

DIGITAL WORLD



“
BRIDGING
STUDENT-
FACULTY
divide
for Learning Journey

”

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Education Next Forum 2021
August 26, 2021

WHY DO THEY HAVE TO LEARN

WHY DO THEY HAVE TO LEARN

This is what higher education for



WHY DO THEY HAVE TO **LEARN**

This is what higher education for

ability to act successful on a
complex problem in a future
unknown context of action ...



WHY DO THEY HAVE TO LEARN

This is what higher education for

การจัดการศึกษาที่นำการ

เรียน

จะ

ได้

ผู้

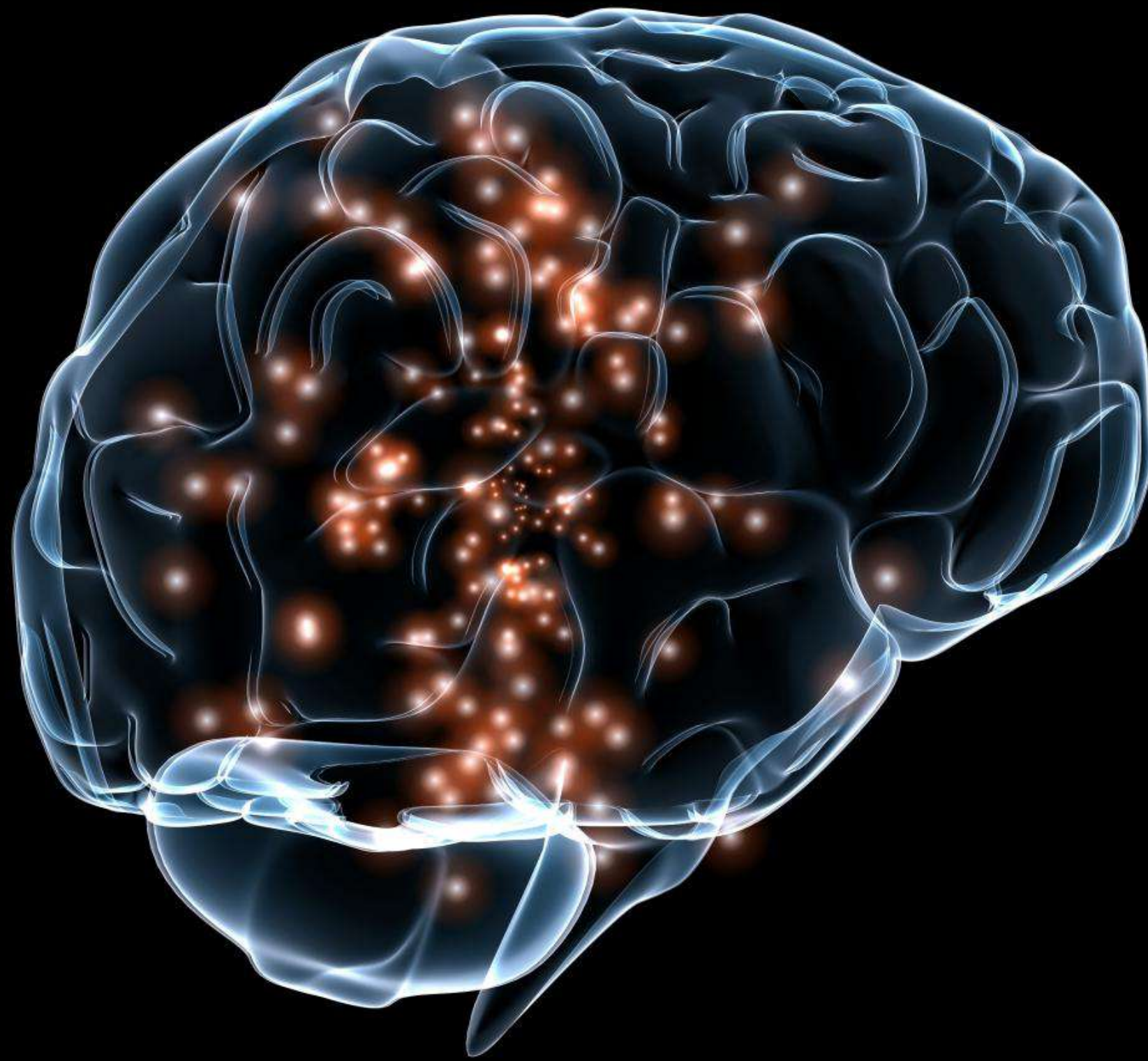
เรียน

ability to act successful on a
complex problem in a future
unknown context of action ...

Learning

[biologically]

- Your brain consists of billions of neural cells that are connected to each other.
- To learn is essentially to form sets of those connections.



Learning

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if they "learn" this should
be happened ...



if they "learn" this should
be happened . . .

*“Learning is a **process** that involves **making connections, identifying patterns, and organizing previously unrelated bits of knowledge, behaviour and action** into **new patterned wholes**.”*

- Brian Cambourne

*“Learning is the relatively **permanent change** in a person’s knowledge or behavior due to **experience**. This definition has three components: 1) the duration of the change is long-term rather than short-term; 2) the locus of the change is the content and structure of knowledge in memory or the behavior of the learner; 3) the cause of the change is the learner’s experience in the environment rather than fatigue, motivation, drugs, physical condition or physiologic intervention.”*

- Richard E. Mayer

*“We define learning as the **transformative** process of taking in information that—when **internalized** and **mixed** with what we have **experienced**—changes what we know and builds on what we do. It’s based on input, process, and **reflection**. It is what changes us.”*

- Tony Bingham and Marcia Conner

*“It has been suggested that the term learning defies precise definition because it is put to multiple uses. Learning is used to refer to (1) the acquisition and mastery of what is already known about something, (2) the extension and clarification of **meaning** of one’s experience, or (3) an organized, intentional process of testing ideas relevant to problems. In other words, it is used to describe a **product**, a **process**, or a **function**.”*

- R.M. Smith

*“A persisting change in human **performance** or **performance potential**...[which] must come about as a result of the learner’s experience and interaction with the world.”* - M. Driscoll

*“Learning is a process that occurs within **nebulous environments** of shifting core elements – not entirely under the control of the individual.*

*Learning (defined as **actionable knowledge**) can reside outside of ourselves (within an organization or a database), is focused on connecting specialized information sets, and the connections that enable us to **learn more are more** important than our current state of knowing.”*

- George Seimens

*“Learning is often defined as a relatively lasting change in behavior that is the **result of experience**.”* - Kendra Cherry

learning:

learning:

- ◉ is something that **students DO** and it is the **RESULT** of that they do ...

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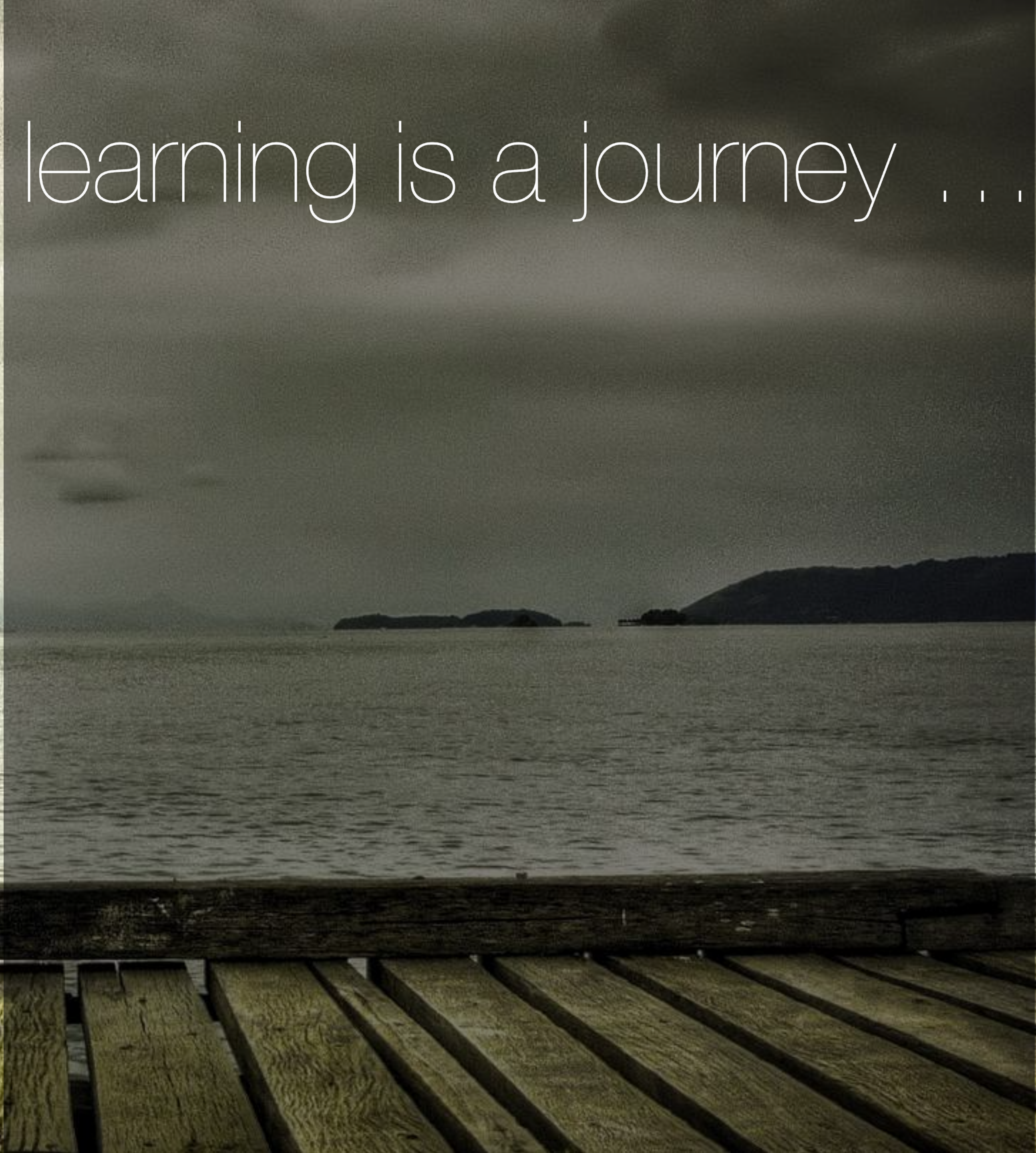
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- ◉ is a **PROCESS** and an **OUTCOME** ...





learning is a journey ...





learning is a journey ...

LEARNING

— is likely to —

HAPPEN

when the experiences are

ACTIVE

This kind of
LEARNING

TOILET PAPER ONLY
TO BE USED IN THIS TOILET
NO CARDBOARD
NO CLOTH
NO ZIM DOLLARS
NO NEWSPAPER



This kind of
LEARNING

d i v i d e



This kind of
LEARNING

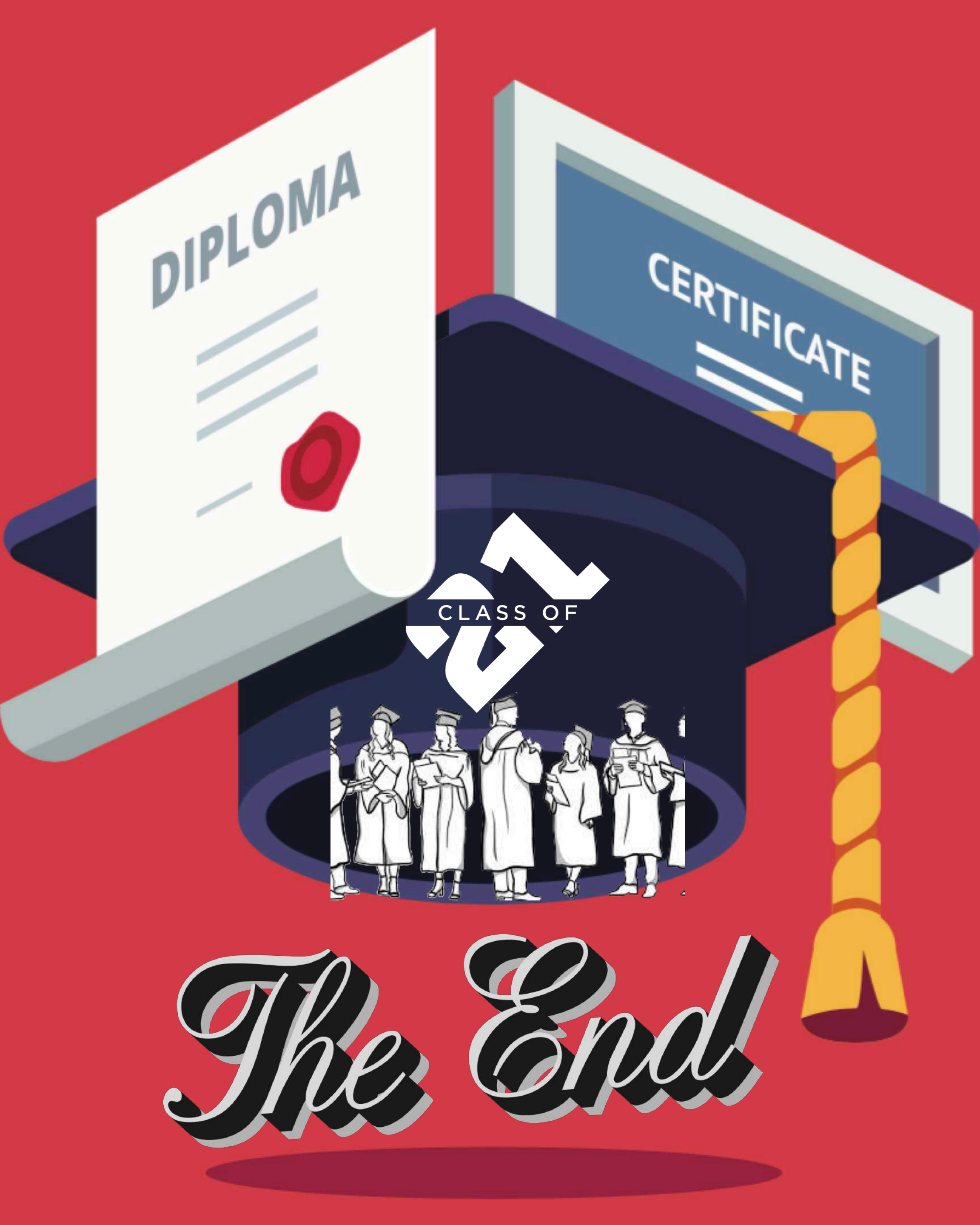
d i v i d e

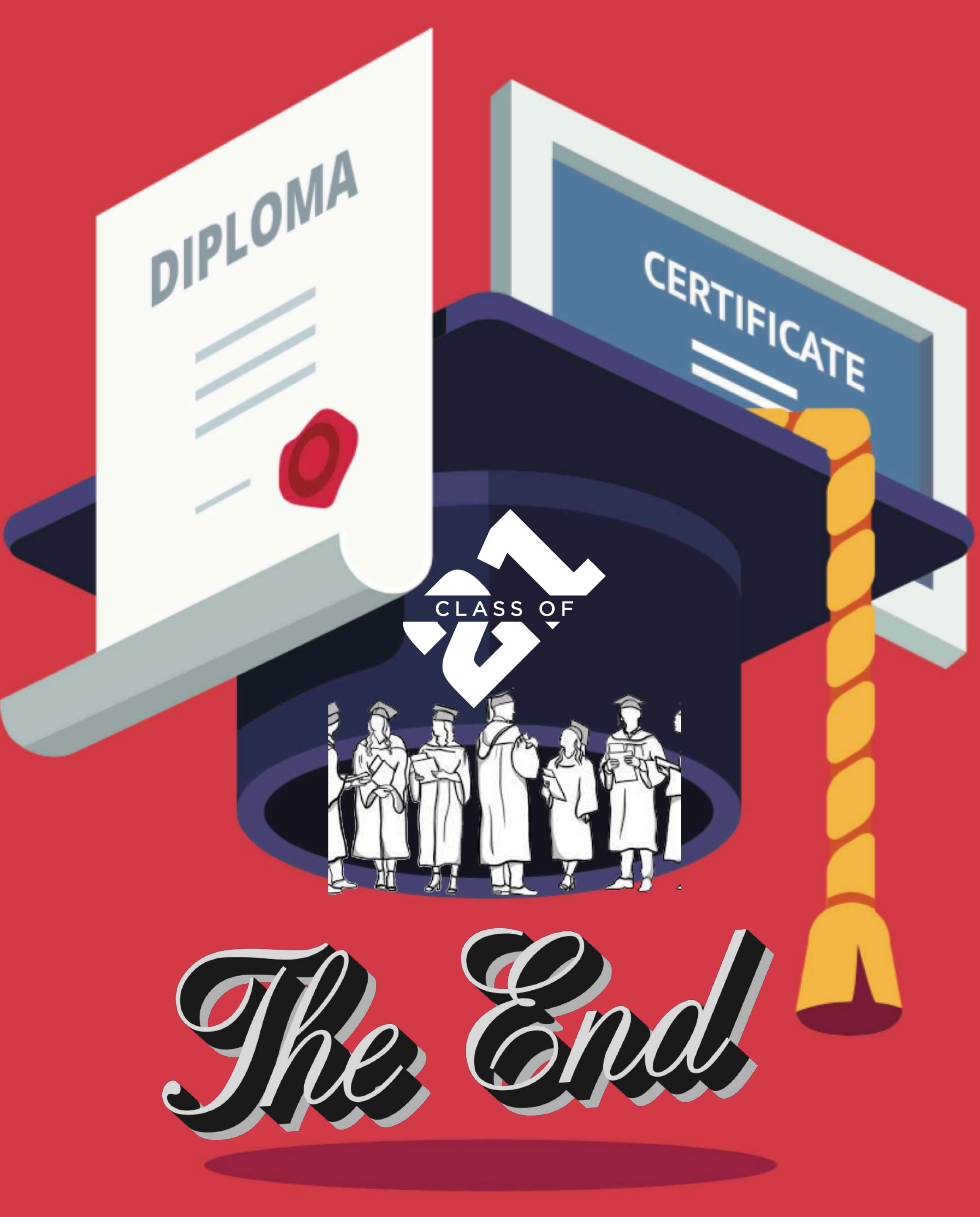




Richard Mangelplatz
Learning

Richard Mangelplatz
Lecturing







MAY
END UP

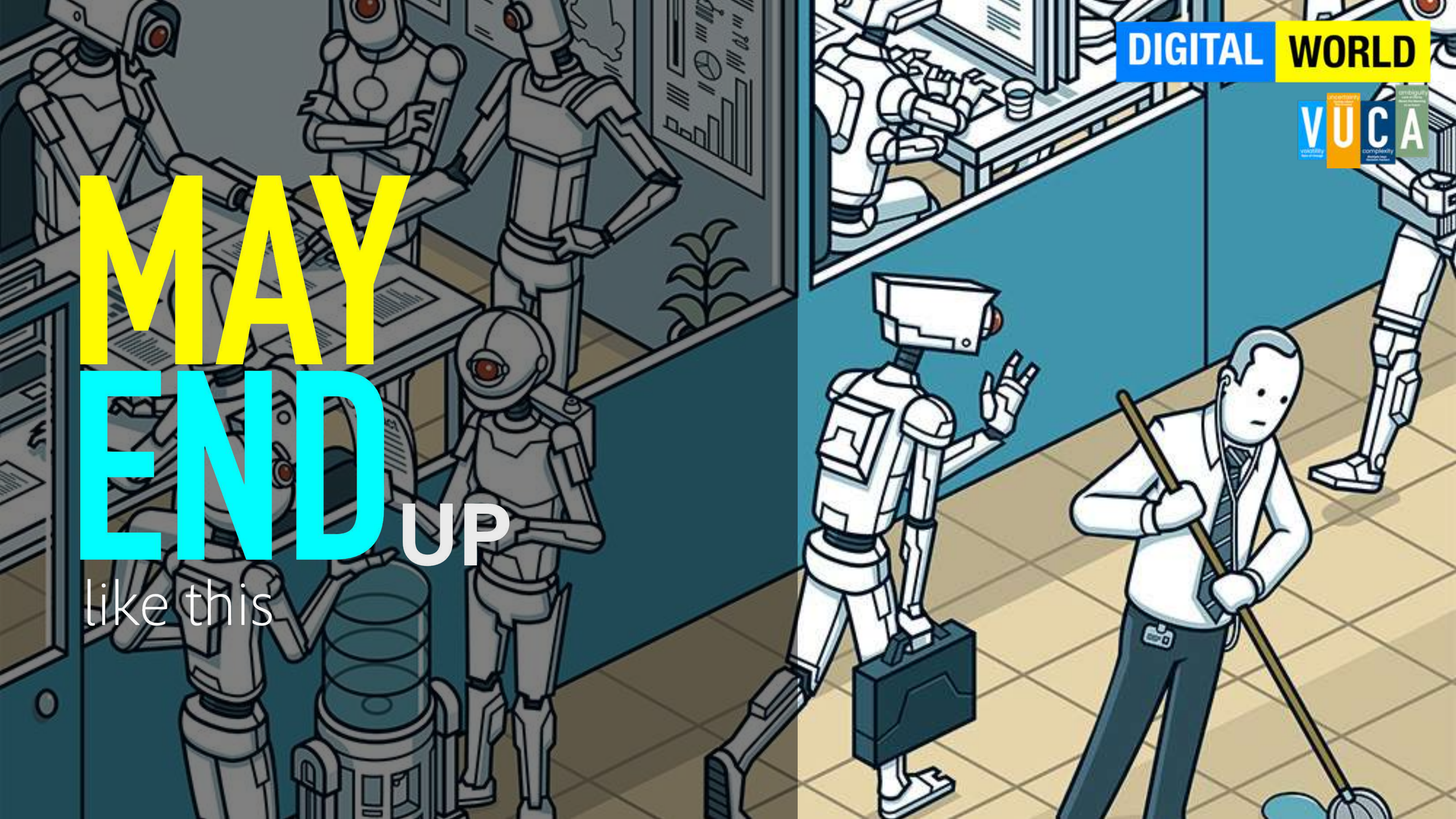
like this

DIGITAL WORLD



MAY END UP

like this



บัณฑิต มีความสามารถ

It is about
WHAT students
KNOW, are able to
DO, or are
LIKE as a result of their
EDUCATION ...

