

*What makes learning visible?*



# HOW DID THE COVID-19 PANDEMIC

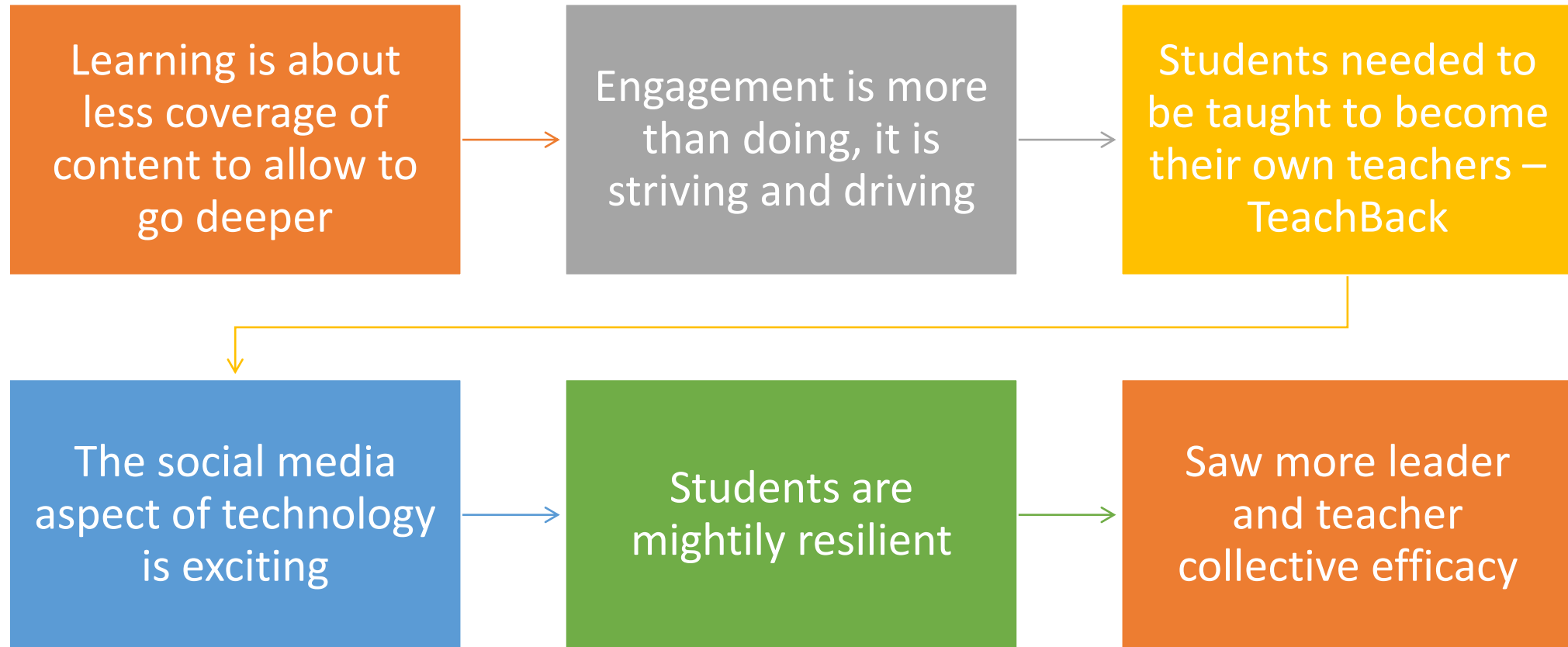
AFFECT YOU?



About 100 studies  
on effects of COVID/  
Distance Achievement  
(12m+ students)



