



SAPERERE^{P4C}

Conceptual Conversations

Investigating the big ideas within, between
and beyond secondary curriculum subjects

Grace Lockrobin, MA, FHEA, FRSA, PhD Candidate

Workshop Overview

Aim

To share some simple strategies for employing philosophical pedagogy in a crowded curriculum

Structure

- Procedural and substantive concepts on the curricula of a range of subjects
- Subject knowledge and the importance of conceptual understanding
- Enquiry, inter-disciplinarity and meaning-making

We introduce educators to P4C*
philosophy understood as *an activity*
which helps learners to be critical,
creative, caring and collaborative
thinkers

*P4C is Philosophy for Children, Colleges and Communities

Our vision

A future where **everyone can engage in philosophical discussion** that matters to them, motivates them to listen and to learn from others, and makes a difference to how they think, feel, speak and act in the world.

Our values

Our educational approach develops critical, creative, caring and collaborative thinking among learners. We also strive to embody the values of **criticality, creativity, collaboration and care** as a community of members.

Our mission

To establish and support **spaces for philosophical reflection and enquiry**, especially where young people gather and learn.

To **champion the practice of philosophical dialogue** and the positive difference it can make to personal development, lifelong learning, civic discourse and thoughtful action.

To **develop courses, classes, conferences, methods and materials** that advance philosophical thinking among learners and their teachers.

To **facilitate research** that informs best practice and illuminates our philosophical work and its educational impact.

The SAPERE Community



Trainers



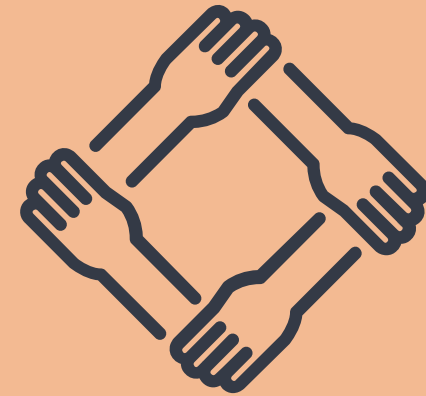
Staff



Trustees



Patrons



Members

Thinking Together in Science and RE



[About Us](#)

[Our Priorities](#)

[Our Blog](#)

[Projects Database](#)

[Templeton Prize](#)

[Global Scientific
Conference on Human
Flourishing 2022](#)



BIG QUESTIONS
in CLASSROOMS



P4C is a philosophical approach to learning and teaching

P4C enables students to **think with others** and to **think for themselves**.

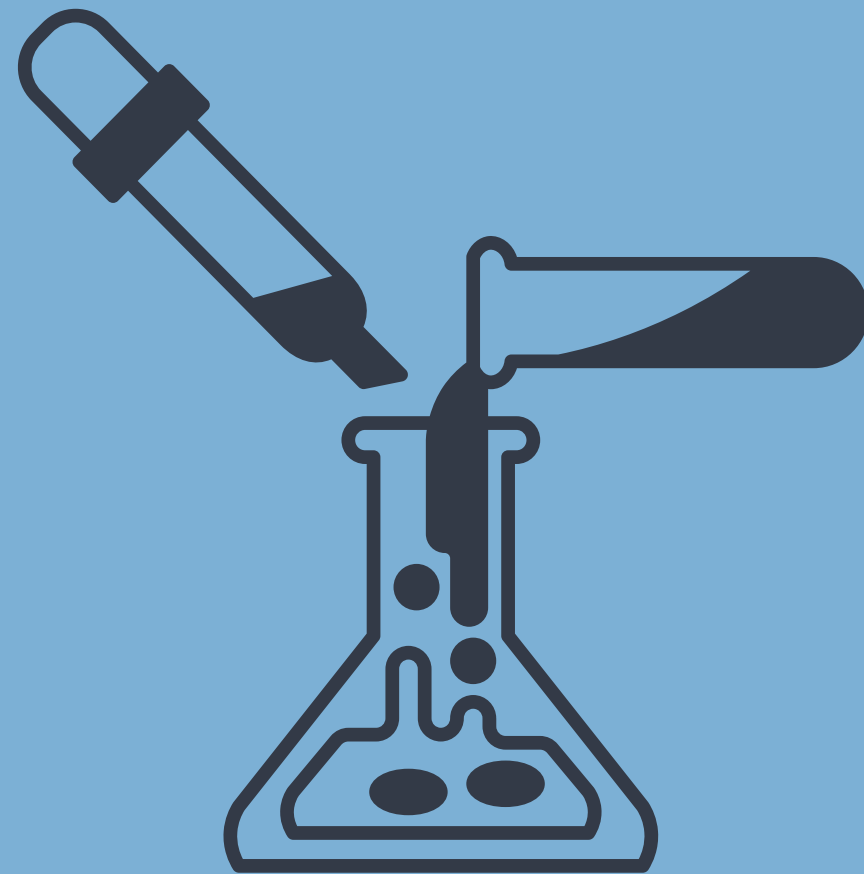
P4C explores the big **ideas and issues** that arise in all areas of **education** and **life experience**.

P4C uses philosophical **dialogue and enquiry** to help learners to think, to speak, to listen, to learn and to live together more effectively.

P4C is an **inclusive and adaptable** pedagogy that meets the needs of learners and enhances the practice of educators in a wide **range of settings** from nursery to adult education.

P4C explores **philosophical content** (in the form of contested questions and concepts) using a **philosophical method** (which involves talking and thinking in a reasonable way).

Science



Religion

Could scientists
be replaced by
AI?

YES

Could scientists be
replaced by AI?

NO



**AI has access to vastly more
information than human
scientists**

YES



**AI can do vast
amounts of
computation but
there is more to
science than that**



**Science is driven
human curiosity
which AI lacks**

NO

Substantive concepts in science

- evolution
- energy
- organ system
- radioactivity
- particles
- cell
- consent
- combustion
- the water cycle
- heritability
- extinction
- solar system
- geological age
- species
- solution
- machine
- control group
- mechanical advantage
- artificial intelligence
- force
- matter
- mass
- chemical reaction
- climate
- friction
- light
- reproduction

Procedural concepts in science

- knowledge
- evidence
- reliability
- validity
- measurement
- causation
- interpretation
- authority
- expertise
- public interest
- falsification
- hypothesis
- probability
- bias
- assumption
- consensus
- truth
- law
- prediction
- consequence
- variable
- observation
- property
- data point
- certainty
- value for money
- trust

P4C in the English primary curriculum

- **Science:** Is there anything that science can't tell us?
- **English:** Can bad people write good stories?
- **Maths:** Are numbers invented or discovered?
- **Religion and Ethics:** Why pray?
- **Information Technology:** Could computers love?
- **Languages:** Can you think without words?
- **History:** Why care about the past?

P4C in the English primary curriculum

- **Music:** Do animals make music?
- **Geography:** Why do we have borders?
- **Art:** What is art for?
- **Citizenship:** Are schools rules always right?
- **Physical Education:** Is sport ever fair?
- **PSHE/RSE:** Should you try to be friends with everyone?
- **Food:** Why do we have unhealthy habits?

