

MONDAY SESSION

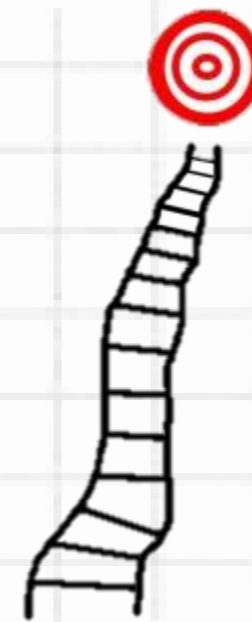
BE STRONG.
The beginnings
to great things
are always the
HARDEST.

Menu of this day

1. Welcome in virtual Ghent and Ghent University
2. Presenting ourselves
3. Constructive Alignment
4. Explicit the learning objectives of your course unit

Lunch

5. Active learning?
6. Activating prior knowledge
7. Quick wins



Learning objectives

After this session, you will be able to:

- Explain how you can create a positive learning environment.
- Formulate learning objectives for your course unit.
- Activate your students' prior knowledge.

GHENT UNIVERSITY



INTRODUCING GHENT





- Founded in 1817 (Latin-speaking State University)
- In 1930: First Dutch-speaking university in Belgium
- Anno 2022:
 - 11 faculties – 85 faculty departments
 - > 9,000 staff members (+ 6,000 in Ghent University Hospital)
 - > 44,000 students
 - Campuses in the Ghent region, but also in Kortrijk, Ostend, Bruges, and South Korea

University Forum (UFO), Sint-Pietersnieuwstraat 25, 9000 Ghent

11 FACULTIES



 FACULTY OF
LAW AND CRIMINOLOGY



 FACULTY OF ARTS
AND PHILOSOPHY



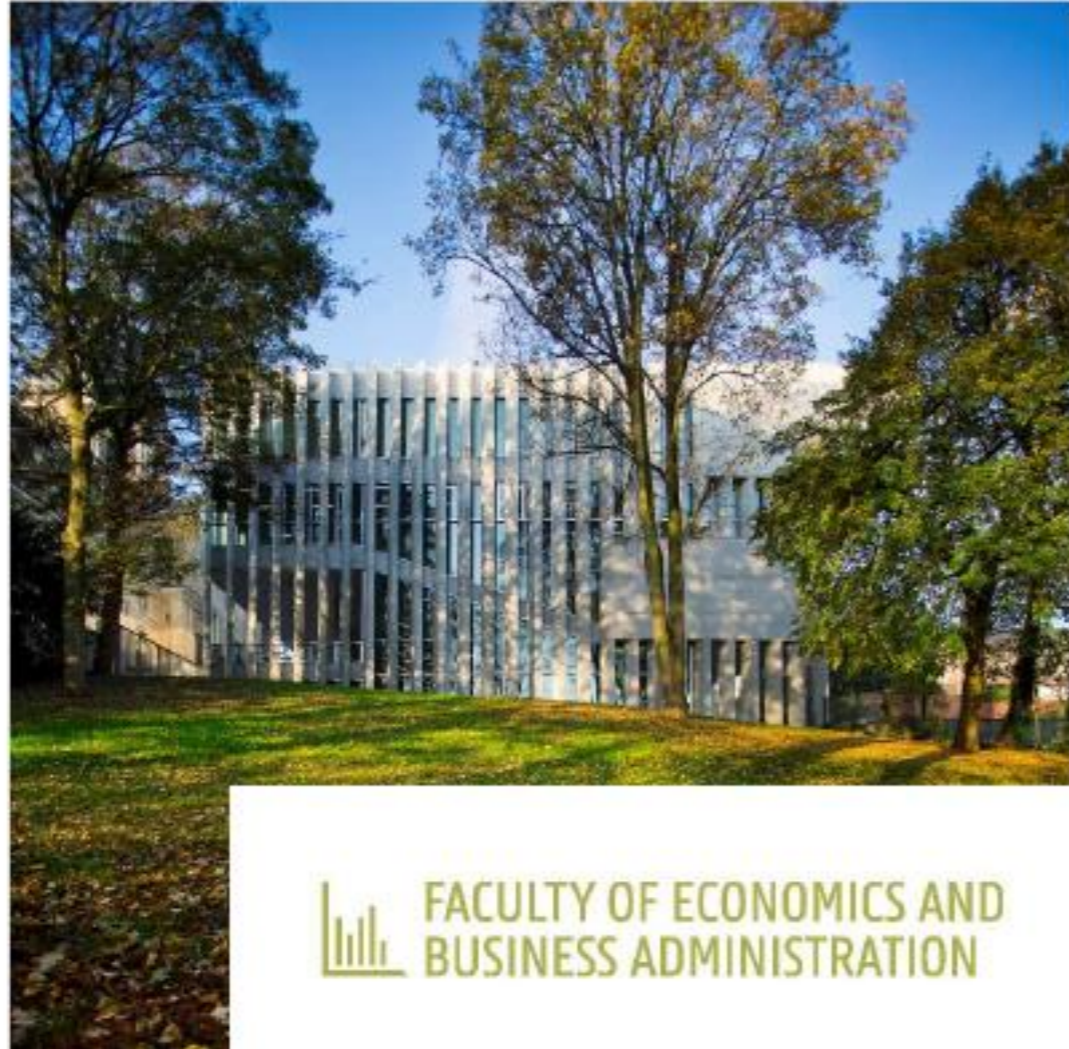
 FACULTY
OF SCIENCES



 FACULTY OF MEDICINE
AND HEALTH SCIENCES



 FACULTY OF ENGINEERING
AND ARCHITECTURE



 FACULTY OF ECONOMICS AND
BUSINESS ADMINISTRATION



 FACULTY OF
VETERINARY MEDICINE
accredited by EAEVE



CAMPUSES OUTSIDE OF GHENT: KORTRIJK, OSTEND, BRUGES



GHENT UNIVERSITY GLOBAL CAMPUS

Incheon, South Korea

Since 1 September 2014

Bachelor programmes:

Molecular Biotechnology
Environmental Technology
Food Technology

Flying Faculty



GHENT UNIVERSITY: MISSION STATEMENT

Dare to Think

Dare to Think: that is the credo of Ghent University. Critical and independent brains study, do research and work at Ghent University. #daretothink is in our DNA and we encourage everyone to do the same.



To Martians, we are the aliens.



Gluten killed the dinosaurs.

GHENT UNIVERSITY

Rector

Prof. Rik Van de Walle

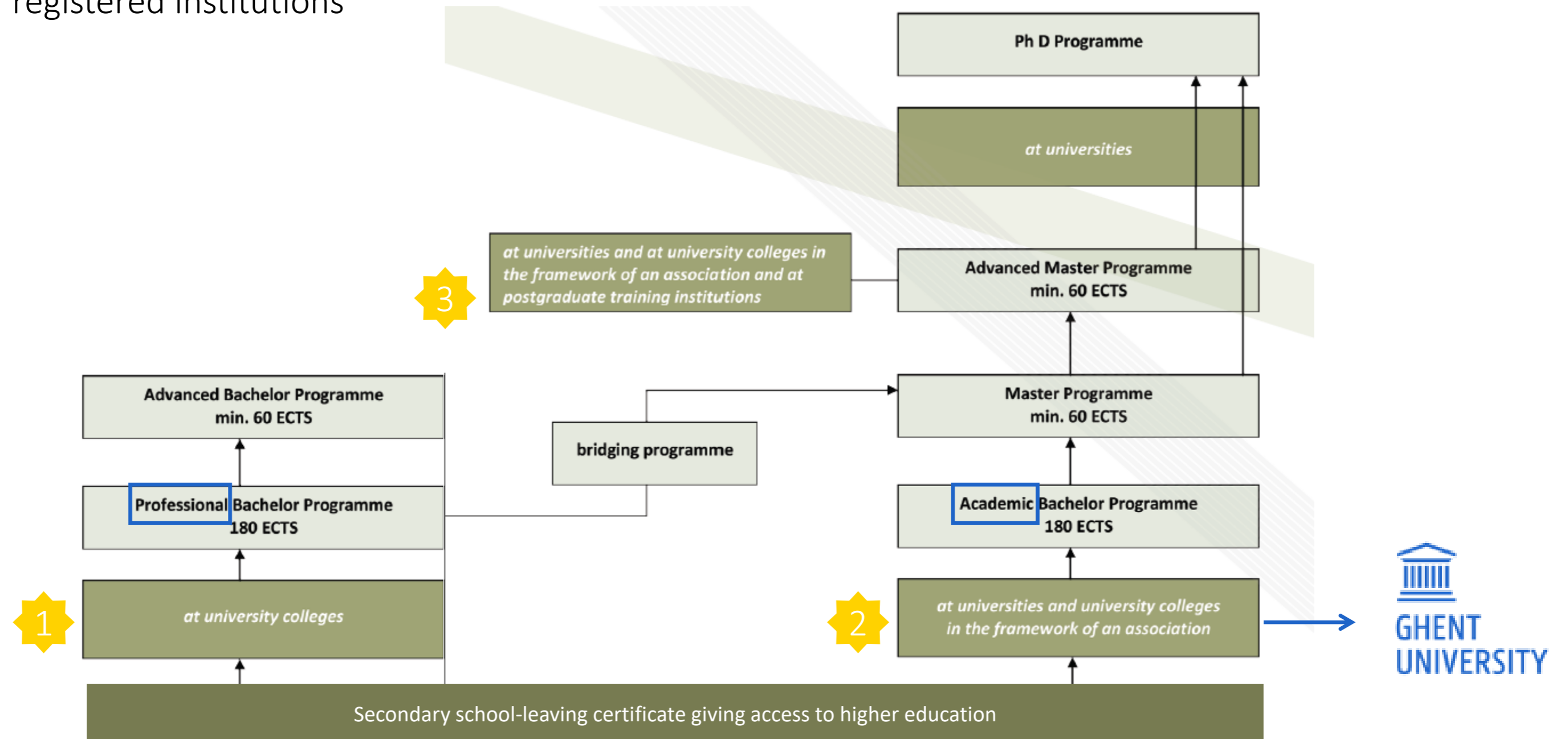




HIGHER EDUCATION IN FLANDERS

2004-2005: Bachelor and Master degrees (in line with Bologna process, uniform European framework of studies)

☀ Three types of registered institutions



Bachelor programmes	116
Dutch taught	113
English taught	3
Masters	277
Dutch taught	205
English taught	76
Postgraduates	38
Exchange programmes	36



INTERNATIONAL STUDENTS

(n > 6.800)

ERASMUS EXCHANGE STUDENTS (2019-2020)

1.450 from 61 countries

Italy, Spain, Germany, France,
China

PhD (2019-2020)

± 2.384

Mostly active in BioScience
Engineering, Engineering &
Architecture, Sciences
China, the Netherlands, Italy,
Iran, India

WHO ARE WE?



UGENT TEAM

FACULTY OF PSYCHOLOGY
AND EDUCATIONAL SCIENCES

DEPARTMENT EDUCATIONAL STUDIES



Prof. Dr. Martin Valcke
Innovation in higher
education



Dr. Britt Adams
(Professional
development) in higher
education

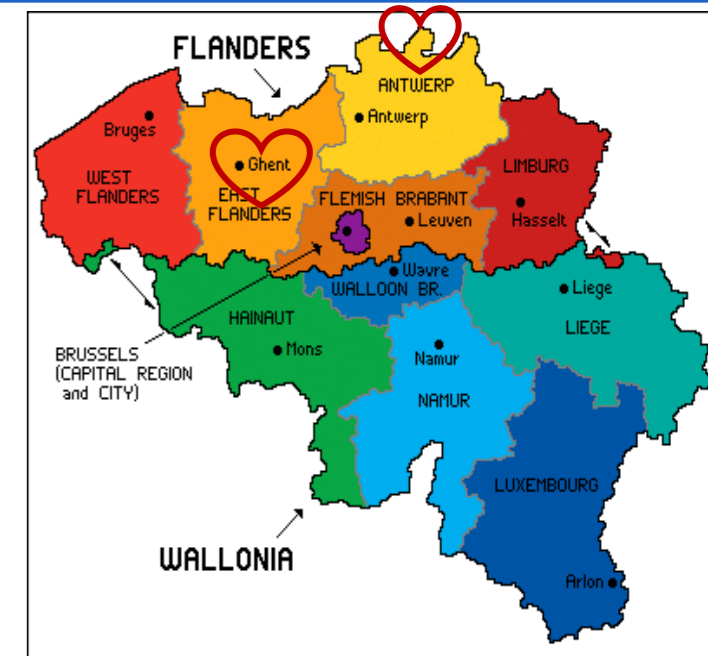


Maxime Moens
Wellbeing policy in primary
and secondary
schools



Britt Adams (31 years – Ghent)

- Education & work experience:
 - 2009 – 2014: Bachelor/Master Educational Sciences
 - 2013: Internship in adult education; designing a training for beginning teachers.
 - 2014 – 2018: PhD in Educational Sciences (Advertising literacy)
 - 2018 – 2022: Masters of Didactics
- Hobbies: Strong, Cooking, Sien (°2020)
- Animal: Turtle
 - Land versus Sea
 - Green
 - Slow (perfectionistic side)



Maxime Moens (26 years – Wetteren)



- Education & work experience:
 - 2013 – 2019: Bachelor/Master Educational Sciences
 - 2018: Odisee University of Applied Sciences - Primary education; research coaching tool for beginning teachers.
 - 2019 – 2020: Specific teacher training programme
 - 2020: Masters of Didactics: replacement Britt Adams & Laura Thomas
 - 2021: Researcher short term project: Wellbeing policy in Flemish schools
 - 2022: Masters of Didactics (50%) and assistant in teacher training (50%)
- Hobbies: Hiking, Clarinet, Animals
- Animal: squirrel
 - Caring
 - Playful
 - Nobody touches my food



WHO ARE YOU?



