Teaching in Higher Education

26/11/2024

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Team

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Avant de commencer la formation :
**Un rappel ou une information sur votre formation doctorale**

Formation doctorale

Validation du doctorat par points et compétences
Doctorat = 180 points

- *Travail personnel de recherche* = **150 pts**

- *Activités et formations complémentaires* = **30 pts**
    - 3 objectifs majeurs (code de l'éducation)
        - conforter la culture scientifique des doctorants
        - préparer leur devenir professionnel dans le secteur public comme dans le secteur privé
        - favoriser leur ouverture internationale.
    - + 3 passages obligés : sensibilisation à la science ouverte, à l'éthique, au développement durable
    - Prend la forme de cours, formations, séminaires, validations d'expériences variées, engagement associatif, …

6 blocs de compétences = portfolio
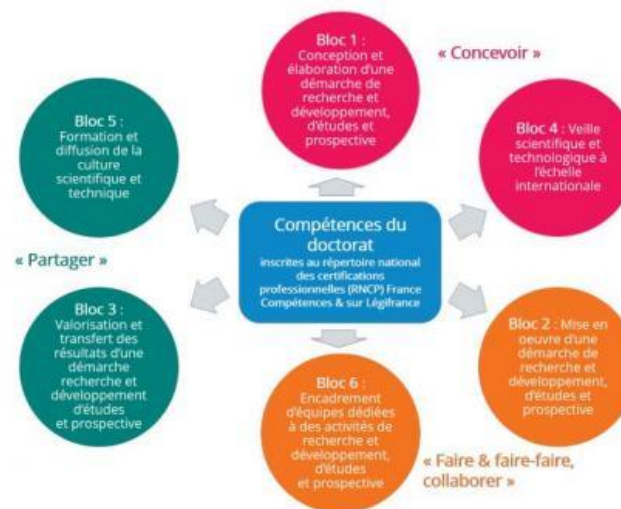
Activités et formations complémentaires

30 pts

Être utiles pour la réalisation des travaux de recherche
Etre utiles pour la rédaction de la thèse ou l'exposition des travaux de recherche (écrite ou orale)
Conforter la culture scientifique
Favoriser l'ouverture internationale
Etre sensibilisé aux enjeux actuels
Préparer son devenir professionnel (secteur privé et public) – 6-15 points
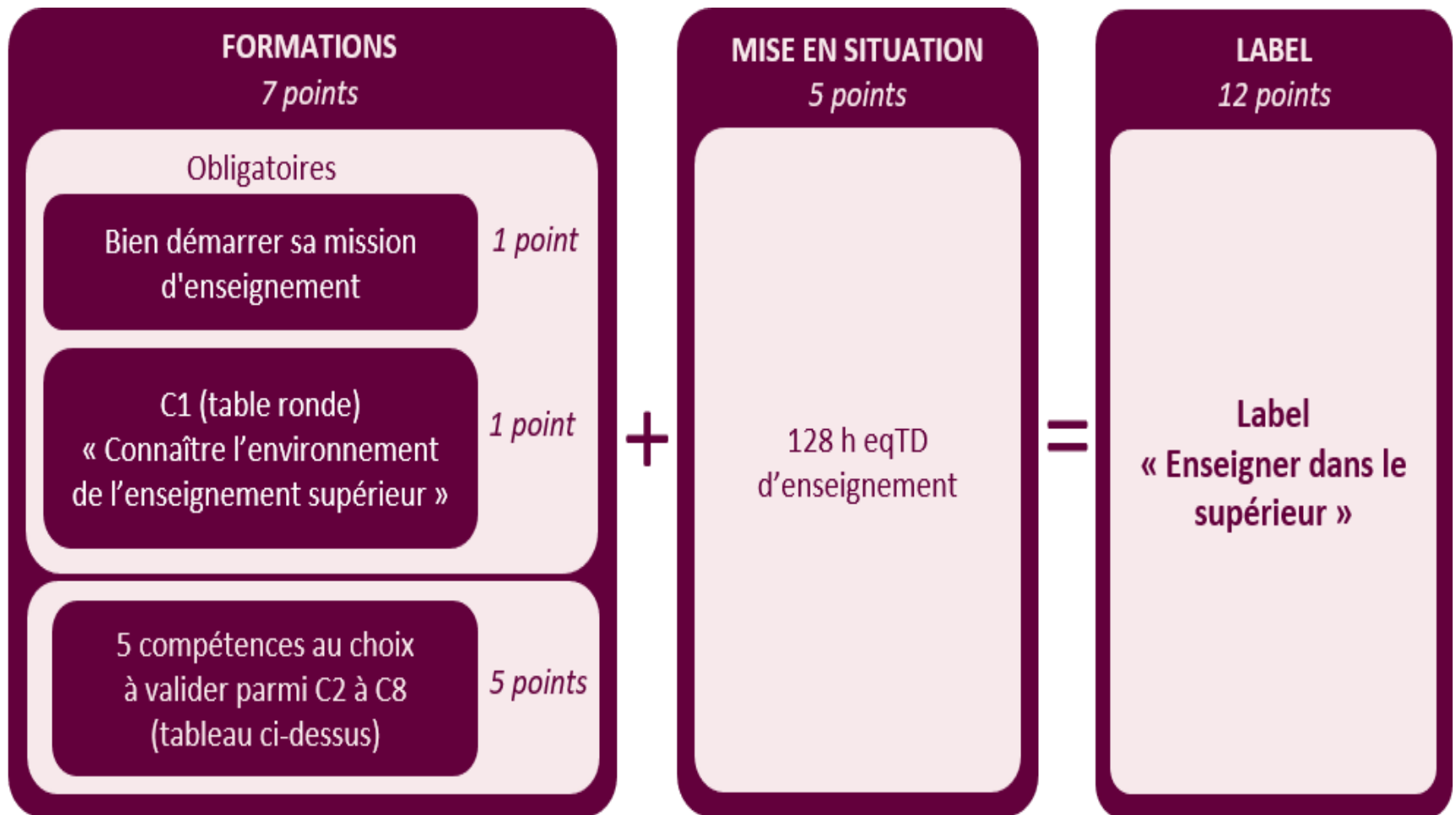
Correspondrait à 150h si uniquement cours mais sont également reconnus
     - engagement associatif étudiant
     - engagement dans la démocratie académique
     - engagement dans les comités et les jurys
     - **mission d'enseignement (max 5 points, si formation « Bien démarrer » suivie)**
     - co-encadrement de stagiaires
     - organisation d'une manifestation scientifique
     - …

Préparer son devenir pro : les parcours « **Carrières de docteur.es** » (6-15 pts)

- Pour faciliter la lisibilité de l'offre de formations « catalogue ADUM», organisation en parcours (métiers)
  - **Enseignement du supérieur**
  - R&D en entreprise
  - Tous experts
  - Entreprenariat
  - Médiation, communication et journalisme scientifiques
  - Valorisation de projets de recherche innovants

- Vous pouvez **piocher « à la carte »** dans les différents parcours ou chercher à obtenir un « label »

Label « Enseigner dans le supérieur »

FORMATIONS
7 points

Obligatoires

Bien démarrer sa mission d'enseignement — *1 point*

C1 (table ronde) « Connaître l'environnement de l'enseignement supérieur » — *1 point*

5 compétences au choix à valider parmi C2 à C8 (tableau ci-dessus) — *5 points*

+

MISE EN SITUATION
5 points

128 h eqTD d'enseignement

=

LABEL
12 points

Label « Enseigner dans le supérieur »

Offre de formation « Enseignement du supérieur »

ADUM > Préparer sa mobilité professionnelle > Parcours « Enseigner dans le supérieur »

Connaître l'environnement de l'enseignement supérieur
- ➢ **C1** Connaître son environnement, son fonctionnement et ses règles

Concevoir et décrire ses enseignements
- ➢ **C2** Concevoir ses séances d'enseignement (alignement pédagogique, objectifs d'apprentissage)
- ➢ **C3** Découvrir les mécanismes d'apprentissage, d'attention et de mémorisation
- ➢ **C4** S'approprier de nouveaux outils pour l'enseignement

Mettre en œuvre des enseignements favorisant l'apprentissage
- ➢ **C5** Prendre en compte les besoins de publics divers
- ➢ **C6** Mettre en œuvre des activités favorisant l'apprentissage

Évaluer les apprentissages et évaluer ses enseignements
- ➢ **C7** Evaluer les apprentissages
- ➢ **C8** Progresser dans sa pratique et adopter une posture réflexive

- (bientôt) organisée par compétences et planifiée pour l'année
- Exemples :

C2 : Découvrir et expérimenter l'alignement pédagogique
C3 : Parallèle pédagogique - Transposition des outils du magicien à l'enseignement
C4 : Utiliser les QCM pour animer

C5 : Soutenir la motivation des étudiants
C6 : Faire travailler les étudiants en groupe

C7 : Comment évaluer les étudiants en TP ?
C8 : L'observation mutuelle - un outil pour progresser en tant que doctorant-enseignant dans le supérieur

Today's programme

9h – 13h
- Expectations
- Managing the lesson
- Teaching/Learning agreement

13h – 14h : Lunch break

14h – 16h30
- Developing the students' attention
- Getting the students motivated
- Getting the students active

16h30 – 16h45
- Q & A session

16h45-17h
- Feedbacks

Who are you?

