremental development

Increment 1   Increment 2   Increment 3   Increment 4   Increment 5   Increment 6   Increment 7

Iterative development

Iteration 1   Iteration 2   Iteration 3   Iteration 4

Truly Scrum   www.trulyscrum.com

How does product planning in an **iterative and incremental** environment differ from **traditional up-front and fixed** planning?

For example, discuss the level of risk, what happens when market or customer needs change, how you manage the roadmap, etc.

_____

_____

What are the **benefits** of an iterative and incremental approach?

For example, how soon do you know if you have built the "wrong" product? How quickly do you adapt to changes in the market?

_____

_____

Learn more:
https://www.trulyscrum.com/scrum/incremental-vs-iterative

What is Scrum?

Scrum is an Agile **framework** for developing new products and extending existing ones. Scrum is one of the most common frameworks implemented in Agile. It has been around since the early 1990s, and provides a repeatable, consistent, and effective set of events to help development teams build products.

Scrum is not by itself a technique to build products, rather it provides the framework to enable teams to collaborate and follow a set of rules. Teams can then employ the specific techniques most suitable to designing and developing their products.

Scrum is easy to understand and difficult to master. It exists when applied in its entirety (roles, events, artifacts and simple rules as defined by the Scrum Guide).

Scrum enables teams to build products using an iterative, incremental and adaptive process, therefore reducing risk and improving the outcome. It reduces the cost of changing and adapting the plan to varying requirements or customer needs, and therefore reduces the overall risk of the project.

Work is usually done in multiple iterations of the same duration. During each iteration, the team builds a piece of the product, tests it, and collects feedback from stakeholders. The team then prepares to work on the next iteration and repeats the process until the full product is completed.

Because Scrum offers multiple opportunities for inspecting the work and collecting feedback, it allows teams to validate their product along the way, or quickly change course if needed.

READ MORE:
https://www.5dvision.com/post/what-is-scrum/

Key concepts

Scrum is a framework, not a methodology or a technique

Scrum can be extended with practices and techniques as needed by the team

Scrum is iterative, incremental, and adaptive

Work is done in iterations of one month or less, called "Sprints"

Each iteration builds an Increment of a working product

Each Increment is fully done at the end of each Sprint, requiring no extra work or re-work to complete it

Feedback and validation is collected at least for each iteration
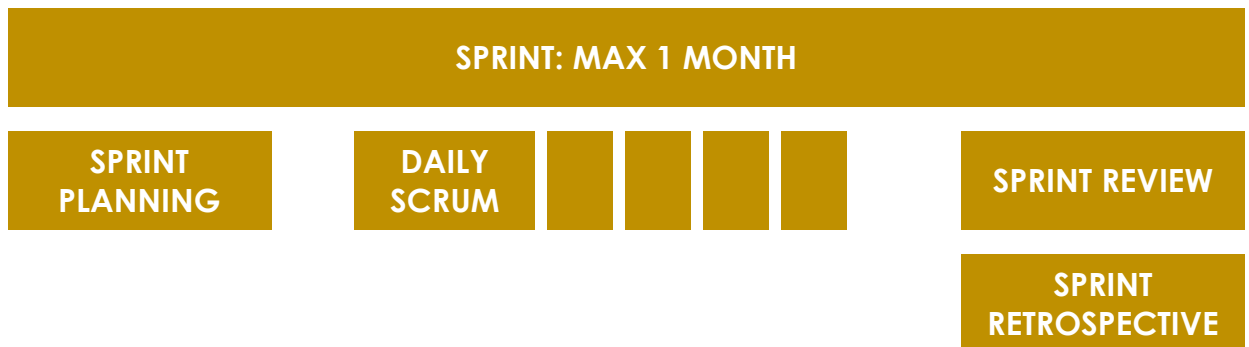
There are only three roles in Scrum

What is the difference between a framework and a methodology?