INTRODUCE YOURSELF

🕒 Preparation time: 10 min.

General instructions:

- Descriptives, e.g., Name, University, Department, not course unit(s)
- Choose **one of the three** following ways to introduce yourself

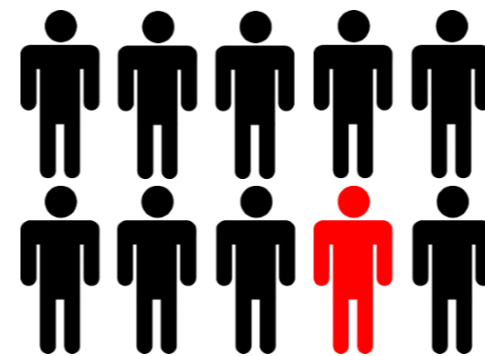
@UGent: This exercise is integrated in the first lesson of the course *Instructional Strategies* (Educational Sciences - 3rd bachelor - ± 60 students)

Animal



- ✓ Which characteristics of the chosen animal typify your personality and/or your teaching style?

Unique



- ✓ A unique characteristic that distinguishes you from the others in the group.
- ✓ Whether or not education-related

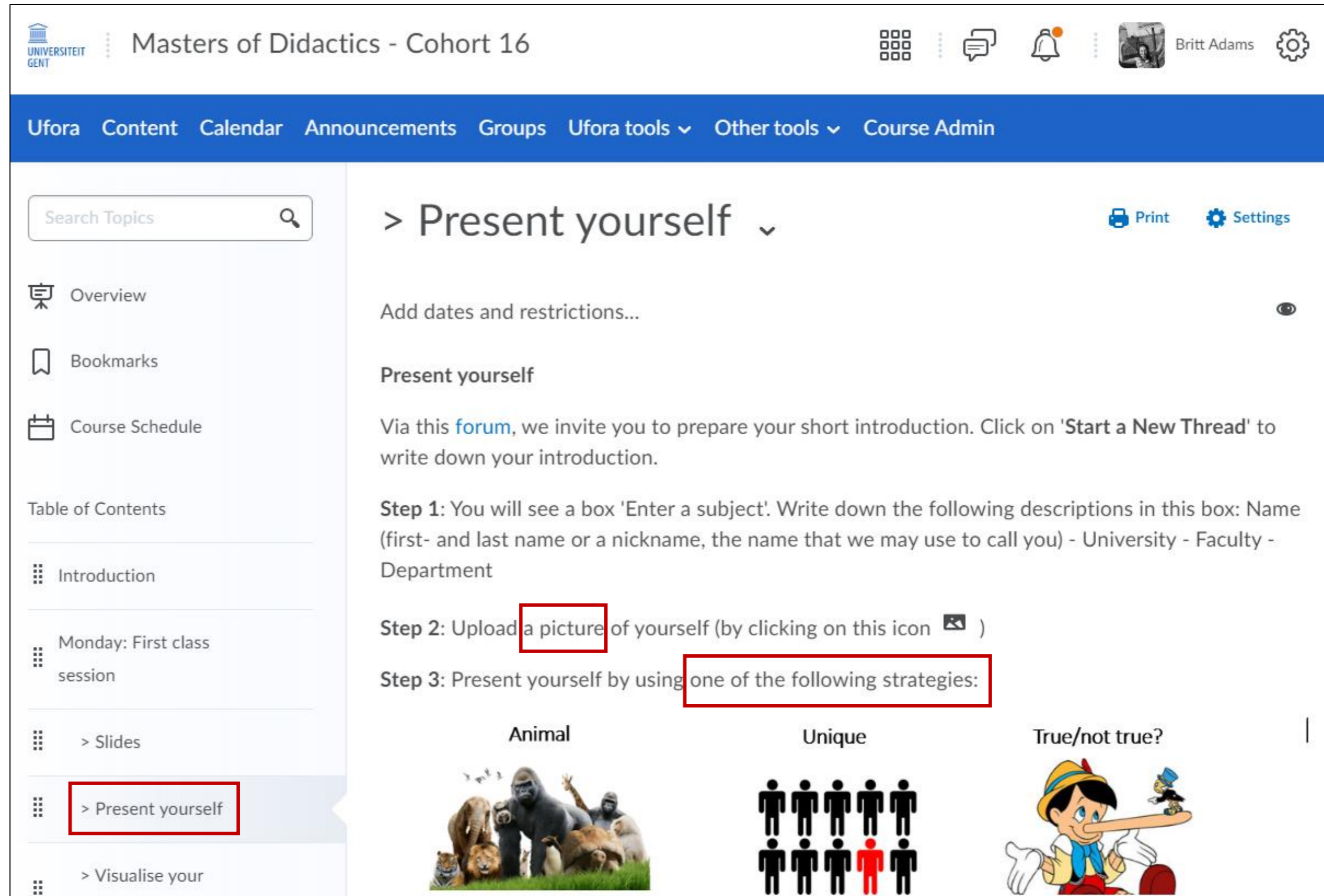
True/not true?



- ✓ Formulate three (education-related) statements about yourself
- ✓ 2 = not true, 1 = true
- ✓ Let the others guess which one is true

Prepare your introduction on Ufora

Example of Britt/Maxime when you click on forum.



The screenshot shows the Ufora forum interface. At the top, the header includes the Ghent University logo, the course title 'Masters of Didactics - Cohort 16', and user information for 'Britt Adams'. A navigation bar contains links for 'Ufora', 'Content', 'Calendar', 'Announcements', 'Groups', 'Ufora tools', 'Other tools', and 'Course Admin'. On the left, a sidebar menu includes 'Overview', 'Bookmarks', 'Course Schedule', and a 'Table of Contents' with items like 'Introduction', 'Monday: First class session', '> Slides', '> Present yourself' (highlighted with a red box), and '> Visualise your...'. The main content area is titled '> Present yourself' and includes a search bar, 'Print' and 'Settings' icons, and instructions for users to prepare their introduction. The instructions are divided into three steps: Step 1 (entering personal details), Step 2 (uploading a picture, with 'a picture' highlighted in a red box), and Step 3 (choosing a strategy, with 'one of the following strategies:' highlighted in a red box). Three strategies are listed: 'Animal' (with a group of animals), 'Unique' (with 10 human icons, one red), and 'True/not true?' (with a Pinocchio illustration).



**SHARE
SCREEN**



HOW TO USE UFORA?

HOW TO USE UFORA?

Where can I find the online course?

The screenshot shows the Ufora homepage for 'Masters of Didactics - Cohort 16'. At the top, there is a navigation bar with 'Ufora', 'Calendar', and 'UGent'. A search bar is present with the text 'Search for a course' and 'Advanced Search'. Below the search bar, there are several sections: 'Announcements' (with a message 'There are no announcements to display.'), a section about downloading the Pulse app, and a 'My Courses' section. The 'My Courses' section has tabs for 'All', '2018-19', '2019-20', '2020-21', 'infosites', 'Masterproef 2020-21', and 'non-Oasis'. Three course cards are visible, each for a different cohort (16, 13, and 14). A red box highlights the 'Masters of Didactics - Cohort 16' card. A red arrow points from a red box containing the text 'Two ways' to the search bar and the highlighted course card.

Two ways

Where can I find the content of the online course?

The screenshot shows the course content page for 'Monday: First class session'. The top navigation bar includes 'Ufora', 'Content', 'Calendar', 'Announcements', 'Groups', 'Ufora tools', 'Other tools', and 'Course Admin'. A search bar labeled 'Search Topics' is at the top. The main content area is titled 'Monday: First class session' and includes a 'Print' button and a 'Settings' icon. Below the title, there is a section for 'Add dates and restrictions...'. A 'Table of Contents' section lists several items: 'Introduction', 'Monday: First class session', '> Slides', and '> Present yourself'. A green box highlights the 'Monday: First class session' item, and a blue box highlights the '> Slides' and '> Present yourself' items. A blue box at the bottom of the page contains the text 'Submodules for each day'. To the right of the content, there is a quote: 'BE STRONG. The beginnings to great things are always the HARDEST.' Below the quote, there is a question: 'What is the theme of this day (part) about?' and a paragraph: 'In your own practice, you may have already experienced that the first meeting with the students often differs from the other contact moments. During the first class session of the online study visit'.

Module for each day (PPT, materials, etc.)

Submodules for each day

STRUCTURE OF YOUR COURSE UNIT

🕒 Preparation time: 15 min.

Assignment: Visualize one of your course unit(s) with the aid of A3 template and post-its (current situation)

GHENT UNIVERSITY FACULTY OF PSYCHOLOGY AND EDUCATIONAL SCIENCES

Structure of my course unit: "felicite" Bachelor Master Number of students: 150 Your name: "felicite"

Week	Activity	Notes
Week 1	Introduction Lecture "What is"	
Week 2	Lecture	
Week 3	Lecture	Students prepare a group presentation
Week 4	Practicum	flipped classroom "students watch each other's"
Week 5	Guest speaker	
Week 6	Supervisor group assignment	

Week	Activity	Notes
Week 7	Lecture	clickers
Week 8	Lecture	
Week 9	Study list	learning path on LMS
Week 10	Student presentations	LO- assessment
Week 11	Student presentations	
Week 12	Lecture	
Examination period	Written examination with open-ended questions	

Students prepare a group presentation

STRUCTURE OF YOUR COURSE UNIT



Teaching & Learning activities



Assessment & Feedback



Teaching & Learning activities spread over several weeks



Educational technology (e.g., presentation software, videos, virtual reality, etc.)

SPEED DATE (🕒 20 MIN.)

Assignment:

Discuss your course unit with colleagues.



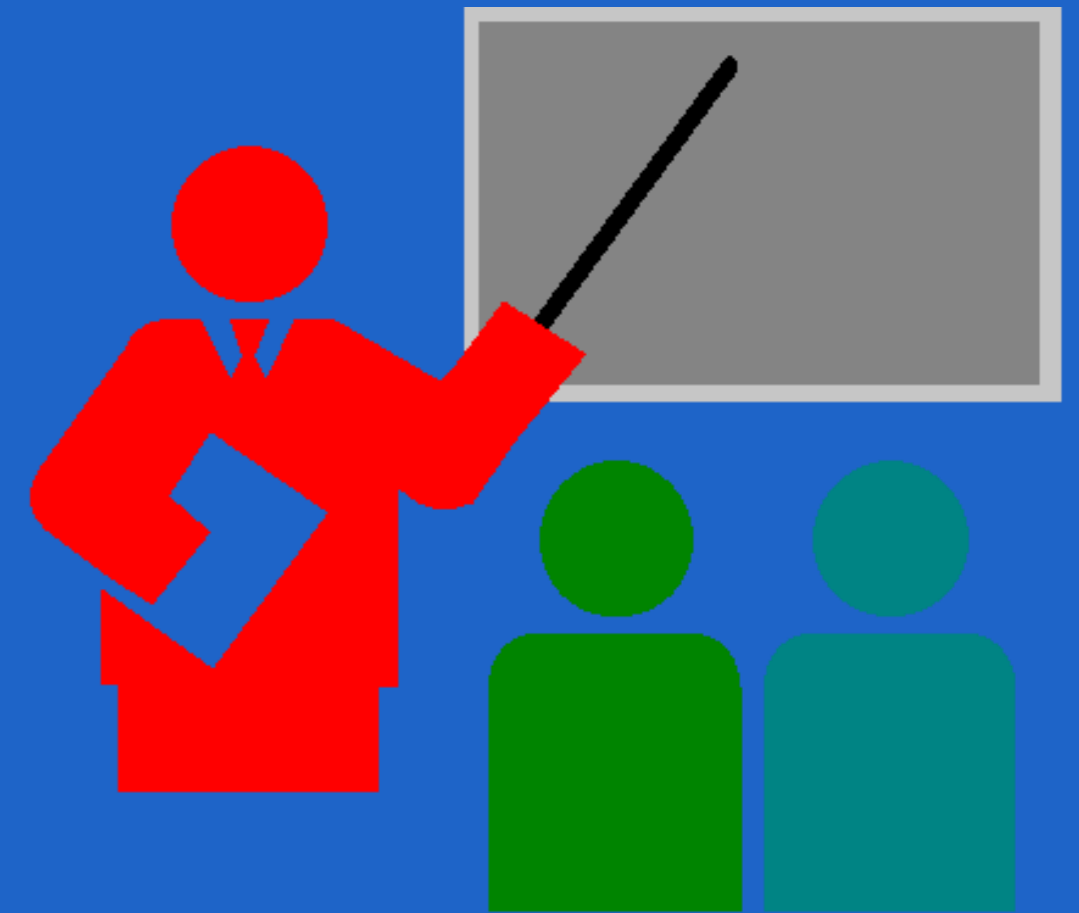
*Let's inspire each other
and create new things*

