

Knowledge

Truth

Freedom



Catholic
Education
Tasmania

Knowledge

*“Education is all about
learning & understanding stuff ...
and making it stick!”*

Gerard Gaskin



Knowledge:

*“A permanent change in
long-term memory”*

John Sweller



Knowledge:
the “End” of education

*“What is the pathway to
knowledge?”*



Pardon my Epistemology!



Epistemology

... the philosophical theory of learning and knowing. It explores the intellect's acquisition of reality and truth.



Pardon my ~~Epistemology!~~
Science of Learning



... the **Science of Learning** is an
excellent recapitulation of
Aristotelian Epistemology

Gerard Gaskin

Aristotle

Greek Philosopher
384–322 BC



Aristotle

Greek Philosopher
384–322 BC

In his work “*De Anima*” (The Soul) he describes the workings of the senses and human intellect (“active” and “passive”) in learning and knowing



Aristotle

Pioneer of the
Science of
Learning



Neuroscience has emphatically validated the Aristotelian Epistemology of the Science of Learning

Gerard Gaskin



According to **Aristotle**
("De Anima" Circa 350 BC)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

According to **Aristotle**

("De Anima" Circa 350 BC)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

Knowledge is obtained when the active intellect abstracts a concept from an image received from the senses.

According to **Aristotle**

("De Anima" Circa 350 BC)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

Knowledge is obtained when the active intellect abstracts a concept or truth from an image received from the senses.

According to **Aristotle**

("De Anima" Circa 350 BC)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

Knowledge is obtained when the active
intellect abstracts a concept or truth from
an image received from the senses.

According to **Aristotle**

("De Anima" Circa 350 BC)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

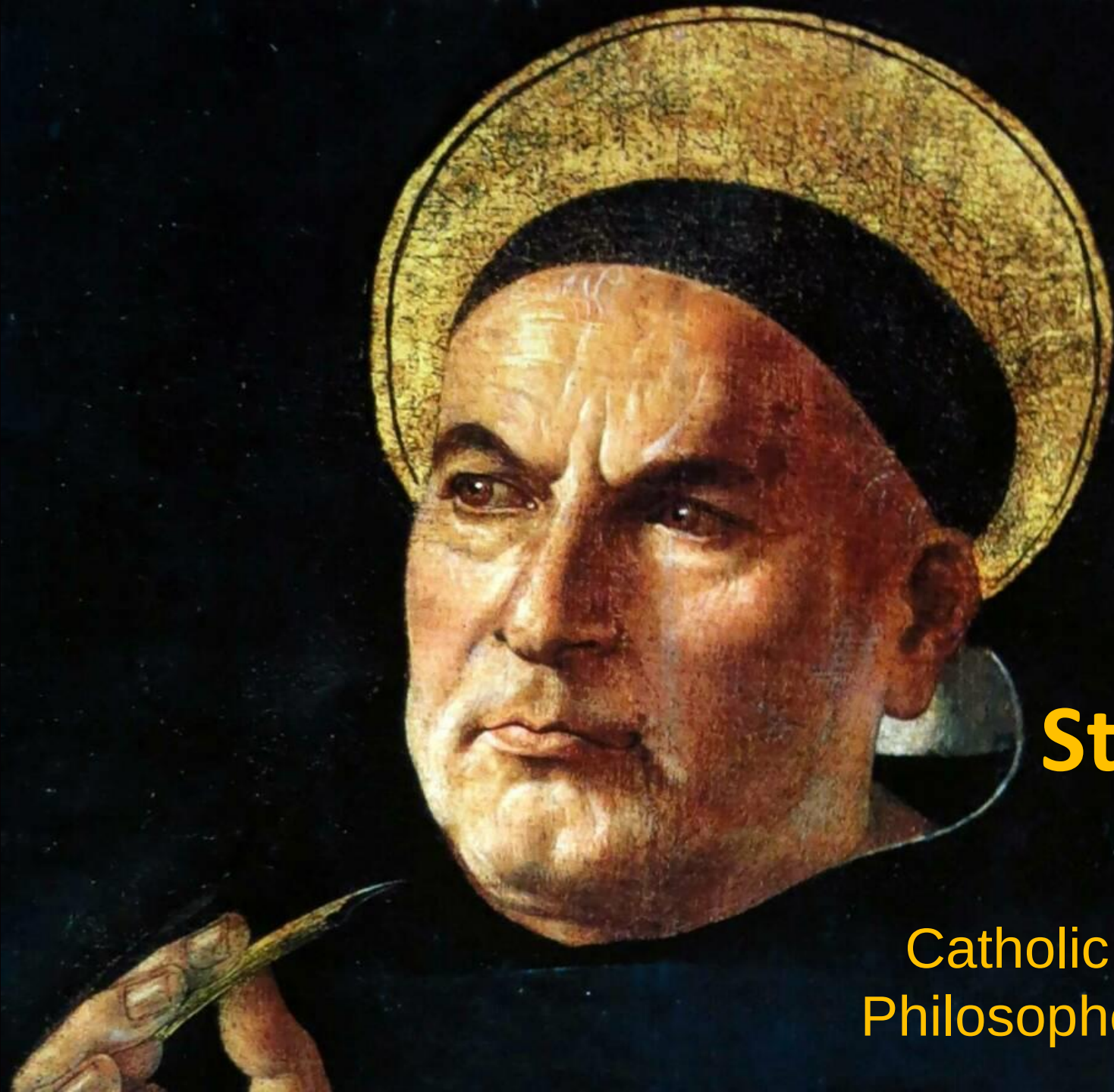
Knowledge is obtained when the active intellect abstracts a concept or truth from an image received from the senses.

