ACADEMIC WRITING CENTER
CentraleSupélec
Université Paris-Saclay

Teaching Using English as a Medium of Instruction

Chunking Your Course

Daniella Luca

Summer School, Brno, July 18-22

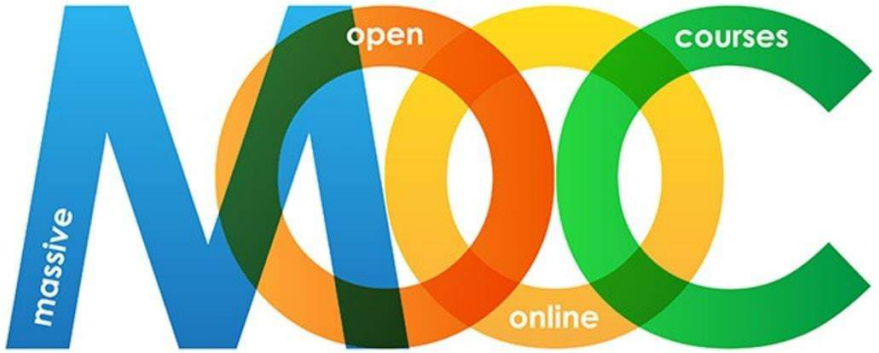
CentraleSupélec

University of Montréal


United Kingdom
Netherlands
Germany
Poland
Belgium
Czech Republic
Slovakia
Austria
Hungary
France
Slovenia
Croatia
Romania
Bosnia and Herzegovina
Serbia
Italy
Kosovo
Montenegro
Bulgaria
Spain
North Macedonia

🇨🇦	≠	🇫🇷
1. BRAILLER		1. PLEURER
2. CHAUFFER		2. CONDUIRE
3. JASER		3. PARLER/ DISCUTER
4. PEINTURER		4. PEINDRE
5. WATCHER		5. REGARDER

Content structure



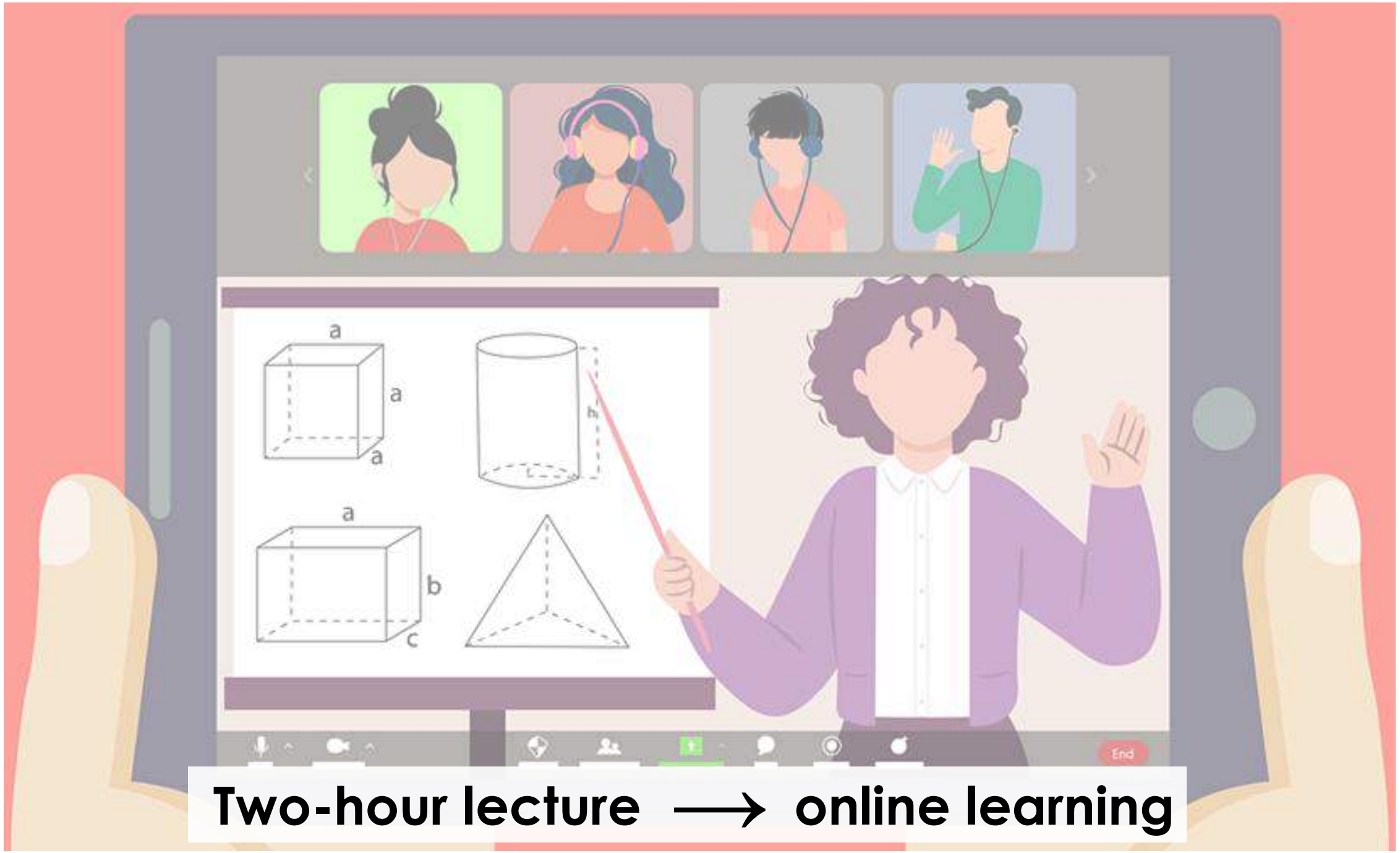
Content structure

Visuals

Content structure

Visuals

Chunks



Two-hour lecture ⟶ online learning


zoom
moodle
Kahoot!
wooclap

Same format

Same format

Shorter more frequent sessions

Same format

Shorter more frequent sessions

Completely redesigned version (often flipped)

10/15 minutes input

discussions

quizzes/exercises

Students get the time to understand and apply the new concepts

Students can ask questions if they don’t understand

The professor can verify students’ understanding

Offer further personalized support to students

Longer to design

More time to go through the syllabus

What does Marco’s experience tell us?

The design and the structure of the course is crucial

Careful planning to hold students' attention

Active learning/critical thinking

Relevant examples and references

Anticipate language issues/cultural differences/different knowledge levels

- [x] Careful planning to hold students' attention
- [x] Active learning/critical thinking
- [x] Relevant examples and references
- [x] Anticipate language issues/cultural differences/different knowledge levels

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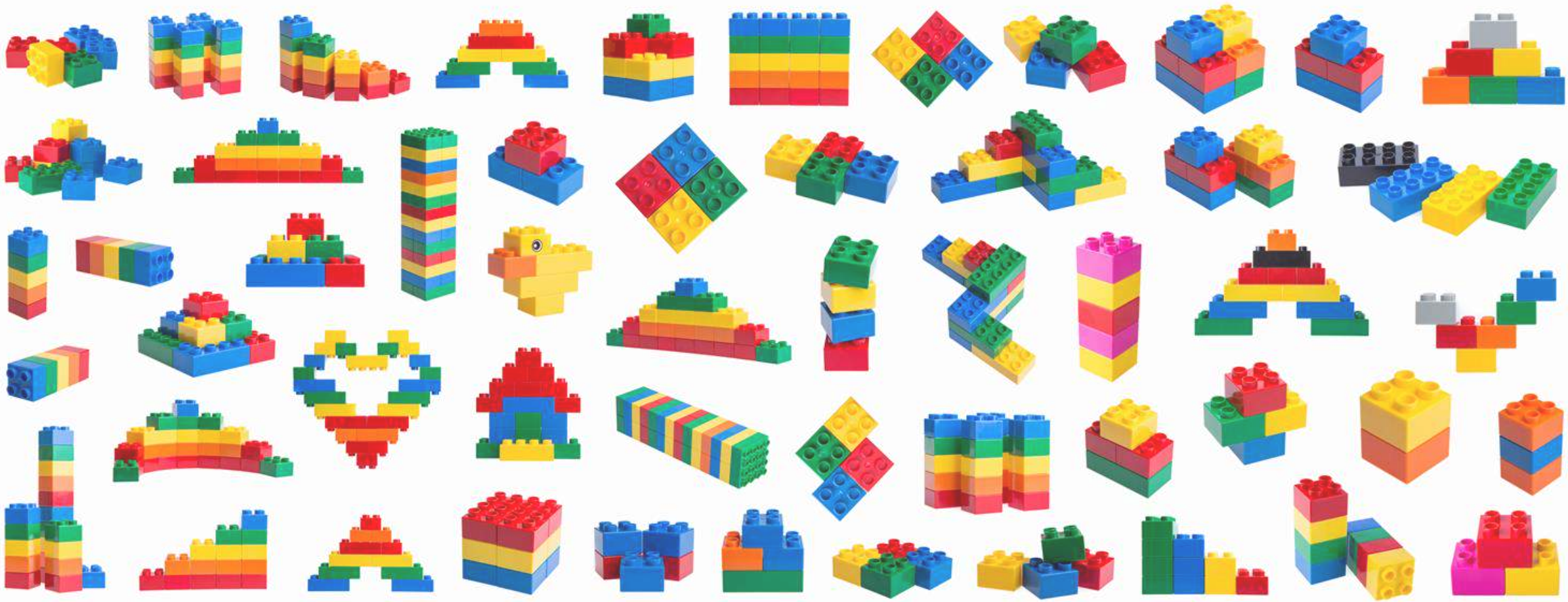
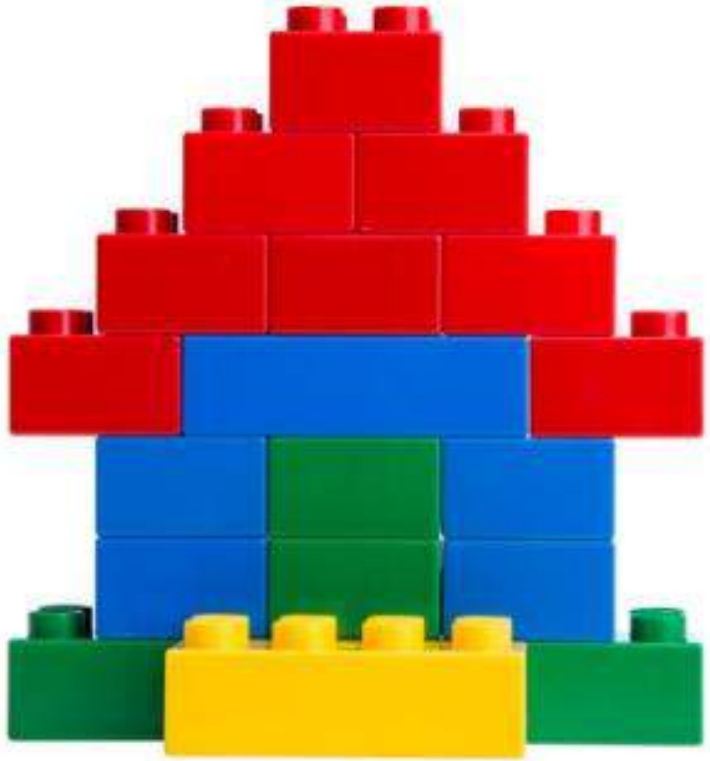
The big picture