Scrum 5-3-3 Framework

5 **EVENTS**

SPRINT: MAX 1 MONTH

SPRINT PLANNING	DAILY SCRUM					SPRINT REVIEW

SPRINT RETROSPECTIVE

3 **ROLES**

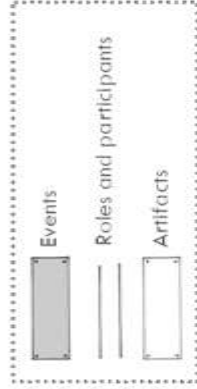PRODUCT OWNER

Developers

SCRUM MASTER

3 **ARTIFACTS**

PRODUCT BACKLOG:
The list of all the work we need to do on this product or project

SPRINT BACKLOG:
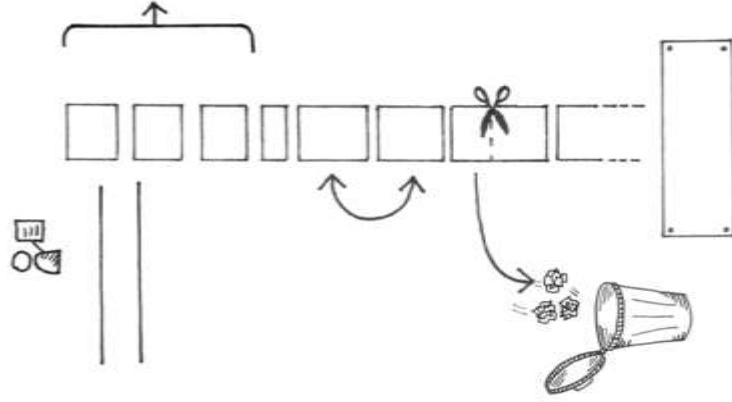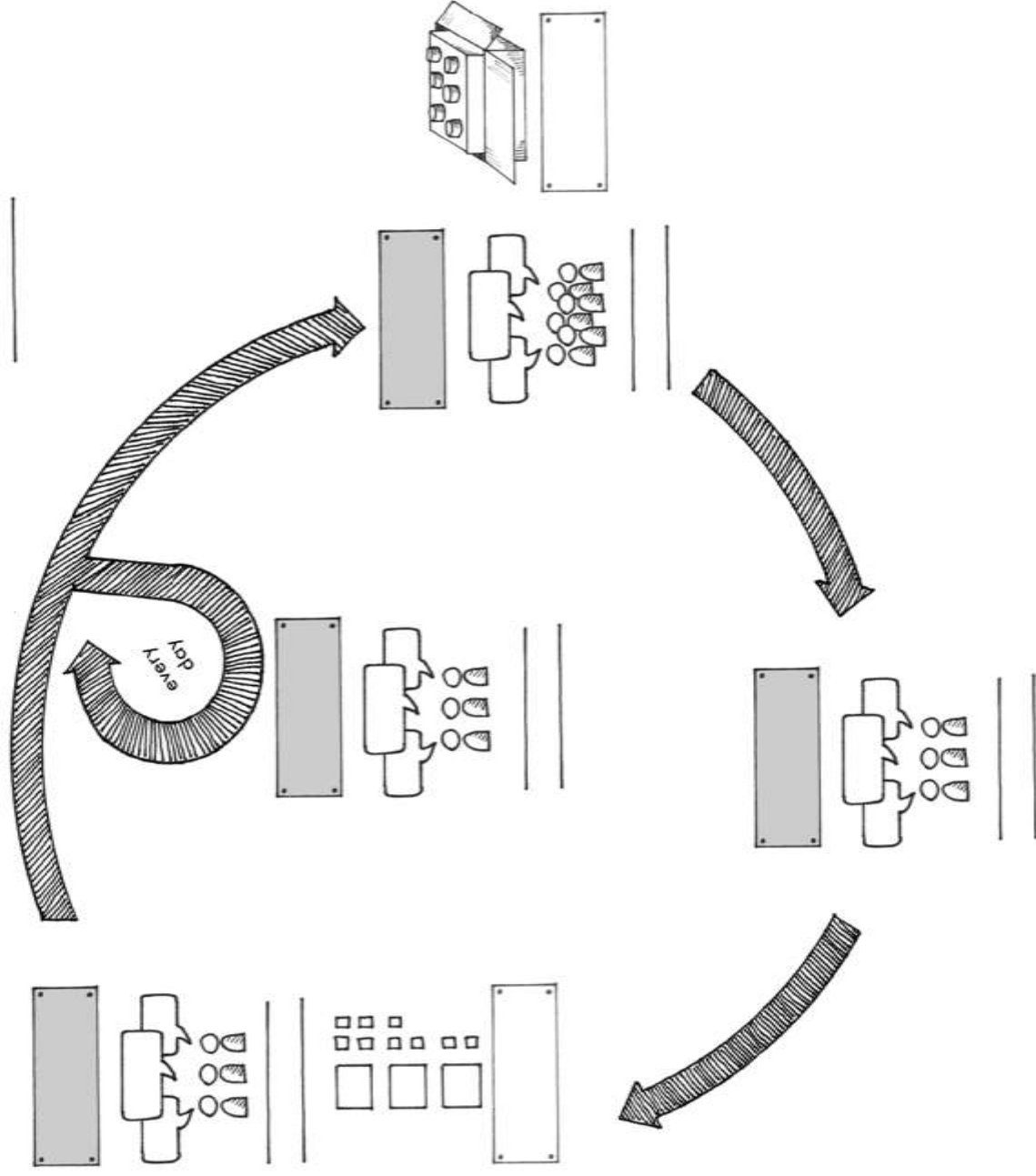The list of work items selected by the Developers for execution in the current Sprint