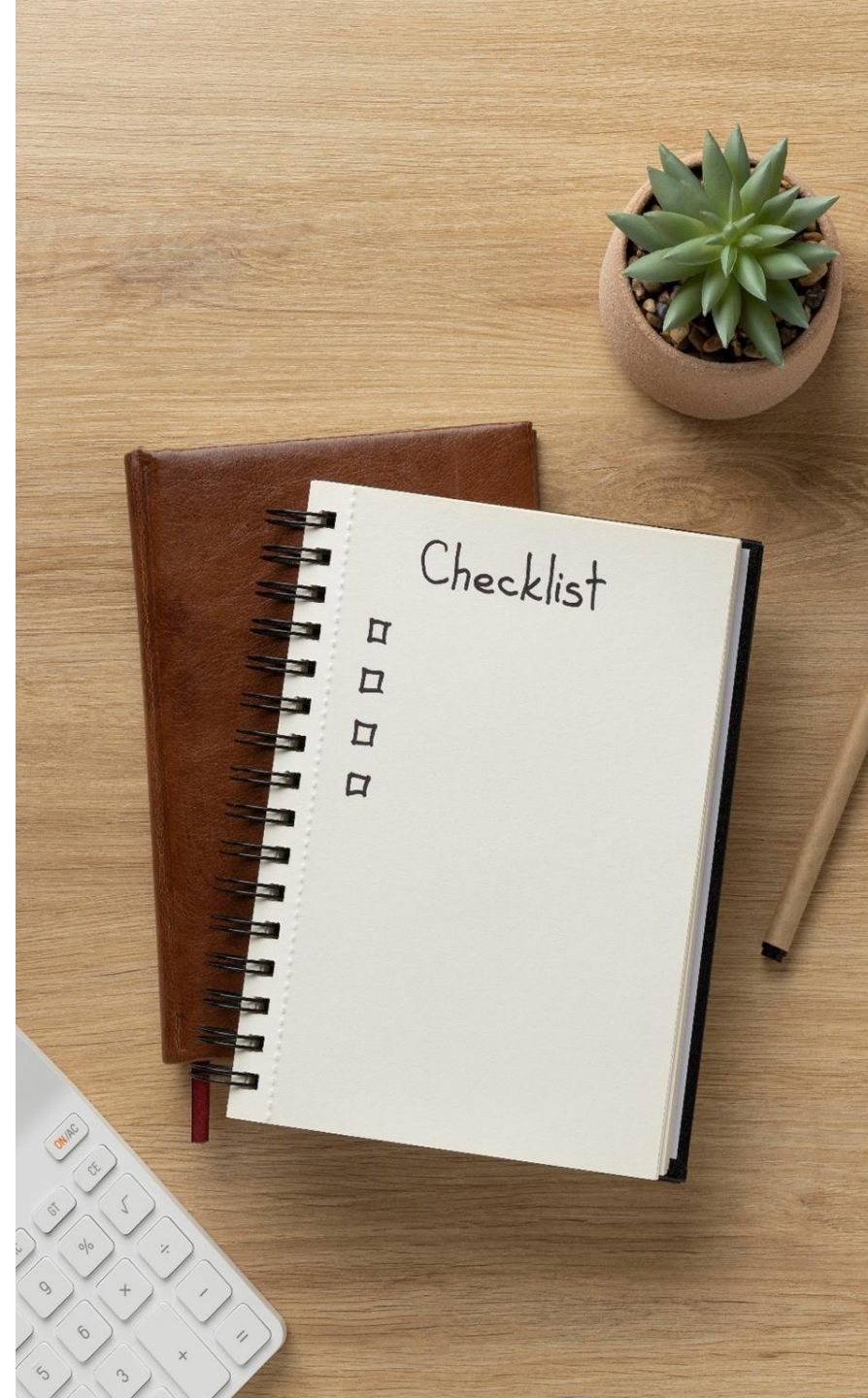**Activity #1**

- Put yourself in pairs

- Ask questions to one another

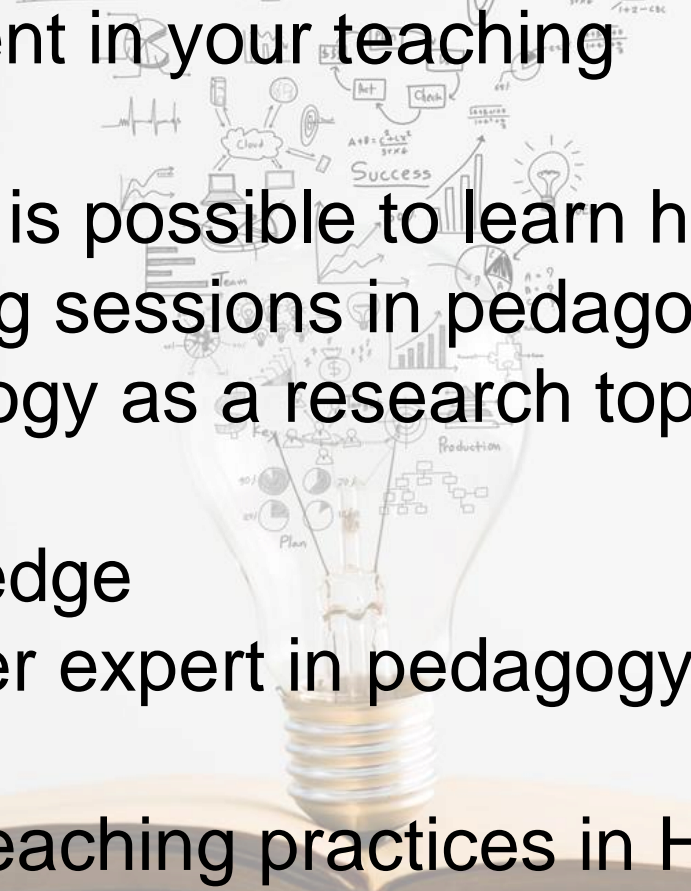- Introduce each other to the group.

Your expectations

- What do you expect from this training session?

- What questions you would like to have the answers to?

Your expectations

1. How to deal with a very heterogeneous class? Engaging students? Responsibility for every student?
2. Is it possible to teach more that 64h/year?
3. When do I grade? How do I grade papers?
4. Access to materials to build your coursework?
5. How to help anxious students?
6. How to be a good teacher? Superpower or through experience?
7. How to know/check that the students have acquired the knowledge for the practical/exam?
8. How to manage difficult students? Safety issues? Being engaged, working and producing? Disruptive students?

Why learning how to teach?

- Feel confident in your teaching

- Know that it is possible to learn how to teach
  - Training sessions in pedagogy
  - Pedagogy as a research topic

- Gain knowledge
  - Teacher expert in pedagogy

- Reflect on teaching practices in Higher Education

Lesson planning

Lesson planning

What classes are you teaching?

- New syllabus, already existing syllabus/coursework
- Tutorials (TD), practical work (TP) or lectures (CM)
- Small or large group of students
- Number of hours
- Subject

Thinking about planning your lesson

- How many steps are there in lesson planning?

- Which ones?

Lesson planning

Before   During   After

Objectives

- Think about the session structure
- Managing the session's different stages

Lesson planning

1. How to best anticipate your session?
2. How to start the (first) session?

1. How to get the students to work?
2. How to supervise?
3. How to correct?

1. How to finish the session?
2. What's next?

Preparatory work / Intro

1. Mastery of subject
2. Practical work: check the equipment, go through the experiment / tutorials: do the exercises and think about the questions
3. Lesson plan and organisation of activities
4. Check location and practical aspects + syllabus for course / pre-requisite + what that have done before +
5. Name + email/office + schedule +

Main body

1. Ask questions + give real life examples + context
2. Expectations / learning objectives
3. Q&A session / Kahoot, Wooclap
4. Move around the room, go & see the students
5. Send a student to the board to explain the exercise – peer instruction
6. Ask questions to guide the students

