Learning Unit Development

WP2 T3

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- Skills for the European
- Open Science
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Learning Objectives

Develop a learning unit plan

Design learning content

Define assessment strategy

Agenda

Rich learning experience → Learning unit plan → Learning content → Activities → Quizzes

Learner-centric effective learning experience

- Inquiry-based learning structures
  - E.g. projects and performance tasks
- Thoughtfully interwoven direct instruction
- Opportunities to practice and apply learning

- Units should be well structured
  - balanced cognitive load
  - multiple modalities (VARK)
  - tools for accessing information
  - support different types of learners
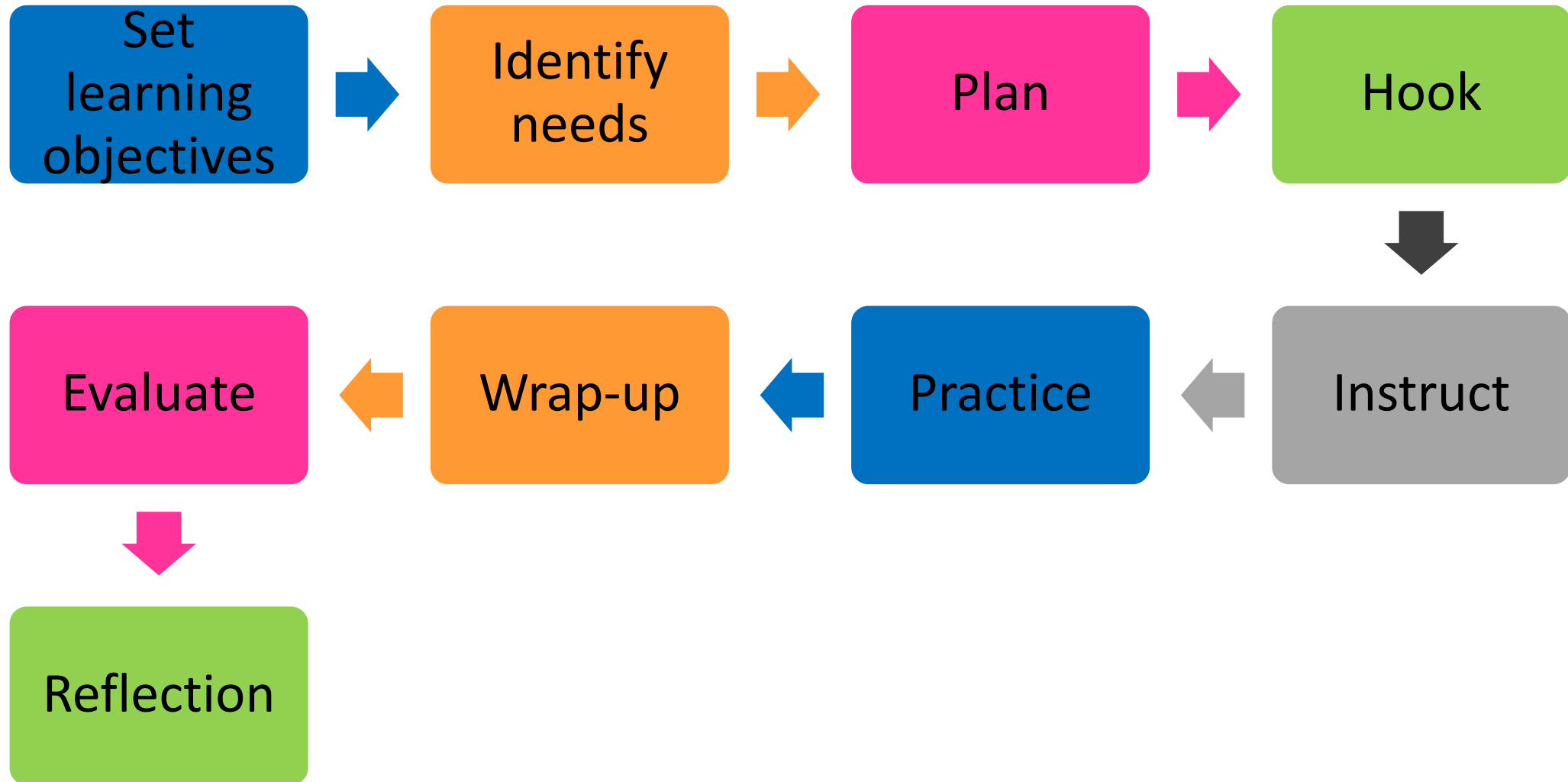
Learning Unit Plan

How to use teaching methods and the learning content together with activities to achieve the defined learning objectives

- effective lesson plan for online trainees vs traditional workshop

Detailed step-by-step guide for a trainer to understand

- what materials to give to students
- how to provide them
- so students would accomplish their learning goals