DIGITAL WORLD



บัณฑิต มีความสามารถ

It is about
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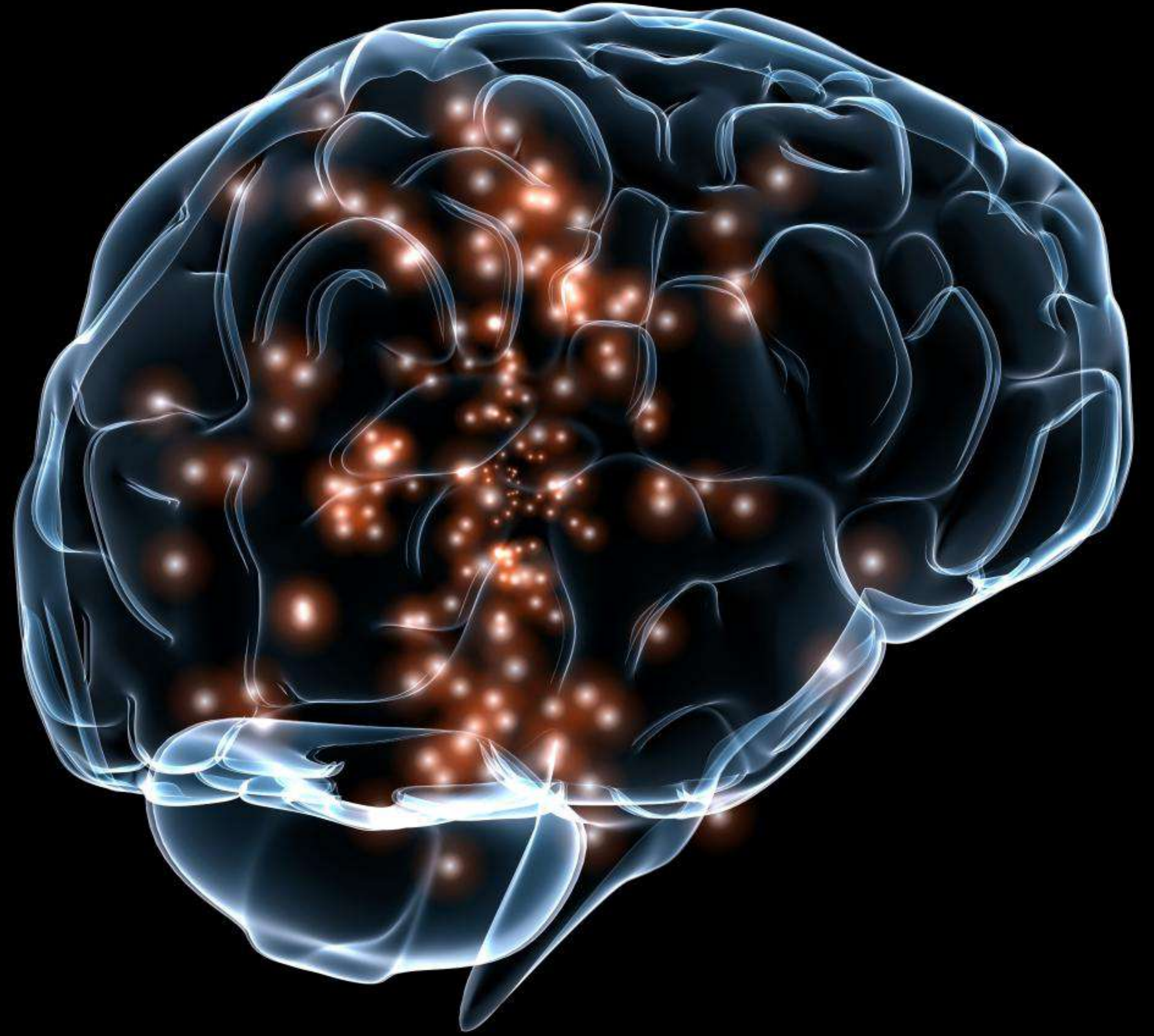
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TRANSFORMING **LIVE**

DIGITAL **WORLD**



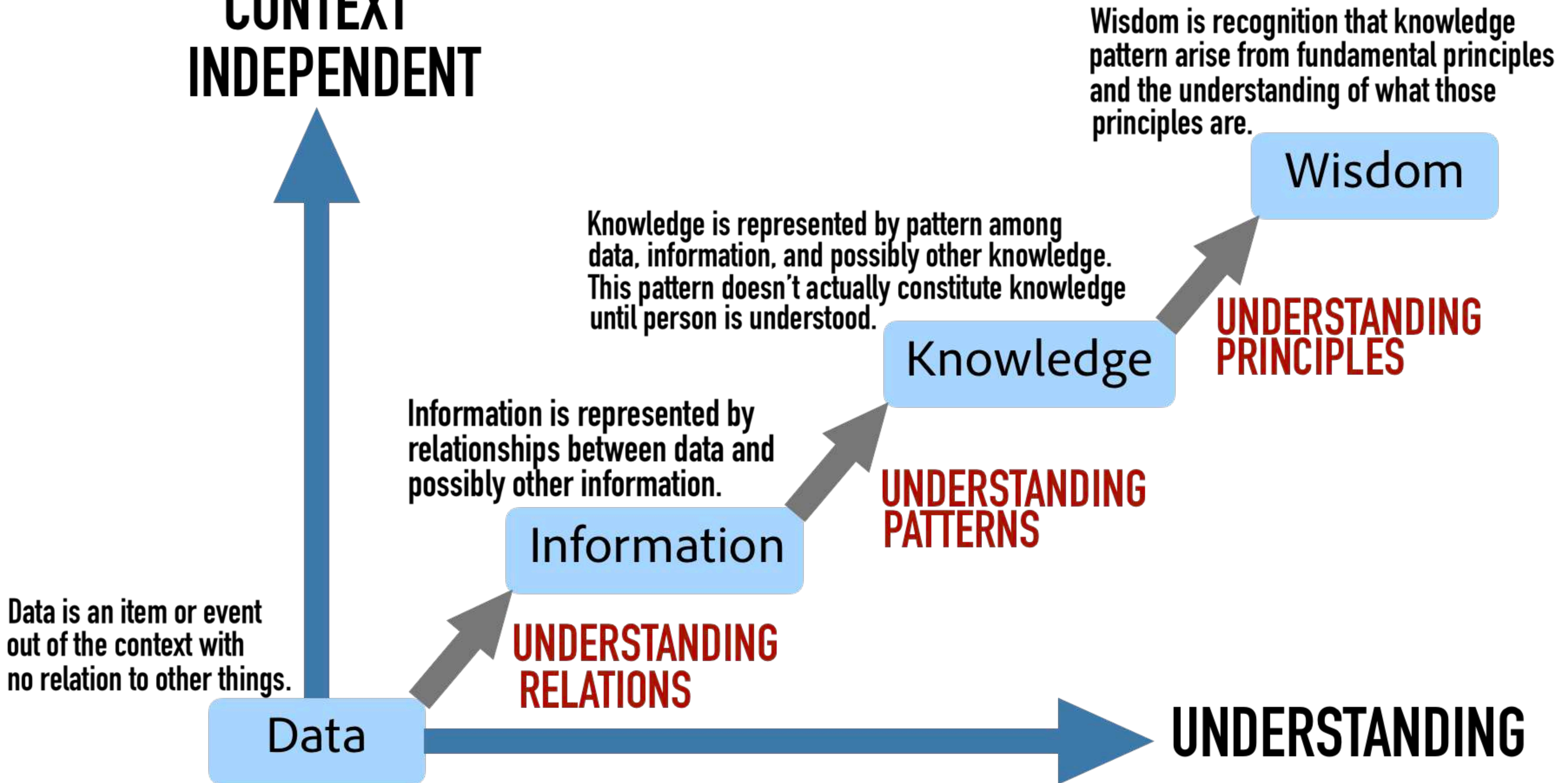
students must
LEARN





D A T A
I N F O R M A T I O N
K N O W L E D G E
W I S D O M

CONTEXT INDEPENDENT



CONTEXT INDEPENDENT

Wisdom is recognition that knowledge pattern arise from fundamental principles and the understanding of what those principles are.

Wisdom

Knowledge is represented by pattern among data, information, and possibly other knowledge. This pattern doesn't actually constitute knowledge until person is understood.

Knowledge

UNDERSTANDING
PRINCIPLES

Information is represented by relationships between data and possibly other information.

Information

UNDERSTANDING
PATTERNS

gathering
of
DATA

Data is an item or event out of the context with no relation to other things.

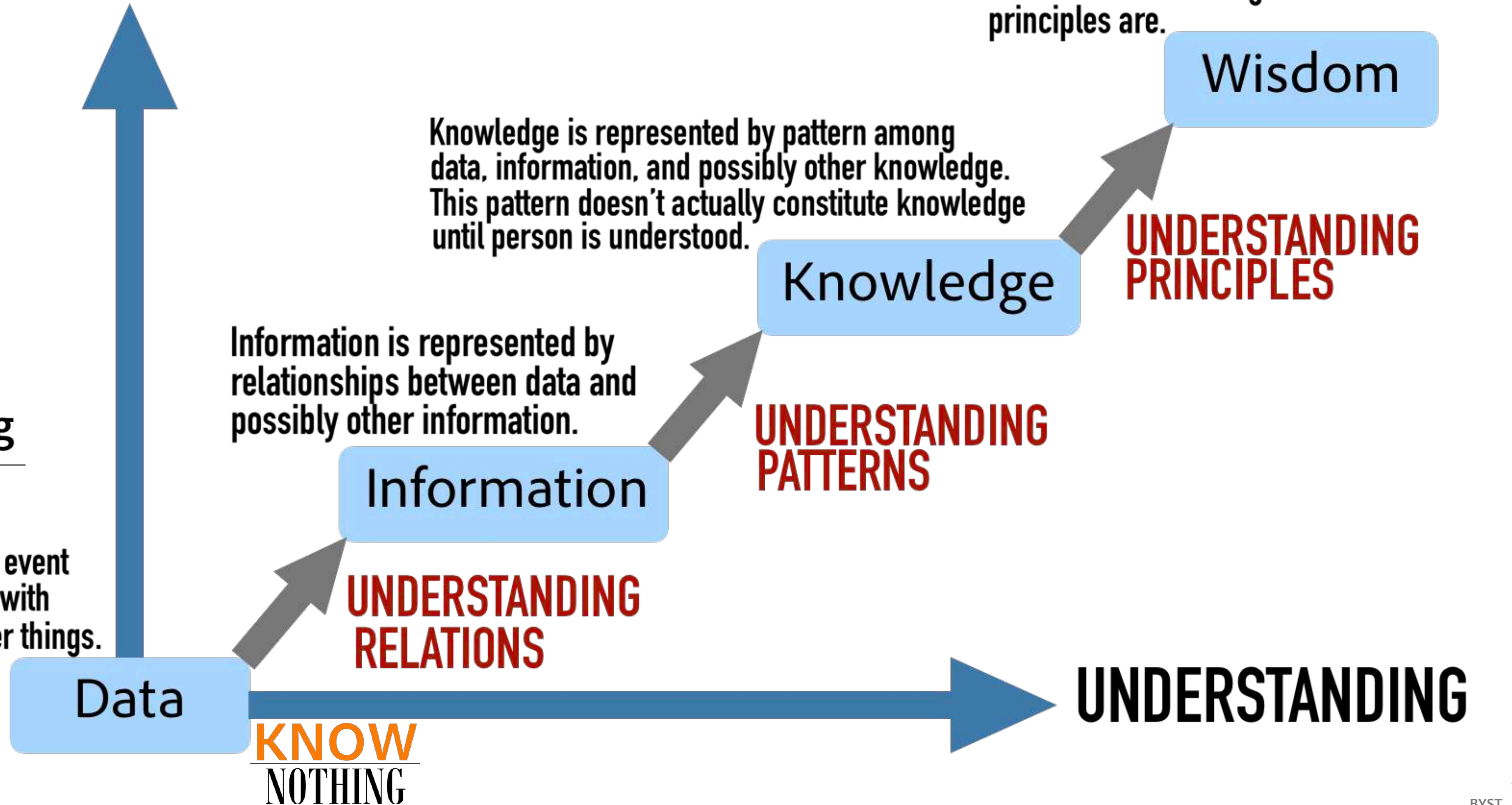
Data

UNDERSTANDING
RELATIONS

UNDERSTANDING

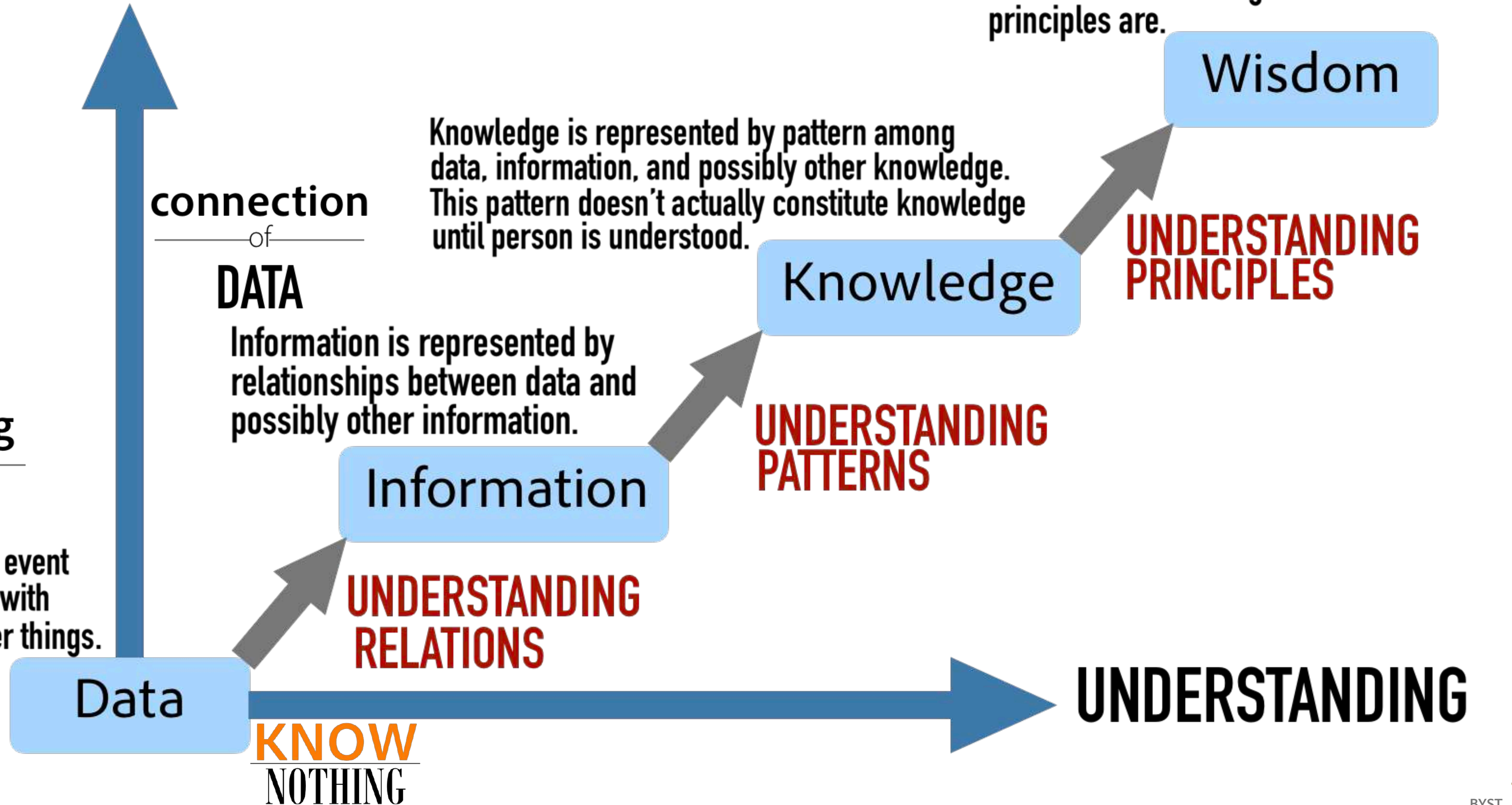
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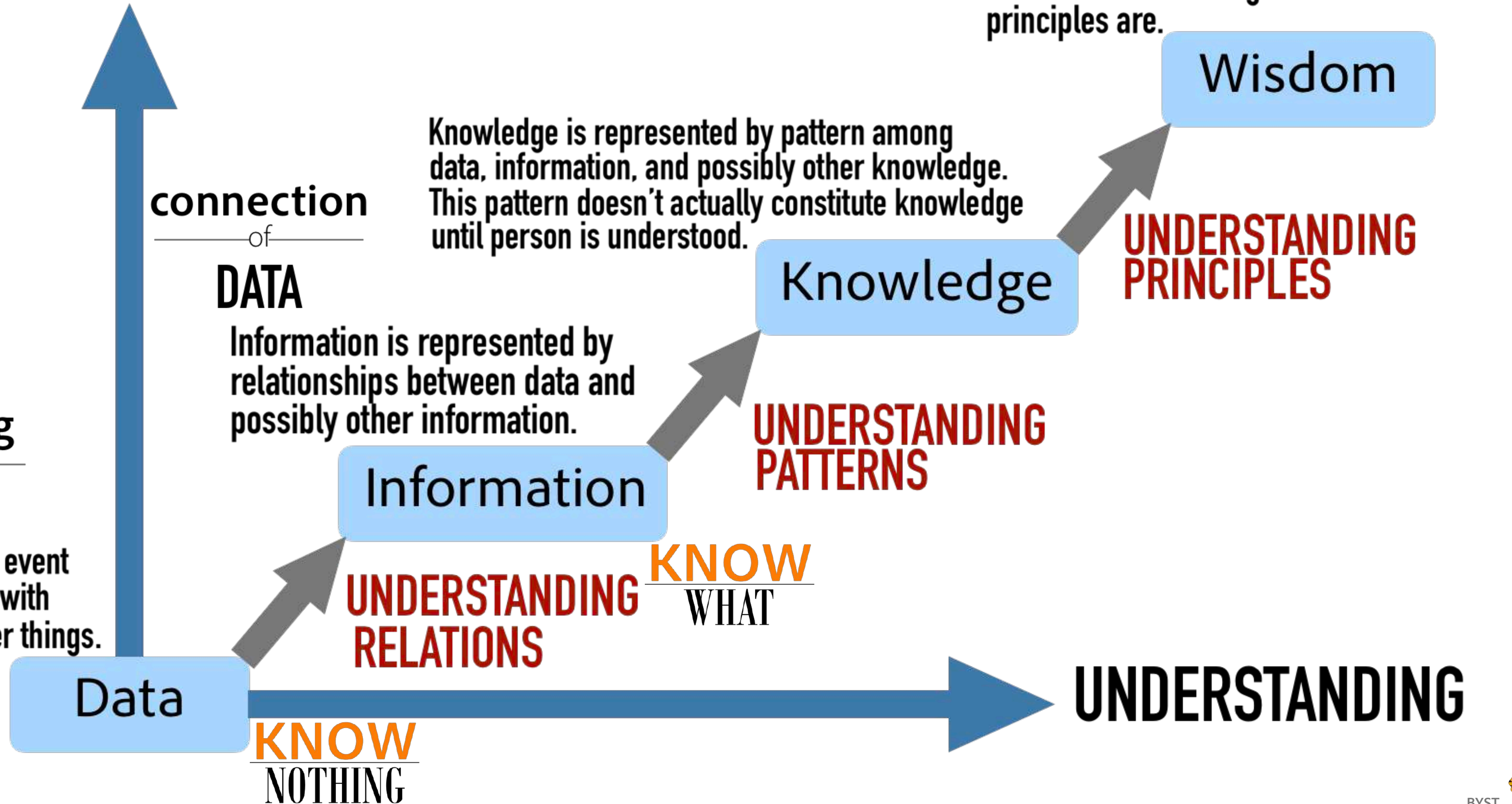
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Data

**KNOW
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UNDERSTANDING

Automation

- Standardised Jobs
- Known and Predictable
- Obedience
- Compliance
- Intelligence
- Perseverance
- Analysis
- Tangible Value
- Explicit Knowledge
- Formal Learning

My
Colleague
is a
Robot

Re-humanisation

- Unique Tasks and Work
- Complex and Ambiguous
- Passion
- Humour
- Empathy
- Creativity
- Curiosity
- Intangible Value
- Implicit Knowledge
- Informal Learning

AUGMENTED
the
ERA



TRANSFORMING KNOWLEDGE



The 21st century learning

A STRUCTURE OF
COMPETENCES
to SUCCESSFULLY
THRIVE
in the world in flux ...

การอุดมศึกษา
สังคมวิถีใหม่

TRANSFORMING KNOWLEDGE



The 21st century learning

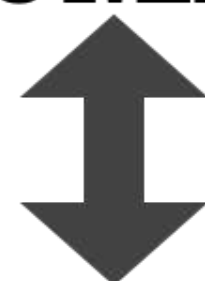
A STRUCTURE OF
COMPETENCES

to SUCCESSFULLY

THRIVE

in the world in flux ...