The big picture

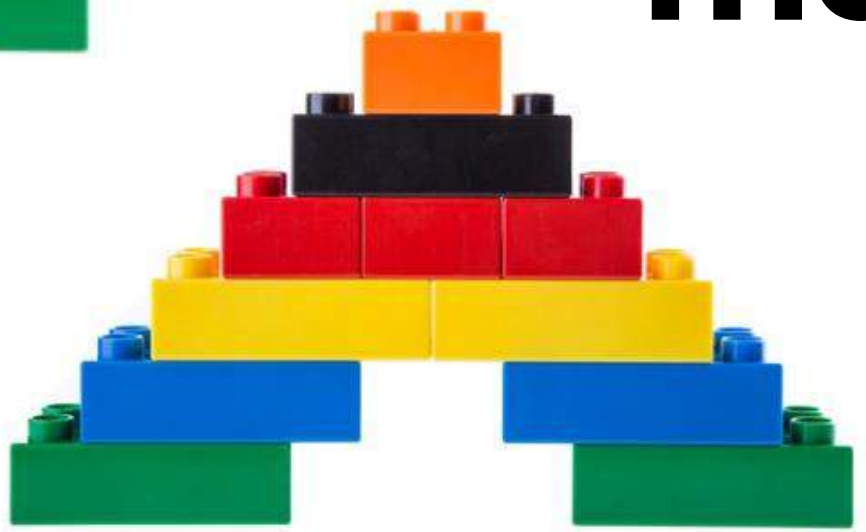
What is chunking?



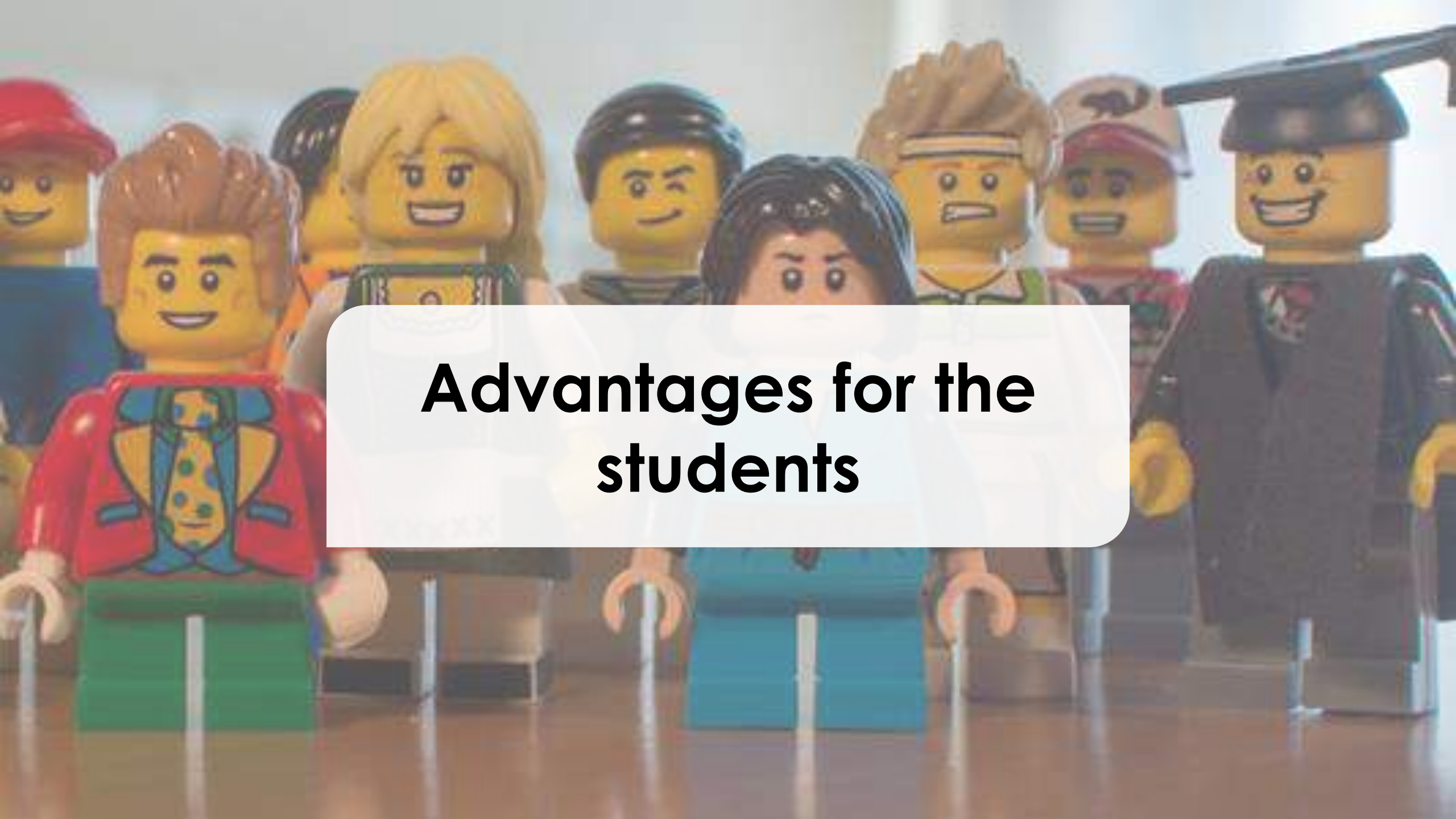
Cutting large pieces of information into smaller pieces



Digestible parts with one or two messages



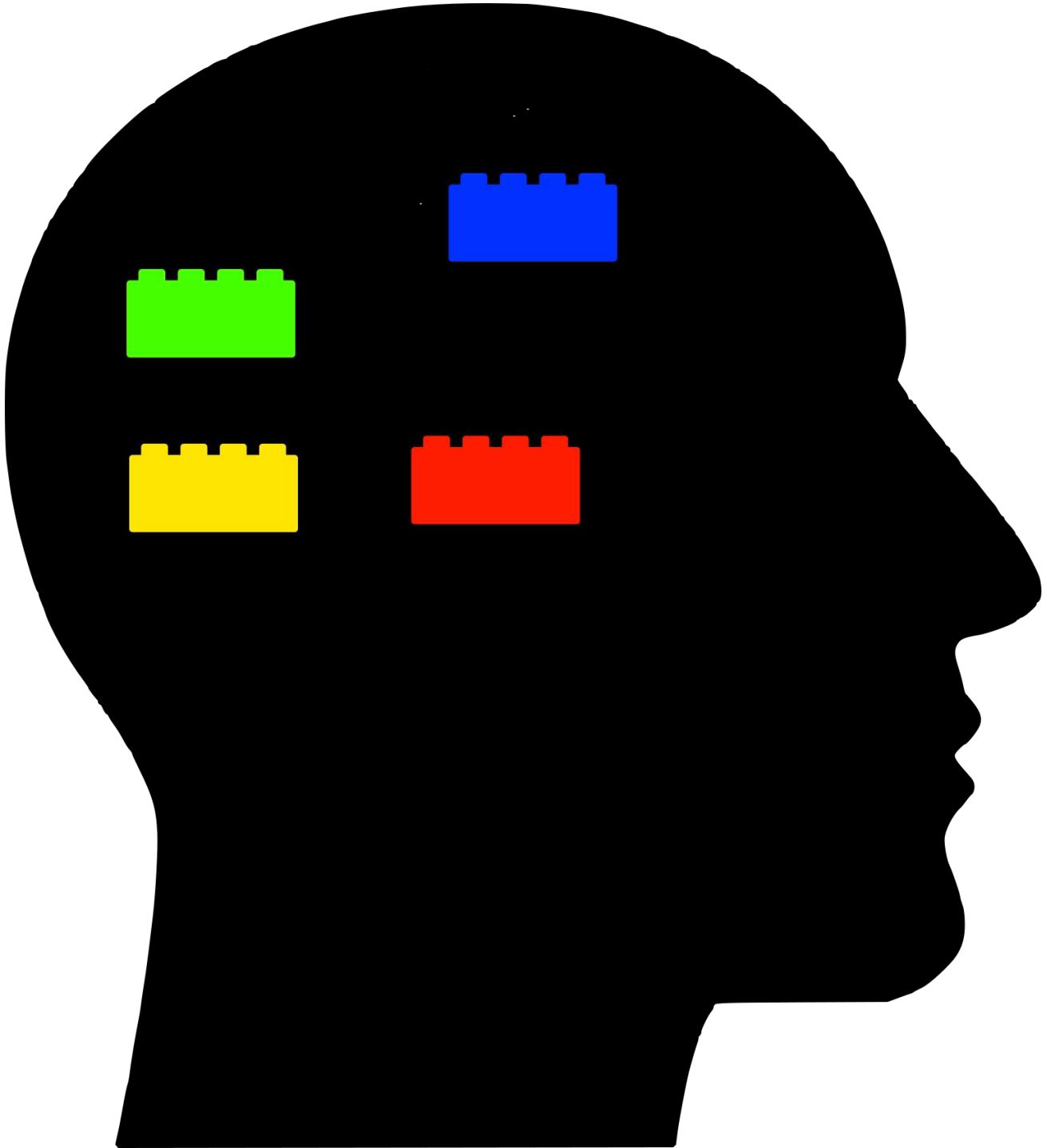
Why do we need to chunk our courses?