P4C in the Welsh primary curriculum

- **Science & technology:** Is there anything science can't tell us?
- **Languages, literacy & coms:** Can you think without words?
- **Maths & numeracy:** Are numbers invented or discovered?
- **Religion, values & ethics:** Why pray?
- **Humanities:** Why care about the past?
- **Expressive Arts:** What is art for?
- **Rights of the Child:** Are schools rules always right?
- **Health and Well-being:** Is sport ever fair?
- **Relationships & Sexuality Ed:** Can you be friends with everyone?

P4C in the secondary curriculum

- **Music:** How does music express meaning?
- **RSE:** Can you have a relationship with yourself?
- **Geography:** Whose responsibility is the climate crisis?
- **Art:** Is an NFT really art?
- **PE:** How far should coaches push child athletes?
- **Design:** Can you own an idea?
- **Food:** Should you eat a vegan diet?

P4C in the secondary curriculum

- **English:** Can a work of fiction be true?
- **Maths:** Are some infinite sets bigger than others?
- **Religion and Ethics:** Is faith a virtue?
- **History:** Is a just war possible?
- **Information Technology:** What is intelligent about AI?
- **Languages:** Could there be a perfect translation?
- **Media:** Should you trust the news?

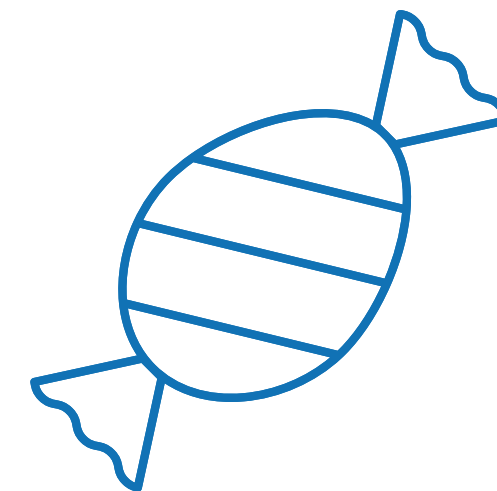
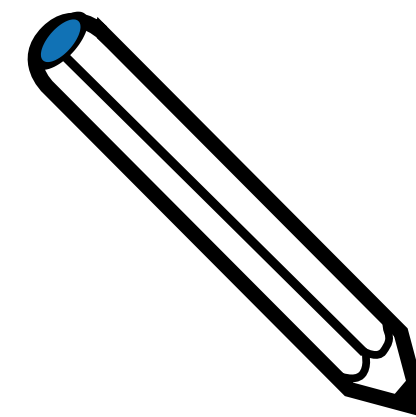
P4C in the secondary curriculum

- **Chemistry:** Is carbon 'bad'?
- **Physics:** What is a cause?
- **Biology:** Should we always preserve life?
- **Drama:** Why feel sorry for fictional characters?
- **Textiles:** Can anyone tell you what to wear?
- **Citizenship:** Should teenagers be able to vote?
- **PSHE:** Do you own your body?

**GOOD
INVENTION**



**BAD
INVENTION**





ALIEN

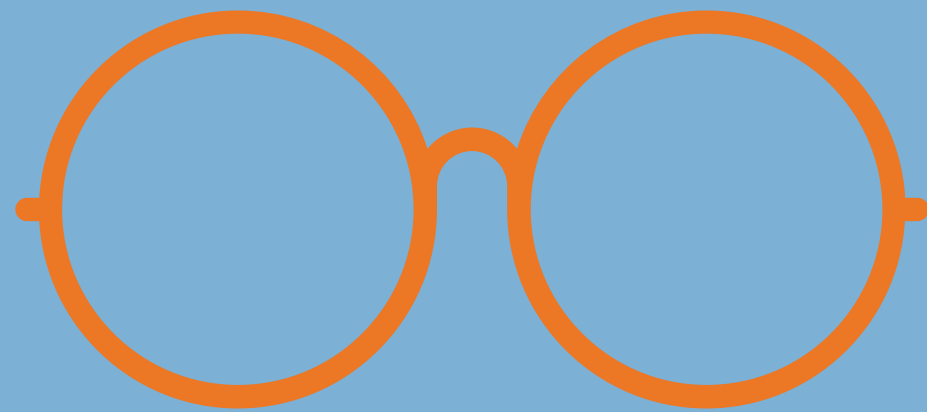
Gravity
Cell
Evidence
Chemical
Light
Evaporation
Number

