



Siddharth Shah & Dorothy Missingham

The University of Adelaide

Optimising Problem Solving: Students Adapting the RSD
so that it Would Speak to Students

OPTIMISING PROBLEM SOLVING:

STUDENTS ADAPTING THE
RSD SO THAT IT WOULD
SPEAK TO STUDENTS



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**“I’m inviting you to my seminar on Improving Your
Communication Skills. If you’d like to attend,
grunt once for yes or twice for no.”**

SIDDHARTH SHAH & DOROTHY MISSINGHAM
SCHOOL OF MECHANICAL ENGINEERING, THE UNIVERSITY OF ADELAIDE

Design, Graphics & Professional Practice

- Hand-drawn sketching
- CAD (Computer Aided Design)
- Creativity
- Product Design
- Oral & Written Communication
- Problem Solving
- Teamwork
- Research
- Project Management

Background

The Journey

Implementation

Reflections

THE COURSE GROUNDING

- Situated in active, inquiry based learning
- Grounded in a social-cultural constructivist environment
- Heavily influenced by Freirean concepts of democratic learning
- Informed by Mezirow's theory of transformative learning

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Experienced tutors devising DGPP design project topic



Tutor Selection Process

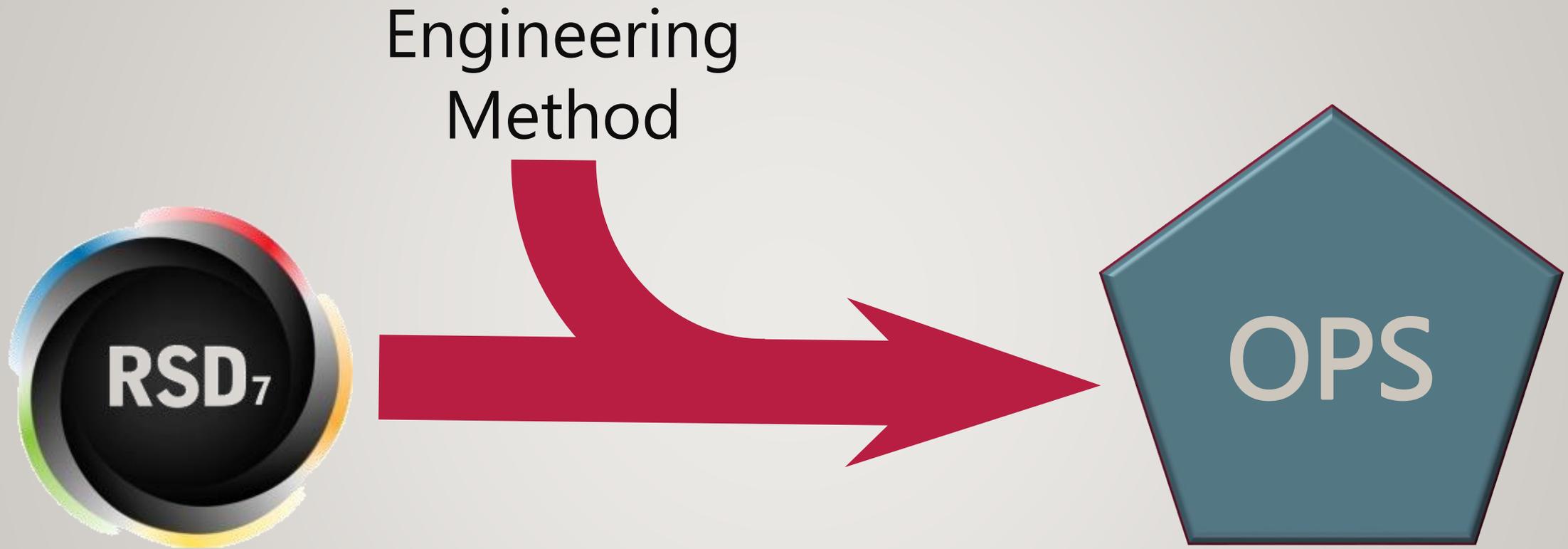
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OPTIMISING PROBLEM SOLVING (OPS)