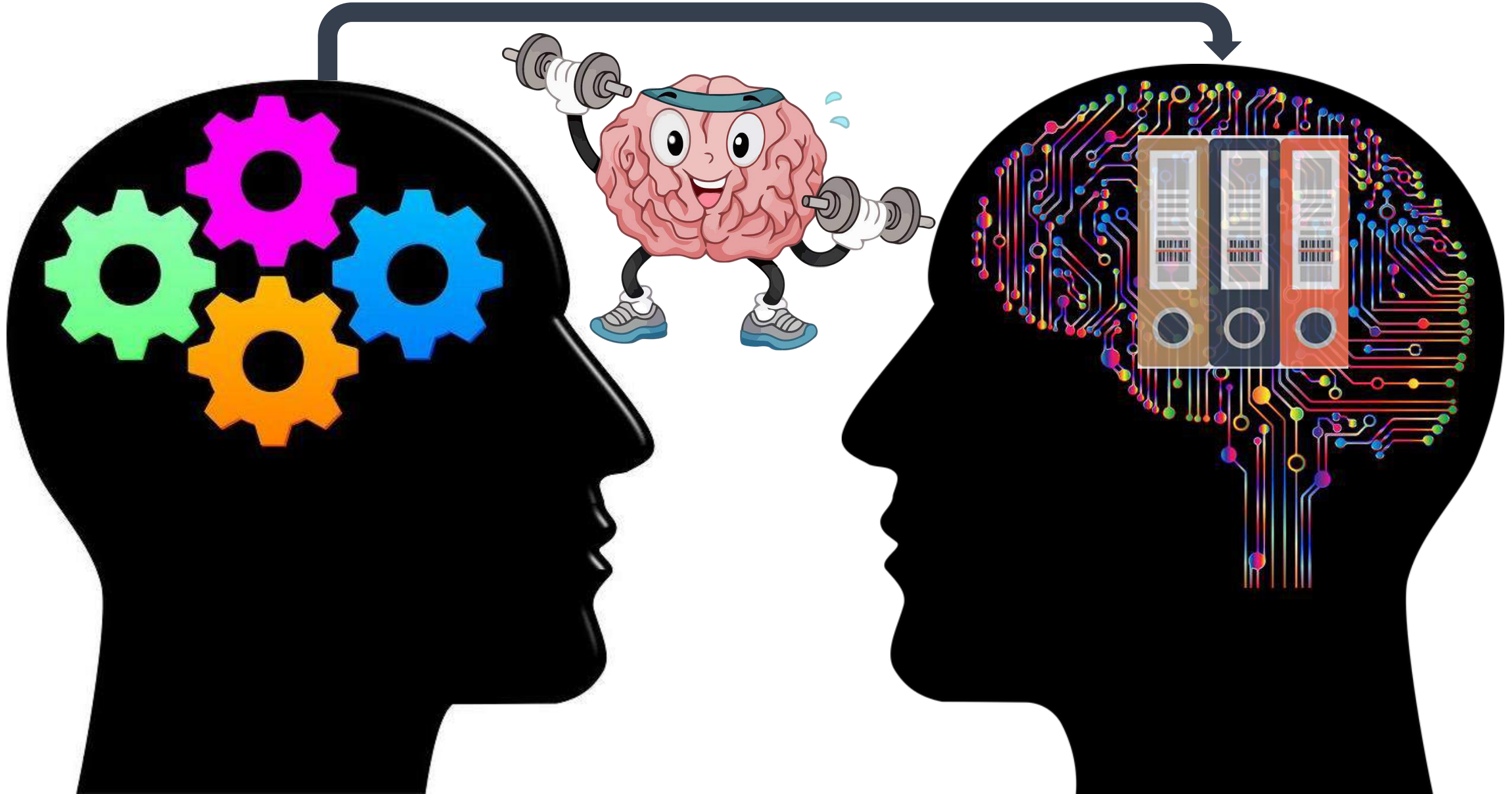


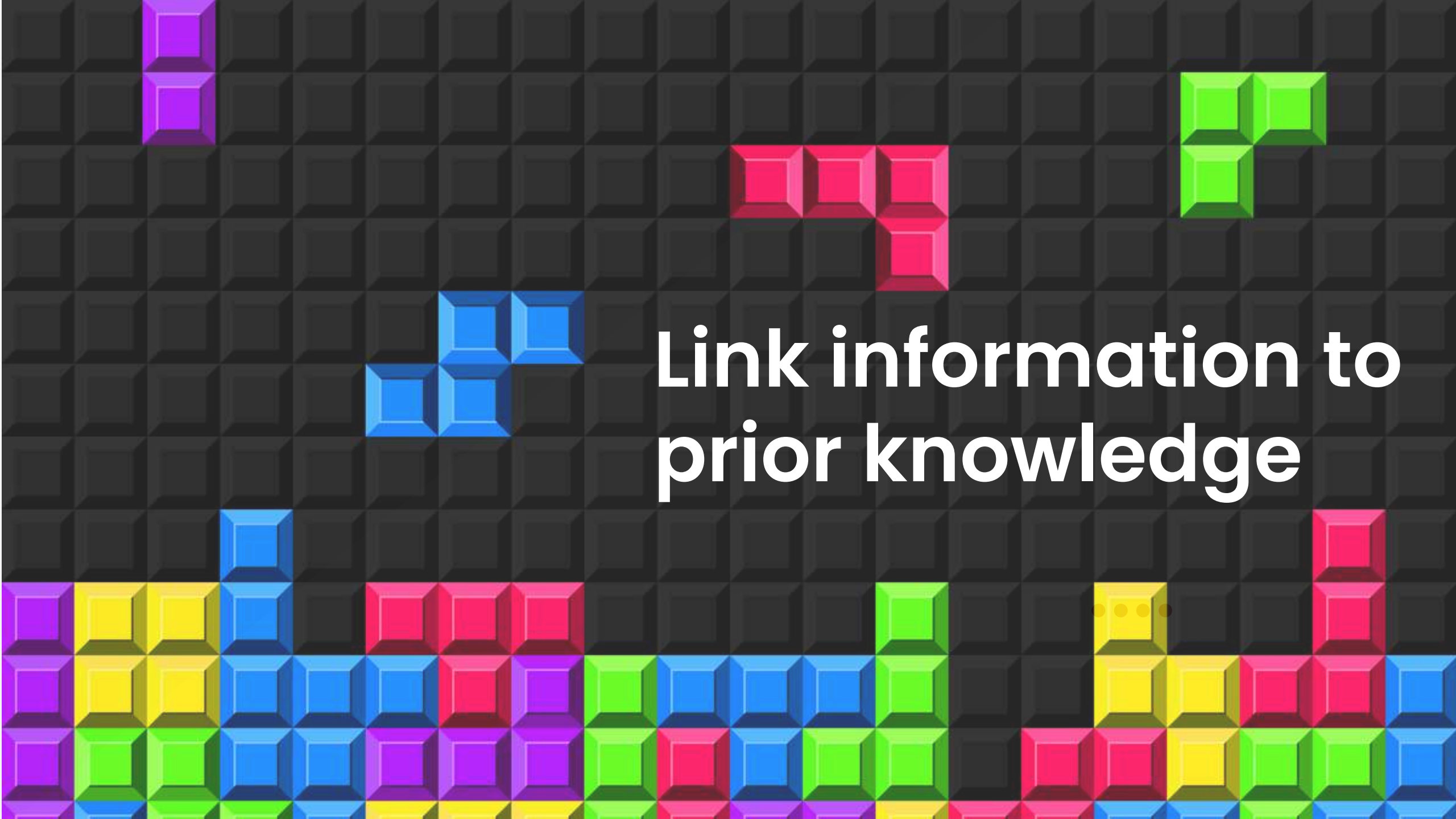
Advantages for the students

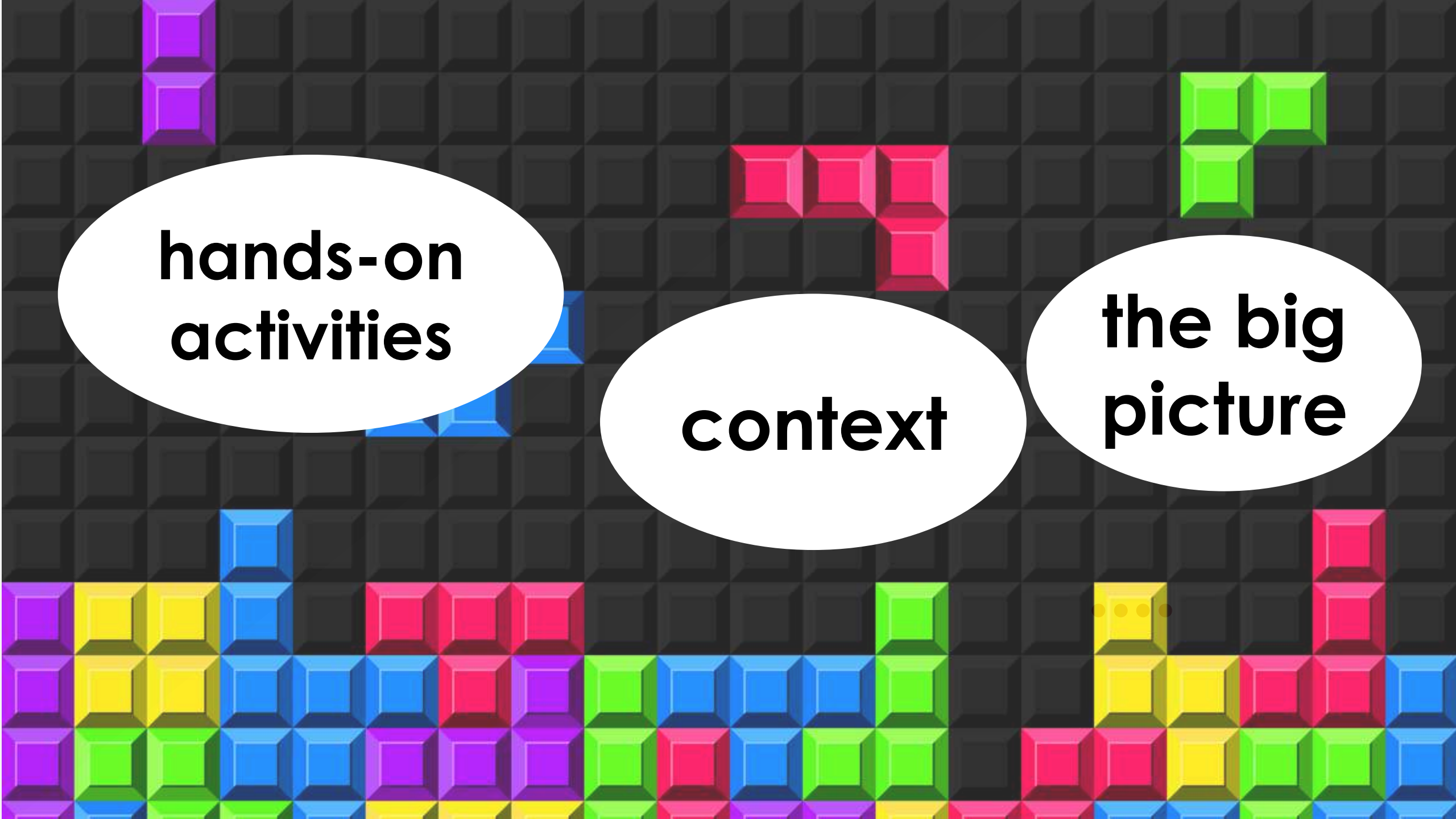
Limited working memory

Process only 4 new items



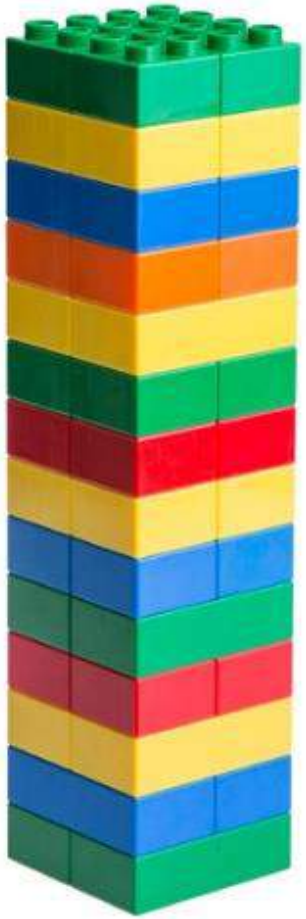



Link information to prior knowledge


hands-on activities
context
the big picture

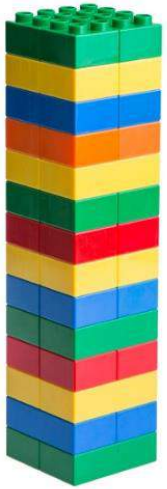
Advantages for the lecturer

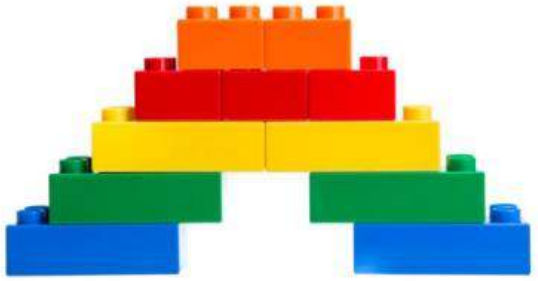
Easier to prepare

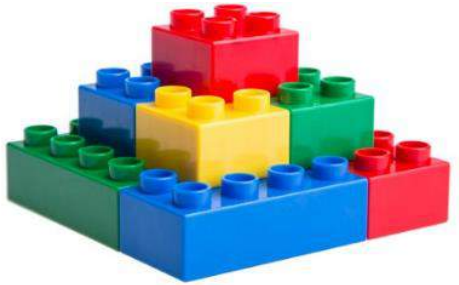


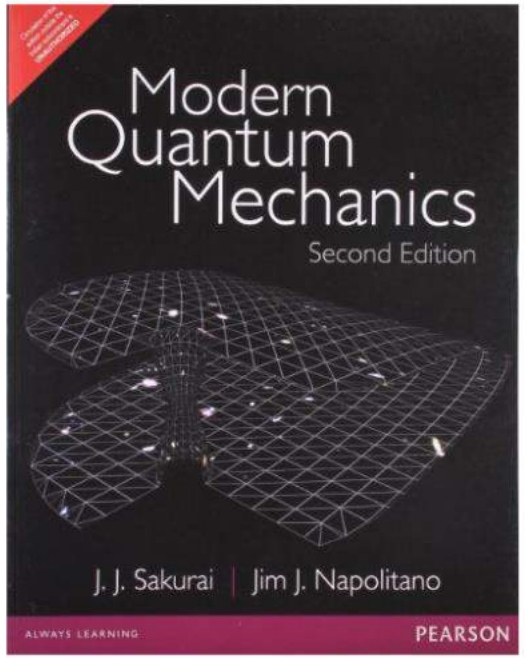
Easy to modify

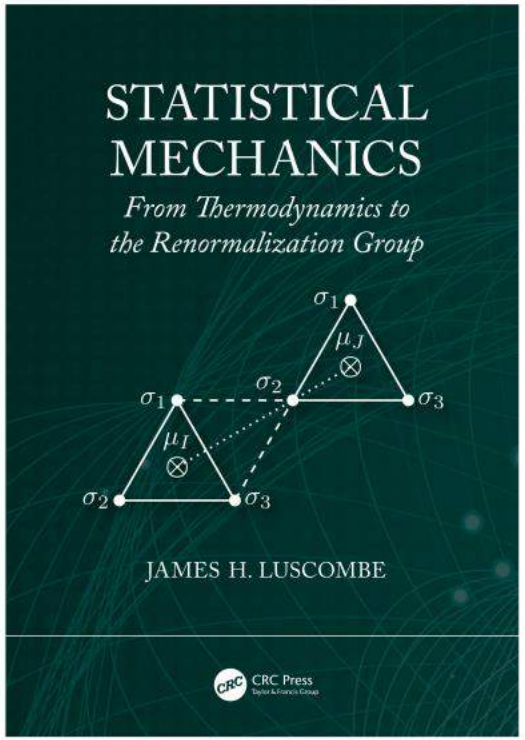
