



# New modes of Learning

## How we address these evolutions

Jacques Lanarès

✓ 3 Drives

✓ 3 Focuses

✓ 3 Implications

How to develop motivation to use new approaches?



It is not like pushing a flush...

# Motivation

$$\mathbf{M} = \mathbf{C} \times \mathbf{V}$$

# Motivation

$$M = C \times V$$



Value attributed  
to the result / obj.

# Motivation

$$M = C \times V$$



Competence perceived  
to reach the objective



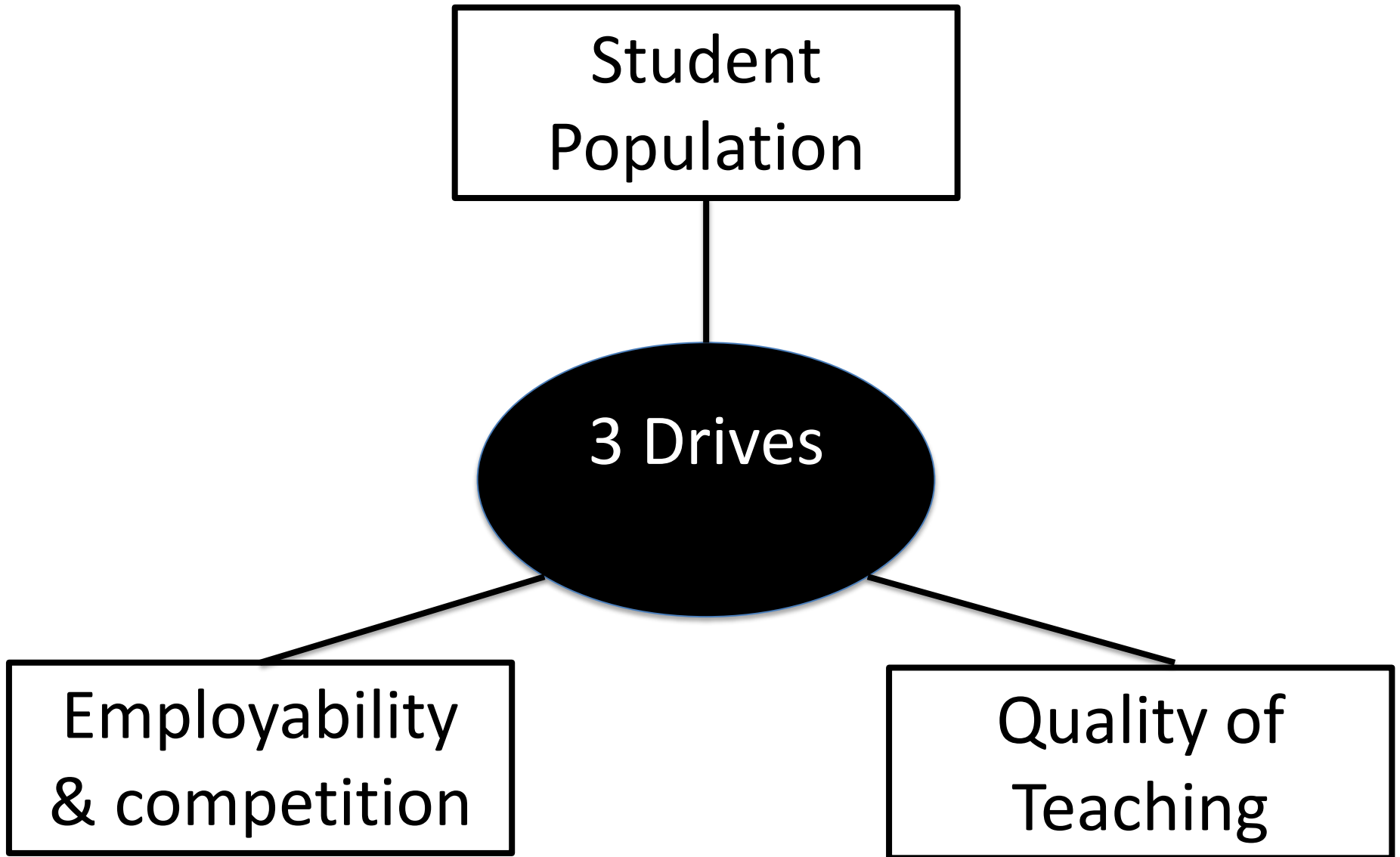
Value attributed  
to the result / obj.

Student  
Population

3 Drives

Employability  
& competition

Quality of  
Teaching



Student  
Population

```
graph TD; A[Student Population] --- B((3 Drives)); B --- C[Employability & competition]; B --- D[Quality of Teaching]
```

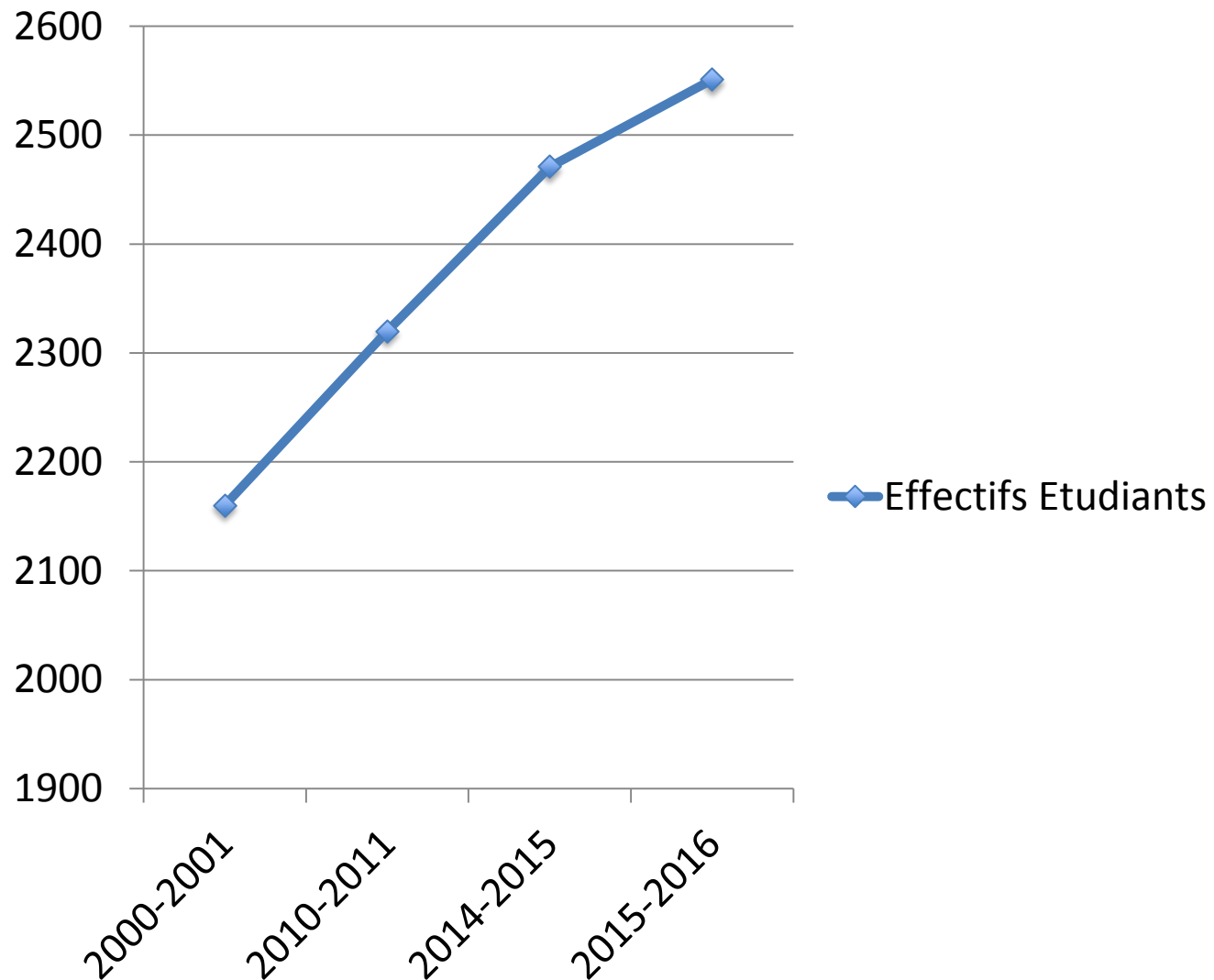
3 Drives

Employability  
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Quality of  
Teaching

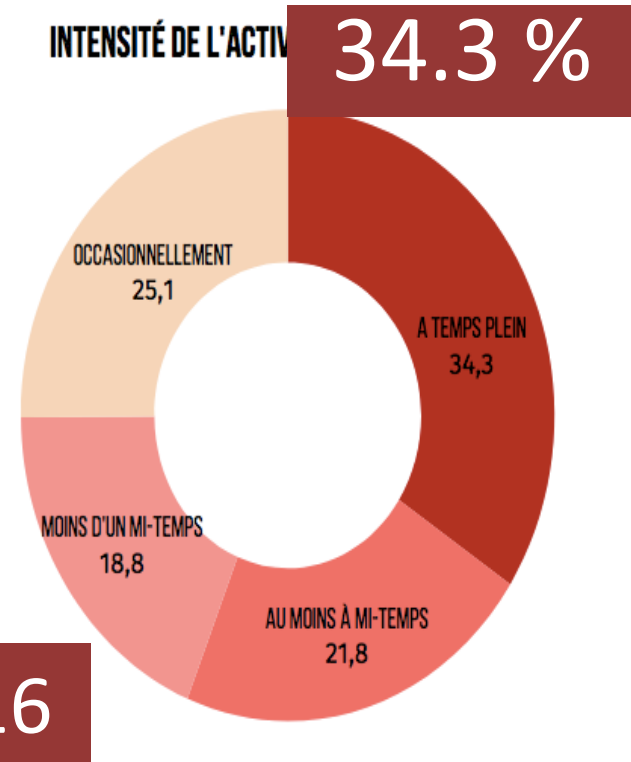
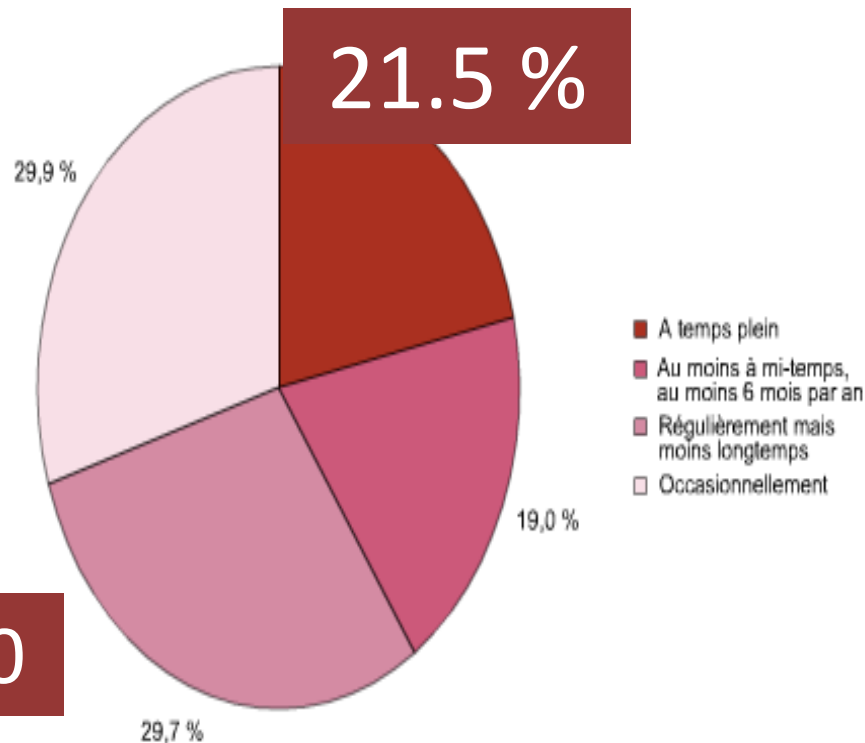


# « Massification » & Diversification



# More flexibility needed

## Students working full time in France





Source: Sure point spy



« NO, you weren't downloaded. You were born »



# Generation Z is starting university – but is higher education ready?

Smarter than baby boomers and way more ambitious than Millennials: universities don't seem to be considering the impact of Gen Z



 Change is coming and this new generation of students is leading it. Photograph: Alamy

# Characterics Z Generation

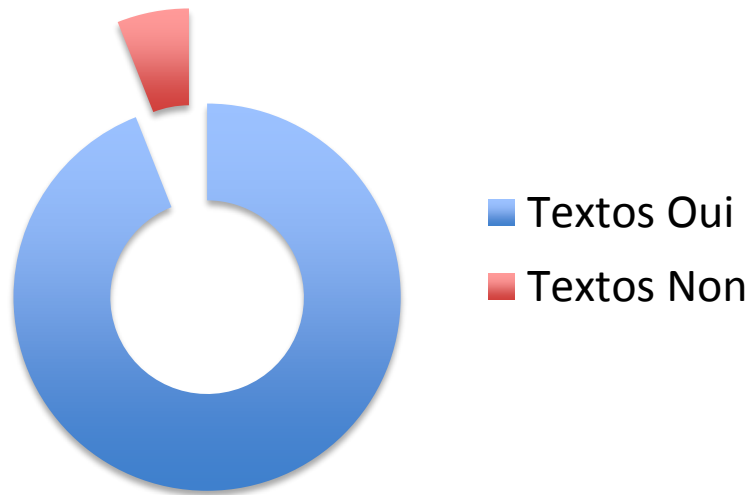
- Born after 1995
- **Independent** et responsable
- Entrepreneurial
- Favour **applied and practical approaches** to learn
- Use **social network** for research
- Communicate with **images**
- Are very connected....

Source: Enquête Forbes

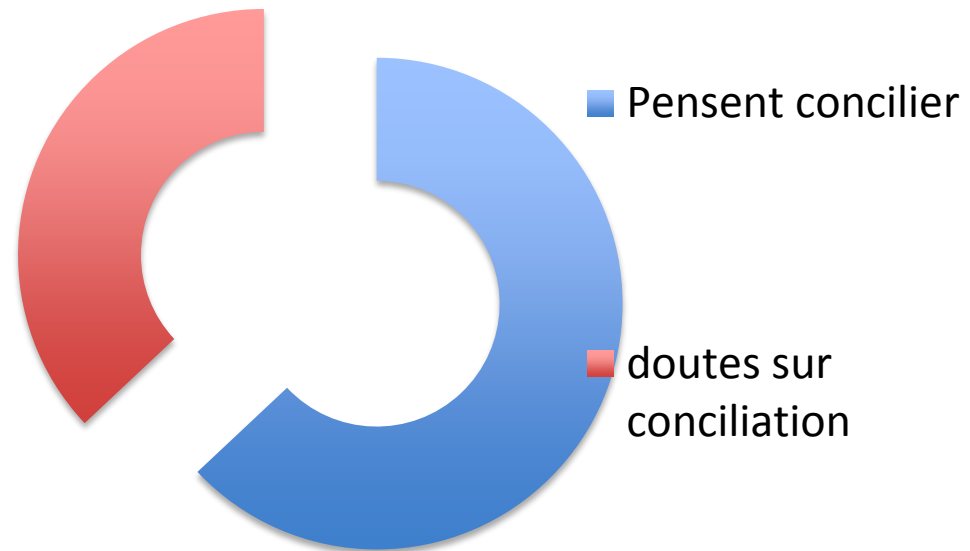


# « multitaskers »

**94% recieve and send SMS**

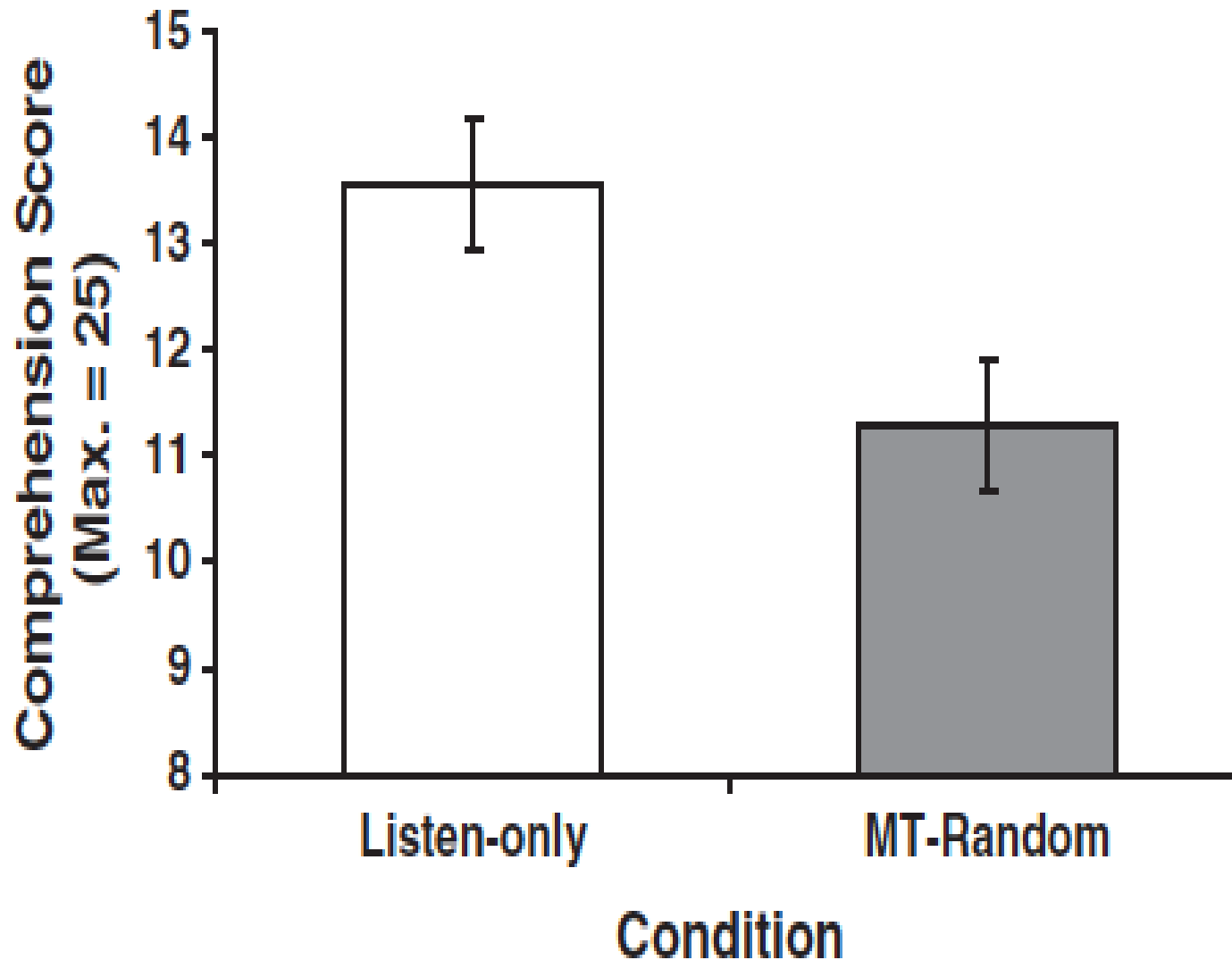


**63% think they can conciliate  
sms and lectures**



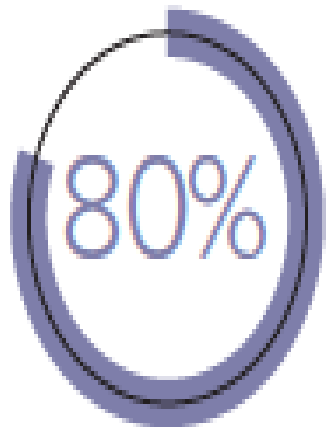


# Real effects on Learning

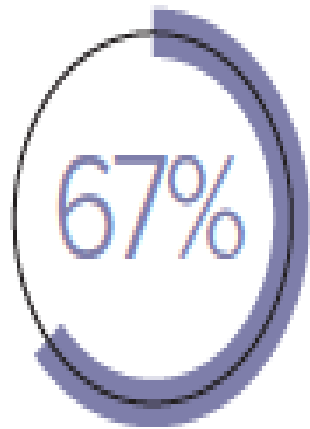


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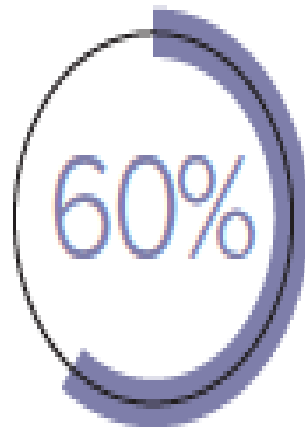
## STUDENT STUDYING PREFERENCES



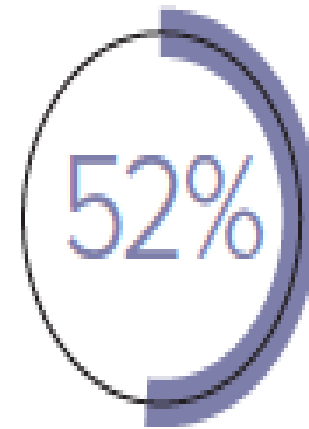
Study with  
friends



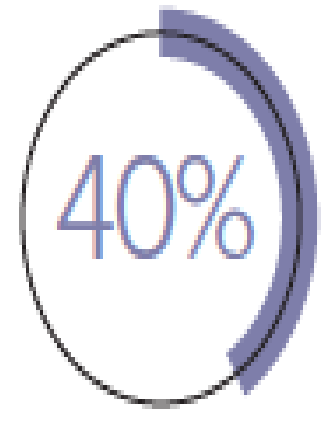
Say studying together  
makes learning  
more fun



Like to exchange new  
ideas with friends



Like to help their  
friends learn



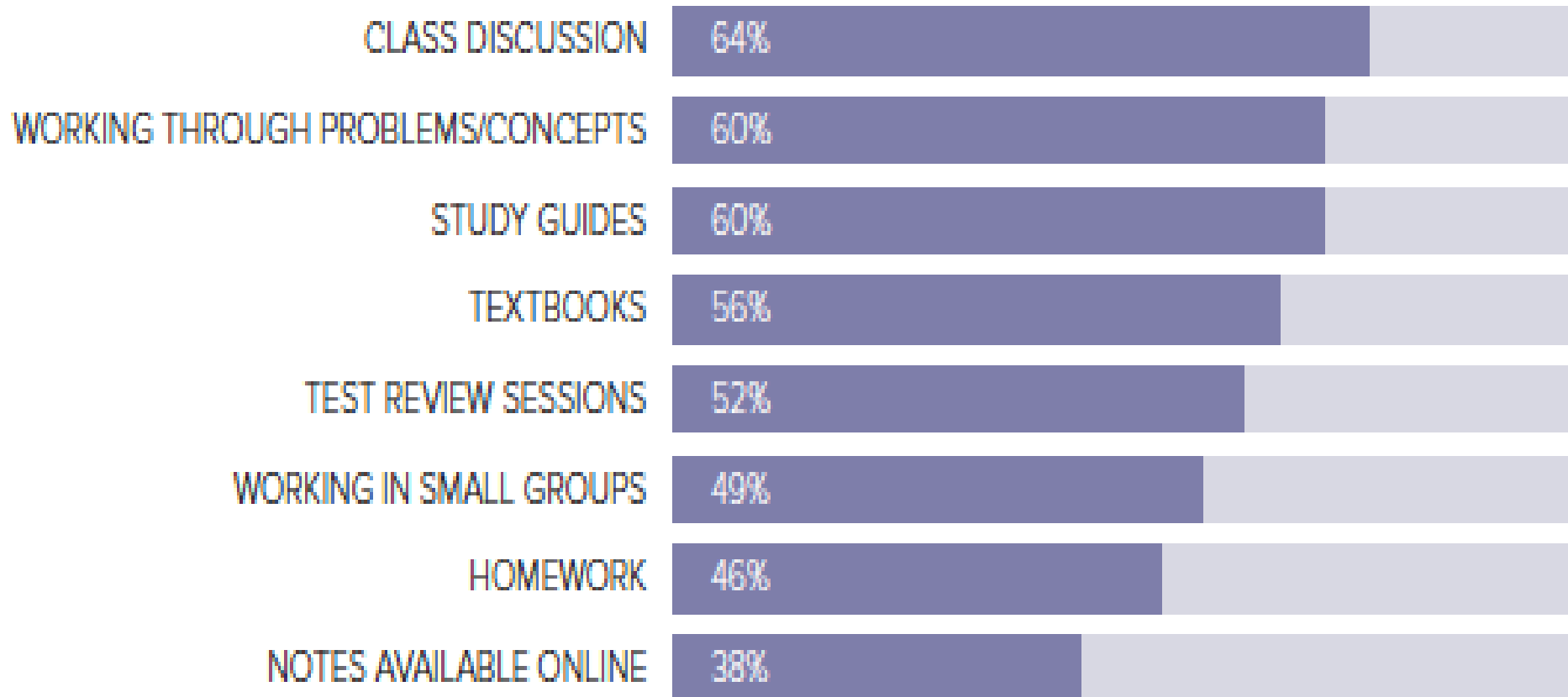
Study with friends  
in person and online

Respondents cited Skype as the top online tool to study with friends.

