

Evidence Based Practice

Hull is where the culture is: 4th NQT conference

Paul HOPKINS - February 9th, 2017



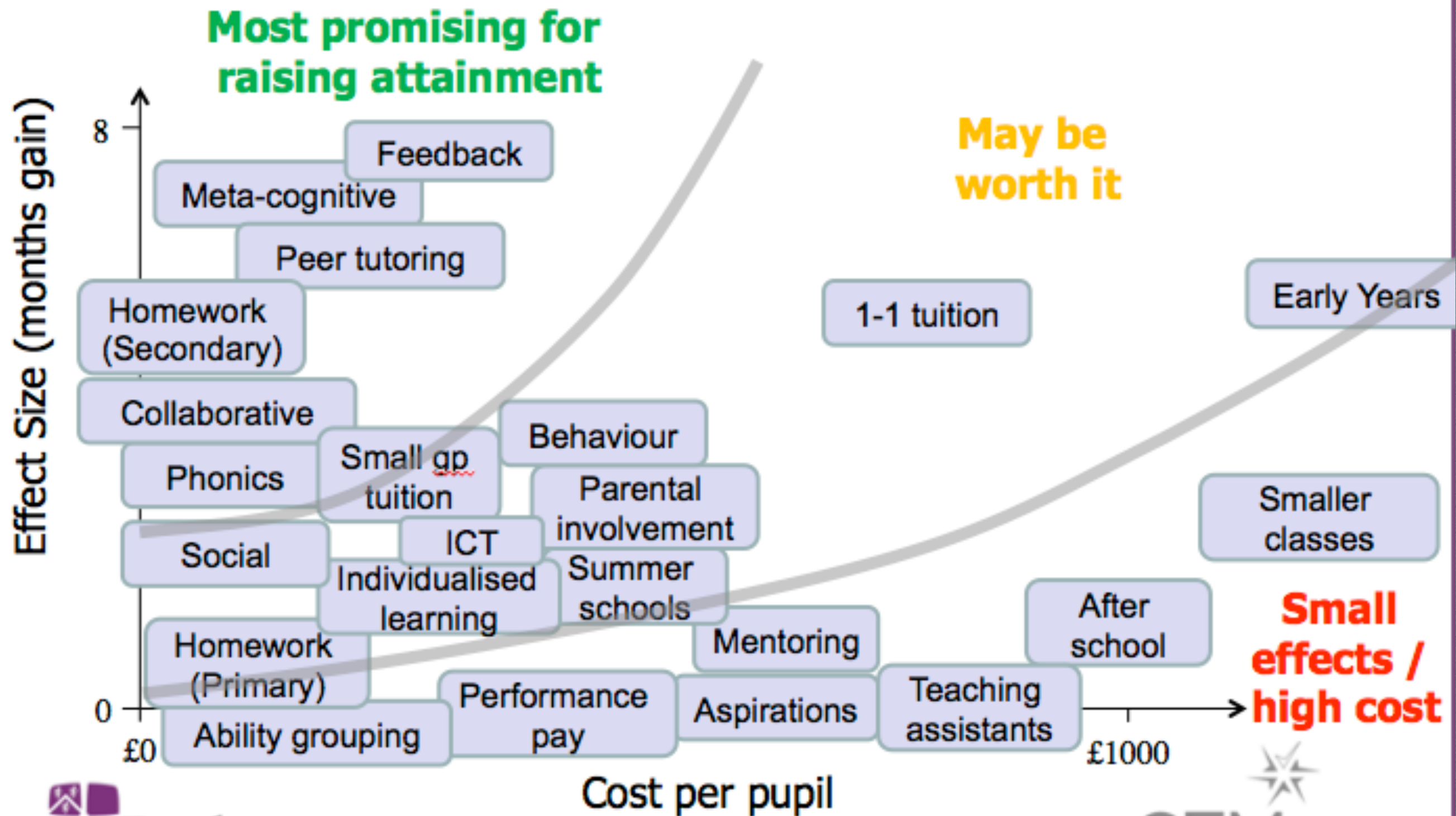
Being a better teacher?

- ◆ Do you know what aspect of your practice you should work to improve?
- ◆ Do you know what you should do to improve it?
- ◆ Can you actually do this?
- ◆ How will you know if it has improved?

Rooted in ...