According to **Aristotle**

("De Anima" Circa 350 BC)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

Knowledge is obtained when the active intellect abstracts a concept or truth from an image received from the senses.



St Thomas Aquinas

Catholic Theologian &
Philosopher 1225–1274

AD

According to **St Thomas Aquinas**

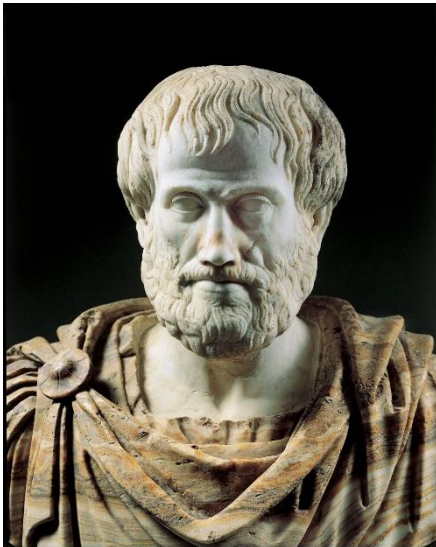
("Summa Theologica" Circa 1270)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

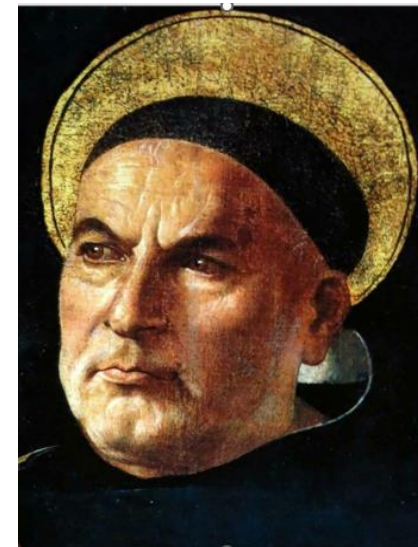
Aristotle 350 BC

St Thomas Aquinas 1270 AD

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.



Science of
Learning



St Thomas Aquinas

Quidquid recipitur secundum modum
recipientis recipitur

Whatever is received is received in the manner of the
receiver.

In other words:

Just because you say it ... doesn't mean they know or understand it!

That is the compelling reason why EDI relies on frequent checks for understanding.

According to **St Thomas Aquinas**
(*"Summa Theologica"* Circa 1270)

This active intellect "makes things knowable" by isolating the essential forms, universal truths, from individual sensory impressions.

According to **St Thomas Aquinas**

("Summa Theologica" Circa 1270)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

This active intellect "makes things **knowable**" by isolating the essential forms, universal truths, from individual sensory impressions.

According to **St Thomas Aquinas**

("Summa Theologica" Circa 1270)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

This active intellect "makes things **knowable**" by isolating the essential forms, universal truths, from individual **sensory** impressions.