HUNTER MODEL

Set learning objectives → Identify needs → Plan → Hook → Instruct → Practice → Wrap-up → Evaluate → Reflection

Learning Unit Plan Elements

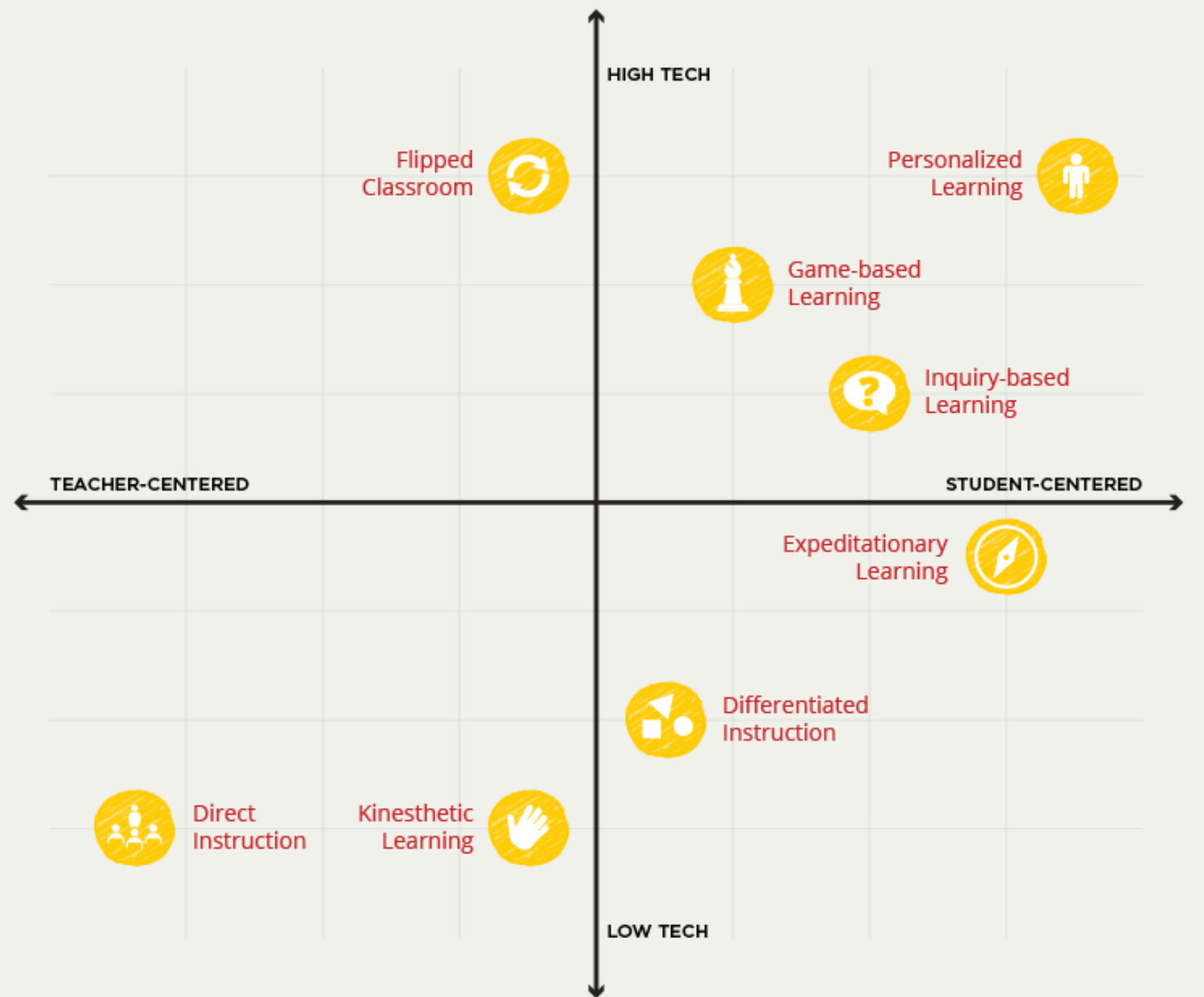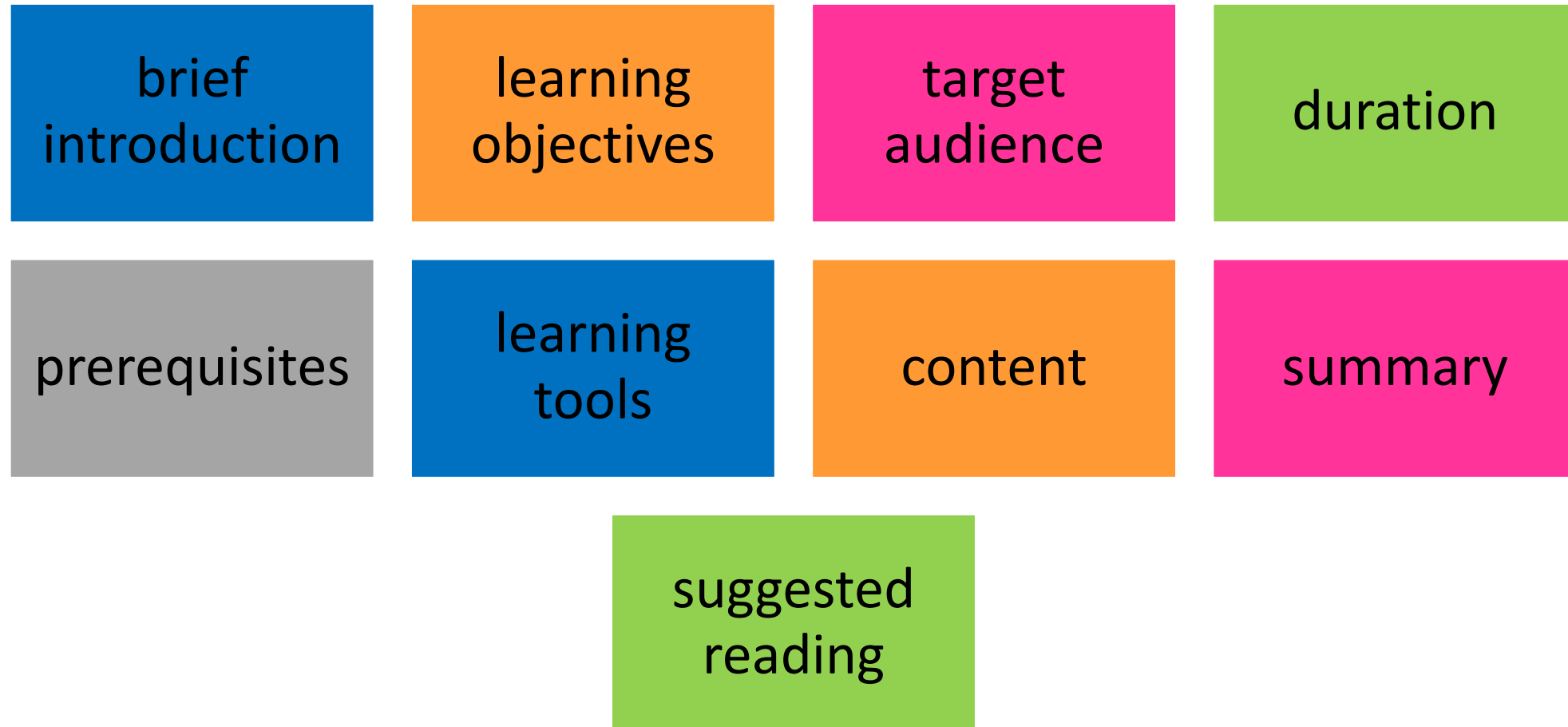|			
Unit Name	Purpose of the unit	Location	Duration
Number of attendees	Learning objectives	**Plan** • topic, duration, key points, teaching methods, activities and resources	Assessment
	Certification	Reflection	