# An ode to expertise





# 2008

## VISIBLE LEARNING

A SYNTHESIS OF OVER 800 META-ANALYSES  
RELATING TO ACHIEVEMENT

*"Reveals teaching's Holy Grail"*  
The Times Educational Supplement



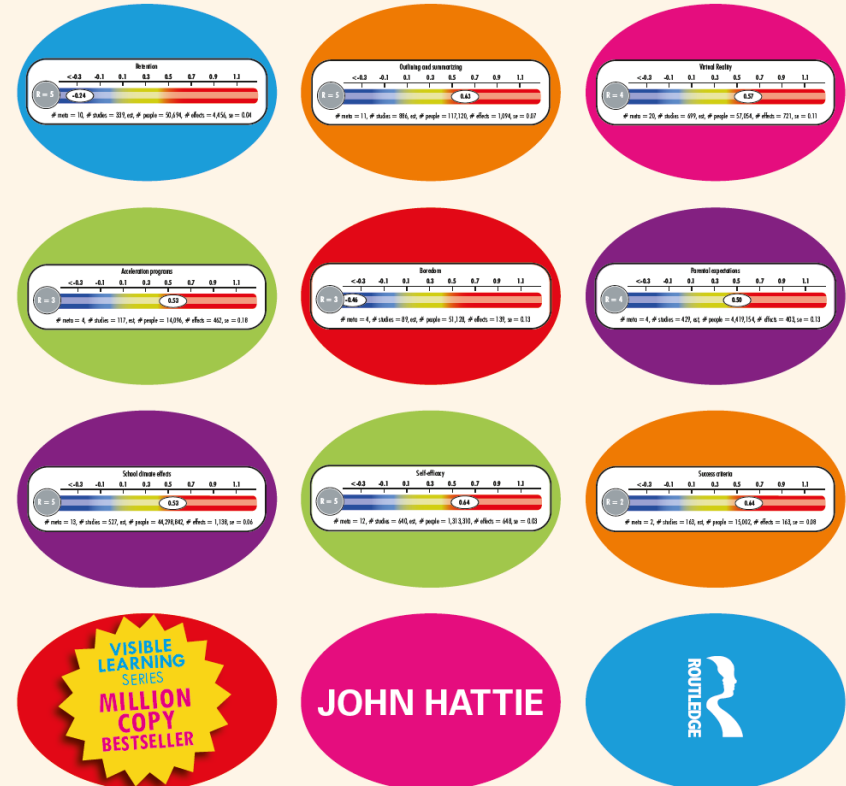
# 2008



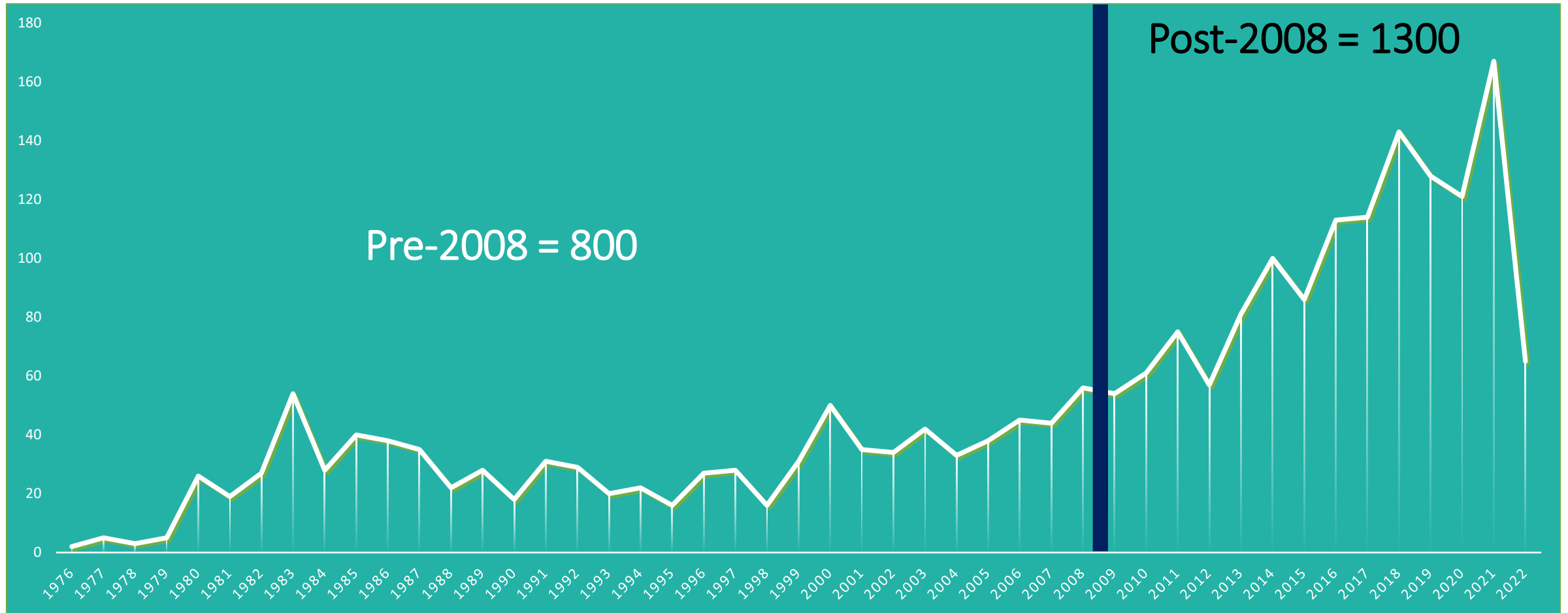
# 2023

## VISIBLE LEARNING: THE SEQUEL

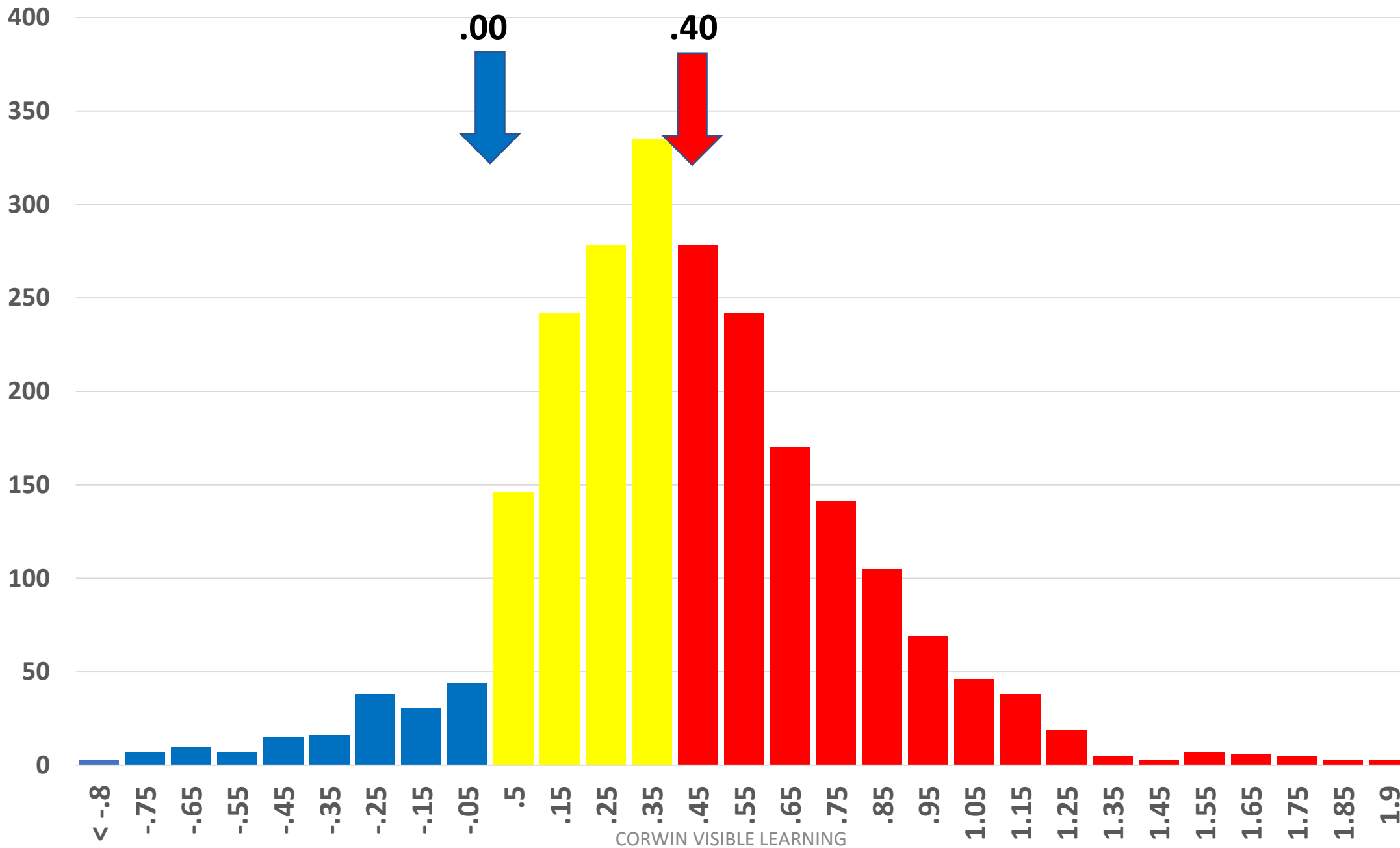
A SYNTHESIS OF OVER  
2,100 META-ANALYSES  
RELATING TO ACHIEVEMENT



No. of meta-analyses by year  
Now > 2,100  
> 400 million students

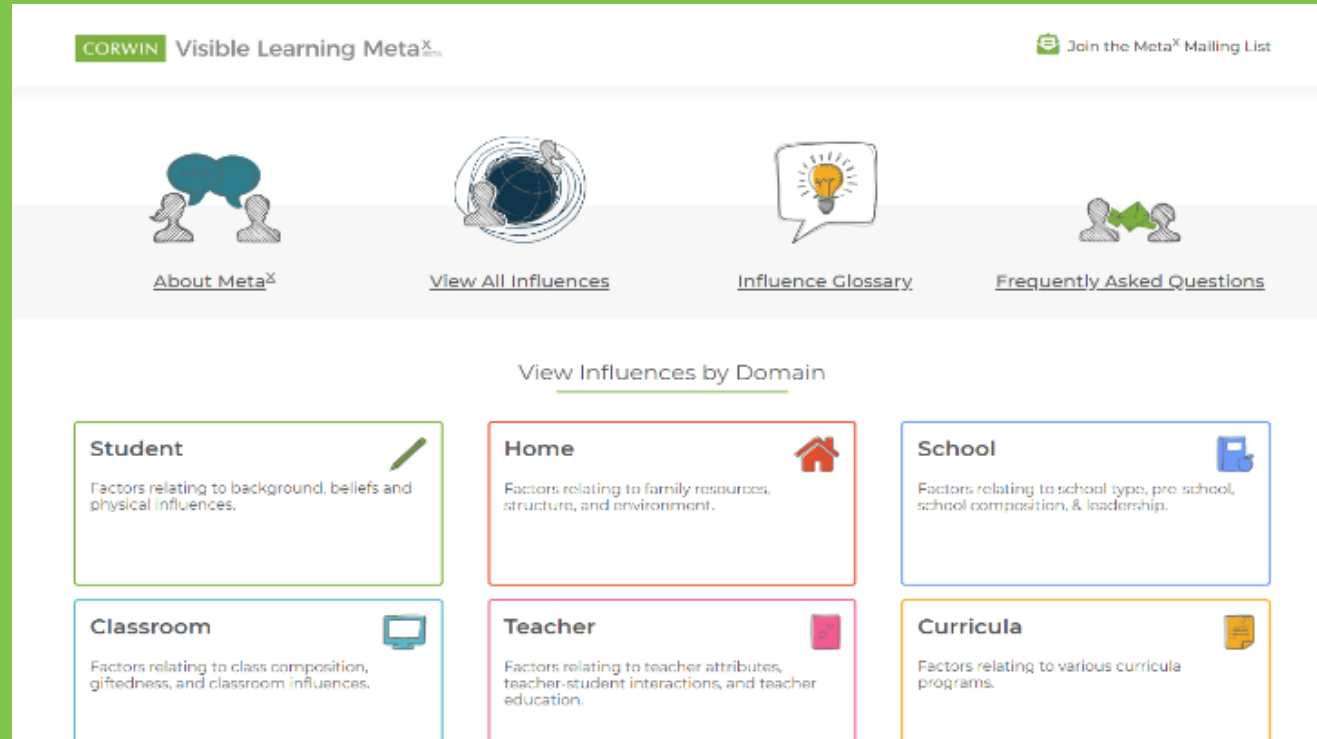


No. of effects

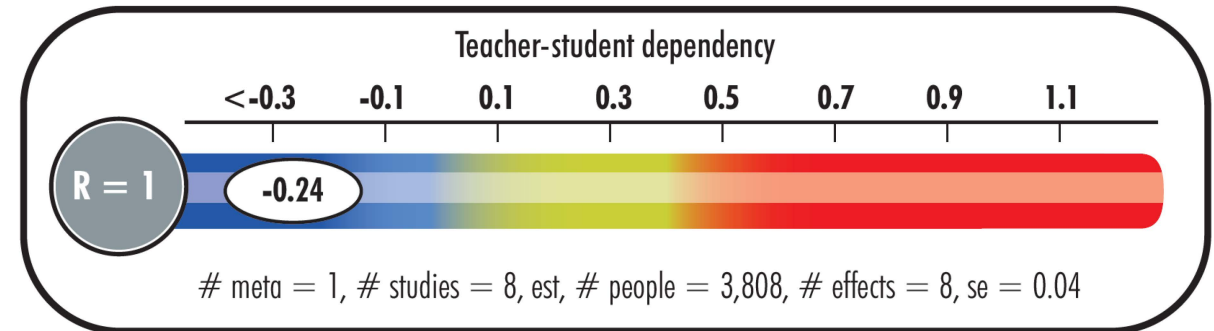
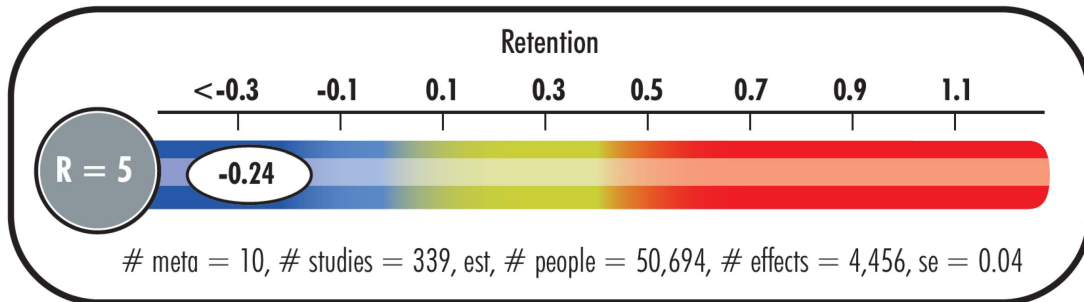
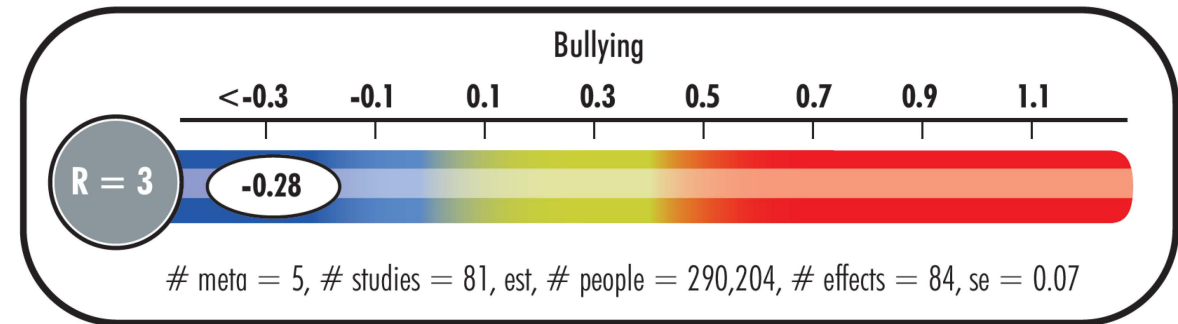
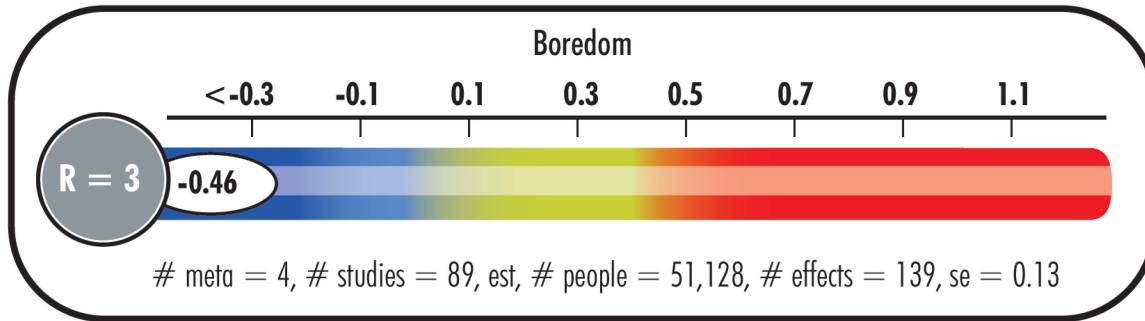
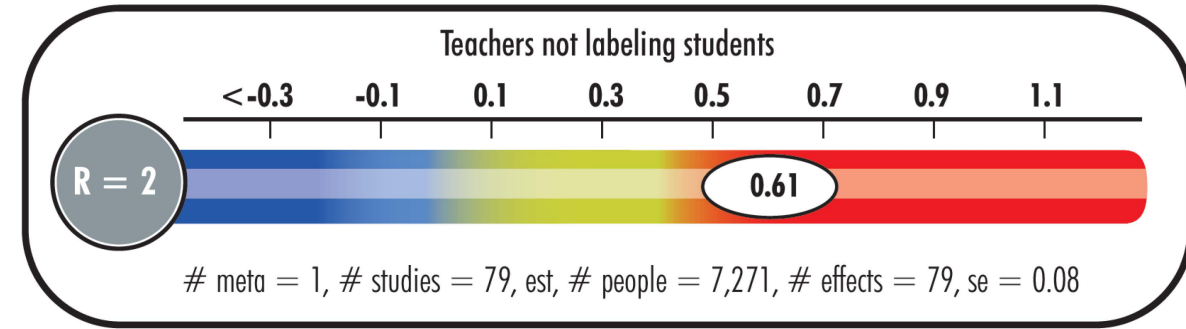