According to **St Thomas Aquinas**

("Summa Theologica" Circa 1270)

Knowledge begins with sensory experience, from which the mind abstracts universal concepts and truths via the active intellect.

This active intellect "makes things knowable" by isolating the essential forms, universal truths, from individual sensory impressions.

Knowledge

Truth



Truth:

The property of conformity with reality.

A statement is true to the extent that it conforms
with reality

The “end” of education is knowledge.

The “end” of knowledge is truth

Pardon my Epistemology
... Again!



St Thomas Aquinas

Nil esse in intellectu quod non fuit prius in
sensui

Nothing is in the intellect that was not first in the senses

Senses



Recruiting the Senses in teaching and learning:

Dual coding

Choral responses

Clapping, movement, pointing

Handwriting

Attention signals ...

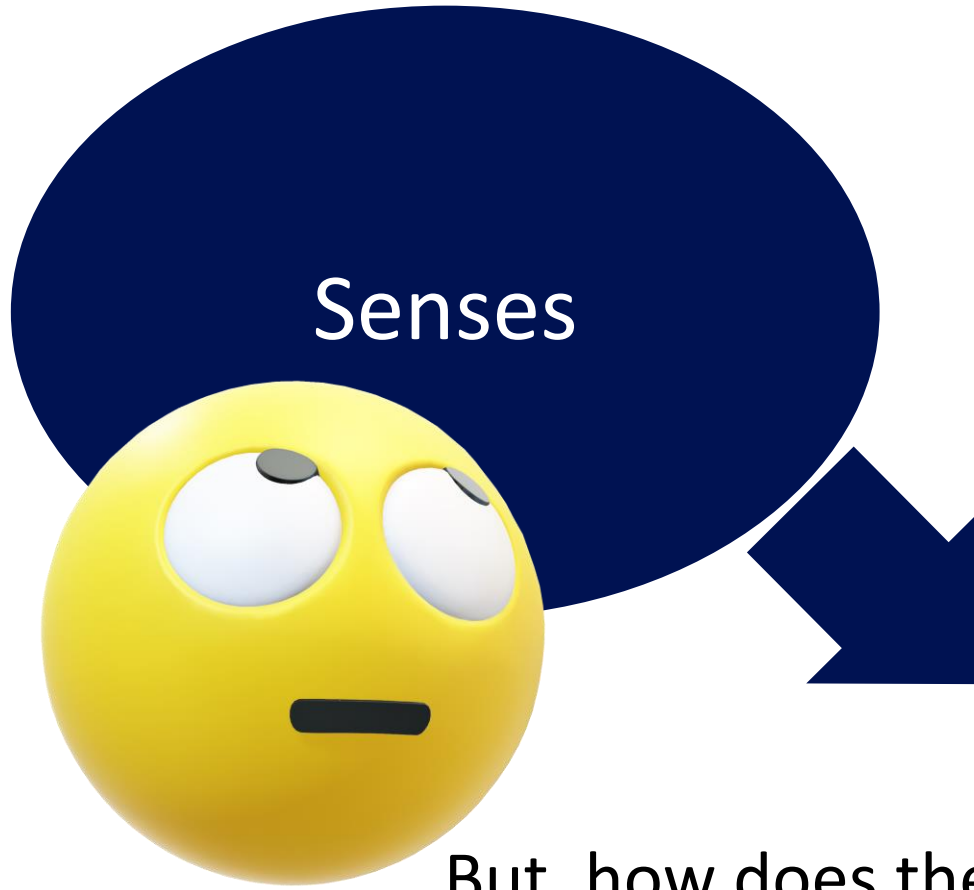


Managing the Senses

in teaching and learning:

- Eliminating Split attention
- Controlling sensory distractors
- Reducing cognitive overload
- Chunking ...