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## MOST HELPFUL TOOLS FOR LEARNING

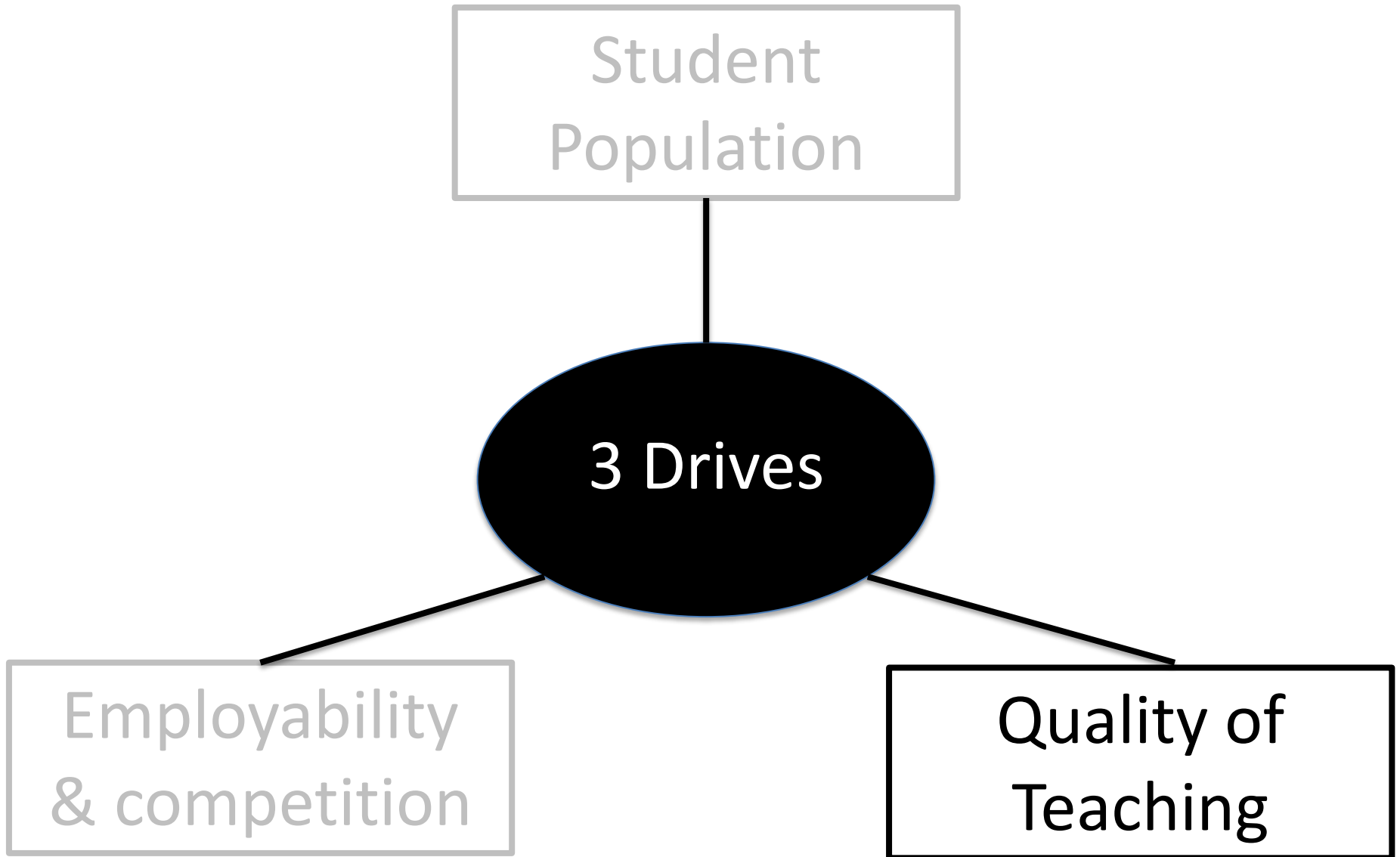


Student  
Population

3 Drives

Employability  
& competition

Quality of  
Teaching





The quality of higher education has proven to be at the heart of the setting up of a EHEA. They also stress that consistent with the principle of institutional autonomy, **the primary responsibility for quality assurance in higher education lies with each institution itself** and this provides the basis for real accountability of the academic system within the national quality framework

# Quality Culture

« Quality as a **shared value** and a **collective responsibility** for all members of an institution including students and administrative staff. »

EUA 2006

# Student centered Teaching & Learning



### *1.3 Student-centered learning, teaching and assessment*

Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach

**Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)**



# A multidimensional concept & cultural change



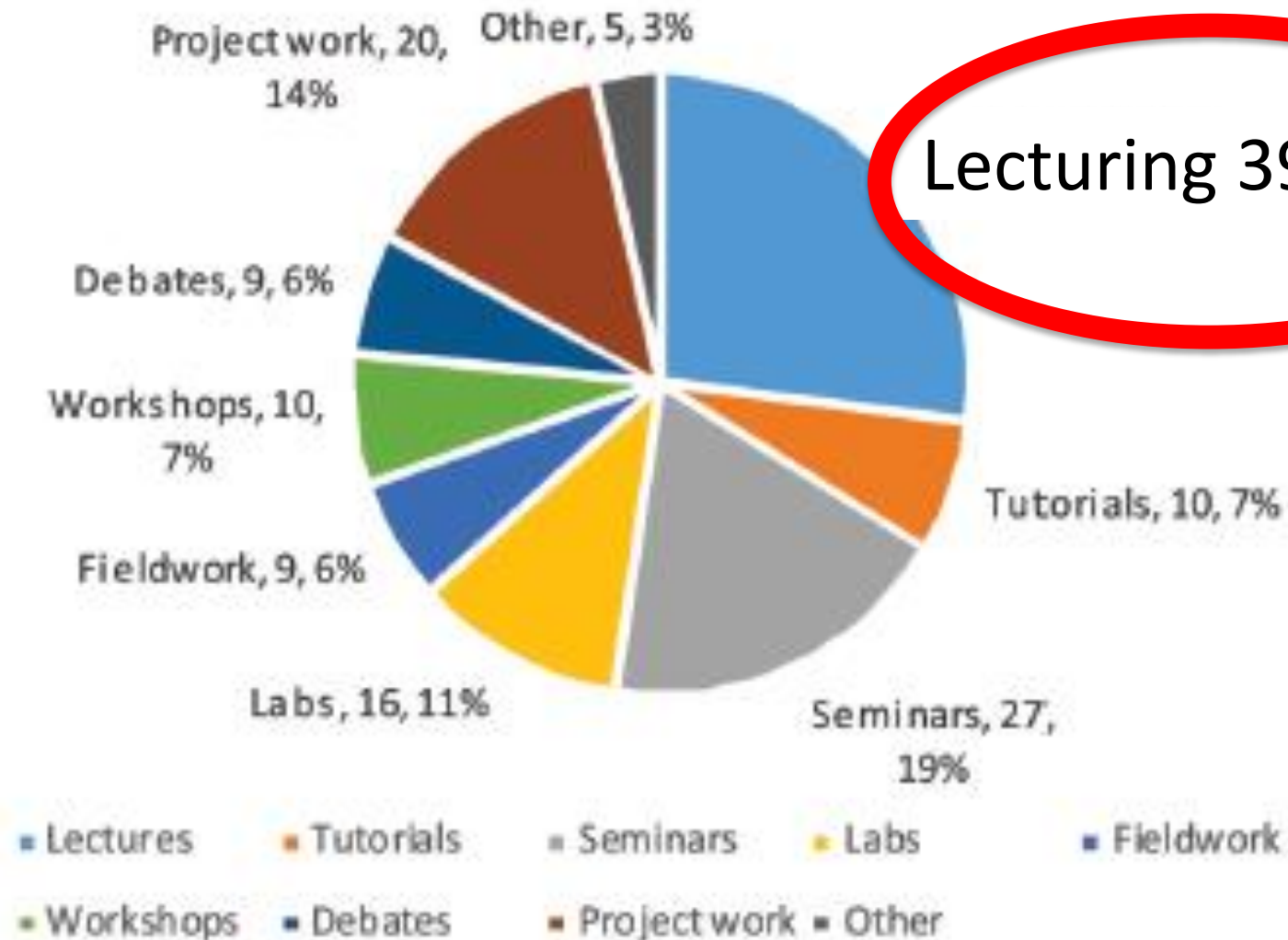
OVERVIEW ON STUDENT-CENTRED  
LEARNING IN HIGHER EDUCATION IN EUROPE  
RESEARCH STUDY



- Diverse & Active Teaching strategies
- Flexibility of individual « trajectories »
- Support structures for Learning
- Responsabilisation & autonomy
- Involvement in programme elaboration



# Lecturing remains the main strategy

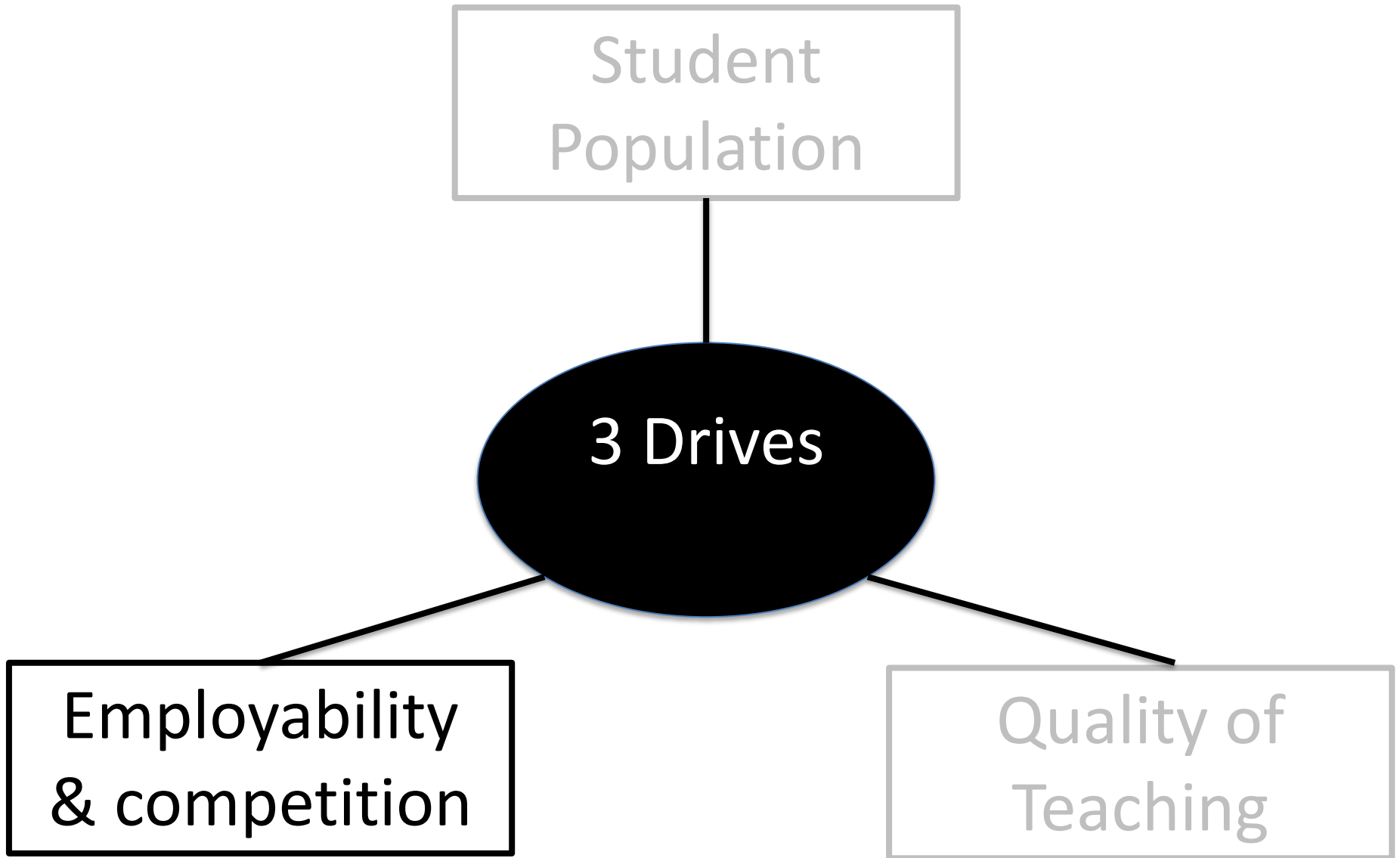


Student  
Population

**3 Drives**

**Employability  
& competition**

Quality of  
Teaching



## Uni muss um Studis buhlen

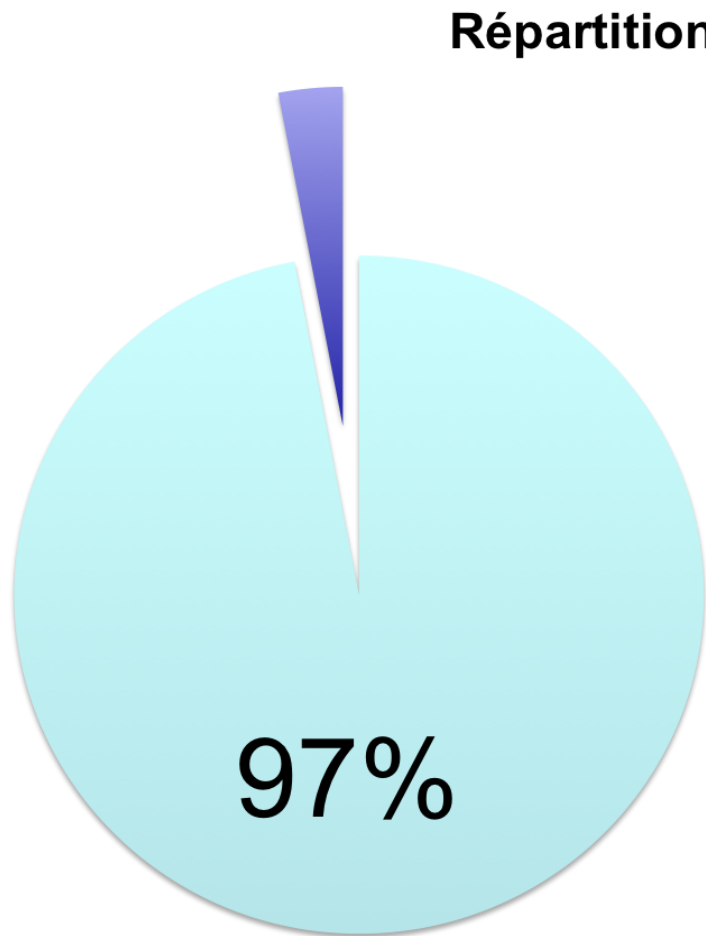
**UNIVERSITÄT** Die Studierendenzahl an der Universität Bern stagniert 2017 bei rund 17 500 Immatrikulierten. Was auch bedeutet, dass man sich stärker um die Studierenden bemüht. Etwa um ihr Gedächtnis und ihre Lerntechnik.