Easy to reuse





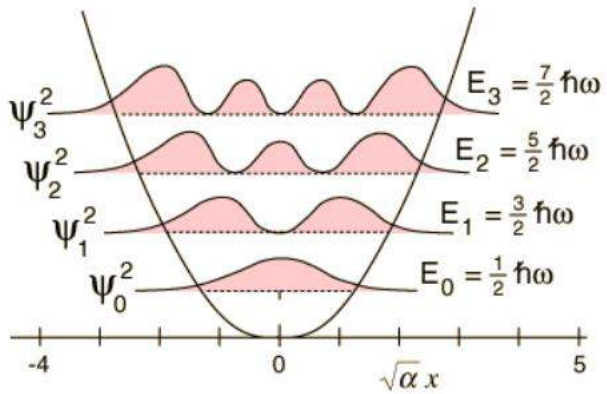




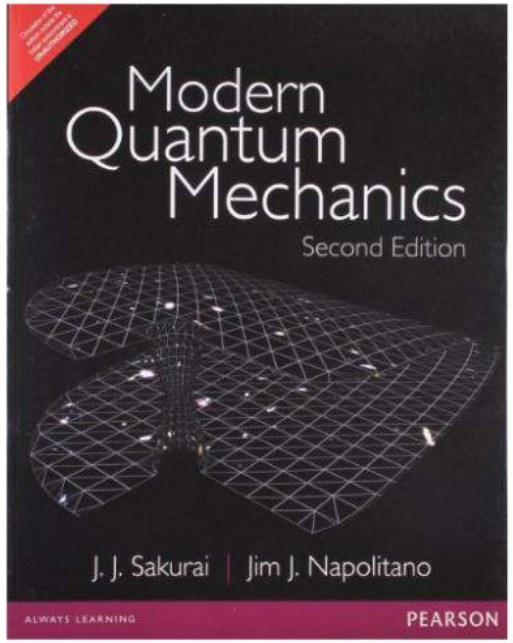


Harmonic oscillator

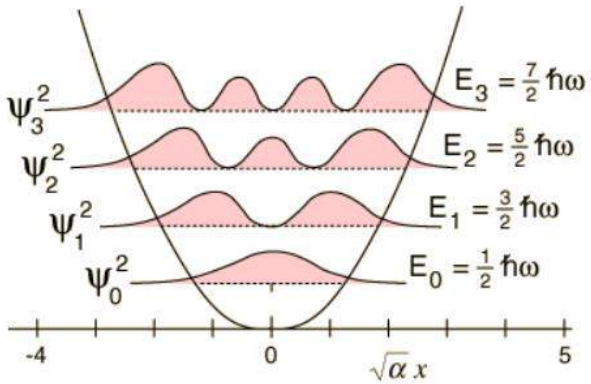
Classic

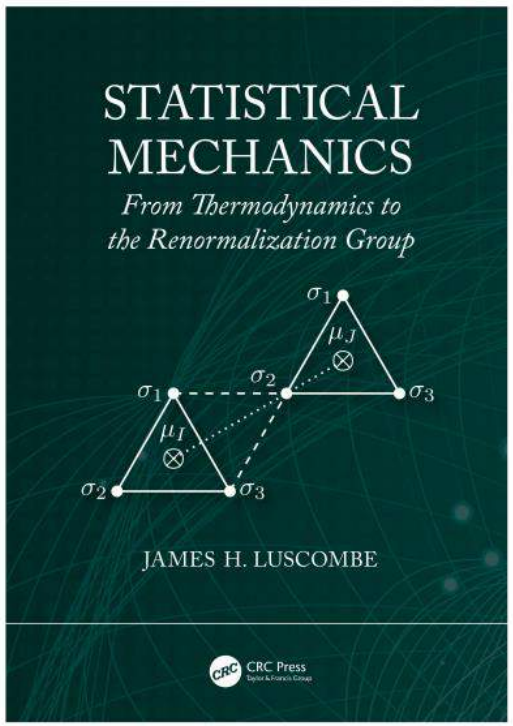


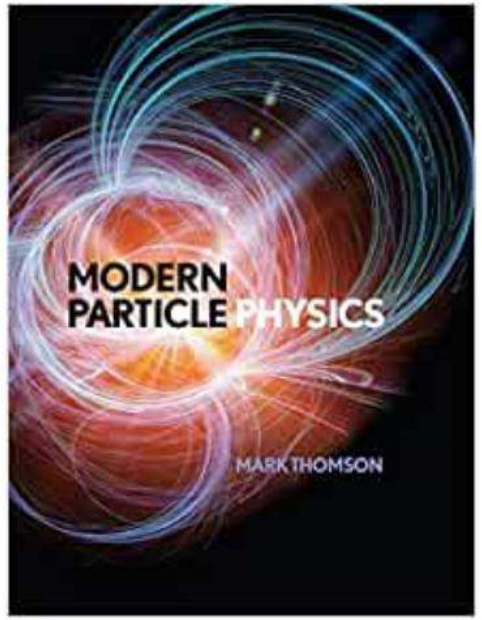
Quantum

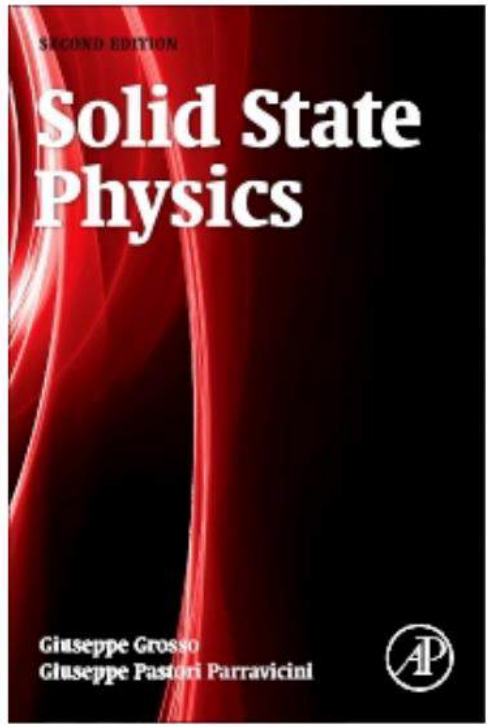


Harmonic oscillator

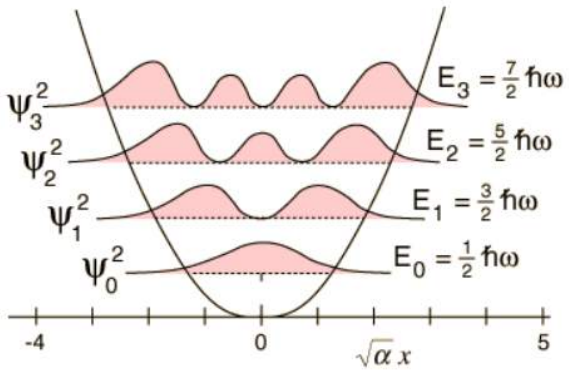








Harmonic oscillator



1. Intro and examples
2. Modelization
3. Mathematical formulation
4. Solutions and hands-on
5. Numerical approaches
6. Generalizations

What should a chunk look like?