Wrap up / conclusion

1. Summary / key take aways / teaching materials + bibliography
2. Setting out homework
3. Putting materials/equipment away, proof-read their report
4. Assessment: test for continuous assessment or exam
5. Next session we will see xxx
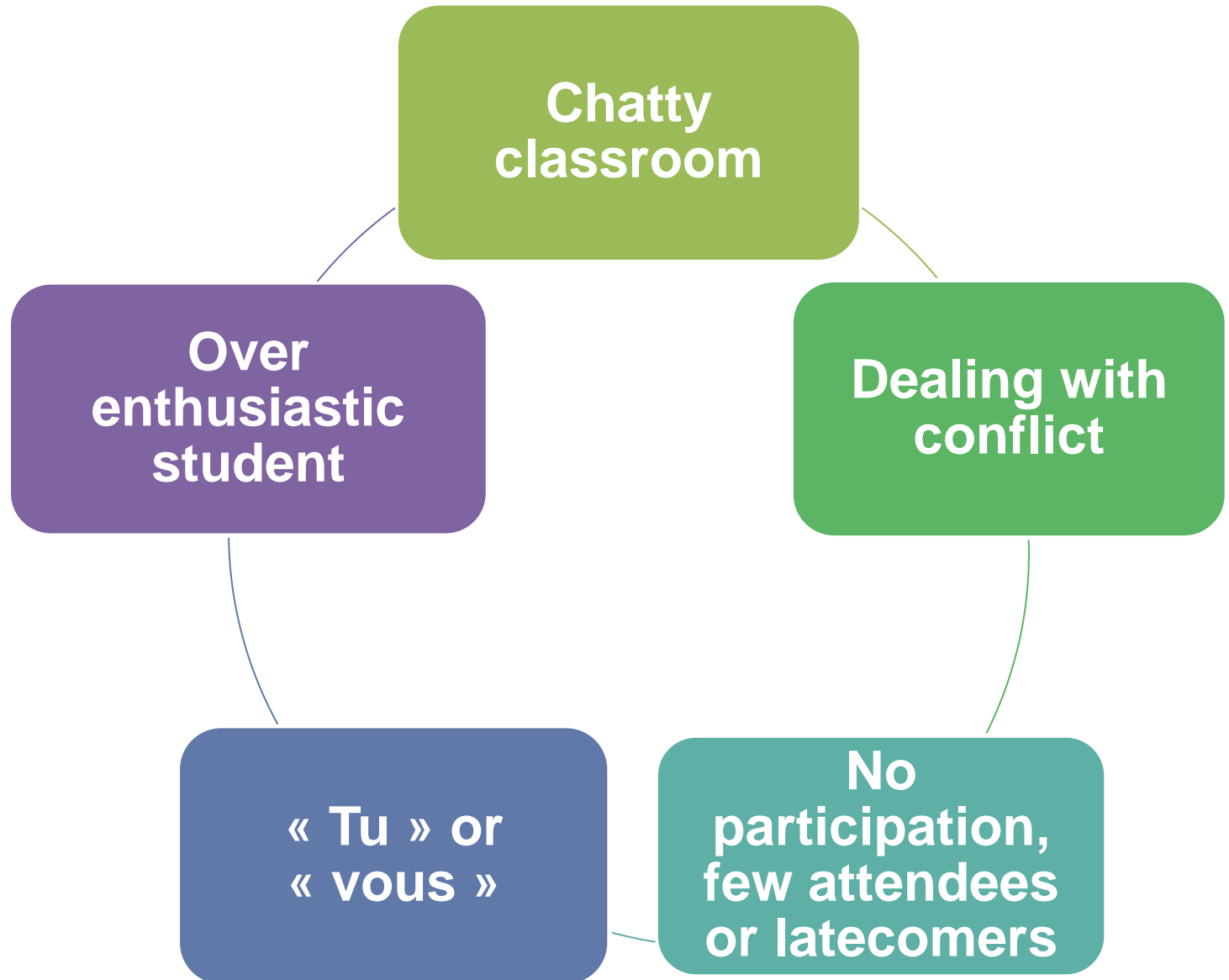
The teacher's check list

Objectives

- Preparing
- Delivering
- Thinking back about the session

Create your own checklist

Preparing the first session

- Resources: Colleagues, on the premises
- Coursework: Pedagogical team, other lecturers

What would you do if you had…

Chatty classroom

Dealing with conflict

No participation, few attendees or latecomers

« Tu » or « vous »

Over enthusiastic student

Avant-propos

Agir contre les violences sexistes et sexuelles est une priorité pour l'Université Paris-Saclay. La prévention de ces violences est l'un des piliers de l'égalité entre les femmes et les hommes pour laquelle l'université est fortement engagée.

Pour renforcer sa politique en la matière, l'université lance, à la rentrée universitaire 2023/2024, un module de formation e-learning destiné à l'ensemble de sa communauté étudiante, enseignante et des personnels.

Cette présentation propose des scenarii pour déployer le module auprès des étudiants, des doctorants, des encadrants et des personnels (E.C.EC et BIATSS).
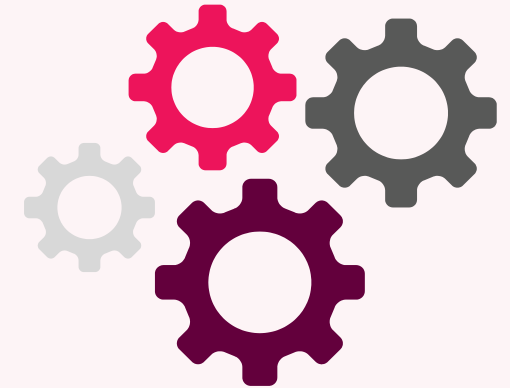
OBJECTIFS PEDAGOGIQUES

➢ Savoir définir et repérer les quatre grands types de VSS : outrage sexiste (simple et aggravé), harcèlement sexuel, agression sexuelle, viol.

➢ Agir en situation, utiliser les moyens mis à sa disposition pour reporter les faits lorsqu'une personne est témoin ou victime de violence.

université
PARIS-SACLAY

Quatre parcours : étudiants, doctorants, encadrants et personnels

- **Durée : 1h15**
- **Tronc commun** sur le cadre juridique
- **Quatre parcours** : mises en situation et quiz
- **Agir en situation** : cellule VSS et suites possibles
- **Langues : français et anglais**
- **Certification de suivi**
- **Disponible sur e-campus : le 1/09 en français et le 1/10 en anglais (auto-inscription)**
- **Web adaptatif**

université PARIS-SACLAY

Déploiement

Etudiants, doctorants, encadrants de doctorants, personnels de l'Université

Doctorants

o **Formation obligatoire pour les doctorants inscrits à l'UPSaclay** dès la rentrée 2023/2024
o Réf. Arrêté 25 Mai 2016 (article 3)
o Les ED *« proposent aux directeurs de thèse, codirecteurs de thèse et à toutes les personnes encadrant ou **participant au travail du doctorant** une formation ou un accompagnement spécifique visant à prévenir toute forme de discrimination et de violence »*
o Les doctorants sont de futurs cadres qui doivent donc être formés au pilotage d'un collectif de travail, incluant les VSS
o Suivi **Maison du Doctorat**
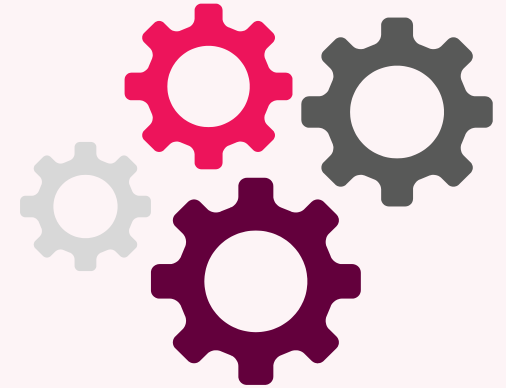
Lien d'accès au module de formation e-learning « Agir contre les violences sexistes et sexuelles » :
https://ecampus.paris-saclay.fr/course/view.php?id=120079

university
PARIS-SACLAY

Teaching/Learning agreement

First day of class

1. Introduce yourself
2. Go through the syllabus
3. Resources available
4. Expectations in and out of class
5. Teaching/learning agreement
6. Assessment
7. Getting in touch with the teachers
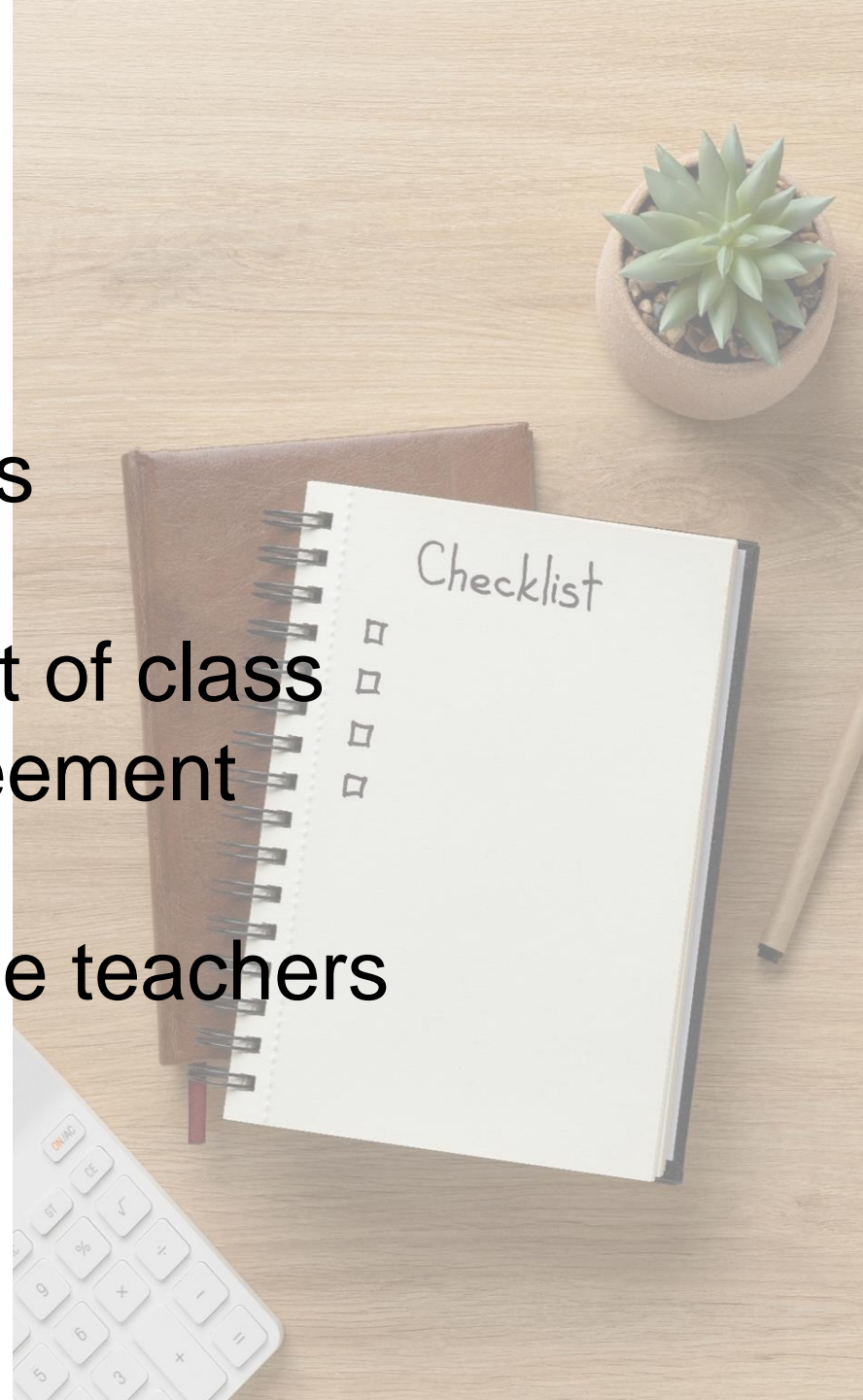
5-10 first minutes

