Scrum
Workbook *for schools*

Hey du you want to learn more about Scrum?

Take a look at my new e-book.

WHAT ABOUT SCRUM?

SCRUM MEETING

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😍😍😍

Pedagogy and Learning in Agile Networks

Scrum
index of contents

Scrum

about this workbook
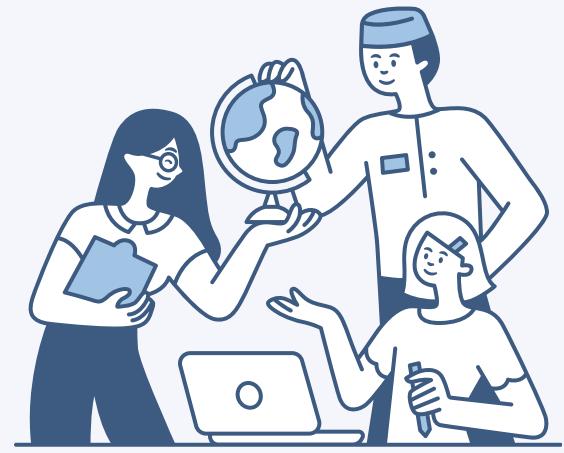
What is your intention about Scrum?

Have you heard about Scrum, do you want to learn more about it and how you can use Scrum for school and teaching?
In this workbook, you learn more about what Scrum is and what aspects are special for schools.

How to use this workbook?

This workbook is intended to provide teachers and students with an insight into Scrum and how this agile method can be used in schools. It aims to emphasize the benefits of Scrum for the design of learning processes. Learning is encouraged by the positive atmosphere, which is very important in Scrum. Practical exercises and activities will encourage users to try Scrum for themselves and experience the benefits of this method.

This workbook should help you to get a first insight into Scrum and help you to get started.

Important Scrum keywords can be found in the glossary and on the pages in the workbook where they are relevant. If you want to dive deeper, videos are marked with links and QR codes.
You can learn the wording with our digital flashcard application and our quizzes.

The workbook is designed to support you in adapting the Scrum principles for school and teaching.

We wish you lots of fun and exciting insights
Yours
P.L.A.N team

Pedagogy and Learning in Agile Networks

Scrum
an introduction

Scrum basics

In a Scrum process, a team works together and each member contributes to the team in an agile process.

The team is flexible and can quickly implement new opportunities and ideas and find ideas for obstacles.

The progress of each team member is important for the team's success in the end. The group members regularly report in meetings on their results as well as on problems and **receive support** from the team if needed.

Group work at school becomes more transparent with the Scrum method. The focus is on the **product** *and* on the **learning process** along the way.

A good working atmosphere is as important as work processes and work results. A good atmosphere is a great advantage of Scrum because it increases work satisfaction and motivation. You can find more about it in the chapter "Atmosphere".

Scrum offers precisely the agile framework to be able to react quickly to new requirements in an iterative process and in this way fosters the learning process.

You might be thinking: That sounds great! But how do I get started?