INCREMENT:
The end result of the work (the "deliverable") completed by the Developers in the Sprint

Events

Roles and participants

Artifacts

SPRINT

up to 1 month

every day

SOLUTIONS: https://bit.ly/scrumwf5d

5D VISION

V.6.0

Daily Scrum Quiz

Here are some questions on the Daily Scrum. Feel free to refer to the Scrum Guide for ideas on how to answer.

1. What is the purpose of the Daily Scrum?
A. The Daily Scrum is essential to provide status updates to the Product Owner and other stakeholders
B. It is used by the Developers to inspect progress towards the Sprint Goal and adjust the work that needs to be done accordingly
C. It is used by the Product Owner to get a read of where the Developers are with their work and change priorities if needed
D. It is used by stakeholders to get feedback from the Scrum Team and understand how work is progressing during the Sprint

2. Who should attend it, and who is optional?
A. Everyone on the Scrum Team should attend the Daily Scrum, every day
B. The Developers and the Scrum Master must be there
C. The Product Owner must be there with the Developers
D. The Developers must attend, the PO and SM are optional

3. What are different techniques for the Daily Scrum? (choose 3 answers)
A. Everyone answers the three questions
B. Free flow of conversation between participants
C. Review the PBIs in the Sprint Backlog one at a time, starting from those in progress
D. The Scrum Master jots down everything the Developers say and later sends an email to everyone with the notes

4. What is the timebox for Daily Scrum?
A. 15 minutes regardless of Sprint duration
B. Best practice is 1 minute per team member
C. 2 minutes per team member
D. Up to 1 hour for a month-long Sprint

5. The timebox changes depending on the duration of the Sprint
A. True
B. False

6. The Daily Scrum is the only time the Developers are allowed to adjust their plan
A. True, to keep everyone focused
B. False, they often meet throughout the day for more detailed discussions about adapting or re-planning the rest of the Sprint's work

SOLUTIONS IN APPENDIX

SCRUM GUIDE
Page 9

About the instructor

Valerio Zanini, CST

✉ vzanini@5dvision.com

🐦 @vzanini

in linkedin.com/in/vzanini

A product management and Scrum trainer, Valerio Zanini is passionate about creating products that customers love and developing the teams that make them a reality. With two decades of product development experience in a variety of organizations including Capital One, Cisco, Goozex.com and others, he excels at building new products in the early stages of product innovation, where uncertainty and lack of a clear solution are the biggest challenges. He works with organizations worldwide to spark a culture of innovation and drive agile transformations. He is a Certified Scrum Trainer (CST), a Certified Product Innovation Trainer (CPIT) and a certified SAFe trainer (SPC).

VALERIO's BOOKS

Deliver Great Products that Customers Love

Sprint Your Way to Scrum

SAFe® to Scale

https://www.5dvision.com/books/