- Start building the teacher-students relationship

- How to reach you?

- Go over the syllabus/coursework
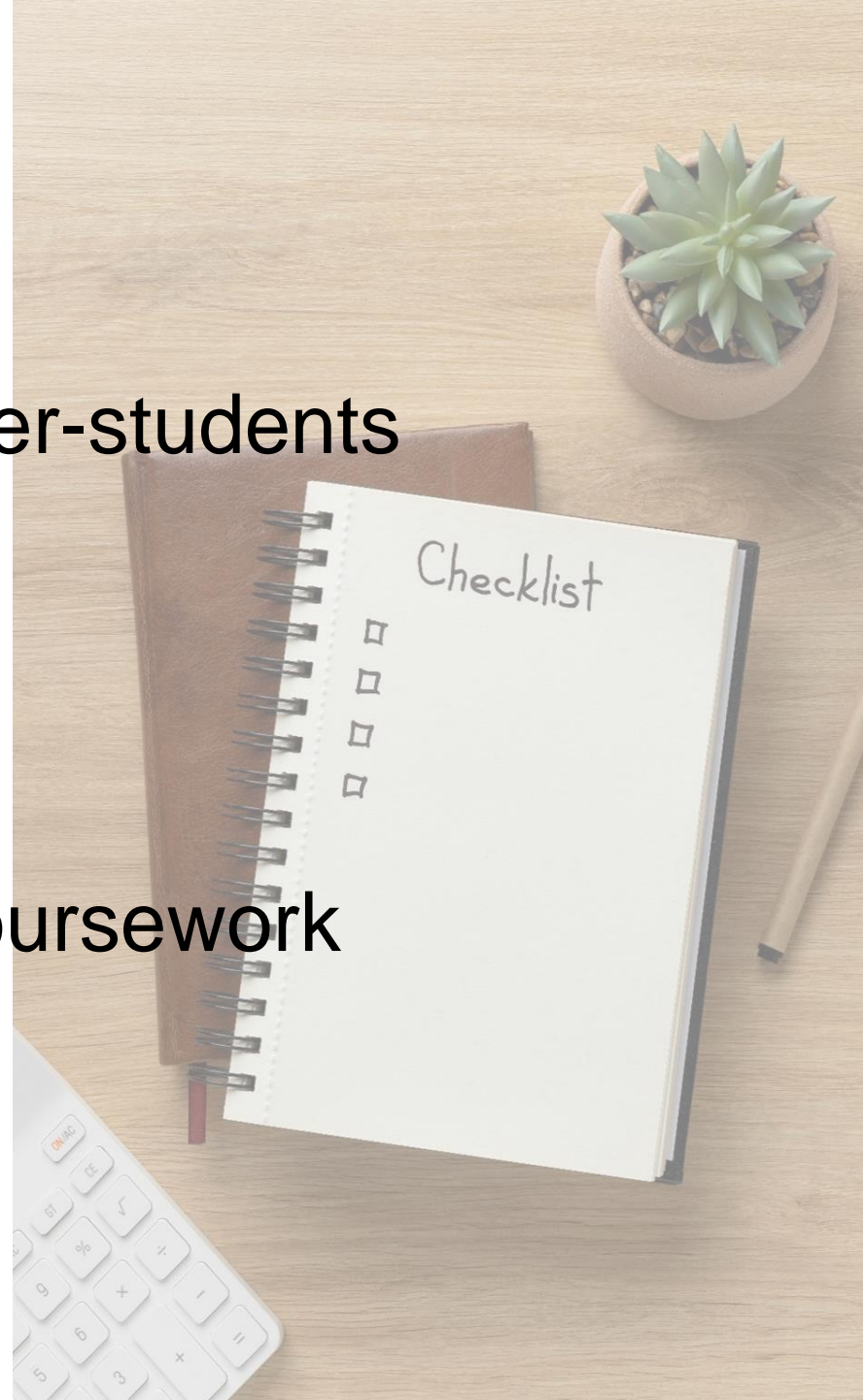
The meaning of a teaching/learning agreement

- Explain the different players' expectations in this teaching situation to boost students engagement in reaching their learning objectives.

- A framework to describe:
    - The students' statements
    - The teacher's statements

Rules or guidelines to be respected

Teaching/learning agreement

Writing such an agreement to
- Get the students involved
- Empower them
- Explain what is expected from them

Points covered
- The overall expectations
- The guidelines
- Everyone's role

Aim: To empower the students and put them into action

Teaching/learning agreement

As an individual, I:

- _____
- _____
- _____
- _____

As a re

- _____
- _____
- _____
- _____

I expect the students to:

- _____
- _____
- _____
- _____

To explain and agree on:

- Learning objectives, assessments
- Framework and guidelines for interacting

Writing your own contract

As an individual, I:

- _____
- _____
- _____
- _____

As a representative of the institution, I:

- _____
- _____
- _____
- _____

I expect the students to:

- _____
- _____
- _____
- _____

As an individual, I:	As a representative of the institution, I:	I expect the students to:
•Make mistakes and correct them •Respectful, mindful •Fair to the students •Will be as invested as the students are in the lesson •Can only do so much, will be the students as best as I can •Prepare the lessons and teaching materials •« Tu » or « Vous »	• Will grade exams fairly • Will follow the syllabus • Give feedback • Provide a good learning environment • Apply and follow the policies of the institution, the values	• Be respectful and fair • Ask the questions • Arrive on time, do to the homework, be attentive and proactive in class • Practical: to inform the teacher when they are going out of the classroom • Be accountable

As an individual, I:	As a representative of the institution, I:	I expect the students to:
•On time •Answer to your emails •To correct assessment in a timely manner •Give out sensible amount of work •Respectful •Help fostering a positive learning environment •Take students' feedback into consideration •Honesty • Set out clear learning objectives •Give appropriate assessment	•Ensure the use of the technical equipment •Ensure safety (fire alarm, pratical work etc.) • Academic honesty awareness •Assessments and grading •Respect the learning objectives •Charter of secularism •Fair and equitable treatment of students •Special Educational Needs (disabilities, etc.)	•On time •Good use of technical equipment •Submitting work within deadlines •Showing respect for others •Anticipating absences •Completing preparatory work •Personal work •Active during the session •Persevering •Academic honesty

Lunch break

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- Getting the students active

16h30 – 16h45

- Q & A session

16h45-17h

- Feedbacks

The key factors to the learning process

Key factors in learning

Motivation

Attention

Engagement
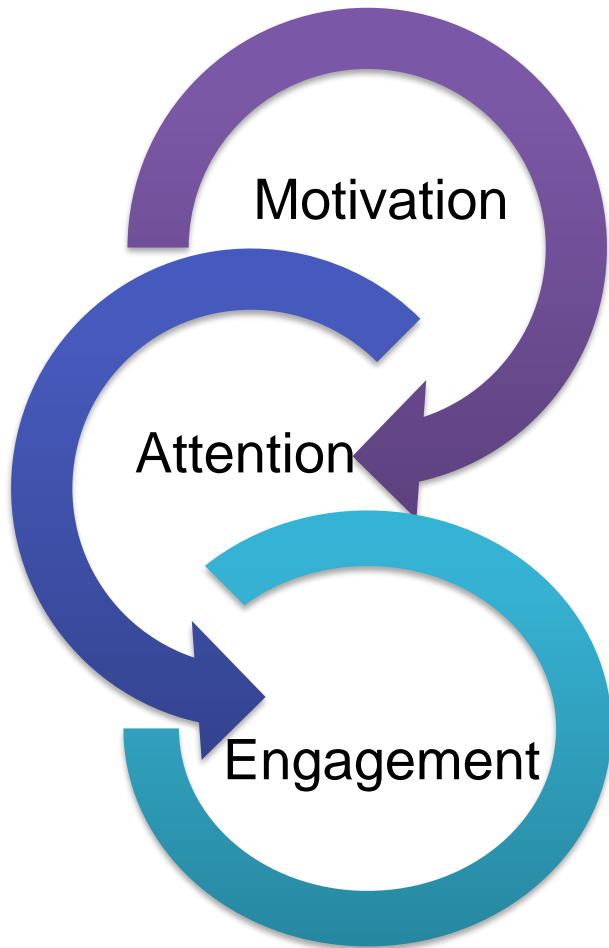
"To motivate students, it is necessary to create **a positive learning environment**" (Viau, 2009).