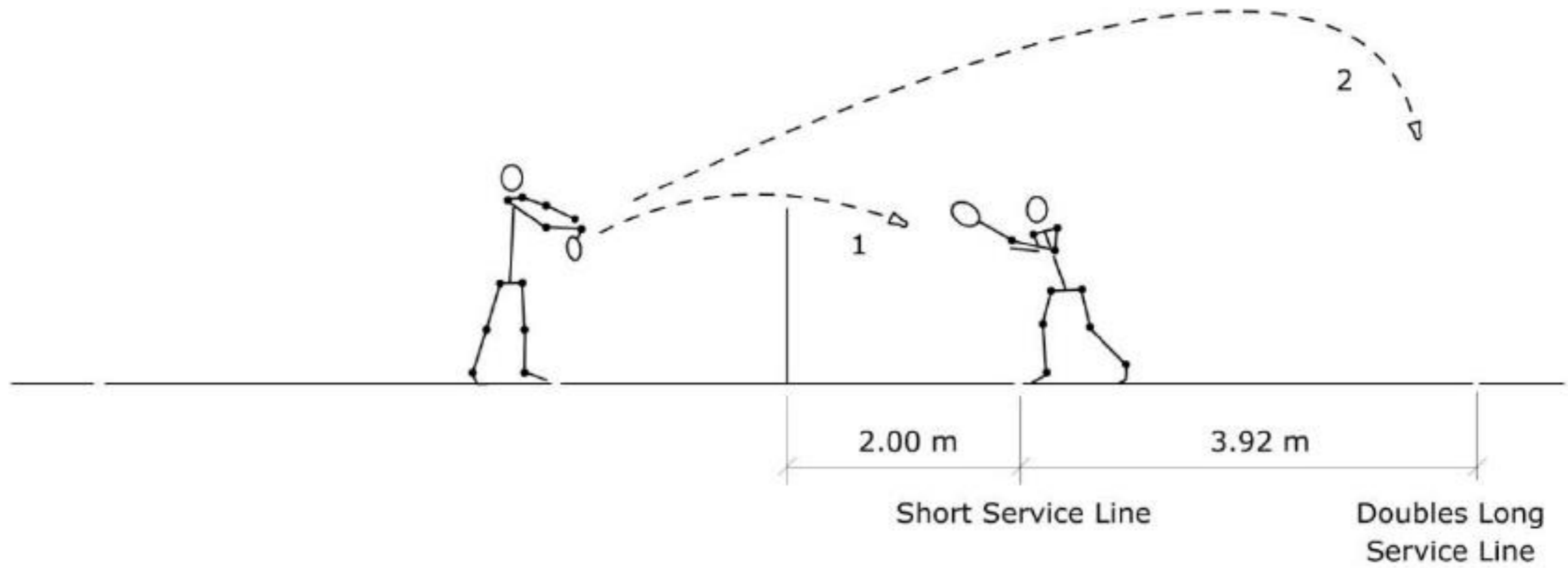


15-minute break



CONSTRUCTIVE ALIGNMENT







**Lecturer in Physical Education and
Movement Sciences**

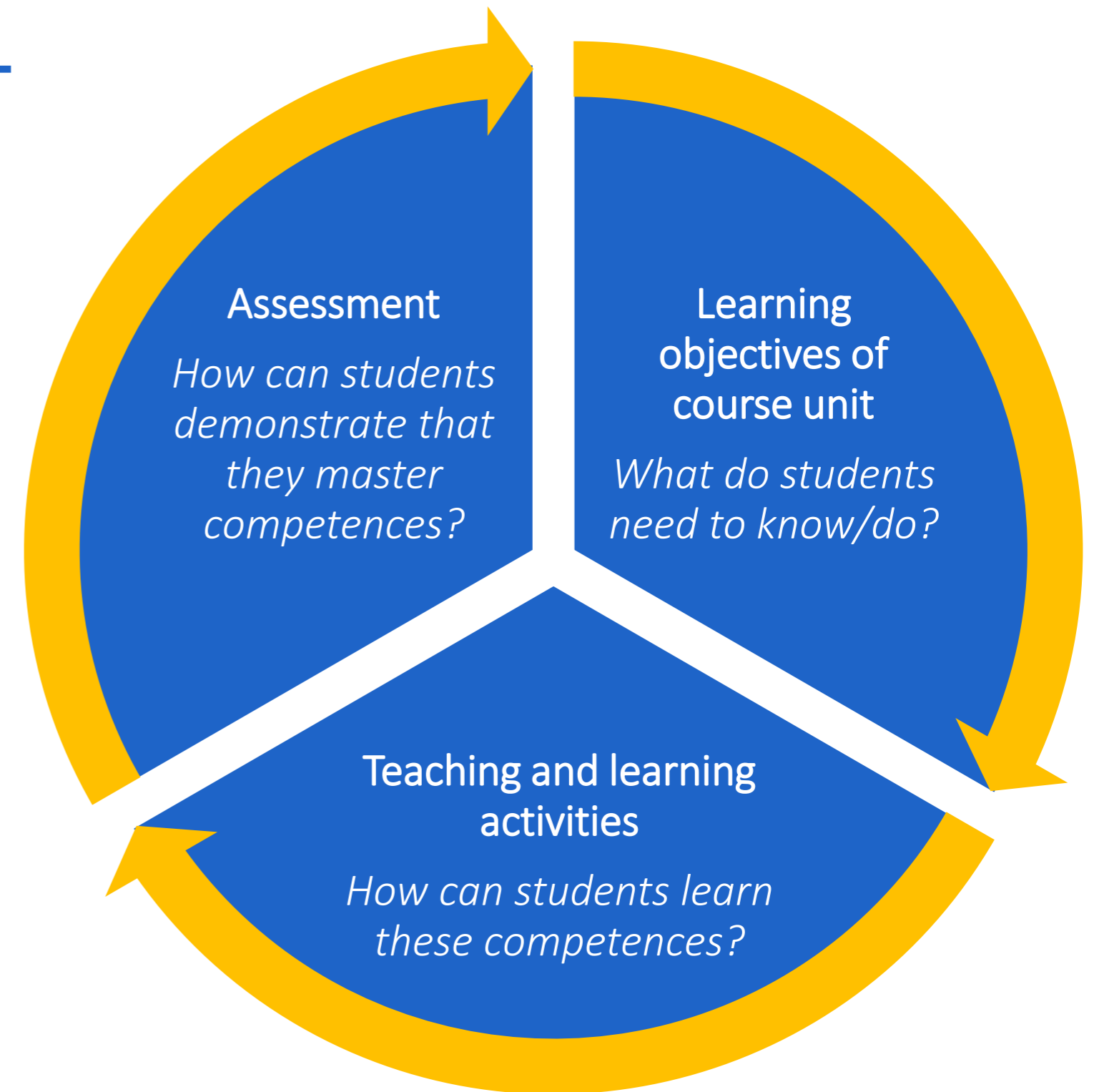
Learning outcome: Short service

Teaching and learning activities: Lecture

Assessment: Oral exam
“Summing up international badminton players who have an effective short service”

CONSTRUCTIVE ALIGNMENT

= A principle used for devising teaching and learning activities, and assessment tasks, that directly address the intended learning outcomes (ILOs).



CONSTRUCTIVE ALIGNMENT: THEORETICAL BACKGROUND

Constructivist learning theory

(Snowman & Biehler, 2003)

The view that meaningful learning is the **active creation of knowledge structures** rather than a mere transferring of objective knowledge from one person to another



Instructional design

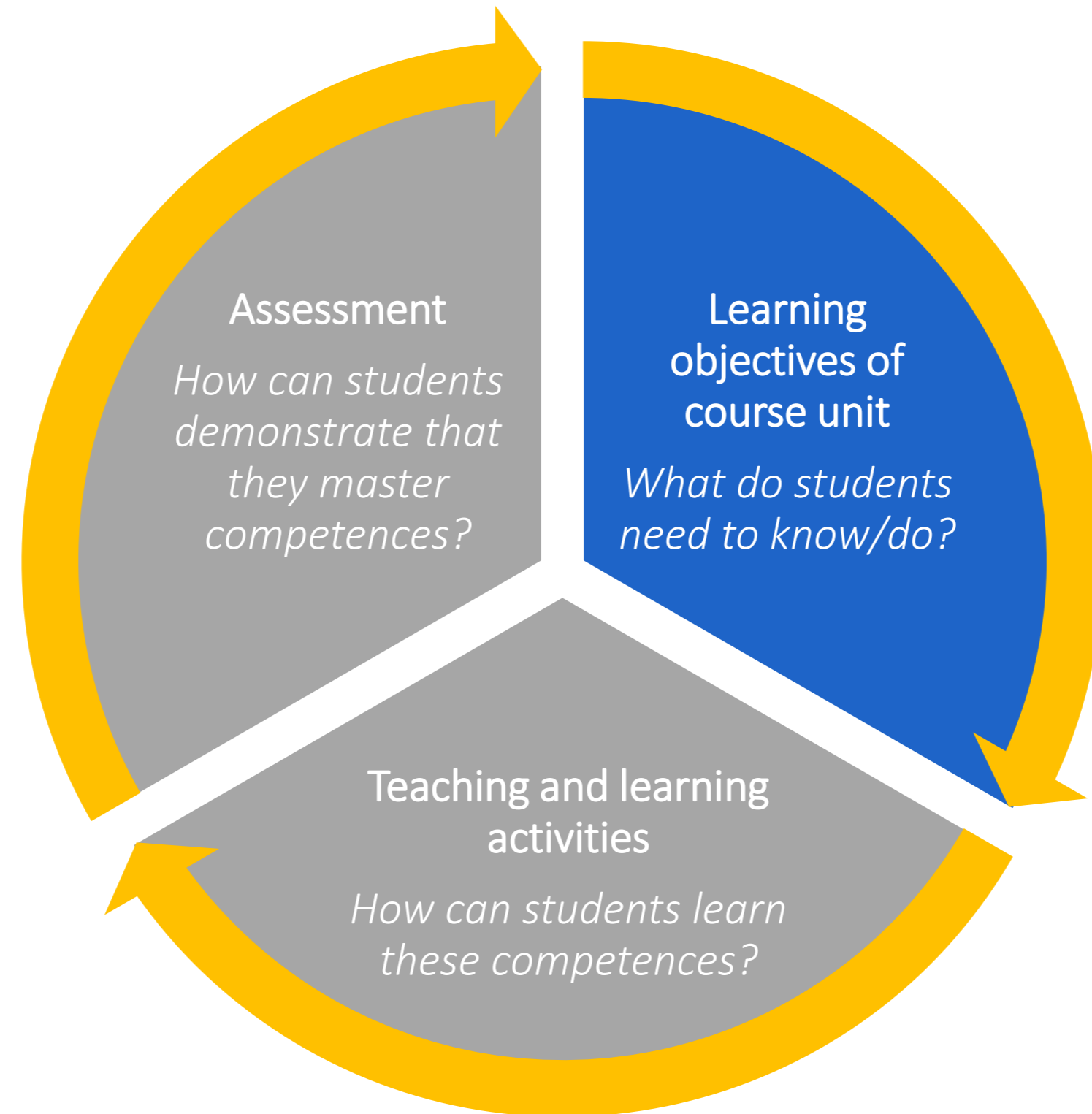
(e.g., Gustafson, 1996)

- The practice of systematically designing, developing and delivering instructional products and experiences.
- The process consists of
 - (a) determining the state and needs of the learner;
 - (b) defining the end goal of instruction;
 - (c) creating an "intervention";
 - (d) the outcome of this instruction may be directly observable.

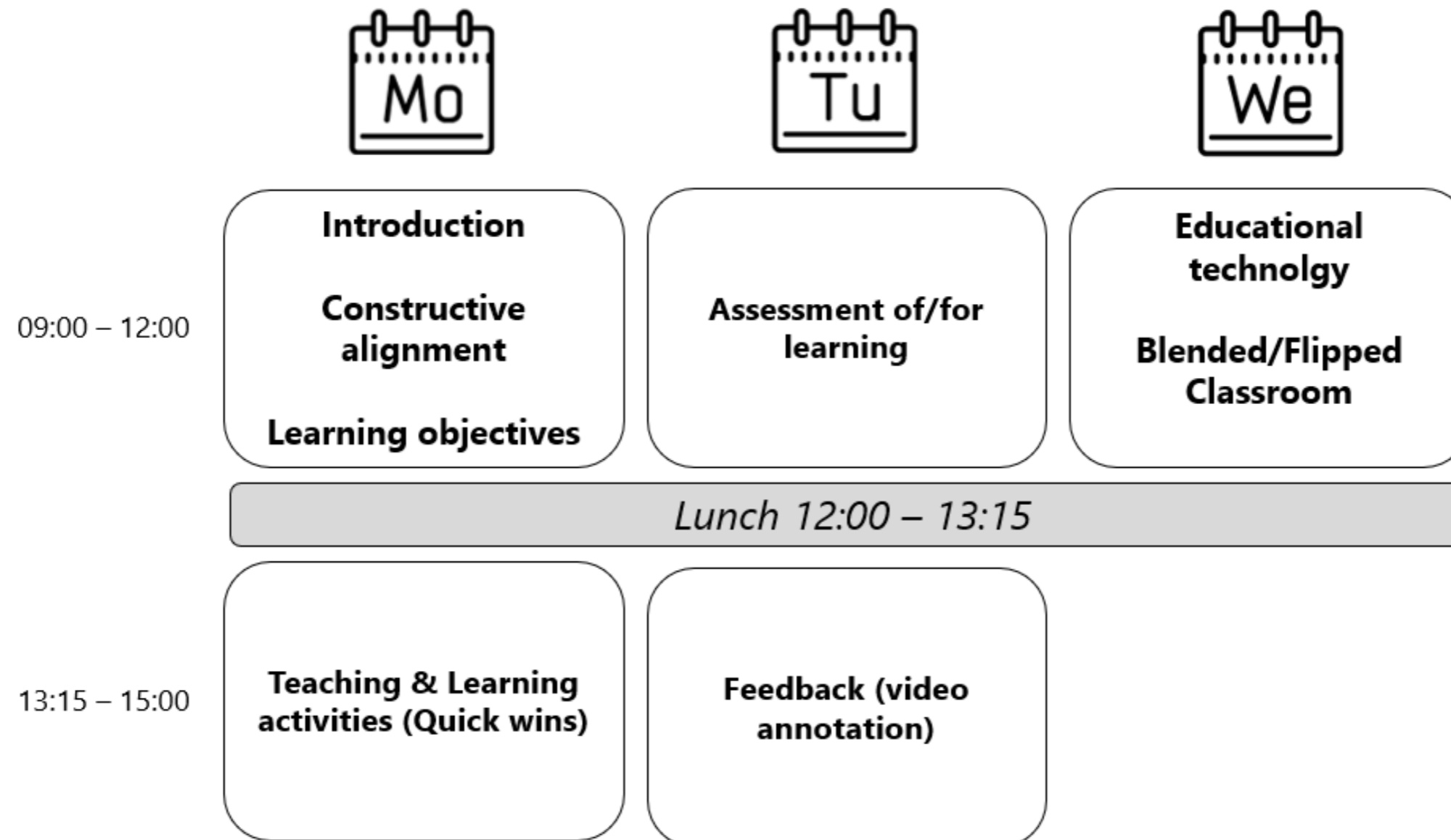


Constructive alignment represents a marriage of the two thrusts, constructivism being used as a framework to guide decision-making at all stages in instructional design.