INFORMATION



UNKNOWN



INNOVATIVE

and

GROWTH

การอุดมศึกษา
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TRANSFORMING KNOWLEDGE



The 21st century learning

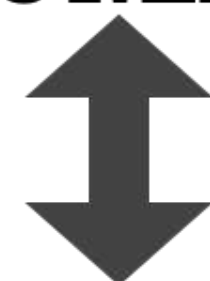
A STRUCTURE OF
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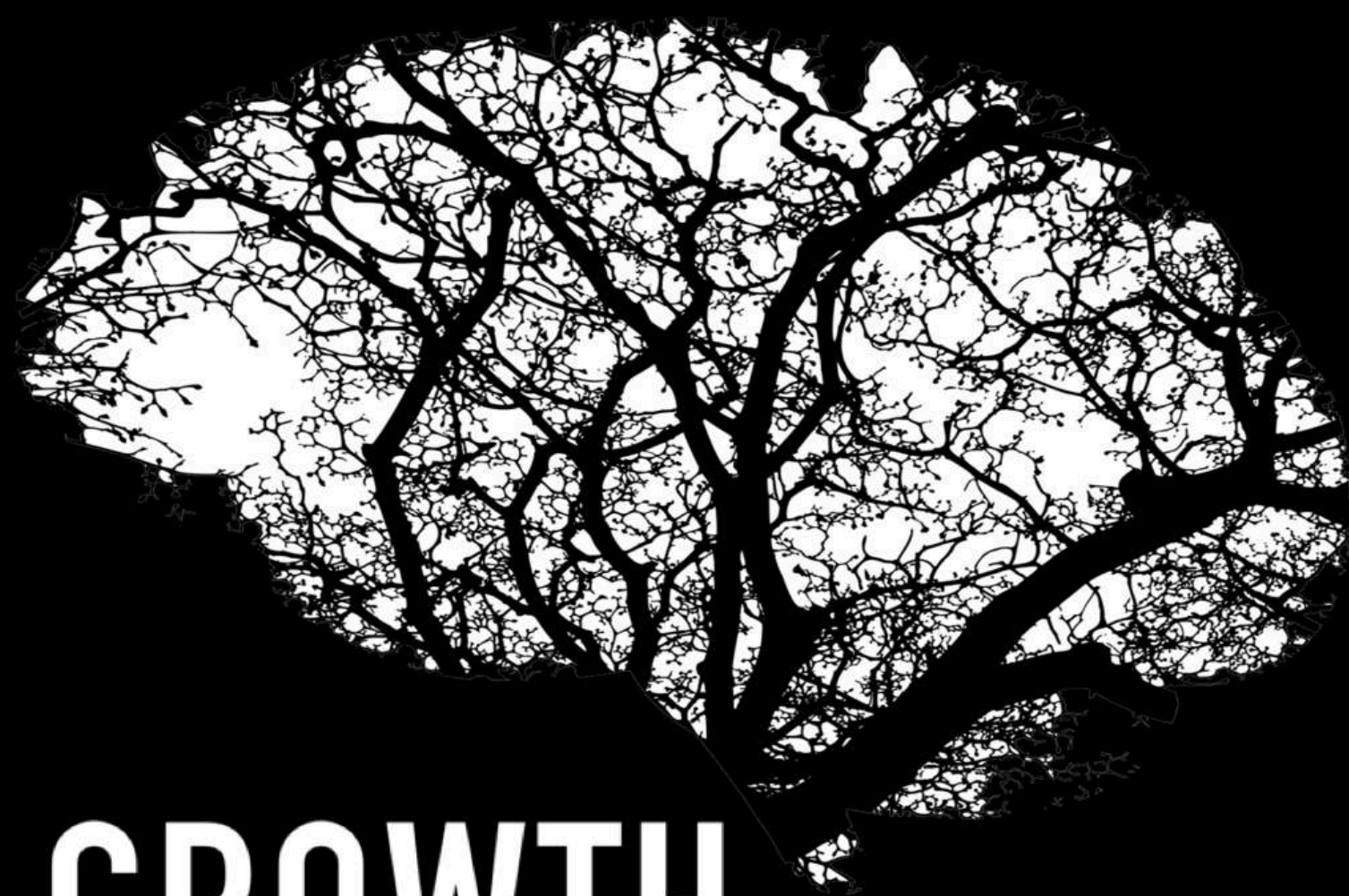
UNKNOWN



INNOVATIVE

and

GROWTH



GROWTH
mindset

การอุดมศึกษา
สังคมวิถีใหม่

TRANSFORMING KNOWLEDGE



The 21st century learning

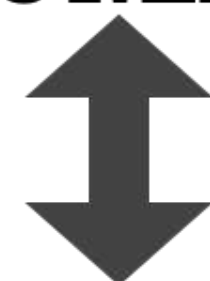
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INFORMATION



UNKNOWN



INNOVATIVE

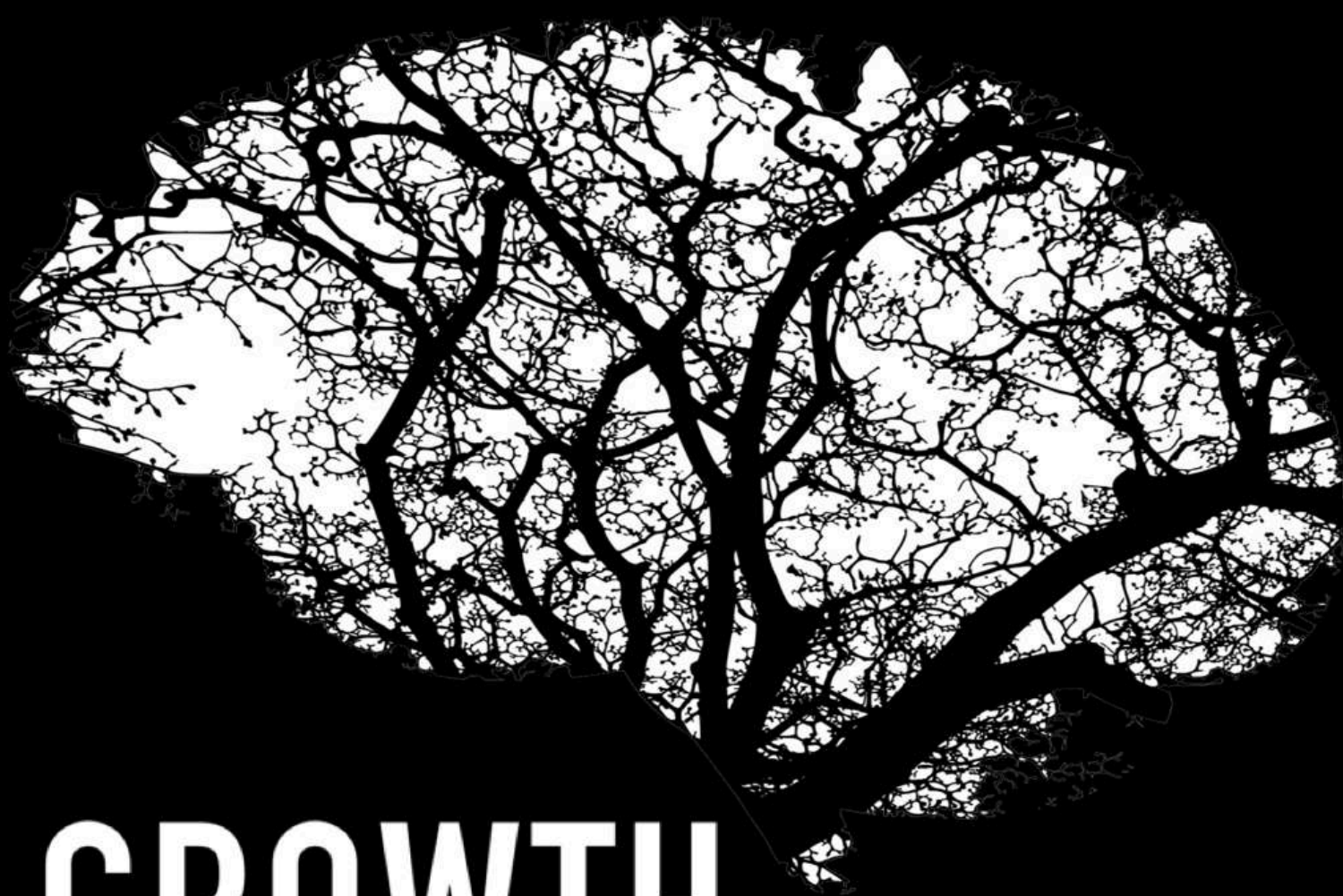
and

GROWTH

LEARN
to BE

character

การอุดมศึกษา
สังคมวิถีใหม่



GROWTH
mindset

บันทึก พันธุ์ใหม่



We need to nurture
our students to be
COMPETENT
to
WORK

บัณฑิต

พันธุ์ใหม่



We need to nurture
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DIGITAL WORLD



บัณฑิต

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บัณฑิต

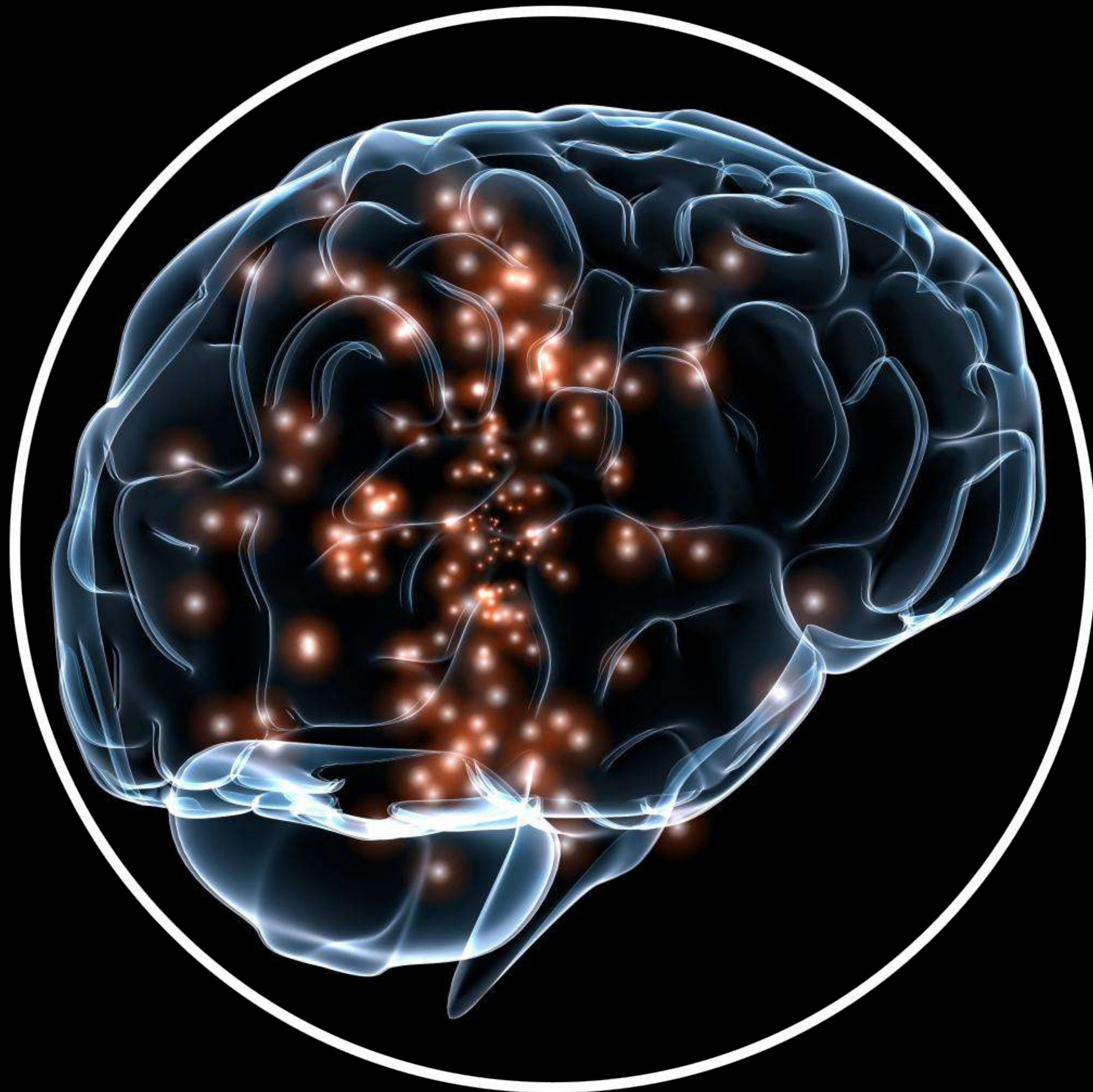
พันธุ์ใหม่

JOB **READINESS**

COMPETENCES

HOW

H



W

H

TEACH
to
LEARN

W

NO MORE “



NO MORE “

- covering specific textbook,
- choosing specific instruction method,
- using “teaching” plan as the

means to an END...

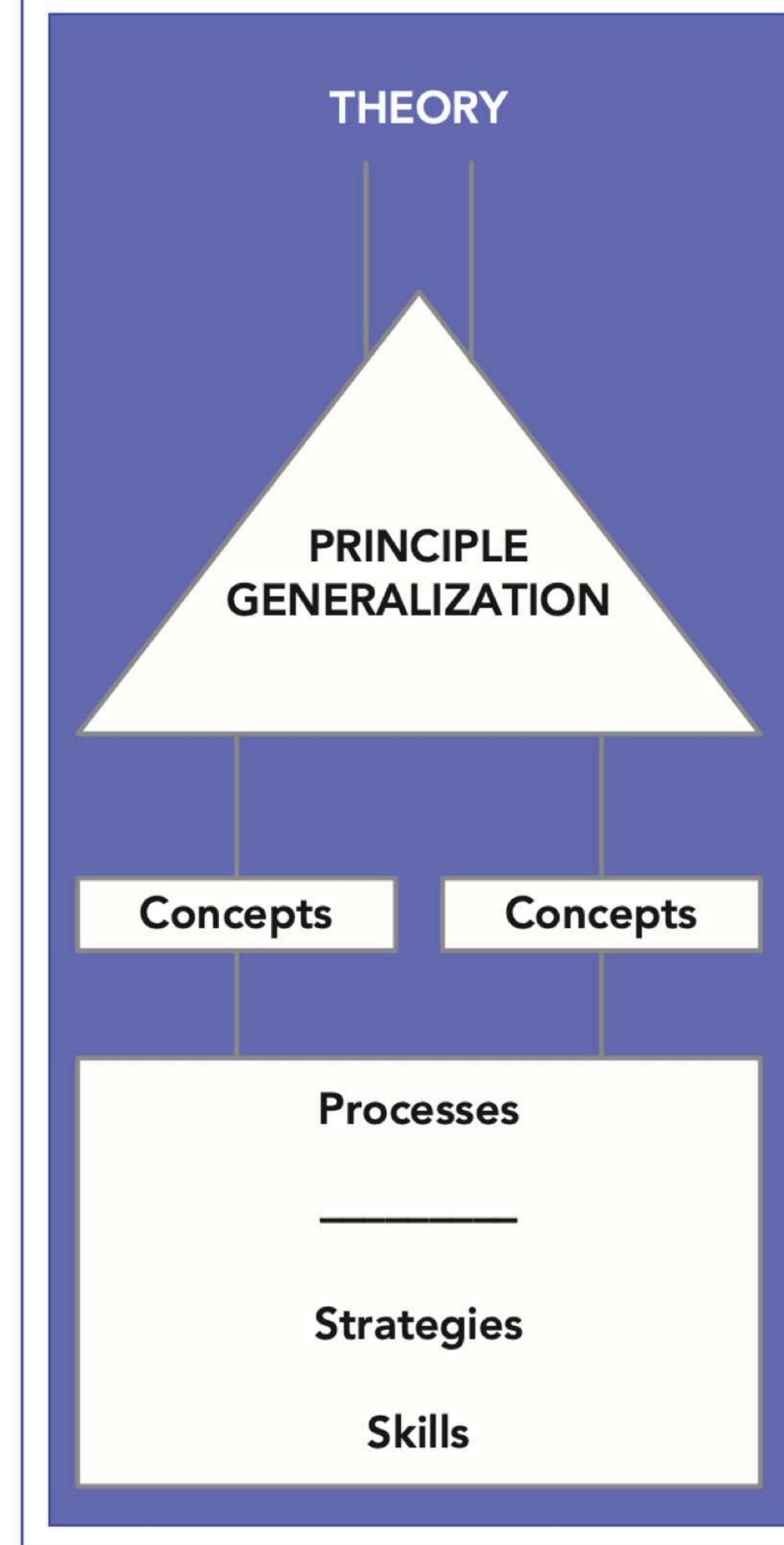
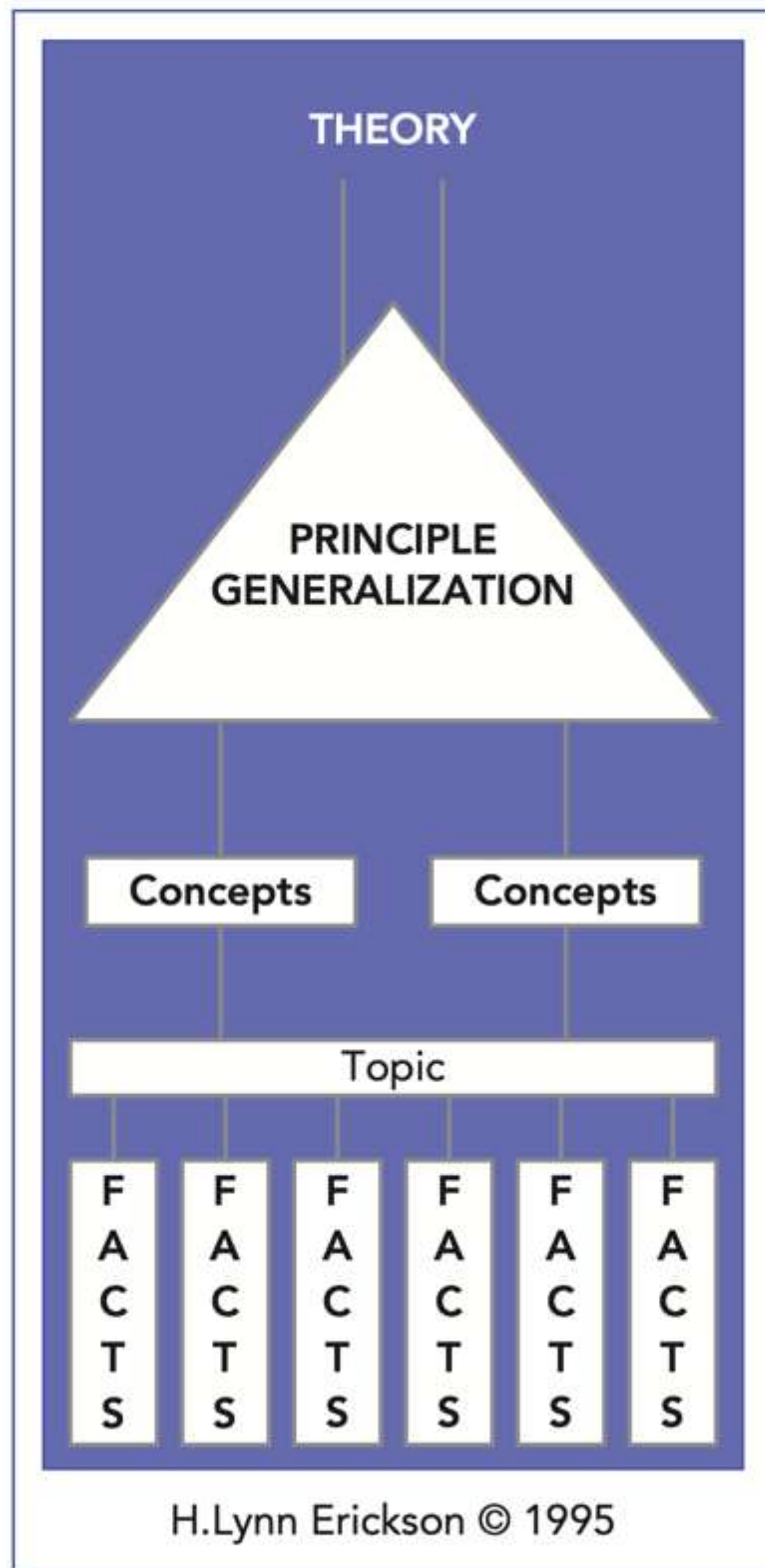
NOT connecting learning

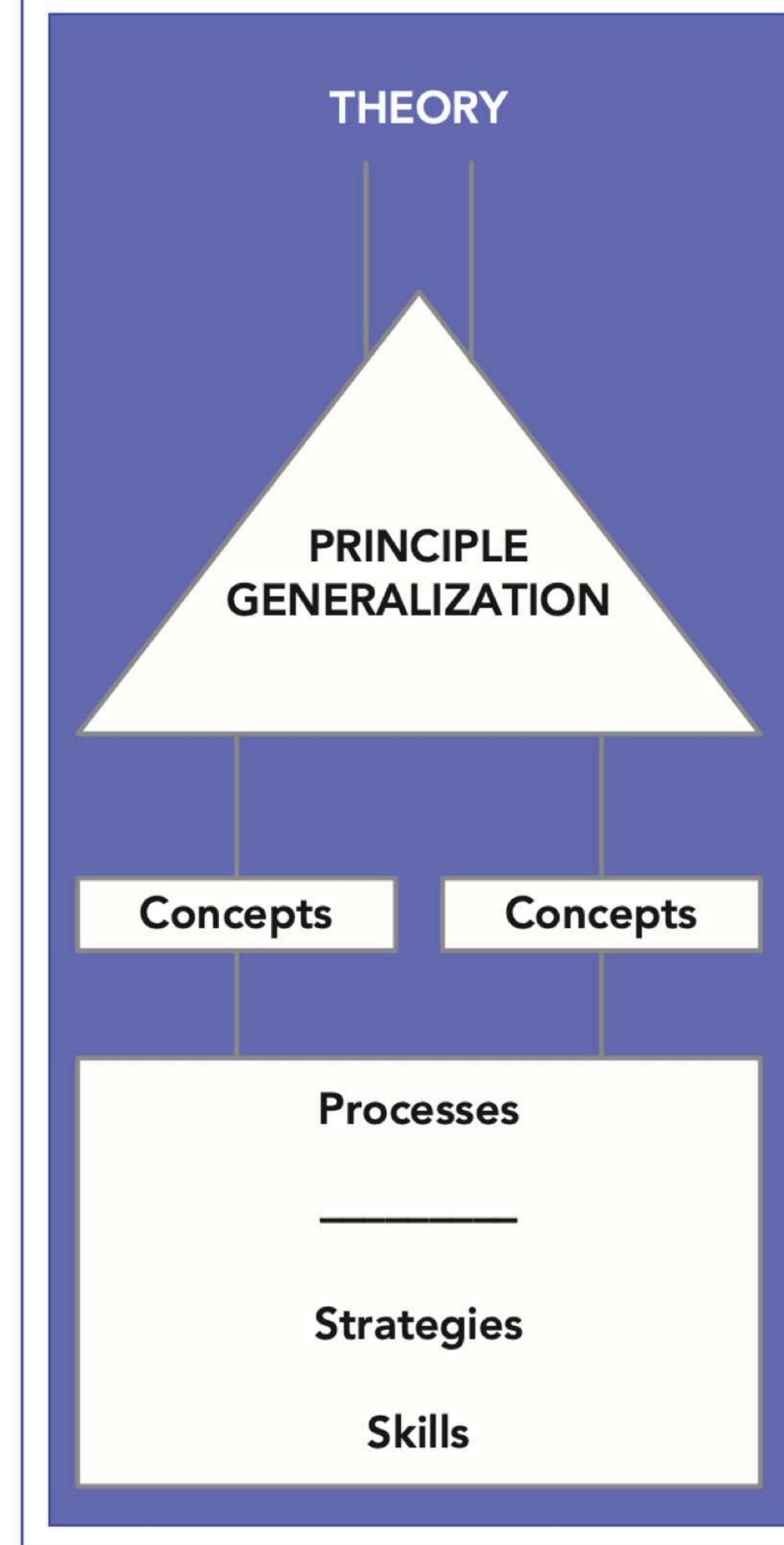
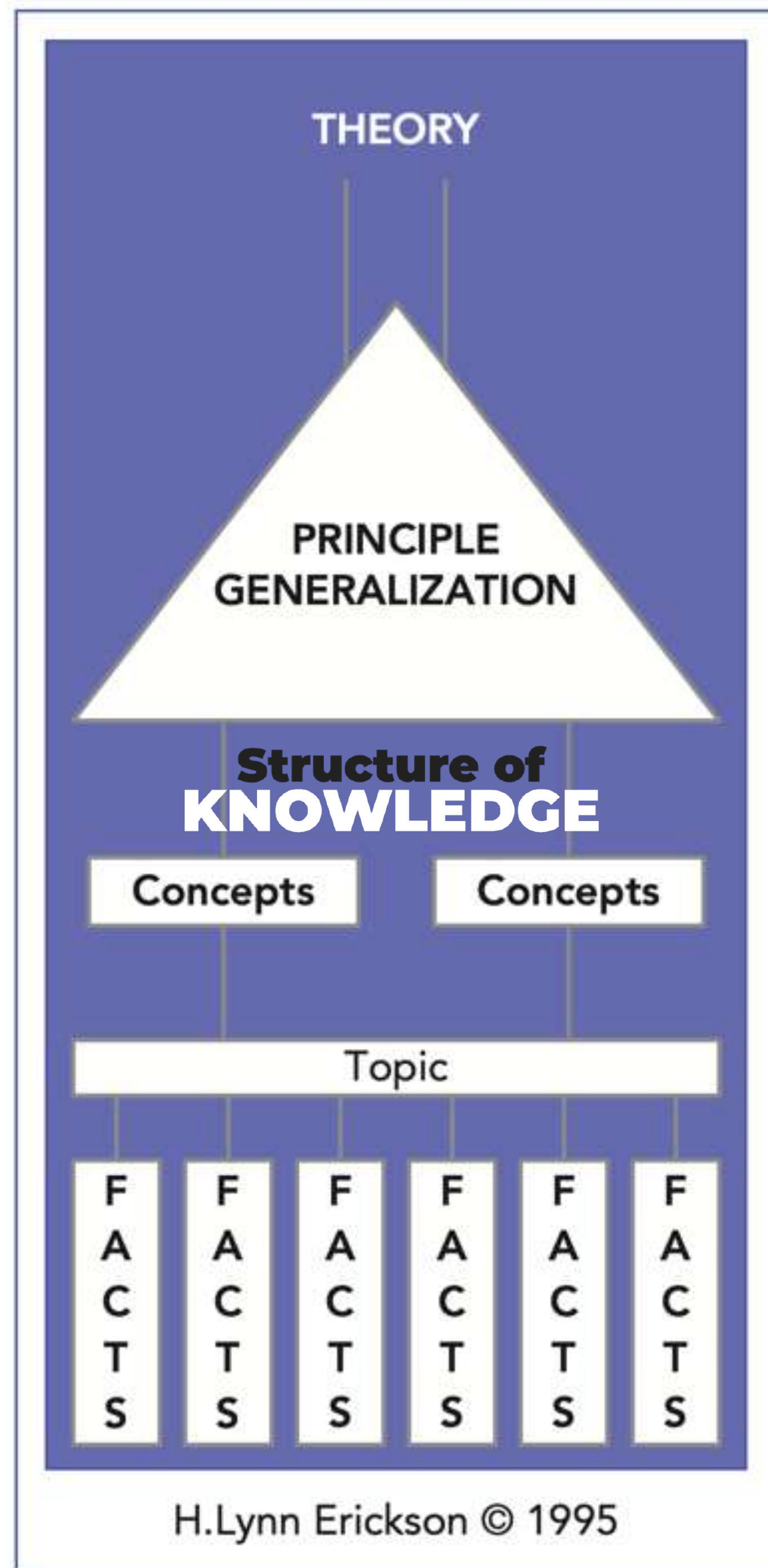
NO MORE