EXPERT



Experiment
Error
Planet
Table
Animal
Space

I see



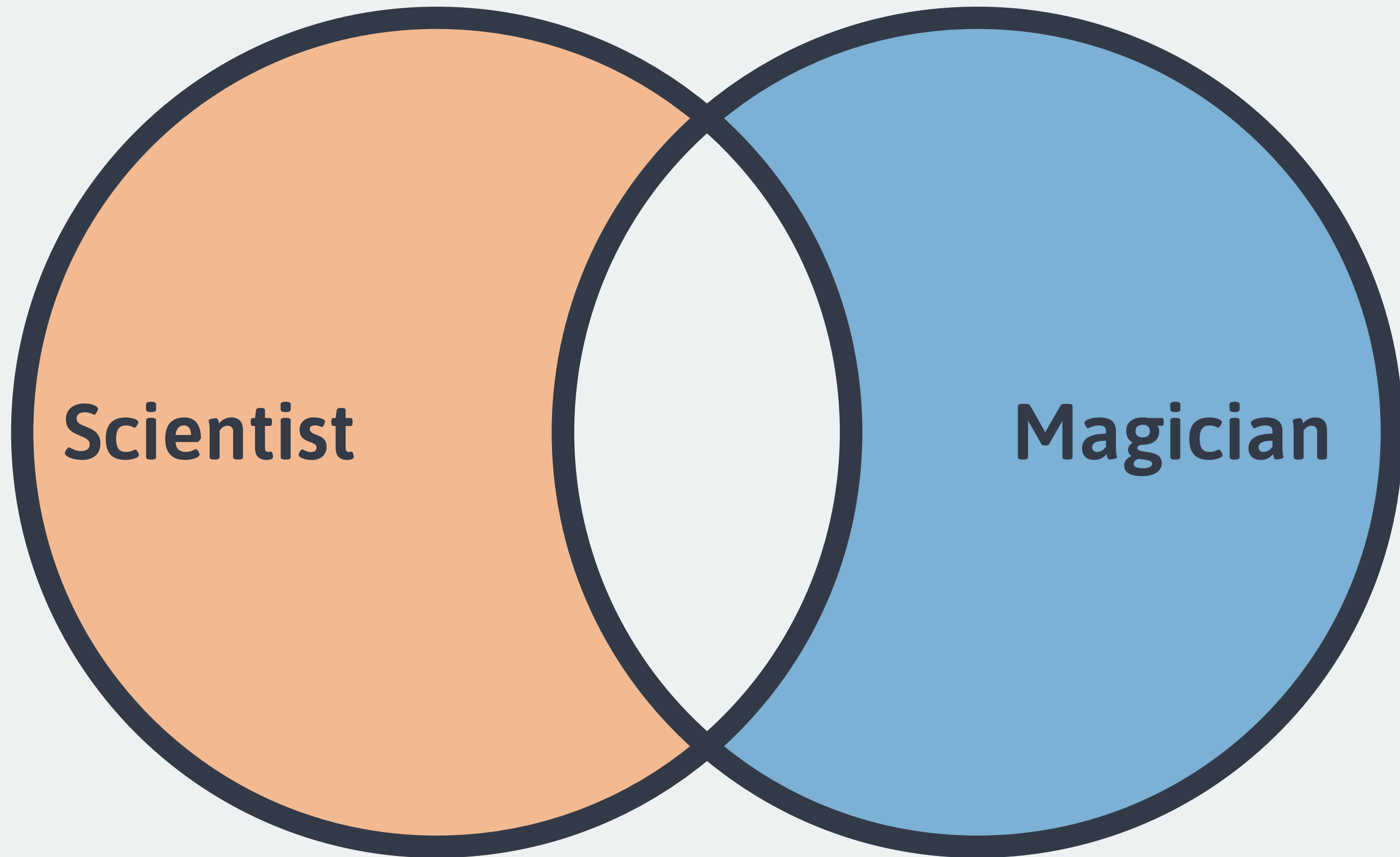
I think



I wonder

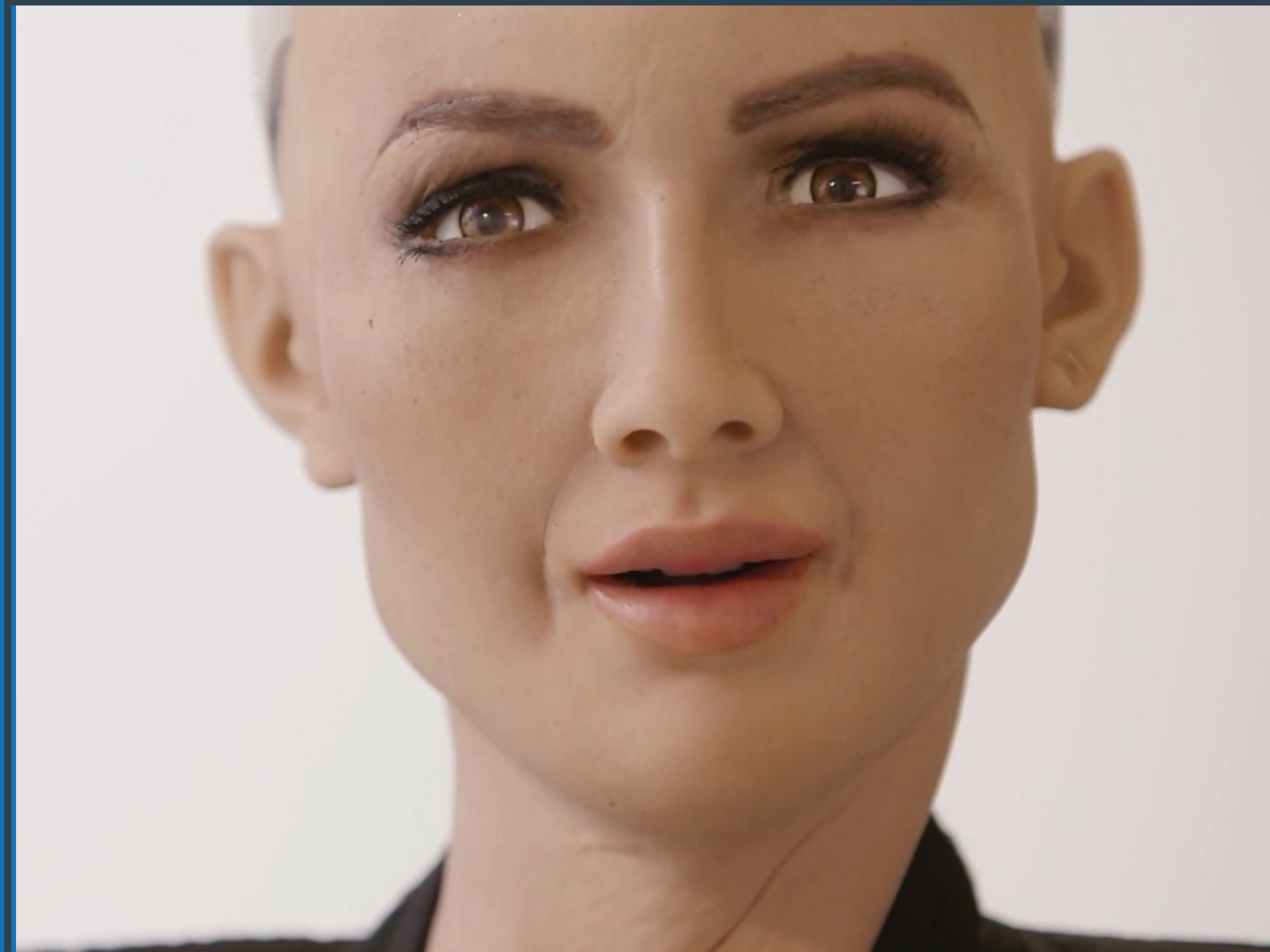






P4C Stimulus

Sophia Awakes
by Hansen Robotics



Ref: Hansen Robotics (2016) Sophia Awakens. URL <https://www.youtube.com/watch?v=LguXfHKsa0c>

P4C Stimulus

Horseshoe crab blood the miracle
vaccine ingredient
Natural History Museum



Ref <https://www.nhm.ac.uk/discover/horseshoe-crab-blood-miracle-vaccine-ingredient.html>

P4C Stimulus

Henrietta Lacks: 'Mother' of
modern medicine honoured
BBC



Ref: <https://www.bbc.co.uk/news/world-us-canada-58903934>

P4C Stimulus

Elizabeth Holmes and the
Theranos Case:



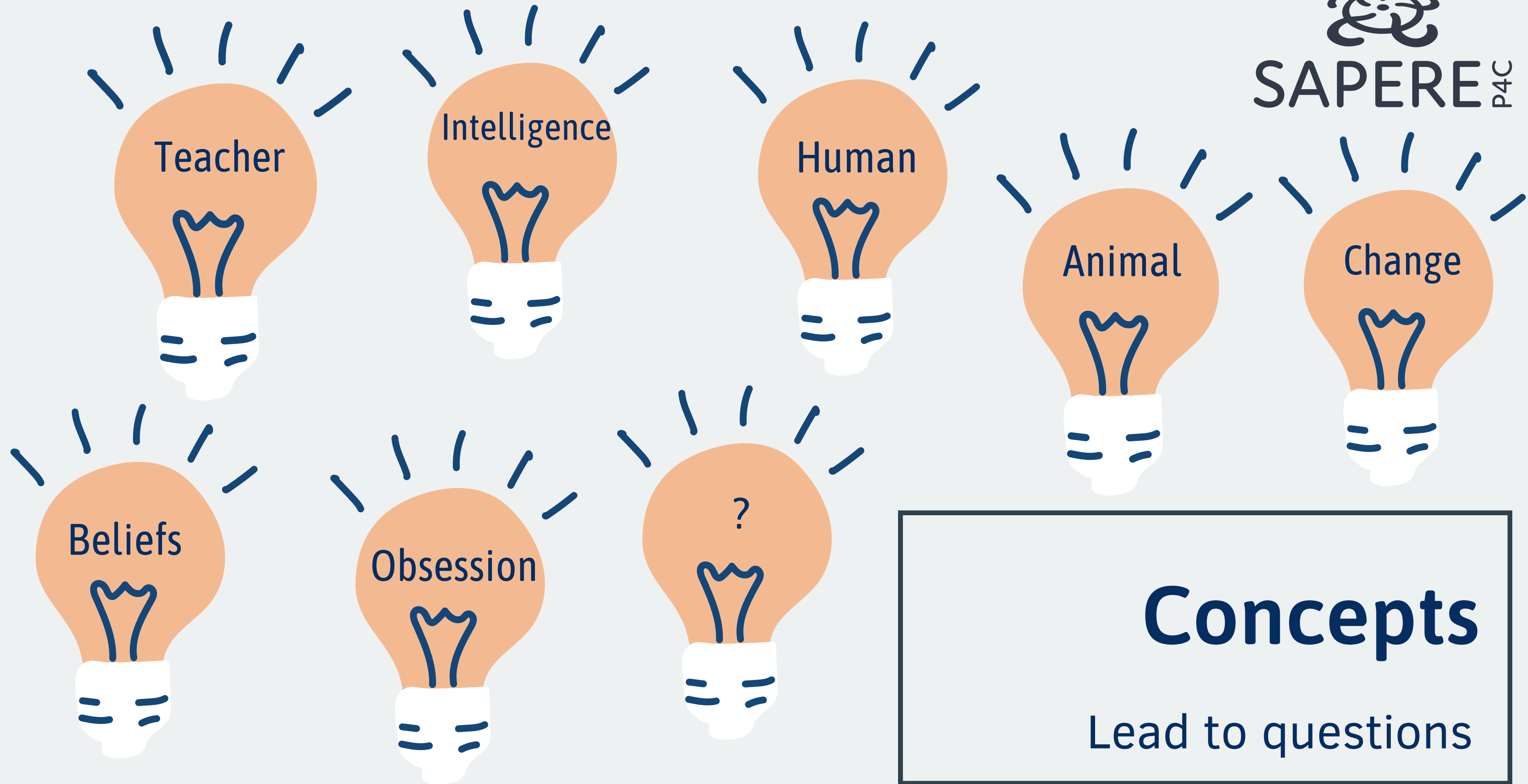
P4C Stimulus

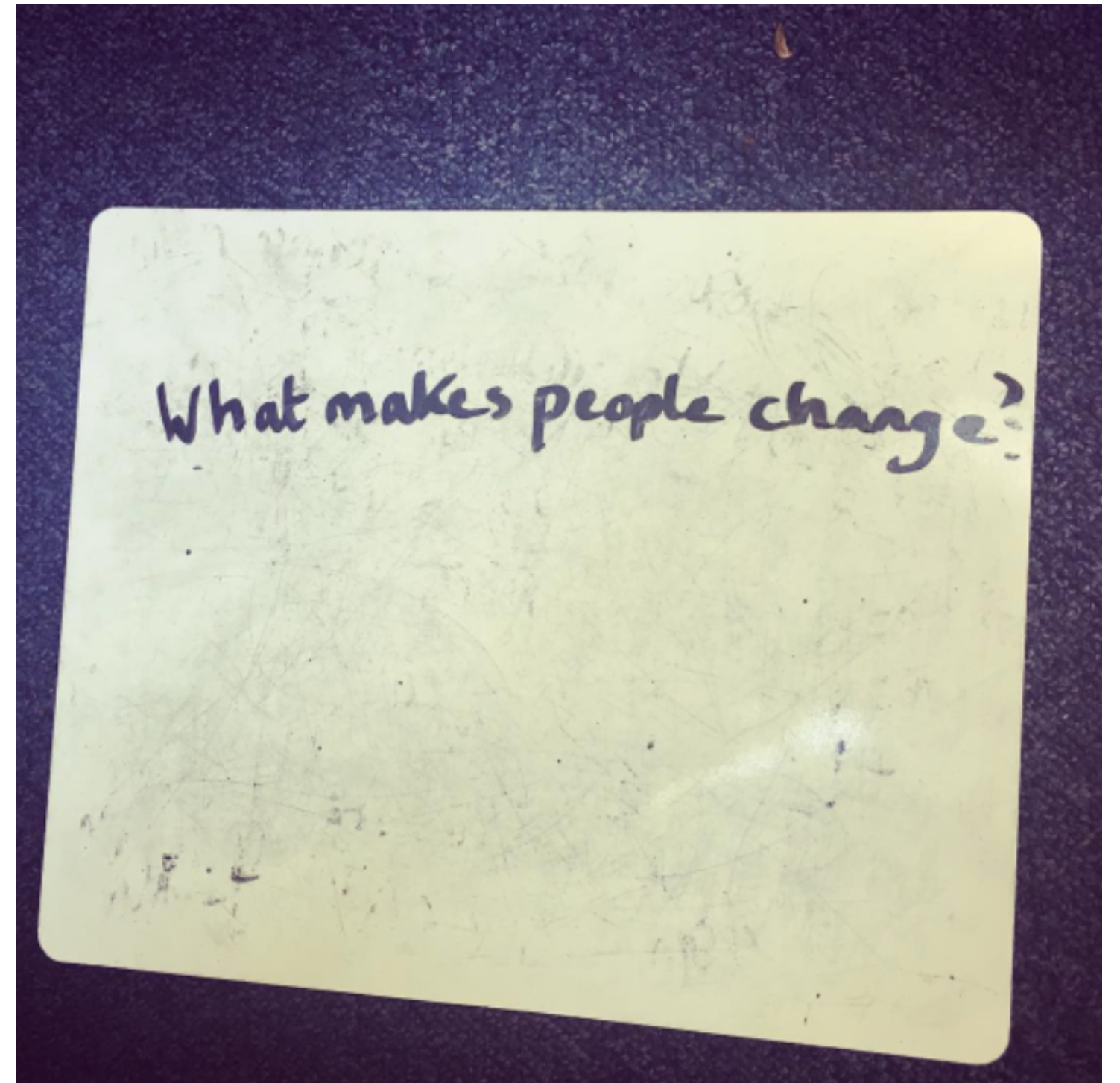
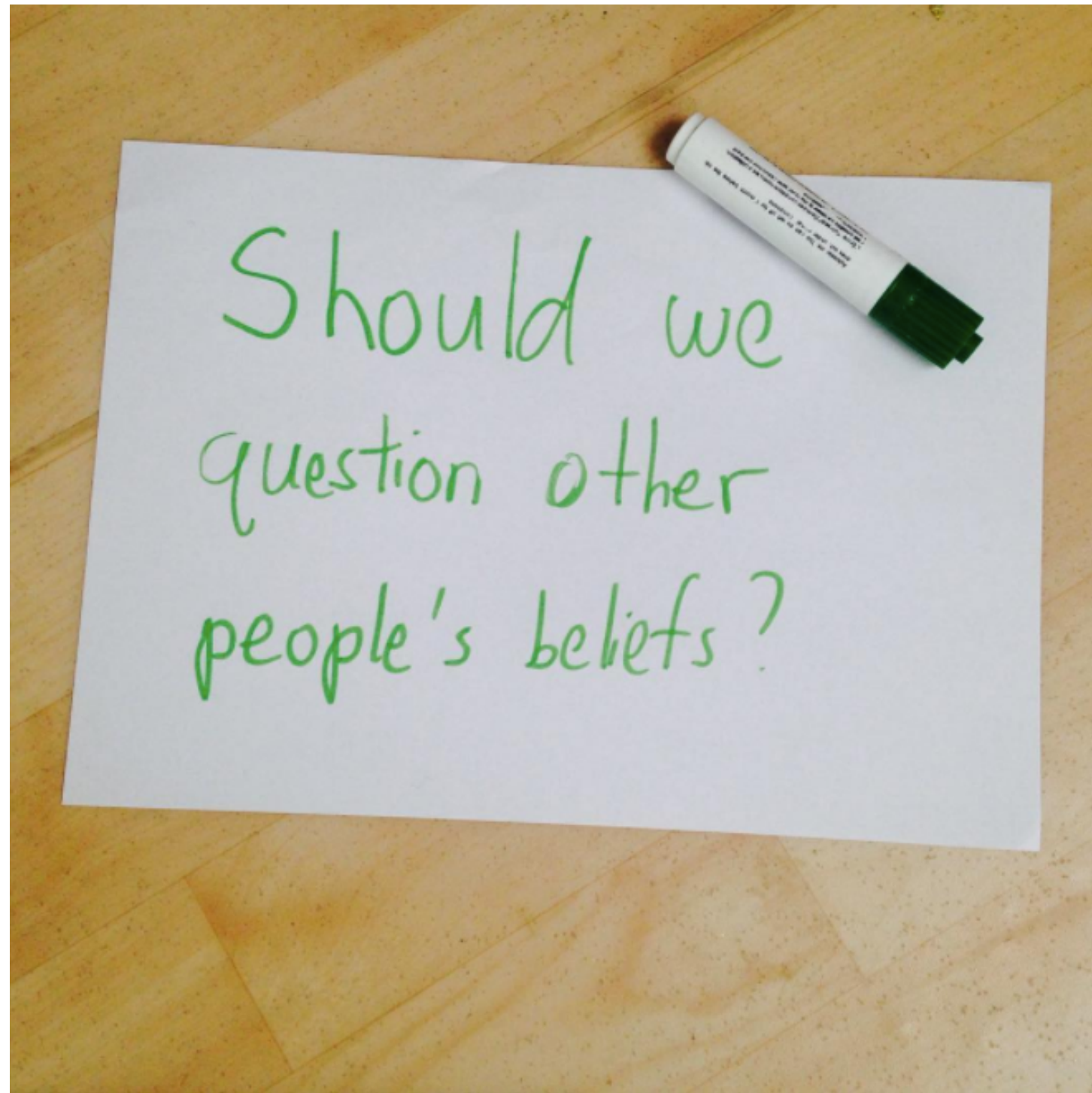
My Octopus Teacher