CONSTRUCTIVE ALIGNMENT



PLANNING (CONSTRUCTIVE ALIGNMENT AS BASIS)



LEARNING OBJECTIVES/
FINAL COMPETENCES OF
YOUR COURSE



see the forest
for the trees.

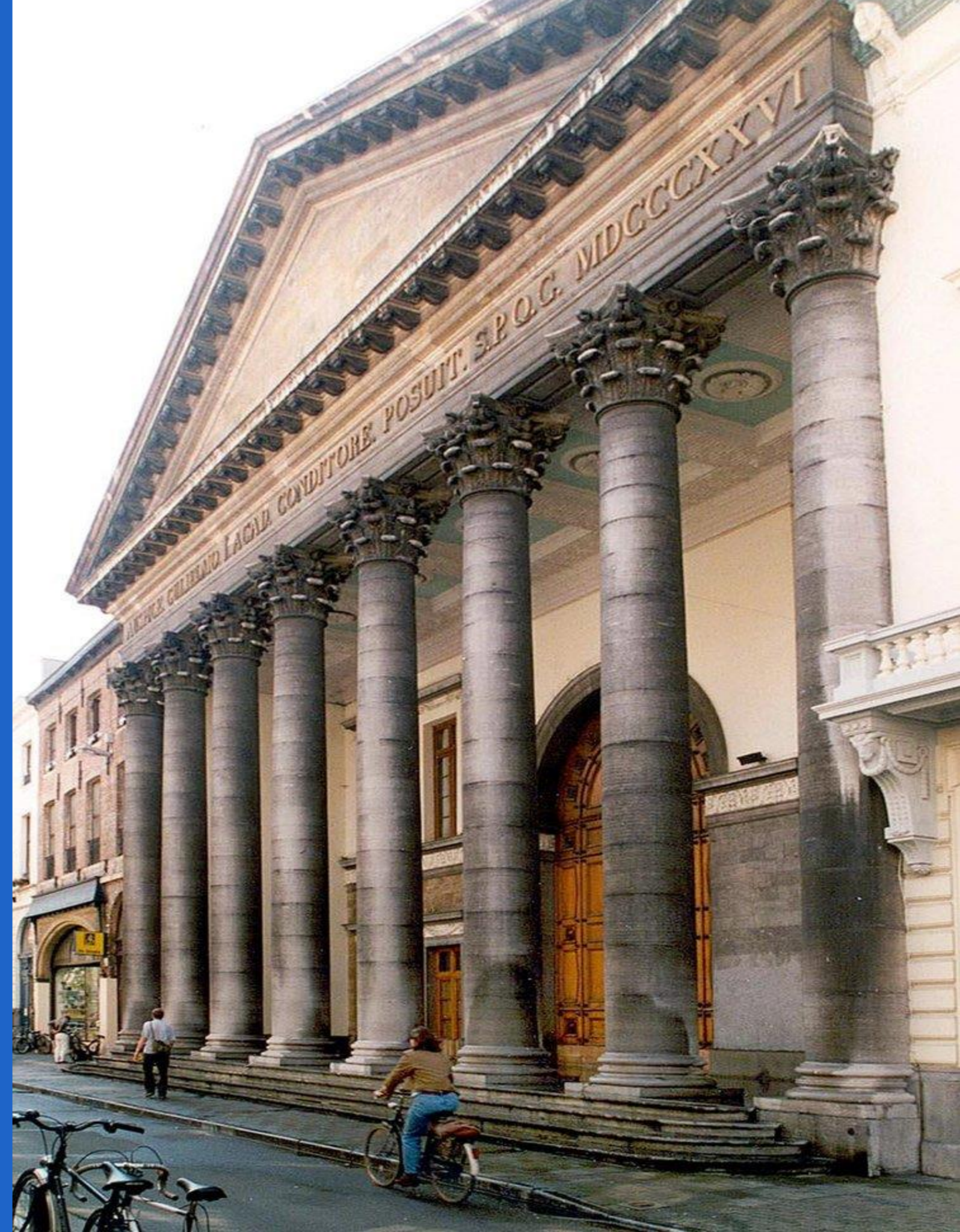
- Learning objectives: first class session + beginning of each lesson
- Link with other course units in the study programme
- Link with competences formulated on University level



Learning at university level leads to ...



Go to menti.com and enter the code on the screen, OR:





Europe

*Dublin Descriptors (2003)
/European Qualifications
Framework (EQF, since 2005)*

- Why? Equivalent study programmes in different European countries (“Erasmus”) + differences bachelor-master
- Generic statements of typical expectations of achievements and abilities in higher education: (1) Knowledge and understanding; (2) Applying knowledge and understanding; (3) Making judgements; (4) Communication; and (5) Lifelong learning skills.



Flanders

*Flemish Qualifications
Framework + Domain-specific
learning outcomes*



Ghent University

Competence model

Six competence fields: (1) Competency in one or more disciplines (Knowledge); (2) Scientific competences (research and design); (3) Intellectual competency; (4) Competency in collaborating and communication; (5) Social Competency; and (6) Profession-specific competency.

Study Programmes

Programme competences

In competence matrix: Which course units tackle which competences categorized in the six fields?

Course unit

Learning outcomes

What students are required to accomplish as a result of the learning process.

GHENT UNIVERSITY: COMPETENCE MODEL

<p>Area of competencies 3: intellectual competency <i>Academics are competent at analysis, reasoning and critical reflection, and in acquiring an aptitude for life-long learning and multiperspectivism. These are competencies which are acquired or academically perfected within the context of a single discipline, and then applied in a wide range of research situations.</i></p>	
3.1 Analyze abstract as well as concrete problems.	3.1 Independently and critically analyze new and complex problems.
3.2 Draw conclusions on the basis of scholarly knowledge for abstract and concrete problems.	3.2 Independently come to conclusions for complex problems.
3.3 Adopt a point of view on an abstract or concrete problem	3.3 Adopt a point of view on a complex problem and critically weigh various points of view.
3.4 Critically reflect on one's own thinking, learning, decision-making and acting and adapt these as a result.	3.4 Independently and systematically reflect on one's own thinking and learning process, decision-making and acting and on that of others, and as a result translate this reflection into adequate solutions.
3.5 Learn to cultivate a research attitude and an aptitude for life-long learning.	3.5 Practise life-long learning and continually strive to develop new ideas or processes.
3.6 Approach a problem from several perspectives (i.e. multiperspectivism)	3.6 Systematically approach problems from several perspectives (i.e. multiperspectivism)

Full version of document, see Ufora.

STUDY PROGRAMME: COMPETENCE MATRIX

Competences	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5	4.1	4.2	4.3	5.1	5.2	6.1	6.2	
General courses																						
Quantum Field Theory (6 ects)	X	X		X								X	X									
Astrophysical Simulations (6 ects)	X	X	X	X			X	X				X	X		X	X	X					
Computational Physics (6 ects)	X	X		X			X					X	X		X	X						
Solid State and Nano Physics (6 ects)	X	X		X		X	X					X							X			
Subatomic Physics II (6 ects)	X	X		X		X		X				X										
Master's Dissertation (30 ects)		X	X	X	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X
Elective courses																						
Minor Research (60 ects)		X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X
Minor Education (60 ects)							X				X	X	X	X	X	X		X	X	X	X	X
Minor Economics and Business Administration (60 ects)			X								X		X	X	X	X		X	X	X	X	X

COURSE UNIT: LEARNING OBJECTIVES

WHY?

- Teacher/teaching staff: starting point for decisions about the design of the learning environment (teaching & learning + assessment strategies)
- Transparent communication of course objectives: guide students' learning activities

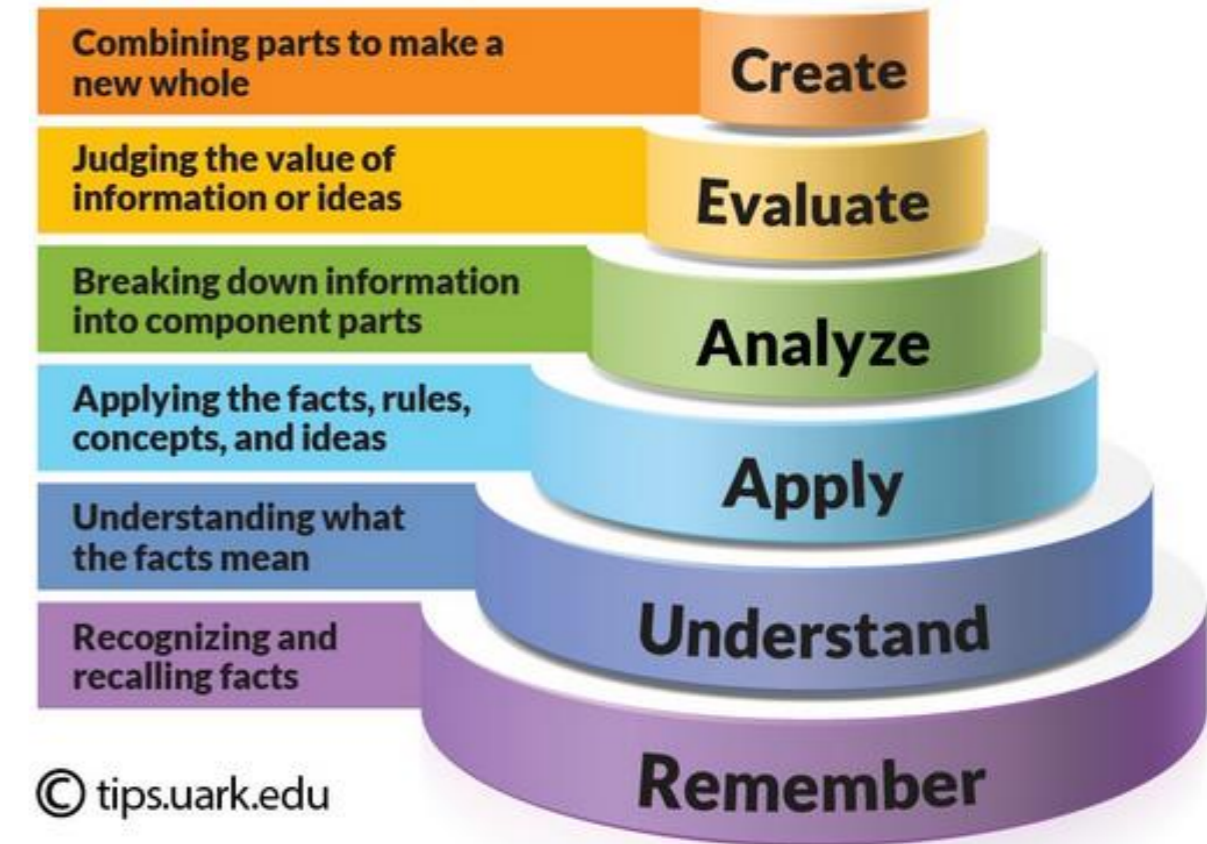
HOW?