Increasing  
competition

# The best universities for the best careers .....



< 3 % of students will  
pursue an academic career





STUDENT

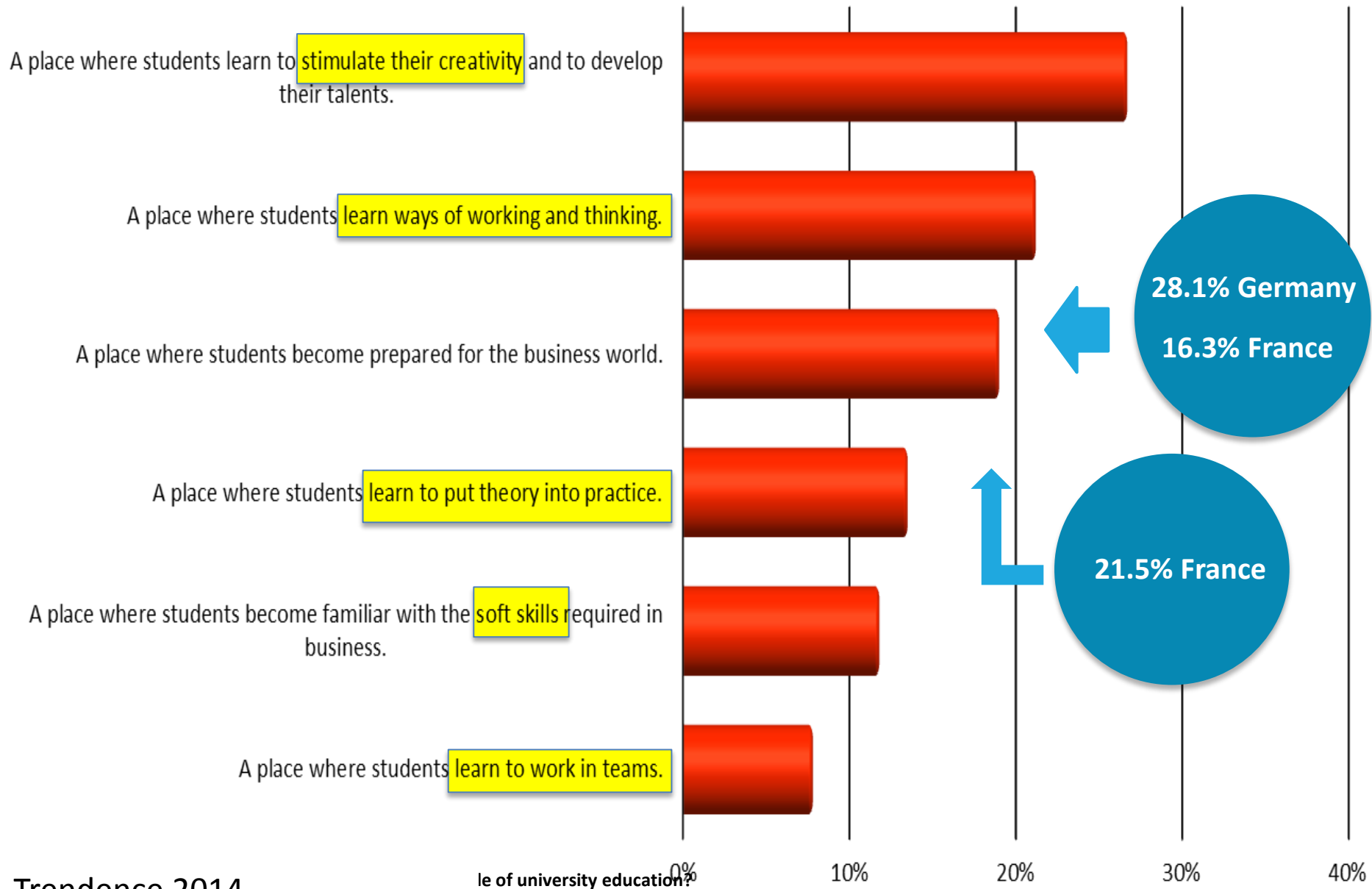


GRADUATE



© Gary Varvel

# What recruiters are looking for





Student  
Population

3 Drives

Employability  
& competition

Quality of  
Teaching

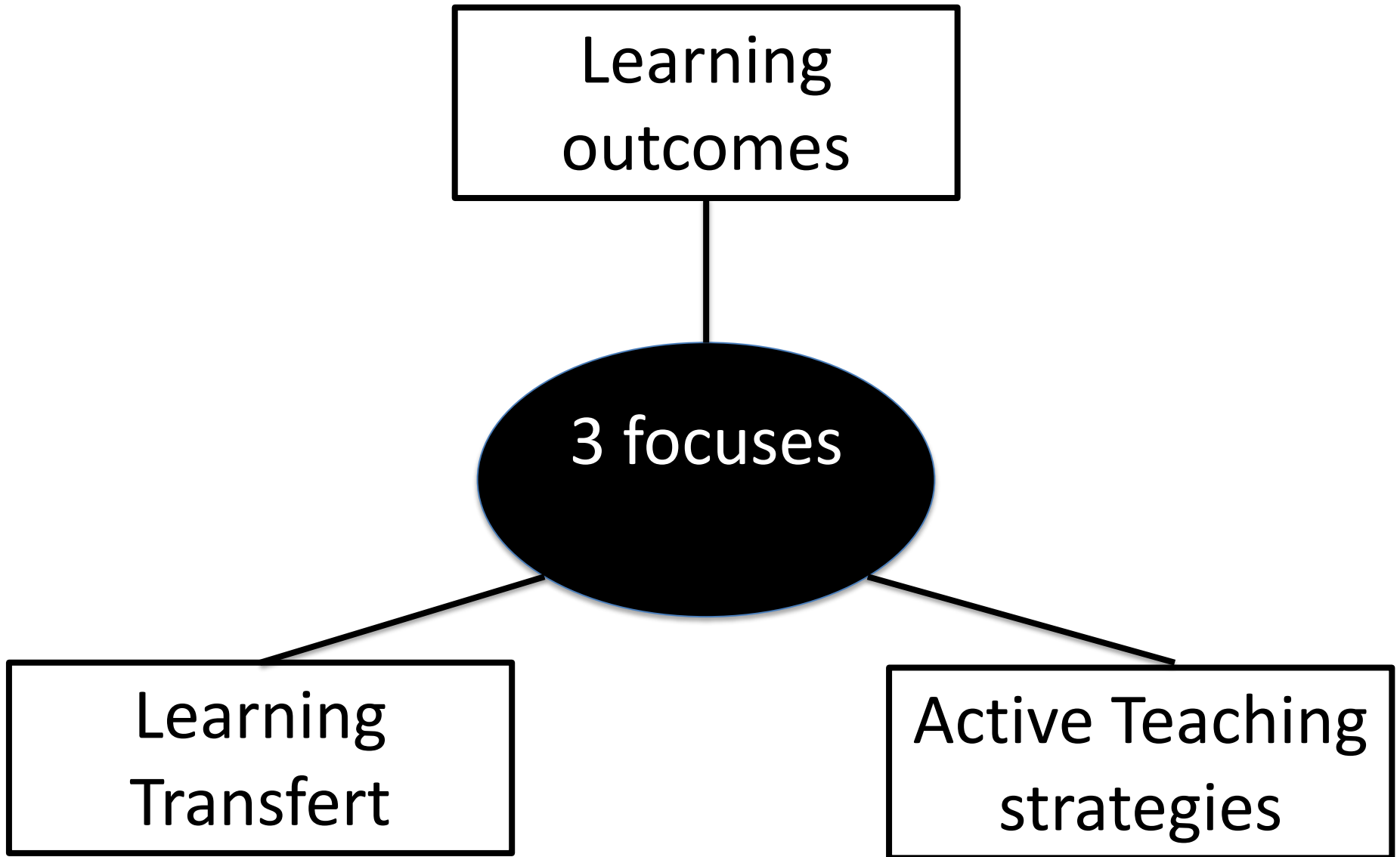
**FLEXIBILITY \_ DIVERSITY \_ RELEVANCE**

Learning  
outcomes

3 focuses

Learning  
Transfert

Active Teaching  
strategies

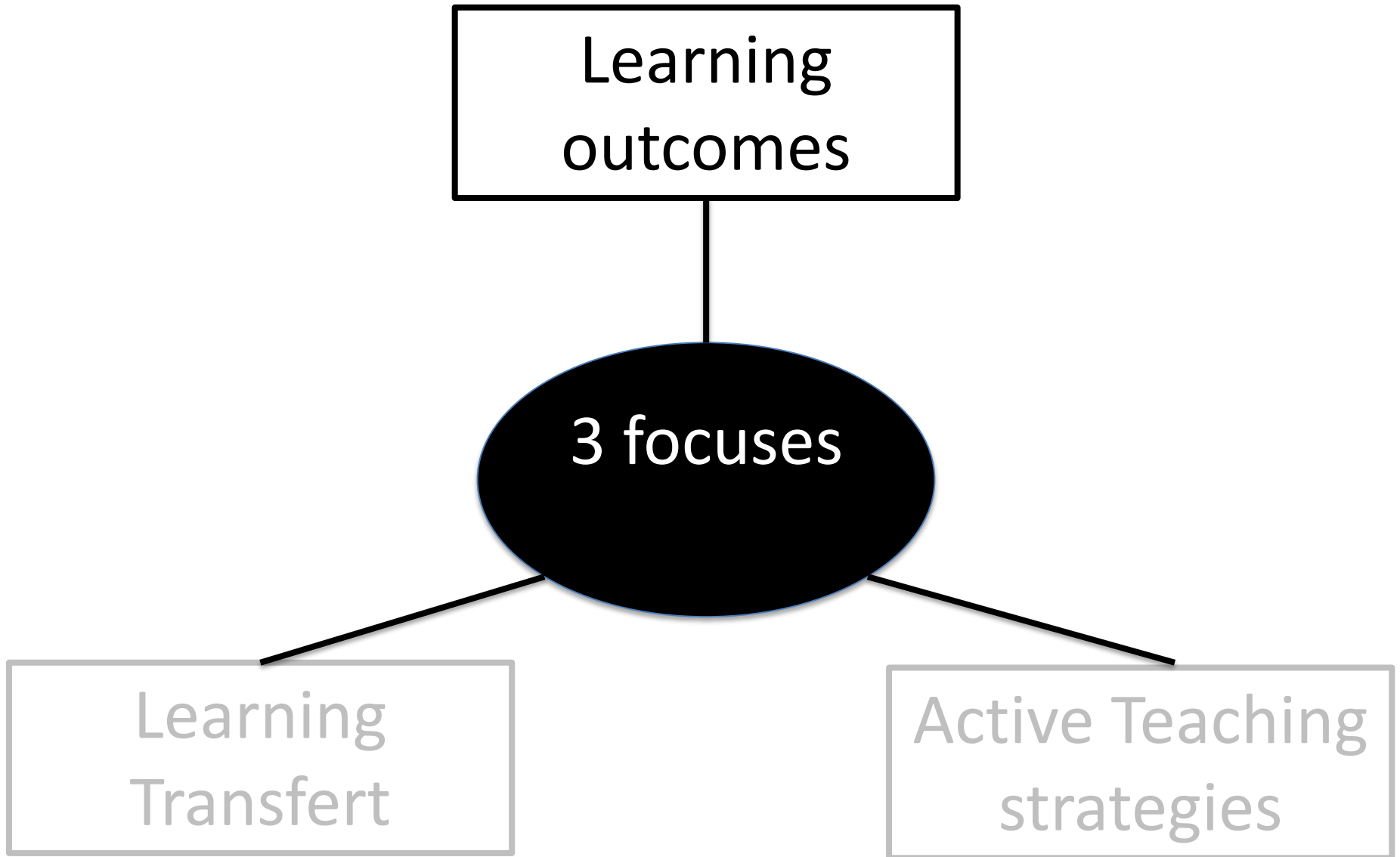


Learning  
outcomes

3 focuses

Learning  
Transfert

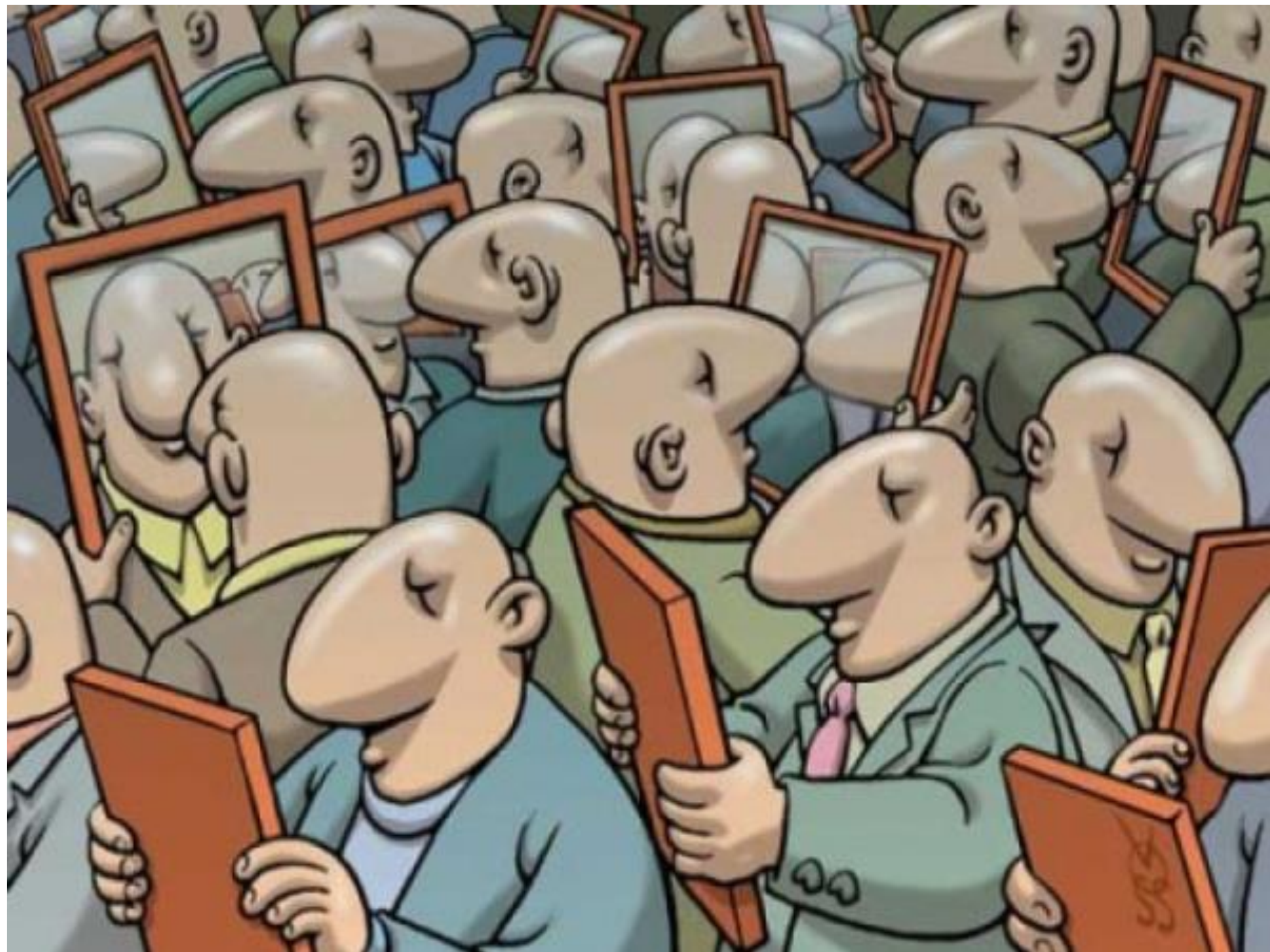
Active Teaching  
strategies



# Learning Outcomes



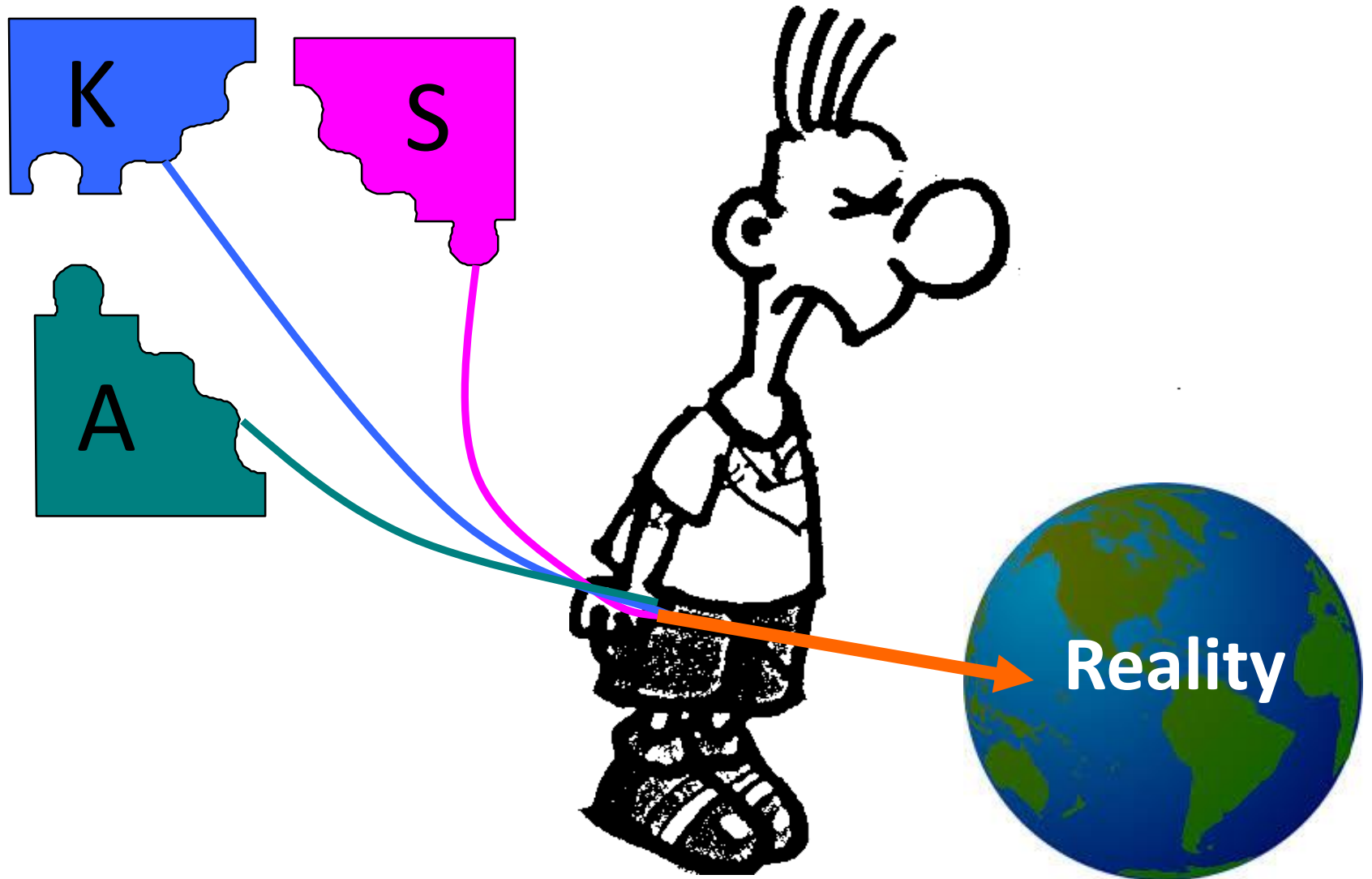
Corner Stone



## Learning outcomes useful to:

- Built
- Evaluate & assess
- Communicate
- Collaborate
- Support autonomy

# The integrative logic of competences

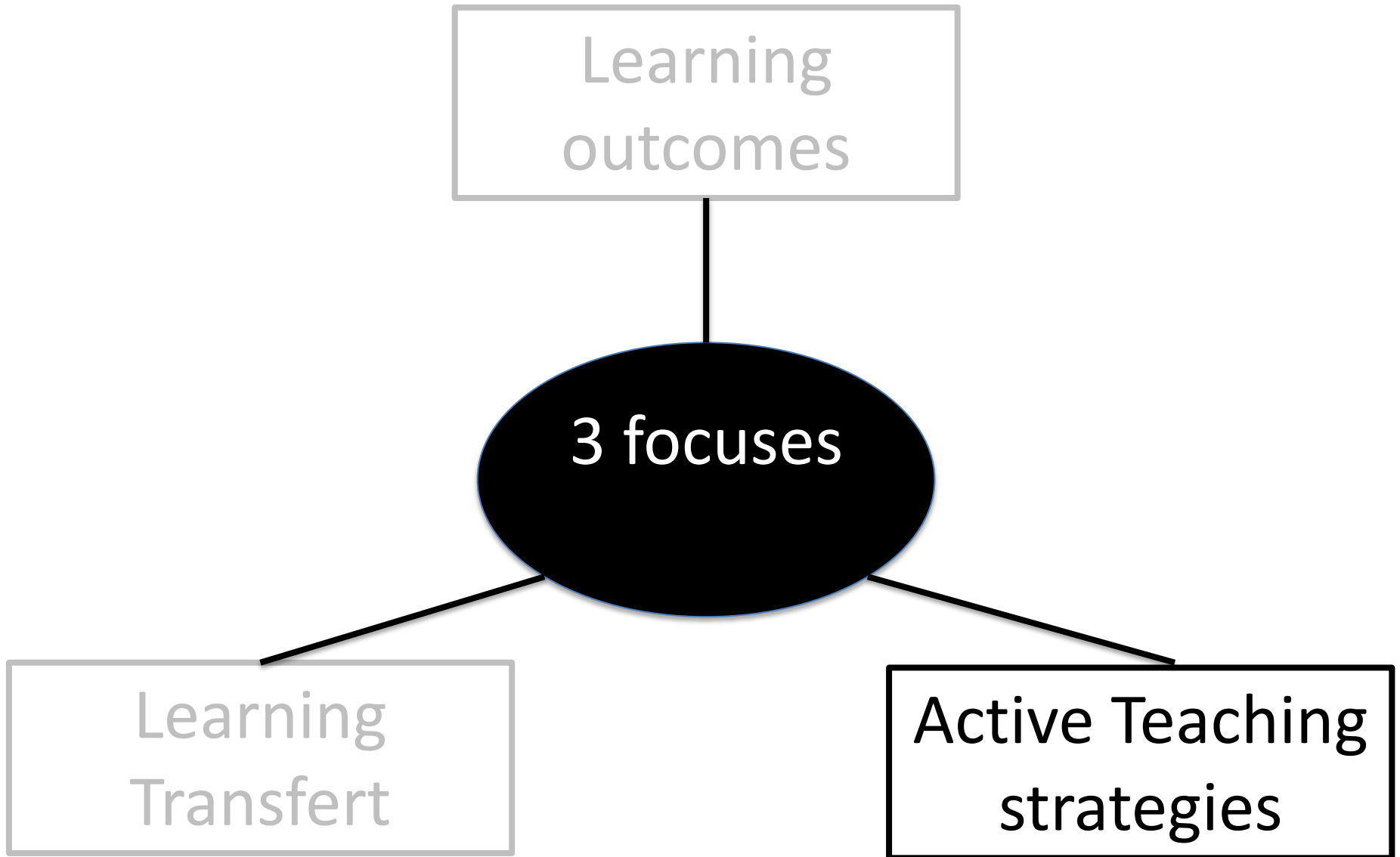


Learning  
outcomes

3 focuses

Learning  
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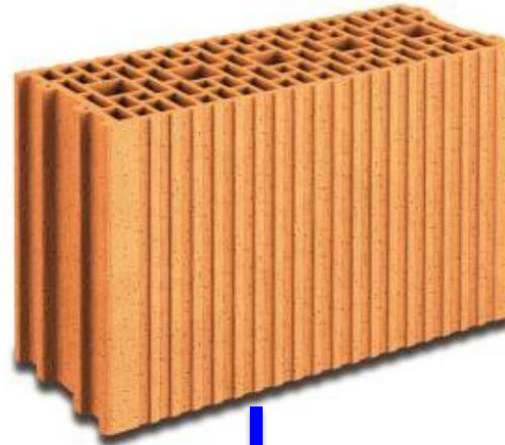
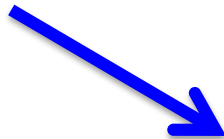
Can you tell me what happened last week ?