Directed by James Reed and
Pippa Ehrlich

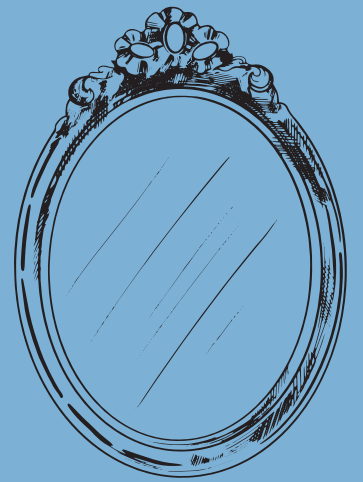
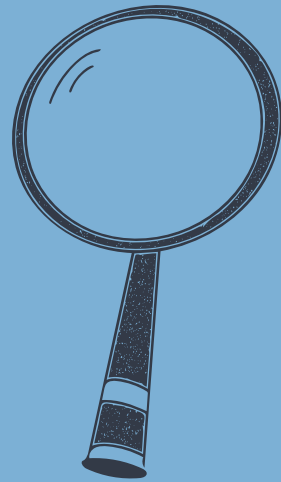
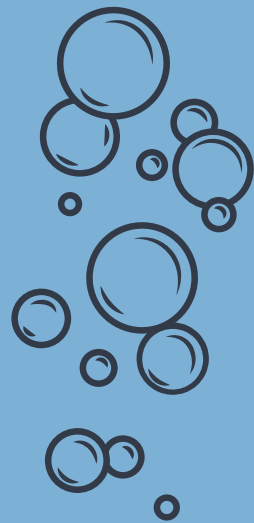
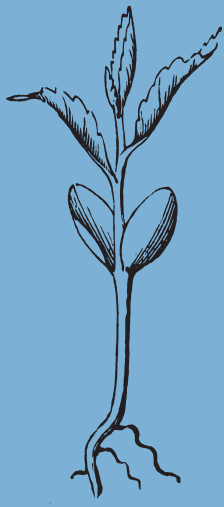


Ref: My Octopus Teacher (2020) [Film Trailer] Dir. James Reed and Pippa Ehrlich. Netflix. Available online at: <https://www.youtube.com/watch?v=3s0LTDhqe5A>