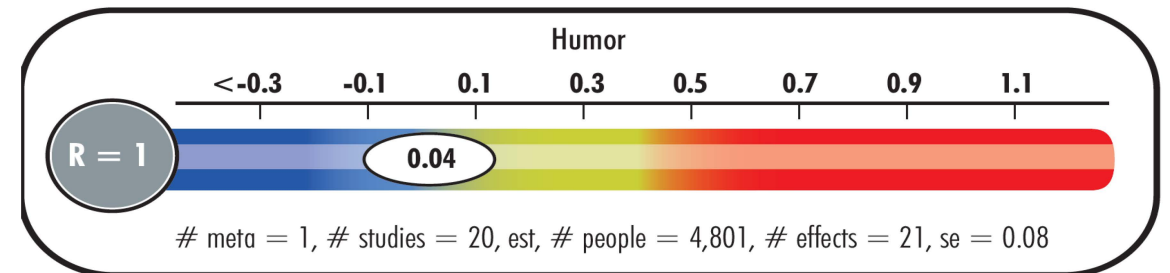
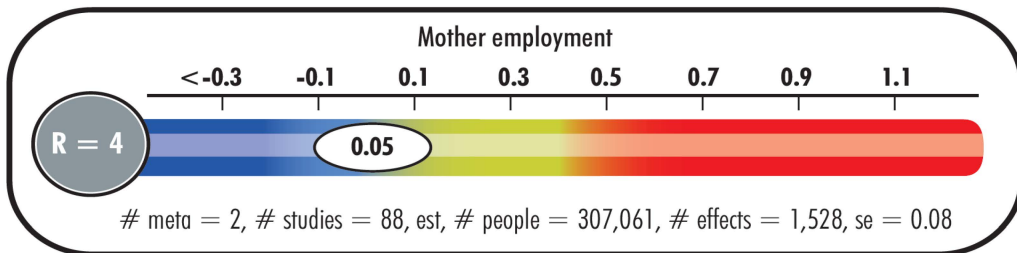
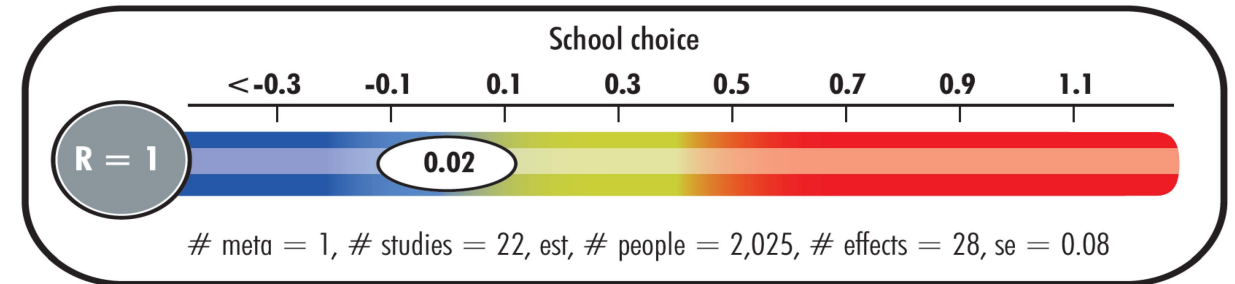
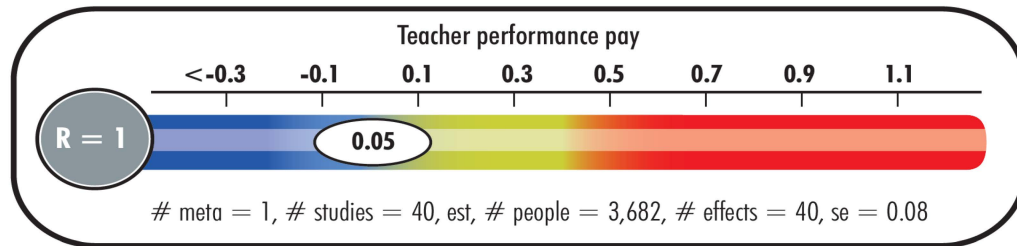
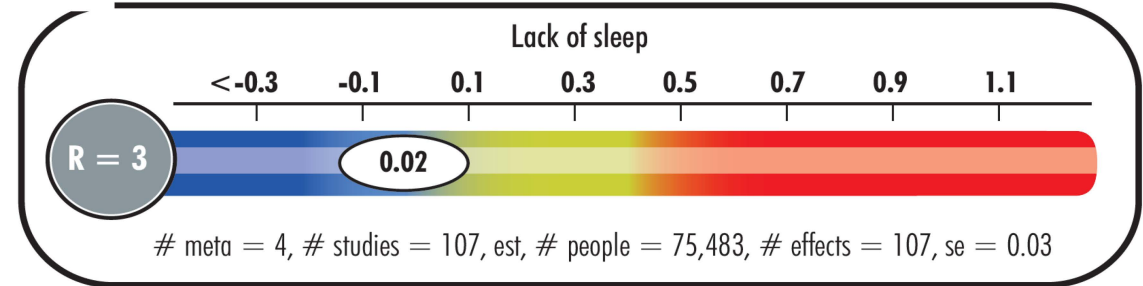
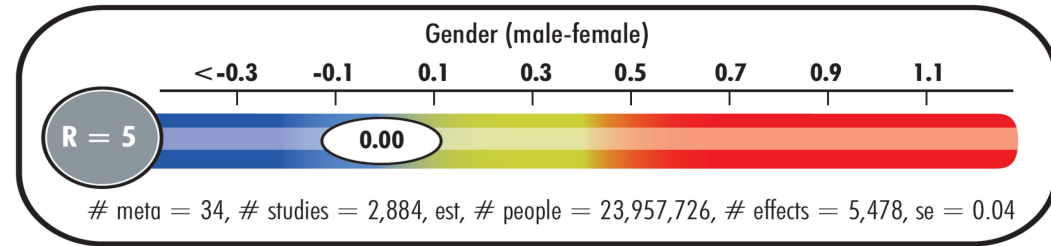
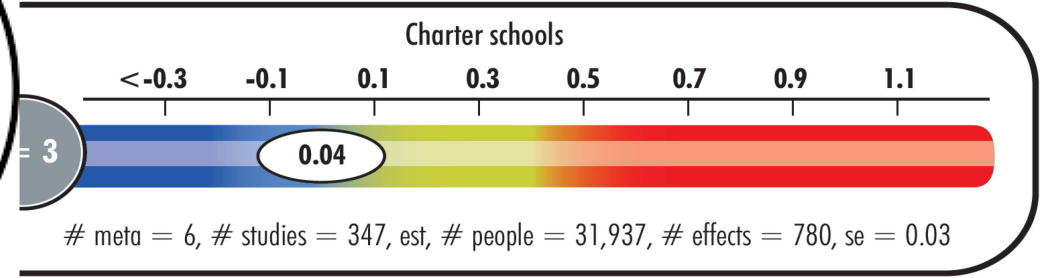
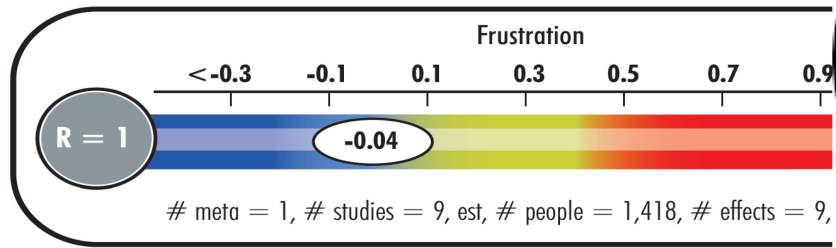
# CORWIN Visible Learning Meta<sup>x</sup>



<https://www.visiblelearningmetax.com/>



# ZERO



# Teacher and School Leader Expertise

Teachers working together as evaluators of their impact	1.20
All having high expectations	.90
All moving towards explicit success criteria	.77
Using the Goldilocks principles of challenge	.74
Climate of high trust where errors welcomed as opportunities to learn	.72
Maximize feedback to teachers about their impact	.72
A focus on learning: The right proportions of surface to deep	.69



# Evaluative thinking

## Evaluative thinking involves

1. Critical thinking valuing evidence
2. Address fidelity of implementation
3. Investigating potential biases
4. Focusing on knowing one's impact
5. Understanding others' points of view

## The five CORE questions

1. What are the students ready to learn?
2. Have I chosen optimal, evidence-based interventions & built a Logic Model to focus on implementation?
3. Am I seeking evidence that I might be wrong?
4. What are the shorter-, medium- & longer-term impacts, and am I monitoring my success with all students?
5. Am I seeking others' perspectives & evidence about fidelity and impact?

# The why, how, what, doing, and evaluating

## WHY



1. Being clear about the purpose

## HOW



2. The importance of mind frames

## WHAT



3. Intentional alignment - knowing-that, knowing-how, and knowing-with

## DOING



4. Quality of implementation

## EVALUATING



5. Evaluative thinking



# 1. Purposes

TEACHERS	STUDENTS
<p><b>See their impact through the eyes of students</b></p> <p><b>Teach students to become their own teachers</b></p> <p><b>Become students of their own teaching</b></p>	<p><b>Become their own teachers</b></p>
SCHOOL/LEADERS	PARENTS
<p><b>Establish a climate &amp; culture so that all educators maximize their impact on students</b></p>	<p><b>Become their child's first learner</b></p>

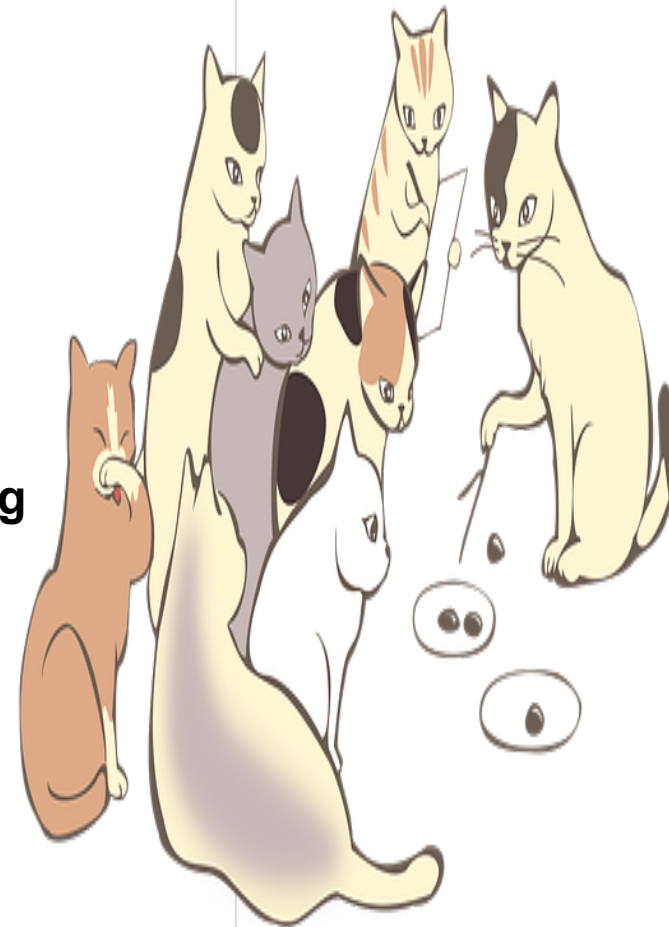
## 2. Mind frames:Teacher and Leader

1. I am an evaluator of my impact
2. I see assessment as feedback to me
3. I collaborate about impact
4. I am a change agent
5. I strive for challenge
6. I give & help students understand feedback
7. I engage as much in dialogue as monologue
8. I explicitly inform students about success
9. I build relationships & trust
10. I focus on the language of learning

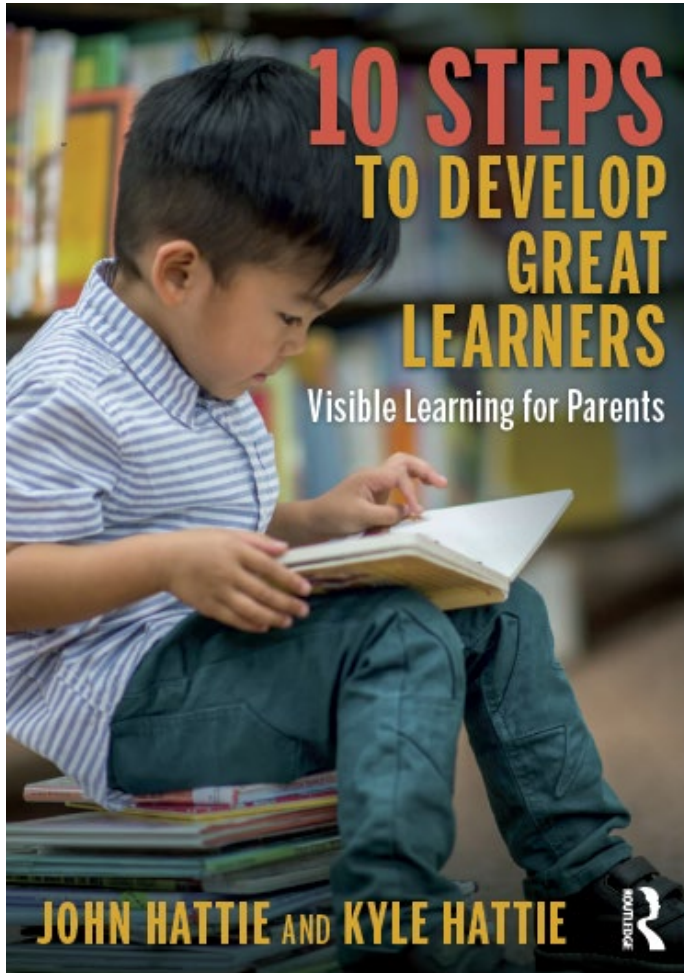


# Student Mind frames

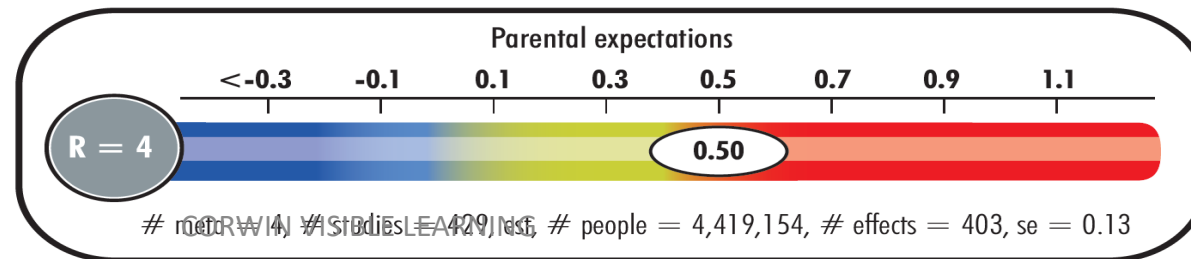
- 1. I am confident that I can learn & enjoy challenges**
- 2. I set implement, & monitor an appropriate mix of achieving and deep learning goals**
- 3. I strive to improve & enjoy my learning**
- 4. I strive to master & acquire surface and deep learning**
- 5. I work to contribute to a positive learning culture**
- 6. I have multiple learning strategies & know when best to use them**
- 7. I have the confidence and skills to learn from & contribute to group learning**
- 8. I can hear, understand, & action feedback**
- 9. I can evaluate my learning**
- 10. I am my own teacher**