Nothing happened the Prof spoke all the time





Cognitivist



Constructivist



Socio-constructivist



Active involvement of Learners



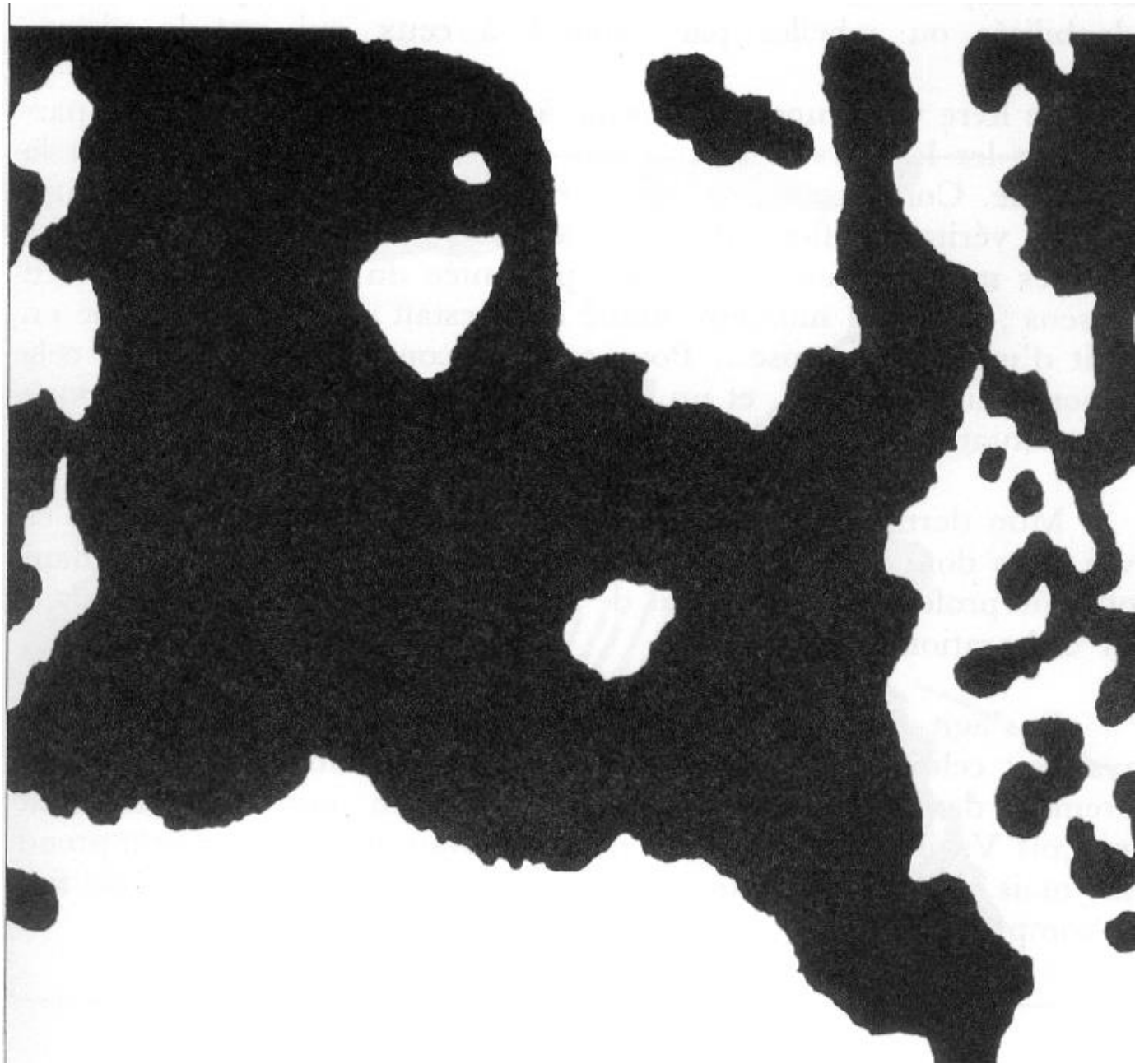
*J. Piaget*

Everything you teach  
them, You prevent  
them from learning it

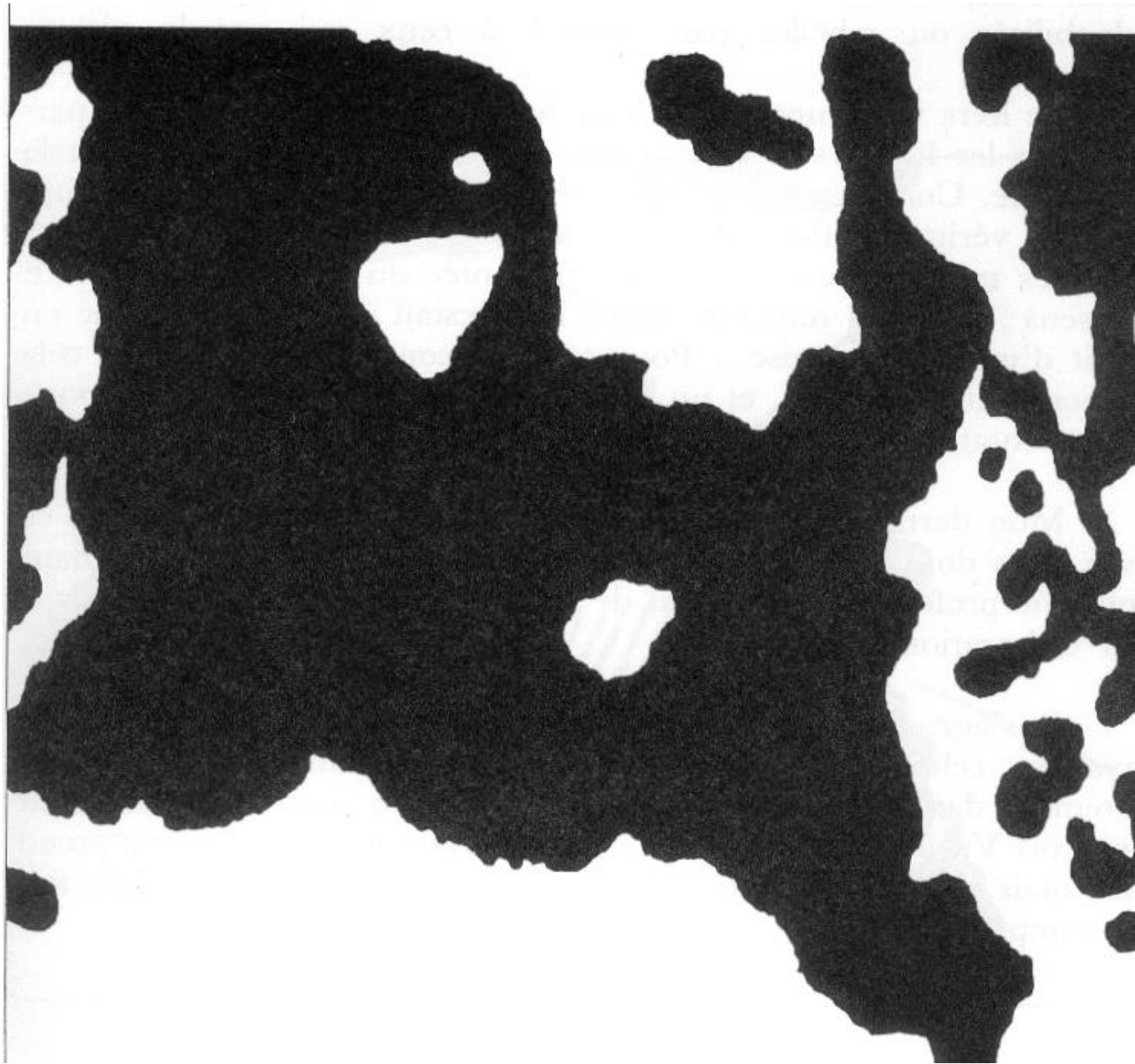
## Change

- Behaviour
- Representation





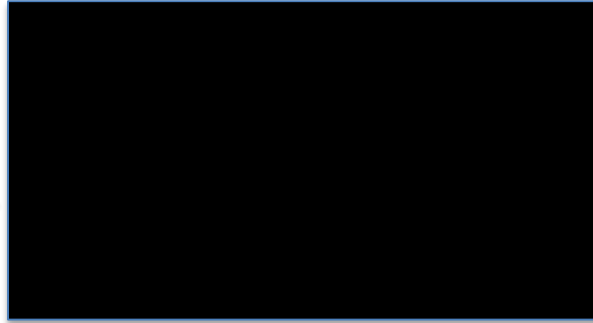




Stimulus



Situation



Change

- Behaviour
- Representation





Stimulus



Situation

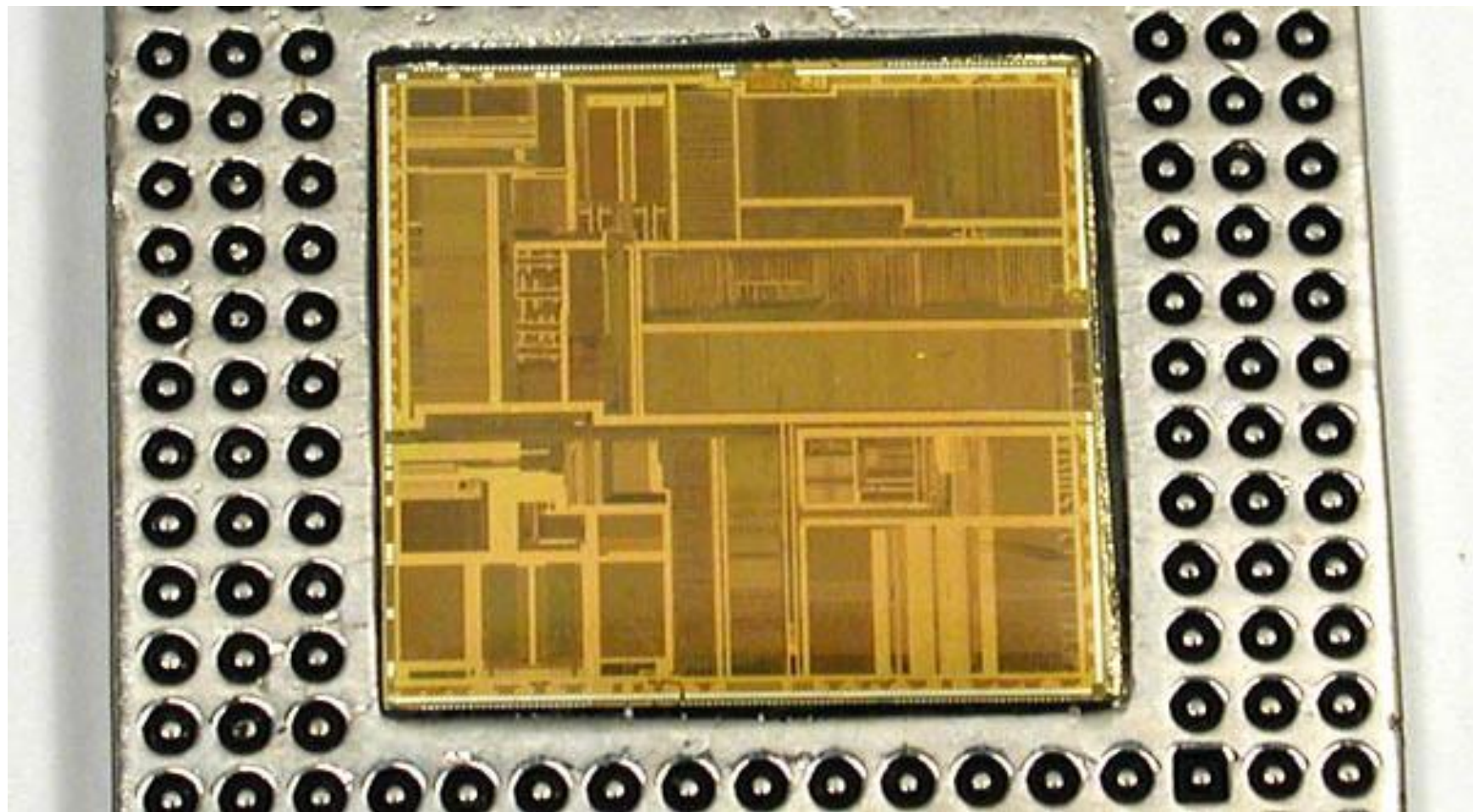


Change

- Behaviour
- Representation



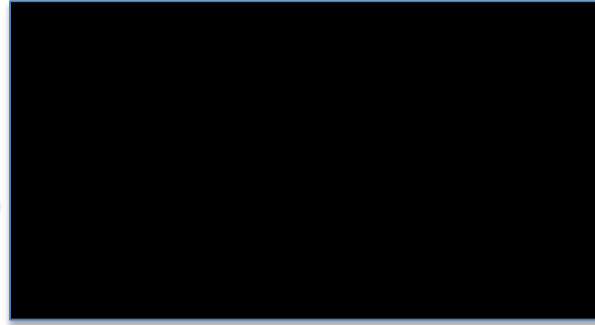
Behaviourist



Stimulus



Situation



Change

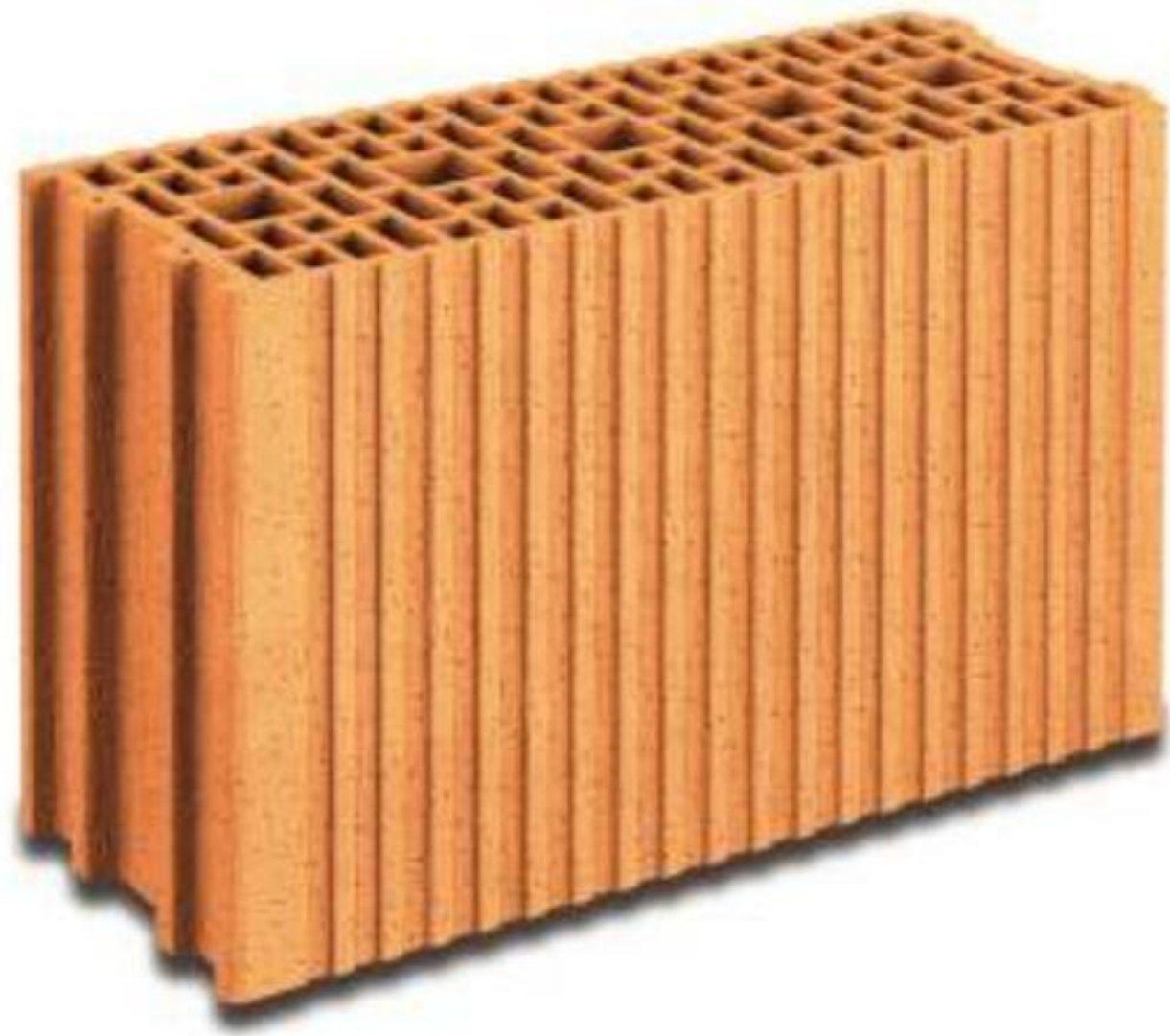
- Behaviour
- Representation



Behavioriste



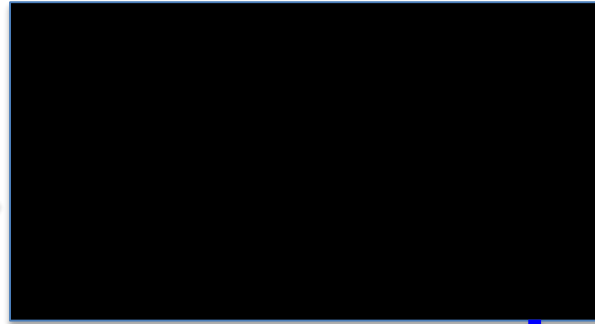
Cognitiviste



Stimulus



Situation



Change

- Behaviour
- Representation



Behaviourist



Cognitivist



Constructivist



Stimulus



Situation



Change

- Behaviour
- Representation



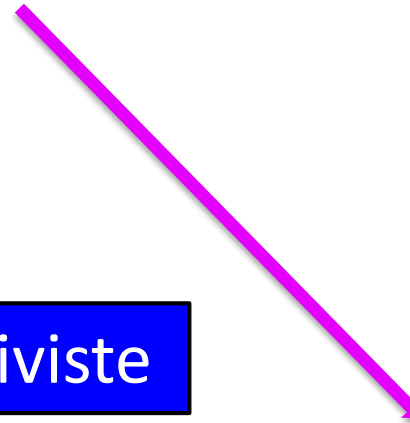
Behaviourist



Cognitivist



Constructivist



Socio-constructivist



# Learning a co-construction



Stimulus



Situation



Change

- Behaviour
- Representation



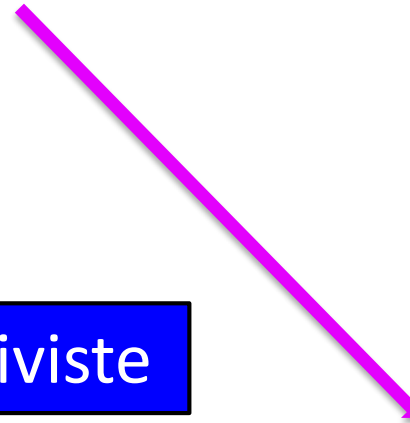
Behaviourist



Cognitivist



Constructivist



Socio-constructivist



Feedback



Stimulus

Situation

Change

- Behaviour
- Representation

Behaviourist

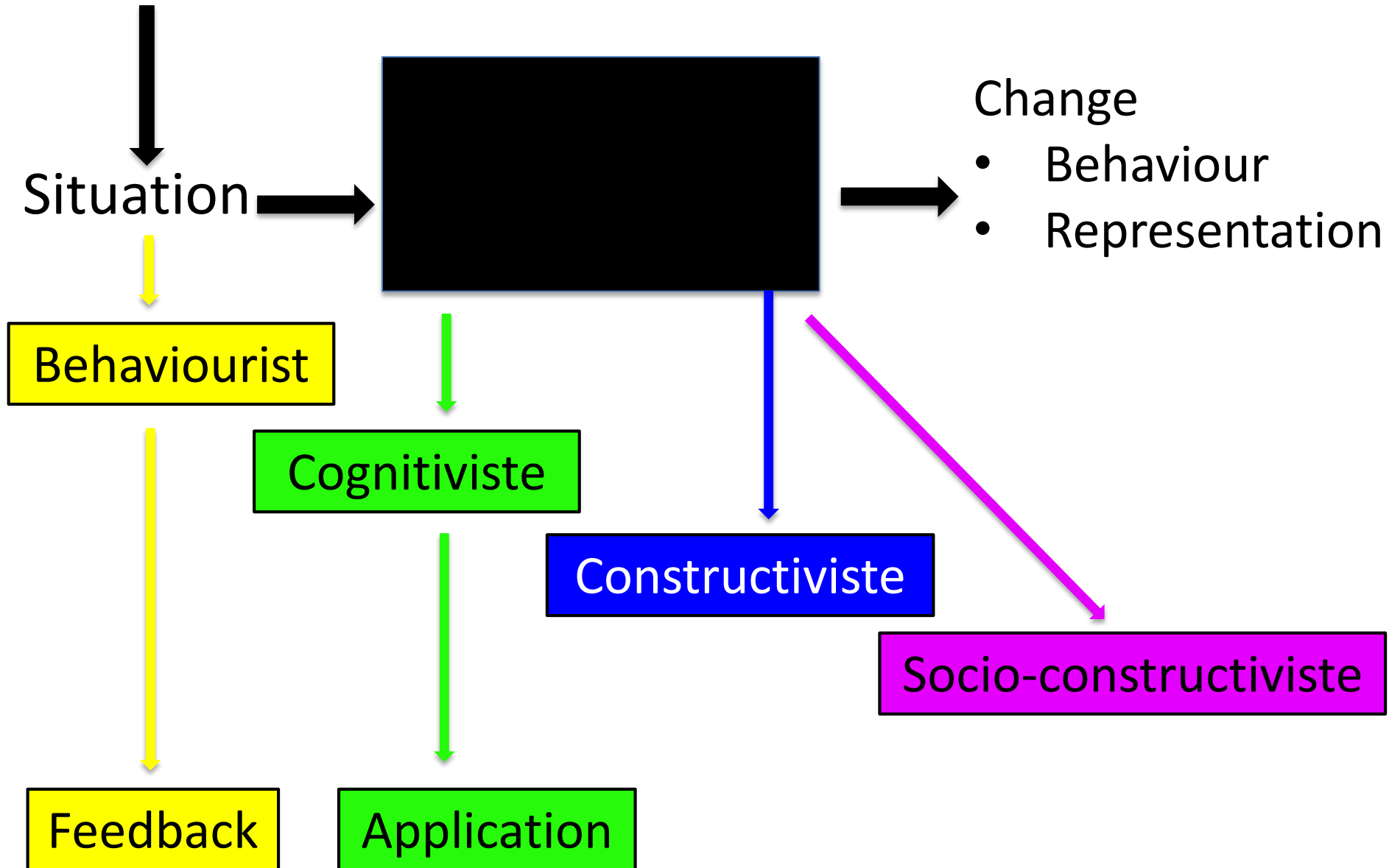
Cognitivist

Constructivist

Socio-constructivist

Feedback

Application



Stimulus

Situation