- Guideline UGent: between 5 and 15 clear learning objectives/per course unit.
- Begin the formulation with **“By the end of my course unit, the student will be able to...”**
- Make the contents explicit: Define the subject matter as concretely as possible
- Use **active verbs** to describe behaviour: ~~to know, to gain insight into~~ vs. to calculate, label, order, construct, explain, defend (see link with Bloom's taxonomy, next slide)
- Keep **VASCULAR** in mind (next slides)

Using Bloom's Taxonomy to Write Effective Learning Objectives

Bloom's Level	Key Verbs (keywords)	Example Learning Objective
Create	design, formulate, build, invent, create, compose, generate, derive, modify, develop.	<i>By the end of this lesson, the student will be able to design an original homework problem dealing with the principle of conservation of energy.</i>
Evaluate	choose, support, relate, determine, defend, judge, grade, compare, contrast, argue, justify, support, convince, select, evaluate.	By the end of this lesson, the student will be able to determine whether using conservation of energy or conservation of momentum would be more appropriate for solving a dynamics problem.
Analyze	classify, break down, categorize, analyze, diagram, illustrate, criticize, simplify, associate.	<i>By the end of this lesson, the student will be able to differentiate between potential and kinetic energy.</i>
Apply	calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, perform, present.	<i>By the end of this lesson, the student will be able to calculate the kinetic energy of a projectile.</i>
Understand	describe, explain, paraphrase, restate, give original examples of, summarize, contrast, interpret, discuss.	<i>By the end of this lesson, the student will be able to describe Newton's three laws of motion to in her/his own words</i>
Remember	list, recite, outline, define, name, match, quote, recall, identify, label, recognize.	<i>By the end of this lesson, the student will be able to recite Newton's three laws of motion.</i>

Higher Order thinking skills



© tips.uark.edu

Lower Order thinking skills



Not familiar with Bloom's taxonomy, you can check

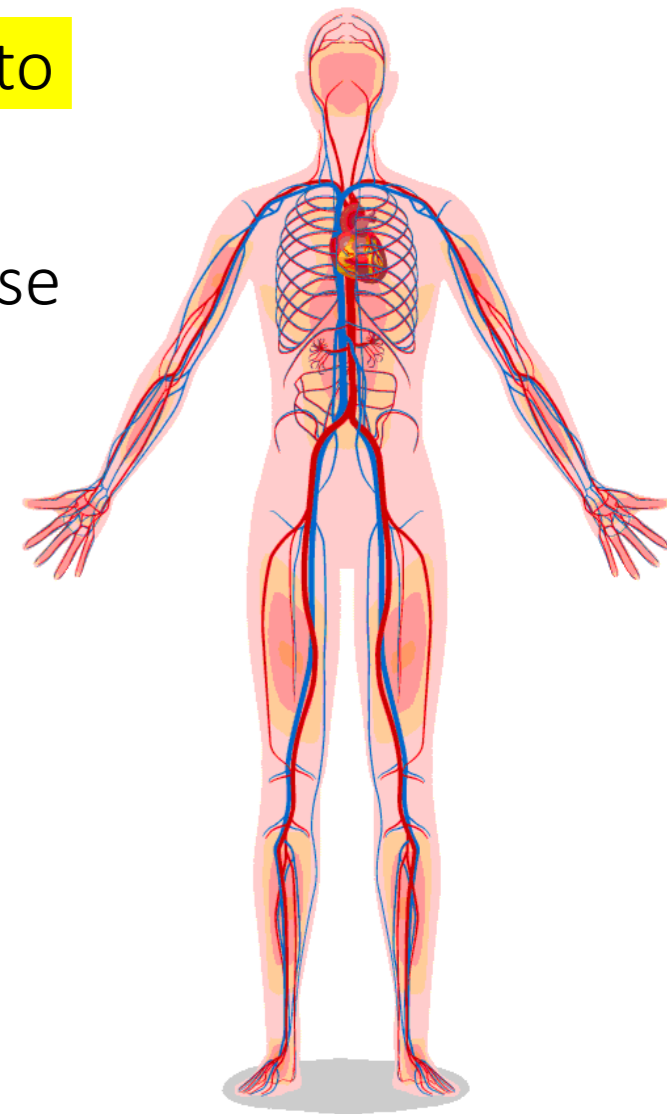
<https://tips.uark.edu/using-blooms-taxonomy/>

COURSE UNIT: LEARNING OBJECTIVES



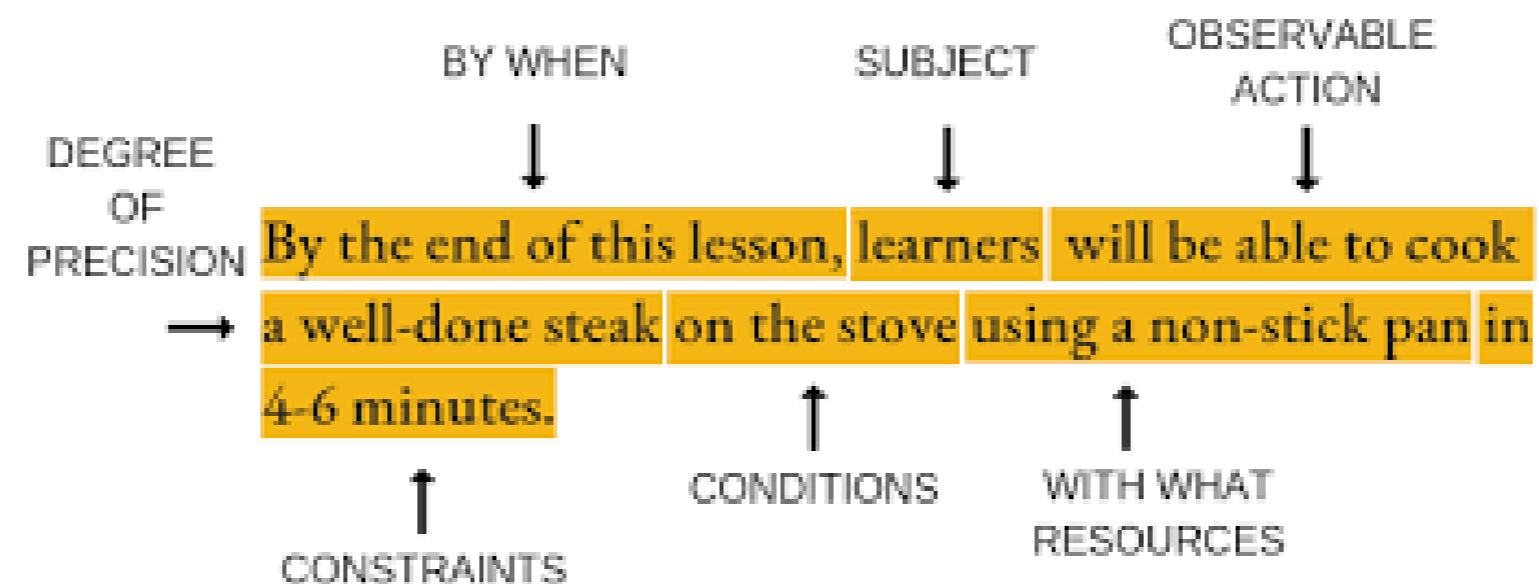
Prof. Sally Brown

- Verifiable: Can we tell **when** they've been **achieved**?
- Action orientated: Do they lead to **real** and **useful** activity?
- Singular: i.e. do **not combine two or more** into one learning objective, **making it difficult to assess** if differently achieved?
- Constructively aligned: **Alignment** between objectives, how it is taught/learned, how these are assessed;
- Understandable: i.e. using language codes that are meaningful to all stakeholders?
- Level-appropriate: **Suitable** and **differentiable** between 1st year, 2nd year, 3rd year, Master students? 🐶 🐱 🚶 🏃
- Affective-inclusive: i.e. not just covering actions but capabilities in the **affective** domain?
- Regularly reviewed: **Not just stuck in history**, and always fit-for-purpose.



LEARNING OBJECTIVES: EXERCISE

1. Surf to <https://studiegids.ugent.be/2020/EN/>.
2. Click on 'By faculty' and look for the UGent faculty that is most related to yours.
3. Look in the Bachelor-Master programmes to the study programme and, after that, the course unit(s) that is/are most related with yours.
4. Look to the categories: Position of the course, Contents, (Initial and) Final competences.



LEARNING OBJECTIVES: EXERCISE



COURSE CATALOGUE

Home > Course catalogue

1

- [By faculty](#)
- [By area](#)
- Courses Doctoral Schools
- Ghent University Global Campus
- Enrolment and administration

2

Select
"your"
faculty

- [By faculty](#)
- Faculty of Arts and Philosophy
- Faculty of Law and Criminology
- Faculty of Sciences
- Faculty of Medicine and Health Sciences
- Faculty of Architecture
- Faculty of Economics and Business Administration
- Faculty of Engineering and Architecture
- Faculty of Bioscience Engineering
- Faculty of Political and Social Sciences
- Faculty of Pharmaceutical Sciences
- Faculty of Veterinary Medicine
- Faculty of Psychology and Educational Sciences
- Faculty of Arts and Philosophy
- Faculty of Law and Criminology
- Faculty of Sciences
- Faculty of Medicine and Health Sciences
- Faculty of Engineering and Architecture
- Faculty of Economics and Business Administration
- Faculty of Bioscience Engineering
- Faculty of Political and Social Sciences
- Faculty of Pharmaceutical Sciences
- Faculty of Veterinary Medicine
- Faculty of Psychology and Educational Sciences



3

Bachelor/
Master
(can be
different in
Belgium vs.
Poland)

Bachelor's Programmes

Dutch programmes

- [Bachelor of Science in Biochemistry and Biotechnology](#)
- [Bachelor of Science in Biology](#)
- [Bachelor of Science in Chemistry](#)
- [Bachelor of Science in Computer Science](#)
- [Bachelor of Science in Geography and Geomatics](#)
- [Bachelor of Science in Geology](#)
- [Bachelor of Science in Mathematics](#)
- [Bachelor of Science in Physics and Astronomy](#)

Faculty of Sciences

Academic Year 2020-2021

Programme types

[Bachelor's Programmes](#)

[Master's Programmes](#)

[Master's Programmes in Teaching](#)

[Abridged Master's Programmes in Teaching](#)

[Subsequent Master's Programmes](#)

4

Select a
course unit
that fits
with yours

5

If you prefer, you can try to
make connection with the
Ugent responsible lecturer by
sending an email.

Bachelor of Science in Chemistry

Faculty of Sciences

Academic Year 2020-2021

Complete programme (180 credits) version 7

Language of instruction Dutch

1 - General Courses

No. Course	Ref	Semester	Mt1	Mt2	Dept.	Instructor	Contact	Study	Crdt
1 General Chemistry		J	1		WE06	Isabel Van Driessche	75	240	9
2 Chemical Structures		J	1		WE07	José Martins	87.5	260	9
3 Mathematics: Basic Concepts		1	1		WE02	Carol Zamfirescu	60	180	6
4 Mathematics: Advanced Techniques		2	1		WE02	Marnix Van Daele	60	180	6
5 Physics: Mechanics		1	1		WE05	Matthieu Boone	52.5	120	4
6 Physics: Waves, Optics and Thermodynamics		2	1		WE05	Natalie Jachowicz	42.5	135	5
7 Programming	UKV	1	1		WE02	Peter Dawyndt	50	150	5

- legend
- hard copy v7
- hard copy v4
- course schedule 1st semester
- course schedule 2nd semester

Formulate new or refine the learning objectives/final competences for your course unit(s). Formulate **at least** 3 learning objectives, and try to do this on **3** different levels of Bloom's Taxonomy.

By the end of my course unit, the student will be able to ...

Bloom's Level	Key Verbs (keywords)	
Create	design, formulate, build, invent, create, compose, generate, derive, modify, develop.	
Evaluate	choose, support, relate, determine, defend, judge, grade, compare, contrast, argue, justify, support, convince, select, evaluate.	
Analyze	classify, break down, categorize, analyze, diagram, illustrate, criticize, simplify, associate.	
Apply	calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, perform, present.	
Understand	describe, explain, paraphrase, restate, give original examples of, summarize, contrast, interpret, discuss.	
Remember	list, recite, outline, define, name, match, quote, recall, identify, label, recognize.	

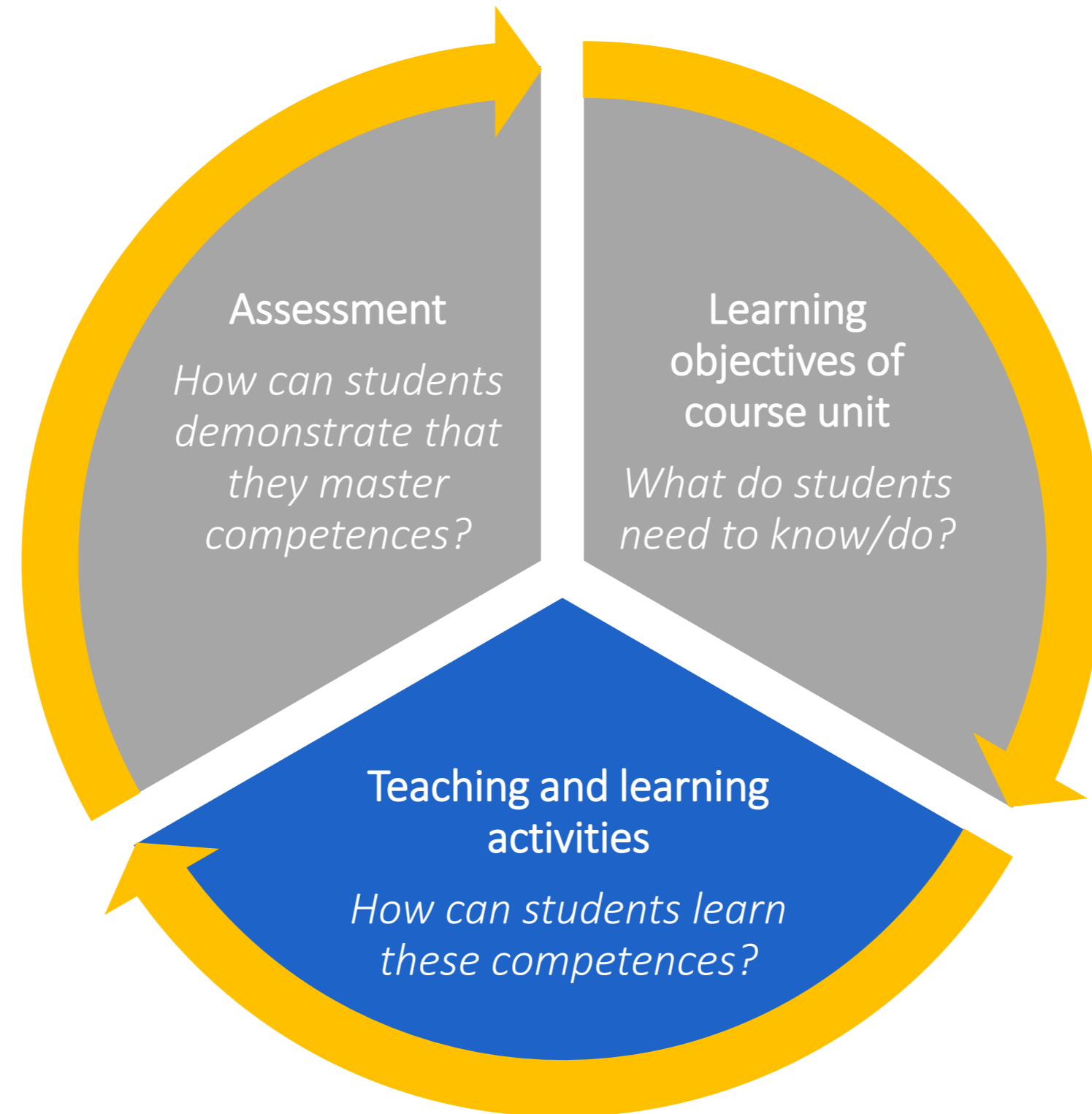


Time for
lunch

Lunch Break

Start@13:15

CONSTRUCTIVE ALIGNMENT





Low Middle Ages. 14th century. Henry of Germany delivering a lecture to students in the University of Bologna, ca. 1360-1390.