# Parent Mind frames



1. I have appropriately high expectations
2. I make reasonable demands and are highly responsive to my child
3. I am not alone as a parent
4. I develop my child's skill, will and sense of thrill
5. I love learning
6. I know the power of feedback and success thrives on errors
7. I am a parent not a teacher
8. I know how to deal with schools
9. I appreciate that my child is not perfect, nor are you
10. I am an evaluator of my impact



# Climate & Culture Mind frames

## Equity

1. We discover, correct, and disrupt inequities
2. We embrace diverse cultures and identities
3. We recognize and disrupt biases
4. We create equitable opportunities

## Identities


5. We cultivate fortifying & sustaining environments for all identities
6. We acknowledge, affirm, & embrace the identities of all our students
7. We remove barriers to students learning

## Belonging

8. We strive to invite all to learn
9. We value engagement in learning
10. We collaborate to learn and thrive





A photograph of five students sitting on a brick ledge. From left to right: two girls in blue and white checkered dresses and white socks, a boy in a light blue shirt and grey shorts holding a blue and white water bottle, and two more boys in light blue shirts and grey shorts. The text boxes are overlaid on the image.

Every child is  
a learner

Errors and  
failures as  
opportunities  
to learn

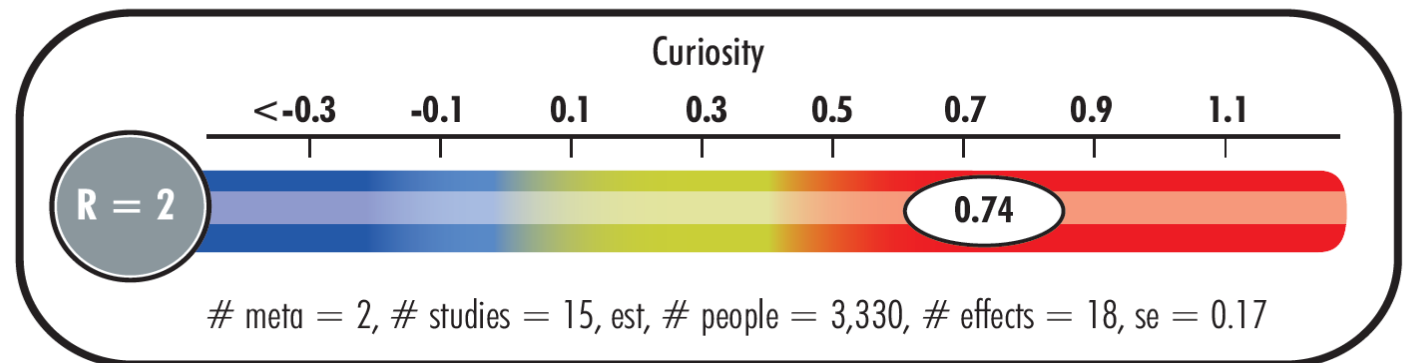
Coping  
strategies

Help exceed  
their  
expectations

Depth of  
motivational  
resources  
students  
bring to class

# STUDENTS





# LEADERS

Shared narrative	develop a shared narrative & climate about all in the school maximising impact on students
Expectations	have high expectations and promote challenging goals for all
Inviting	ensure schools and classes inviting places to come and learn
Collective	be proficient in leading the collective to maximize this impact
Implement	know how to effectively implement, evaluate, and improve interventions across the school and within classes
Equity	ensure all exposed to same curriculum and quality & quantity of instruction

# Climate and culture needs to be seen by students as:

shows their  
"with-it-ness"

has clarity of  
purpose

led by a teacher who  
they believe can  
enhance their learning

fair and  
inviting

shows excellent  
listening skills

encourages  
failure as  
opportunities to  
learn

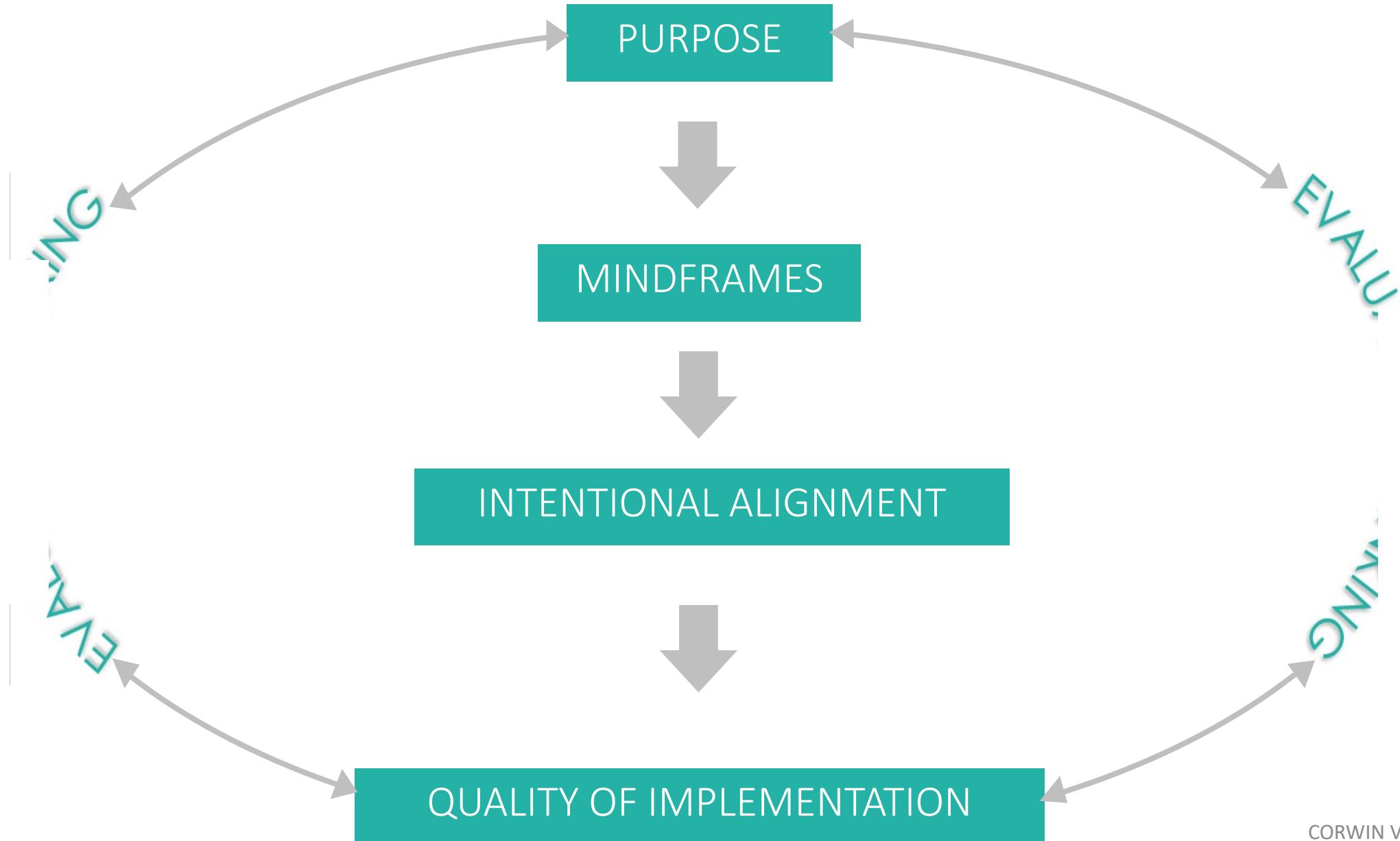
works quickly to  
suppress  
disruptive issues

has high  
expectations of  
each student's  
success

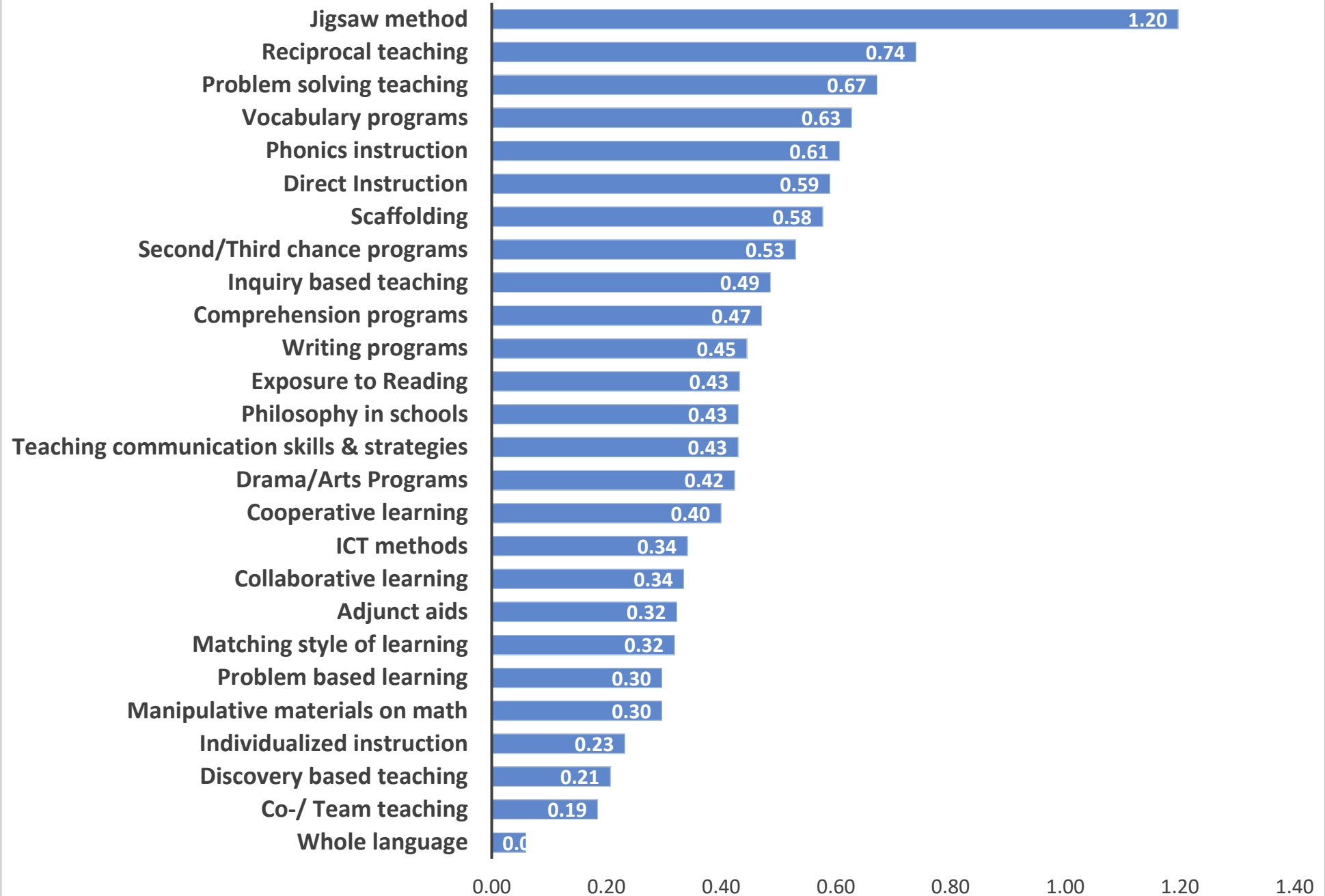
teaches skills of  
working in teams with  
diverse students