Change

- Behaviour
- Representation

Behavioriste

Cognitiviste

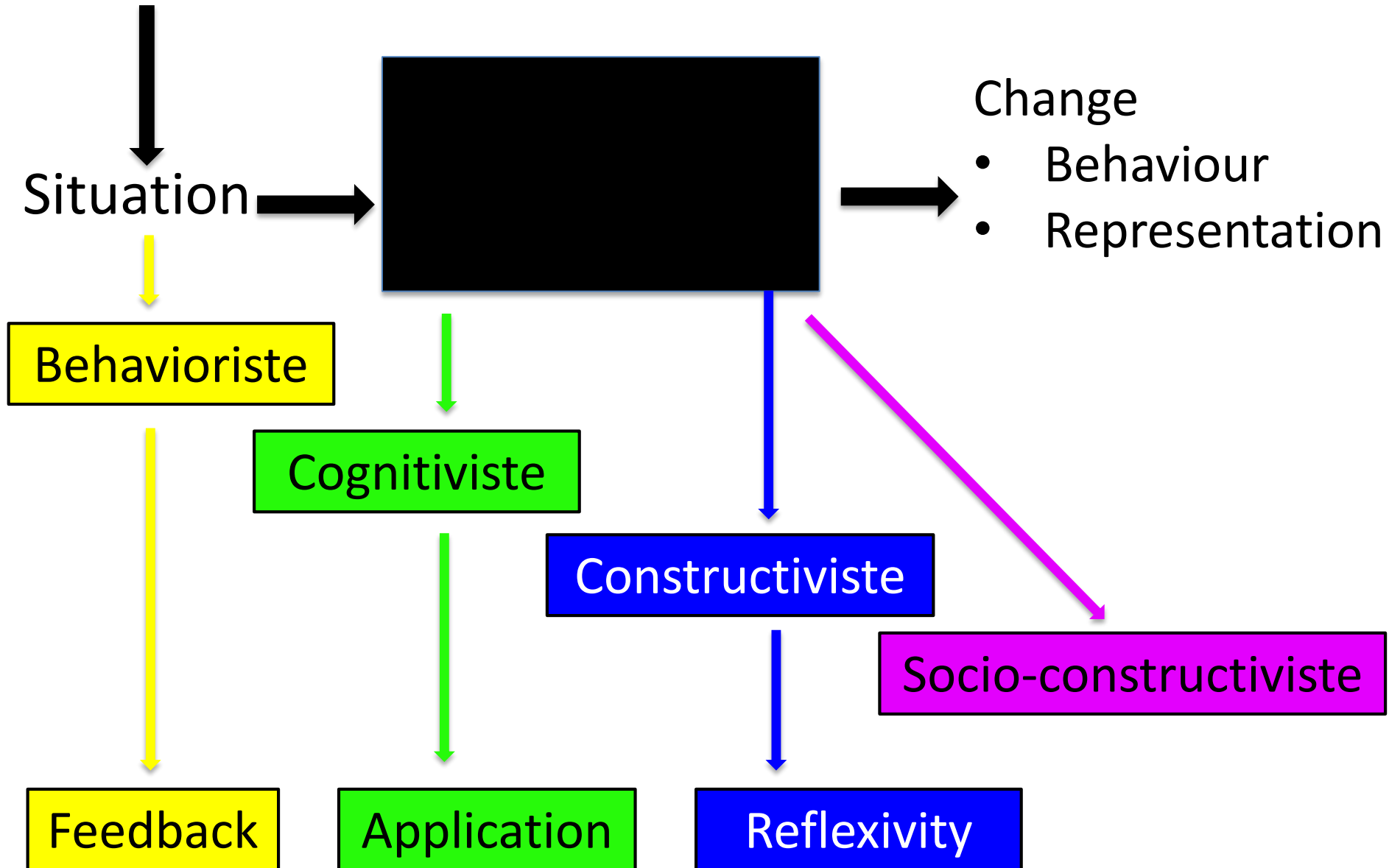
Constructiviste

Socio-constructiviste

Feedback

Application

Reflexivity



Stimulus

Situation

Change

- Behaviour
- Representation

Behavioriste

Cognitiviste

Constructiviste

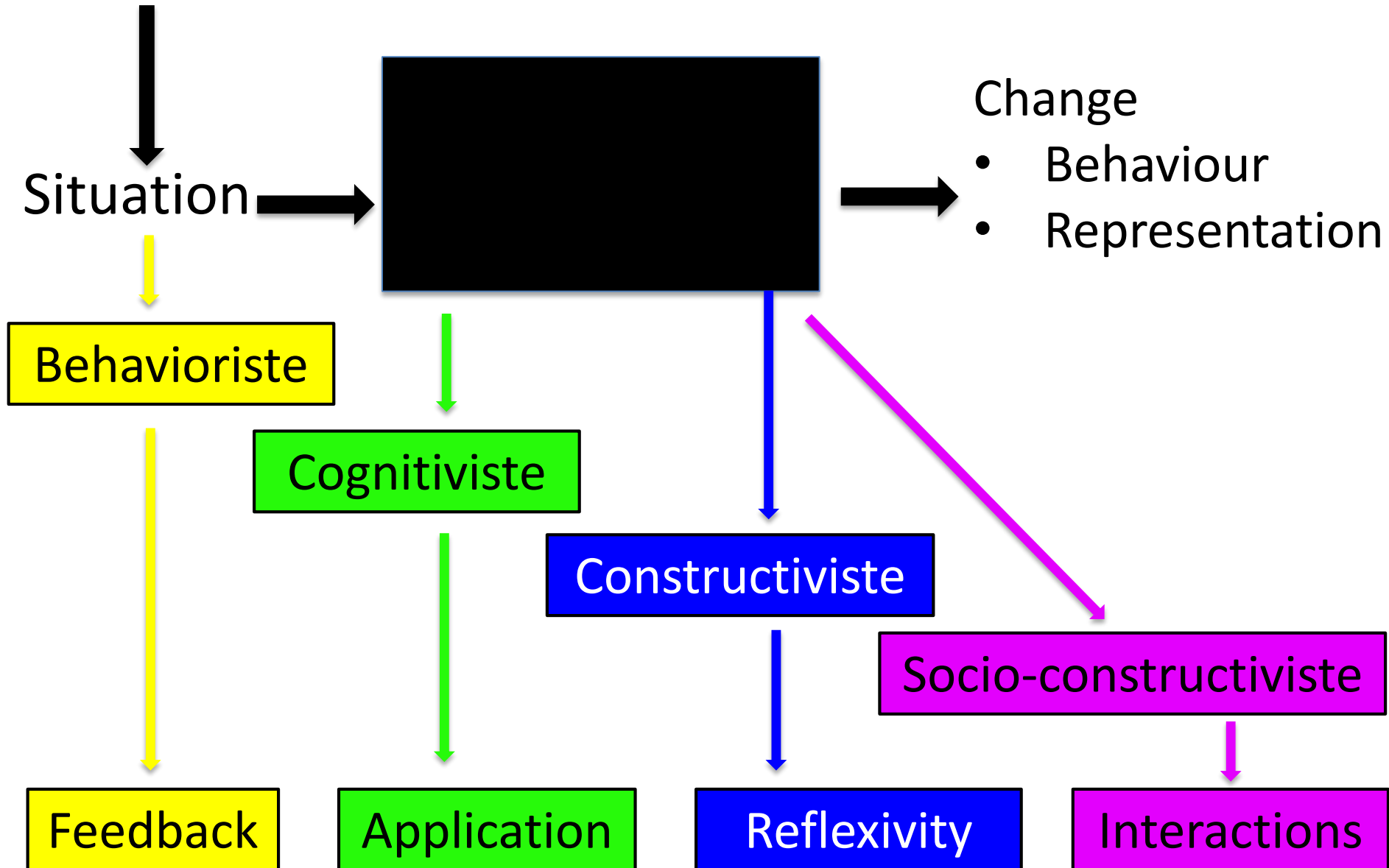
Socio-constructiviste

Feedback

Application

Reflexivity

Interactions



Stimulus

Situation

Change

- Behaviour
- Representation

Behavioriste

Cognitiviste

Constructiviste

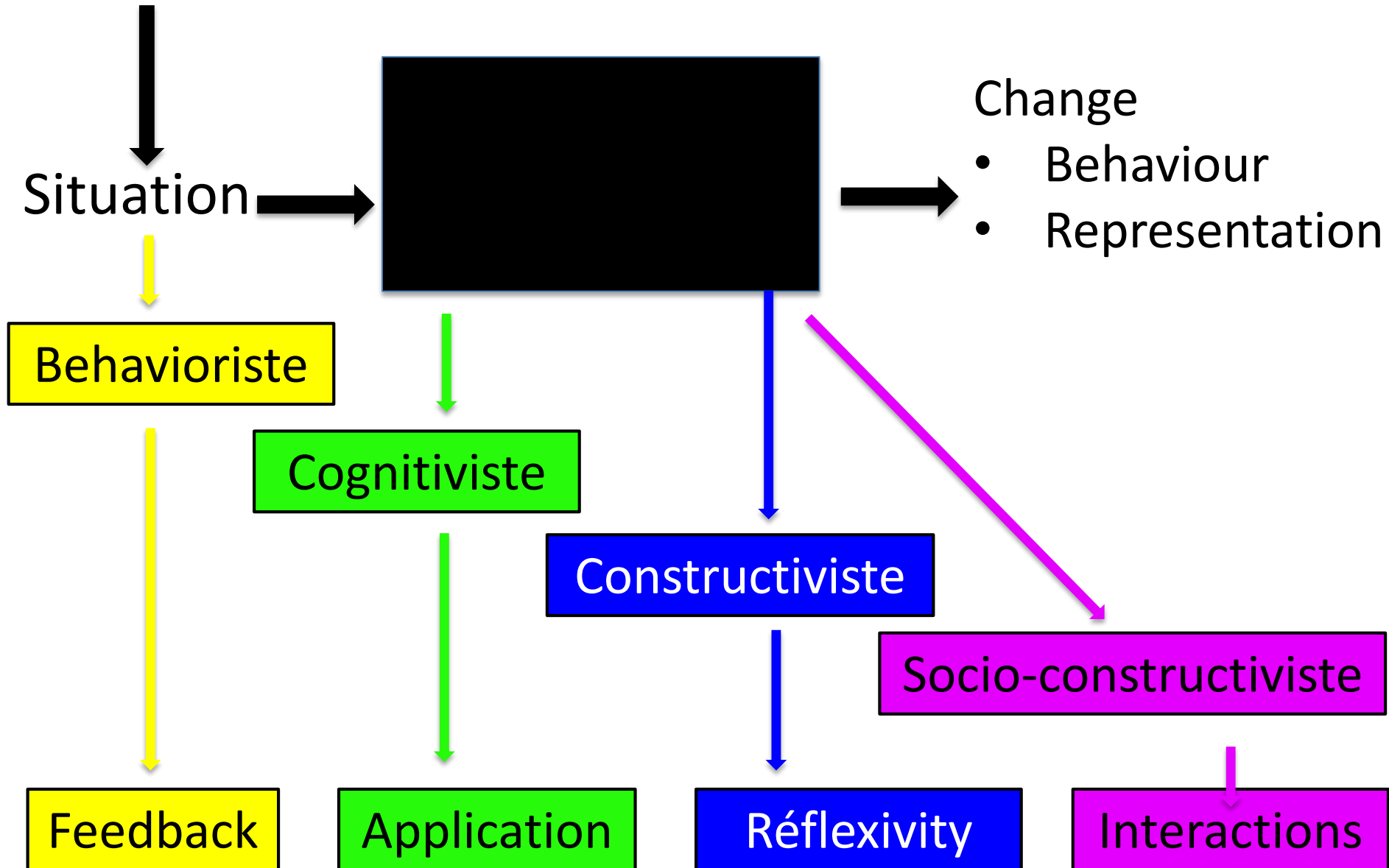
Socio-constructiviste

Feedback

Application

Réflexivité

Interactions



Application

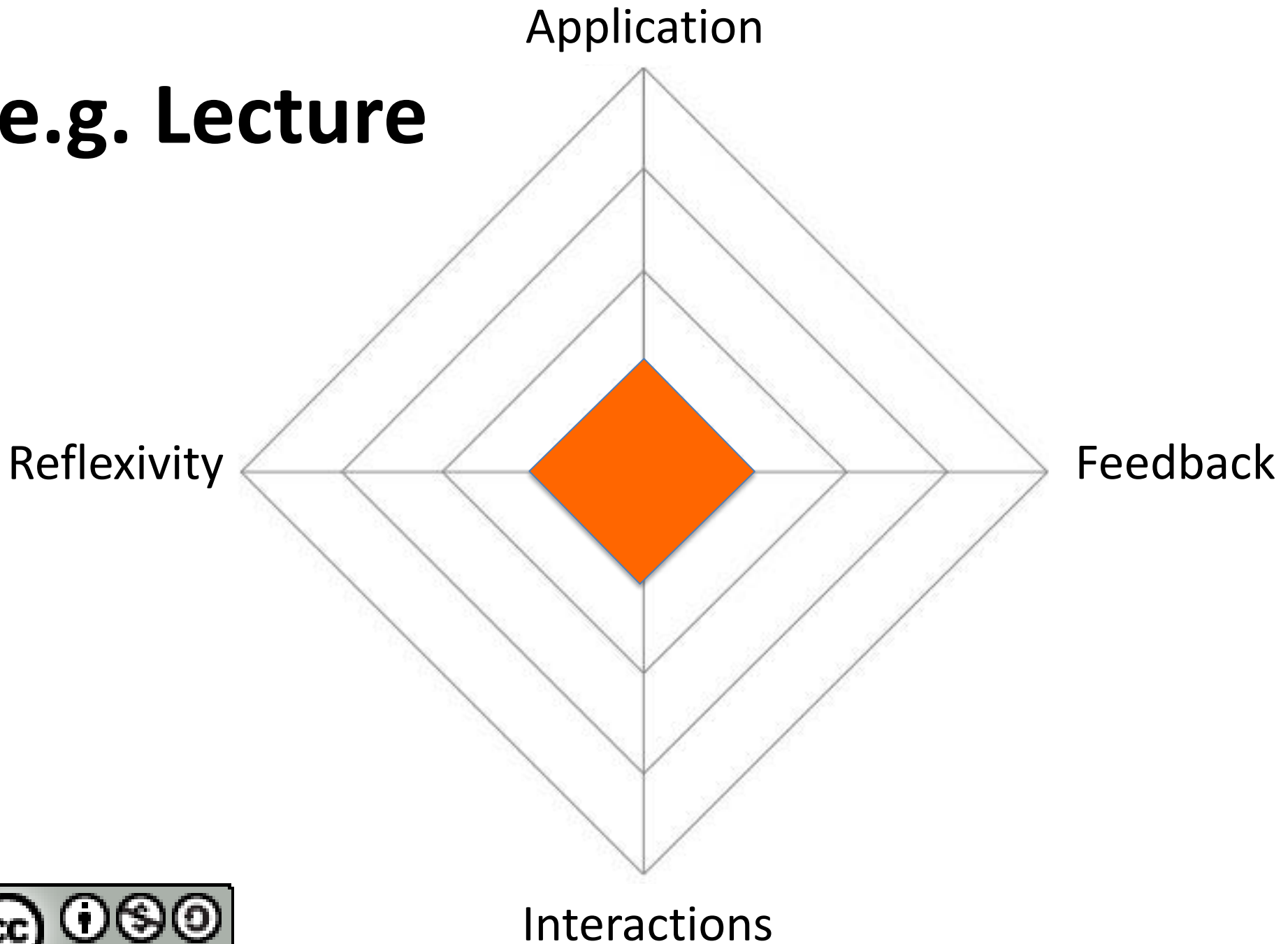
Reflexivity

Feedback

Interactions

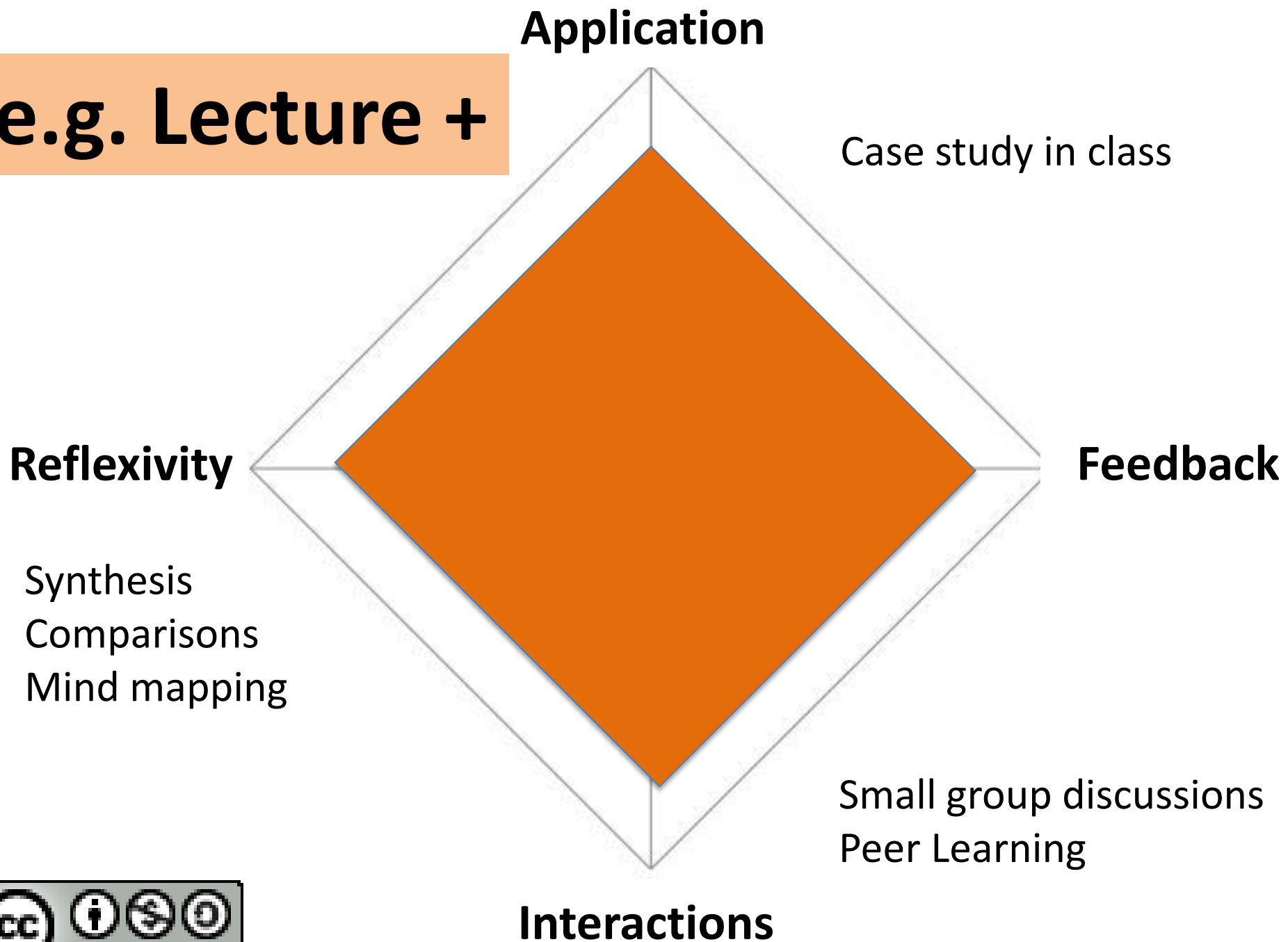


**e.g. Lecture**





**e.g. Lecture +**



An illustration of various educational and technological items: a green lightbulb, a smartphone, a tablet, a laptop, a desktop monitor displaying a bar chart and pie chart, a pair of headphones, an open book, and a computer mouse.

**coursera**

# The MOOC revolution: Status and next steps

**Andrew Ng**

Stanford University & Coursera

# HarvardX and MITx: Two Years of Open Online Courses

Fall 2012-Summer 2014

## Inside

Executive Summary

Trends and patterns in  
demographics and  
outcomes

Replicating and  
extending survey  
research on intention;  
teachers-as-learners

Visualizing the  
HarvardX and MITx  
course network

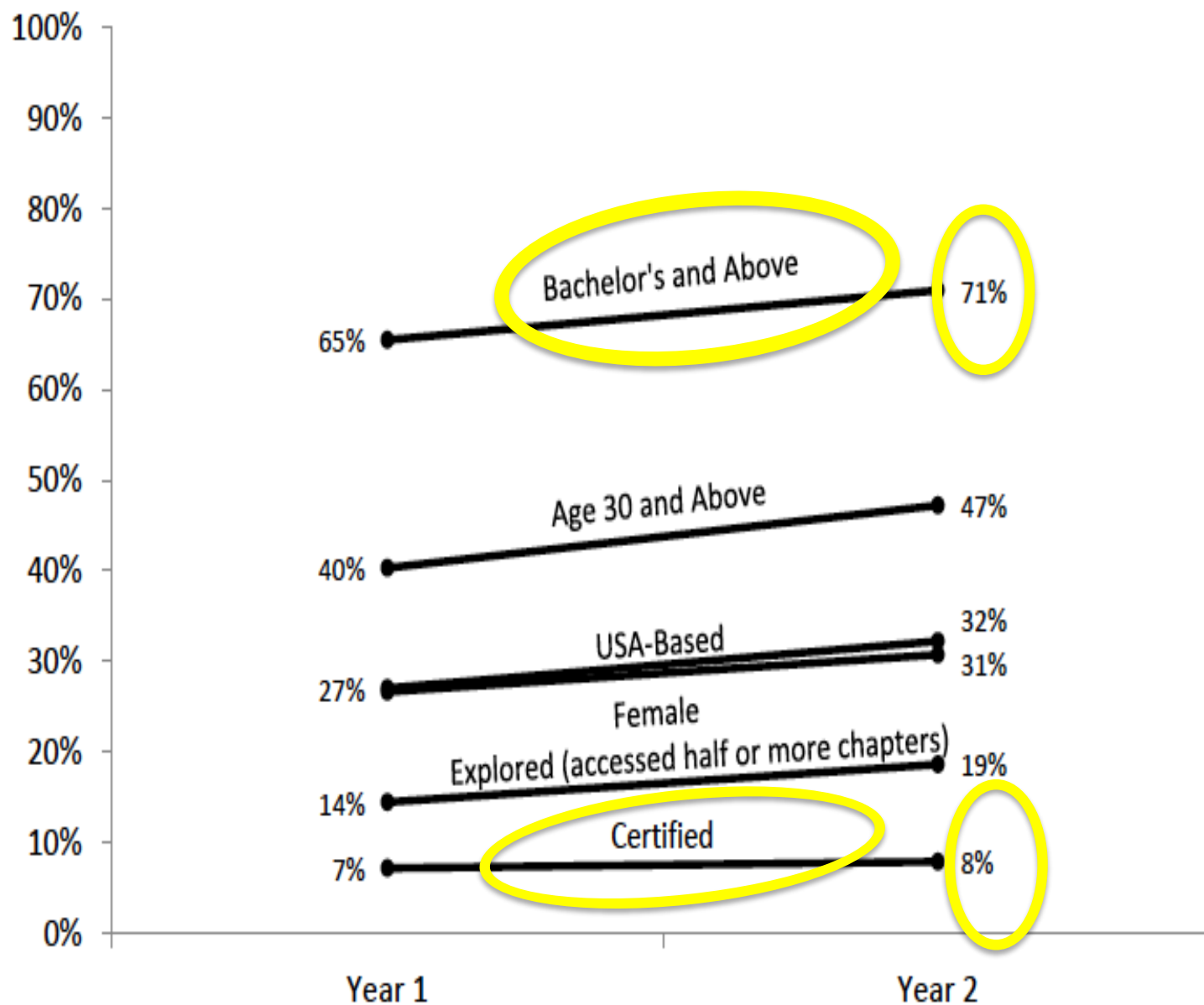
Differences across  
curricular content  
areas