"A student's commitment is high if they have a **perception of control** over the learning activities and **a positive perception of their competence**, that is, **the learning activities offer a challenge** commensurate with their abilities" (Viau, 2009).

Developing the students' attention

Developing student attention

- How long does it take to lose half of the audience?

Attention

Time

Developing student attention

- How long does it take to lose half of the audience?

Wilson K & Korn J. K. (2007). Attention during lectures: beyond ten minutes. Teaching of Psychology 34(2).
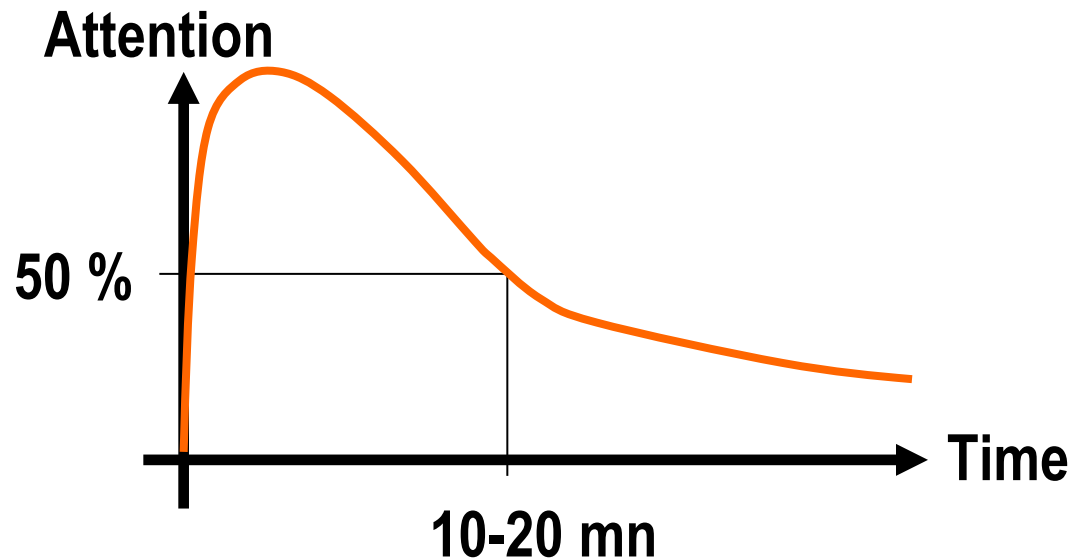
Developing student attention

Ebbinghaus's learning curve

> **The spacing effect** learning is more effective when study sessions are spaced out ≠ crammed in

27.80% 25.40% 21.10%
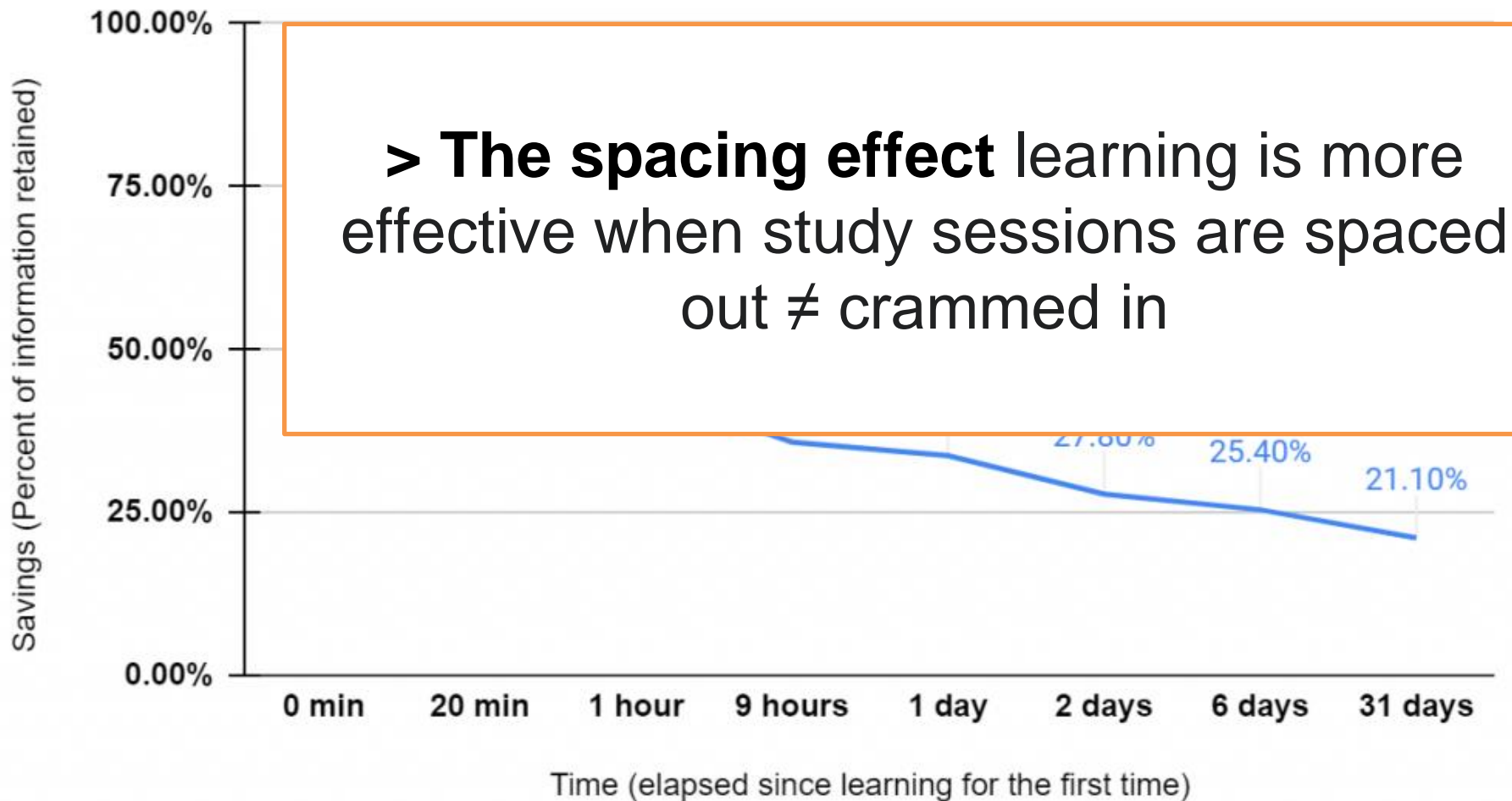
What would you put instead of the green dot?

- Focusing attention:

  - Use of the pointer

  - Slide not too heavy

  - Create an atmosphere conducive to concentration: silence, variations of lights, closing windows....

- Re-focusing attention:

  - Anecdote, humour, connection with current events -> change the context of the comments

  - Handouts, discussions -> To engage students

  QCM, word cloud -> Ask students

  - Exchange of notes to empower students

  - Simple and effective pause (!)

What research say about attention?

- One of the necessary conditions for learning
- Varies greatly with time and within the first minutes of the course
- Depends strongly on the individual and his/her strategies
- Related to the ability to process the information presented
- Depends on the proposed tasks

Attention during lectures: Beyond ten minutes (2007). K.W. Wilson, J.H Korn, Teaching of Psychology 34 (2), pp. 85-89

Engaging students

- Collect information
  - Gauge the level of the group
  - Check that the prior knowledge has been acquired
- Allow students to self-assess
- Maintain students' focus
- Facilitate students' participation by being anonymous
- Get the students to work

Creating a positive learning environment for the students to both be engaged and chip in.

Activities to stimulate attention

What is the point of getting students active during the session?

To enhance student motivation and engagement

Getting the students motivated

Getting students motivated

1. Think about examples of **motivating** or **disheartening** teaching experiences in HE.

2. What do you think are the **key factors** linked to motivation?

Getting the students motivated

4 motivational key factors

Outside academic environment

Internal factors

External factors

Students
(family, personality, curiosity, work, etc.)

Society
(values linked to education, reputation of courses followed, employment rate, etc.)

Classroom
(learning activities, climate, assessment, etc.)