What would you like to achieve with Scrum?
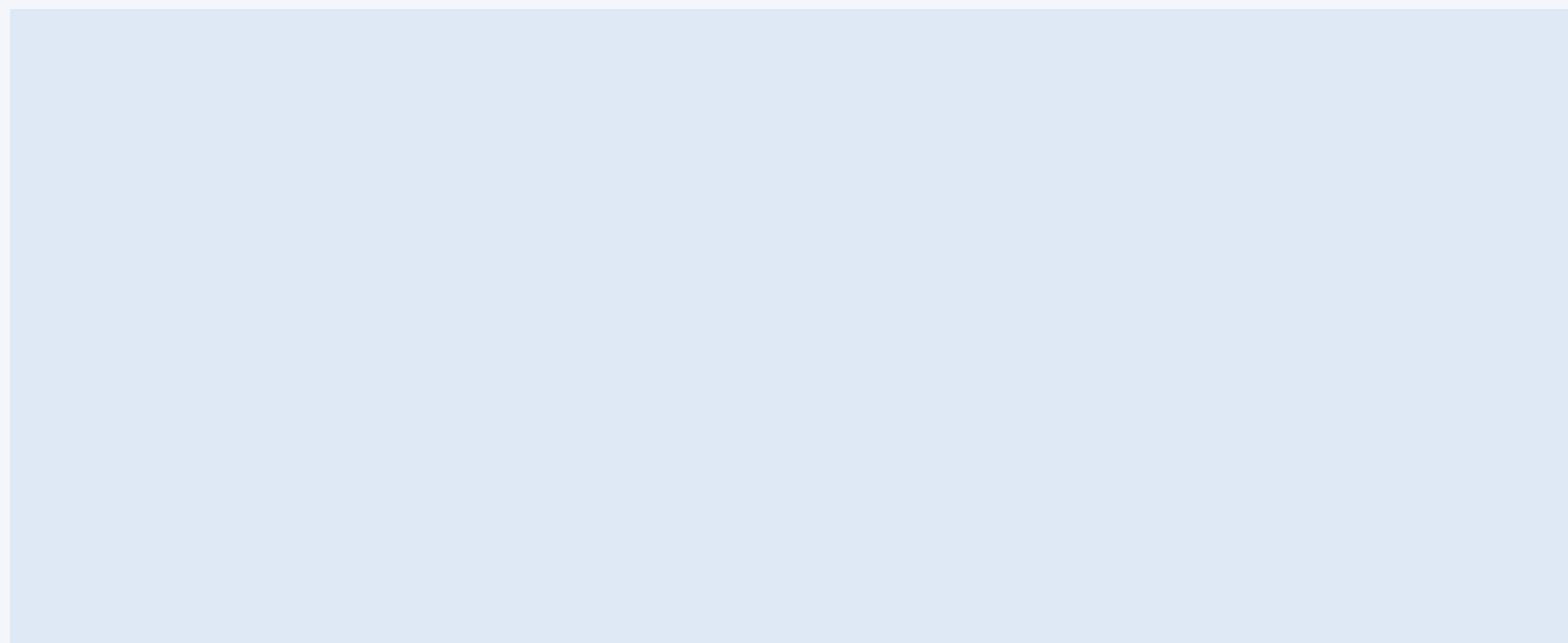
Scrum
in schools

With Scrum, students can learn more effectively as they are involved in the design of their learning process and take responsibility. Learning processes can be individualized. Each student presents their contribution to the results in regular feedback sessions. Performance becomes transparent. Failure at the end of the project is prevented. Students learn that they can achieve better results in a team.

Scrum is used by students as an engaging and self-organizing way to work collaboratively and dynamically.
Video: Why is Scrum popular in schools?

SCAN ME
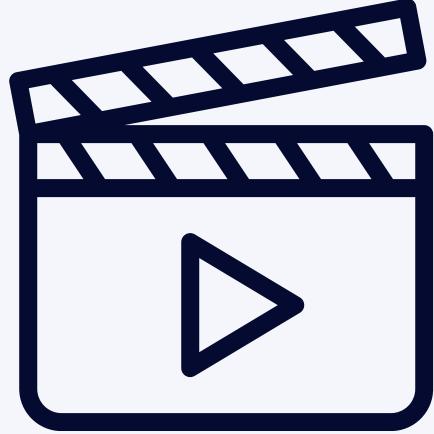
What are aspects you think are important for Scrum in schools?

Positive effects of Scrum at school
Improvement of self-organization and teamwork
Pomotion of personal responsibility and creativity
Increasing motivation and commitment

5

Back to index

Scrum
principles

Scrum principles are the core guidelines for applying the Scrum framework and should mandatorily be used in all Scrum projects.

Agile project management enables teams to set shared goals and organize their tasks. Team members know how important user satisfaction is so that all project plans can be created with this guiding principle in mind.

What are aspects you think are easy and what are difficult to achieve?

10 Scrum Principles
CHANGING MINDSET

01. Be agile
Think outside the box, find creative solutions, and respond proactively to people's needs for a better atmosphere and better results.

Develop an agile mindset with five core aspects: commitment, focus, openness, respect, and courage

02. Scrum Values

03. Iterative Management
By splitting ambitious tasks into smaller sections, teams can constantly review priorities and adapt to the changing requirements of the project.

A joint value creation process in which the teams collaborate and work together with the users and other stakeholders to achieve the greatest possible benefit.