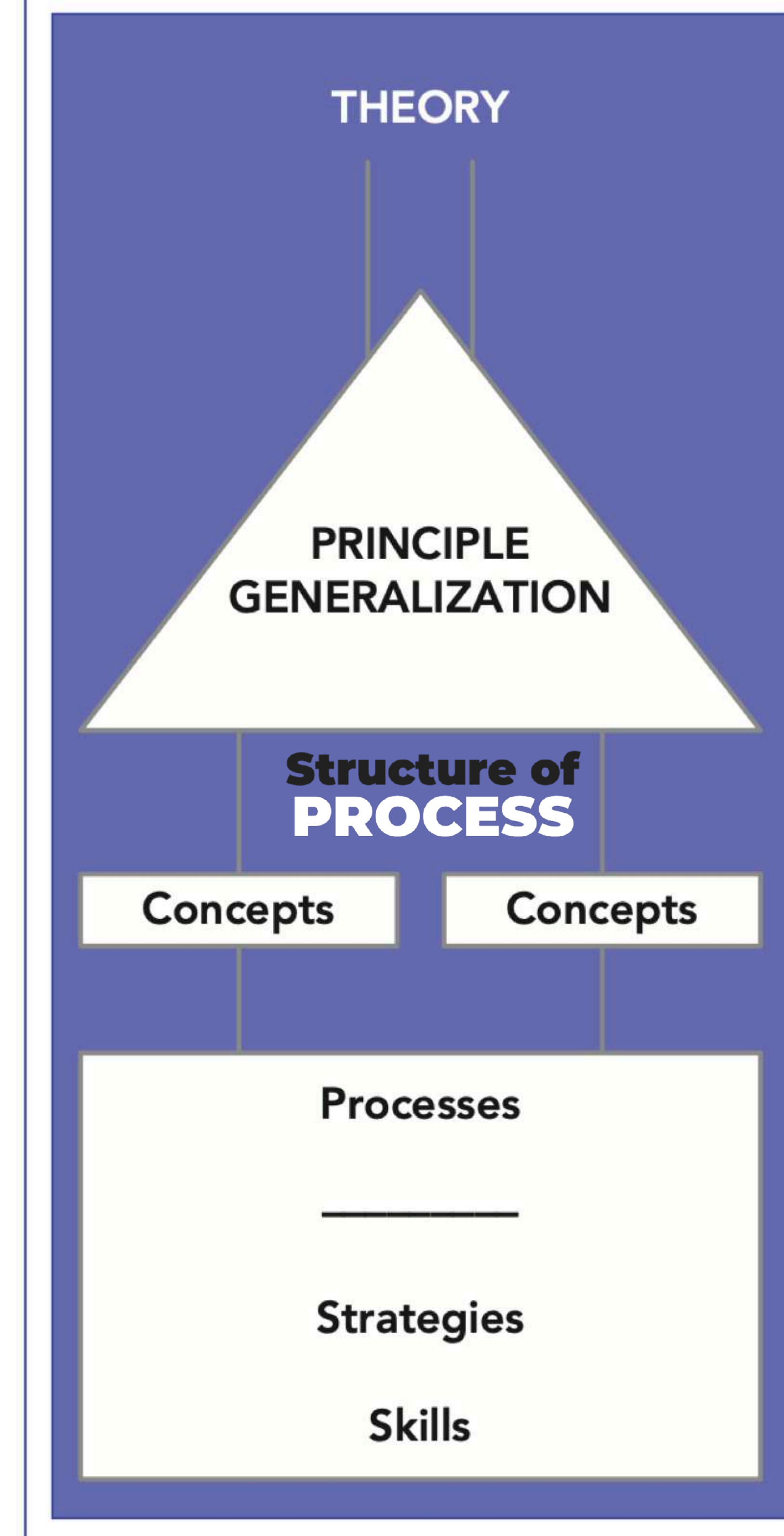
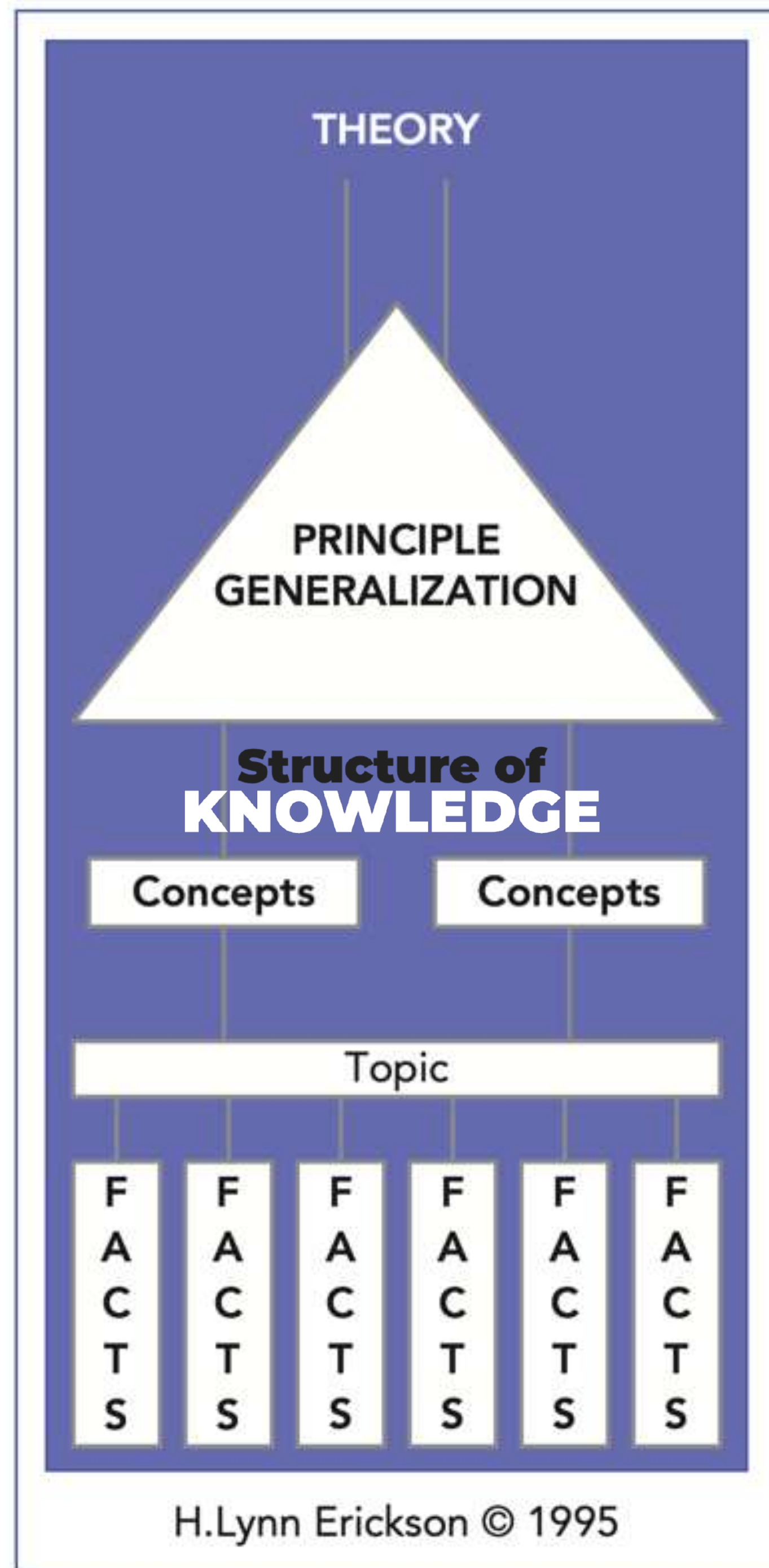


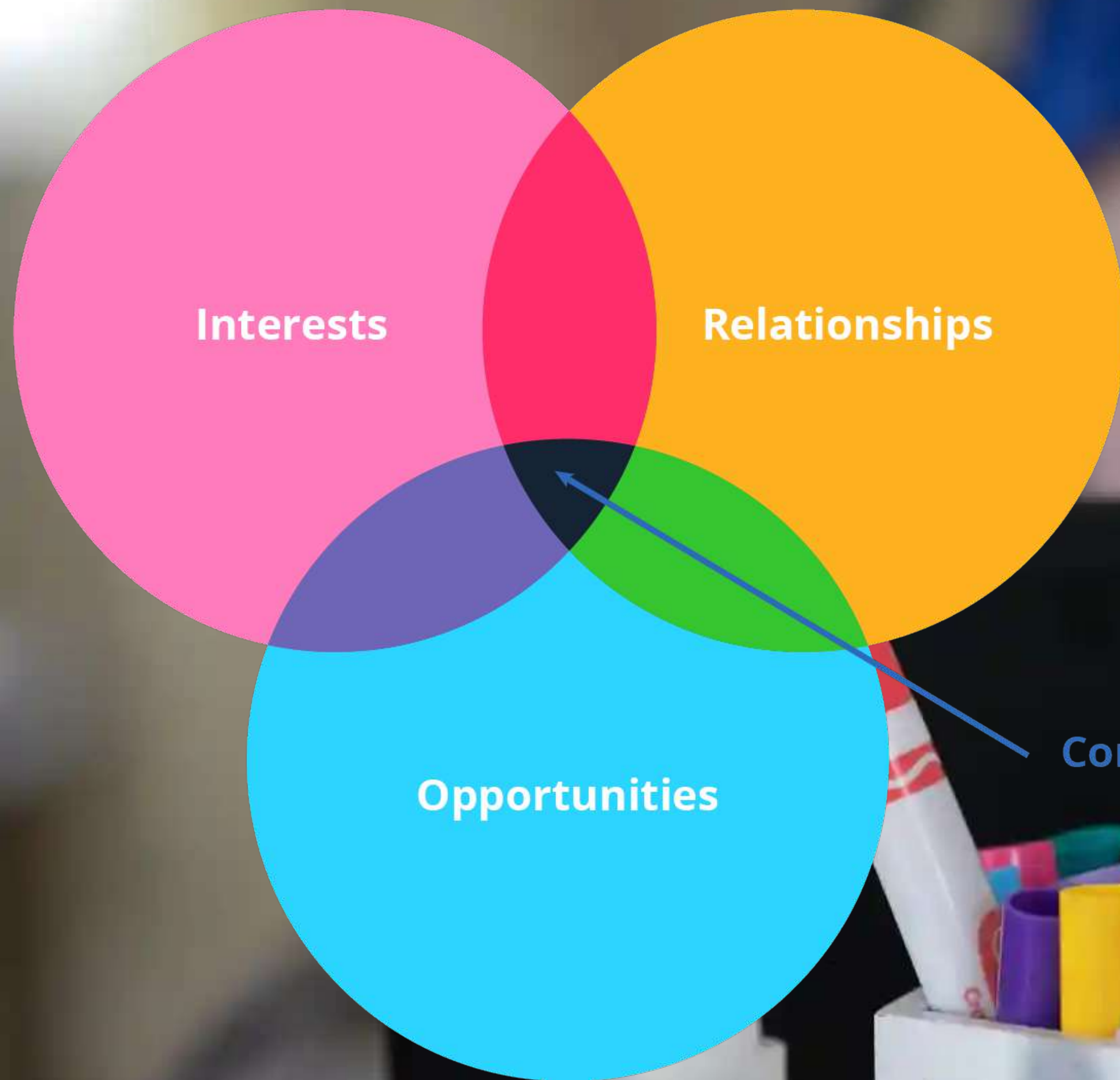
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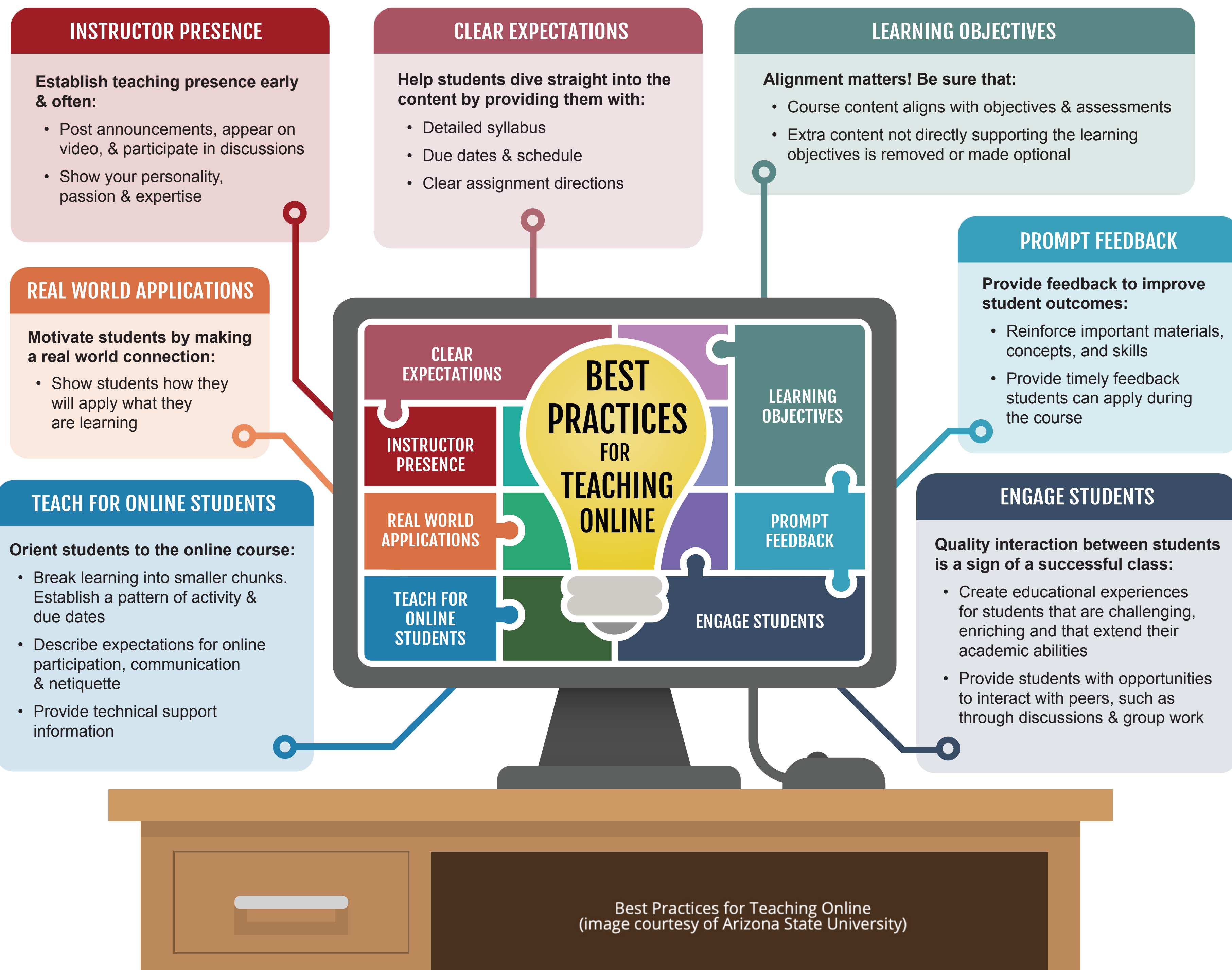