Institution
(motivation help from the teachers, lecture halls occupancy rate, paints, etc.)

Academic environment
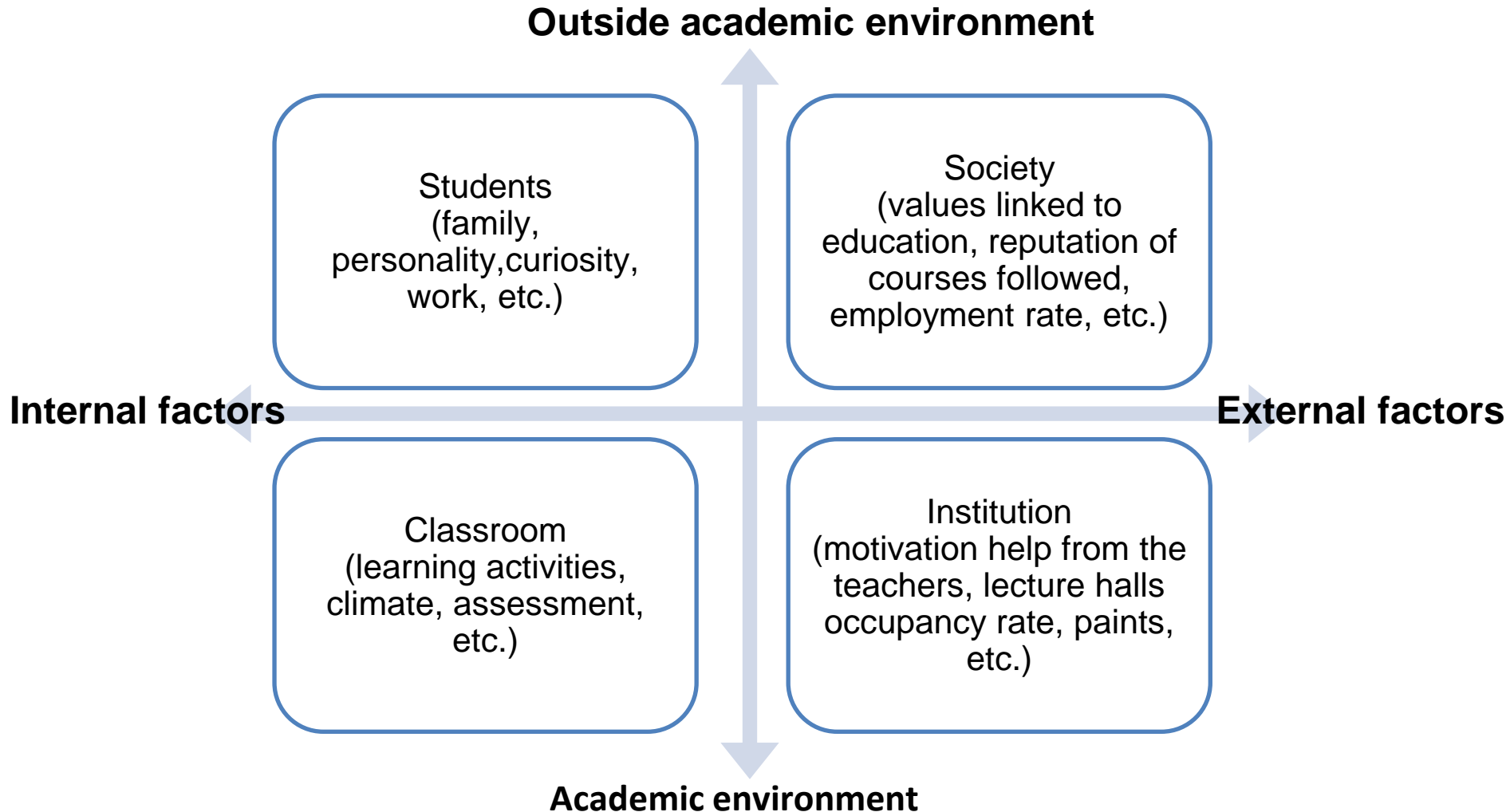
4 motivational key factors

Student: Personal environment, status, personal interests

Institution: Structure, rules, premises, atmosphere, schedule

Society: Value given to qualifications, social pressure, values

Classroom: Teacher, learning environment, teaching approach, learning activities, assessments

1 motivational key factor

Classroom

- Learning activities: Variety, challenges etc.

- Climate: Building relationships within the group

- Assessment: format, length, how often etc.

- Rewards & sanctions

- Teacher: relationship and its quality, behaviour, guidelines etc.

STUDENT MOTIVATION

The motivation of students is based on their **perception** of themselves and of the **conditions** in which **learning** takes place.

There are various ways to help students **maintain their motivation** and to provide them with the best possible **learning experience**.

engaging
learning situation

meaningful
learning situation

memorable
learning situation

COMPETENCE	VALUE	AUTONOMY AND CONTROL	RELATEDNESS
Suitable level	Explicit goals	Choices	Humor
Clear instructions	Specific tasks	Flexibility	Empathy
Encouragement	Relevant content	Personal goals	Group work
Regular feedback	Transfer of learning	Individual projects	Peer instruction
Element of challenge	Authentic situations	Experimentation	Interactive activities
Gradual increases in difficulty	Meaningful activities	Decision-making	Positive atmosphere

COMPETENCE
The need to feel **capable** of accomplishing a task

VALUE
The need to see the **value** of a task and to make **sense** of the learning

AUTONOMY AND CONTROL
The need to be engaged in **self-governed** behaviors and to feel **in control**

RELATEDNESS
The need to feel a sense of **belonging** and to have **fun**

Getting the students motivated

1. How would you change the following learning experiences?

2. Choose one of the following or one from your own experience.

- Long and somewhat complex course point

- Monotonous and rather boring exercise worksheet

- Knowledge and learning activities without direct link to the diploma/ quite abstract

Getting the students motivated

1. Traditional exercises + examples + pauses + key take aways + video

1. Cut the long into smaller chunks (scaffolding), remind the previous steps and link with the task at hand + objectives to achieve at the end of session/semester

1. Level grouping (from easier exercises to more challenging) + graphs/figures ≠ only text > start the homework (15-20mn) so that you finish -quickly / on your own-peer instruction + context (real life examples)

2. Give autonomy, facilitate the understanding of broader subjects, avoid jargon or technical words, interactive activities//show and tell, easy subject to pass

3. Link with students' interest, another subject in the curriculum, broaden students' knowledge (scientific culture)

Motivating students by…

Student-teacher relationship

Realistic learning outcomes

Contextualize information

Active learning techniques

Engage students

Testing and grading

Feedback

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How does memory work?

THE MEMORY MODEL: the way we process and retrieve information

Storage

SENSORY MEMORY

SHORT-TERM MEMORY

LONG-TERM MEMORY

Environmental stimuli

Selective attention

Retrieval

Information lost if not encoded

Information lost if not encoded

Information lost due to retrieval failure, interference, decay

https://nategreen.weebly.com/explore-my-significant-learning.html
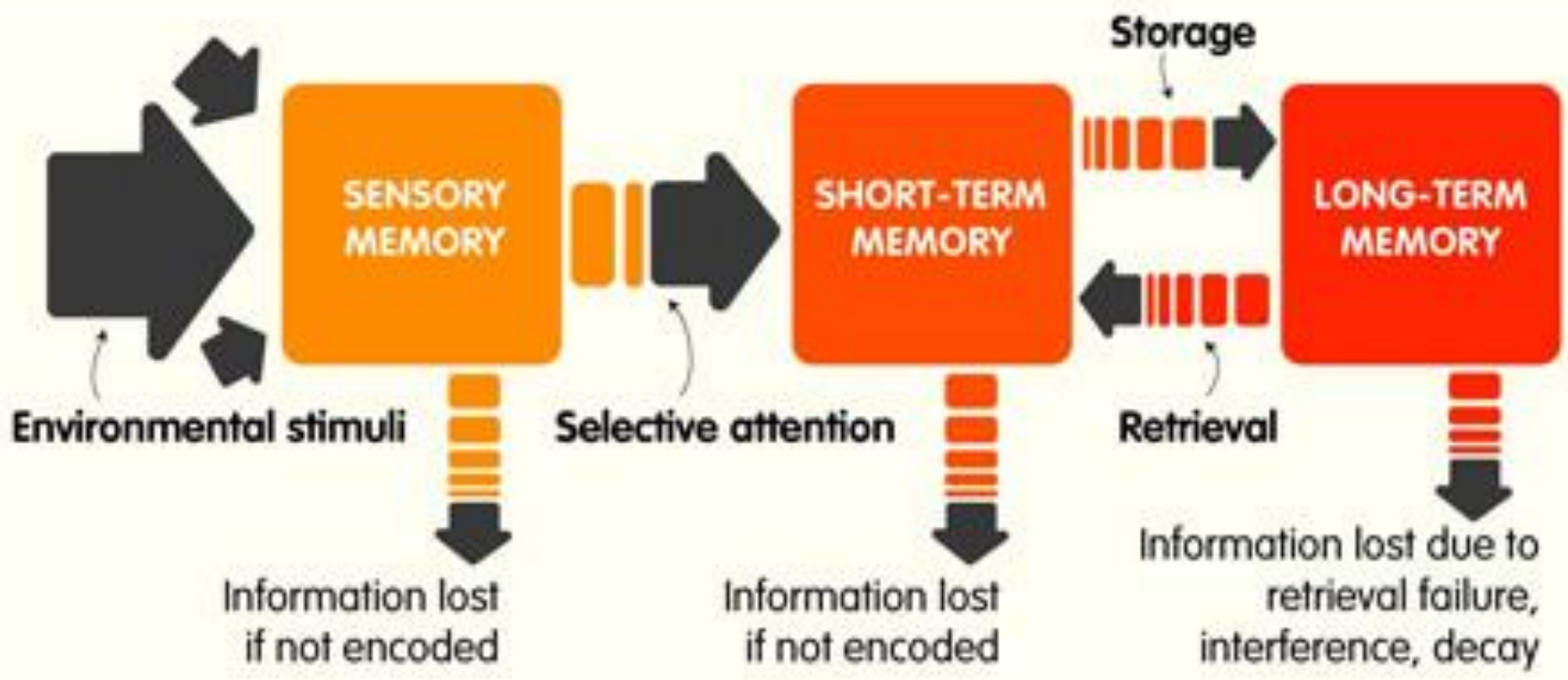
The memory's limits