- ◆ Be based on best evidence about pedagogy, teacher effectiveness, learning theory
- ◆ Reflect diversity of teacher needs (one size doesn't fit all)
- ◆ Include protocols for demonstrating when they are met that are
 - ◆ Clear and operationalisable
 - ◆ Consistent across different institutions, schools, etc
 - ◆ Demonstrably predictive of valued pupil outcomes

Impact vs cost



First and Second Thoughts

“She also possesses Second Thoughts, which are defined as 'the thoughts you think about the way you think'. Whilst other witches are said to have this trait as well, Tiffany also recognizes some of her thoughts as Third Thoughts (the thoughts you think about the way you think about the way you think), and Fourth Thoughts (the thoughts you think about the way you think about the way you think about the way you think about the way you think). All these thoughts sometimes cause Tiffany to walk into door frames”

https://en.wikipedia.org/wiki/Tiffany_Aching



Example

“I watched the class teacher silence the class and on reflection thought that this was the way I should have behaved and resolved to do it this way next time”

- ◆ First thoughts?
- ◆ Second thoughts?
- ◆ Third Thoughts?

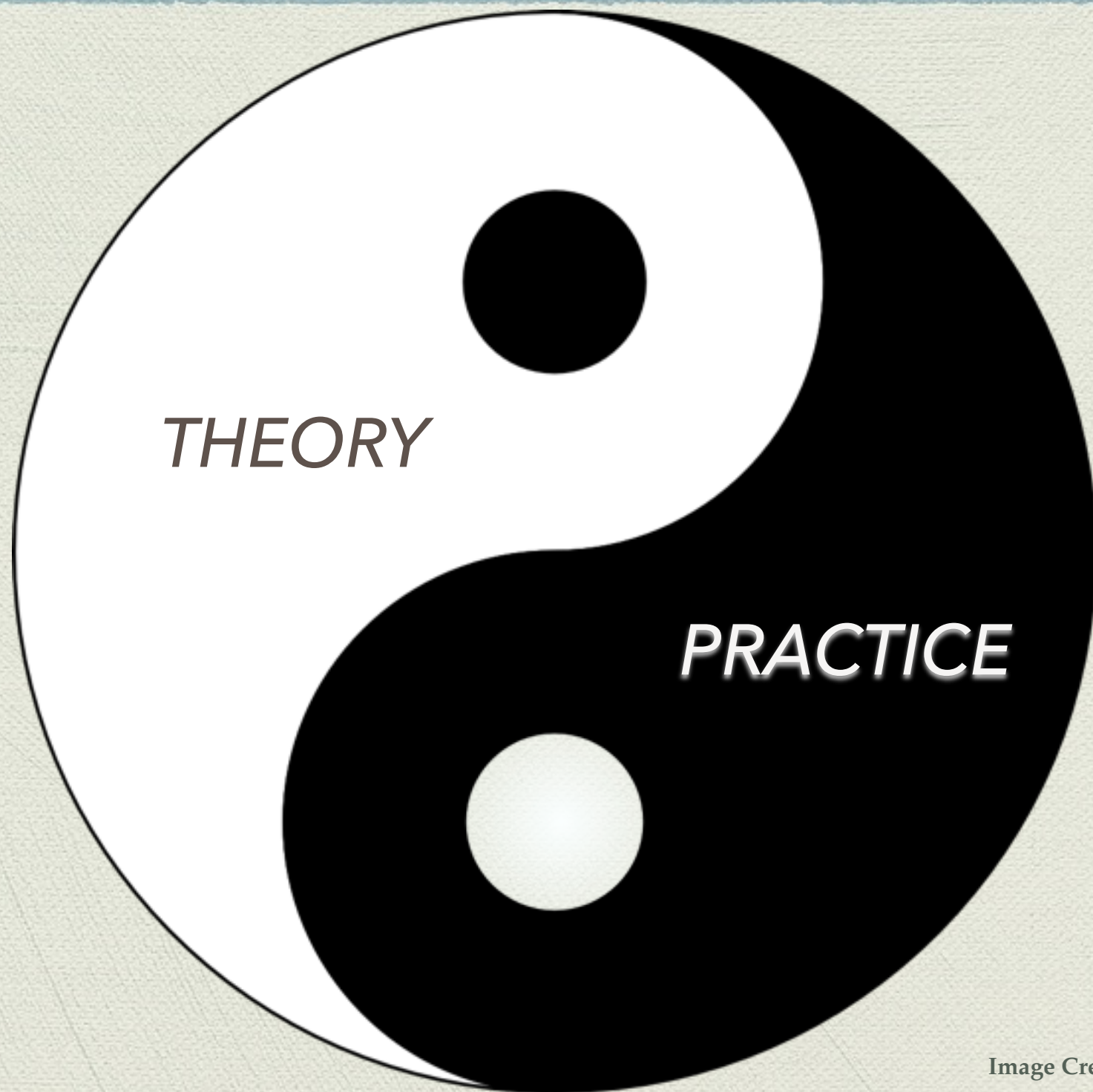


Where does the research / literature appear in this hierarchy?

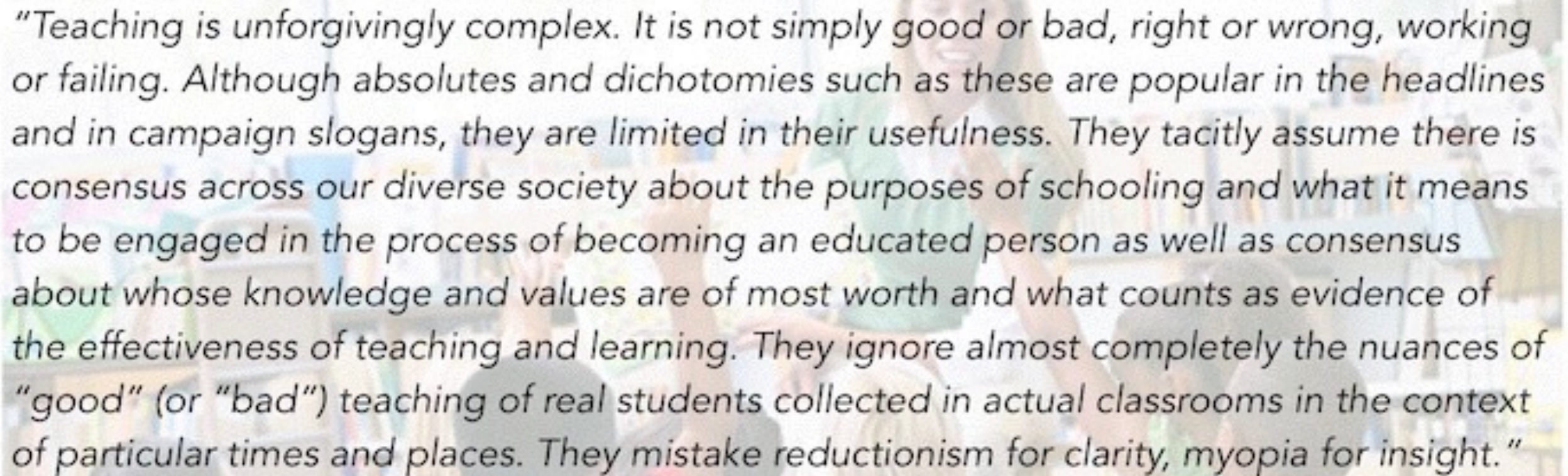
Can you think of an example in your own writing when you stopped at first thoughts?



Learning and Teaching



Complexity



"Teaching is unforgivingly complex. It is not simply good or bad, right or wrong, working or failing. Although absolutes and dichotomies such as these are popular in the headlines and in campaign slogans, they are limited in their usefulness. They tacitly assume there is consensus across our diverse society about the purposes of schooling and what it means to be engaged in the process of becoming an educated person as well as consensus about whose knowledge and values are of most worth and what counts as evidence of the effectiveness of teaching and learning. They ignore almost completely the nuances of "good" (or "bad") teaching of real students collected in actual classrooms in the context of particular times and places. They mistake reductionism for clarity, myopia for insight."