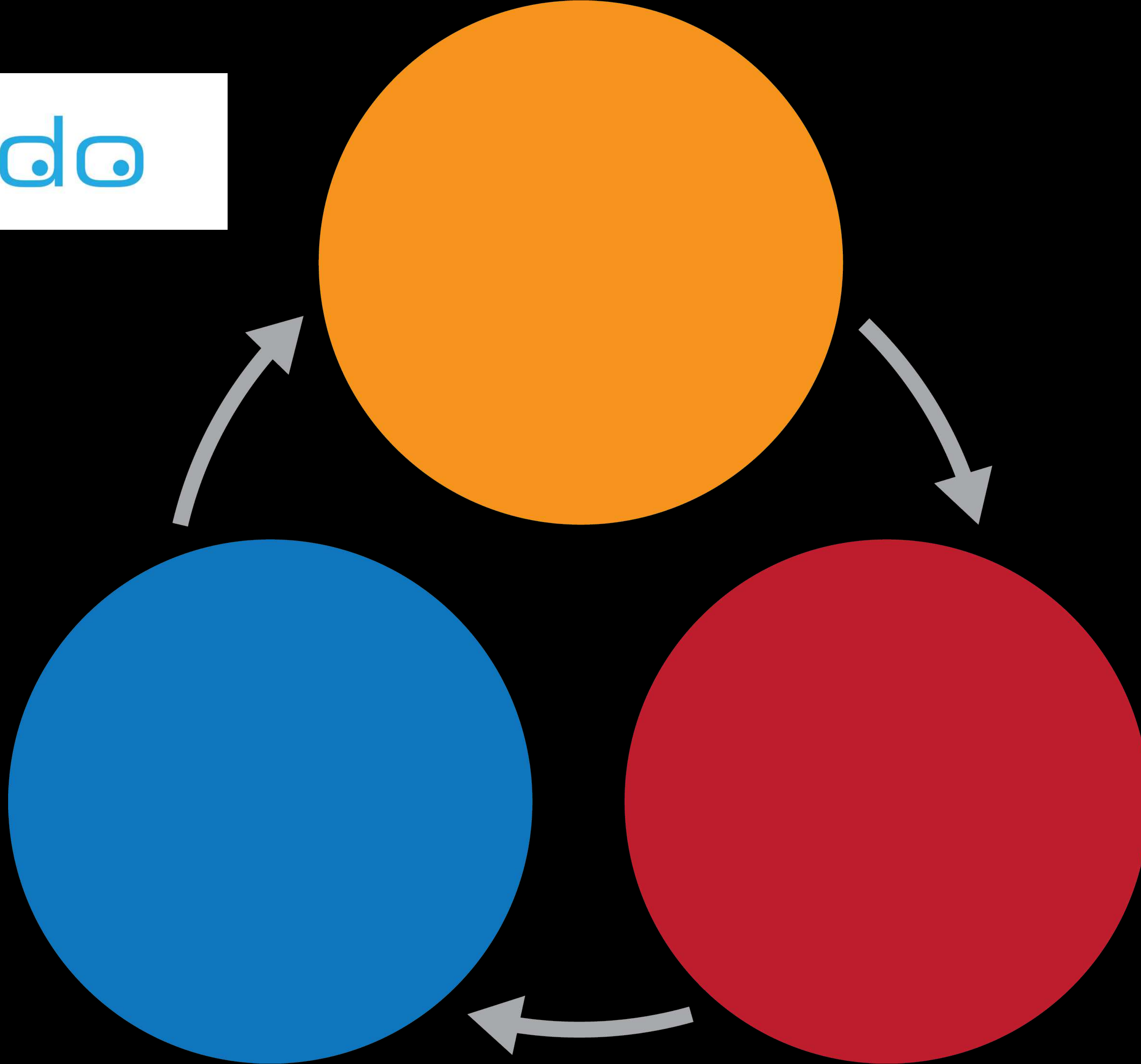
Connected Learning





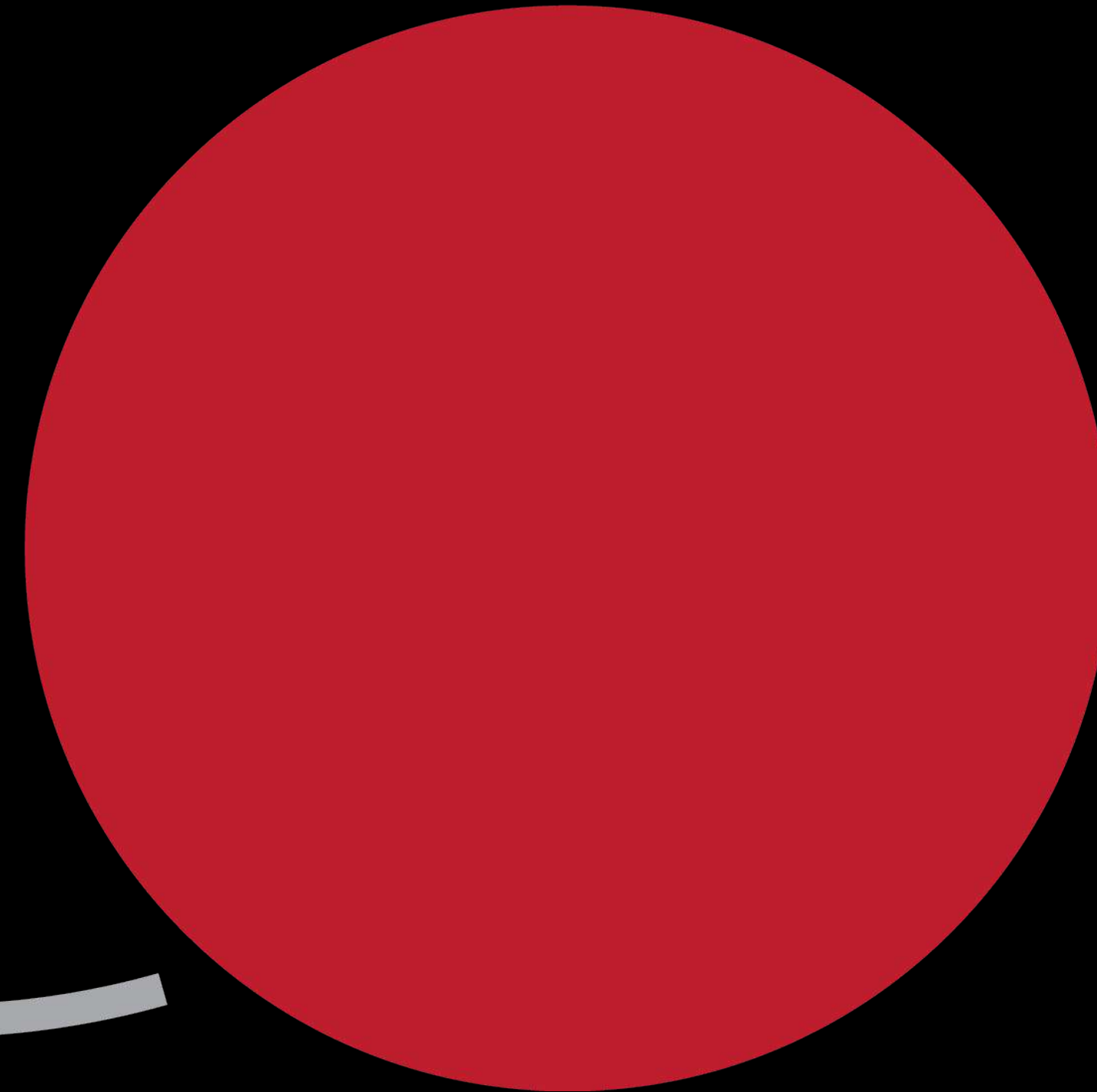
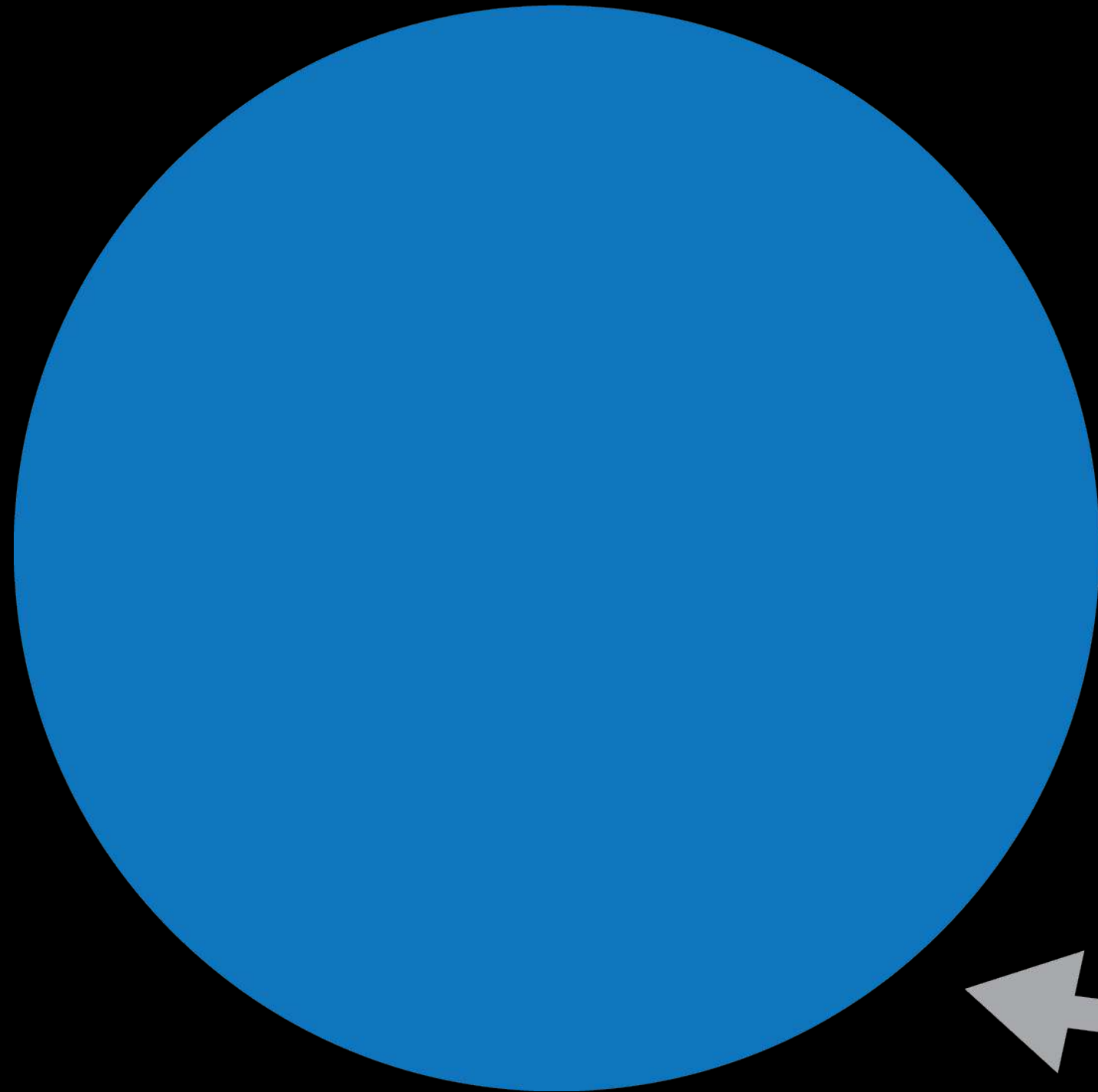


do



do

WHAT
student can **DO**
“LEARNING OUTCOME”



do

WHAT
student can **DO**
“LEARNING OUTCOME”

HOW
to **ASSESS**

do

WHAT
student can **DO**
“LEARNING OUTCOME”

with
WHAT
activities
and
HOW
to **TEACH**

HOW
to **ASSESS**

do

WHAT
student can **DO**
“LEARNING OUTCOME”

effective

LEARN

ING

with
WHAT
activities
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HOW
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HOW
to **ASSESS**

do

WHAT
student can **DO**
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significant

effective

LEARN

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formative

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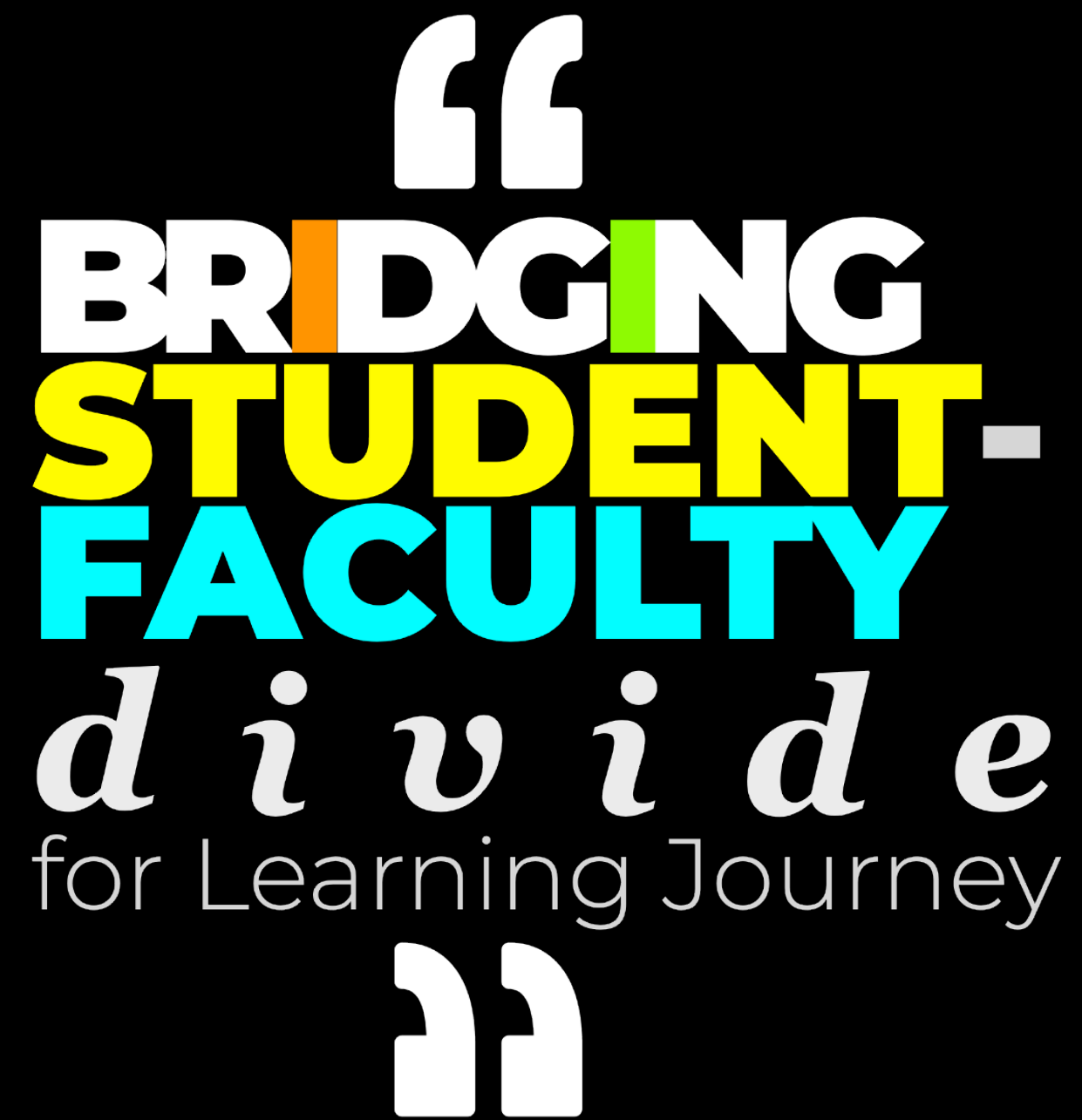
LEARN
ING

formative

engaging

with
WHAT
activities
and
HOW
to
TEACH

HOW
to
ASSESS



you need to know “WHAT” they
know; you need to know “HOW”
they learn; you will “HELP” them
develop their own understanding...



- what will students learn?
- to what degree will they learn?
- how will they acquire this learning?
- how will they demonstrate this learning?

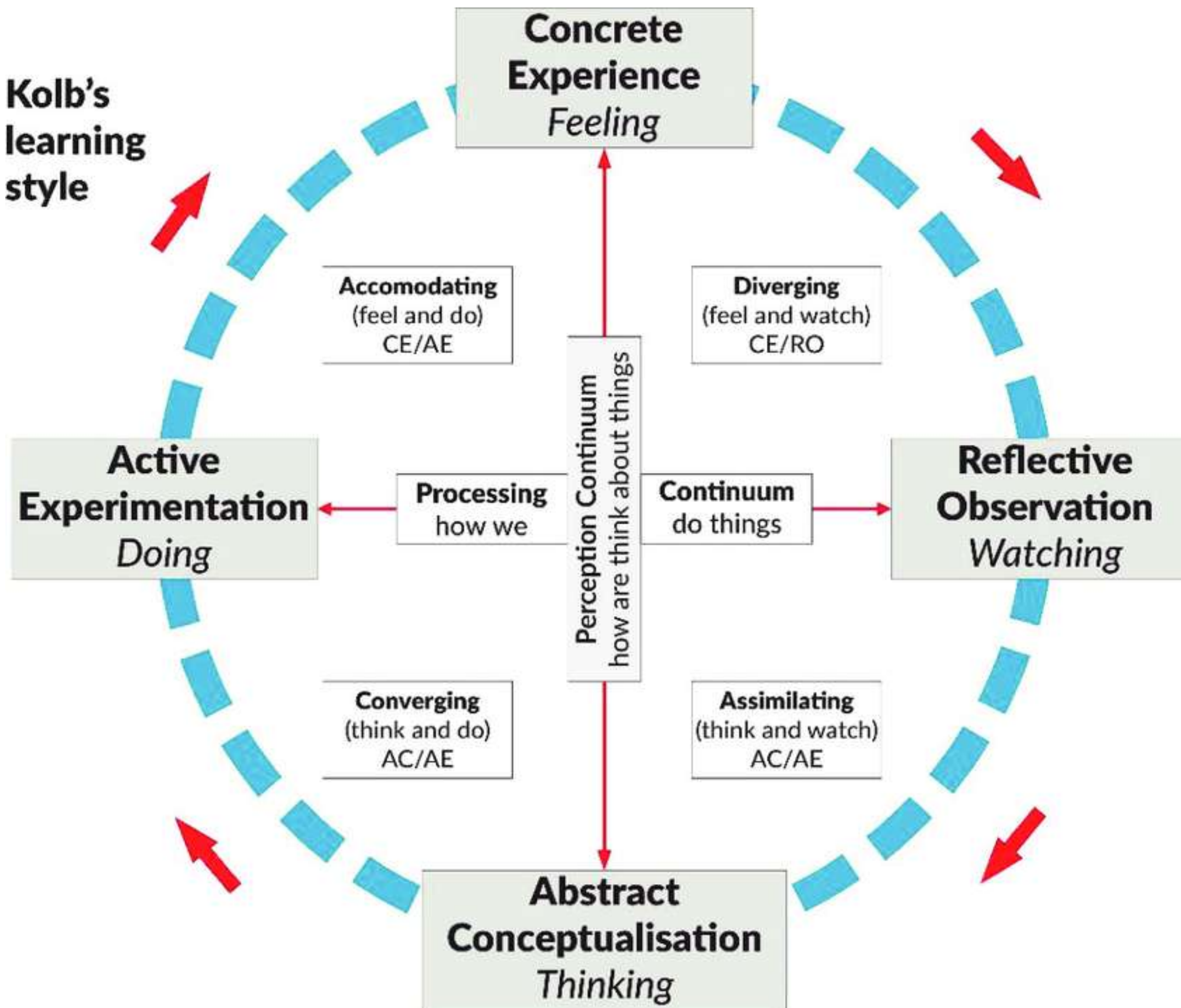
where great teaching begins; A. R. Reeves



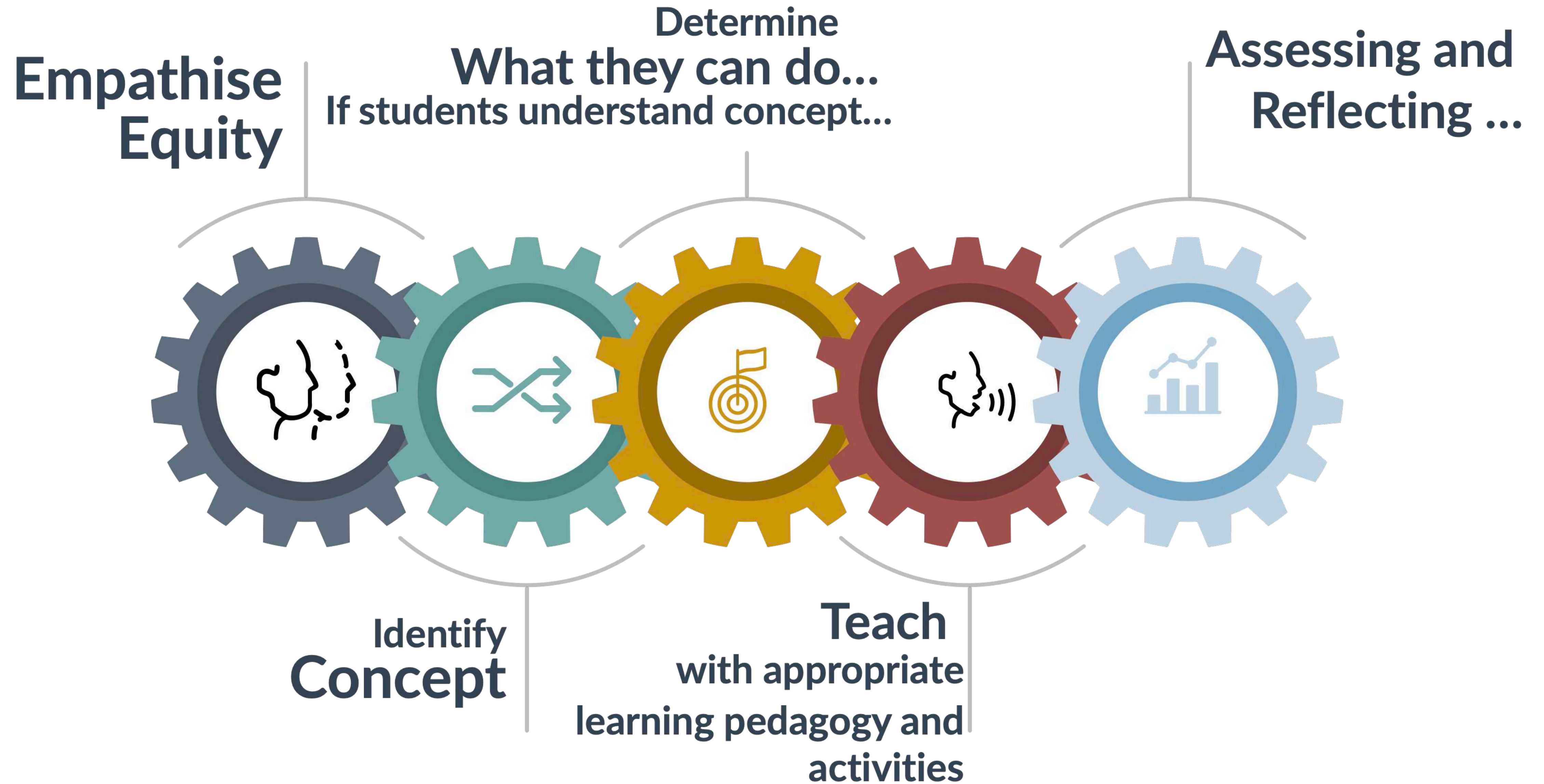


EQUITY learning at least to deliver the same QUALITY

**Kolb's
learning
style**



Teaching Process



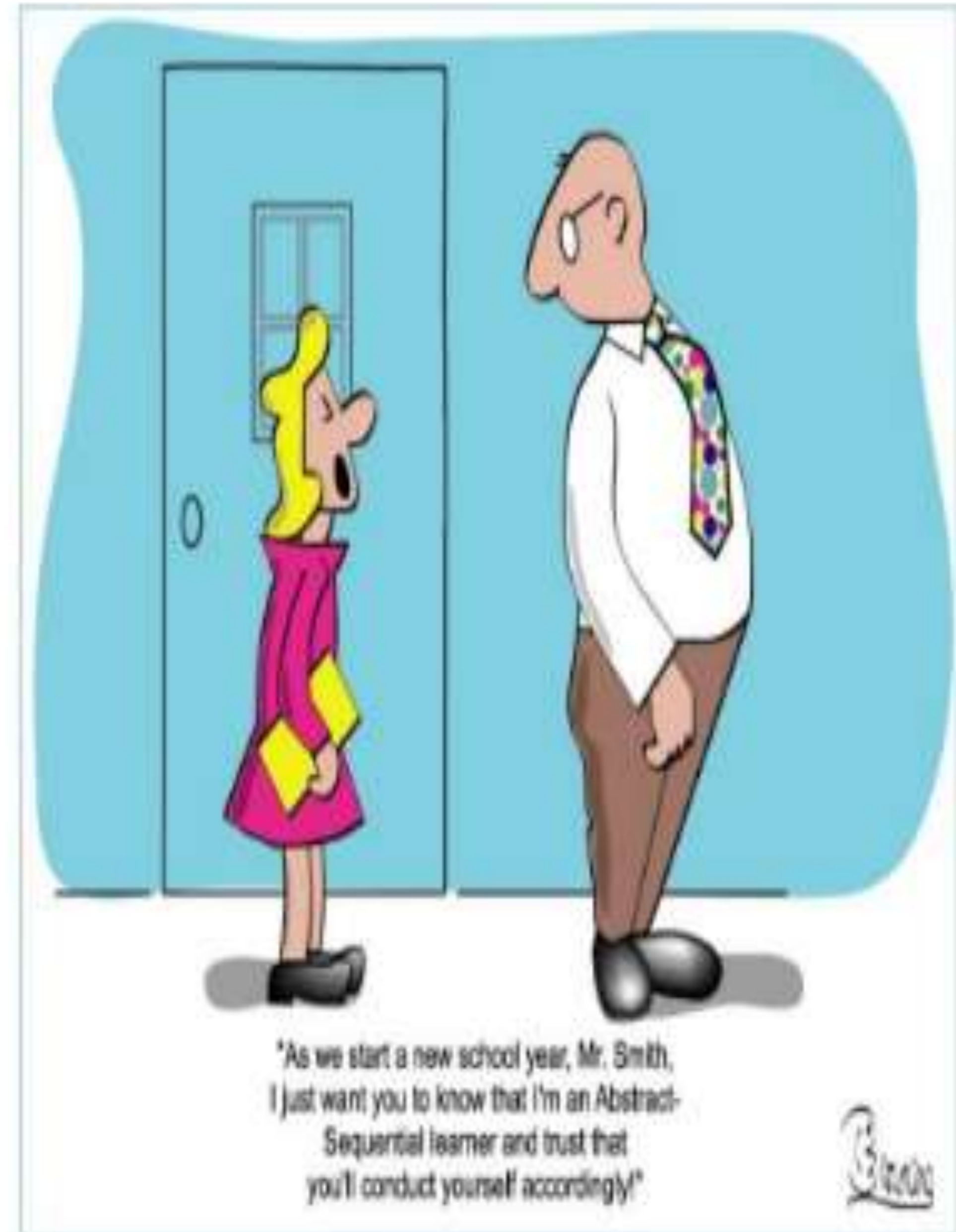




REFLECTION

4. Reflection

1. How and what did I learn?
2. What worked and what didn't?
3. How did I feel during the process?
4. What can I do better next time?
5. Did I reach my goals, why or why not?