ensure all exposed to  
same curriculum,  
quality & quantity of  
instruction

### 3. Visible Learning Intentional Alignment model



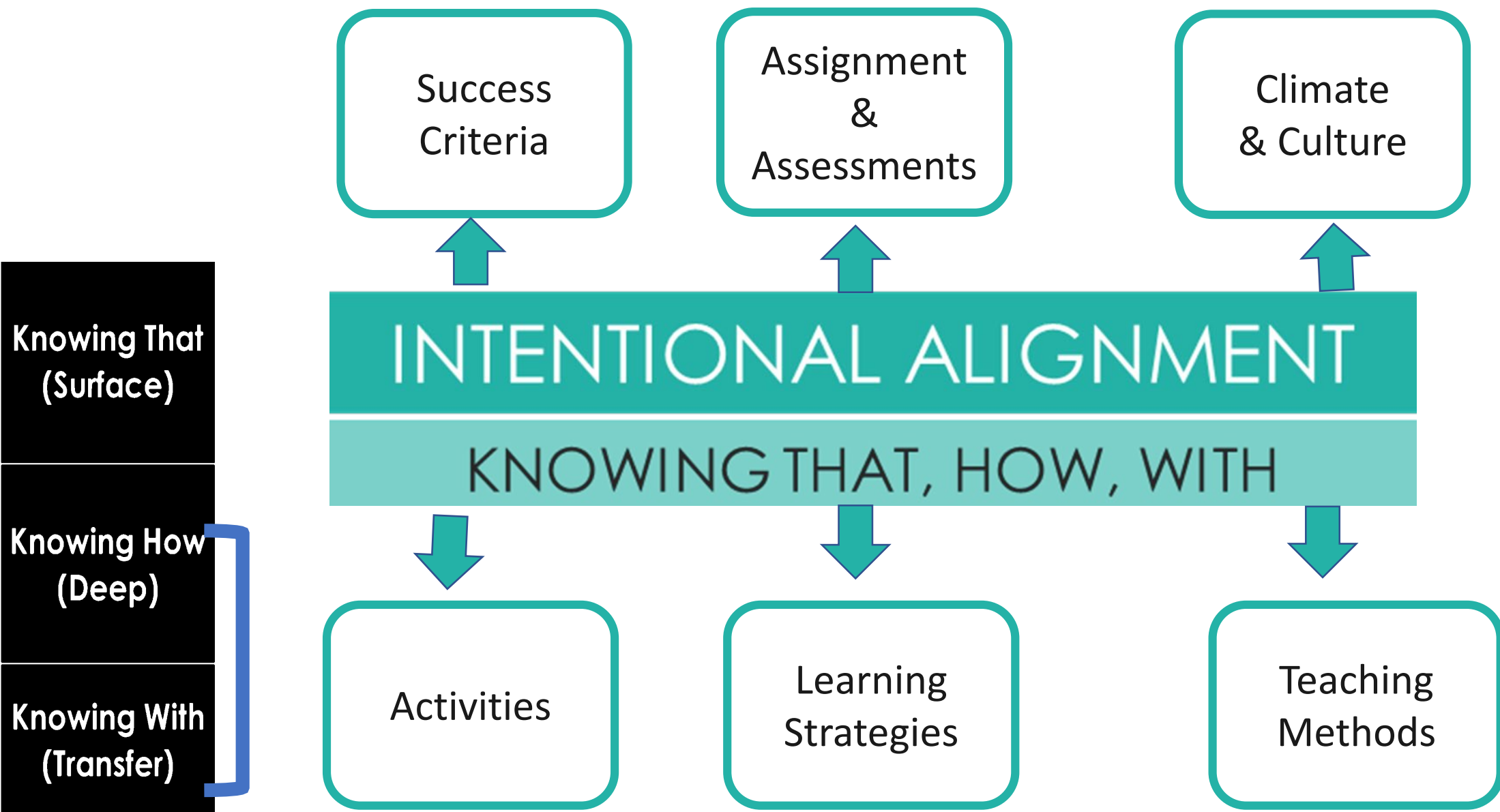
## Teaching Methods



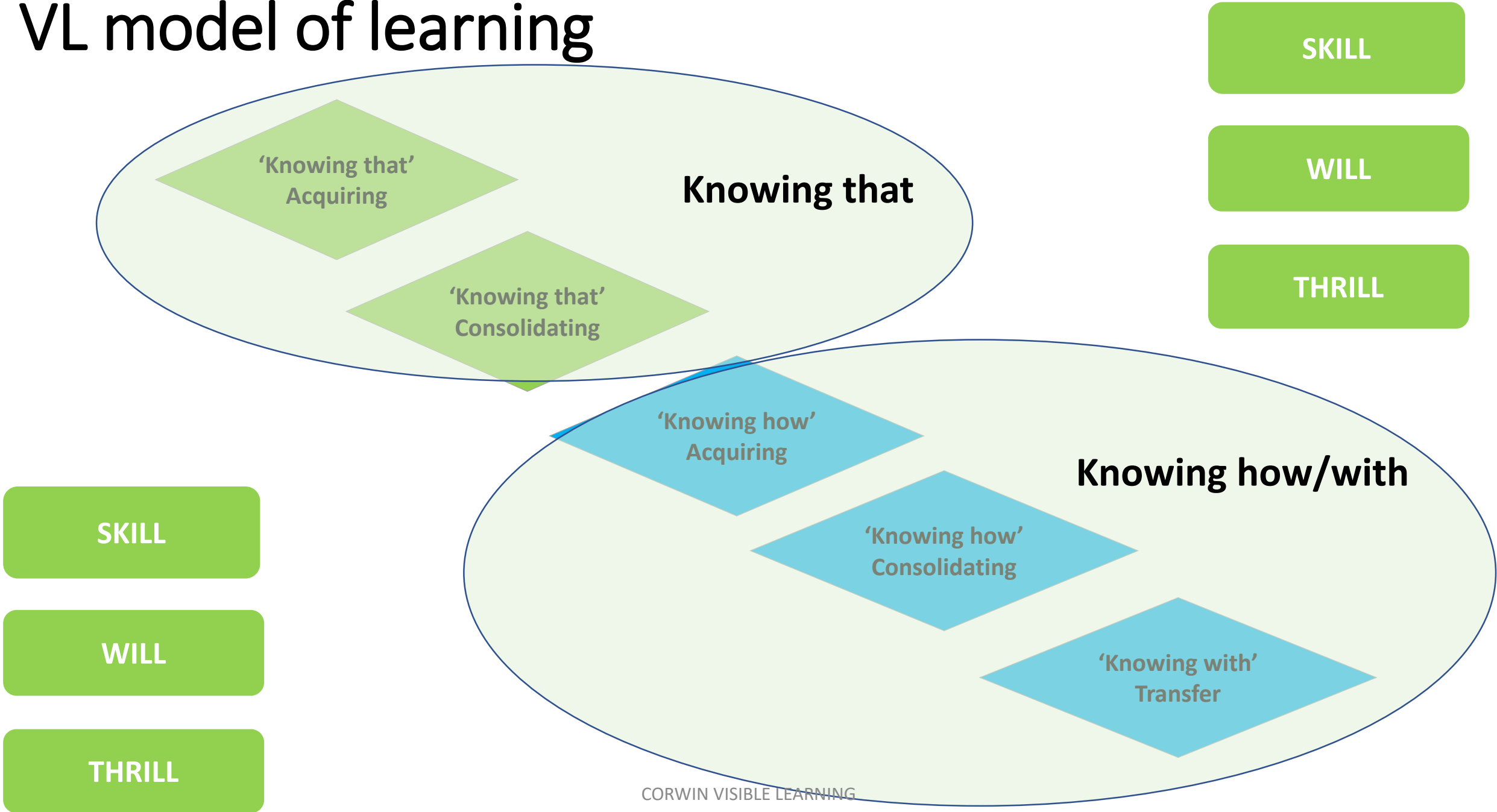
# Cognitive Complexity

Name	Definition	Activities
Knowing That (Surface)		Recall and reproduction
		Basic application
Knowing How (Deep)		Connecting, applying, and relating together surface knowledge from different areas
Knowing With (Transfer)		

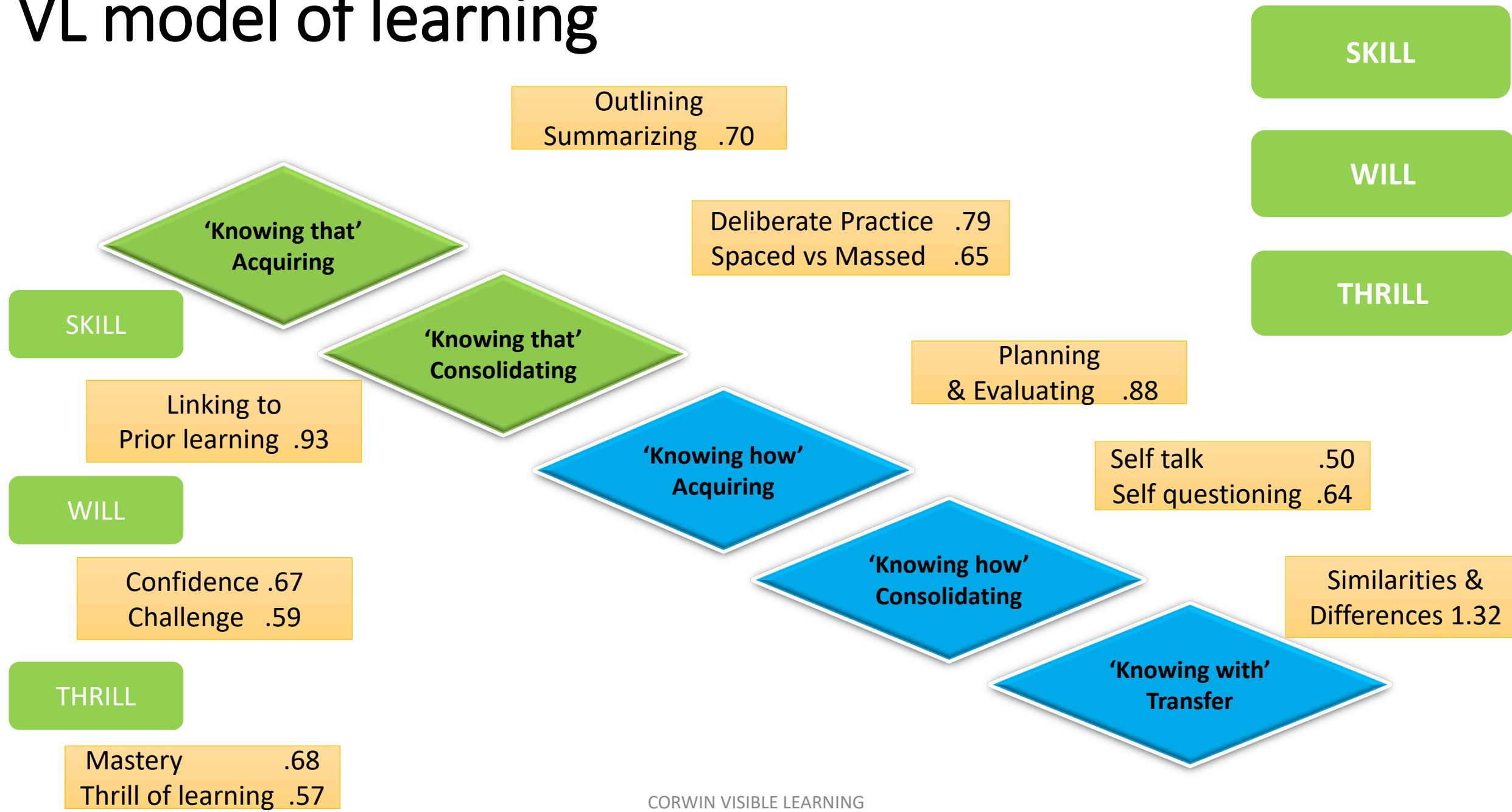




# VL model of learning



# VL model of learning





Giving back through educational experiences.