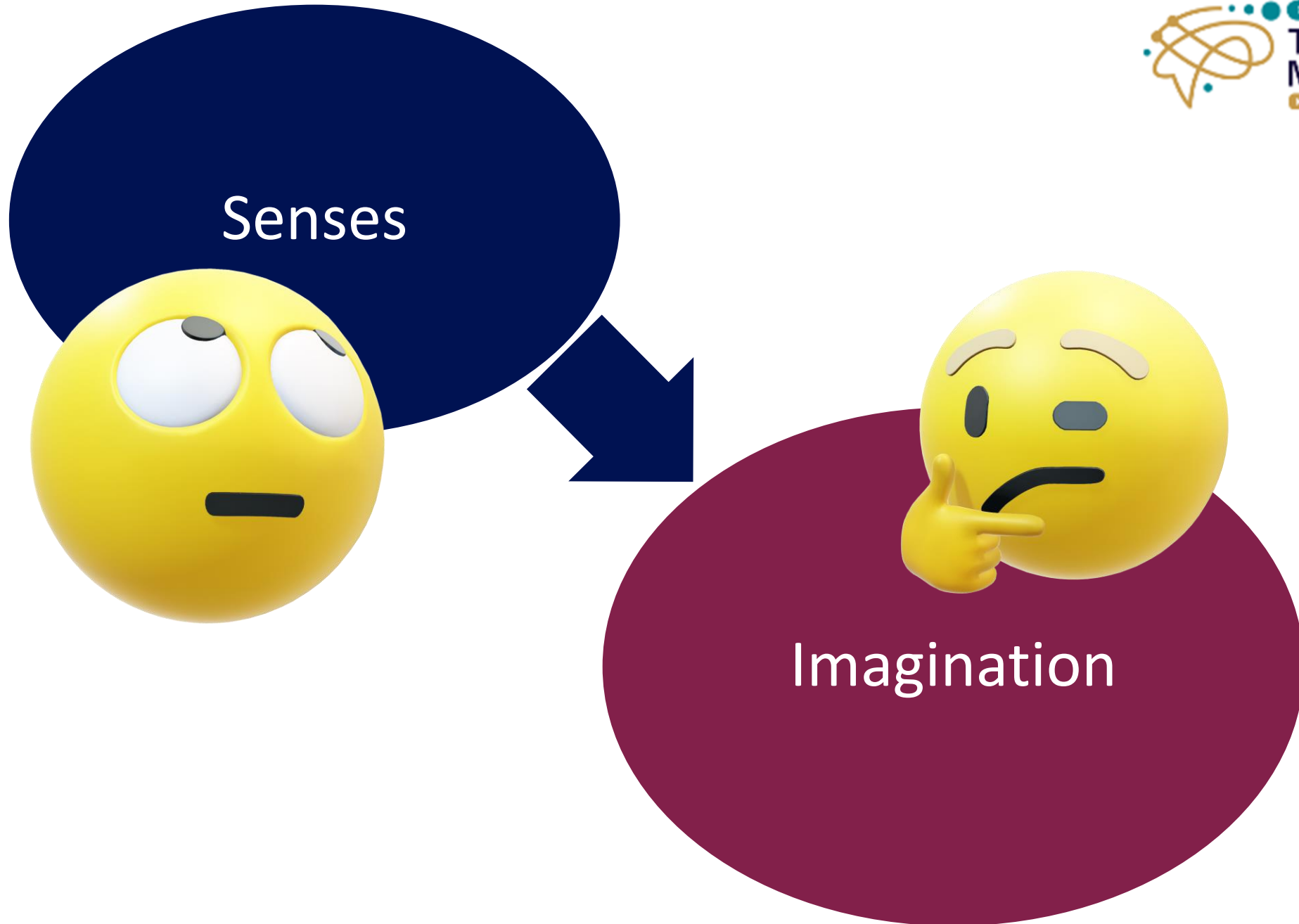


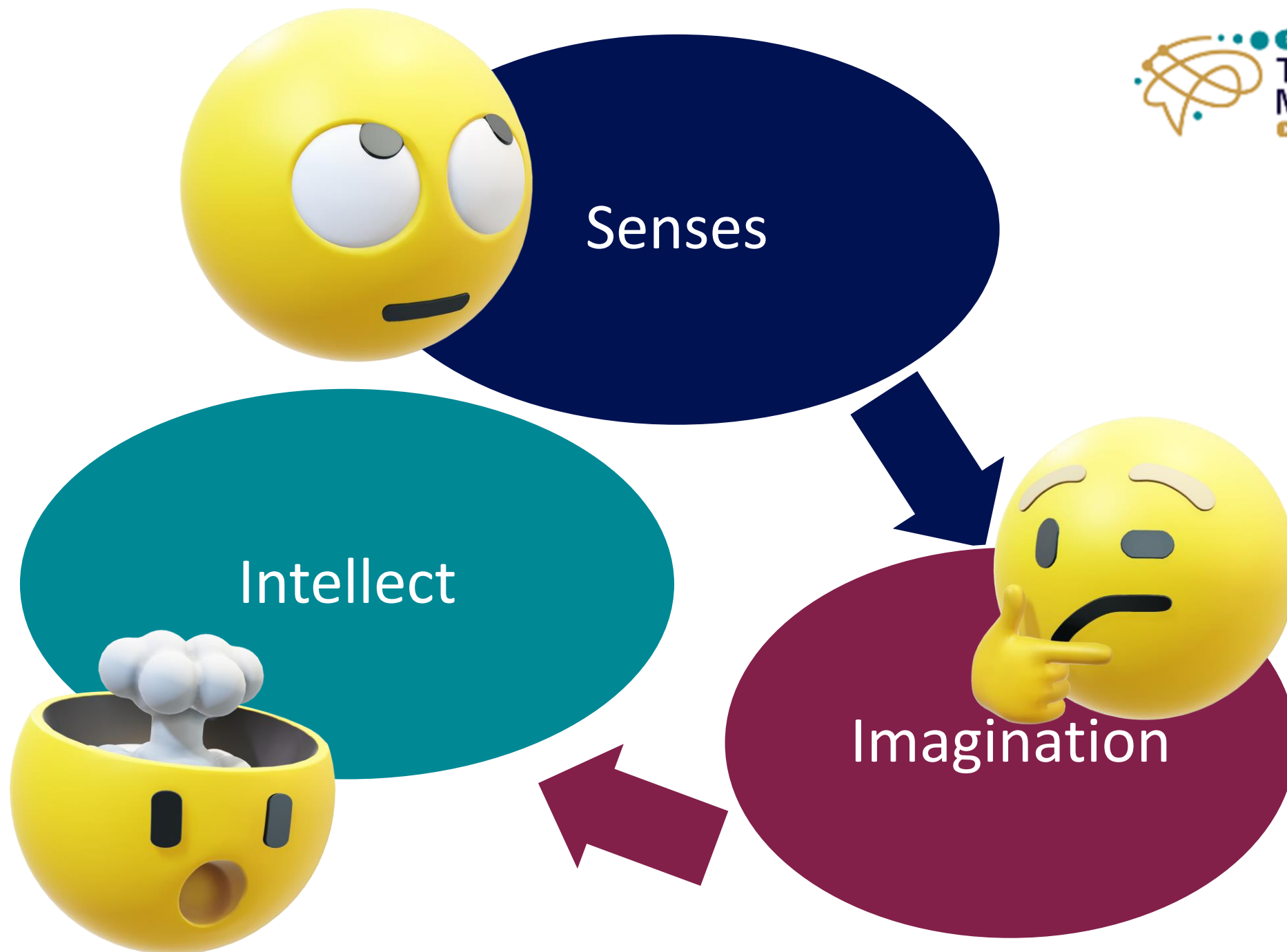