04. Teamwork

05. Self-organization
Commitment in a selforganized, innovative, creative and supportive atmosphere

Team members report on their work results and barriers in quick succession. This meeting is designed to provide transparency and support.

06. Daily Stand up

07. Excellence
Continuous attention to technical excellence and good design.

The most efficient and effective method of conveying information is face-to-face interaction.

08. Face to Face

09. Processes
Development is a process. In short sprints, the team produces results that are reviewed and further developed in a process. Don't be afraid of mistakes.

This Leading principle is an approach that sees serving others as a top priority. The focus is on creating an environment where your team can develop and work under the best possible conditions.

10. Serving Leadership

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Scrum
how to start?

Scrum board, user story, and product backlog are the first steps to get you started in the Scrum process.

Let's create a user story!

Hi, I'm Toni, I'm a teacher. I don't have much confidence in creating an eBook for my students.

L

Write a user story for Toni. What does he want for his students?
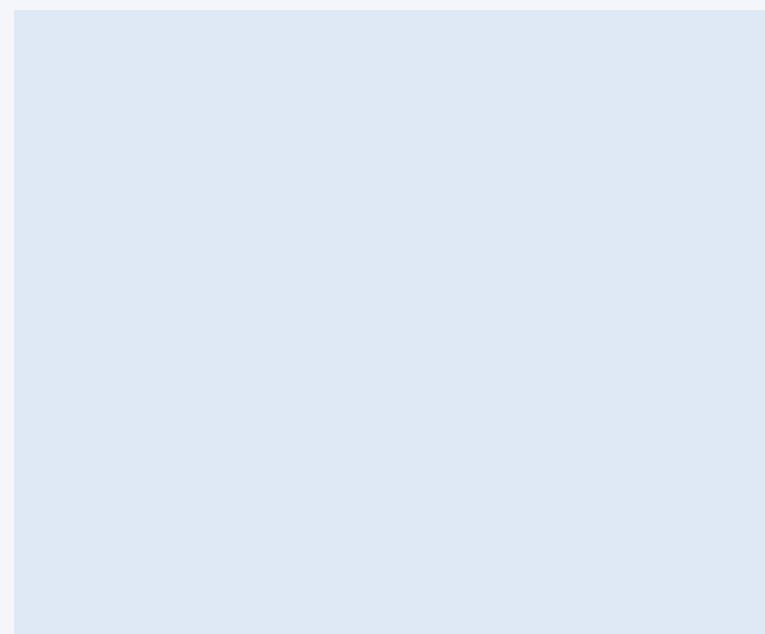
What could be the success criteria for the product?
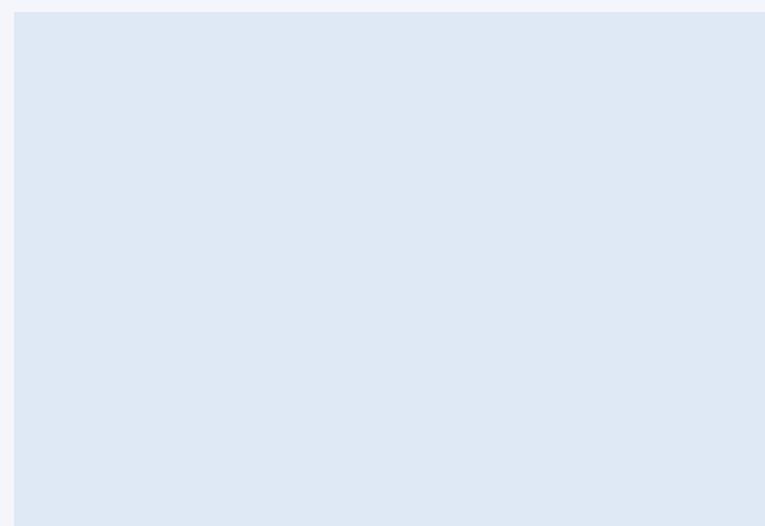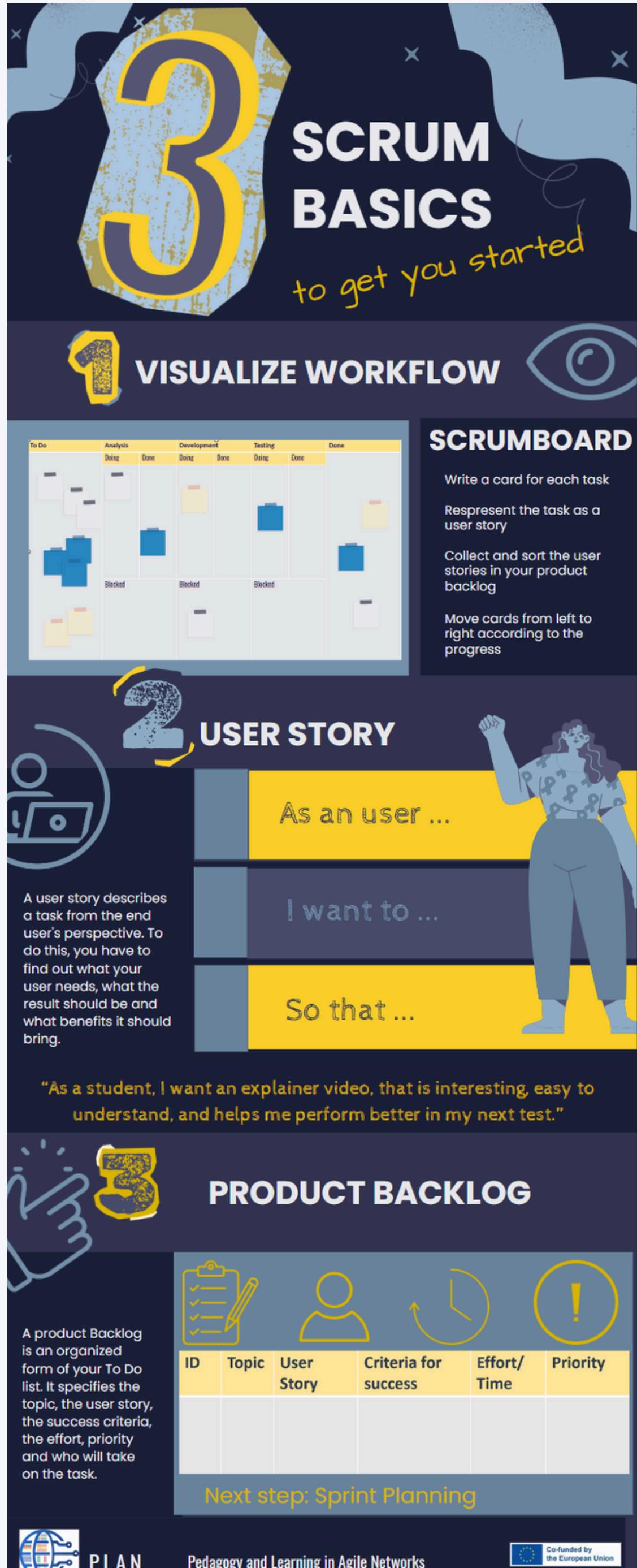
3 SCRUM BASICS
to get you started