- Forgetting

- Limited amount of informations each time

- Limited attention

- Cognitive load

What can be done?
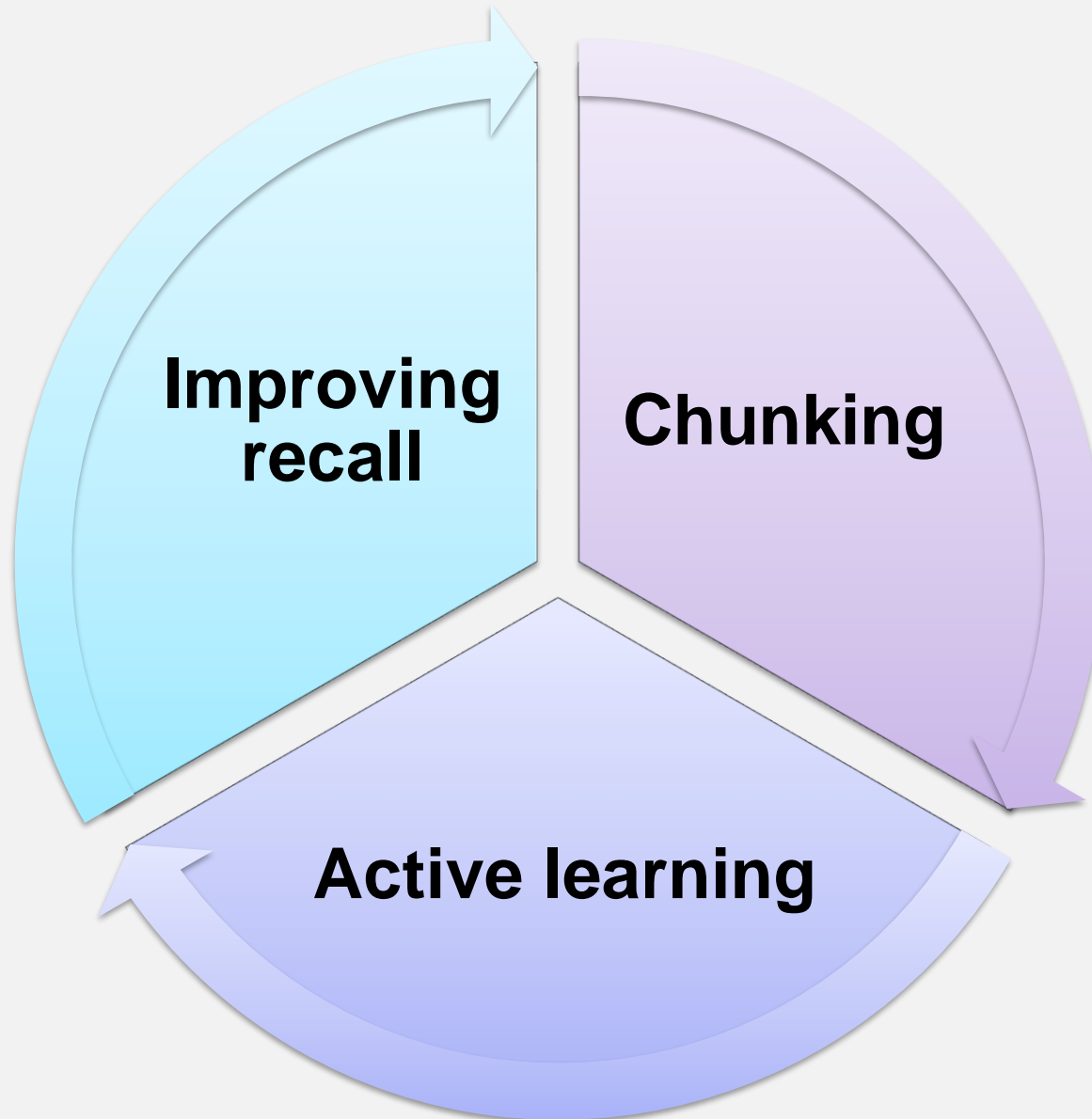
Tell me and I forget. Teach me and I remember. Involve me and I learn.

BEN FRANKLIN

Getting the students active

CONCEPT MAPS

DEBATES

DISCUSSIONS

GAMES

PEER INSTRUCTION

PEER REVIEW

POLLING

ROLE PLAYS

THINK-PAIR-SHARE

Active learning strategies

One minute paper

Think-pair-share

In-class demonstrations

Brainstorming

Discussions

Case studies

Q&A techniques

The benefits

Collect information about the acquired knowledge

Give feedback

Course-correct

Improve motivation

Improve the learning environment

Effective teaching and effective learning

Giving feedback with CATs

- To give immediate feedback

> the students can assess their understanding of the material

- To provide immediate feedback to the teacher

> to gauge students' knowledge coming into a course or programme

CATs' characteristics

1. Simple

2. Short

3. Learner-centred

4. Students to reflect on the question at hand

5. Give immediate feedback

6. Non-graded & anonymous

7. Beneficial for students and teachers

Examples of CATs

- What you have experienced since this morning:
  - Think-pair-share
  - Minute papers
  - Brainstorming
  - Self-assessment

- When to use them?
  - At the beginning of a session
    - Background knowledge probe
    - Misconception and preconception checks,
    - Pro and con grid
  - During: Knowledge reinforcement
  - End of session or unit: Assessment

CATs

Beginning

- Self-assessment
- Focused listing

During

- Raise questions
- Find examples or applications
- Compare personal notes
- Talk about what has just been covered
- Find a mnemomic techniques

End

- The Muddiest point
- Exam questions

At the end of the session
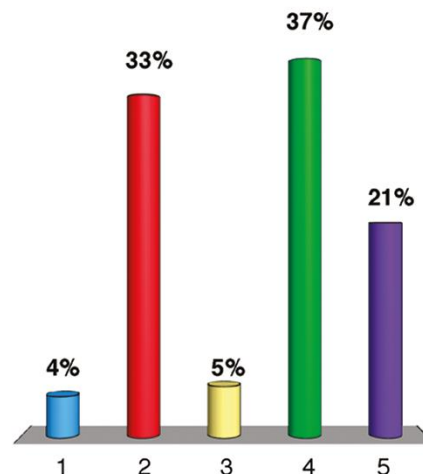
The Muddiest Point
Which points need to be explained?

Identify the "muddiest point" from today's lecture.

1. writing balanced equations
2. dissociation products
3. limiting reactant concept
4. limiting reactant calculation
5. none – understood everything today

4% 33% 5% 37% 21%
1 2 3 4 5

Exam questions
Propose a course question that can be asked on this chapter / theme / topic.