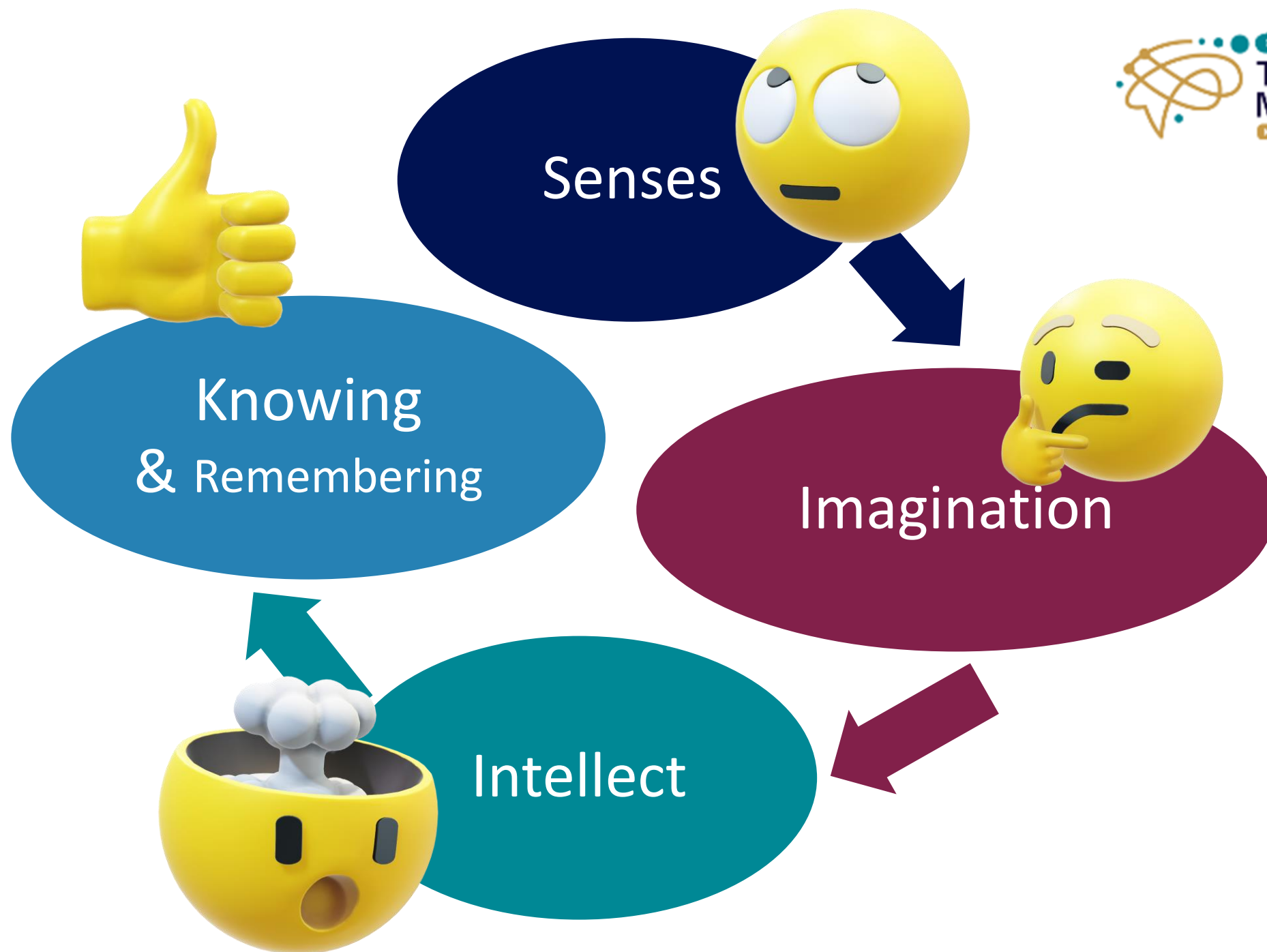
In the moment, while the senses are being activated, they feed directly into the intellect – we are aware of things around us and may remember them.