"Top 5s": Different ways  
of looking at open  
online courses

Preliminary results for  
those who pay for



March 30, 2015

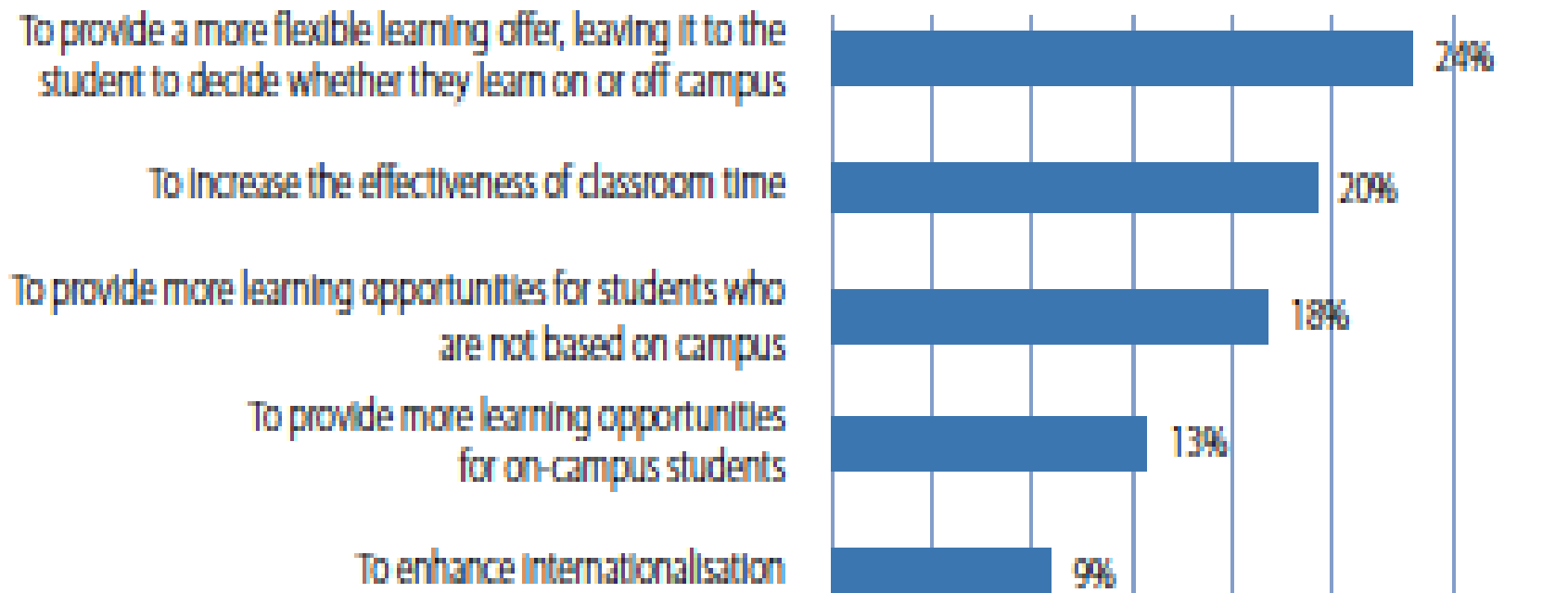


**Figure 1. Trends in HarvardX and MITx open online courses, Year 1 (2012-2013, 604,932 participants, 16 courses) to Year 2 (2013-2014, 867,213 participants, 48 courses).**

**Figure 18: What is your institution's most important objective regarding the development of e-learning in the future? (Q44)**

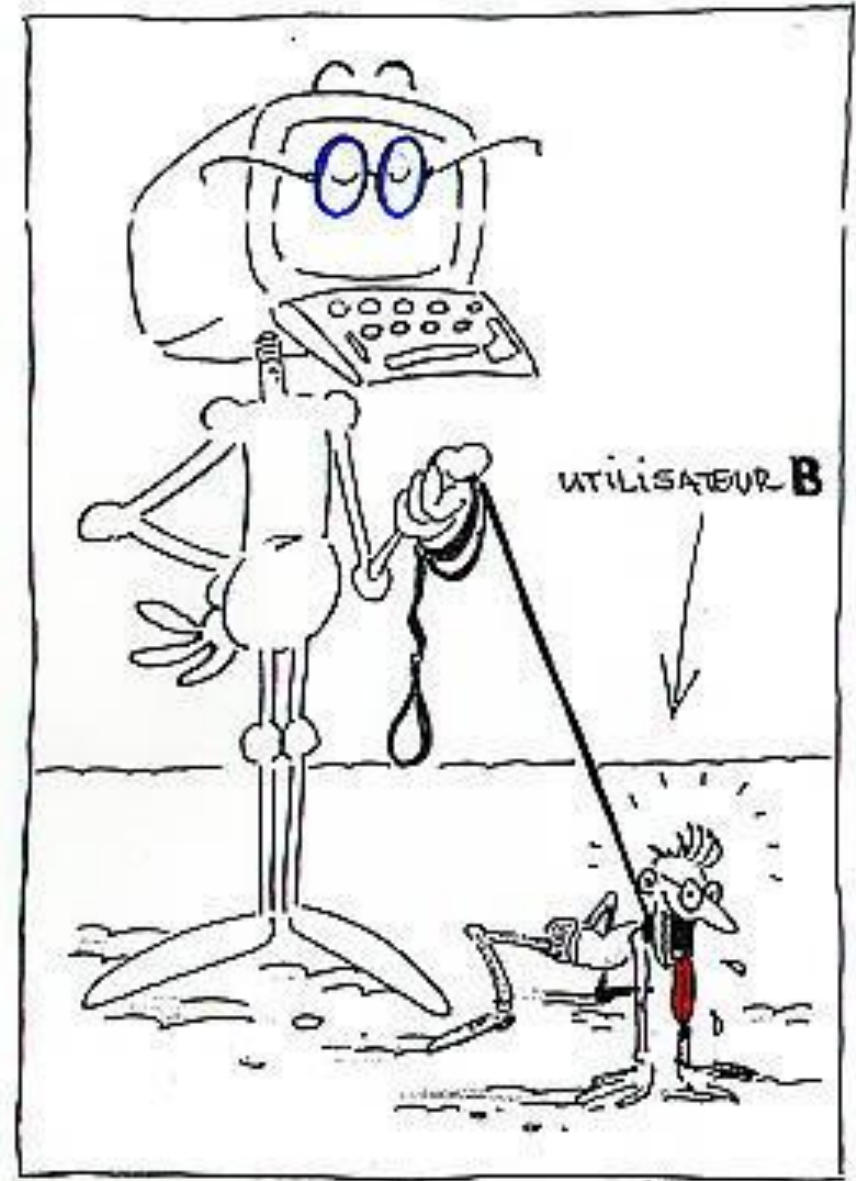
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### **Top five objectives regarding the future development of e-learning**





# Pedagogical reflection should take precedence over use of technology



ENRICO 89



# THE FLIPPED CLASSROOM REVOLUTION

COMING TO A BRAIN  
NEAR YOU



*« Is active learning like broccoli?  
Student perceptions of active  
learning in large lecture classes »*



Smith & Cardaciotto 2011

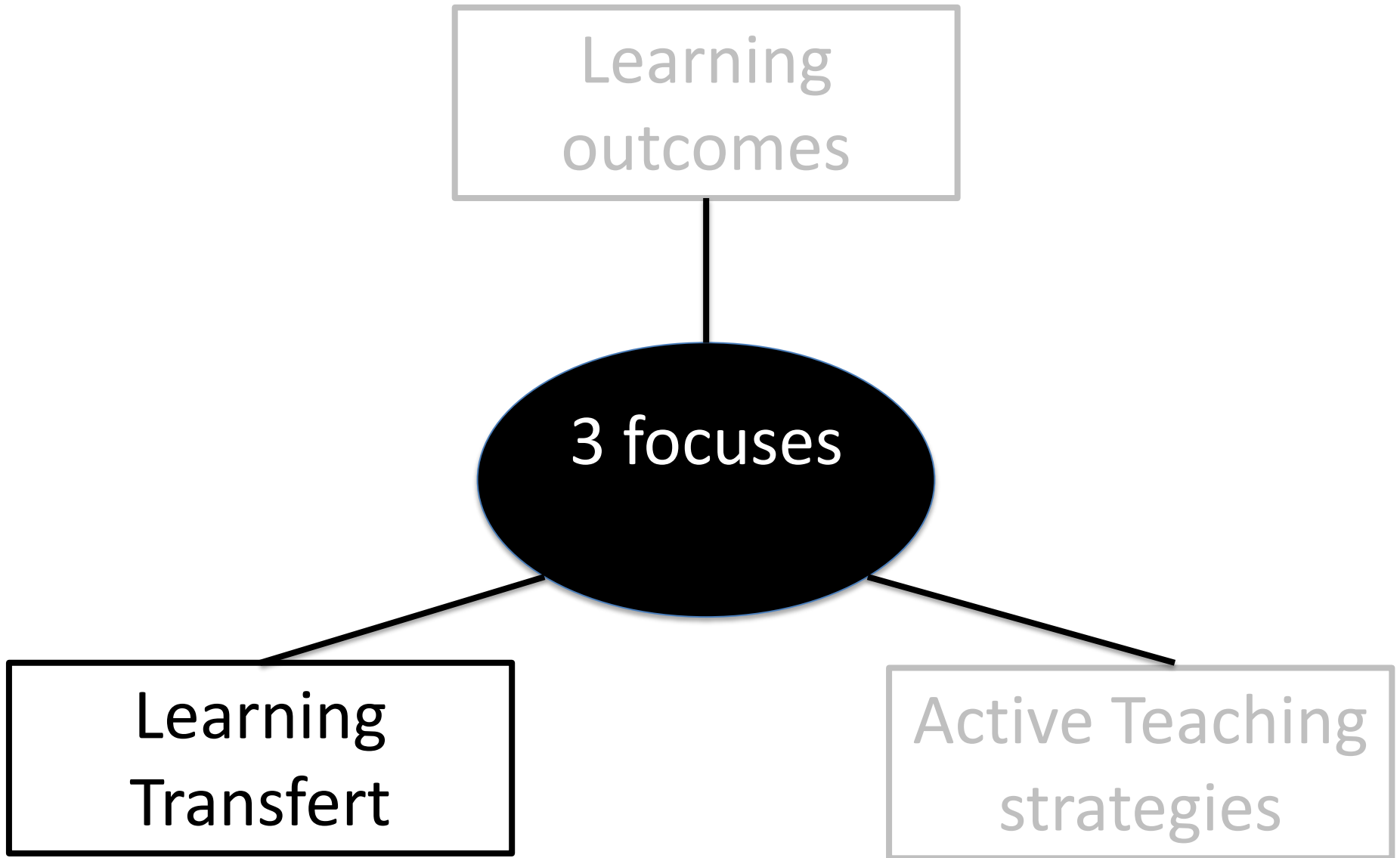


Learning  
outcomes

3 focuses

Learning  
Transfert

Active Teaching  
strategies



# Learning Transfert

| le savoir vivant |



# What is it ?

The ability to solve new problems in new situations by using knowledge learned previously in previous different situations