การวัด ประเมิน

Assessment and Evaluation



ไม่ใช่ สอบ

ASSESS MENT

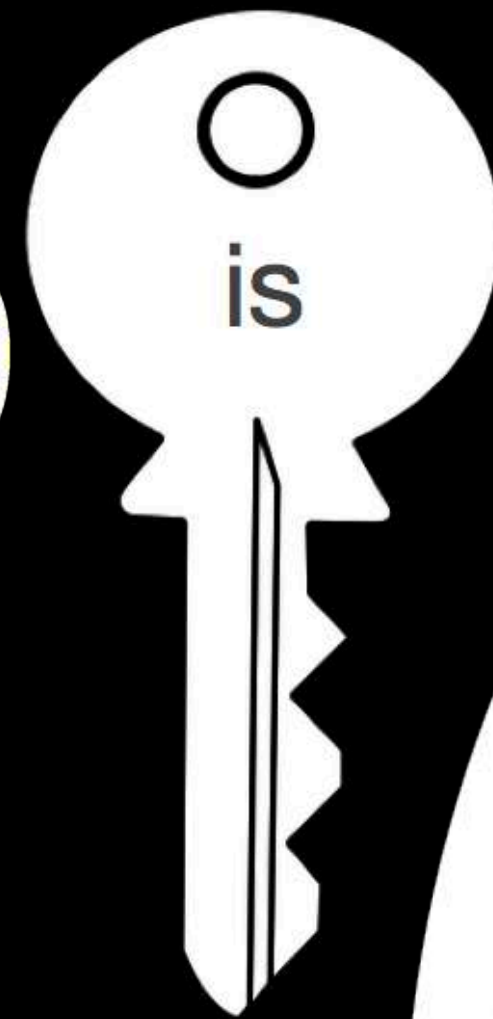


ASSESSMENT

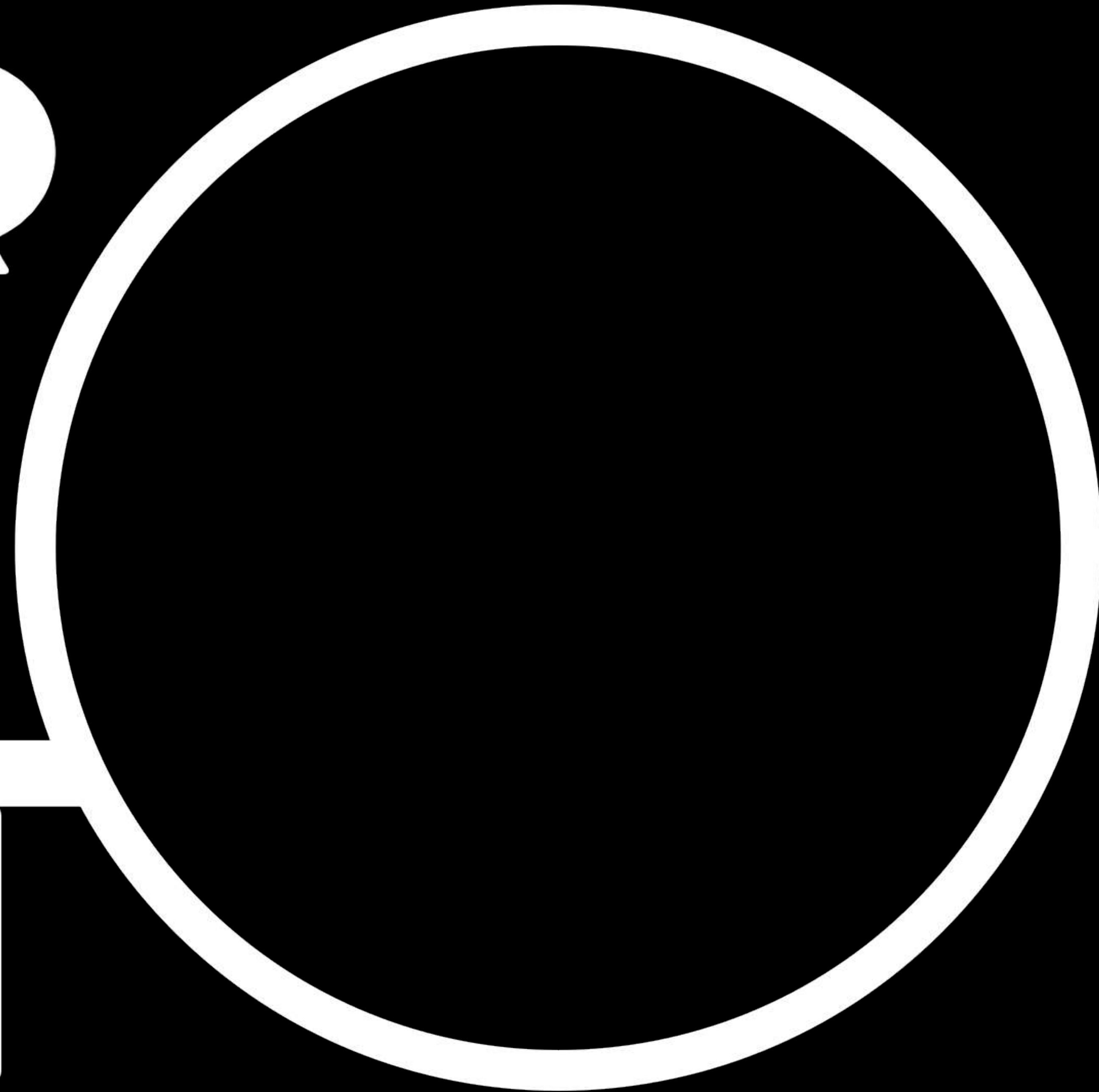
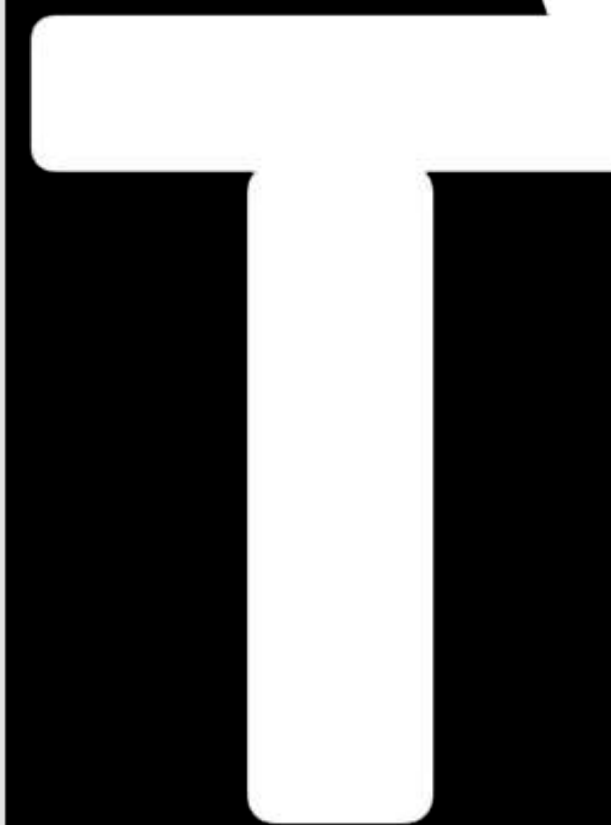


the **SYSTEMATIC**
COLLECTION
and **ANALYSIS**
of INFORMATION

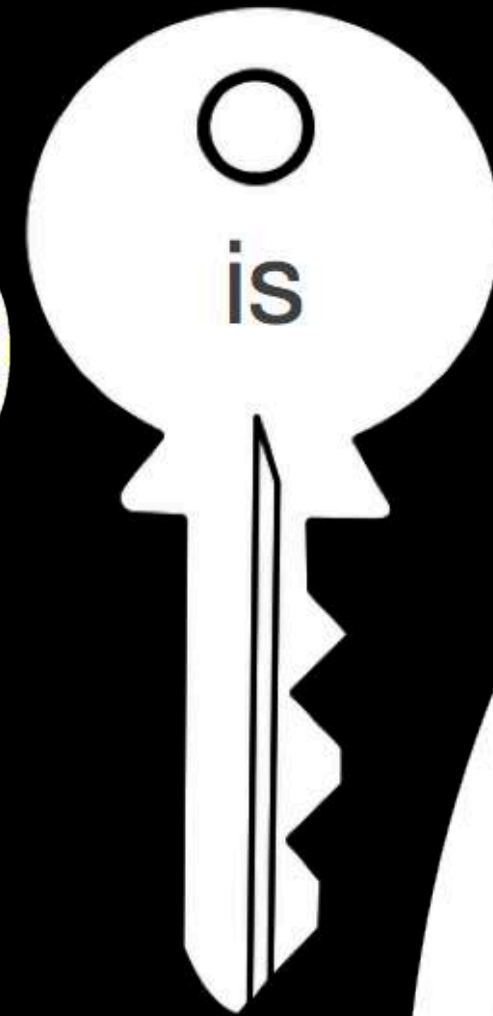
ASSESSMENT



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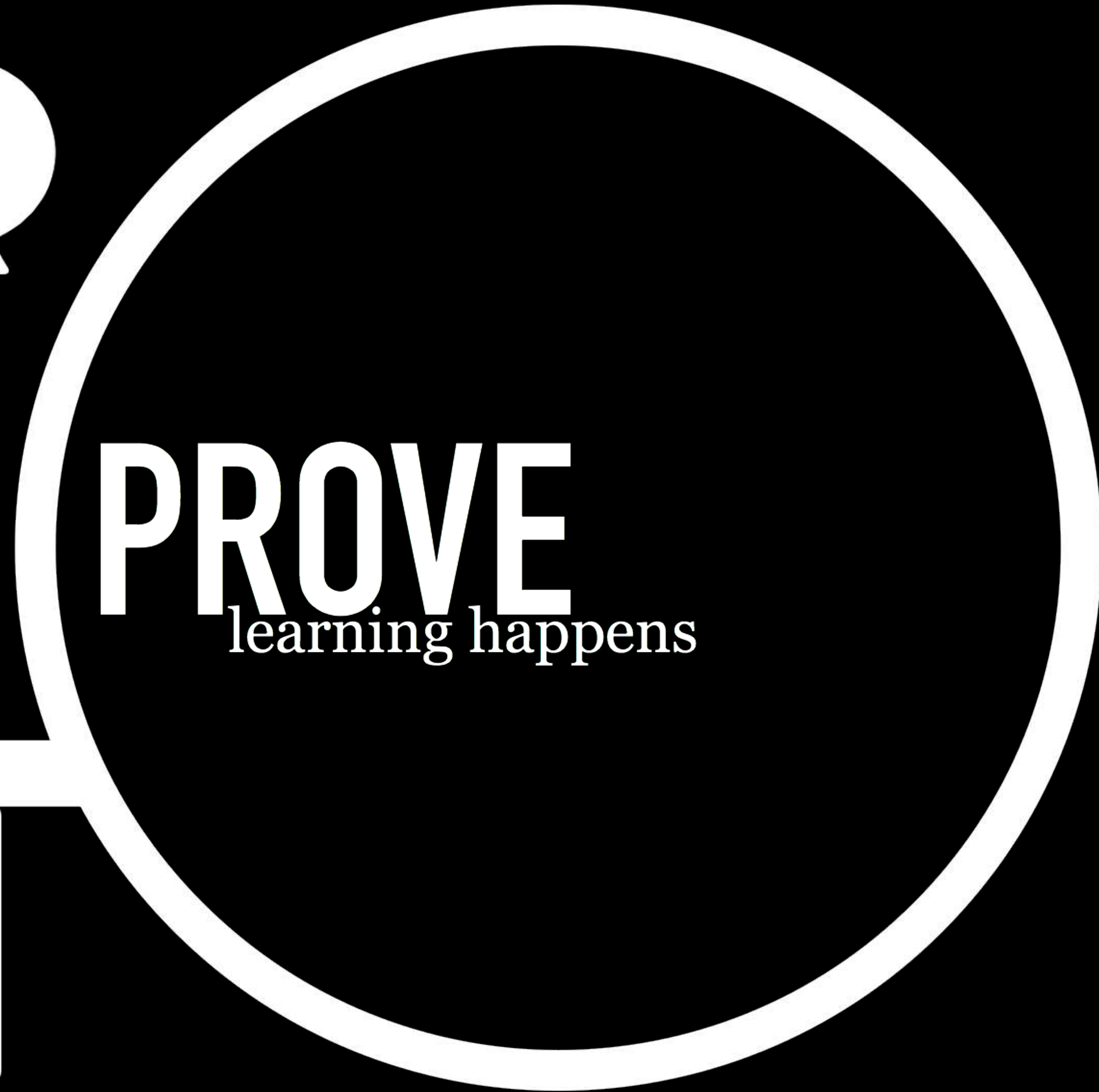


ASSESS
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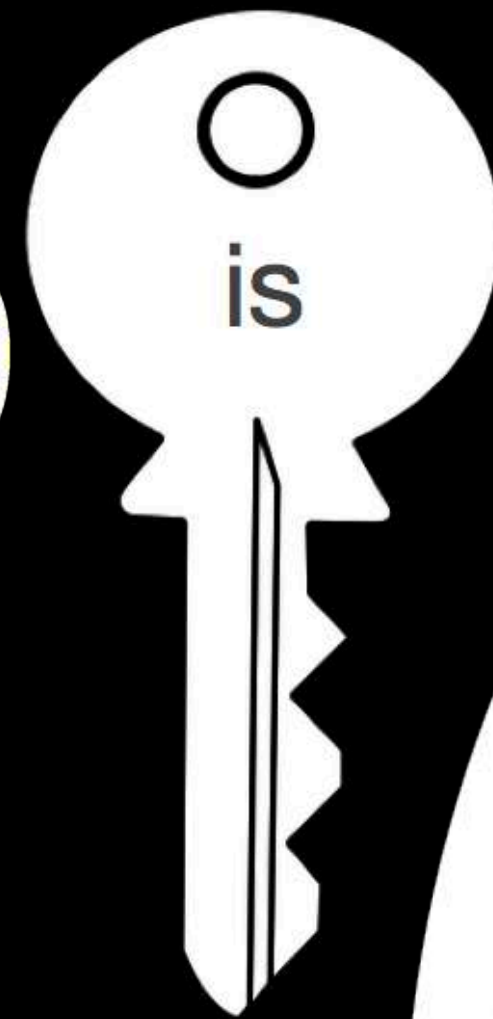


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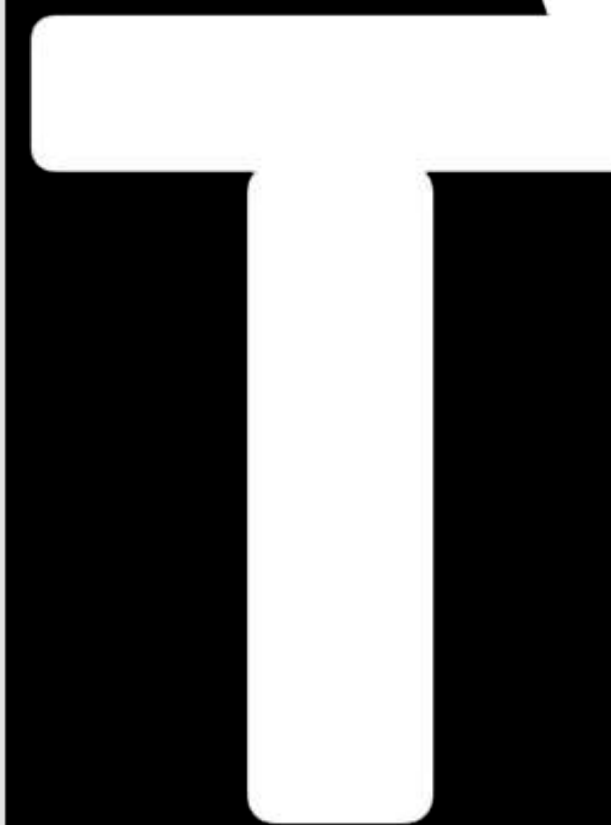
PROVE
learning happens



ASSESS
MENT

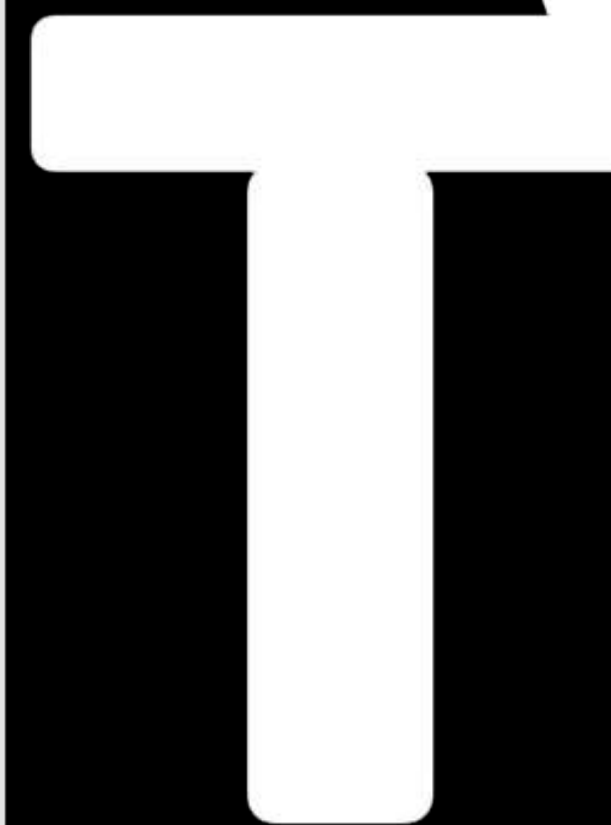
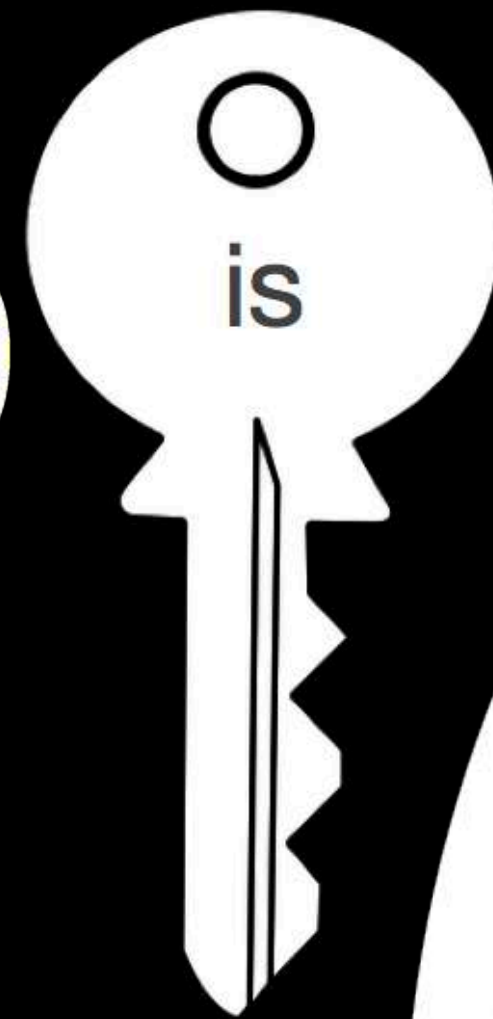


the **SYSTEMATIC**
COLLECTION
and **ANALYSIS**
of INFORMATION



(pedagogics and activities)
learning process
IMPROVE
student learning
PROVE
learning happens

ASSESS
MENT



the **SYSTEMATIC**
COLLECTION
and **ANALYSIS**
of **INFORMATION**

(pedagogics and activities)
learning process
IMPROVE
student learning
PROVE
learning happens
INFORM and/or
student learning

The Purpose of...

assessment
is to
INCREASE
quality.



evaluation
is to **JUDGE**
quality.

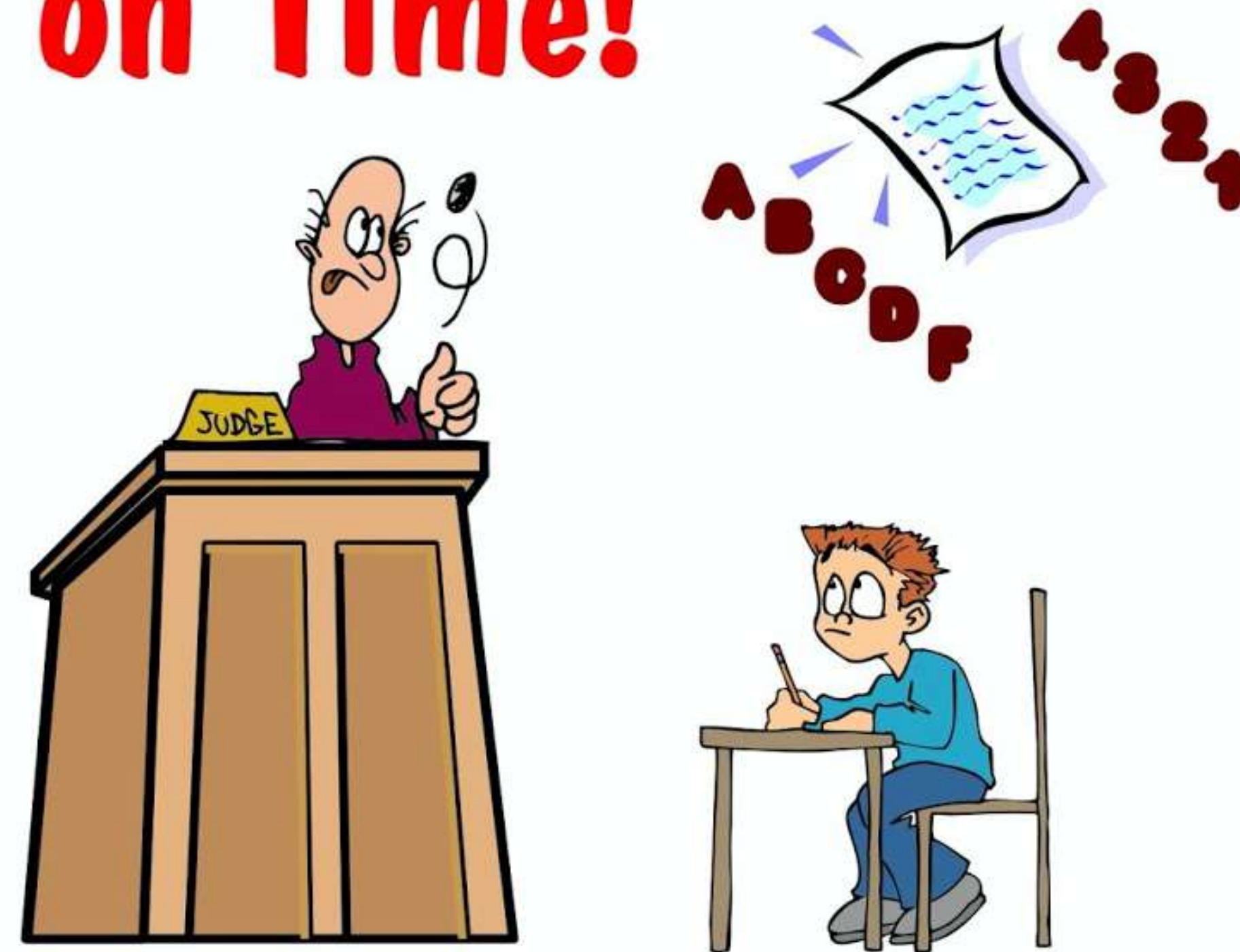


Assessment & Evaluation

Check & Coach
to Excellence!



Check & Grade
on Time!



How do we use them?