Harmonic Oscillator

Learning goal:

Learning outcome:

Story:

Activities:

Harmonic Oscillator

Learning goal: Learn the physics of the harmonic oscillator

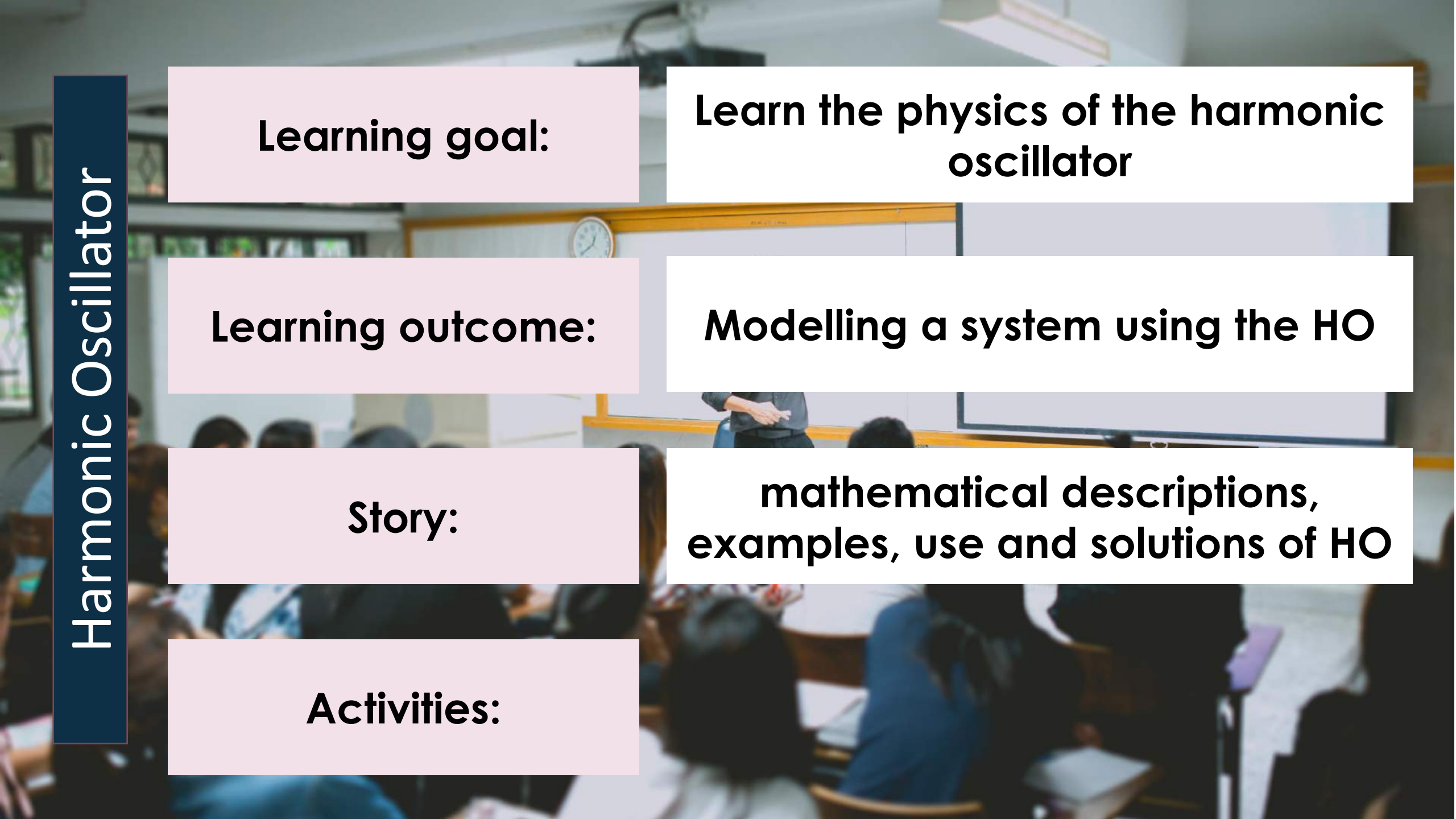
Learning outcome:

Story:

Activities:

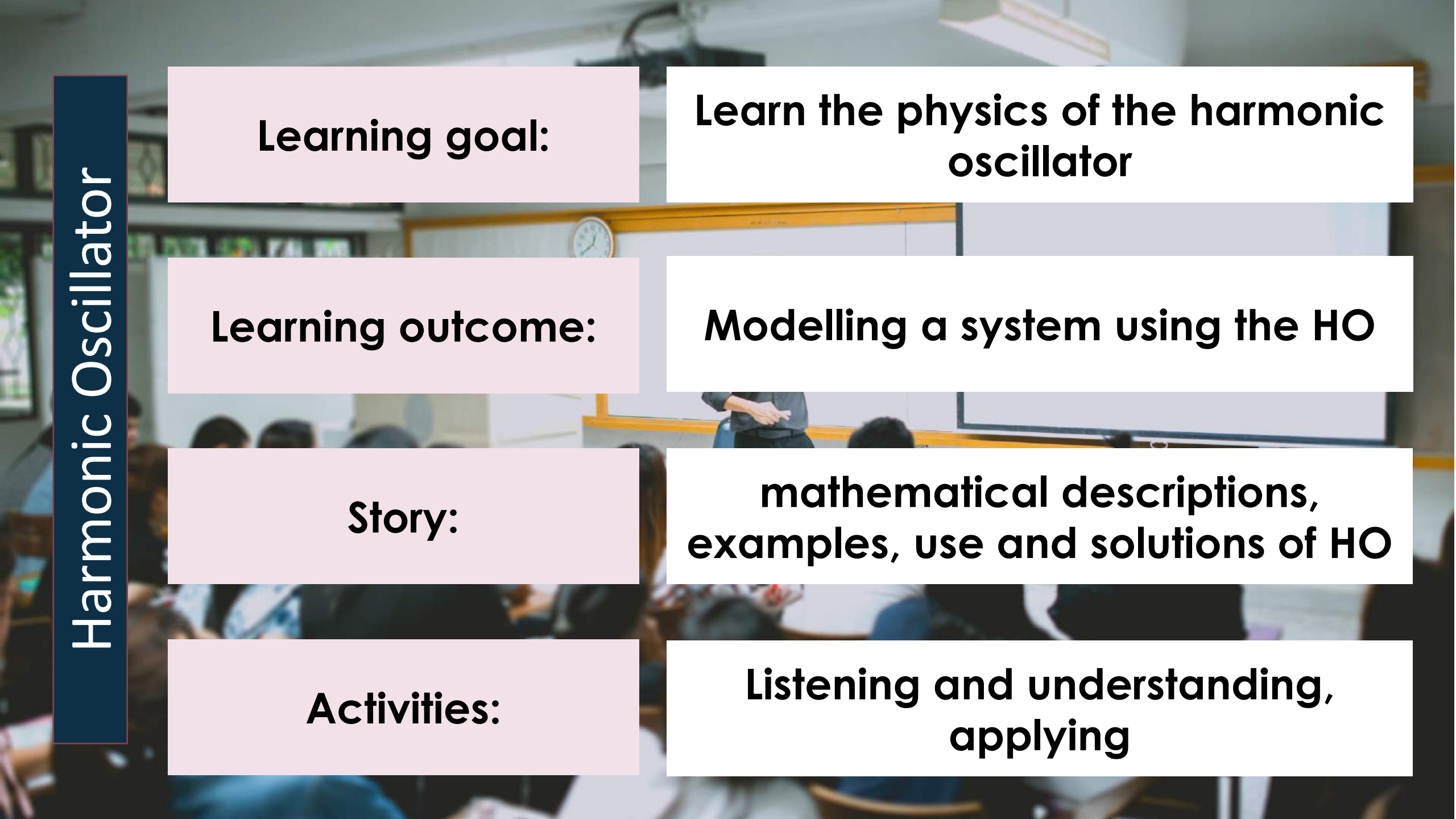
Harmonic Oscillator

Learning goal:	**Learn the physics of the harmonic oscillator**
Learning outcome:	**Modelling a system using the HO**
Story:	
Activities:	



Harmonic Oscillator

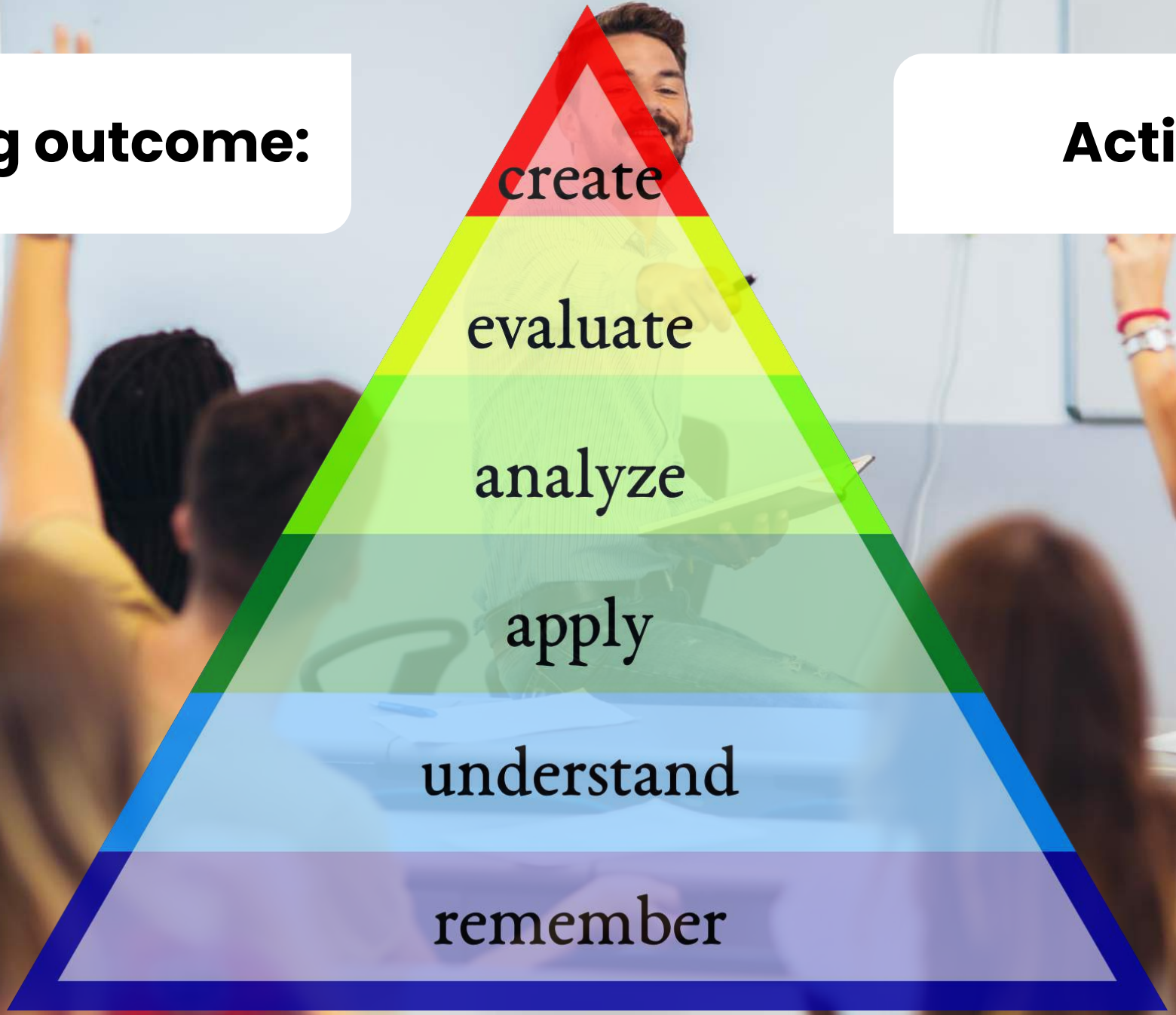
Learning goal:	**Learn the physics of the harmonic oscillator**
Learning outcome:	**Modelling a system using the HO**
Story:	**mathematical descriptions, examples, use and solutions of HO**
Activities:	