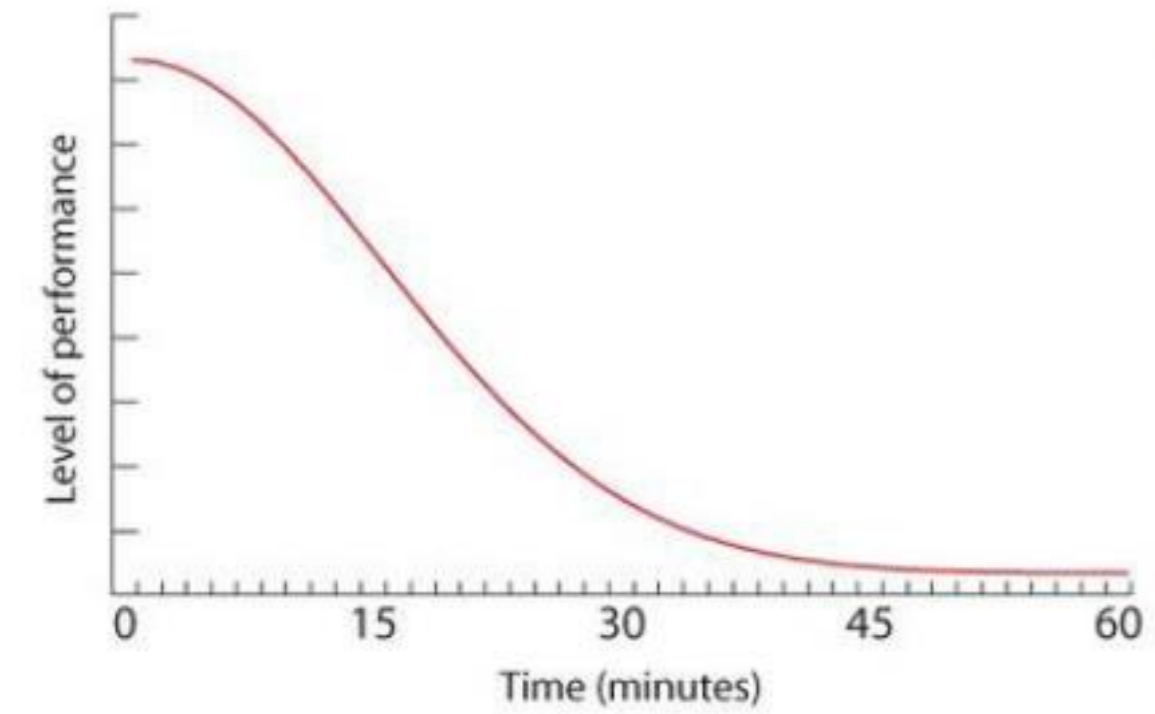


Figure 1 Students' attention weakens if

they only have to listen

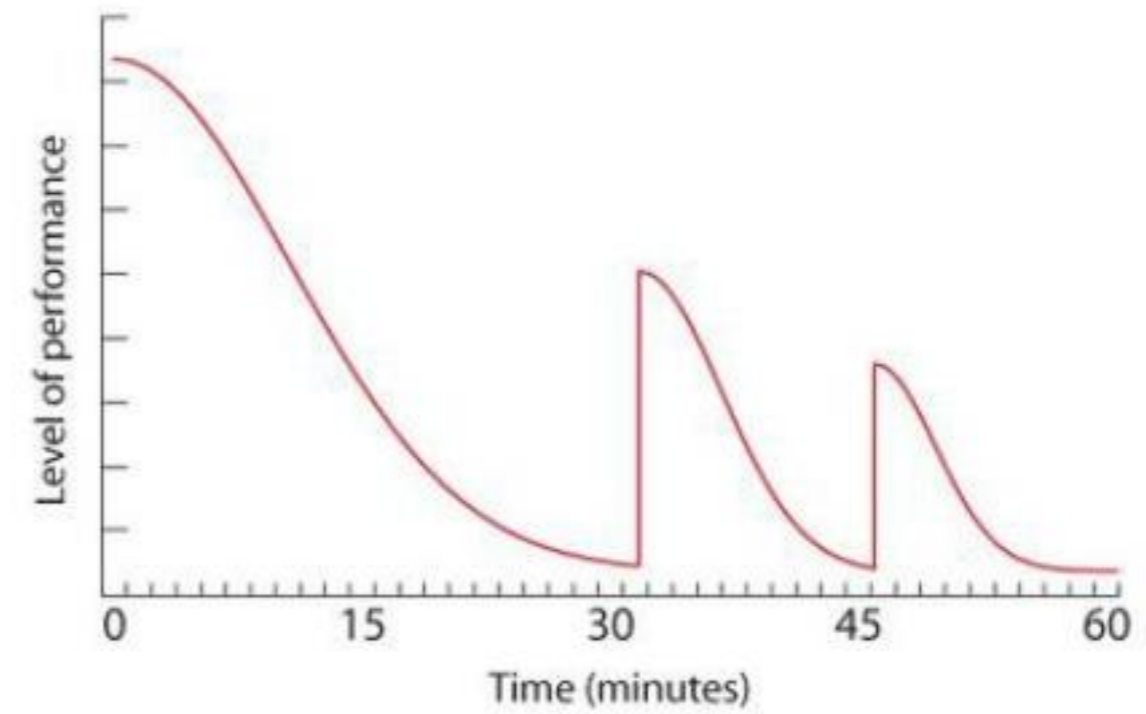


Figure 2 Students remain more attentive if there is enough variation

EDUCATION

Farewell, Lecture?

Eric Mazur

A physics professor describes his evolution from lecturing to dynamically engaging students during class and improving how they learn.



On the Use and Misuse of Lectures in Higher Education

Henk G. Schmidt*, Stephanie L. Wagener, Guus A.C.M. Smeets, Lianne M. Keemink,
Henk T. van der Molen

Institute of Psychology, Erasmus University Rotterdam, the Netherlands

Available online 8 December 2015

Lecturing is by far the most used didactic instrument in teaching students in higher education. The purpose of this paper was to address some of the shortcomings of this pedagogy and to suggest ways to make them more effective. Lectures seem to fall short in a number of ways: (a) lectures are poor at promoting critical thinking, (b) students attend lectures in limited numbers, and (c) while present engage themselves only to a limited extent, (d) students loose interest in the subject

...

ACTIVE TEACHING: WHAT IS THE ACTIVO PROJECT?

With the Activo project, Ghent University aims for a university-wide implementation of active teaching.

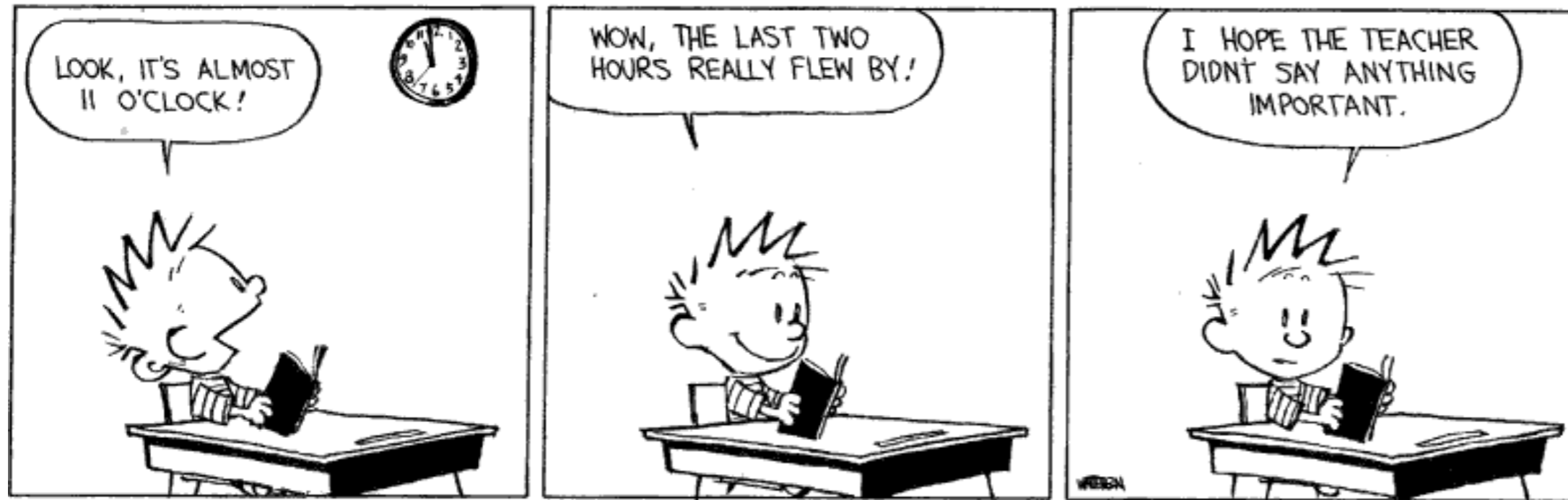
ACTIVOS and Antennae

Since August 2018 the Department of Educational Policy has a ACTIVO team consisting of four staff members or "ACTIVOS" The ACTIVOS are [Astrid Vermeersch](#), [Bieke De Vrieze](#), [Evi Van Mol](#) & [Sarah Stock](#). Together, they have:

- shaped the methodology and corresponding tools;
- finetuned the methodology and implemented it in cooperation with four pilot study programmes (BSc in Biomedical Sciences, BSc in Engineering Technology, BSc in Bioindustrial Sciences and BSc in Criminology);
- started working with four additional pilot study programmes (BSc in Mathematics, Master's Programme in Teaching, BA in Linguistics and Literature and BSc in Business Engineering) in order to involve a broader spectrum of academic disciplines.

Since 2019 **seven ACTIVO Antennae** were hired to support and help implement the project university-wide. The Antennae are the faculties' first point of contact with regard to active teaching. The role of the four ACTIVOS at central level is more focused on development and coordination. Together, the ACTIVOS and the Antennae facilitate **the implementation of active teaching at study programme level**. They aim for a **tailor-made approach** that suits the different faculties' culture and identity. The study programmes then go to work with the faculty framework and flesh it out with their own smaller-scaled initiatives (e.g. the use of active didactic methods such as post-its or voting systems) or with more large-scale innovations (e.g. case teaching, learning pathways). The Department of Educational Policy (in Dutch: DOWA) inspires via *good practices* and supports the process with an offer of professional development initiatives.

ACTIVE LEARNING?!



There is no one “correct” way to achieve active learning in the classroom ...



When a colleague wants to activate his/her students, I would advise him/her ...



padlet

Typ 1 advise you will give to your colleague in Padlet

Scan the QR code or surf to the link:
<https://padlet.com/mastersofdidactics/68s8c2lvzgh4jxws>



A RANGE OF ACTIVE LEARNING POSSIBILITIES

Quick wins

🕒 < Few minutes

- Question-answer
- Think-pair-share
- Presenting statements
- Video with assignment
- ...

- Jigsaw
- Debate
- Peer tutoring
- Learning path
- ...