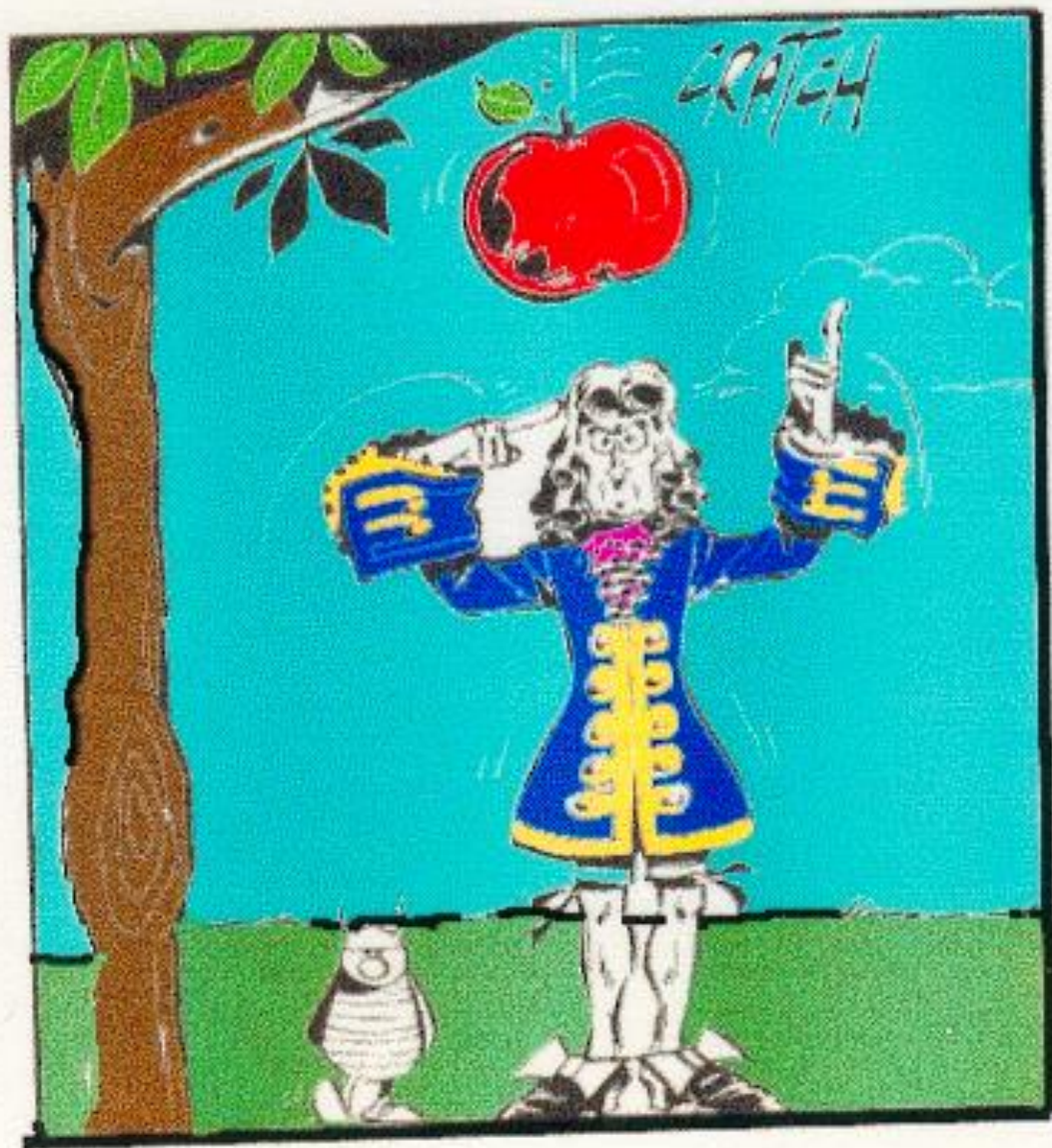
*Frenay & Bedard 2006*

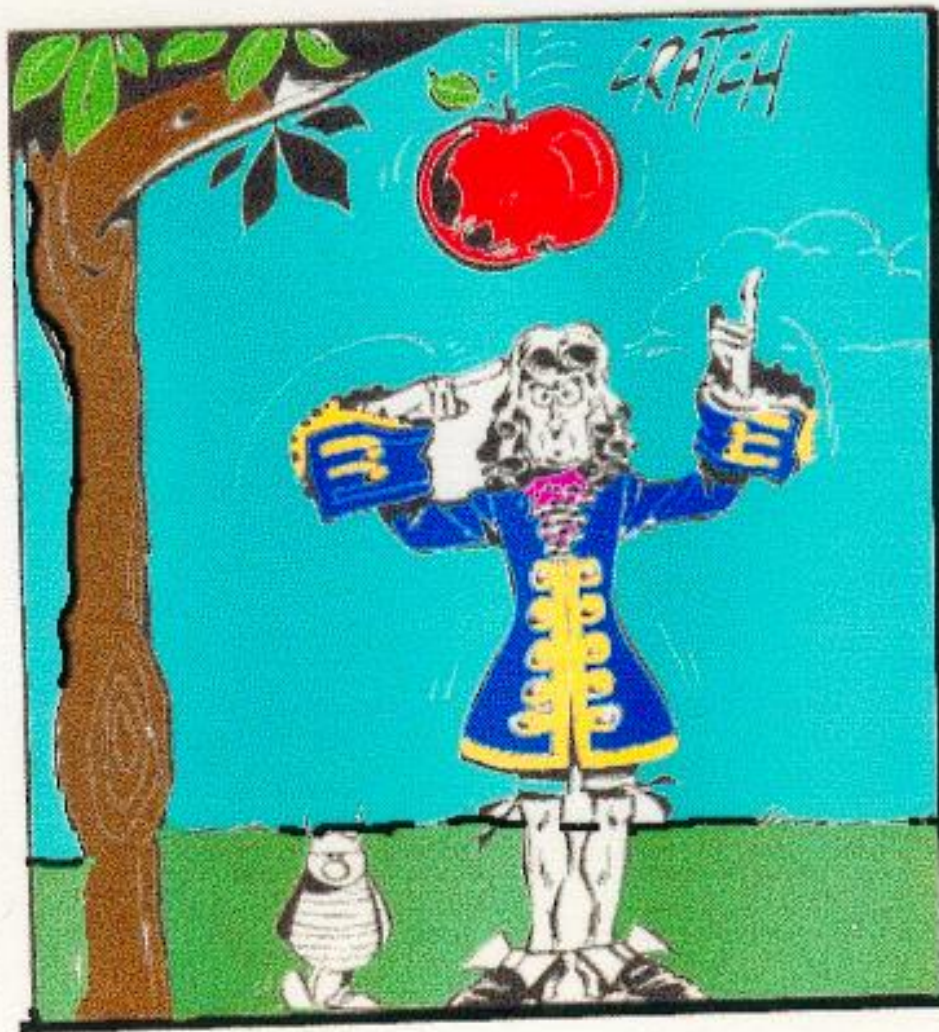


# To train to build bridges



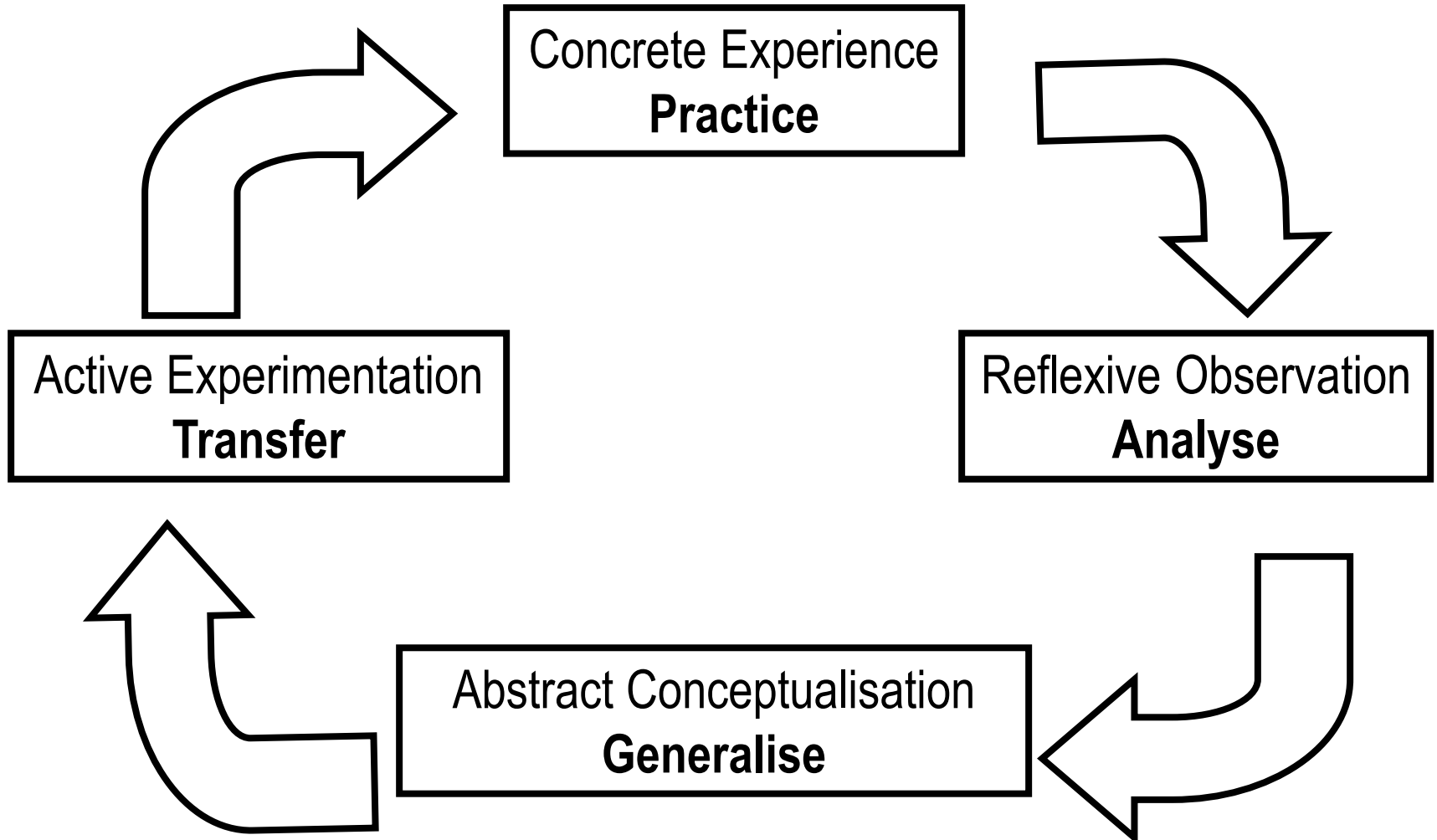






**Learning does not come from what you experience  
but from what you do when you experience it**

# Reflexive Practice



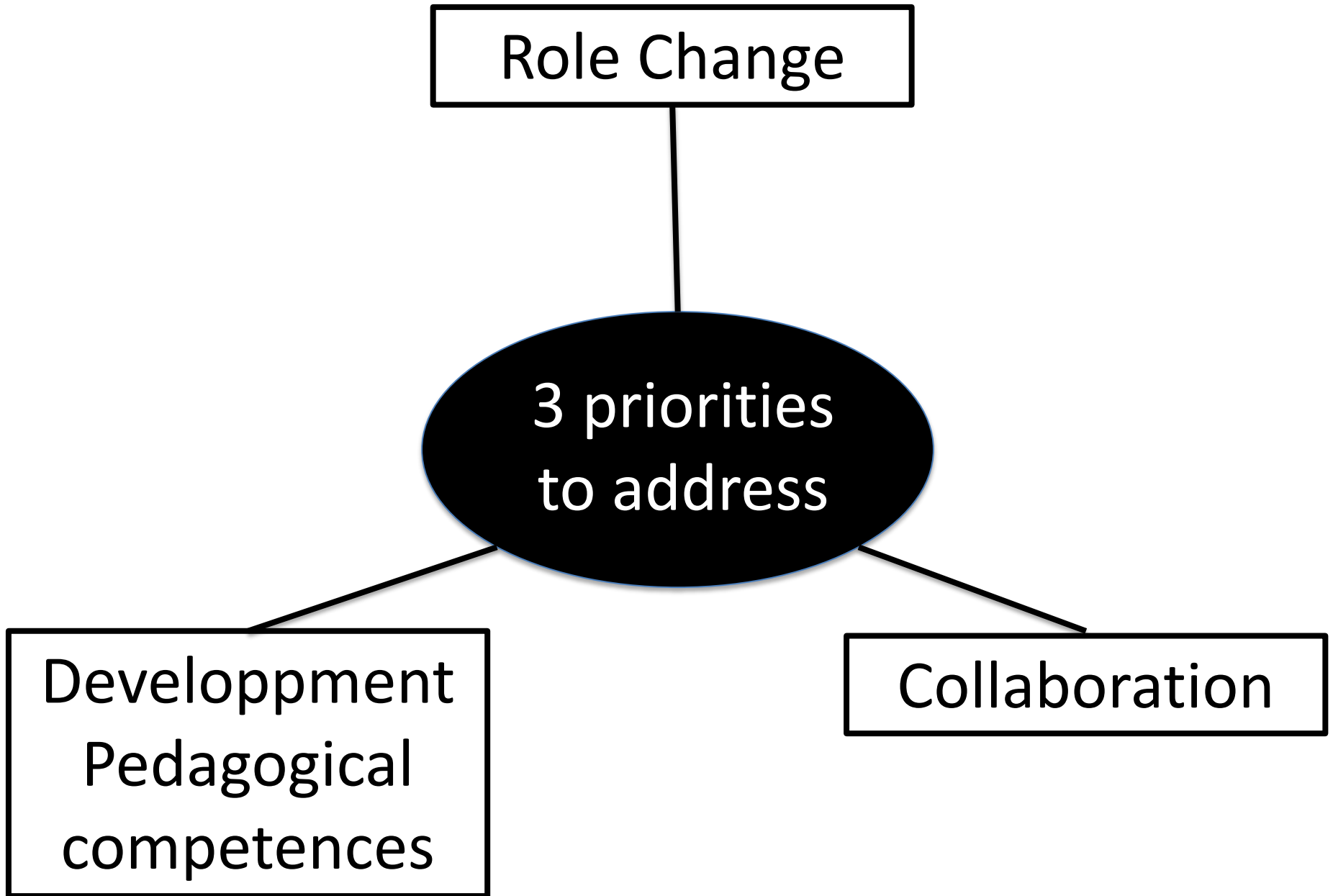


Role Change

3 priorities  
to address

Developpment  
Pedagogical  
competences

Collaboration

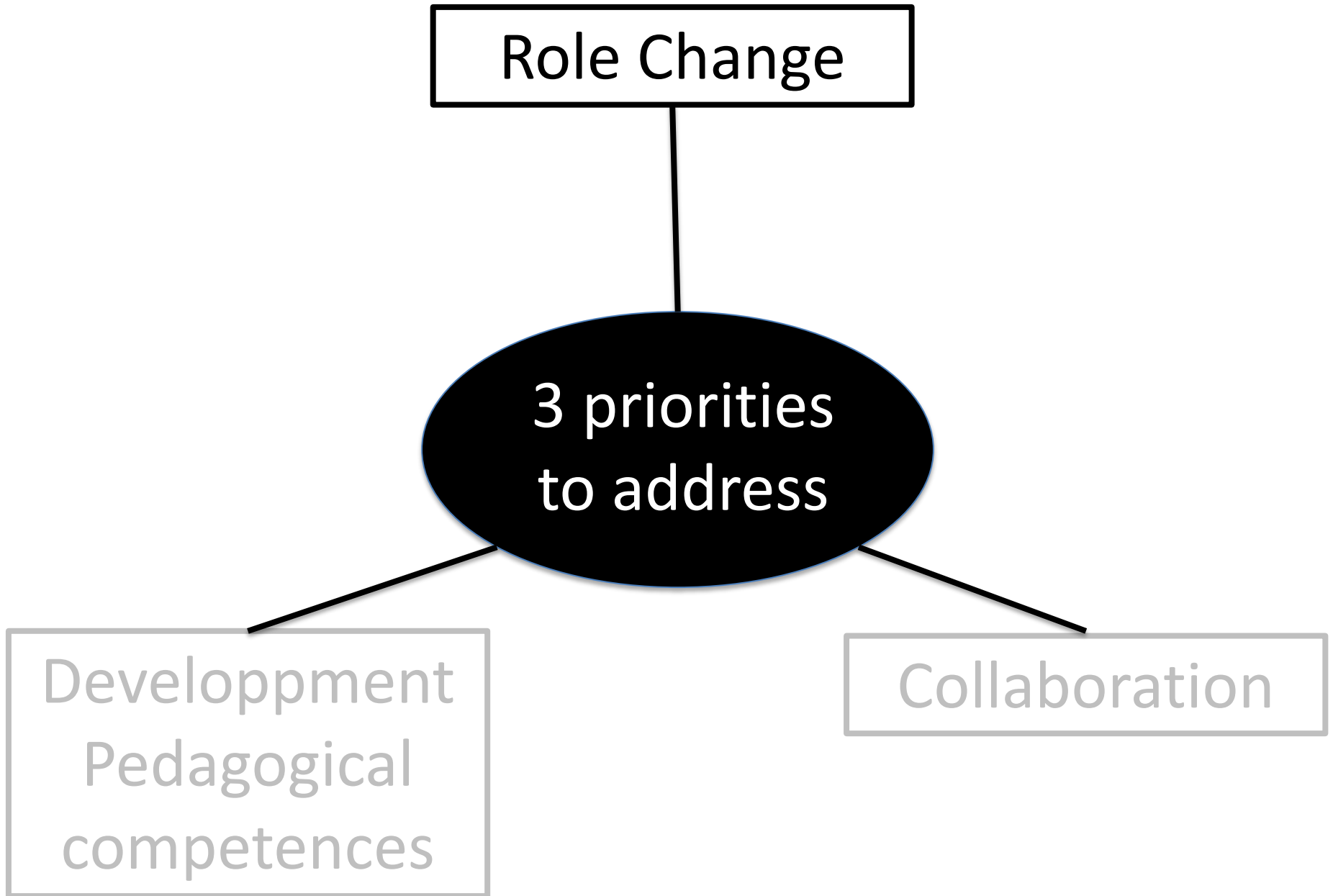


Role Change

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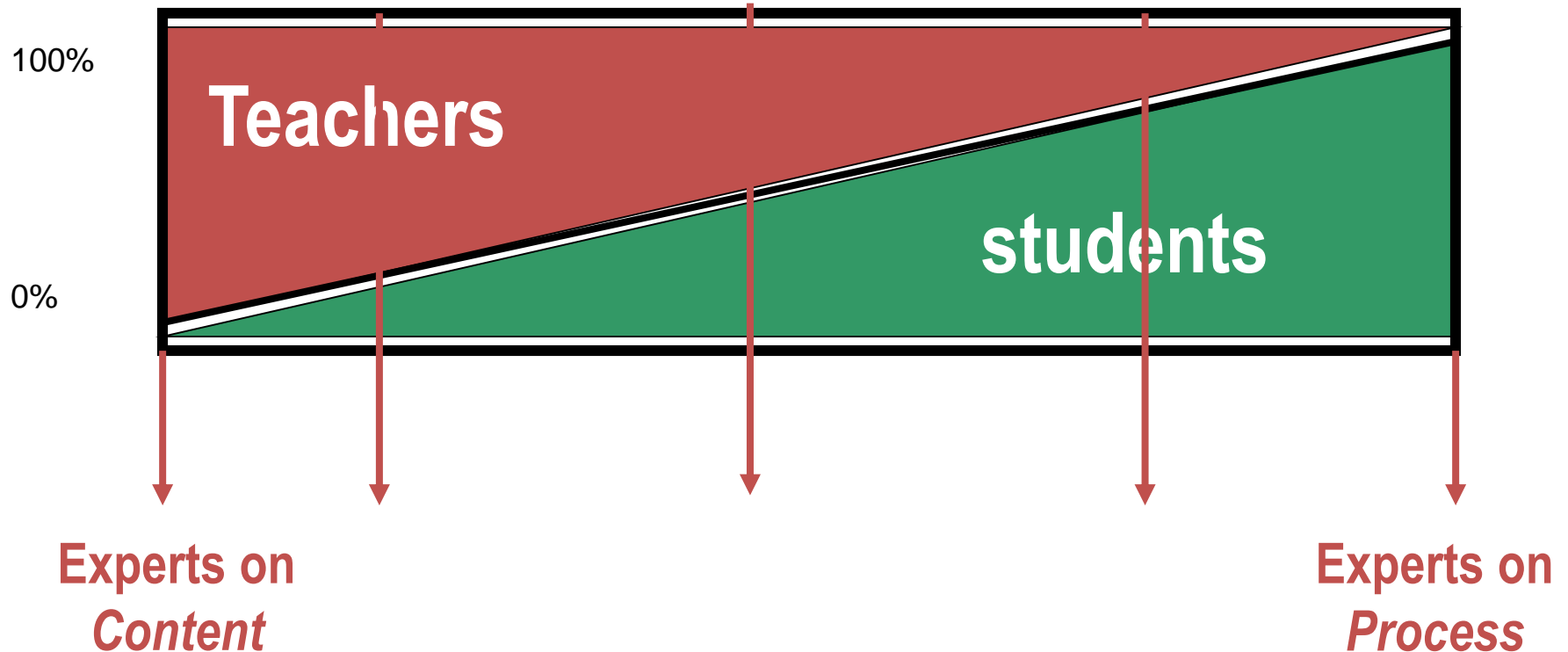
Collaboration





Un cours à l'université donné par Henricus de Alemannia (peinture de Laurent de Voltina (seconde moitié du 14e siècle)

# Relation between role of teachers and degree of utilisation of knowledge and cognitive capacities of students

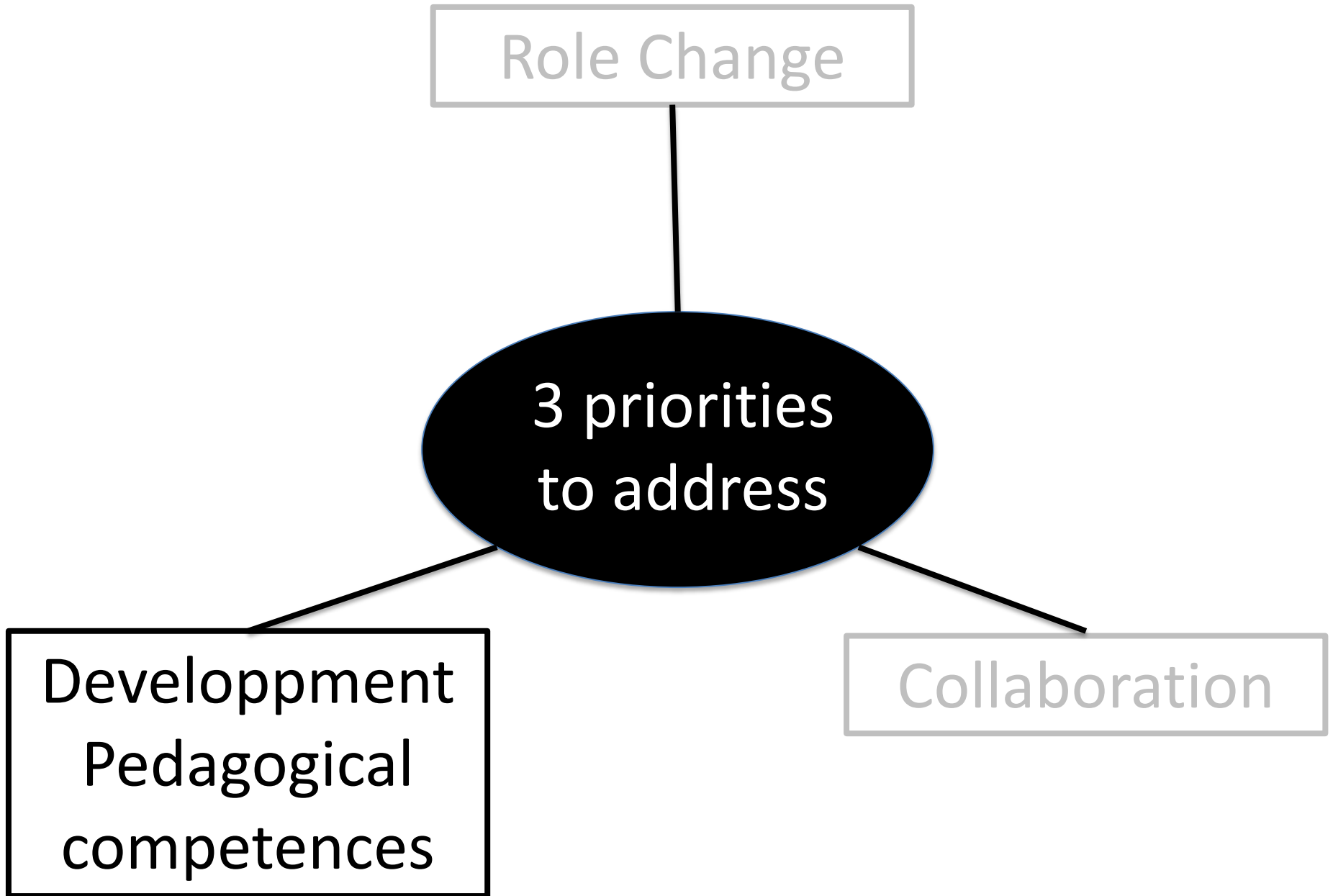


Role Change

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Developpment  
Pedagogical  
competences

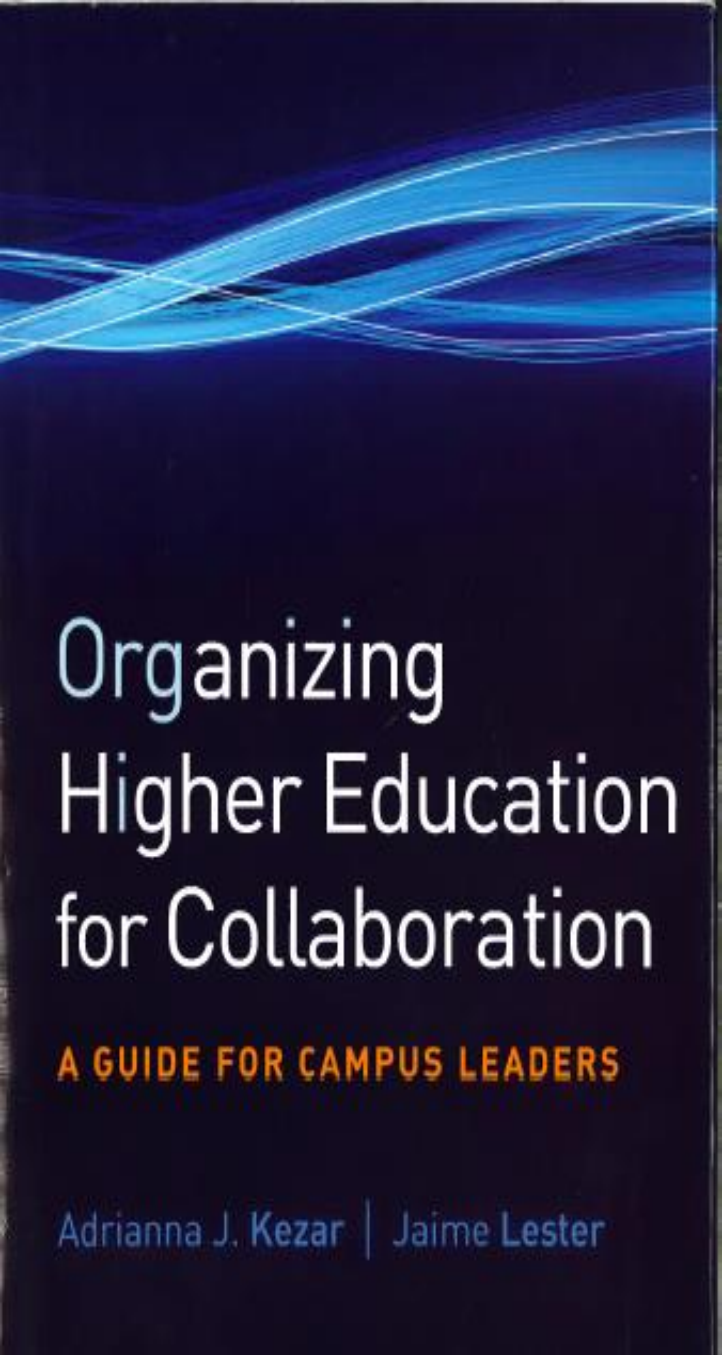
Collaboration





Rather individualistic approaches...





# Organizing Higher Education for Collaboration

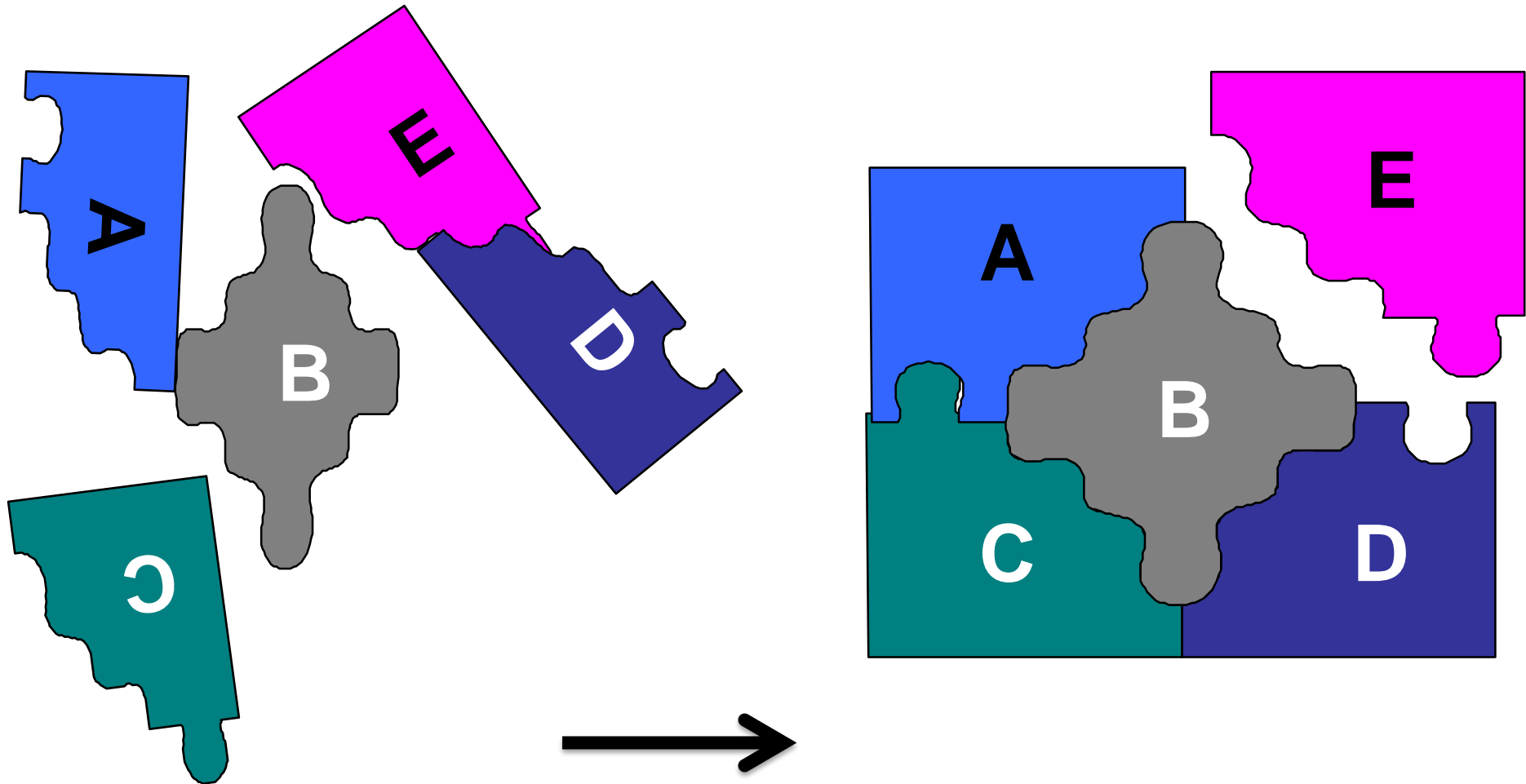
A GUIDE FOR CAMPUS LEADERS

Adrianna J. Kezar | Jaime Lester

**»collaboration has moved  
from an intuitively good idea  
to an imperative because of  
the overwhelming evidence  
of it's benefits «**