Cochran-Smith, M (2003) *The Unforgiving Complexity of Teaching*: JTE 54:3

Iterative Process

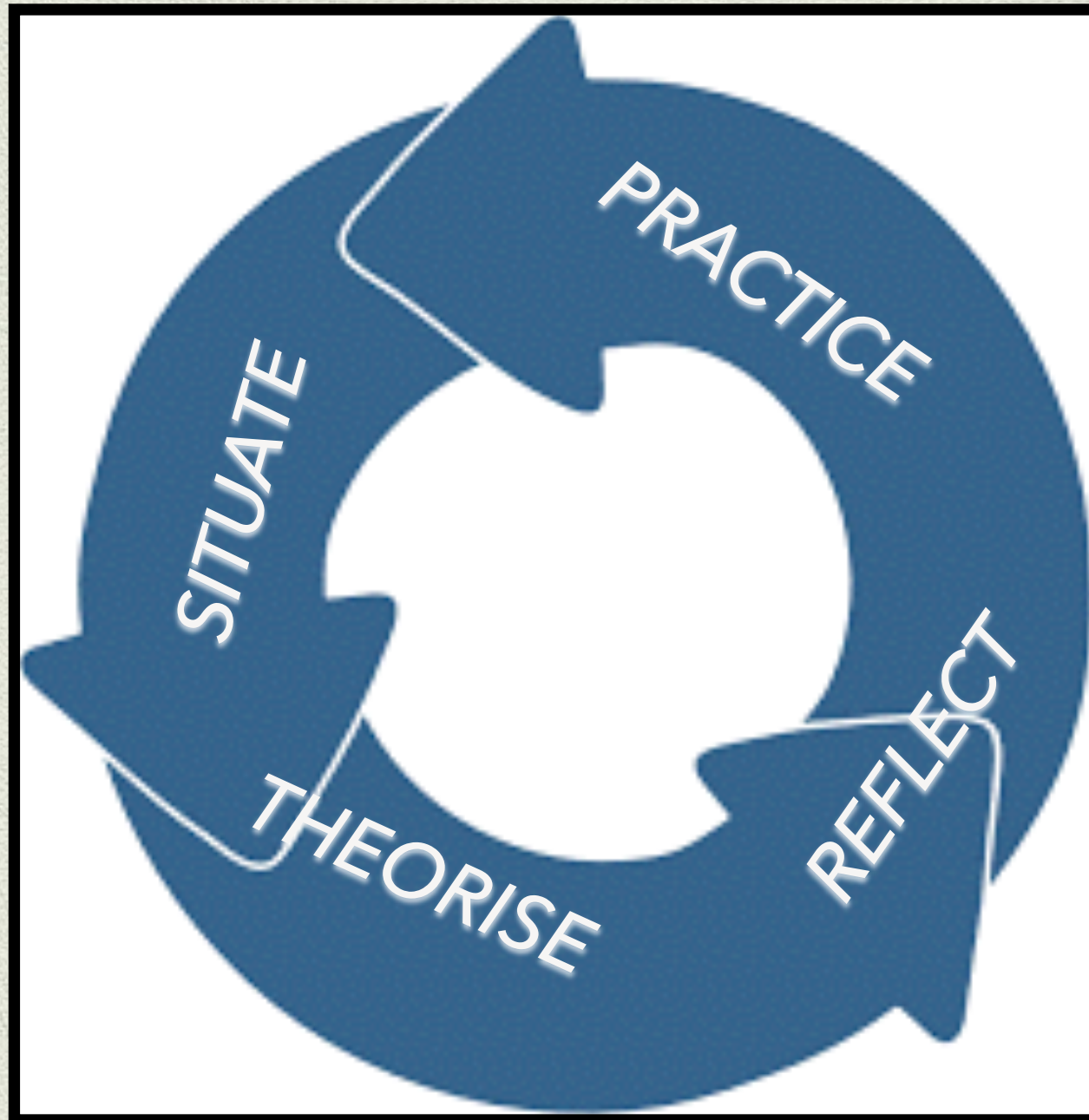


Image Credit: <http://clipart-library.com/cycle-cliparts.html>

Teaching and Learning Research

Project: Key Principles (Pollard 2015:268)

- ◆ **Effective teaching and learning engage with valued forms of knowledge:** Teaching and learning should engage with the big ideas, facts, processes languages and narratives of subjects so that learners understand what constitutes quality and standards in disciplines
- ◆ **Effective teaching and learning recognises the importance of prior experience and learning:** Teaching and learning should take account of what the learner already knows in order to plan their next steps. This includes building on prior learning but also taking account of the personal and cultural experiences of different groups of learners.