1 VISUALIZE WORKFLOW

SCRUMBOARD

To Do	Analysis	Development	Testing	Done
	Doing Done	Doing Done	Doing Done	
	Blocked	Blocked	Blocked	

Write a card for each task

Respresent the task as a user story

Collect and sort the user stories in your product backlog

Move cards from left to right according to the progress

2 USER STORY

As an user ...

I want to ...

So that ...

A user story describes a task from the end user's perspective. To do this, you have to find out what your user needs, what the result should be and what benefits it should bring.

"As a student, I want an explainer video, that is interesting, easy to understand, and helps me perform better in my next test."

3 PRODUCT BACKLOG

A product Backlog is an organized form of your To Do list. It specifies the topic, the user story, the success criteria, the effort, priority and who will take on the task.

ID	Topic	User Story	Criteria for success	Effort/ Time	Priority

Next step: Sprint Planning

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Video about product backlog and creating a user story

How could larger product backlog items be converted into smaller sprint backlog items? Write a user story and make sure that it also represent a gift for the user.

SCAN ME

Scrum
## the Scrum cycle

Scrum board, user story, and product backlog are the first steps to get you started in the Scrum process.

Let's create a user story for the Product Backlog.
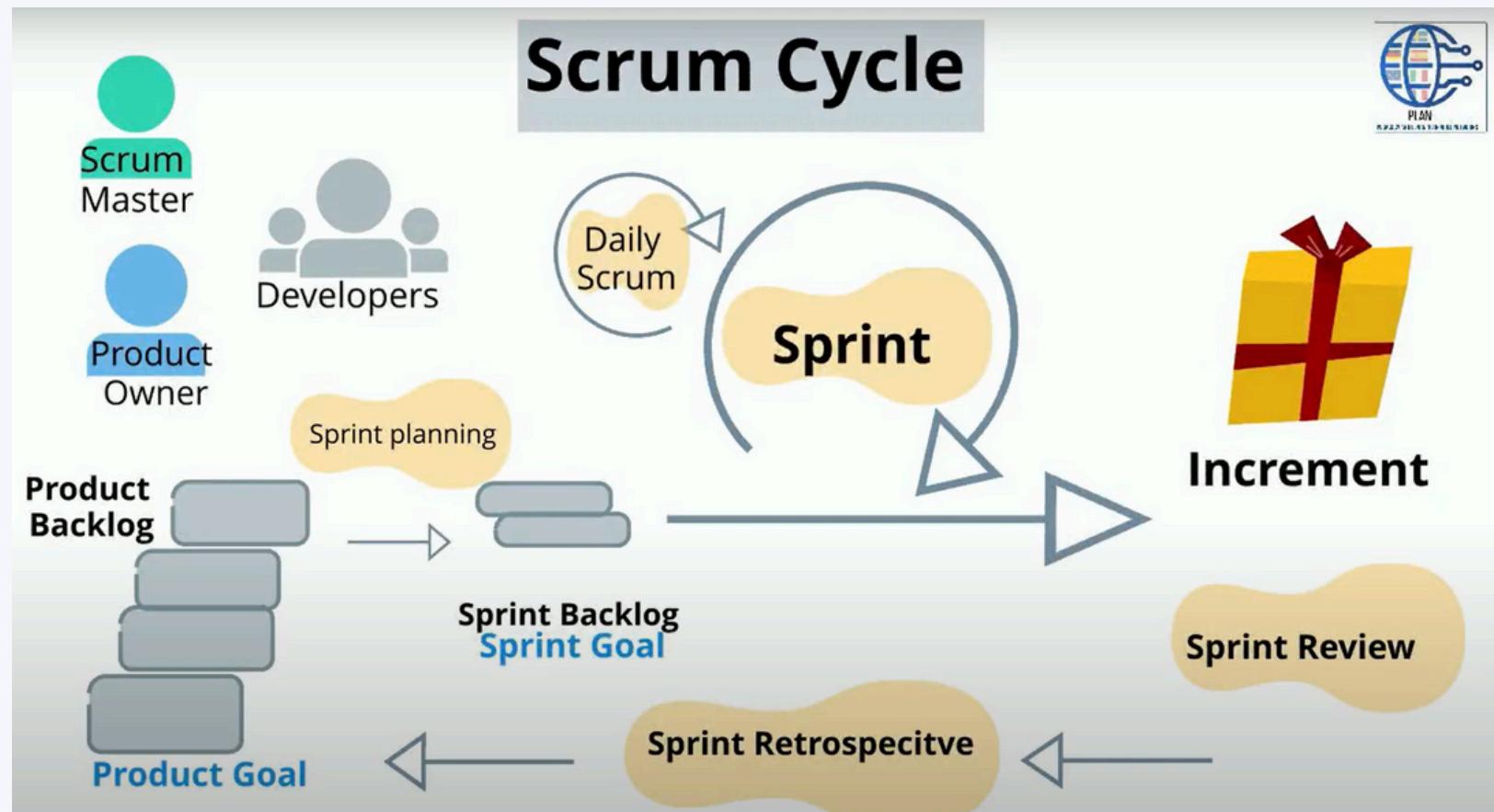
Video: Learn more about the Scrum cycle.

What are the roles in the Scrum cycle and its core elements?

Hi, Valerie. I want to create an eBook with my students. Do you have ideas on how to manage this project in a Scrum cycle?

Sprints make projects more manageable, allow teams to produce high-quality work and give them more flexibility to adapt to change.