The model visualised



S

Share

A

Ask

P

Pick

E

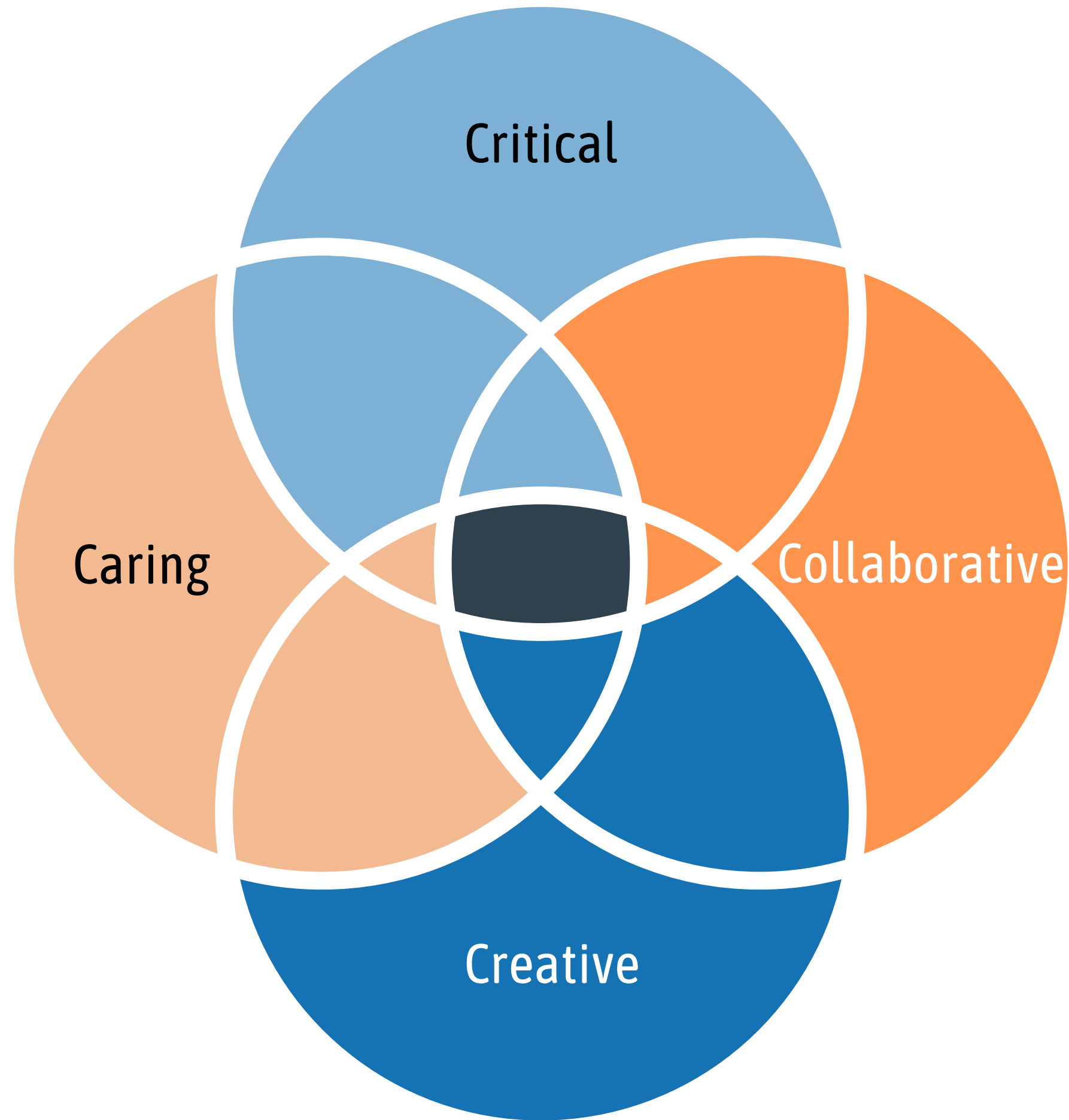
Explore

R

Refine

E

Evaluate



4Cs Method

How we philosophise

The 4 Cs of SAPERE's Philosophical Method

Critical Thinking

questioning, reasoning,
evaluating, weighing evidence,
making distinctions, testing
ideas, applying criteria

Creative Thinking

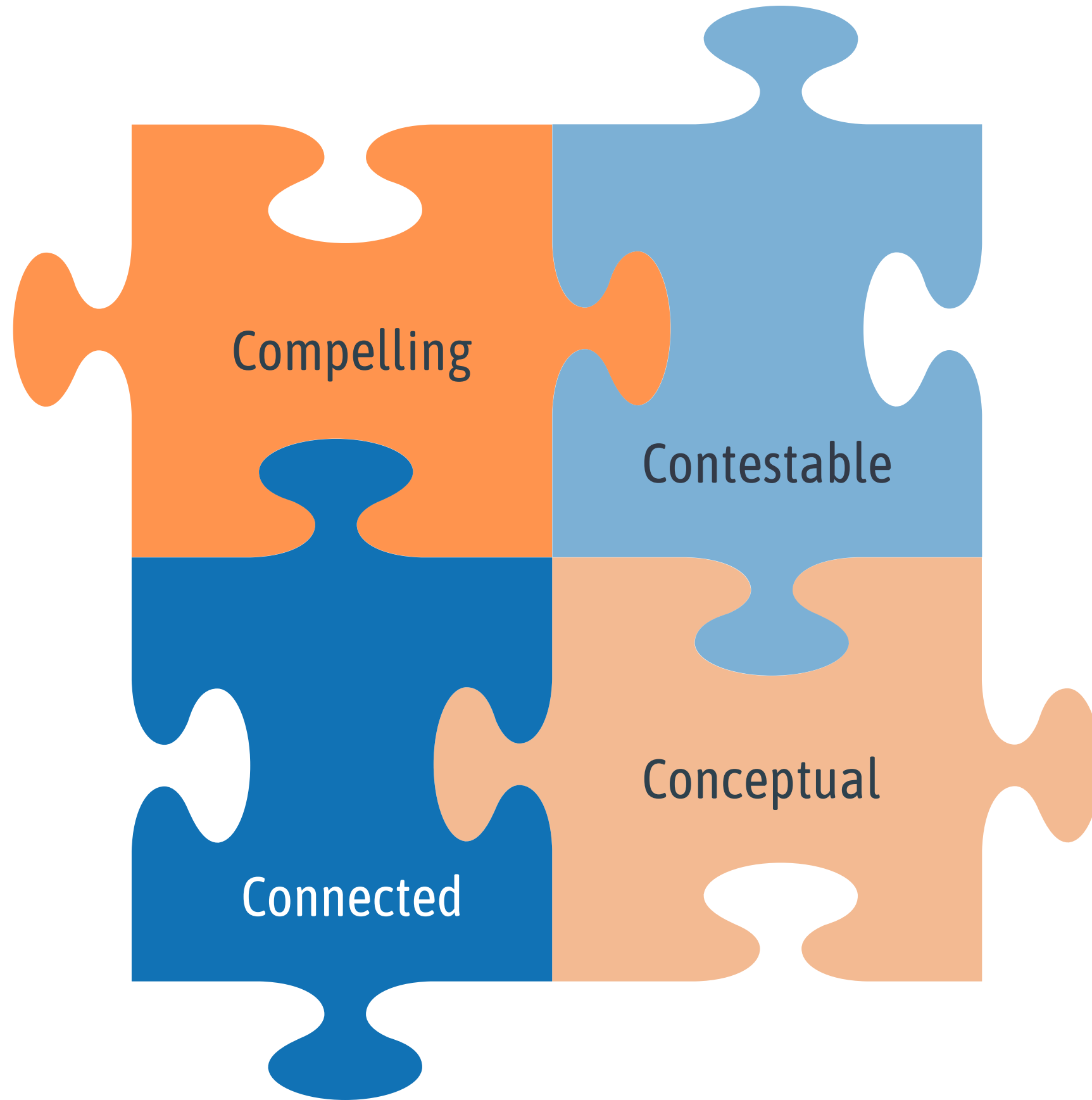
connecting, giving examples,
suggesting alternatives,
exploring possibilities,
considering perspectives

Caring Thinking

listening carefully,
appreciating, thanking,
showing interest, showing
sensitivity, waiting your turn

Collaborative Thinking

responding, supporting,
building on others' ideas,
inviting, sharing tasks,
negotiating, joining in



4Cs Content

What we philosophise about

The 4 Cs of SAPERE's Philosophical Content

Conceptual

about rich ideas, what they mean, why they are important and how they are relate to each other

Contestable

about debatable or unresolved issues where people disagree or take a range of views for good reasons

Compelling

about interesting and important topics that spark curiosity and seem worthy of participants' time and effort

Connected

related, relevant to and contextualised within the participants' age, stage, knowledge and experience.

**"Children who experienced
weekly P4C progressed in
reasoning, questioning, listening,
communication, understanding,
reading and behaviour"**

2004 Research

Prof Steven Tricky and Prof Keith Topping

University of Dundee

S. Trickey & K. J. Topping (2004) 'Philosophy for Children': A Systematic review.
Research Papers in Education 19, 3, 363-378.