THE LEVERS TO FACILITATE LEARNING

To help students **optimize** their overall learning experience, the instructor can use many different strategies to activate **levers of learning**:
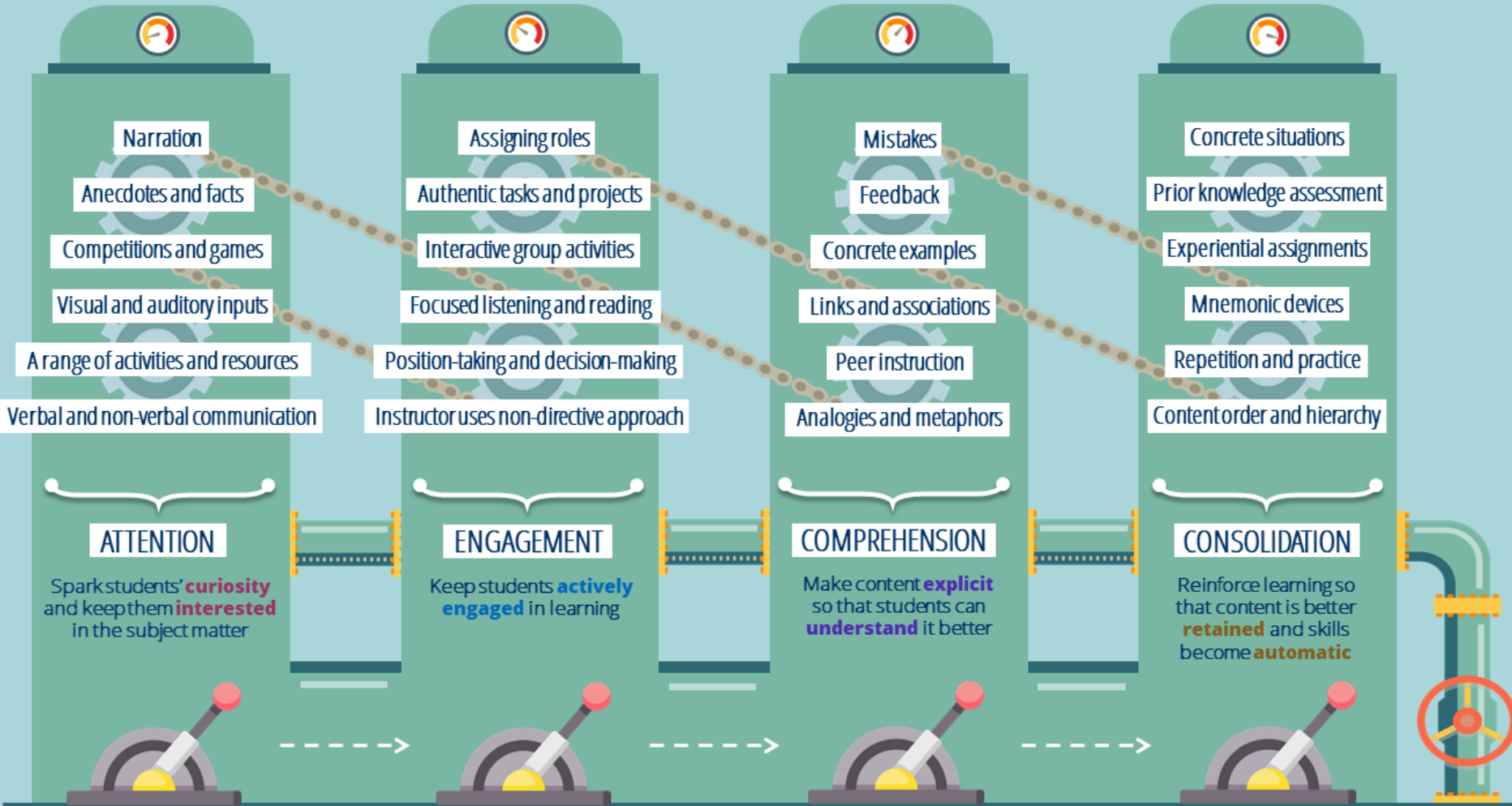
By playing the role of facilitator, the instructor also promotes:

the emergence of **collective intelligence**

the development of **autonomy**

ATTENTION	ENGAGEMENT	COMPREHENSION	CONSOLIDATION
Narration	Assigning roles	Mistakes	Concrete situations
Anecdotes and facts	Authentic tasks and projects	Feedback	Prior knowledge assessment
Competitions and games	Interactive group activities	Concrete examples	Experiential assignments
Visual and auditory inputs	Focused listening and reading	Links and associations	Mnemonic devices
A range of activities and resources	Position-taking and decision-making	Peer instruction	Repetition and practice
Verbal and non-verbal communication	Instructor uses non-directive approach	Analogies and metaphors	Content order and hierarchy

ATTENTION
Spark students' **curiosity** and keep them **interested** in the subject matter

ENGAGEMENT
Keep students **actively engaged** in learning

COMPREHENSION
Make content **explicit** so that students can **understand** it better

CONSOLIDATION
Reinforce learning so that content is better **retained** and skills become **automatic**

Your expectations

1. How to deal with a very heterogeneous class? Engaging students? Responsibility for every student?

2. Is it possible to teach more that 64h/year?

3. When do I grade? How do I grade papers?

4. Access to materials to build your coursework?

5. How to help anxious students?

6. How to be a good teacher? Superpower or through experience?

7. How to know/check that the students have acquired the knowledge for the practical/exam?

8. How to manage difficult students? Safety issues? Being engaged, working and producing? Disruptive students?

What I have learnt today

- ✓ 5 points I can remember

- ✓ The muddiest point

- ✓ What I would like to try out / implement
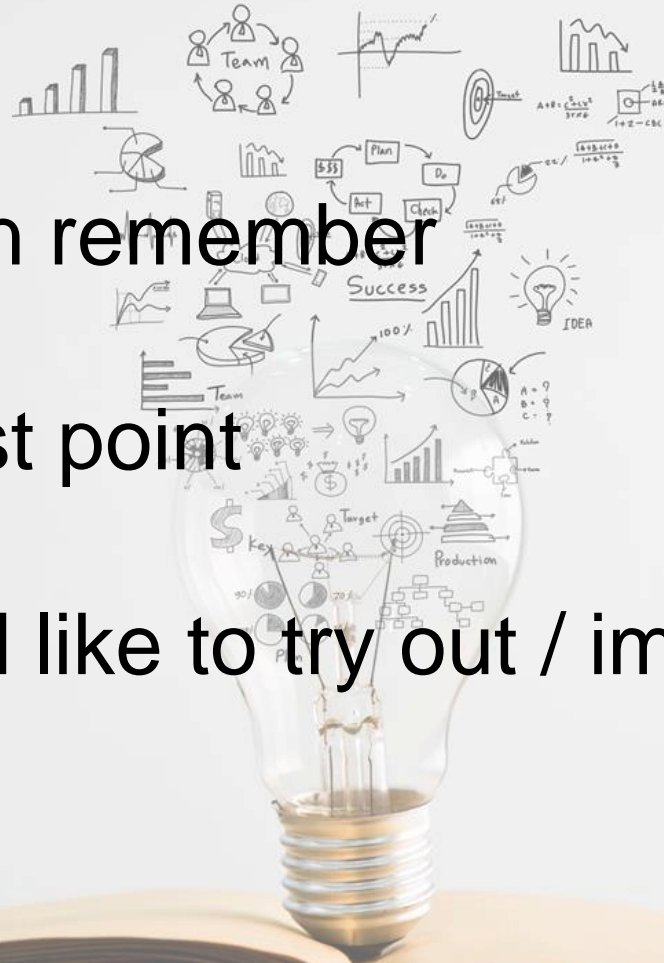
Resources

Active learning
- https://www.queensu.ca/teachingandlearning/modules/students/22_active_learning_strategies.html
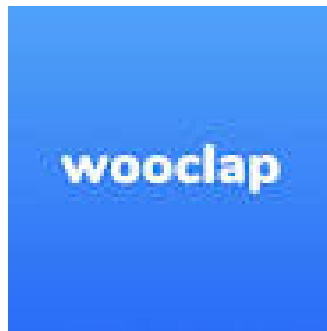- https://ablconnect.harvard.edu/

Motivation
- https://bokcenter.harvard.edu/motivation-and-metacognition

CATs
- *K.P. Cross et T. A. Angelo (1993) Classroom assessment techniques*
- https://www.cmu.edu/teaching/assessment/assesslearning/CATs.html
- https://inspe.u-bourgogne.fr/wp-content/uploads/2016/03/8._mémo_TRC.pdf

Feedback and conclusion

https://app.wooclap.com/CYAMIN?from=event-page

www.persay.universite-paris-saclay.fr

PERSAY

Pédagogies Echanges Recherches à paris-SaclAY

université
PARIS-SACLAY

Bienvenue ⌄   Les ressources par thématique ⌄   Les billets de PersayPolis ⌄   Communauté ⌄   Agenda   Connexion

4 thématiques :

Comment construire un cours ?

Enseigner

Comment apprend-on ?

Apprendre

Comment évoluer et faire évoluer ses pratiques ?

Evoluer

Que puisons-nous dans les recherches ?

S'enrichir

PERSAY   Flux RSS

Ressources par type

Sélectionner une caté ⏷

Les derniers billets

Comment analyser et transmettre une innovation pédagogique? 05-10-2017

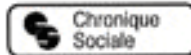Atelier DIP : Lien vers le padlet pour « Analyser et transmettre une Innovation pédagogique » 05-10-2017

Réactivation des connaissances 26-07-2017

Recruter des étudiants en favorisant l'altérité 23-07-2017

Moi j'enseigne,
mais eux
apprennent-ils ?

Michel **Saint Onge**

4ᵉ édition

Pédagogie/Formation

Chronique Sociale

http://www.rcfe.ch/ressources/

Liste des thématiques (non exhaustive)
Clickers (En)
Cohérence pédagogique (Fr)
Enseigner à un public hétérogène (Fr)
Méthodes pédagogiques actives (Fr)
Usages des technologies pour l'enseignement et l'apprentissage (Fr)

UQÀM Centre de formation en soutien à l'académique

CFSA

http://cfsa.uqam.ca/

http://www.infotheque.info/ressource/9938.html

ABC de l'encadrement des TP
ABC Favoriser le travail personnel des étudiants
ABC de la réussite du premier cours

THANK YOU