Extensive interventions

🕒 ≥ Entire class period

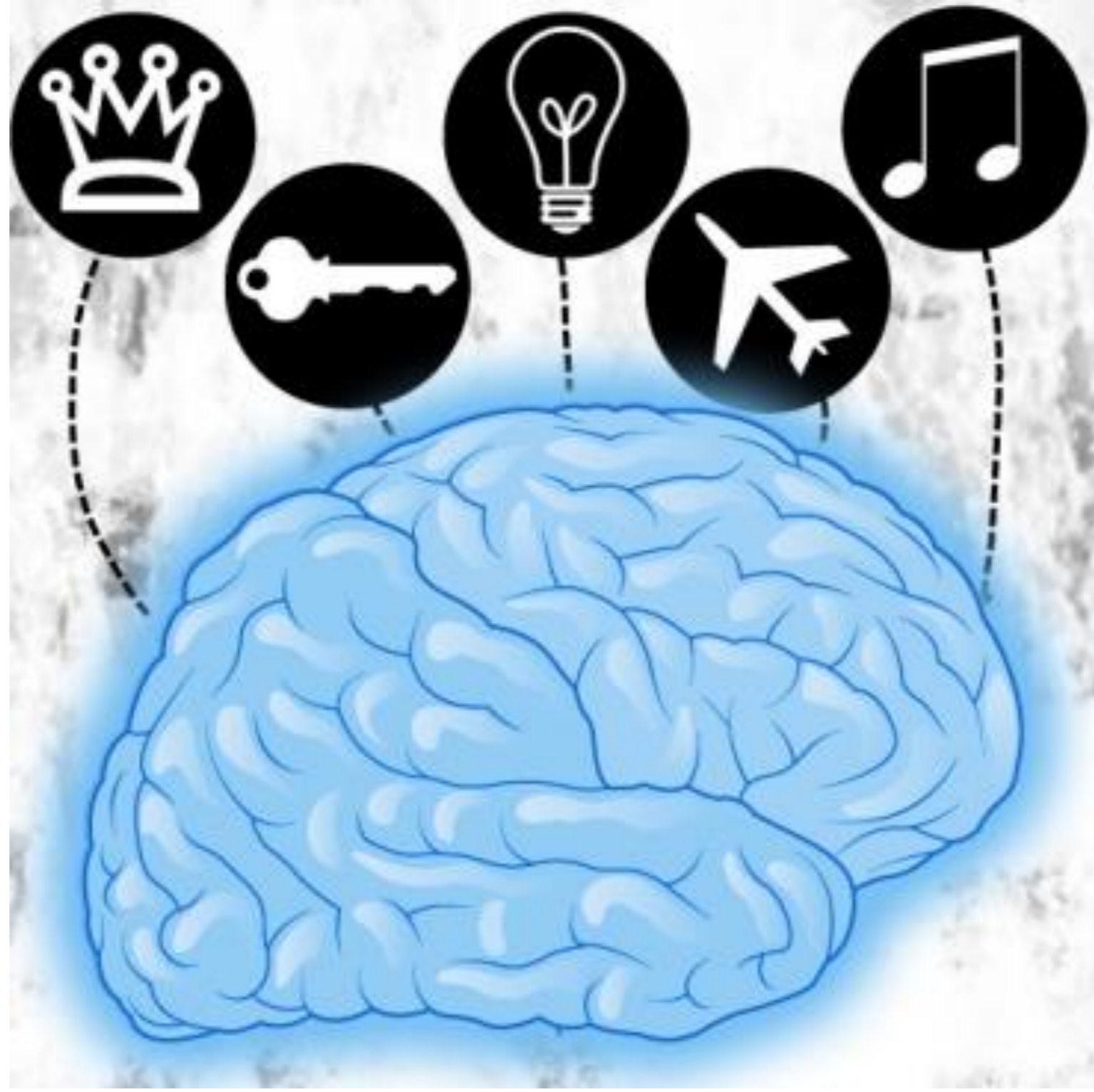
See Ufora

- Problem-based learning
- Flipped classroom
- Practica
- Labo's
- ...

PRIOR KNOWLEDGE



Background 'activating prior knowledge'



PRIOR KNOWLEDGE

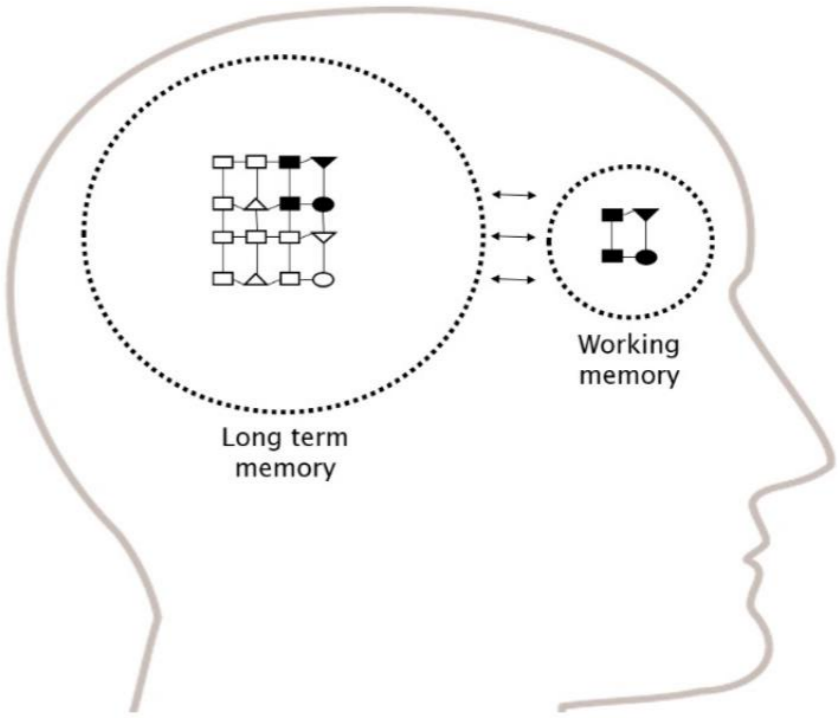
Working memory
= small amount of information that can be held in mind and used in the execution of cognitive tasks

Long-term memory
= the vast amount of information saved in one's life

Cognitive load theory
(Sweller, 1994)



Call up students' prior knowledge
New learning is constructed on prior knowledge

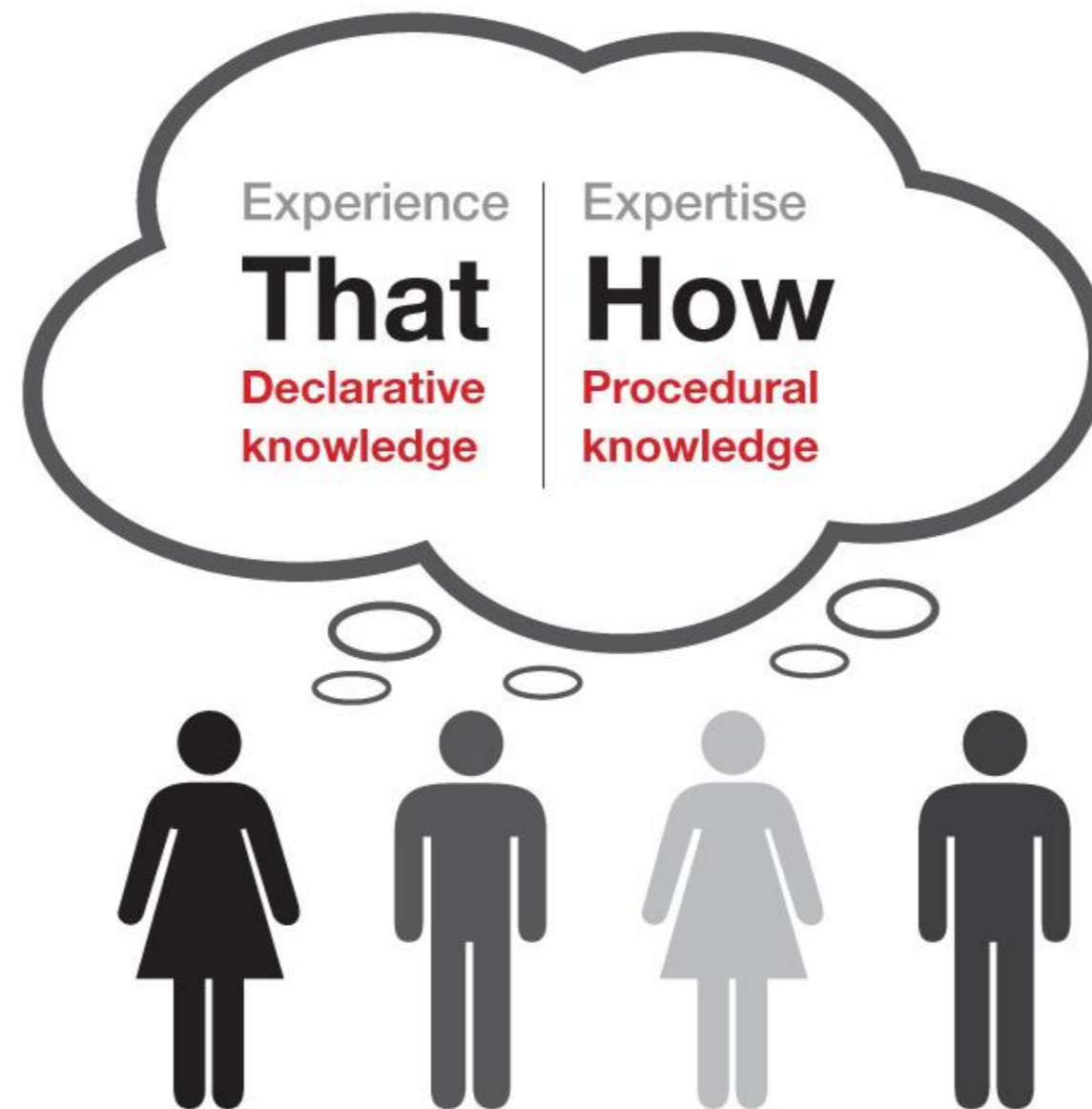


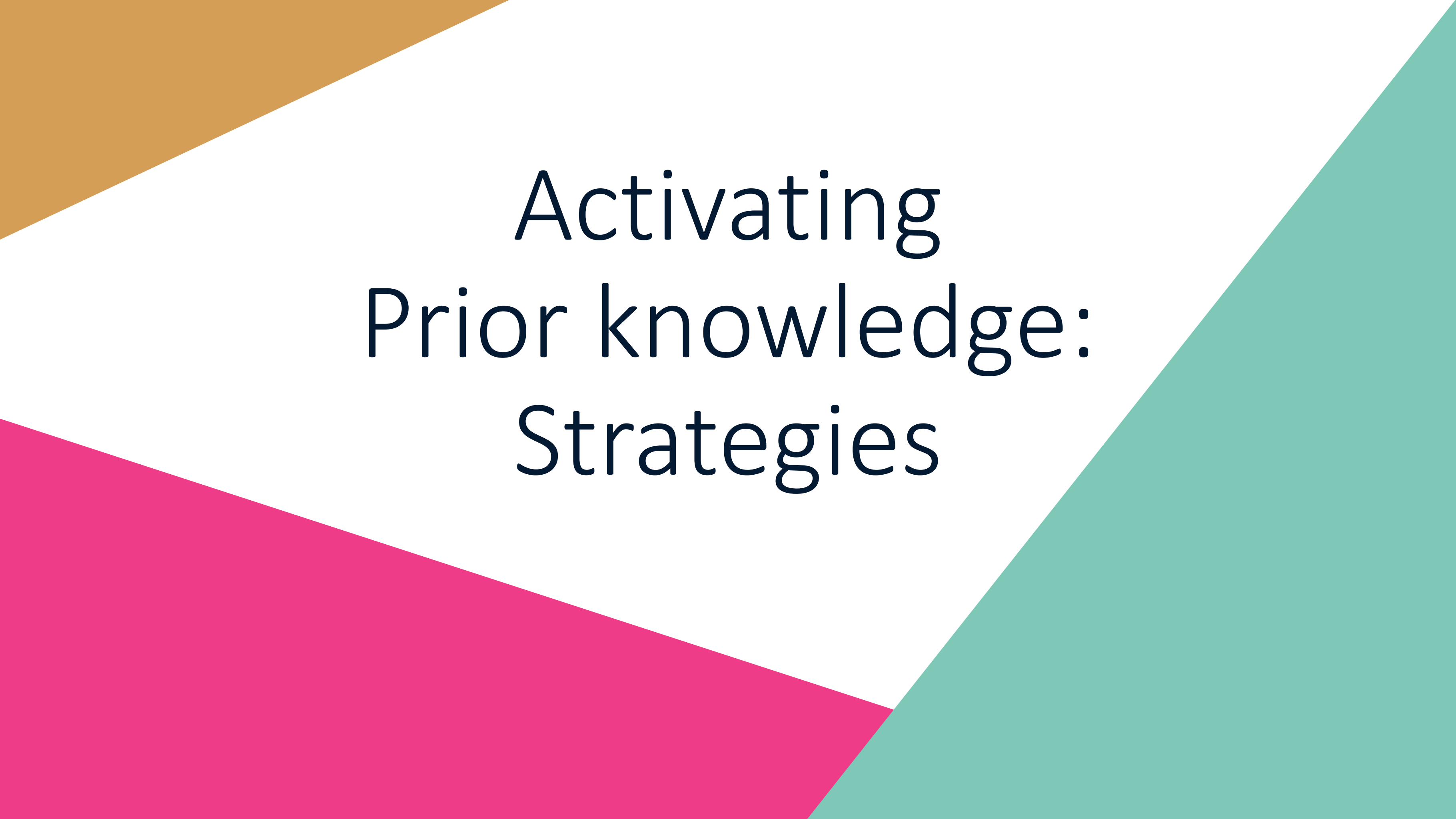
WHAT IS THE PROBLEM HERE?