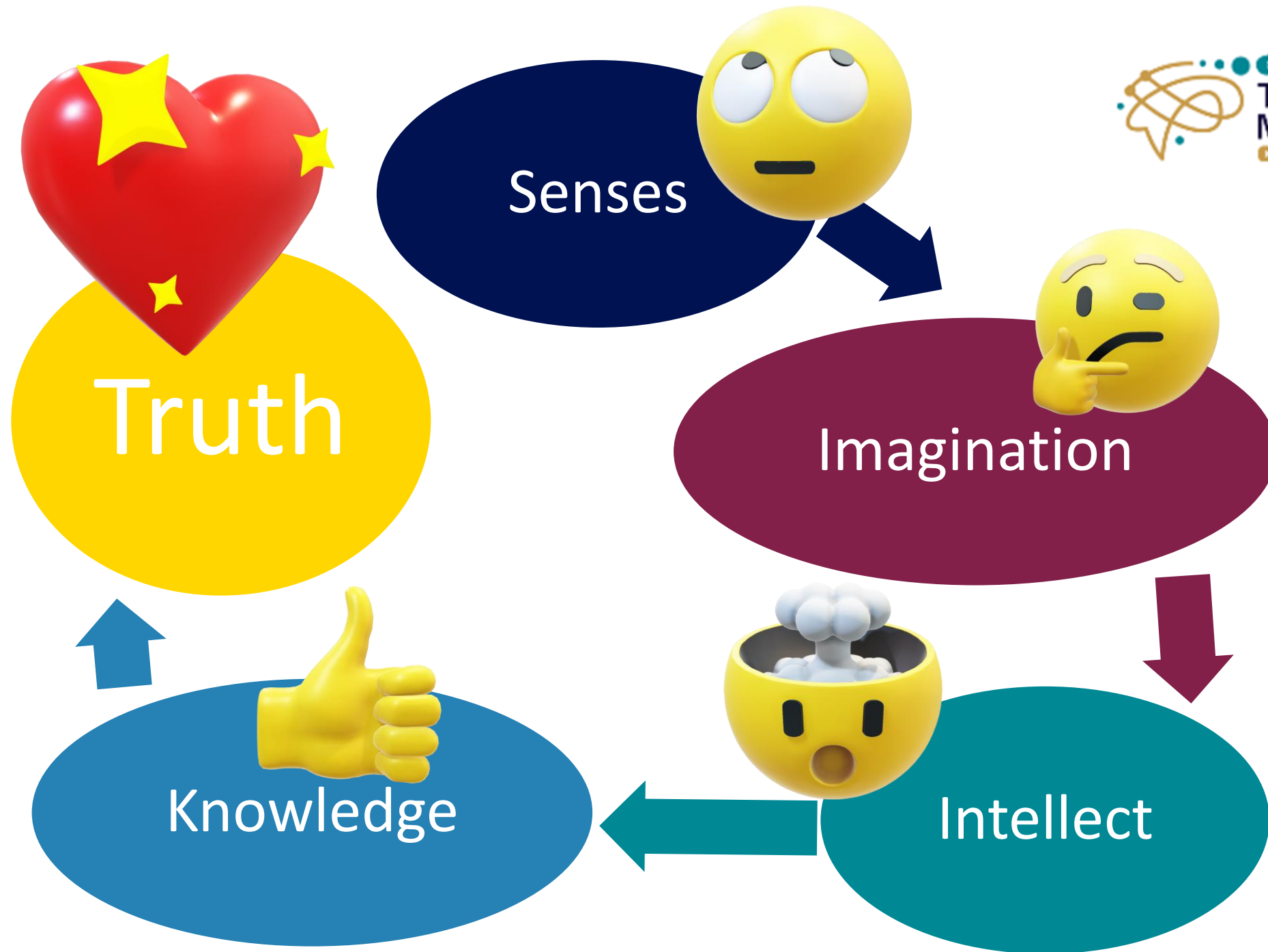
But, how does the intellect access sensory information afterwards, when the senses are no longer activated?











the intellect operates as a unifying principle

... the ultimate beatitude of man consists in the use of his highest function, which is the operation of his intellect (Summa Theologica, Q 12, Art 1)

It seems that the intellect just cannot help itself from drawing single ideas from the sense-images presented to it by the imagination. It's a bit like a funnel that filters a range of sense images into single, universalised ideas.

Knowledge

Truth

Freedom



Knowledge

Truth

Freedom ...



I am the
Way, the
Truth and the
Life!

John 14:6

The Truth will set you free!

John 8:32

From Insight to Impact:
How an Entire System of Schools is changing
everything by implementing the Science of
Learning

From Insight to Impact:
How an Entire System of
Schools is **changing**
everything by implementing
the Science of Learning

*How to implement the
Science of Learning in your
classroom, your school or
your system of schools,
or in a galaxy far far*

Implementing the Science of Learning in your school or system



- Sizzle
- Strategy
- Sustainability

Implementing the Science of Learning in your school or system



Implementing the Science of Learning in your school or system



Sizzle:

- Go and see EDI in action: once seen, never forgotten
- Use video testimonies, they multiply impact!
- Who didn't see themselves in something like an EDI setting when they first considered a teaching career?
- Create emotional contagion for change: it's all about achievement for every student
- Help teachers to visualise themselves in the EDI setting

Implementing the Science of Learning in your school or system



Implementing the Science of Learning in your school or system



Strategy:

- Principals are critical – in every sense
- Changing practice - changes minds
- Be alert for lethal mutations
- Scripted lessons? Get over it!
- System days (for all educators) - solid gold
- A thousand daily Reviews are essential, not optional!
- Sustained Professional Learning is Irreplaceable