Iterative Process

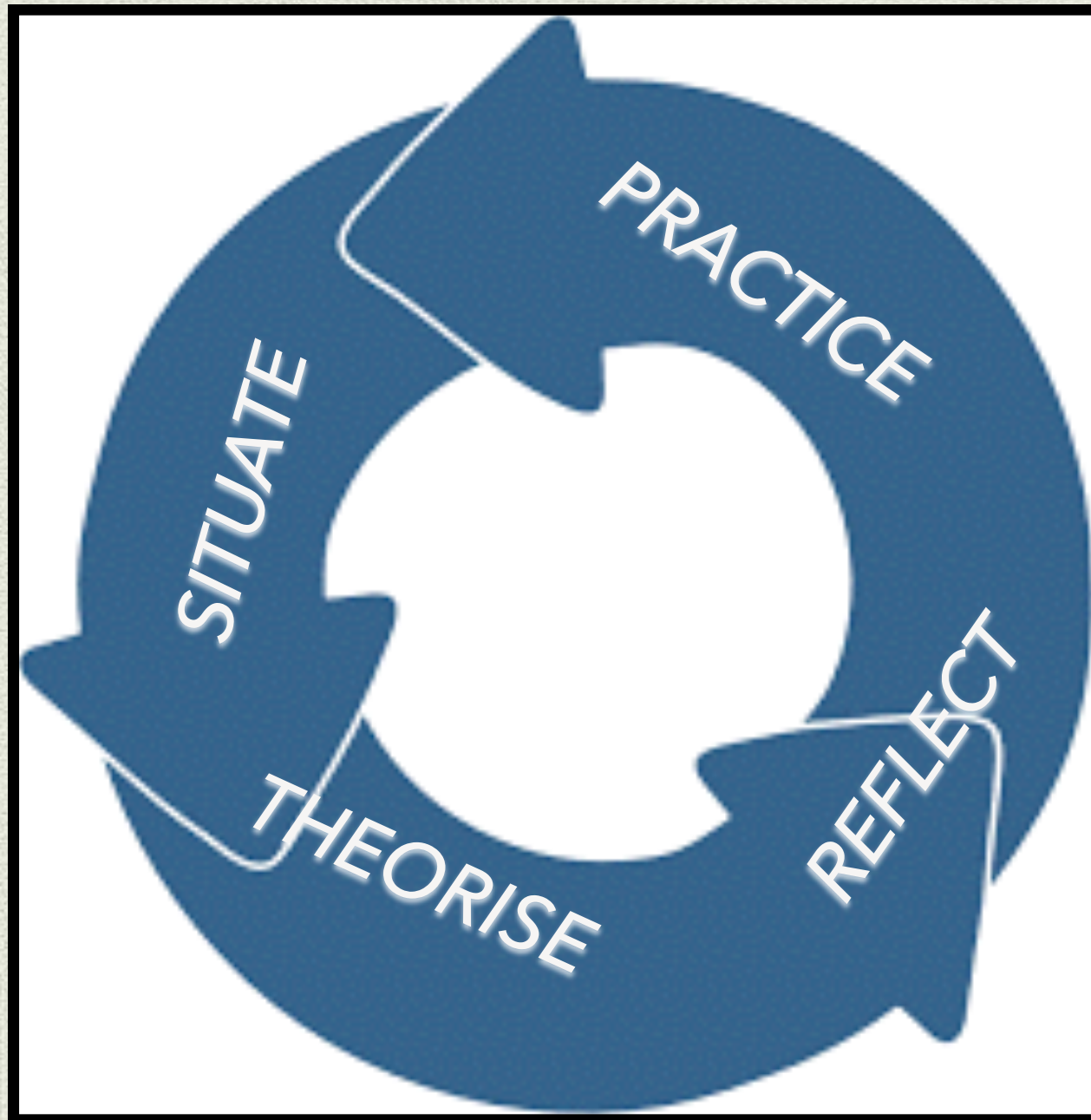