**"FSM eligible children who
took part in P4C, made 4 months'
additional progress in reading,
3 months' in maths and
2 months'in writing"**

2015 Research

Dr Nadia Siddiqui and Prof Stephen Gorard

Durham University

Gorard, S., Siddiqui, N. & See, B.H. (2017). Can 'Philosophy for Children' improve primary school attainment?
Journal of Philosophy of Education 51(1): 5-22.

96% of teachers felt that P4C helped pupils to respect others' opinions

91% of teachers felt that P4C improved pupils' ability to question and reason

93% of teachers felt that P4C improved pupils' ability to express views clearly.

2021 Research

Pippa Lord, Afrah Dirie, Kelly Kettlewell and Ben Styles

NFER

**Research suggests that P4C has
"benefits for self-esteem,
self-confidence, active classroom
engagement, enjoyment in learning,
critical thinking, creativity,
commitment, social-communication
skills, social-emotional attitudes and
motivation to learn"**

2021 Research

Dr Nadia Siddiqui and Prof Stephen Gorard

Durham University



SAPER P4C

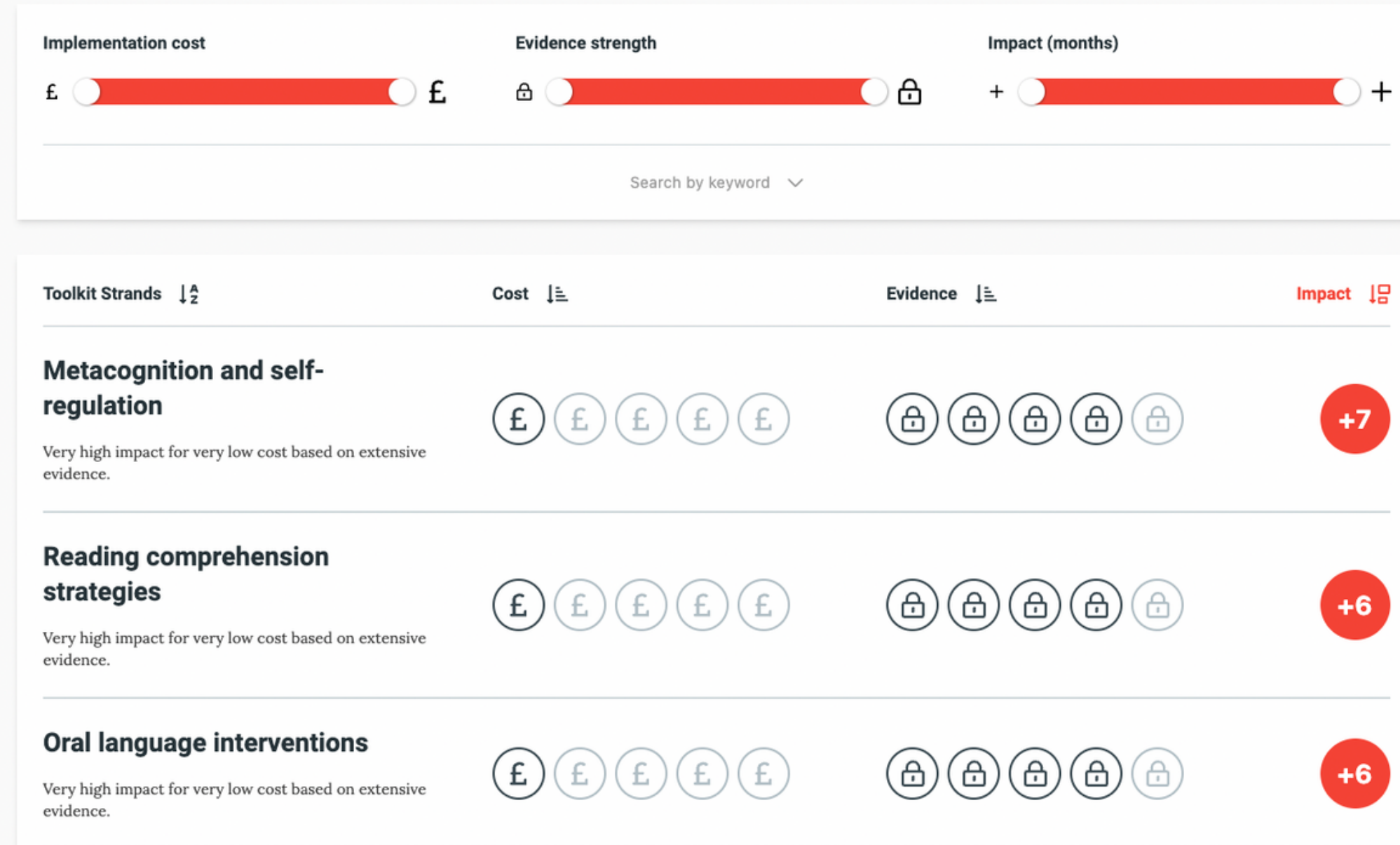
Siddiqui, N. and Gorard, S. and See, B. H. (2022) 'Can We Teach Non-Cognitive Outcomes? A Quasi-experimental Study of Philosophy for Children.', *Education Sciences*, 12 (5). p. 322.

Teaching and Learning Toolkit

An accessible summary of education evidence

Watch the Toolkit explainer

Read our guide to using the Toolkit



P4C and the EEF Toolkit

P4T: Jan's story

"Pedagogically, it changed how I taught, informed why I taught, and improved every aspect of teaching. Elements of P4C leached into every lesson, initially deliberately and latterly instinctively."



Thinking Together in Science and RE



[About Us](#)

[Our Priorities](#)

[Our Blog](#)

[Projects Database](#)

[Templeton Prize](#)

[Global Scientific
Conference on Human
Flourishing 2022](#)