Scrum
daily stand-up

is a daily meeting of the Scrum team that lasts a maximum of 15 minutes. It is important that this maximum duration is not exceeded. The aim of the daily stand-up meeting is to make the work transparent. Each team member reports briefly on the following questions:

- What have I contributed to the current project status
- Where do I have problems? and also where do I need help.
- What will I do next?

My contribution for the team was ...

My challenge was...
Do you know what to do?

Next, I do ...

Hi Toni, what ideas do you have to make the learning process more transparent with the daily meeting in a class project?

Daily Scrums help to get the team on the same page and ensure that everyone knows what they will be working on the next day. It helps to solve problems.

Scrum
atmosphere

The importance of atmosphere
Creating a positive learning environment
Promoting respect and openness
Dealing with conflicts and challenges

The atmosphere is important for the learning process. If students feel safe they are more confident to learn. As a teacher, you are the center of the learning process and – in the truest sense of the word – the mood maker. A good atmosphere is important for the development of potential. Humor plays just as much a role in the atmosphere as friendly and creative classrooms.
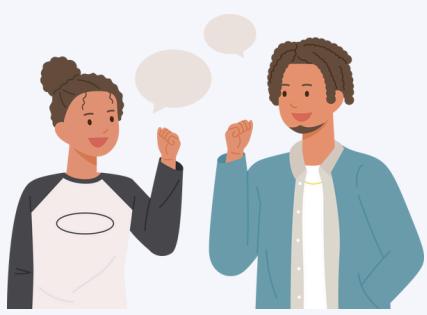
Hi Valerie, What do you think about the ideas on how to foster a better atmosphere in school projects?

What ideas do you have?

5 TIPS for a better learning atmosphere

in scrum school projects

①
Don't be afraid of mistakes. Learning is a process. This is what school is for. Make the learning process transparent. You and your students can be proud of the progress.

MISTAKES ARE A CHANCE TO LEARN

② BE A CREATOR
In a creative production process, your students have to face challenges. You can connect creativity with analytical learning. Learning results are visible and transparent.s

③ BE SUPPORTIVE
Encourage your students if they think the task is too difficult at the beginning. Talk about individual learning successes. Show opportunities for growth.
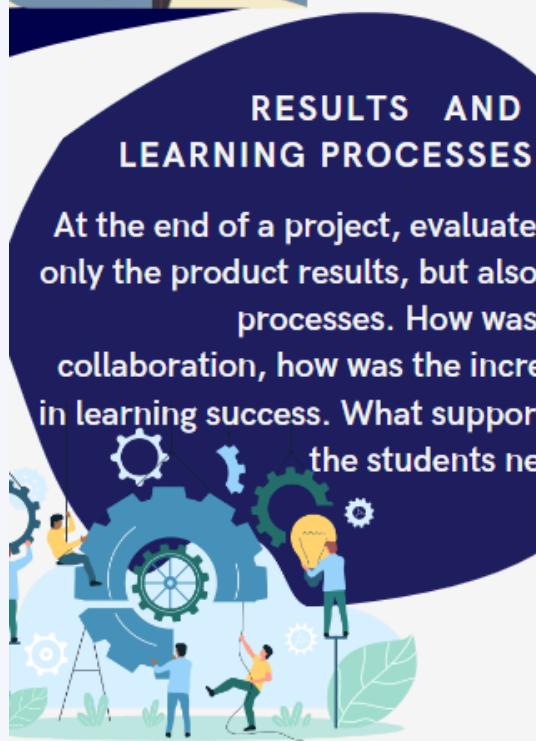
④ RESULTS AND LEARNING PROCESSES
At the end of a project, evaluate not only the product results, but also the processes. How was the collaboration, how was the increase in learning success. What support do the students need?

⑤ FOSTER TEAMWORK
Promote teamwork. Make it clear who has which task and contributes to the team's success. Show the responsibility of the individual team members. See yourself as a supporter of the group. Celebrate your successes.

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10

Scrum
how to continue?

We hope you enjoyed this eBook. How should we continue? What would you like to learn more about? Give us tips and your feedback.

Hi Tom, What do you think what tips do we have and what are the next steps we want to focus on?