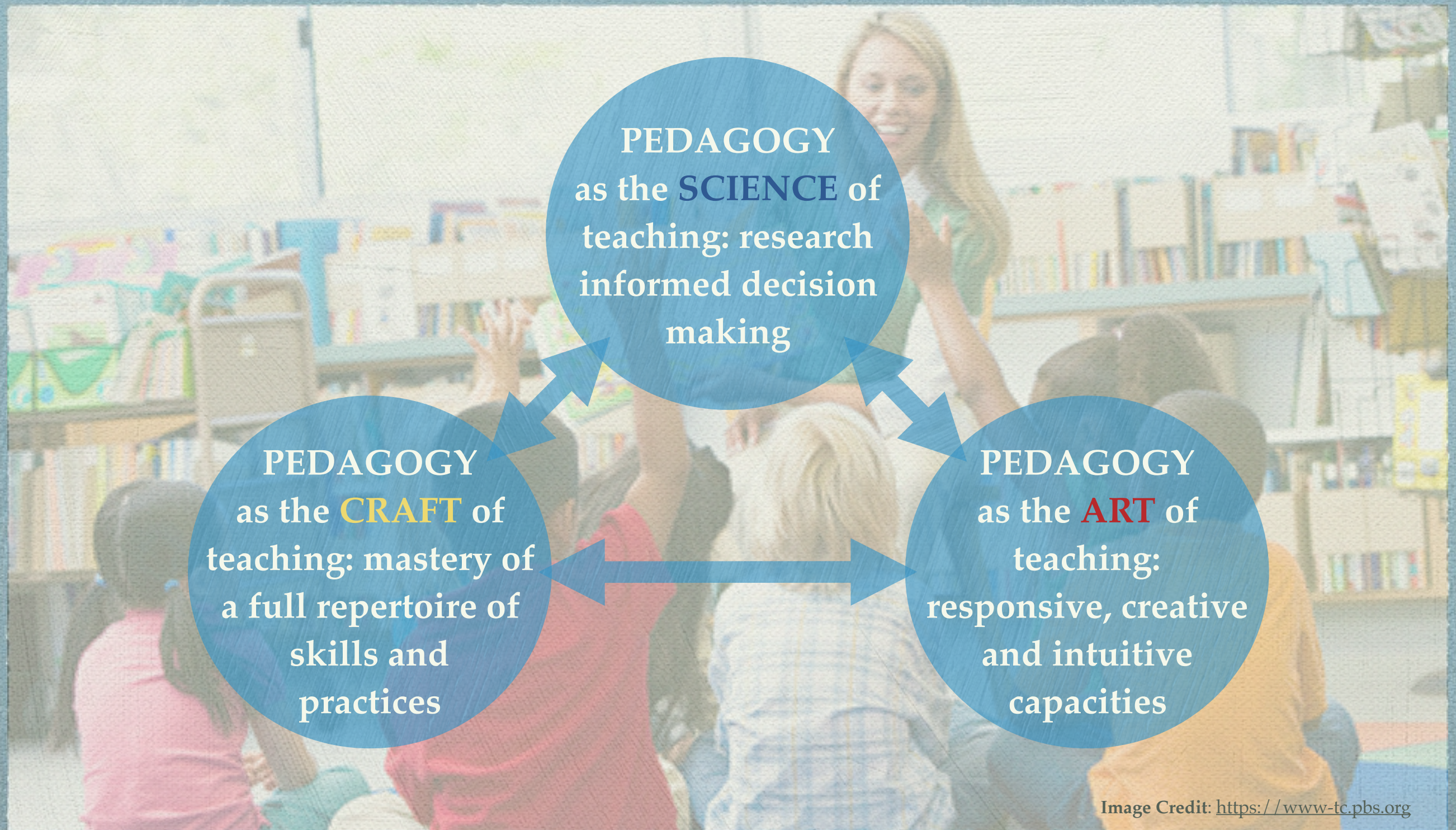