Harmonic Oscillator

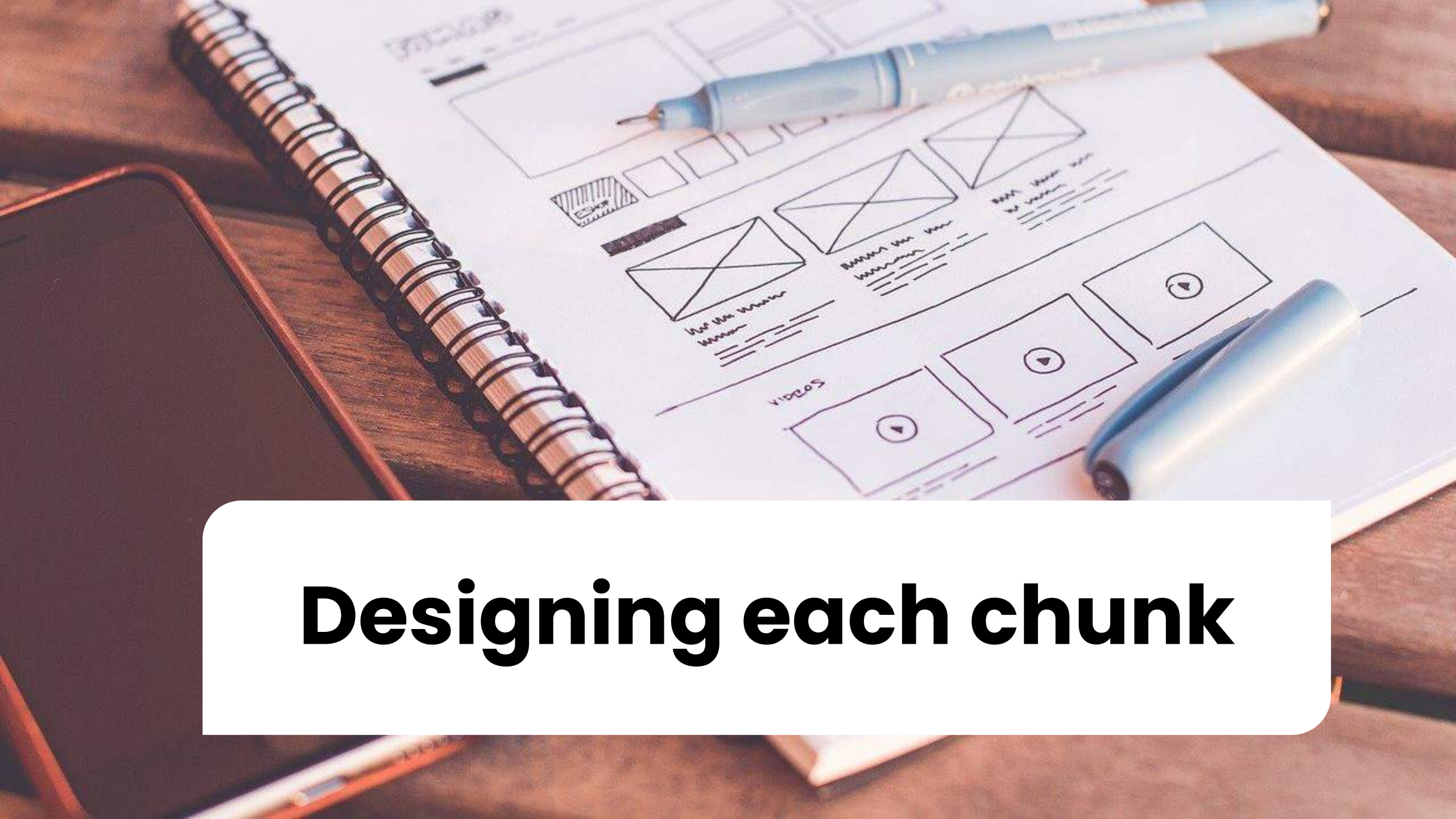
Learning goal:	**Learn the physics of the harmonic oscillator**
Learning outcome:	**Modelling a system using the HO**
Story:	**mathematical descriptions, examples, use and solutions of HO**
Activities:	**Listening and understanding, applying**

Learning outcome:



Activities:


Higher-order thinking skills
create
evaluate
analyze
apply
understand
remember
Lower-order thinking skills



Designing each chunk

Each chunk will be made up of activities

What will students be doing in each activity?

Collaborating?

Commenting?

Writing?

Reading?

Listening?

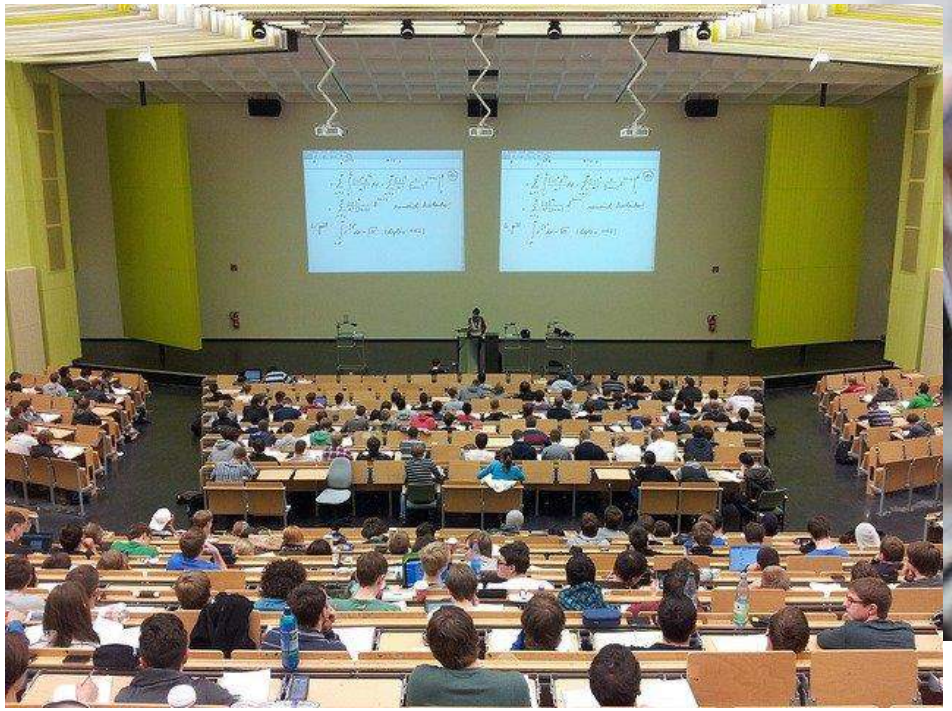
Analizing?

Solving?

Producing?

Finding?

Testing?



What kind of input?
Synchronous or asynchronous?

What kind of interactions?

How will you assess the students?

Formative or/and summative assessments?

A chunk is …

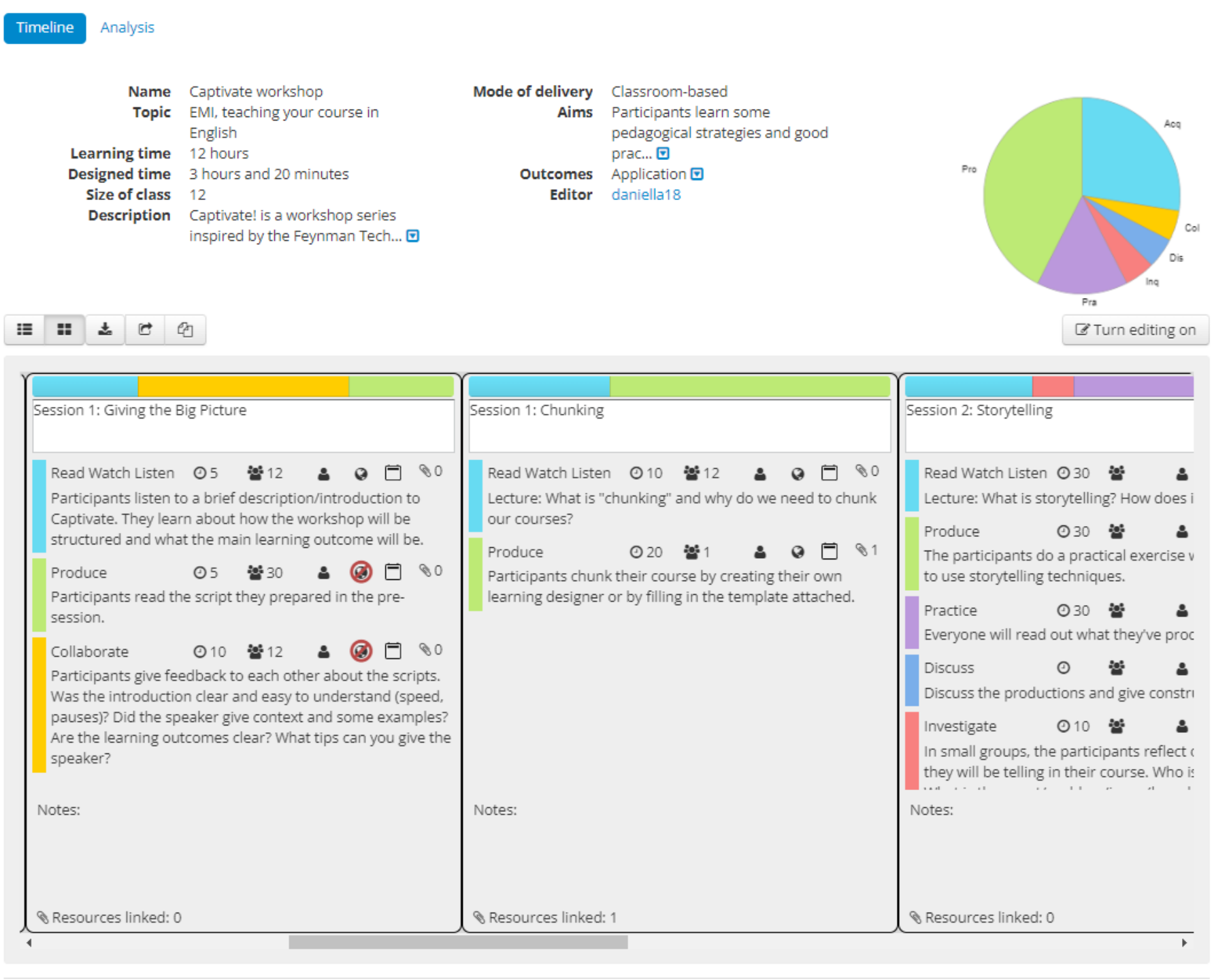
- ✓ **Stand-alone section**
- ✓ **Intro, content, conclusion (story)**
- ✓ **Clear learning outcome**
- ✓ **Practice activities**