# Collaborate to elaborate a coherent project

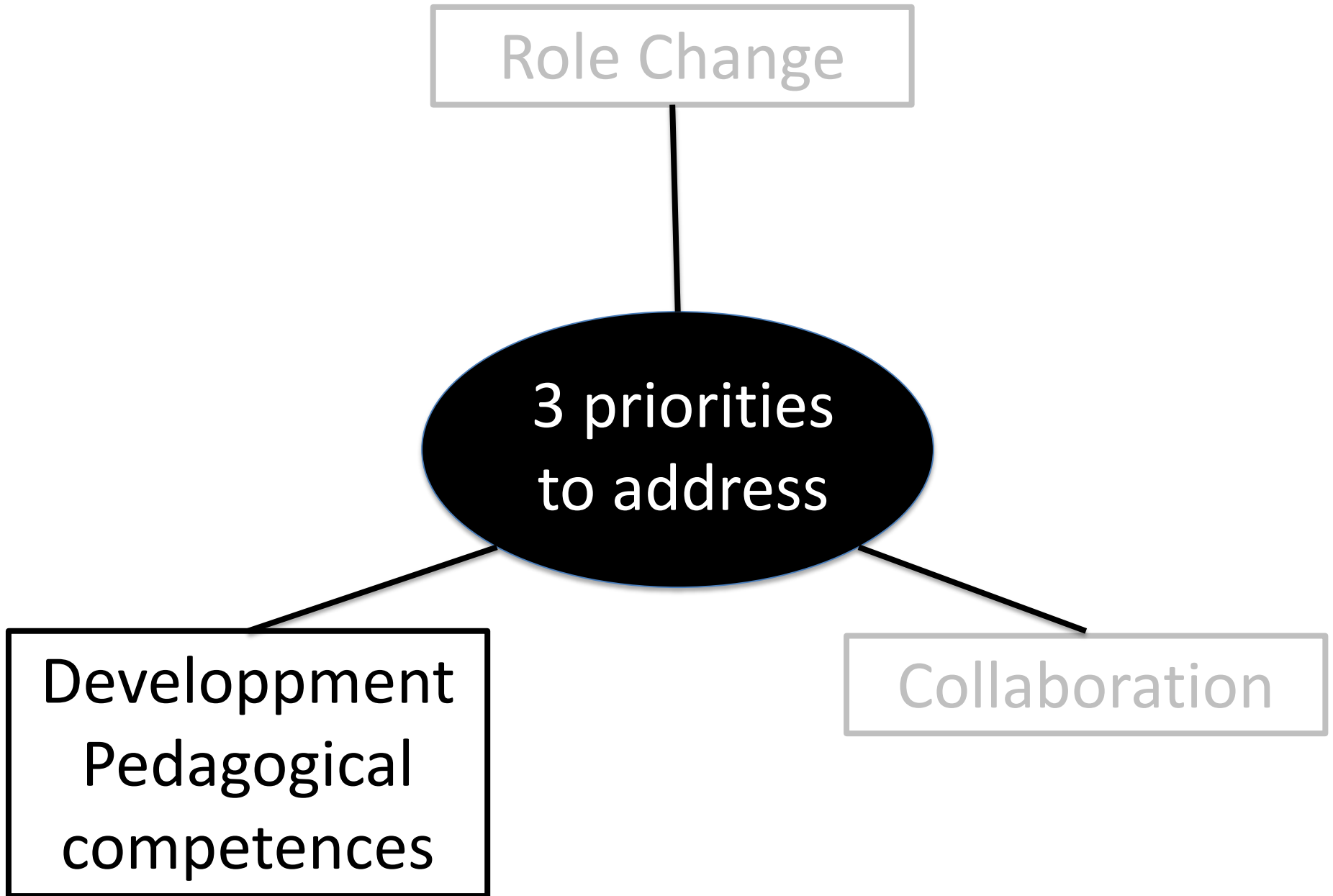


Role Change

3 priorities  
to address

Developpment  
Pedagogical  
competences

Collaboration



## *1.5 Teaching Staff*

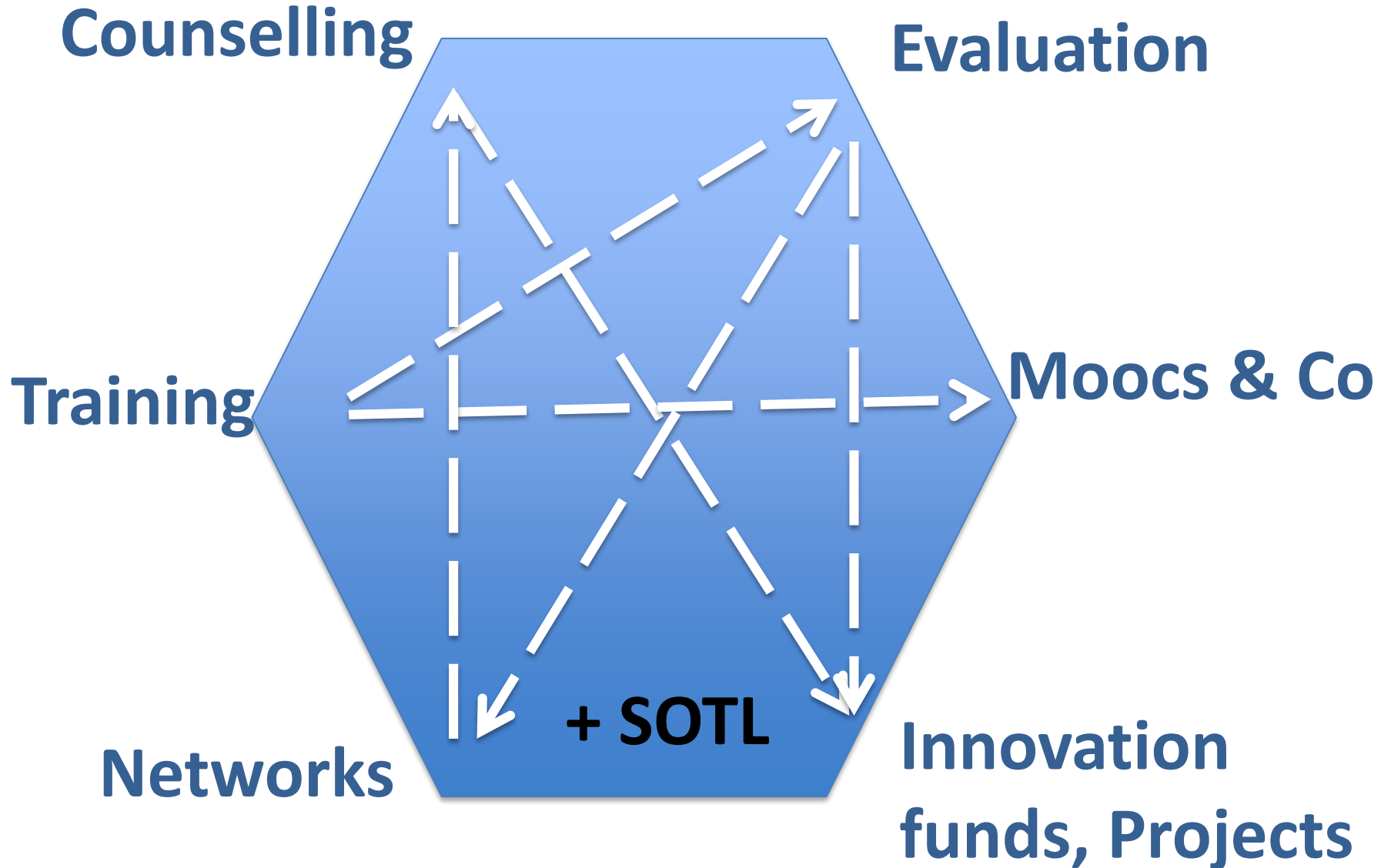
Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff.

**Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)**

To offer diversity and invite to « rebound »



# « Just in Mood – Just in Time »



# Development is inside a field of tensions

## Reconcile Excellence in Research & Teaching





One size fits ~~all~~

Make explicit  
A specific project



## **Create a vision for Education**

- To take side and give coherence
- To give a collective goal to the university

### **In other words**

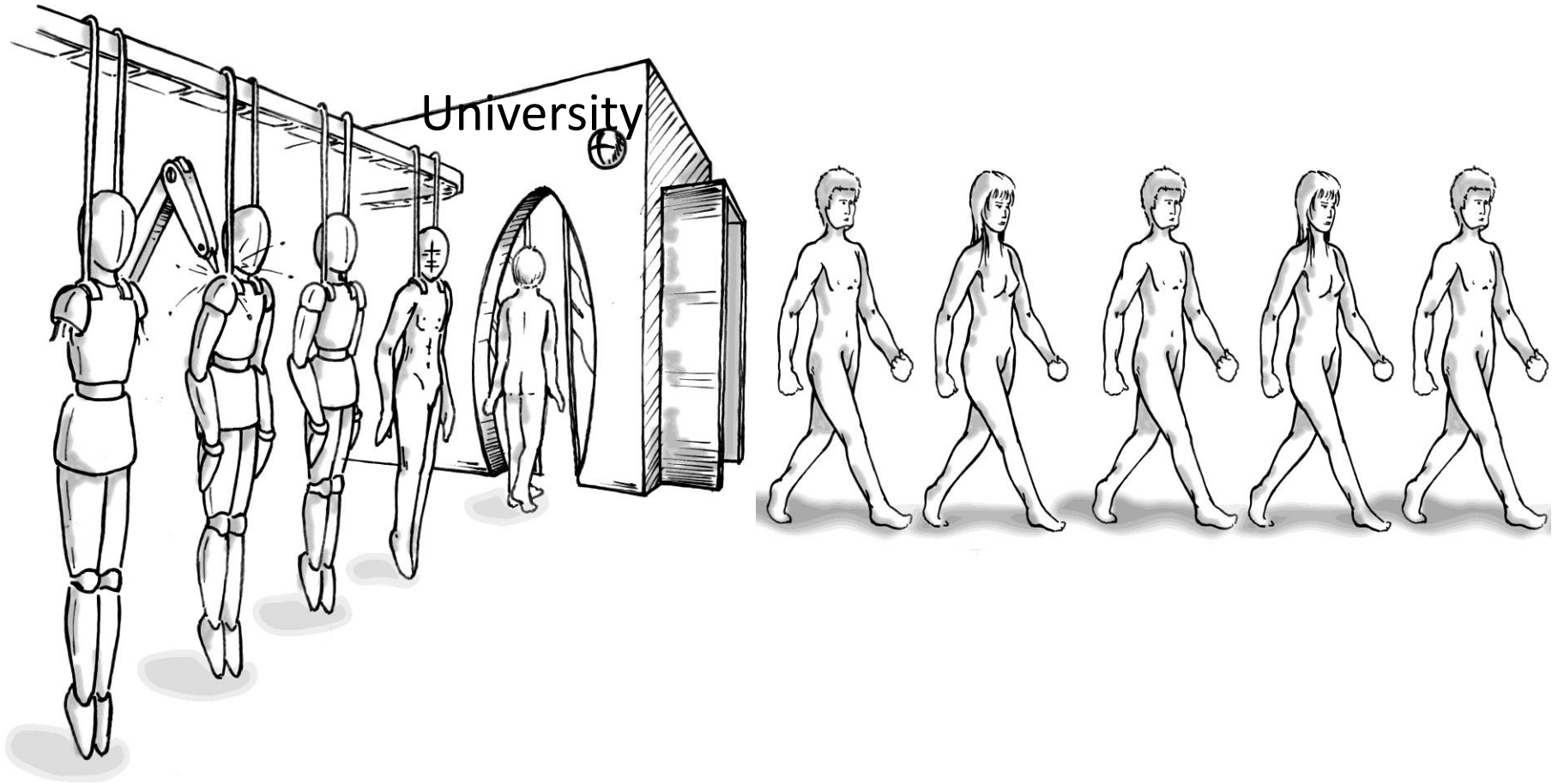
- What are our priorities regarding teaching?
- How to involve the community in this vision?
- How to make that vision real or concrete ?

# To sum up...

- Flexibility – Diversity - Relevance.
- Cultural Change
- A clear political support
- A real valorization of teaching
- Development of a Quality Culture
- Development of resources

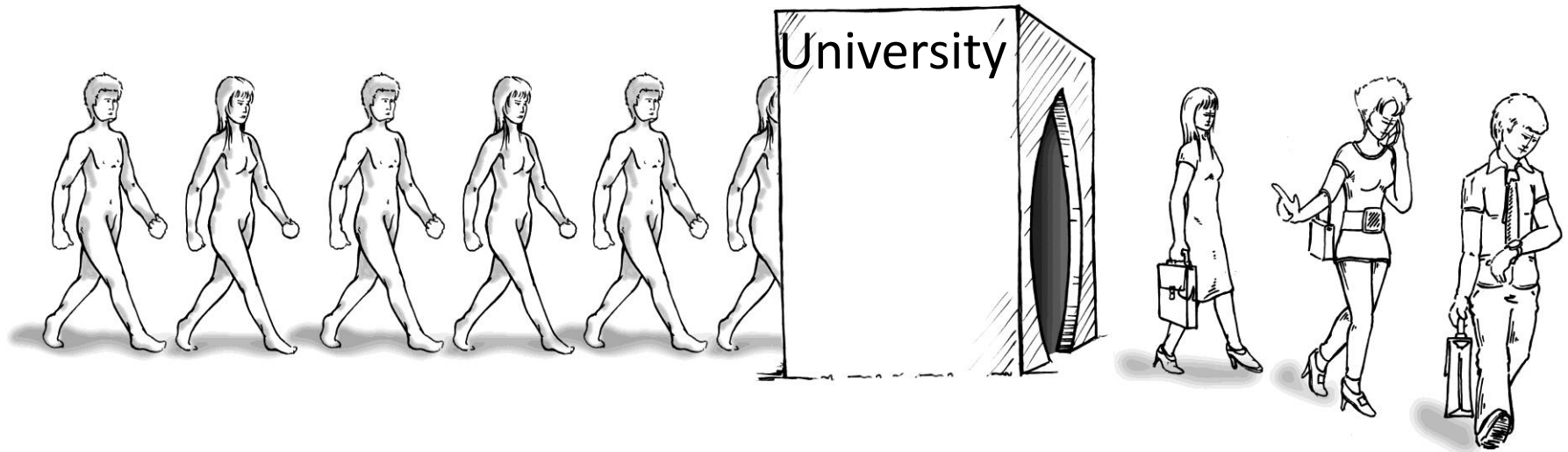


# Learning, not an industrial process, but rather...



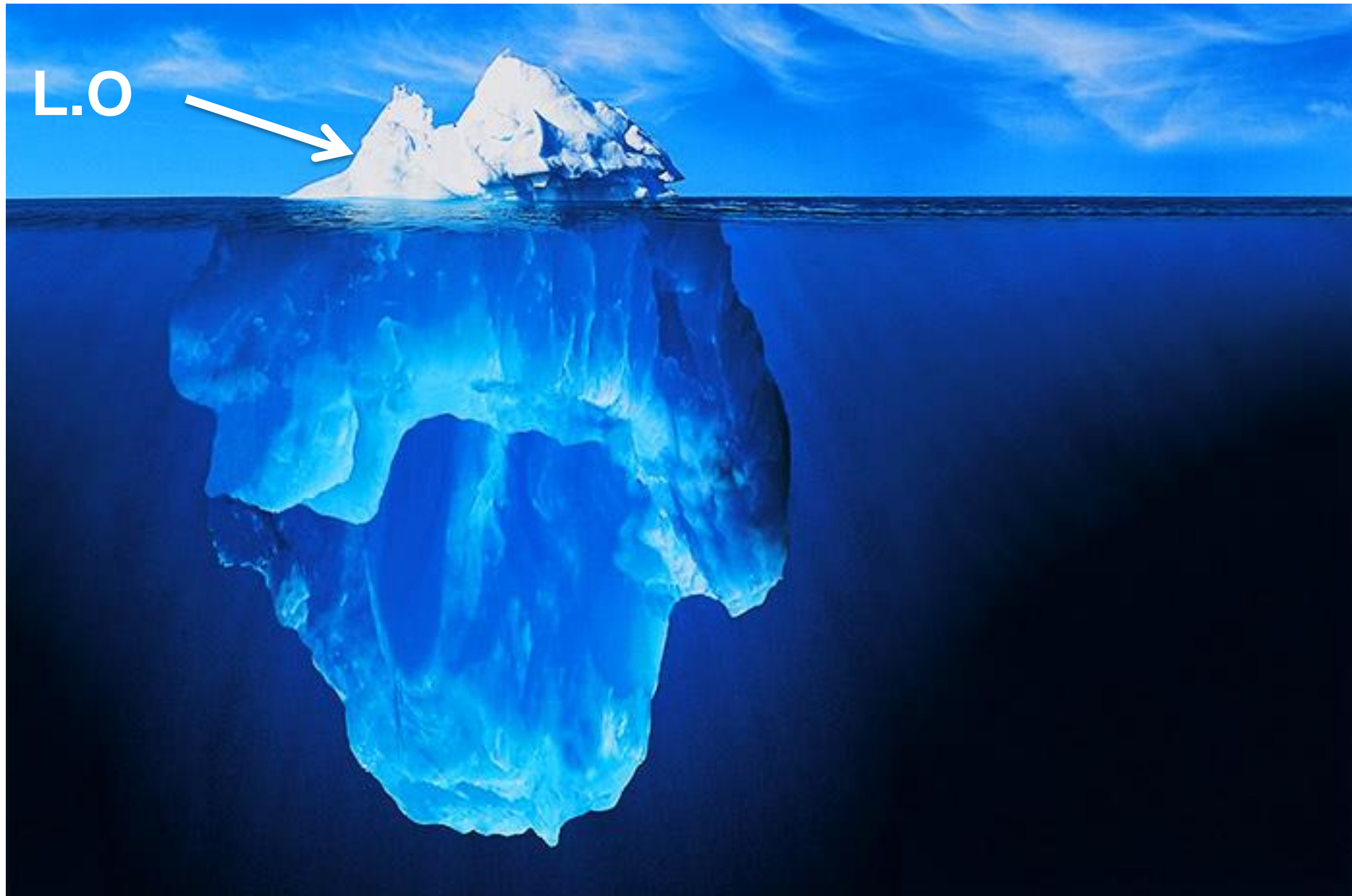
*Inspired by I.  
Gandhi*

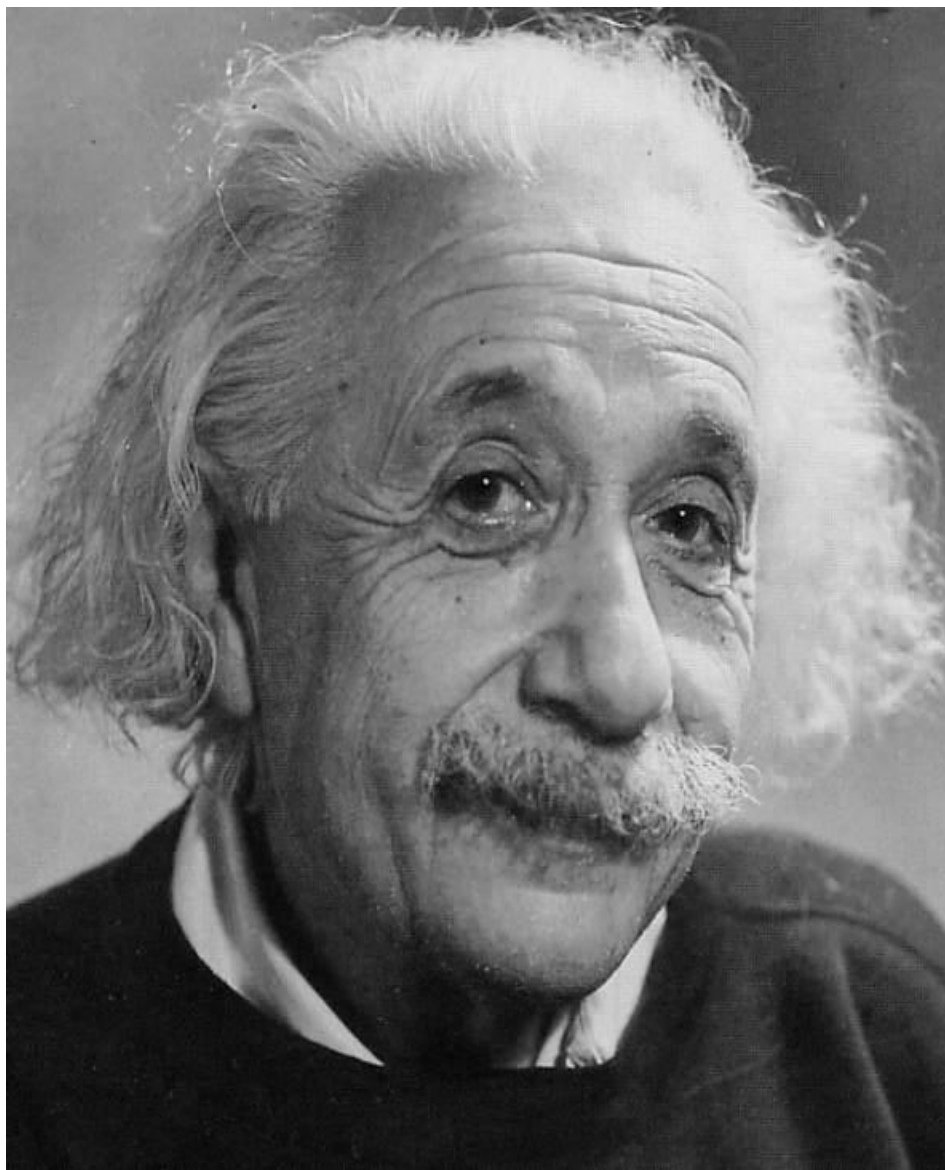
# Learning, an individual process



*Inspired by I.  
Genderson*

# Learning mainly an invisible process





« It is the supreme  
art of the teacher to  
awaken joy in  
creative expression  
and knowledge»

*Einstein*



A large, leafy tree in the foreground frames a view of a university campus. A paved path winds through a green field towards a line of trees and distant mountains. A few people are visible on the path. The text "Thanks for your attention" is overlaid in white at the top.

Thanks for your attention

Jacques.lanares@unil.ch