JOIN US

HOW WE LEARN SURVEY

CORWIN VISIBLE LEARNING



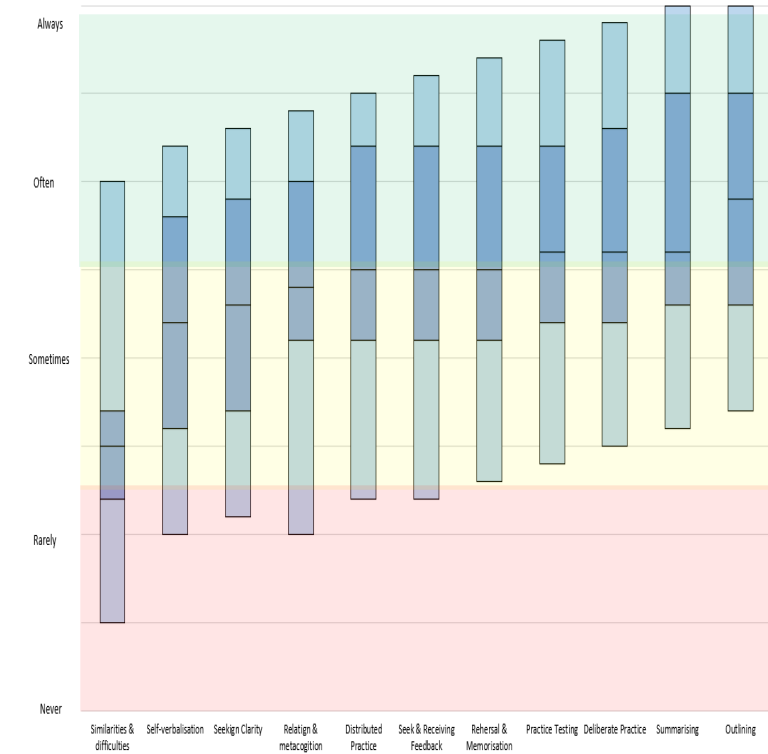
# S.L.I.M.

Science of Learning Intervention Measure

☐ table ☐ dial ☐ chart ☐ recommendations



## Class Exposure



## Surface Consolidation - *Practice Testing (Retrieval Practice)*

**This strategy involves frequent testing or quizzing over time to reinforce recall of the material from memory. The key is to make sure that tests are “low” or “no-stakes,” and there is opportunity for feedback.**

What can I do to improve?

Things to think about include:

- When preparing for an upcoming test, check your understanding using a practice test or quiz.
- When using practice testing, make sure you specifically target the material that you are trying to learn.
- Speak to your teacher about having access to access to past tests or exams to support your learning.
- Make sure that you use your performance on one practice test to guide further revision

## Additional Resources

### The Learning Scientists

A great little website curated and put together ...

[Retrieval Practice \(podcast\)](#)

[Retrieval Practice Formats \(podcast\)](#)

[Retrieval practice Explainer \(You Tube\)](#)

[What is retrieval Practice?](#)

[Three reasons why retrieval practice boosts learning](#)

[Retrieval Practice Overview](#)

### What is Retrieval Practice and Why is it so Powerful? (TeacherofSci.com)

A detailed blog post ...

[Retrieval Practice](#)

### Cult of Pedagogy

A website curated by an ex-teacher which is focused on sharing best practice about the student of teaching.

[Retrieval Practice: The Most Powerful Learning Strategy You're Not Using](#)



# Aligning teaching to learning

**Explicit  
Instruction**

Combining notes  
Summarizing  
Notebook review  
Pictorial notes

**'Knowing that'  
Acquiring**

Examining support claims  
Identify errors  
Generating qualifiers  
Presenting formal claims structures  
Providing backing  
Worked examples

**'Knowing that'  
Consolidating**

**'Knowing how'  
Acquiring**

Assignment revision  
Frequent practice  
Practice session prior to testing  
Two-column notes  
Problem-based learning

**'Knowing how'  
Consolidating**

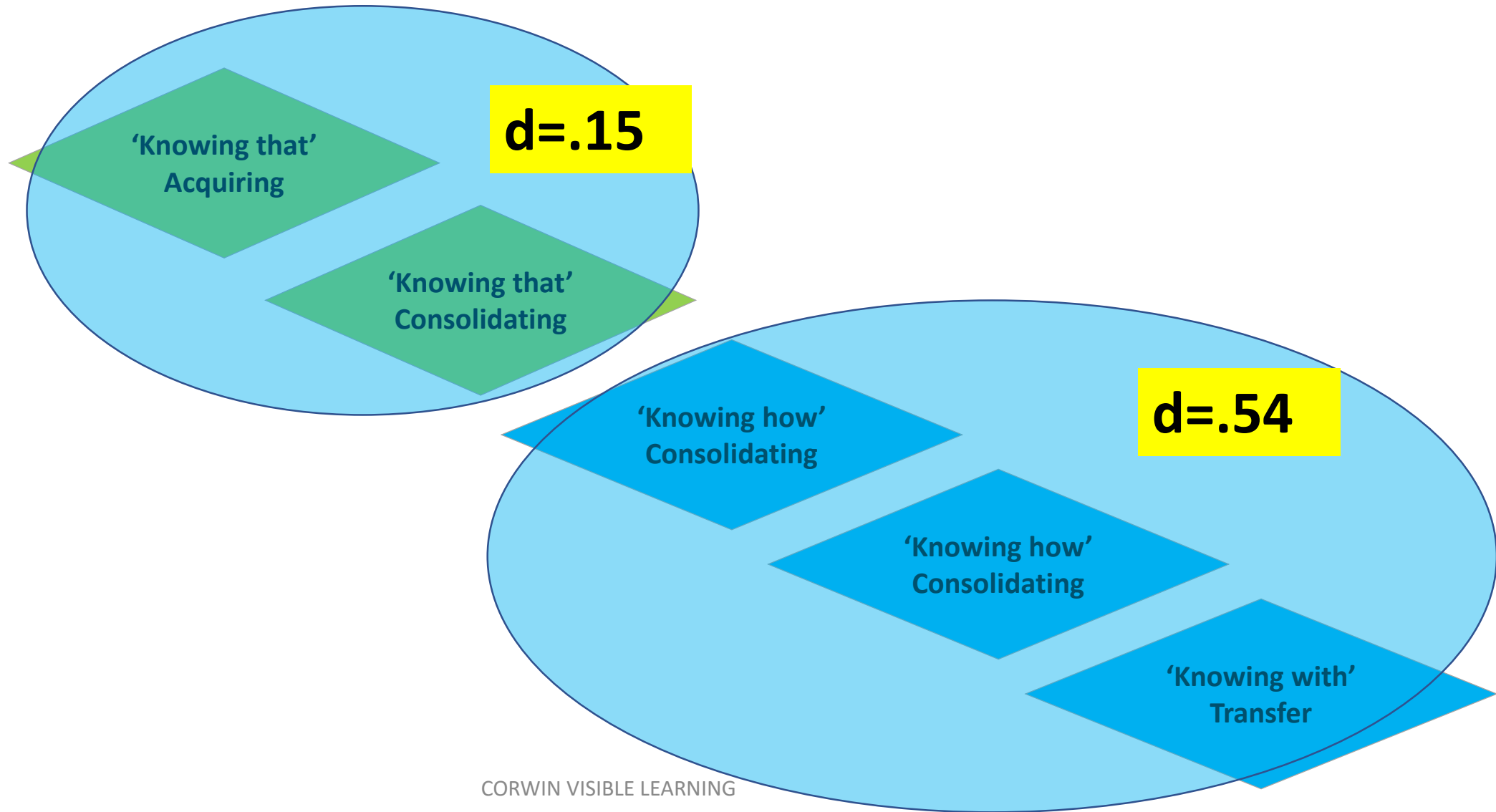
Sorting, matching,  
categorizing  
Student-generated  
classification patterns  
Dichotomous keys  
Classification charts

Peer feedback  
Peer response groups  
Peer tutoring  
Student tournaments  
Think-pair-share  
Cumulative review

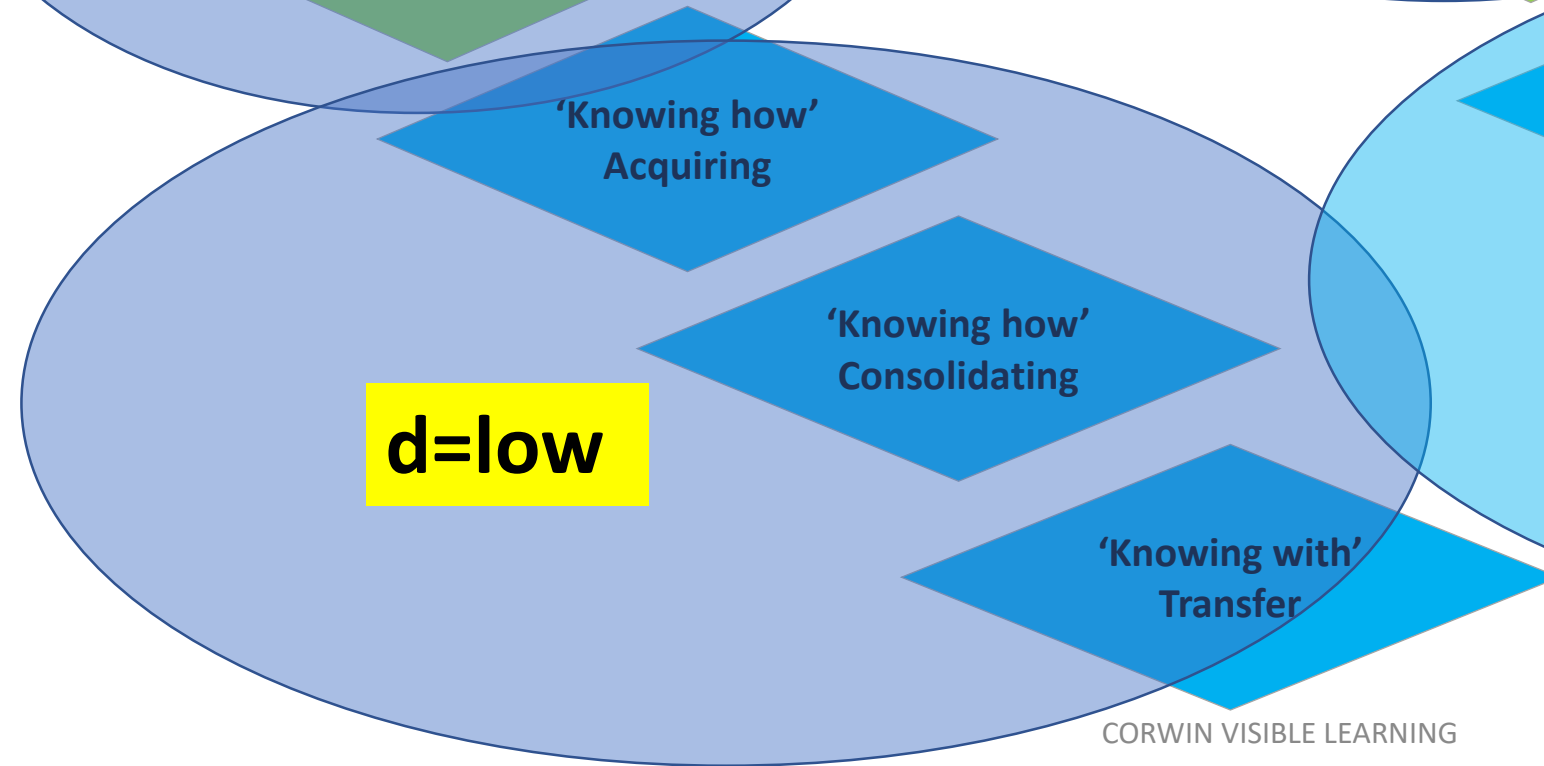
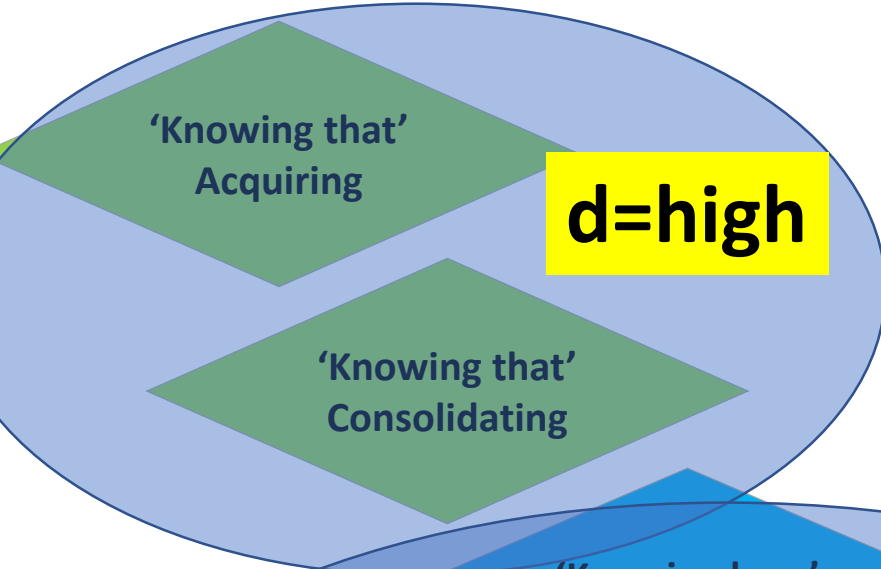
**'Knowing with'  
Transfer**