Image Credit: <http://clipart-library.com/cycle-cliparts.html>

What is Pedagogy? (Pollard 2015:302)



Five Meta-studies on Learning



What makes great teaching?

Coe (2014)

1. **Pedagogical / Content knowledge** (Strong evidence of impact on student outcomes)
2. **Quality of instruction** (Strong evidence of impact on student outcomes)
3. **Classroom climate** (Moderate evidence of impact on student outcomes)
4. **Classroom management** (Moderate evidence of impact on student outcomes)
5. **Teacher beliefs** (Some evidence of impact on student outcomes)
6. **Professional behaviours** (Some evidence of impact on student outcomes)



IMPACT

The Science of Learning

Deans for Impact (2015)

1. How do students understand new ideas
2. How do students learn and retain new information?
3. How do students solve problems?
4. How does learning transfer to new situations?
5. What motivates students to learn?
6. What are some common misconceptions about how students think and learn?



The Education Endowment Foundation

Filter Toolkit

Toolkit Strand ^

Cost ^

Evidence Strength ^

Months Impact

Filter results by keywords

£

Cost

🔒

Evidence

+1

Months Impact

Reset

Feedback

High impact for very low cost, based on moderate evidence.

£

£

£

£

£

🔒

🔒

🔒

🔒

🔒

+8

Meta-cognition and self-regulation

High impact for very low cost, based on extensive evidence.

£

£

£

£

£

🔒

🔒

🔒

🔒

🔒

+8

Homework (Secondary)

Moderate impact for very low cost, based on moderate evidence.

£

£

£

£

£

🔒

🔒

🔒

🔒

🔒

+5

Mastery learning

Moderate impact for very low cost, based on moderate evidence.

£

£

£

£

£

🔒

🔒

🔒

🔒

🔒

+5

Peer tutoring

Moderate impact for very low cost, based on extensive evidence.

£

£

£

£

£

🔒

🔒

🔒

🔒

🔒

+5

Reading comprehension strategies

Moderate impact for very low cost, based on extensive evidence.

£

£

£

£

£

🔒

🔒

🔒

🔒

🔒

+5

Collaborative learning

Moderate impact for very low cost, based on extensive evidence.

£

£

£

£

£

🔒

🔒

🔒

🔒

🔒

+5



<https://educationendowmentfoundation.org.uk>

What makes great Pedagogy?

Husbands et al (2012)

1. Effective pedagogies give serious consideration to pupil voice.
2. Effective pedagogies depend on behaviour (what teachers do), knowledge and understanding (what teachers know) and beliefs (why teachers act as they do).
3. Effective pedagogies involve clear thinking about longer term learning outcomes as well as short-term goals.
4. Effective pedagogies build on pupils' prior learning and experience.
5. Effective pedagogies involve scaffolding pupil learning.
6. Effective pedagogies involve a range of techniques, including whole-class and structured group work, guided learning and individual activity.
7. Effective pedagogies focus on developing higher order thinking and metacognition, and make good use of dialogue and questioning in order to do so.
8. Effective pedagogies embed assessment for learning.
9. Effective pedagogies are inclusive and take the diverse needs of a range of learners, as well as matters of student equity, into account.



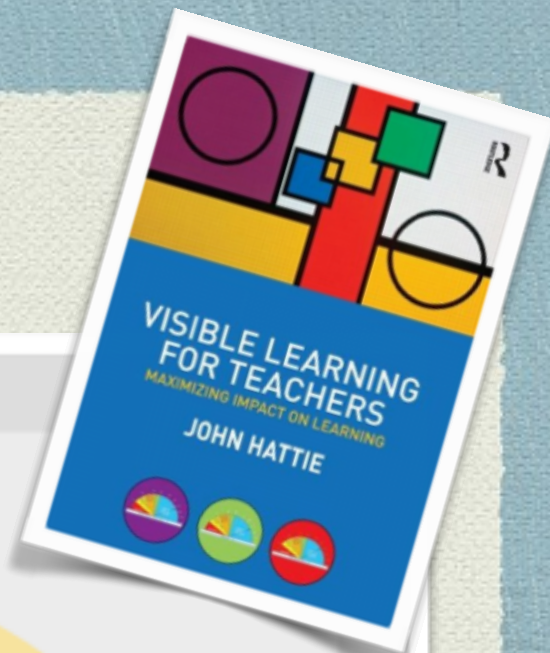
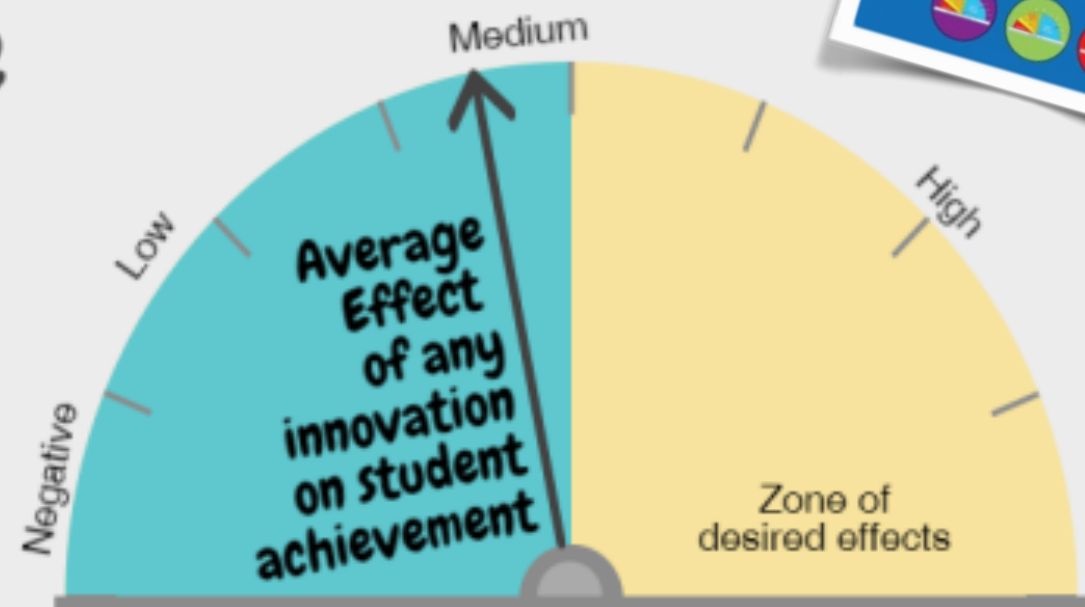
Visible Learning for Teachers