Assessment

- Monitoring learning
- Improvement
- Accountability



Evaluation

- Assigning grades
- Analyzing success
- Making decisions



Worcester Polytechnic Institute

By identify significant learning outcomes, assessment can:

- ◎ **provide opportunities for teachers to gather evidence about student achievement in relation to effective learning,**
- ◎ **enable students to demonstrate what they know and can do,**
- ◎ **clarified student understanding of concepts and promotes deeper understanding**
- ◎ **provide evidence that current understanding is a suitable basis for future learning.**

Assessment activities in class should:

- ◎ **be based on course level learning outcomes**
- ◎ **be a valid instrument for what they are designed to assess**
- ◎ **include criteria to clarify for students what aspects of learning are being assessed**
- ◎ **enable students to demonstrate their learning in a range of task types**
- ◎ **be reliable, measure what the task intends to assess, and provide accurate information on each student's achievement**

Assessment activities in class should (cont'd):

- ◎ **be free from bias and provide evidence that accurately represents a student's knowledge, understanding and skills**
- ◎ **enable students and teachers to use feedback effectively and reflect on the learning process**
- ◎ **be inclusive of and accessible for all students**
- ◎ **be part of an ongoing process where progress is monitored over time.**

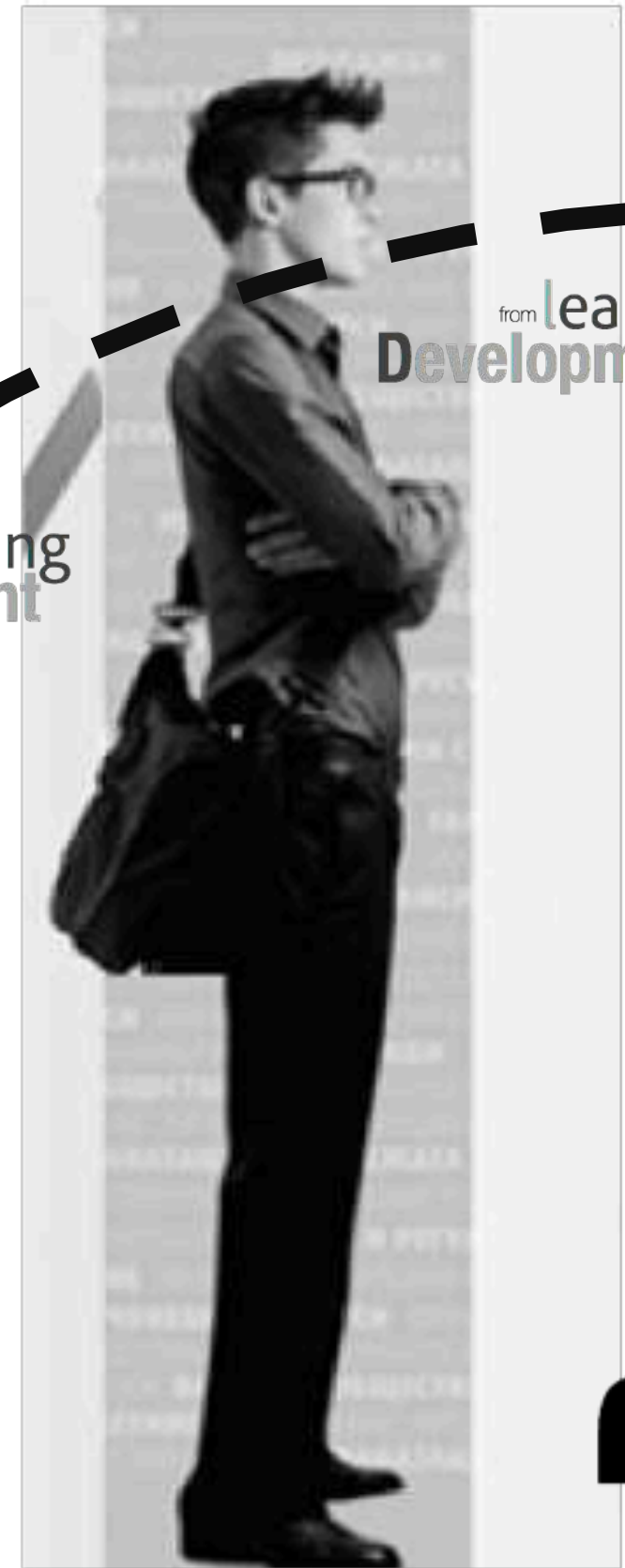
first day



from learning
Development



from learning
Development



from learning
Development

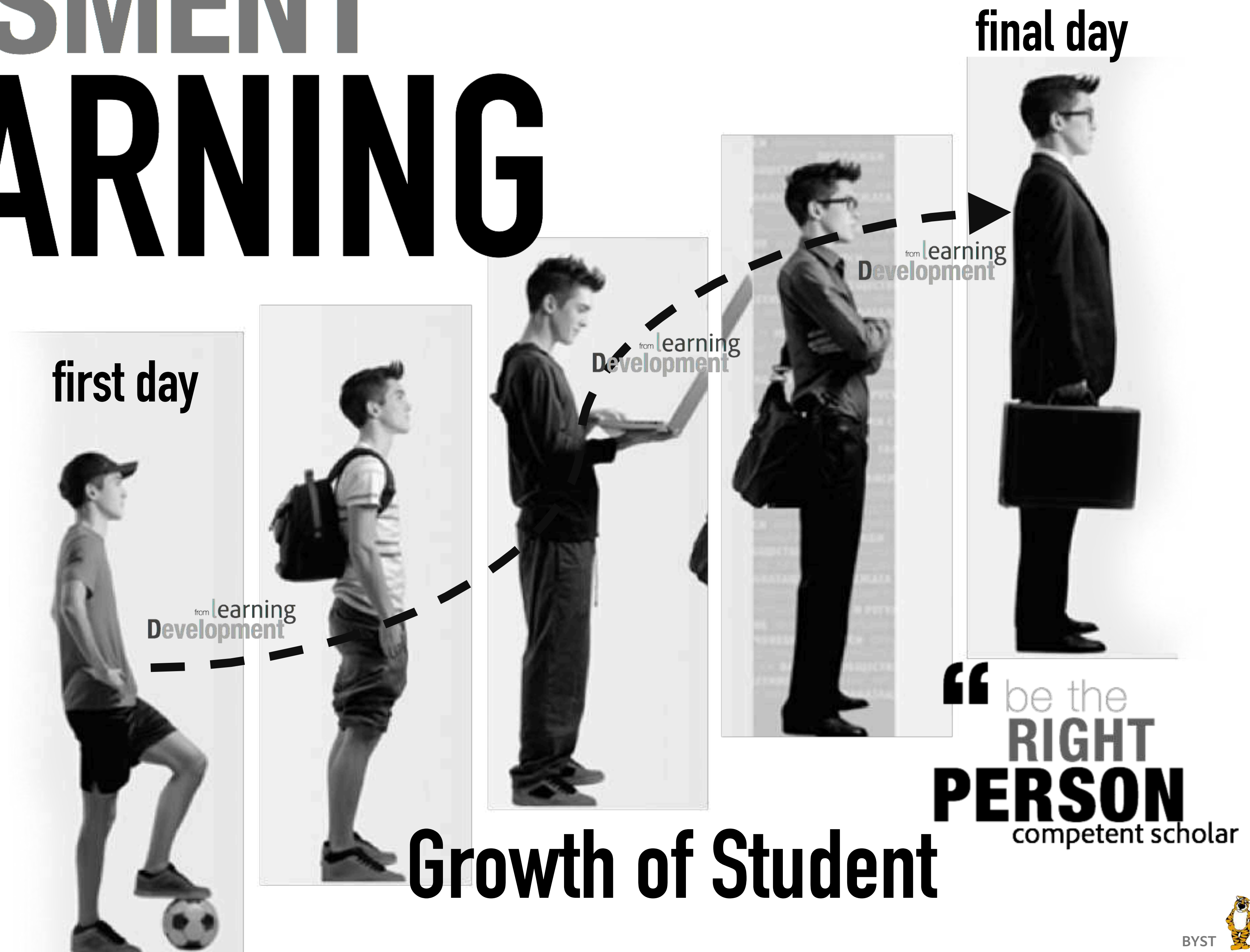
final day



“ be the
**RIGHT
PERSON**
competent scholar

Growth of Student

ASSESSMENT LEARNING



ASSESSMENT OF LEARNING

summative
assessment

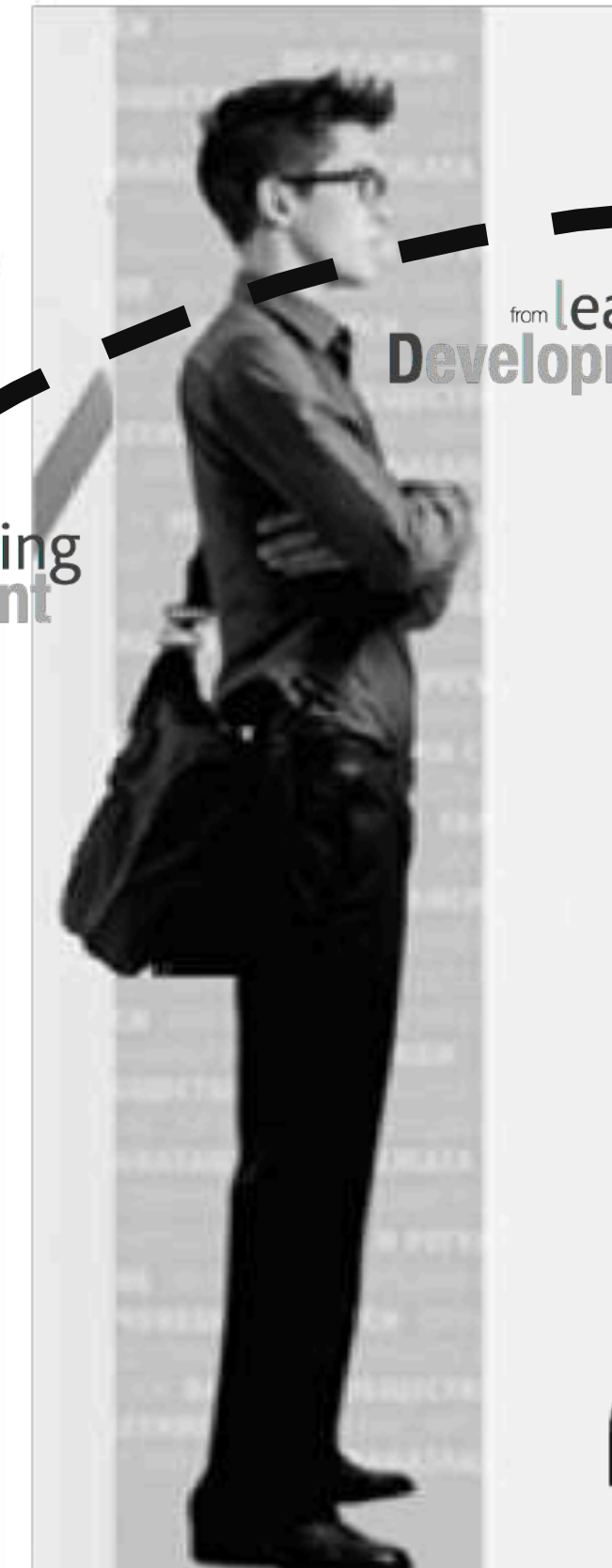
first day



from learning
Development



from learning
Development



from learning
Development

final day

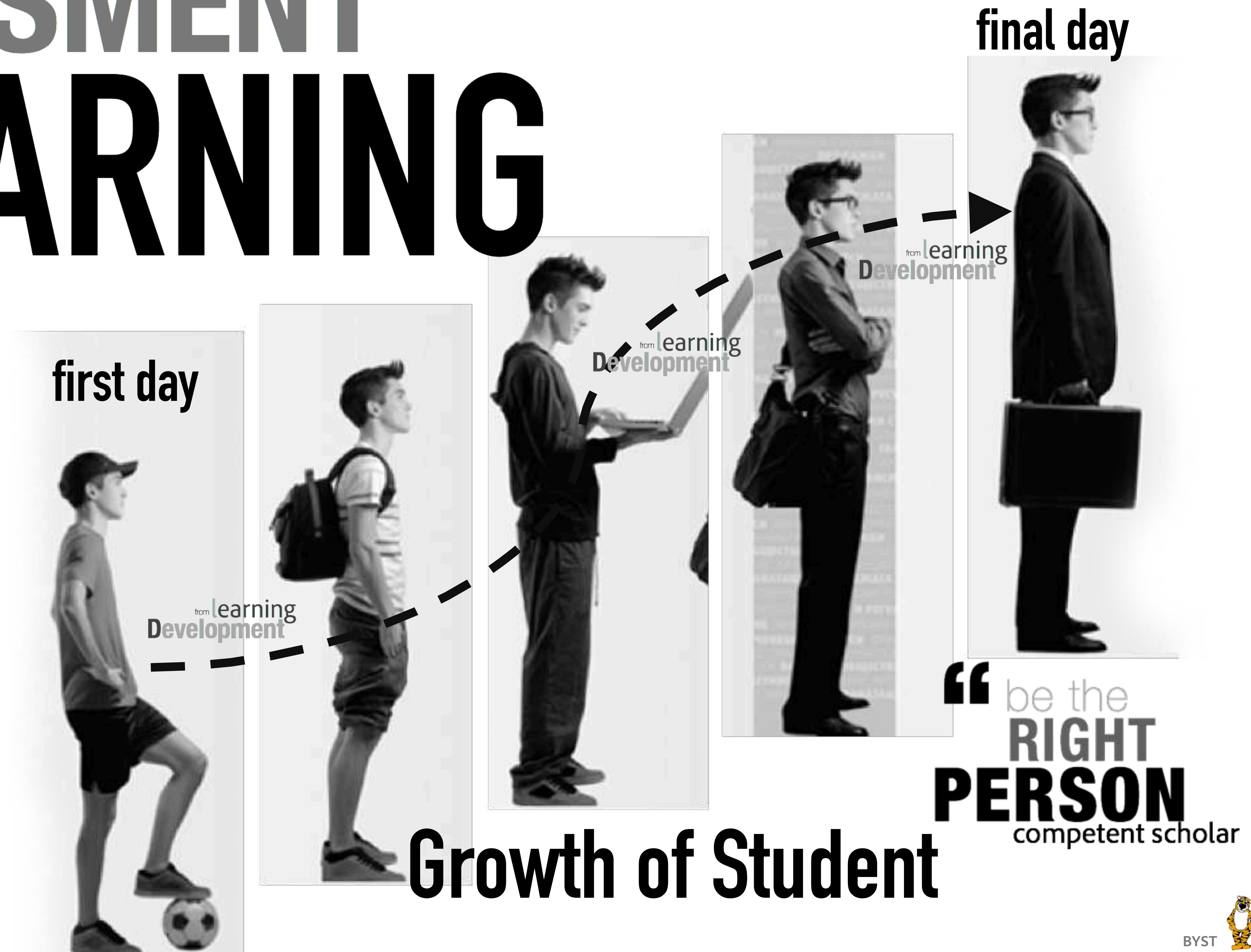


“ be the
**RIGHT
PERSON**
competent scholar

Growth of Student

ASSESSMENT OF LEARNING

summative assessment
formative assessment
FOR



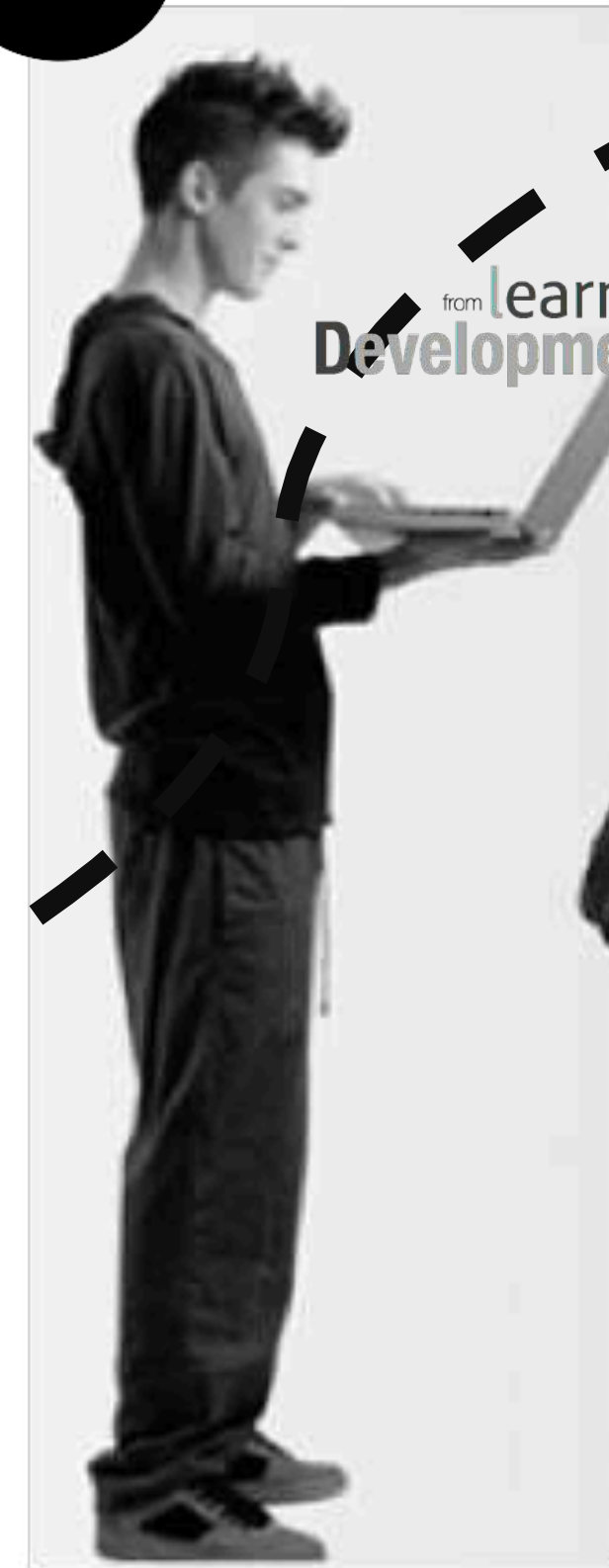
ASSESSMENT OF LEARNING

summative assessment
OF
formative assessment
FOR
AS
student's own sake

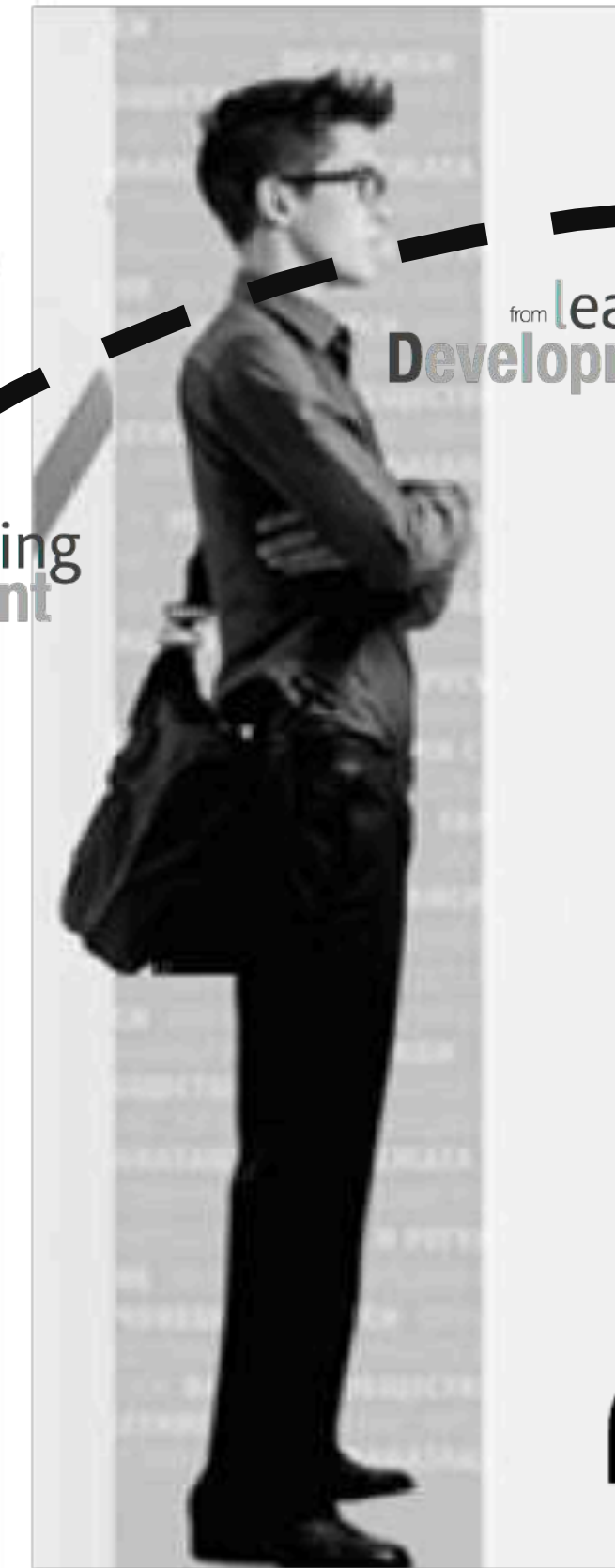
first day



from learning
Development



from learning
Development



from learning
Development

final day



“ be the
**RIGHT
PERSON**
competent scholar

Growth of Student

Assessment OF learning

“SUMMATIVE ASSESSMENTS”

is the use of a task or an activity to measure, record and report on a student's level of achievement in regards to specific learning outcomes. Assessment of learning provides a summation of students' learning at the **end** of a course of instruction...

Assessment FOR learning

“FORMATIVE ASSESSMENTS”

is the use of a task or an activity to assess the progress of students' learning **during** a course of instruction or modules of instruction. Assessment for learning is intended to provide formative feedback helping students to improve their learning. On the other hands, it provides information for us about students' learning so we can revise our designed learning activities and or pedagogic to “close” the gap...
“continuous improvement”

Assessment AS learning

“STUDENTS’ OWN SAKE ASSESSMENTS”

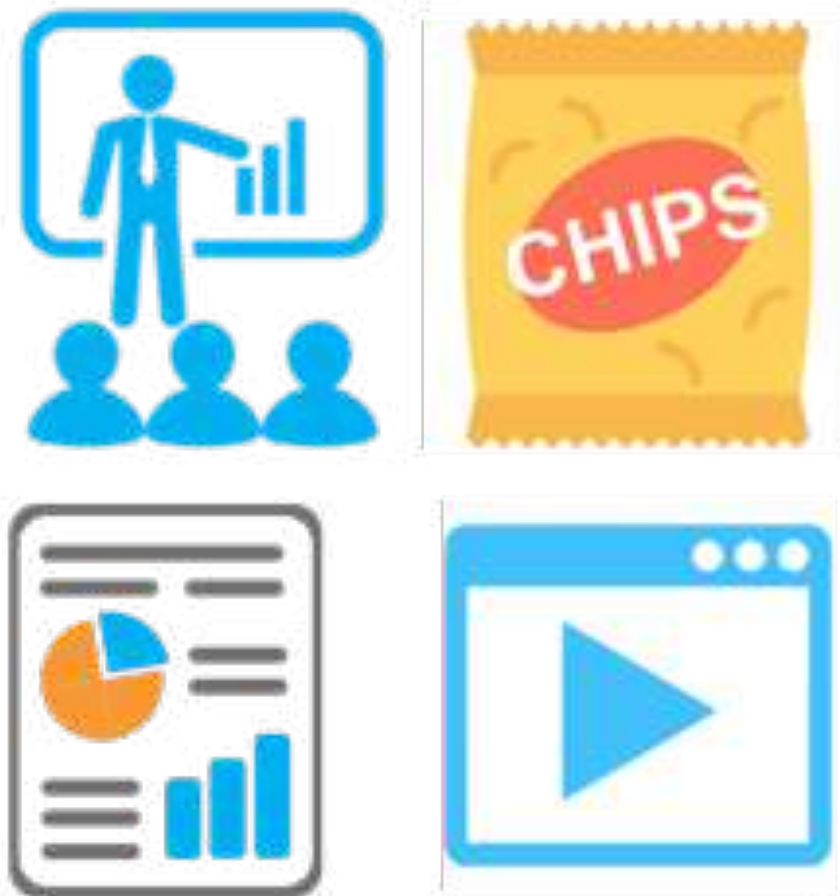
is the use of a task or an activity to allow students to learn about themselves as learners. With the feedback or help from teachers, students reflect their own work through self and peer assessment and decide what their next learning will be. Assessment as learning offers students the chance to set their own personal goals and advocate for their own learning.