"But they said they knew this!" (Prof. Vandenberghe)

Recently I gave the course "Data analysis" for the first time. During the first lesson I asked the students which statistical tests they already knew from the introductory statistics lessons (prior to my course unit). The students said they had seen a number of standard tests, such as the t-test, the chi-square and ANOVA. In the first assignment I gave, I had a lot of confidence that it was at the right level: the students were given a data set for which they had to choose and apply the right statistical test. Then they had to analyze the data and interpret the results. For me this was really a basic test, but I was really unpleasantly surprised when I got the assignment back. Some students chose an inappropriate test, while other students chose the right test but had no idea how to apply it. I don't understand it: they said they knew this, but it is clear from their work that they do not really understand it.

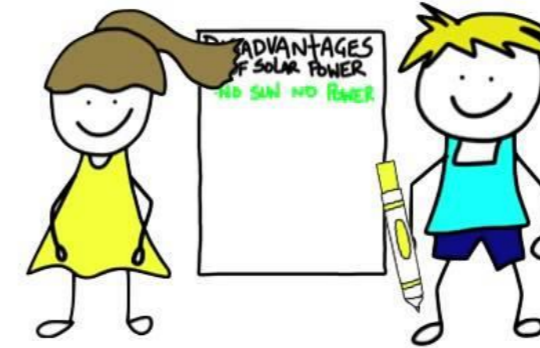
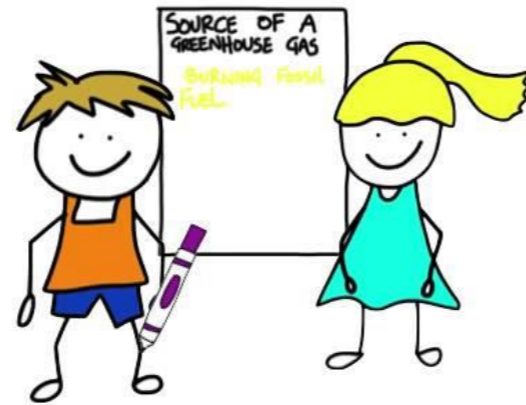
DECLARATIVE VERSUS PROCEDURAL KNOWLEDGE





Activating Prior knowledge: Strategies

CAROUSEL BRAINSTORM



<https://www.youtube.com/watch?v=zZxaS7v1-jo>

Obama: Sneeze into Your Sleeve, Not Your Hands

BY STEPHANIE CONDON
UPDATED ON: SEPTEMBER 1, 2009 / 5:03 PM / CBS NEWS



(AP Photo/Charles Dharapak)

IN THE NEWS...

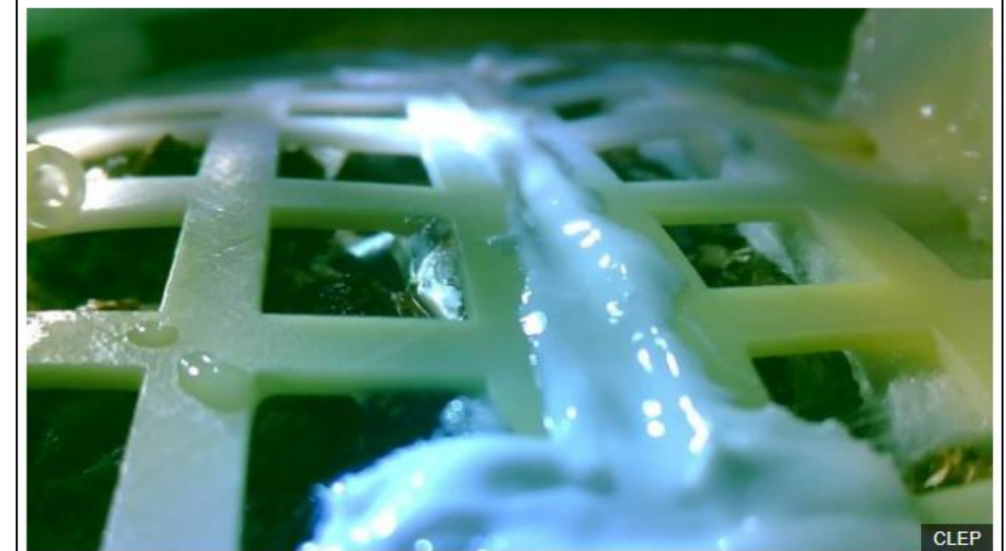


China's Moon mission sees first seeds sprout

15 January 2019

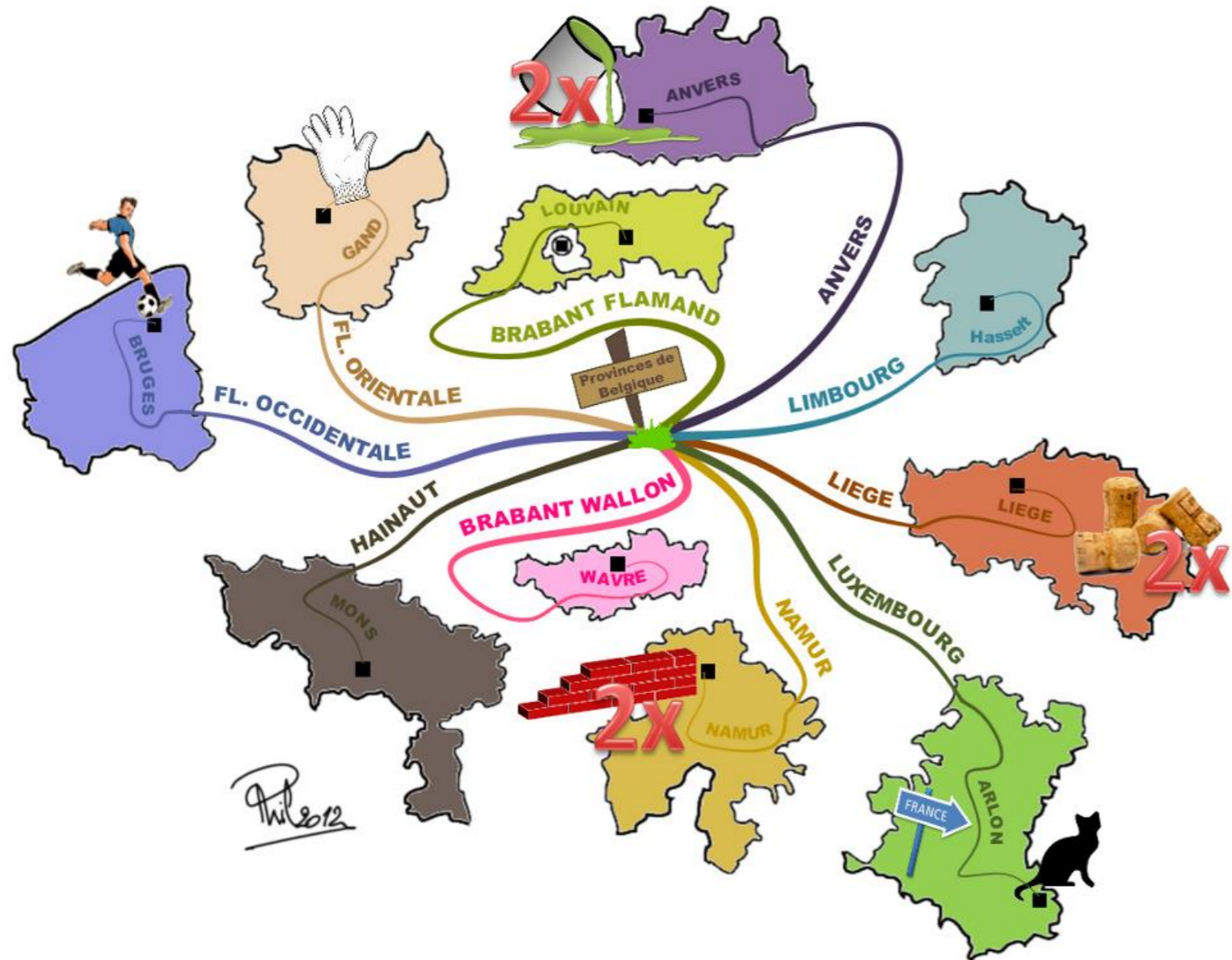


China Moon mission



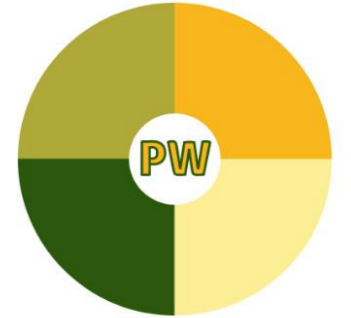
Cotton sprouts seen close-up under a protective cover on board the Moon lander

CONCEPT/MIND MAP



PRIOR KNOWLEDGE: EXERCISE (🕒 10 MIN.)

- Carousel brainstorm
- Metaplan
- Concept maps
- Focused freewriting
- In a context/In the news
- Initial Measurement
- A picture is worth a thousand words
- Lie beast
- Knowing, want to know, what have I learned?
- Word chain
- Interview
- Who/What am I?



Assignment:

- 1) Check the bundle 'Inspiration_Activating Prior Knowledge' on Ufora (🕒 10 min.)
- 2) Discuss with your colleagues which strategy you want to use in your lesson? How would you integrate this strategy?



PRESENT YOUR STRATEGY TO EACH OTHER



15-minute break





QUICK WINS DURING A LECTURE



Statements

Use (controversial) statements during your lectures. In your presentation, you can implement slides with statements. Ask the students to stand up if they agree. Ask the students to stay seated when they disagree. It shows you immediately how the opinions in your group are divided, and the students were able to stretch their legs.



Disagree



Agree

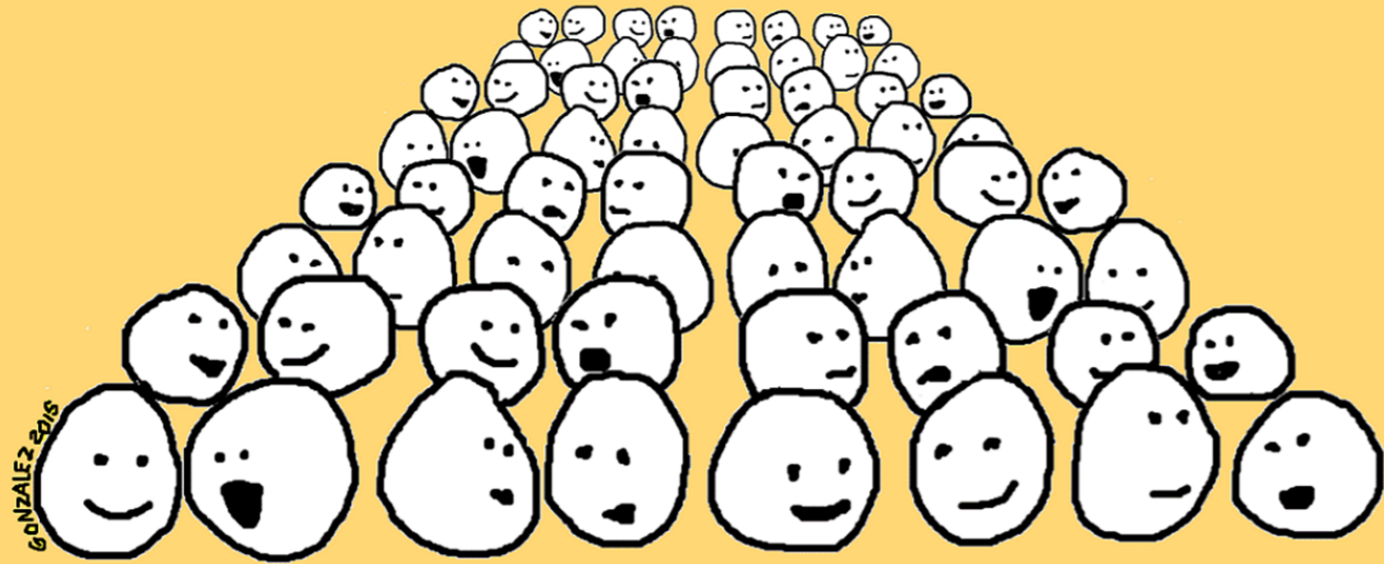
Divide large groups

- When teaching large groups, you can ask questions and assign tasks during class by splitting the group into several smaller groups.
- For example, when watching a video you can ask the students on the right side of the auditorium, those in the middle and those on the left side, to focus on a different question about the video. In this way, the discussion afterwards becomes richer because students can concentrate on one question.



Buzz group

- = A small, intense **discussion group**
- = Discussion about a specific question, to activate prior knowledge, to link elements/concepts/ideas together, etc.
- = The plenary group is **subdivided into small groups**. Each or some subgroup(s) may present their ideas to the entire class group after their work in the smaller groups.



IN PRAISE OF THINK PAIR SHARE



The think, pair, share strategy is a **collaborative learning** technique that encourages individual participation and is applicable across all grade levels and class sizes. Students think through questions using three distinct steps:

Think: Students think independently about the question that has been posed, forming ideas of their own.

Pair: Students are grouped in pairs to discuss their thoughts. This step allows students to articulate their ideas and to consider those of others.

Share: Student pairs share their ideas with a larger group, such as the whole class. Often, students are more comfortable presenting ideas to a group with the support of a partner. In addition, students' ideas have become more refined through this three-step process.

QUICK WINS: EXERCISE (🕒 20 MIN.)

Assignment:

Group 1	Group 2	Group 3
	 	

- 1) You can choose which tool you can discover and take place in the correct corner.
- 2) Pair up with one colleague of the same group – discover the tool together (one participant = creating a teacher account; one participant = acting like a student) (🕒 20 min.)

Activity: Create in the tool an activity (video, quiz, questions) related to Serbia

Britt Adams
Maxime Moens
Martin Valcke

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