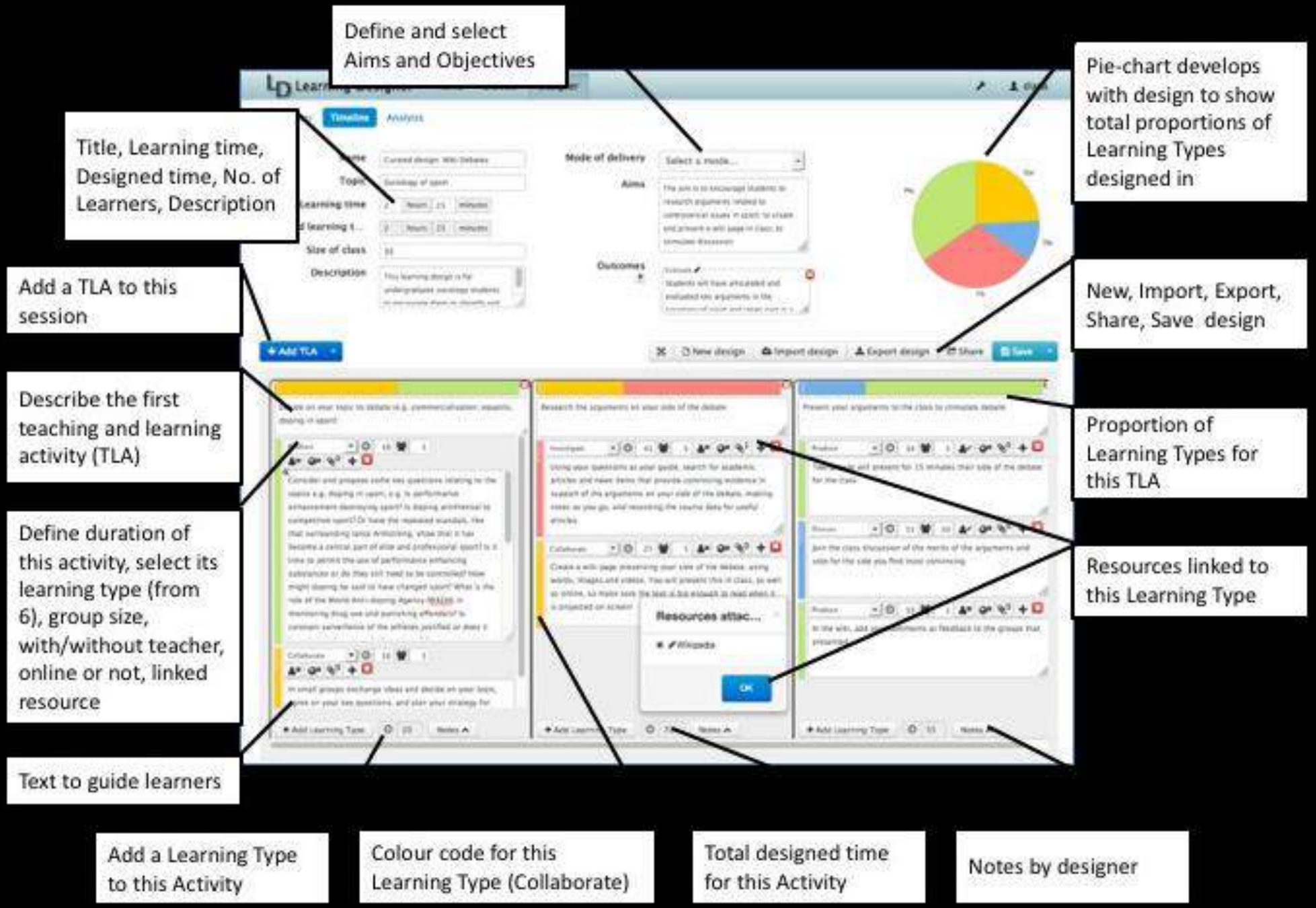
How do we go about designing our chunk?