*“Education is a
Fashion
Industry.”*

Gerard Gaskin

Plan for Radical
Sustainability



Plan for Radical Sustainability



Implementing the Science of Learning in your school or system



Sustainability:

- Bring in the experts to tell it like it is
- Pick the right external critical partners
- Invest in quality, aligned resources
- Scope and Sequence: Powerful Magnifiers
- Fidelity fails fast! Embedding high-capacity coaching expertise in every school.
- Instructional Leaders, Teacher Practice (ILTP) **We now have 600!**
- System Sprints

Implementing the Science of Learning in your school or system



Implementing the Science of Learning in your school or system

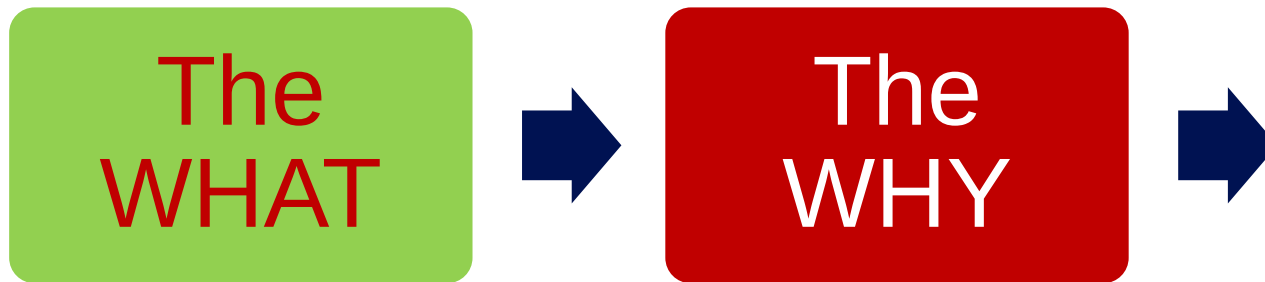
This is not the way!

The
WHAT



Implementing the Science of Learning in your school or system

This is not the way!



Implementing the Science of Learning in your school or system



This is not the way!



Juggling
will be
required



**The
WHY**

**The
WHAT**



**The
HOW**

Your two-year plan
might look like this:



Term 1	Term 2	Term 3	Term 4	Term 1	Term 2	Term 3	Term 4

Your plan
might look like
this:



Term 1	Term 2	Term 3	Term 4	Term 1	Term 2	Term 3	Term 4
What is SoL?							

Your plan
might look like
this:



Term 1	Term 2	Term 3	Term 4	Term 1	Term 2	Term 3	Term 4
What is SoL?							
Why we should we adopt this pedagogy?							

Your plan
might look like
this:



Term 1	Term 2	Term 3	Term 4	Term 1	Term 2	Term 3	Term 4
What is SoL?							
Why we should we adopt this pedagogy?							
			How we will roll this out?				

Achievement to date



NAPLAN early 2025: two- and a-bit years in

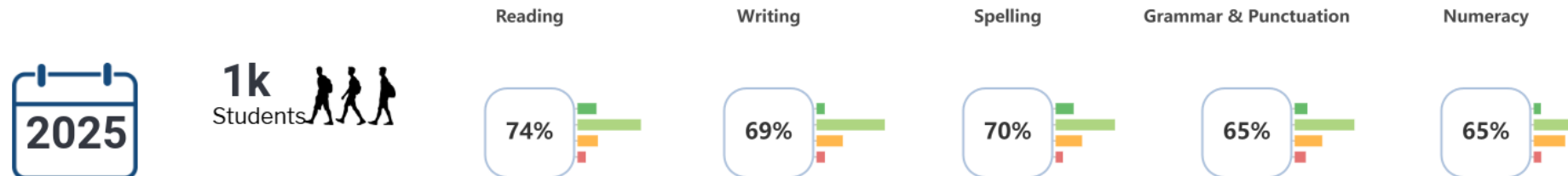
COMPARING THE SAME COHORT of students (Gr 3, 2023, to Gr 5, 2025)



YEAR THREE strong or exceeding



YEAR FIVE strong or exceeding



Across the whole system, this cohort of students gained
4% in Reading, **9%** in Spelling, and
11% in Grammar and Punctuation over two years.

Thank You