**Problem  
based**

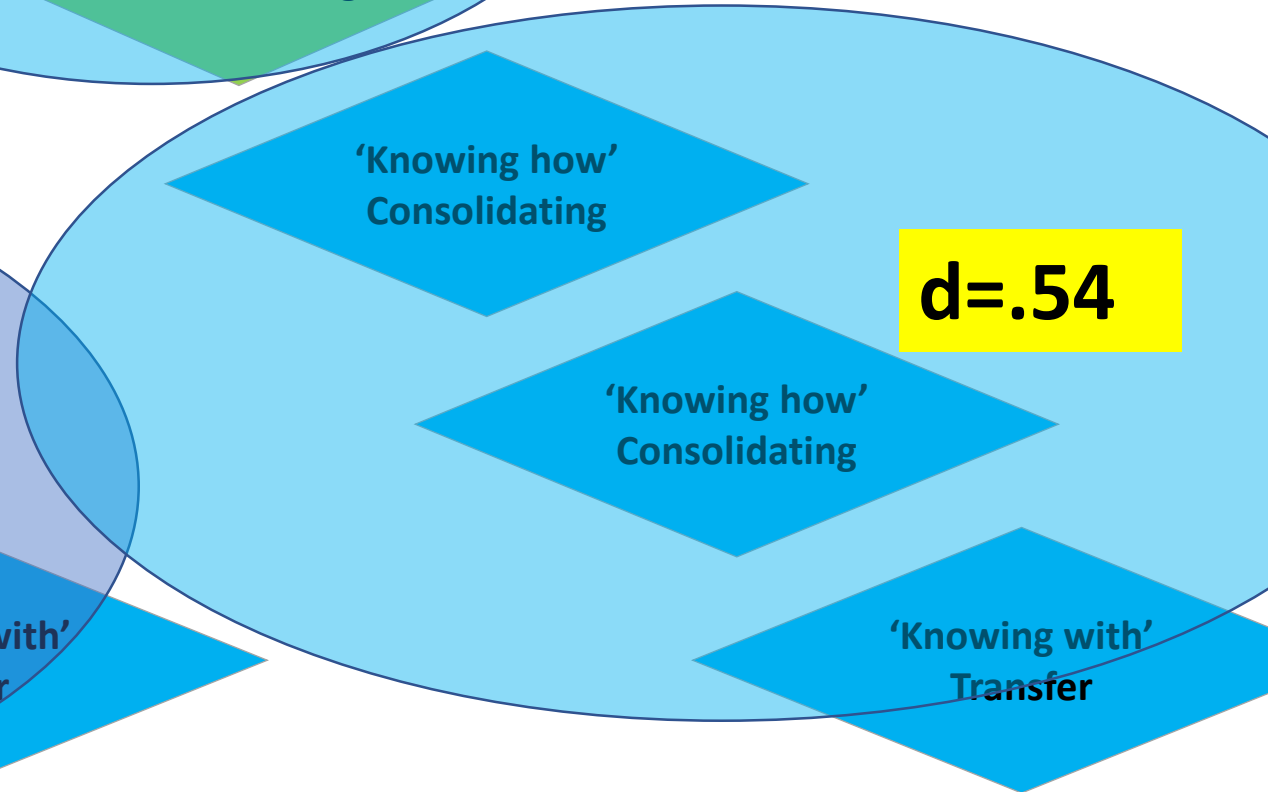
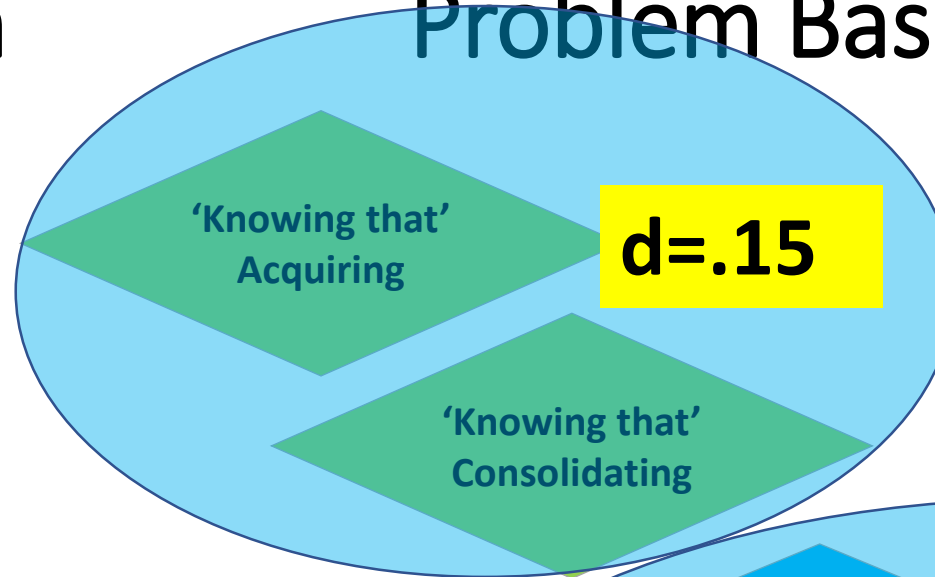
# Problem Based Learning

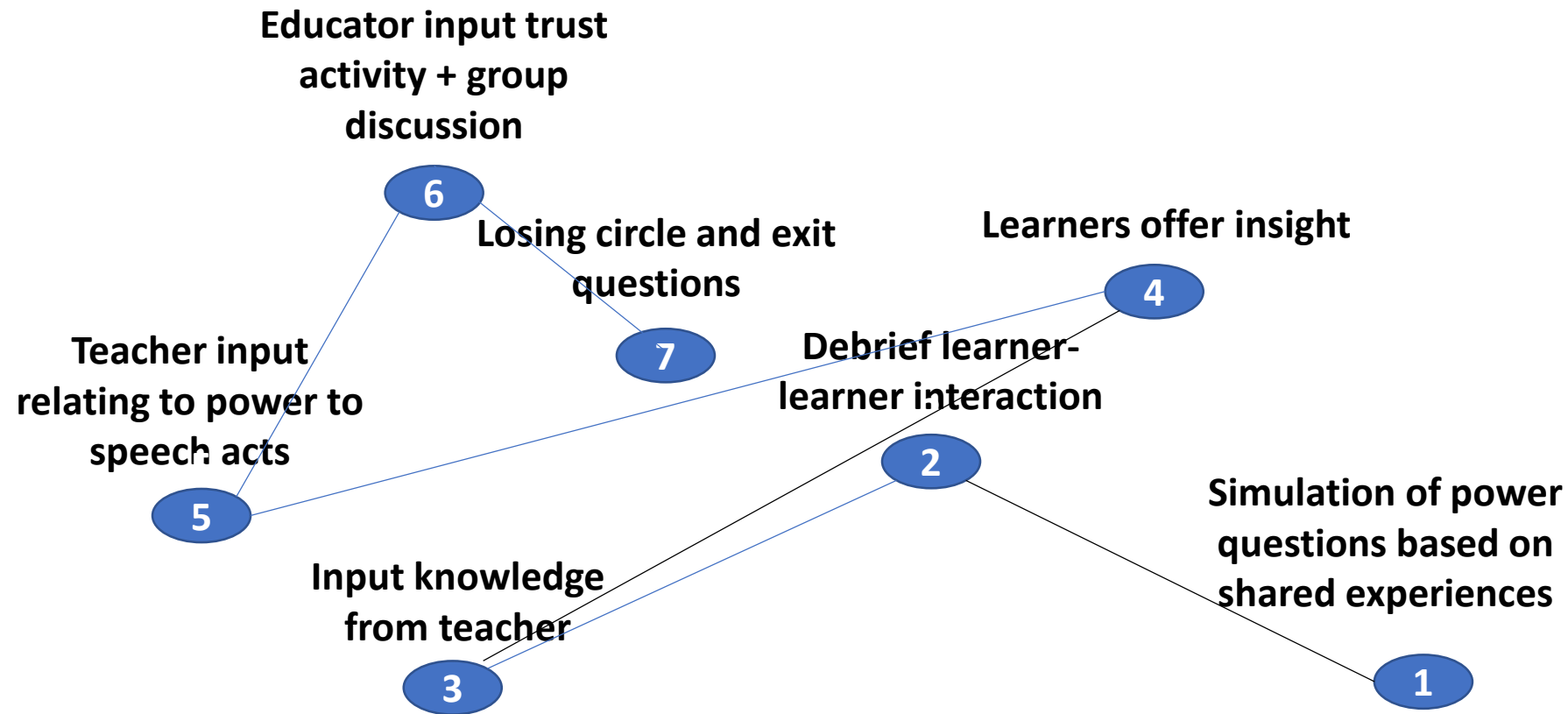


# Direct Instruction



# Problem Based Learning





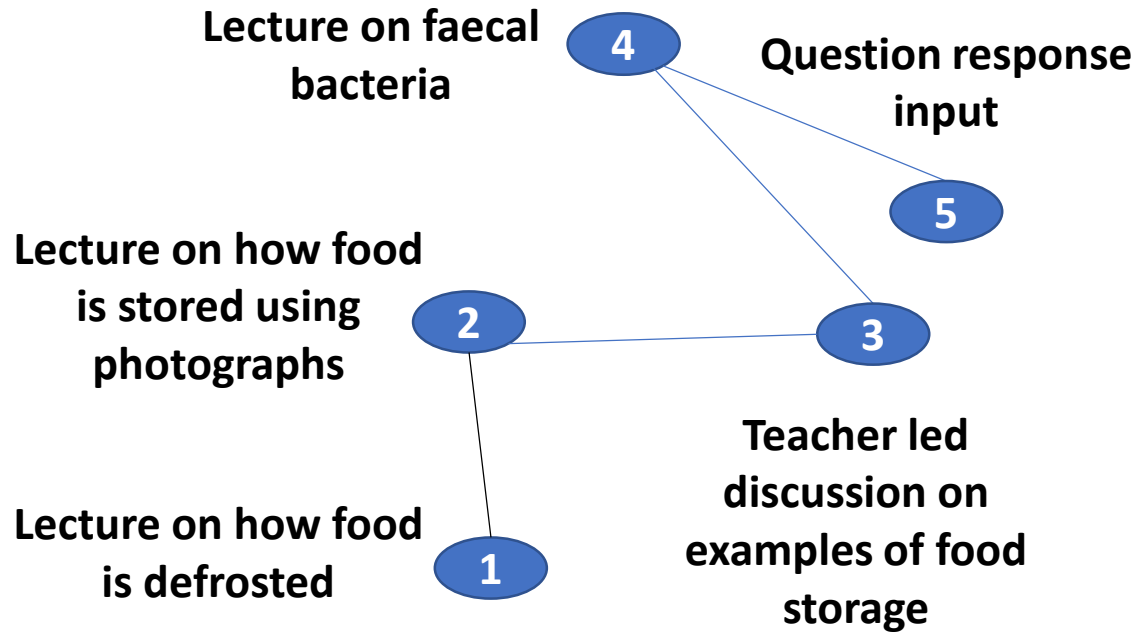
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**Knowing that**  
**Surface**  
**Content**  
**ideas**

**Knowing how**  
**Relating ideas**  
**Conceptual**  
**understanding**

**Knowing with**  
**Transfer to**  
**New and far**  
**contexts**

Adapted from Bound, H. (2023). Developing Future-oriented pedagogical practices in the Training and Adult Education Sector, Singapore. Meeting with Ministry of Education 1<sup>st</sup> March 2023. Singapore.