HELPFUL
TIPS

Scrum
my notes
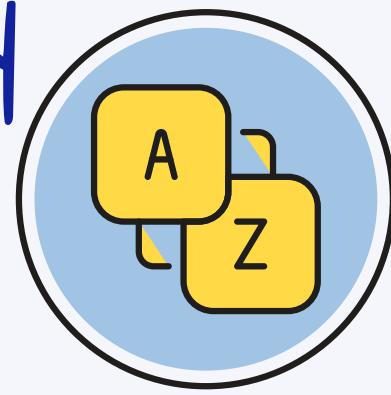
Scrum glossary

Scrum Glossary

Agile: is a methodology that allows teams to work process oriented on projects using short phases, called sprints. It is not just about using Scrum methods, but also fostering a supportive work environment. It is ideal for adopting to a fast-changing environment. Remember, it is about being agile, not just doing agile.

Daily: A group meeting that lasts no longer than 15 minutes and takes place daily if possible or regularly for the developers. The developers report on the current status since the last meeting, the problems and the next steps. This optimizes team collaboration and performance by reviewing the work since the last Daily Scrum and forecasting the upcoming work in the sprint. The Daily Scrum is held at the same time and place every day to reduce complexity. In school projects, the daily must be adapted to the given conditions.

Definition of Done: is a formal determination of whether the increment/product fulfills the required quality measures. The Definition of Done creates transparency by giving everyone a common understanding of when a product is considered complete and therefore an Increment. Only then can it be released.

Developer: any member of a Scrum team who commits to creating any aspect of a usable increment in each sprint.

Increment: scrum artifact that defines the complete and valuable work produced by the developers during a sprint. The sum of all increments (benefits) forms a product.

Product backlog: a scrum board that consists of an ordered list of work to be done to create and sustain a product. Managed by the product owner.

Product backlog item (PBI) is a single element that is present in the Product Backlog. PBIs can contain user stories, epics, specifications, criteria or change requests.

Product Goal: describes the future state of the product which can serve as a target for the Scrum Team to plan against. The Product Goal is in the Product Backlog. The rest of the Product Backlog emerges to define "what" will fulfill the Product Goal.

Product owner: is a role on a Scrum team that is responsible for the project's outcome. The product owner seeks to maximize a product's value by managing and optimizing the product backlog.

Review: is one of the most important ceremonies in Scrum where the team gathers to evaluate completed work and determine whether additional changes are needed.

Retrospective: Looking backwards. Should be easy in theory. Just ask a few questions – What went well? What didn't go well? What did we learn? It reflects on the past to improve the future.

Scrum: is a simple framework that helps people, teams and organizations create value through adaptive solutions to complex problems.

Scrum Board: a physical board for the visualization of information for and by the Scrum Team. Scrum boards are an optional implementation within Scrum to make information visible.

Scrum Cycle is a timeboxed period when a team delivers a set amount of work. It is typically two to four weeks in duration and each sprint starts the moment the previous one is completed. The Scrum sprint cycle is often referred to as a process of continuous development.

Scrum

Scrum glossary

Scrum Master: a person who ensures that the team is productive, facilitates the daily Scrum, enables close cooperation across all roles and functions, and removes barriers that prevent the team from being effective.

Scrum Team: a self-managing team consisting of one Scrum Master, one Product Owner, and Developers.

**Scrum Values:** a set of fundamental values and qualities underpinning the Scrum framework; commitment, focus, openness, respect and courage.

Sprint: is a short, time-boxed period when a scrum team works to complete a set amount of work.

Sprint goal: a short statement of what the work will be focused on during the sprint.

User story: one short sentence in the everyday language of the end user that states what a user wants and how the user benefits from the work: As a user ...I want ... so that ...

digital flashcards

[Practice with digital flashcards](#)
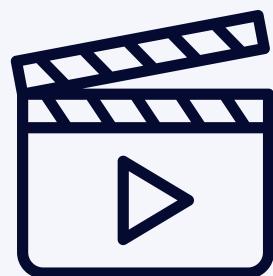
Learn with digital flashcards the Scrum keywords

Scrum

Scrum quiz 1

Find the description for each key word. Write down the correct number in the circle.

① Roles in the scrum cycle

Product owner ①
Scrum Master ②
Scrum Team ③
Developer ④

○ a self-managing team consisting of one Scrum Master, one Product Owner, and Developers.