BIG QUESTIONS
in CLASSROOMS

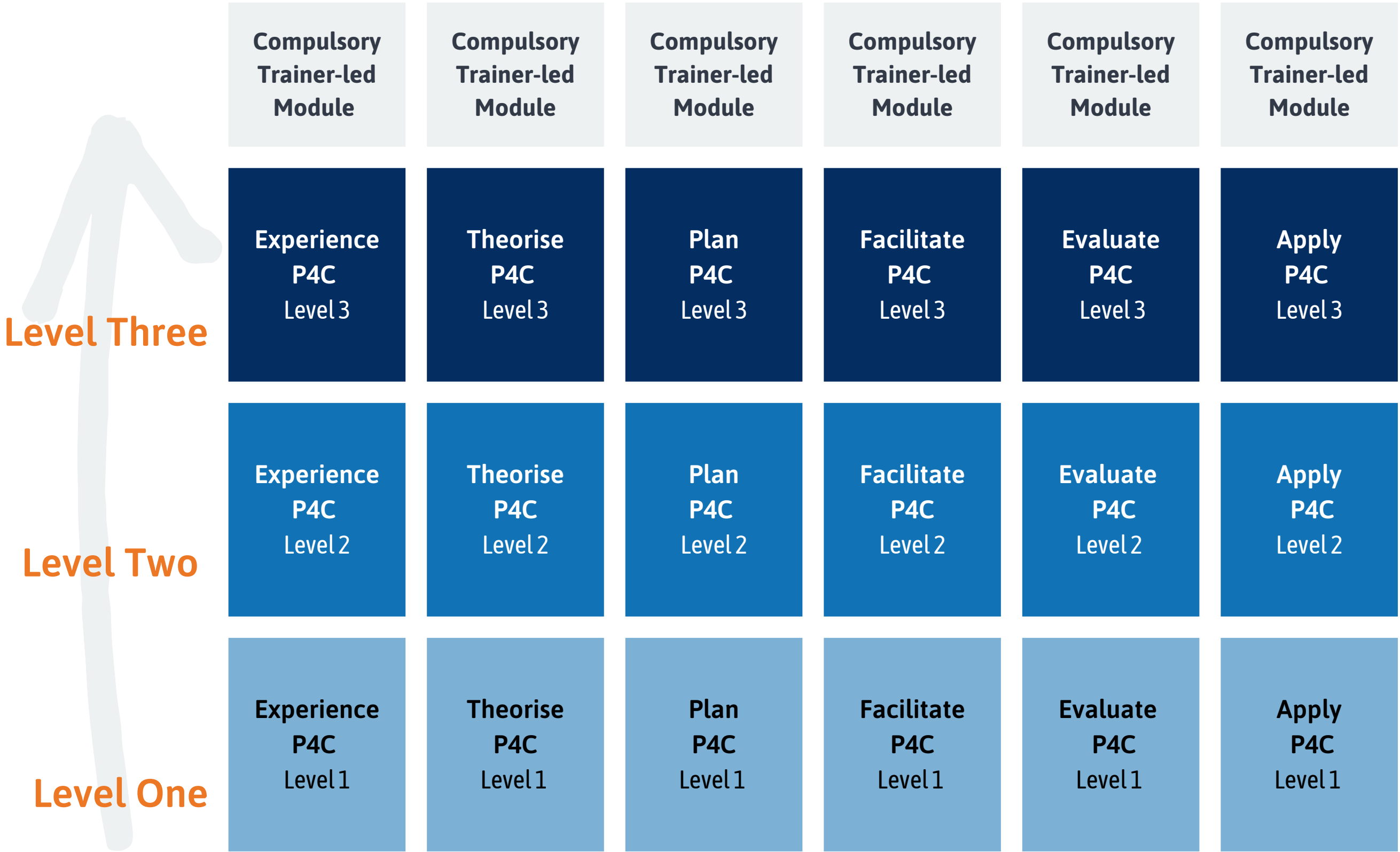


SAPERE Training Pathway

The SAPERE Training Pathway is designed to support educators to become skilful practitioners of P4C for the benefit of the children and communities they work with.

There are three levels of training in SAPERE P4C.

Delegates pass all modules at each level before they move up.



SAPERE Training Pathway

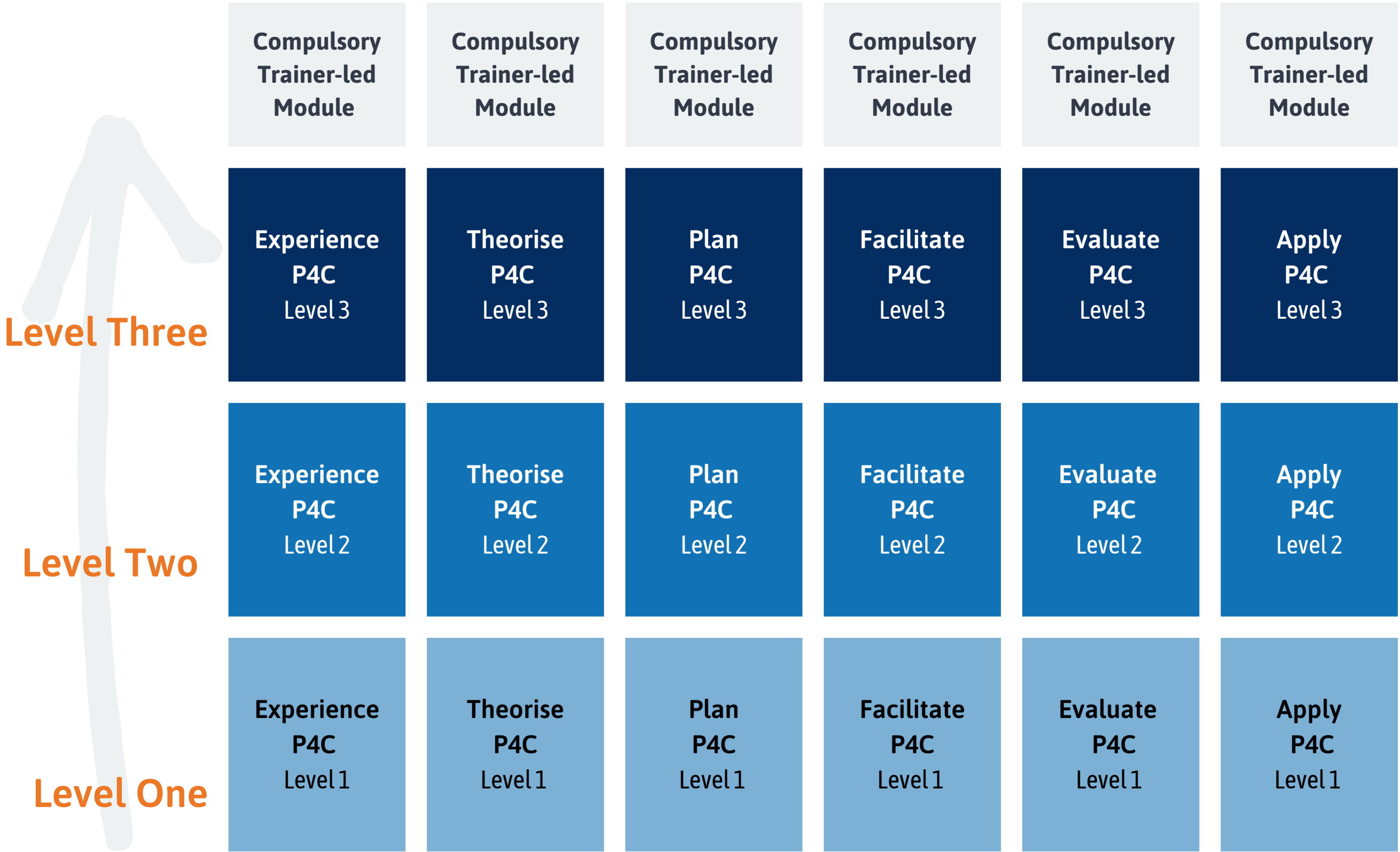
Achieves a certificate of attendance

This is a map of the core modules at each level.

Key competencies and important concepts are revisited in greater depth at each level.

Those who complete each level of the core course receive a certificate of attendance.

The content of each module is captured in pairs of self-review questions.



Our website

www.sapere.org.uk

Our socials

<https://www.facebook.com/SAPEREP4C/>

<https://twitter.com/SAPEREP4C>

Our colleagues

Contact Grace Lockrobin, our Director of P4C gracelockrobin@sapere.org.uk or Emma Leason our Schools Co-Ordinator emmaleason@sapere.org.uk



SAPERERE ^{P4C}