Teaching Methods

A learning unit plan

Analyse the <u>Example Learning Plan</u> that has been created for one of the learning units that are part of this training.

Are you able to prepape a learning unit plan for the identified units in your Open Science training?

Learning Content: Learner's Notebook

brief introduction

learning objectives

target audience

duration

prerequisites

learning tools

content

summary

suggested reading

Learning Content: Slide Deck

Title slide

introduction (trainers and trainees)

Housekeeping information

Learning Objectives

Training Outline

Training Topic
- Information
- Example
- Guided activity

Wrap up
- Key takeaways
- Final Q&A
- Assessment information
- Feedback gathering

Learning Activities: Facilitation

activity name	short description	duration	number of people
goal	materials	instructions	tips and tricks
	related sources	comments	

Learning Activities: Inspiration

- [Session lab website](#)

- [25 activities for making lecture-based training active](#)

- [15 active learning activities to energize your next college class](#)

- ….

Activity Example

Take a look at this [example of an activity description document](#) related to one of the activities offered in this training

Assessment

- Quiz
  - used in a large variety of settings
  - provides opportunities for reflection
  - knowledge improvement with feedback or assessment results
- Can be setup as
  - formative
  - summative
- FAIR-by-Design Recommendation
  - each learning unit comes with a set of questions that are related to that particular learning unit

Assessment: Quiz questions

Blooom's taxonomy	T/F	MC	MS	LA	SA	FIB	MAT	ORD
Create				X				
Evaluate			X	X			X	X
Analyze		X	X	X				
Apply		X		X		X	X	X
Understand		X	X		X	X		
Remember	X	X	X		X	X		

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GIFT Format

```
//------------------------------------//
// Examples
//------------------------------------//
```

Who's buried in Grant's tomb?{~Grant ~Jefferson =no one}

Grant is {~buried =entombed ~living} in Grant's tomb.