Hattie (2012)

Barometer of Influence

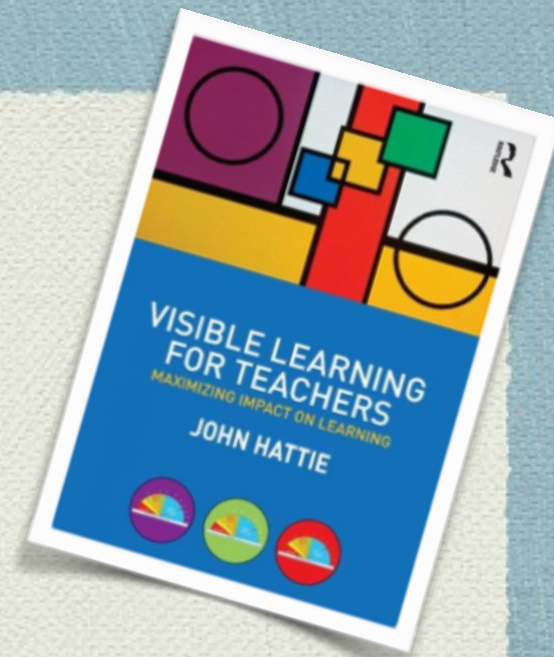
"Any innovation, any teaching program, and all teachers should be aiming to demonstrate that the effects on student achievement should exceed $d=0.40$. This point is not only attainable by many innovations but is the average, not the maximum, effect"

Hattie in "Visual Learning, A Synthesis of Over 800 Meta-Analyses Relating to Achievement", p.249.



Visible Learning for Teachers

Hattie (2012)



Top 5 Teacher Innovations



Providing formative evaluation



Micro teaching



Comprehensive interventions for learning disabled students



Teacher clarity



Reciprocal teaching

Runners up:

- Feedback
- Teacher-student relationships
- Spaced vs mass practice
- Meta-cognitive strategies
- Student self-verbalisation
- Professional development
- Problem-solving teaching
- Not labeling students

A deep space photograph showing a dark, star-filled sky. In the lower right corner, there is a bright, glowing nebula or star cluster with a yellowish-green hue. The text "WHERE NEXT?" is centered in the middle of the image in a bold, white, sans-serif font. The entire image is framed by a white border, which is itself set against a light blue background with a subtle texture.

WHERE NEXT?

Journal Club for Teachers



Contact: Paul Hopkins
Faculty of Education
Wilberforce Building
University of Hull
T: 07760 117979 M: p.hopkins@hull.ac.uk

The MA in Pedagogy and Practice #hullmapp

Course Leader: Paul Hopkins
Faculty of Education
Wilberforce Building
University of Hull
T: 07760 117979 M: p.hopkins@hull.ac.uk



Questions?