Assessment type: by timing



Assessment of learning - examples

Final product



Test/exam

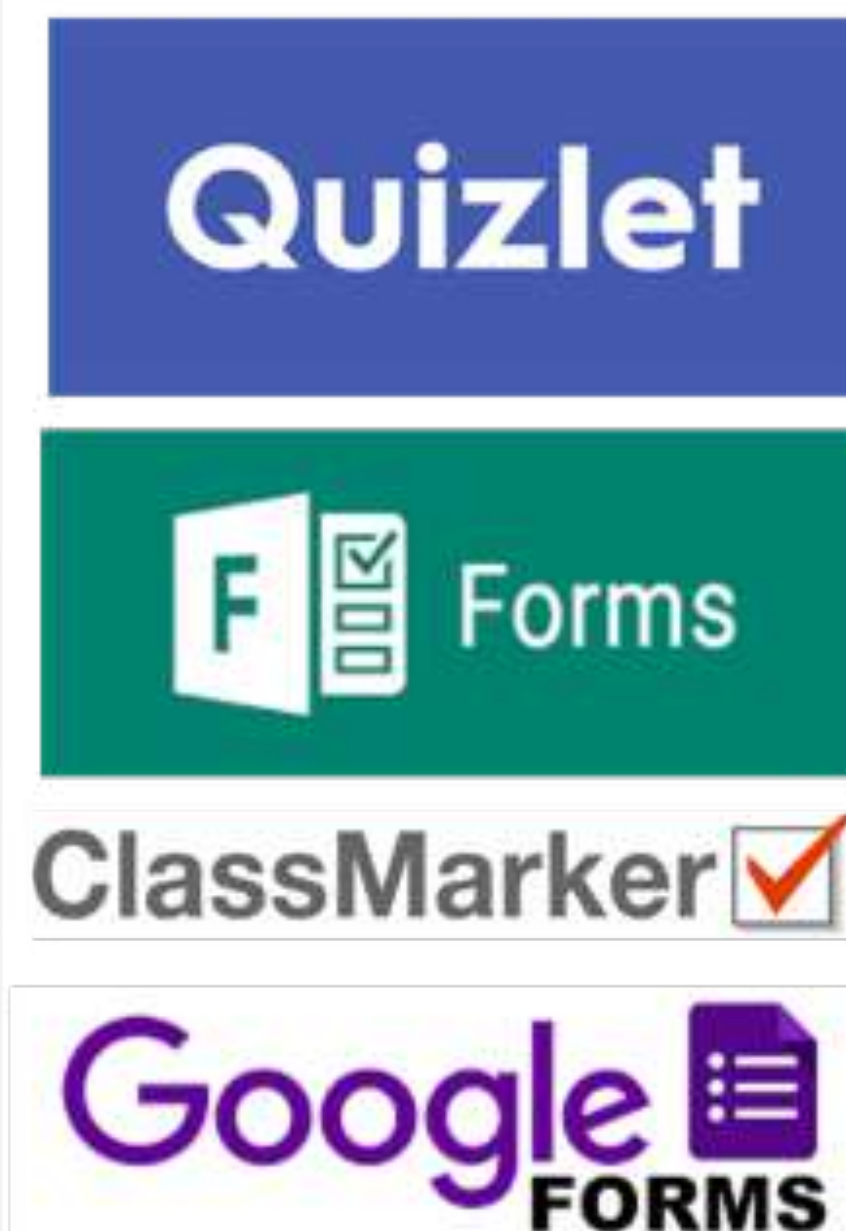


Midterm/final exam

End of lesson test/quiz

Standardized test

Online exam



What does research say?



In-person & online test brought about the same anxiety. This is with exception of **students with high anxiety** - they performed poorer on the test*

Proctoring Tool



*Woldeab, D. & Brothen, T. 2019. 21st Century Assessment: online proctoring, test anxiety, and student performance. International Journal of E-Learning & Distance Education 34(1)

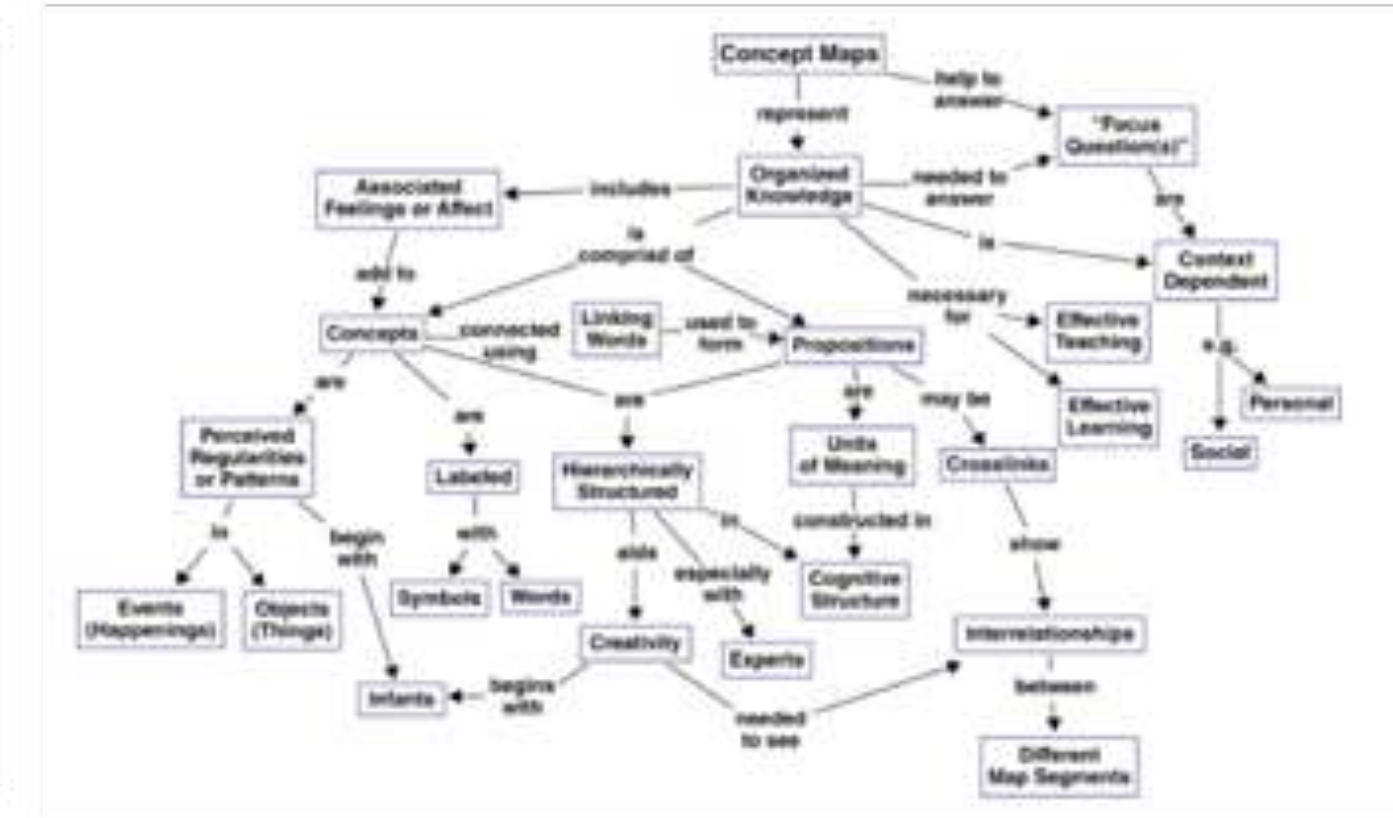
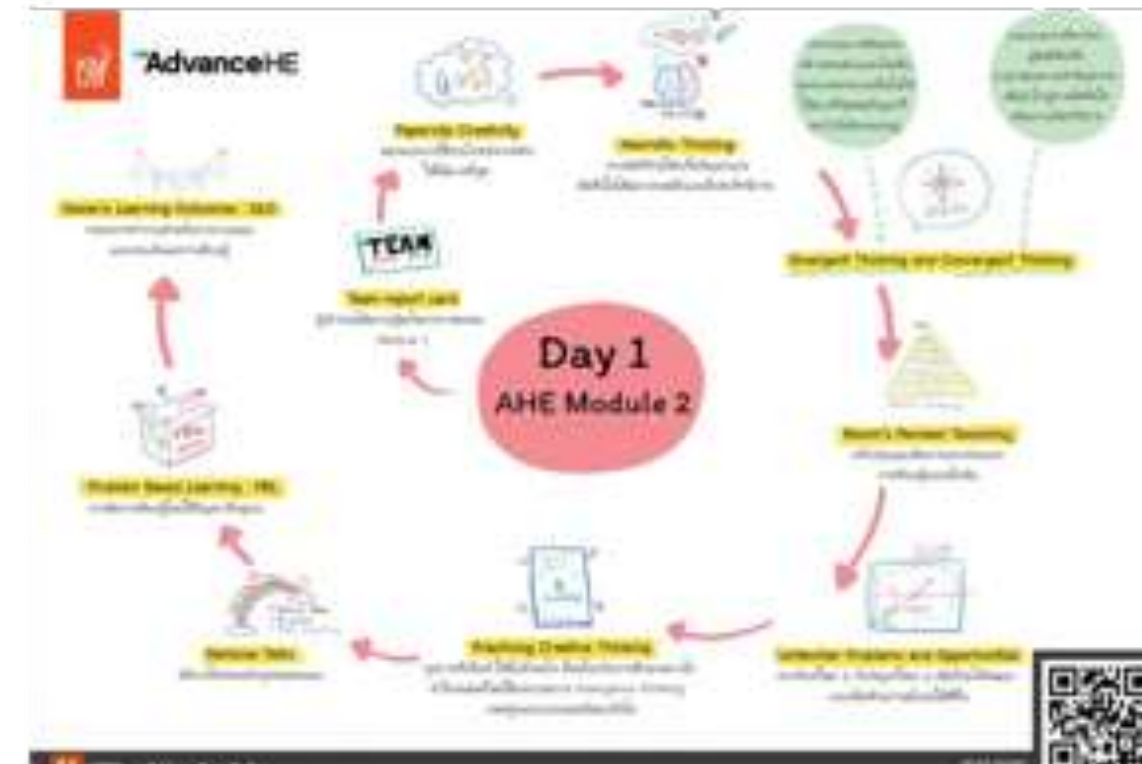
Assessment for Learning - concept

Diagnosis assessment Learning need analysis

Formative assessment

- Collecting information during learning (maybe multiple time)
- Information collected is used for
 - What teacher have to do to move learning forward
 - Providing feedback to help students
 - Enhance students motivation and commitment to learning

Assessment for learning - example



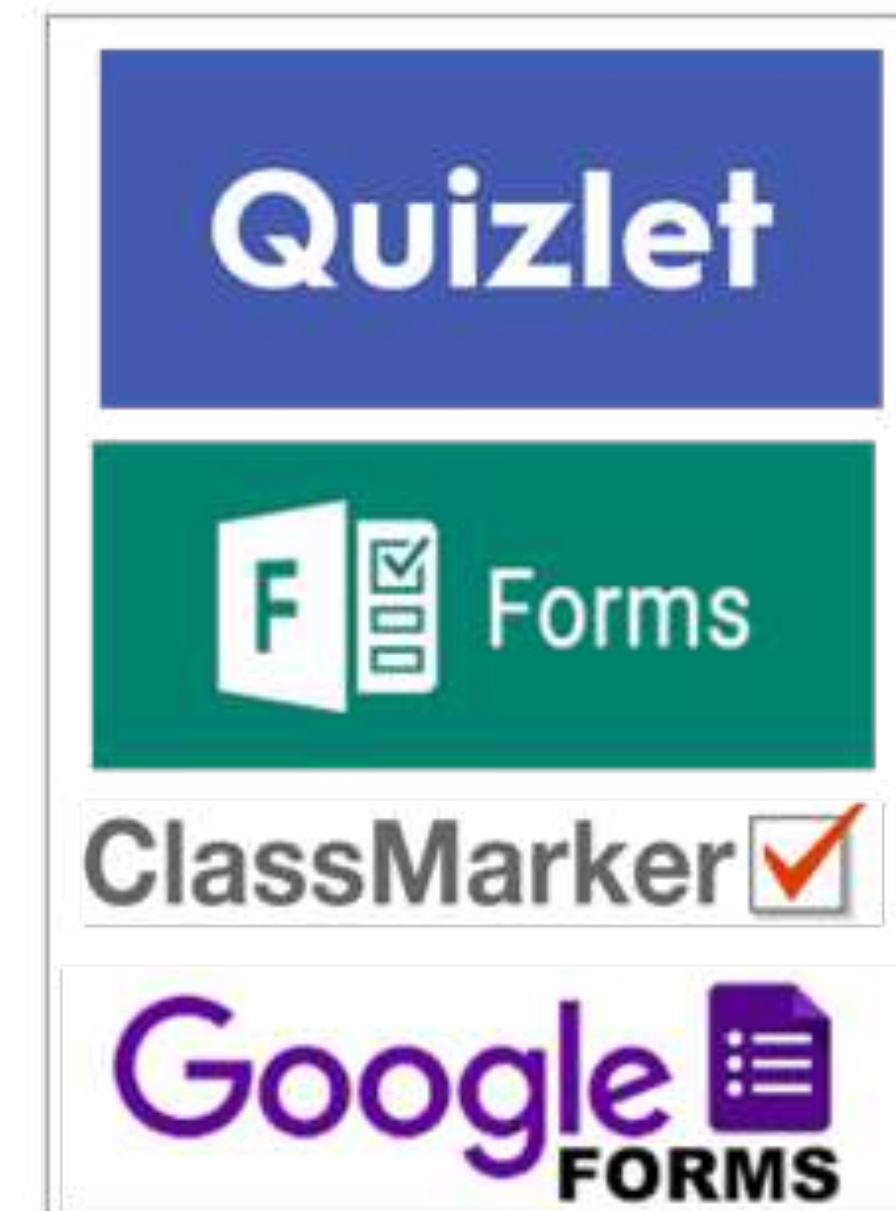
Visualization of what they learned



Poll/voting



Interactive VDO



Impromptu quiz

Learning resources

Udemy การวัดและประเมินผลทางการศึกษา

Link เข้าสู่บทเรียน

www.udemy.com/course/pszgfslo/

เรียนฟรีง่าย ๆ อย่าลืมสมัคร account ก่อนนะ

read more: <https://bit.ly/3dixgww>

การจัดการเรียนการสอน
celt.li.kmutt.ac.th/km

App สำหรับการเรียนการสอน
ets.kmutt.ac.th

- 1. Digital curriculum**
- 2. Personalised, individualized, differentiated or tailored curriculum**
- 3. Cross-curricular content and competence-based curriculum**
- 4. Flexible curriculum**



Time

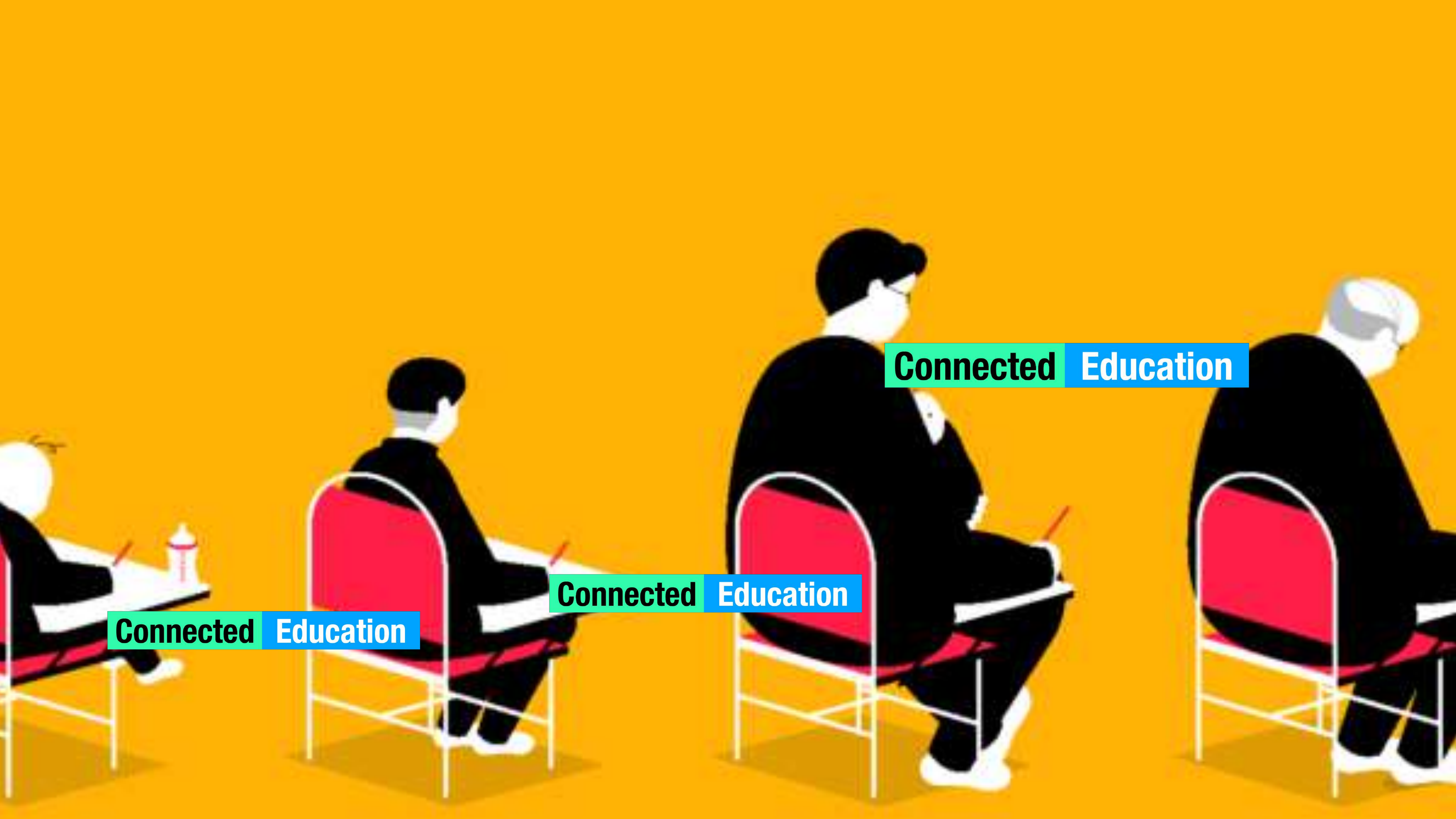
based education

Leaves

some students

BEHIND

...



Connected Education

Connected Education

Connected Education

การพัฒนา

มหาวิทยาลัย

เพื่อตอบสนอง
ความต้องการ

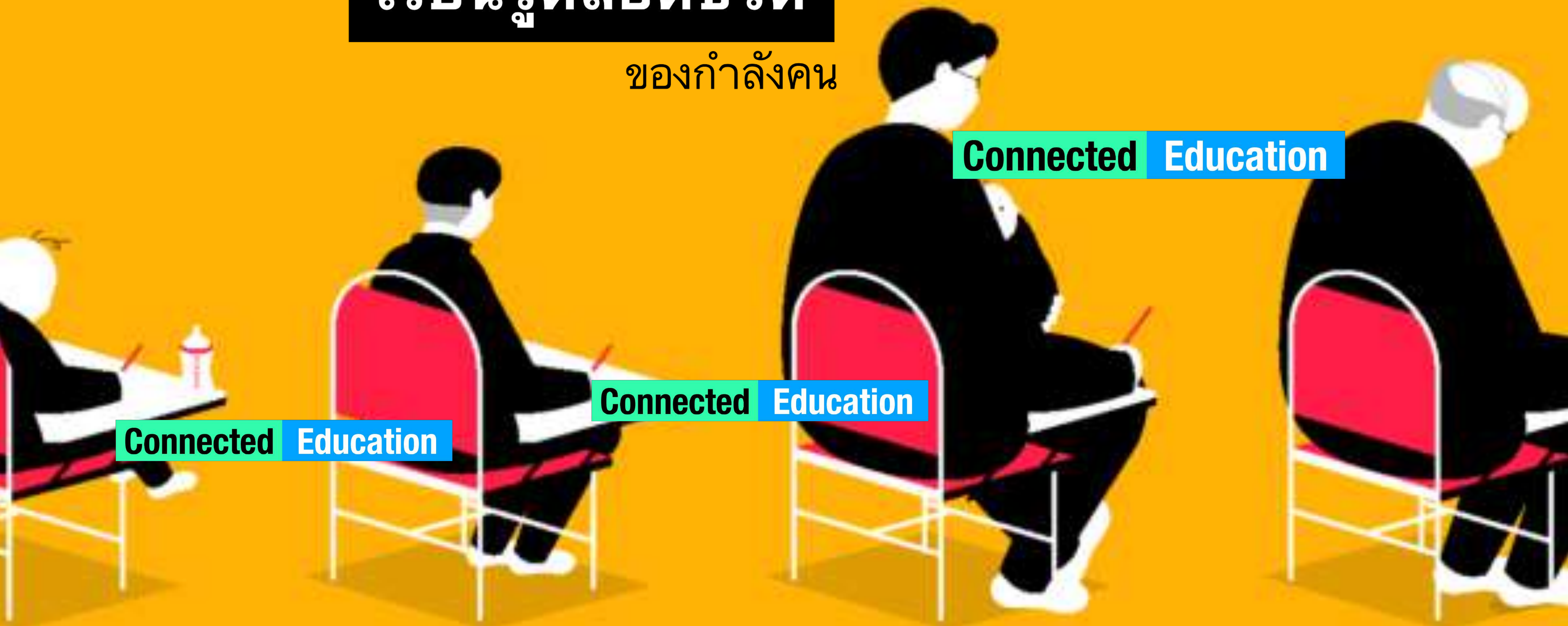
เรียนรู้ตลอดชีวิต

ของกำลังคน

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การพัฒนา

มหาวิทยาลัย

เพื่อตอบสนอง
ความต้องการ

เรียนรู้ตลอดชีวิต

ของกำลังคน

Connected Education

Connected Education

Connected Education

HIGHER
EDUCATION

—AVAILABLE TO—

ALL

การพัฒนา

มหาวิทยาลัย

เพื่อตอบสนอง
ความต้องการ

เรียนรู้ตลอดชีวิต

ของกำลังคน

LifeTime

Curriculum

Connected Education

Connected Education

Connected Education

HIGHER
EDUCATION

—AVAILABLE TO—

ALL