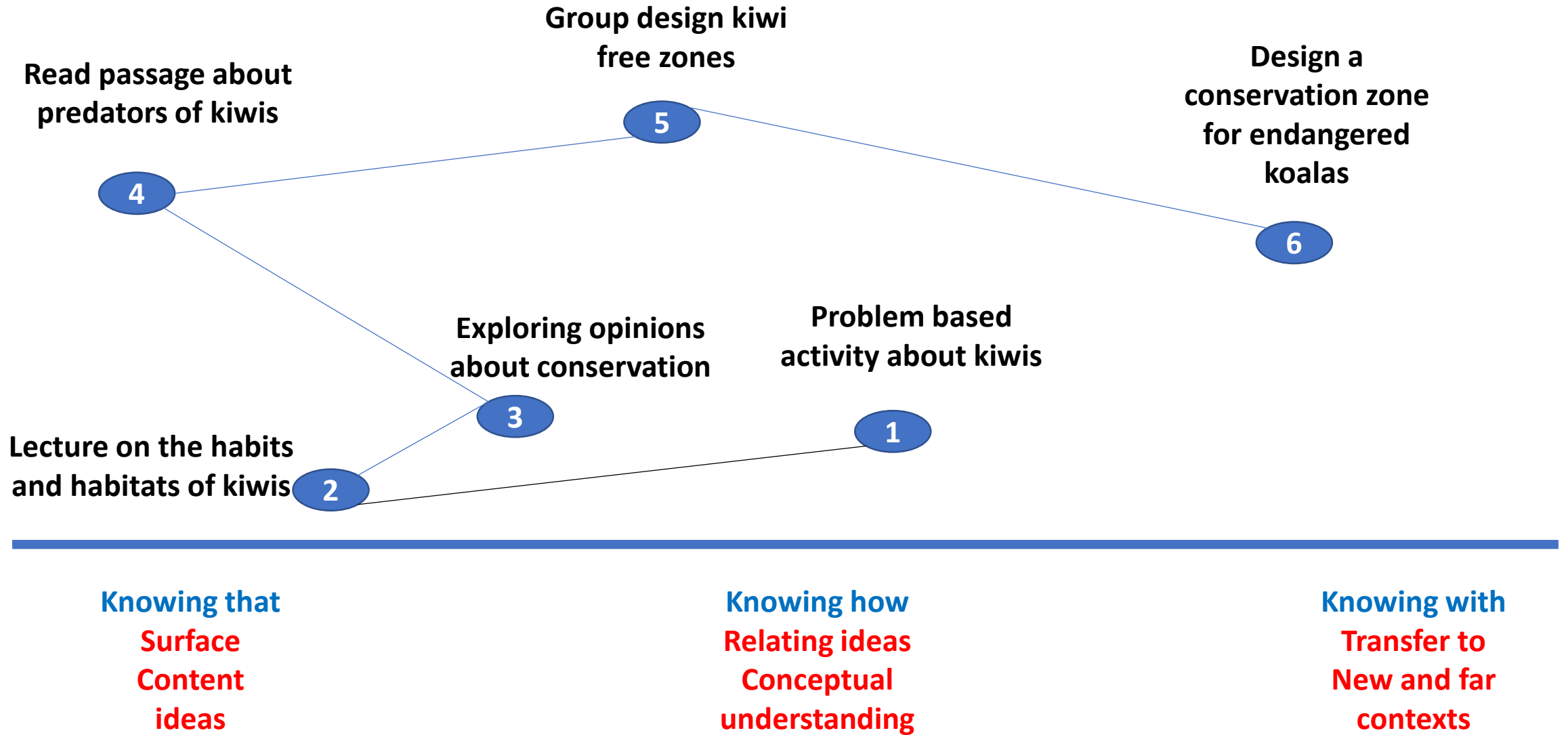
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**Knowing that**  
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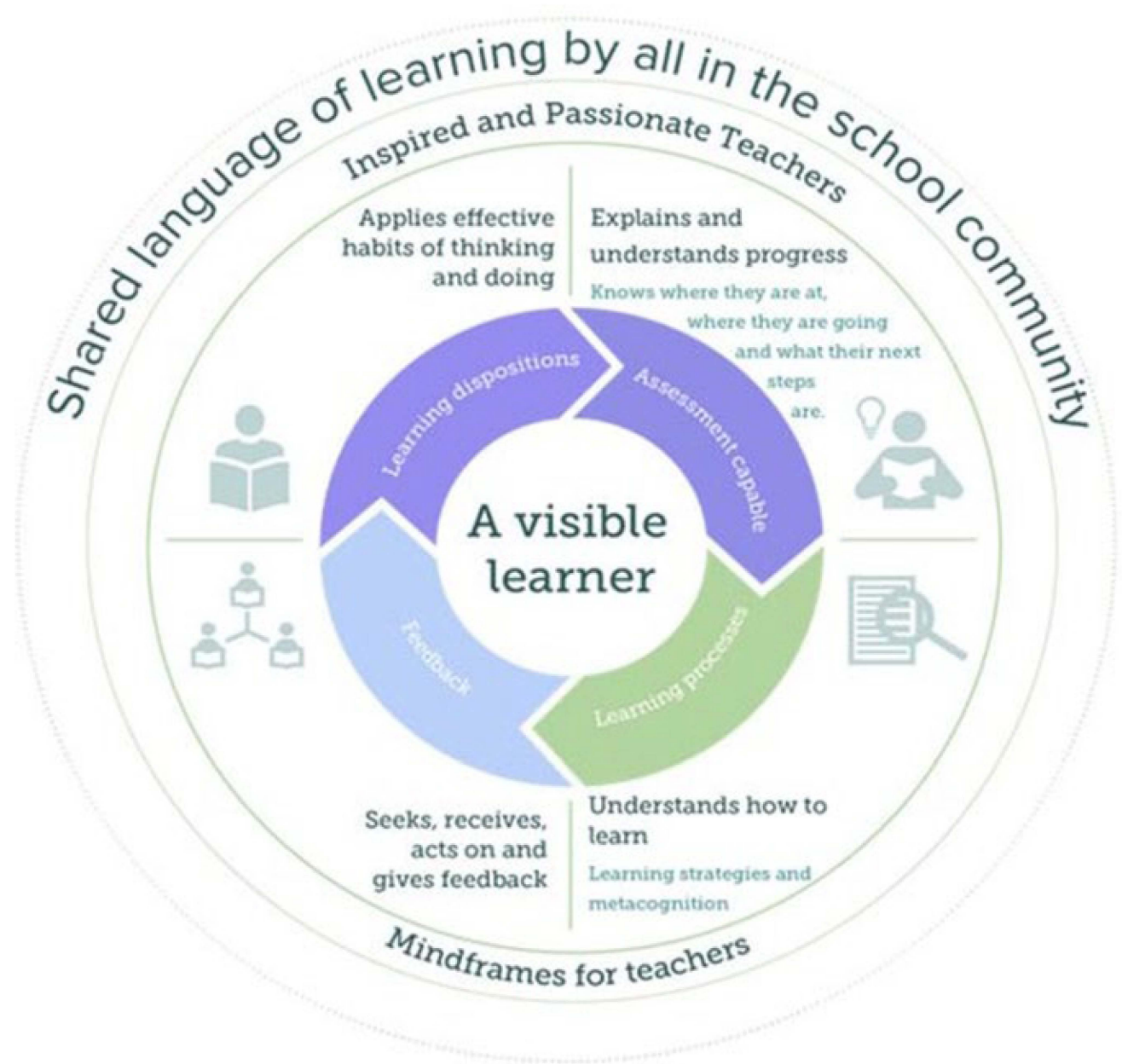
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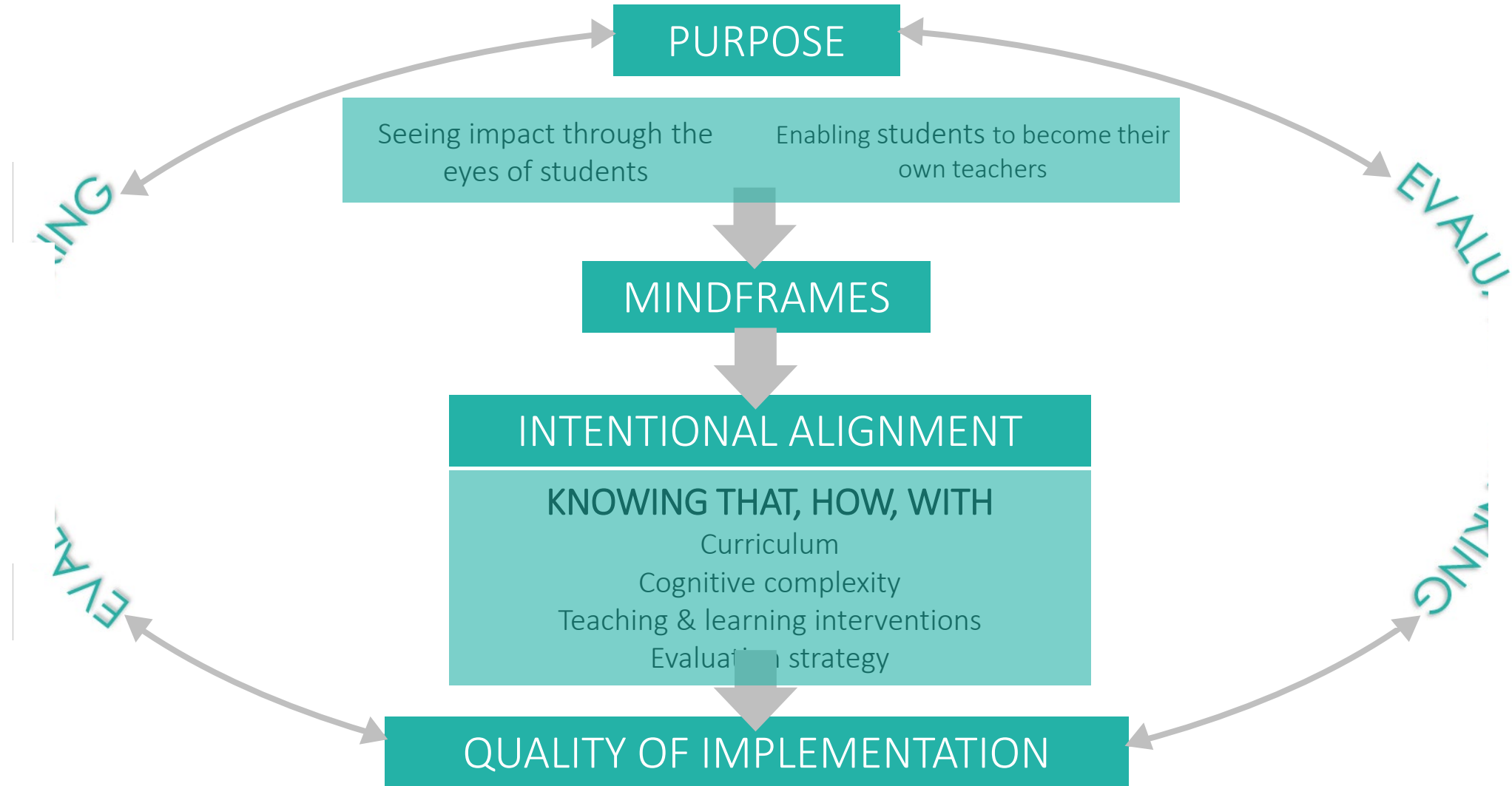


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# Visible Learning Intentional Alignment model



*What makes learning visible?*