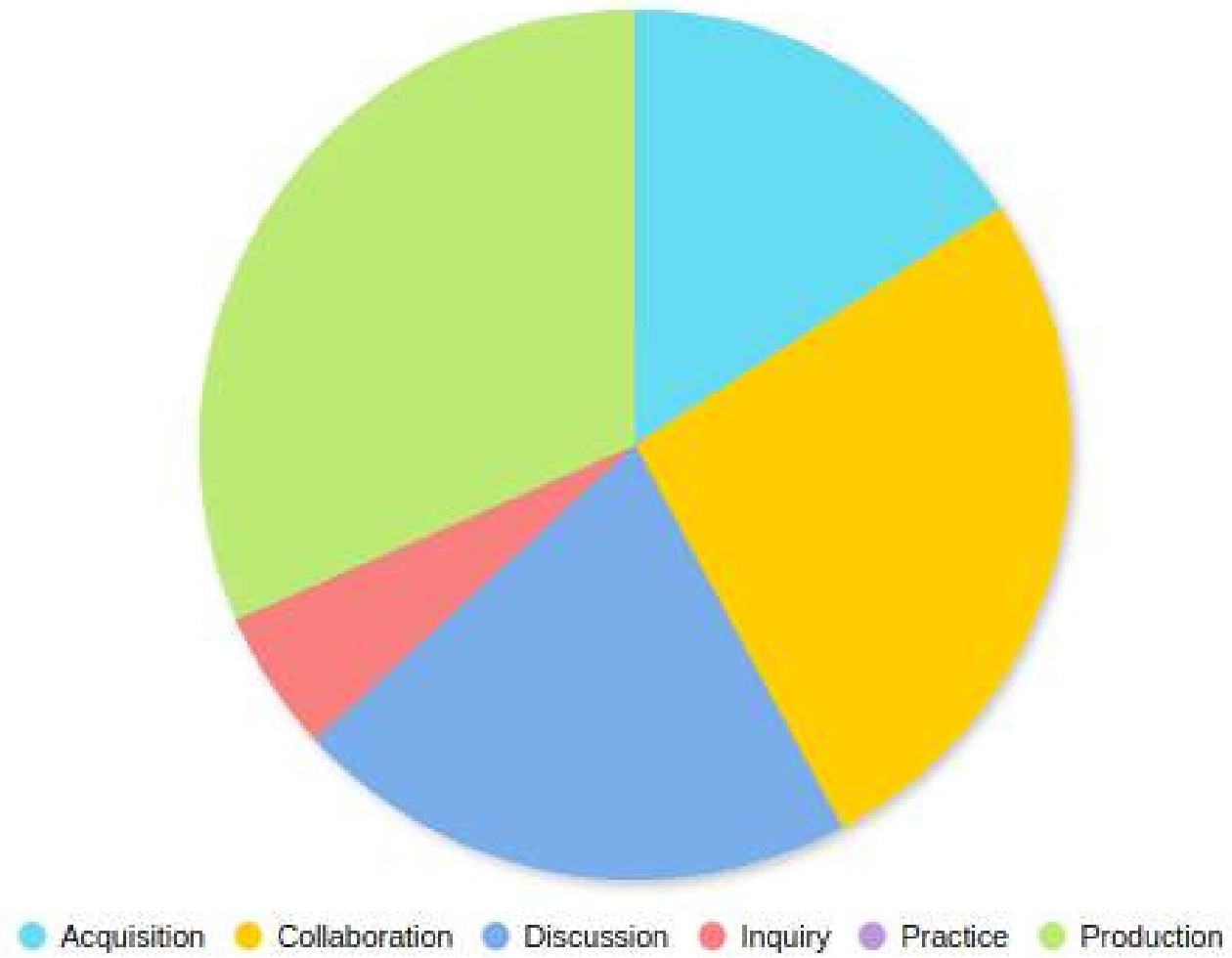
Tools

Learning Designer

A tool developed by UCL



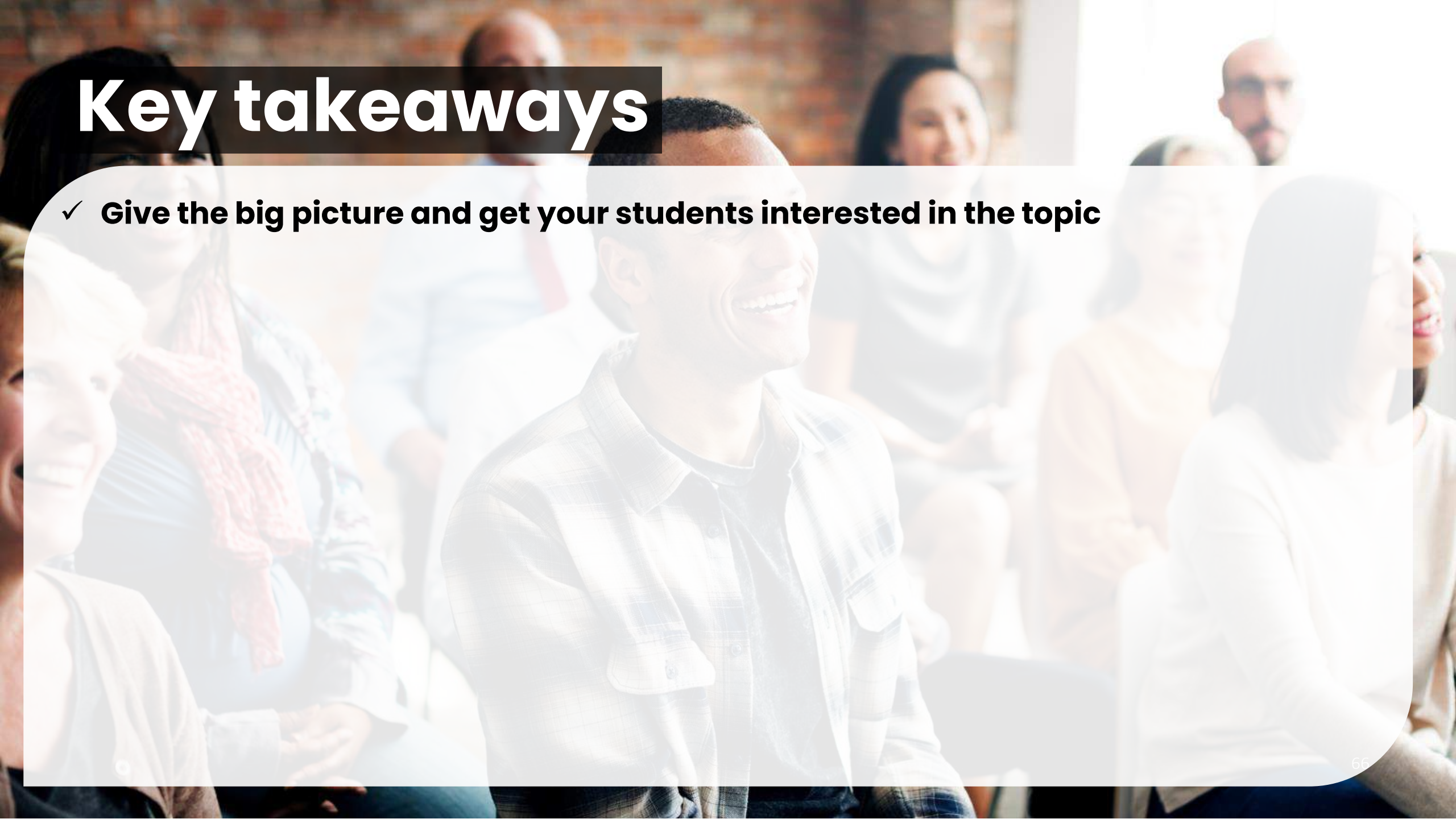

Define and select Aims and Objectives
Pie-chart develops with design to show total proportions of Learning Types designed in
Title, Learning time, Designed time, No. of Learners, Description
Add a TLA to this session
New, Import, Export, Share, Save design
Describe the first teaching and learning activity (TLA)
Proportion of Learning Types for this TLA
Define duration of this activity, select its learning type (from 6), group size, with/without teacher, online or not, linked resource
Resources linked to this Learning Type
Text to guide learners
Add a Learning Type to this Activity
Colour code for this Learning Type (Collaborate)
Total designed time for this Activity
Notes by designer


Acquisition
Collaboration
Discussion
Inquiry
Practice
Production

Key takeaways

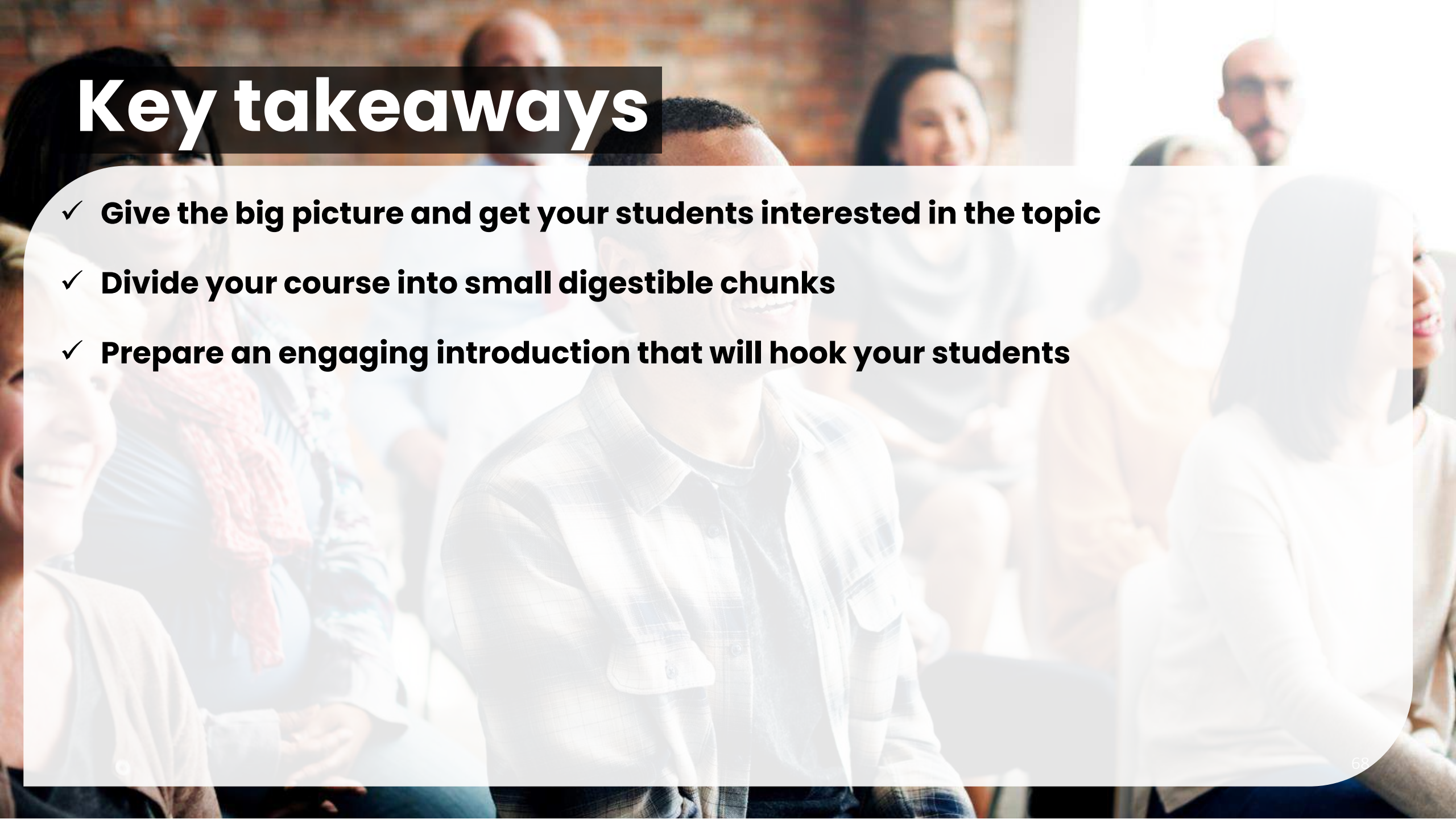
Key takeaways

- ✓ **Give the big picture and get your students interested in the topic**



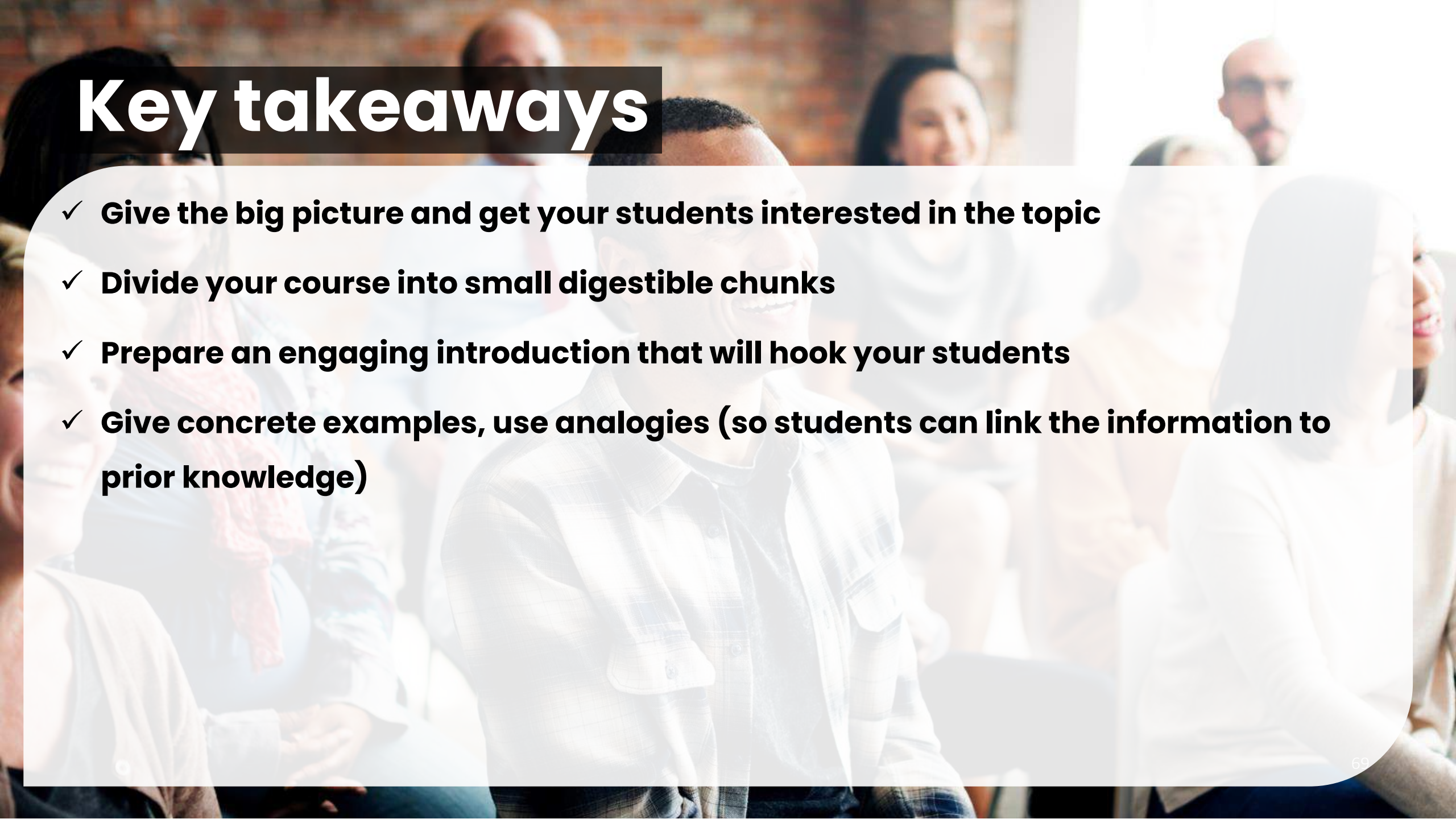
Key takeaways

- ✓ **Give the big picture and get your students interested in the topic**
- ✓ **Divide your course into small digestible chunks**



Key takeaways

- ✓ **Give the big picture and get your students interested in the topic**
- ✓ **Divide your course into small digestible chunks**
- ✓ **Prepare an engaging introduction that will hook your students**



Key takeaways

- ✓ Give the big picture and get your students interested in the topic
- ✓ Divide your course into small digestible chunks
- ✓ Prepare an engaging introduction that will hook your students
- ✓ Give concrete examples, use analogies (so students can link the information to prior knowledge)

Key takeaways

- ✓ Give the big picture and get your students interested in the topic
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- ✓ Prepare an engaging introduction that will hook your students
- ✓ Give concrete examples, use analogies (so students can link the information to prior knowledge)
- ✓ Keep your students active by getting them to interact with you and other students.

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- ✓ Prepare an engaging introduction that will hook your students
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- ✓ Keep your students active by getting them to interact with you and other students.
- ✓ Give them a chance to verify their understanding

Key takeaways

- ✓ Give the big picture and get your students interested in the topic
- ✓ Divide your course into small digestible chunks
- ✓ Prepare an engaging introduction that will hook your students
- ✓ Give concrete examples, use analogies (so students can link the information to prior knowledge)
- ✓ Keep your students active by getting them to interact with you and other students.
- ✓ Give them a chance to verify their understanding
- ✓ Give your students the time to do exercises, discuss the content and apply it in a variety of situations

Thank you.

Now it’s time for you to get chunking!