○ any member of a Scrum team who commits to creating any aspect of a usable increment in each sprint.

○ is a role on a Scrum team that is responsible for the project's outcome. The Role seeks to maximize a product's value by managing and optimizing the product backlog.

○ role within a Scrum team that is responsible for coaching, supporting and guiding a Scrum team and its environment to properly understand and apply Scrum.

② Flexbibility

Agile ①
Scrum ②
Daily ③

○ a short meeting, intended to be less than 15 minutes, where a team involved in a project meets and discusses what they've worked on since the last meeting.

○ is a simple framework that helps people, teams and organizations create value through adaptive solutions to complex problems.

○ is a method for process oriented project development in 'sprints', promoting a supportive work environment for rapid completion.

③ Scrum Baord

Product backlog ①
Product backlog item ②
User story ③

○ is a single element that is present in the Product Backlog. It can contain user stories, epics, specifications, criteria or change requests.

○ A scrum board that consists of an ordered list of work to be done to create and sustain a product. Managed by the product owner.

○ Benefit of the product from the perspective of the the user.

④ The Cycle

Sprint ①
Review ②
Retrospective ③

○ the team gathers to evaluate completed work and determine whether additional changes are needed

○ Just ask a few questions – What went well? What didn't go well? What did we learn? It reflects on the past to improve the future.

○ is a short, time-boxed period when a scrum team works to complete a set amount of work.

Resolution of the order of correct answers
Roles: 3, 4, 1, 2
Flexibility: 3, 2, 1
Scrum Board: 2, 1, 3
The Cycle: 2, 3, 1

Scrum

Scrum quiz 2

Find the Scrum keywords in the word salad. The solution is on the next page..

⑤ Search for scrum keywords

```
X  I  R  R  E  T  R  O  S  P  E  C  T  I  V  E  R  M  W  S
Ü  N  F  D  D  E  V  E  L  O  P  E  R  Ü  C  Ü  E  A  P  C
P  C  H  I  D  E  S  C  R  U  M  C  Y  C  L  E  V  U  T  R
S  R  A  G  I  L  E  I  H  Y  K  R  Ö  V  A  Q  I  S  U  U
A  E  Q  C  O  M  P  U  T  E  R  B  J  H  U  R  E  G  B  M
O  M  B  Z  Ä  E  R  Ü  U  D  O  N  E  T  T  C  W  M  O  M
V  E  O  S  C  R  U  M  Y  Q  B  U  I  E  D  A  I  L  Y  A
B  N  U  B  I  P  R  O  D  U  C  T  B  A  C  K  L  O  G  S
B  T  R  S  B  U  Ö  Ä  W  B  F  R  F  M  W  N  D  V  R  T
Ü  U  S  E  R     S  T  O  R  Y  T  Z  F  V  U  R  E  L  E
F  G  J  S  P  R  I  N  T  E  R  D  B  E  E  E  R  E  H  R
```

Scrum quiz solution key

⑤ Search for scrum keywords

```
X  I  R  R  E  T  R  O  S  P  E  C  T  I  V  E  R  M  W  S
Ü  N  F  D  D  E  V  E  L  O  P  E  R  Ü  C  Ü  E  A  P  C
P  C  H  I  D  E  S  C  R  U  M  C  Y  C  L  E  V  U  T  R
S  R  A  G  I  L  E  I  H  Y  K  R  Ö  V  A  Q  I  S  U  U
A  E  Q  C  O  M  P  U  T  E  R  B  J  H  U  R  E  G  B  M
O  M  B  Z  Ä  E  R  Ü  U  D  O  N  E  T  T  C  W  M  O  M
V  E  O  S  C  R  U  M  Y  Q  B  U  I  E  D  A  I  L  Y  A
B  N  U  B  I  P  R  O  D  U  C  T  B  A  C  K  L  O  G  S
B  T  R  S  B  U  Ö  Ä  W  B  F  R  F  M  W  N  D  V  R  T
Ü  U  S  E  R     S  T  O  R  Y  T  Z  F  V  U  R  E  L  E
F  G  J  S  P  R  I  N  T  E  R  D  B  E  E  E  R  E  H  R
```

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