Grant is buried in Grant's tomb.{FALSE}

Who's buried in Grant's tomb?{=no one =nobody}

When was Ulysses S. Grant born?{#1822:5}

Match the following countries with their corresponding capitals. {
    =Canada -> Ottawa
    =Italy -> Rome
    =Japan -> Tokyo
    =India -> New Delhi
    ####It's good to know the capitals
}

- Quiz GIFT Template contains examples of the different types of questions
  - Detailed instructions on how to write quiz questions in the GIFT format can be found on the Moodle site: GIFT format.
- You can use the GIFT Question Editor to validate or generate your own GIFT formatted quiz questions.
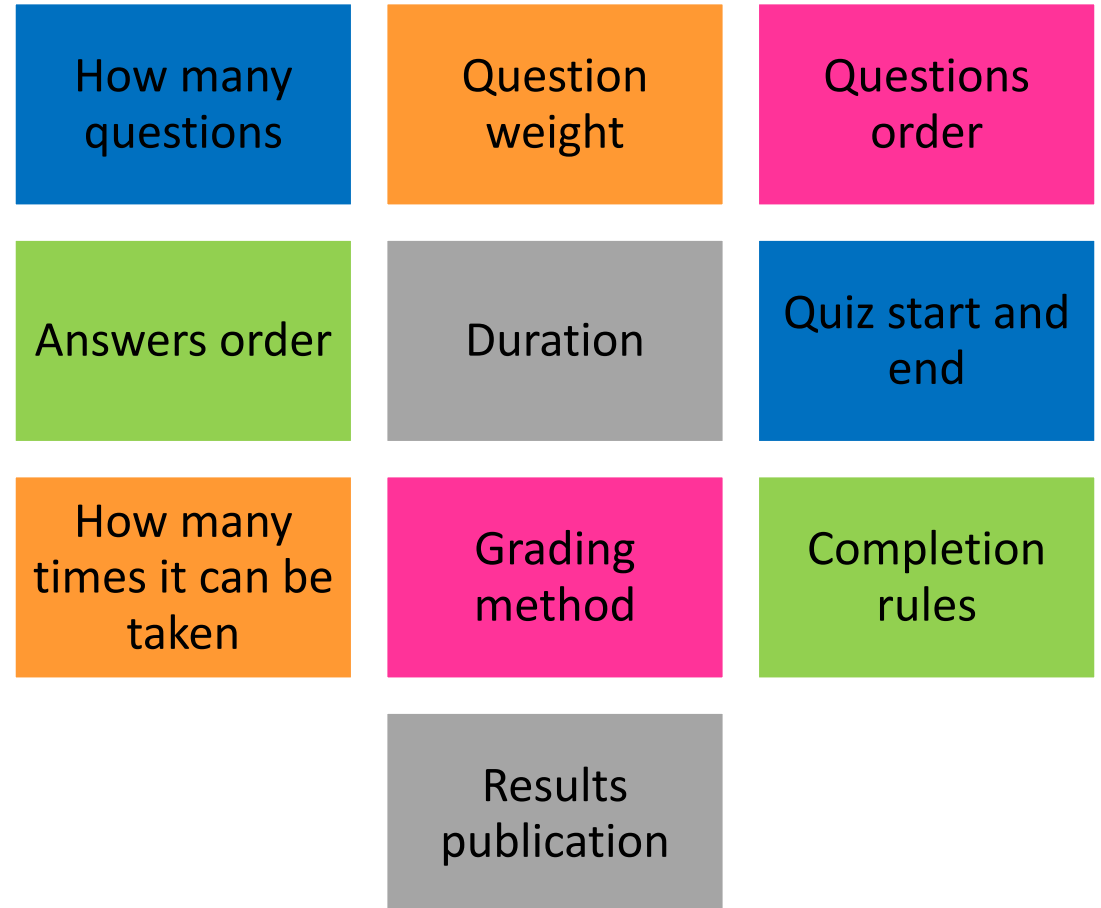
Create a quiz

Try to create a quiz that has at least 3 different questions of different types for one of the learning units of your Open Science course.

Use the Quiz GIFT Template

Validate your quiz using the GIFT Question Editor.

Assessment strategy

- Strategy can be defined

  - separately for each quiz

  - as a common strategy for all formative quizzes

  - as one strategy for the summative final exam

How many questions	Question weight	Questions order
Answers order	Duration	Quiz start and end
How many times it can be taken	Grading method	Completion rules
	Results publication	

Summary

A complete learning unit consists of several parts:

- learning unit plan
- learning unit content
- optional slide deck or similar type of instructional material
- activities description
- assessment quiz and strategy

Thank you!
Any questions before we continue?

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