Background

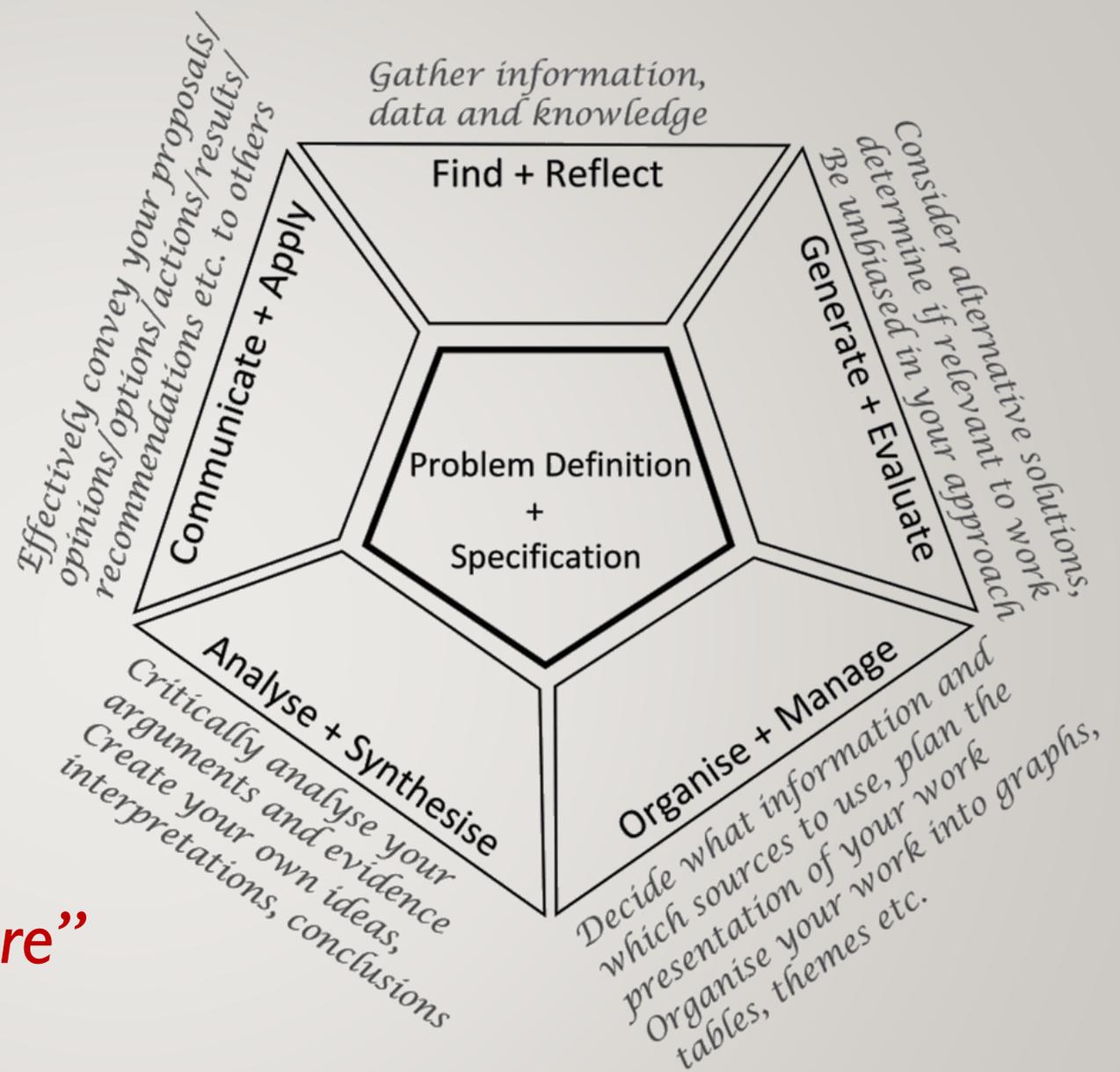
The Journey

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THE DEVELOPED OPS FRAMEWORK

*“When in doubt,
return to the centre”*



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INTRODUCING OPS TO STUDENTS



Sarah's Lecture

OPS Facets	Your Analysis
A. Define & Specify problem	Identify the problem- what does John really want?
B. Find & Reflect	Reading- looked, skim read - check spelling. intuition- have you seen something similar
C. Generate & Evaluate	Comparing , cross ref to <u>itself</u>
	Introducing ourselves Sorting, differentiating, assigning, classifying
	Logical reasoning, critical analysis- looking closely
	Speaking ./discussion. Listening- throwing out ideas- someone writing down



John's Lecture

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Bob



Mary



Jane

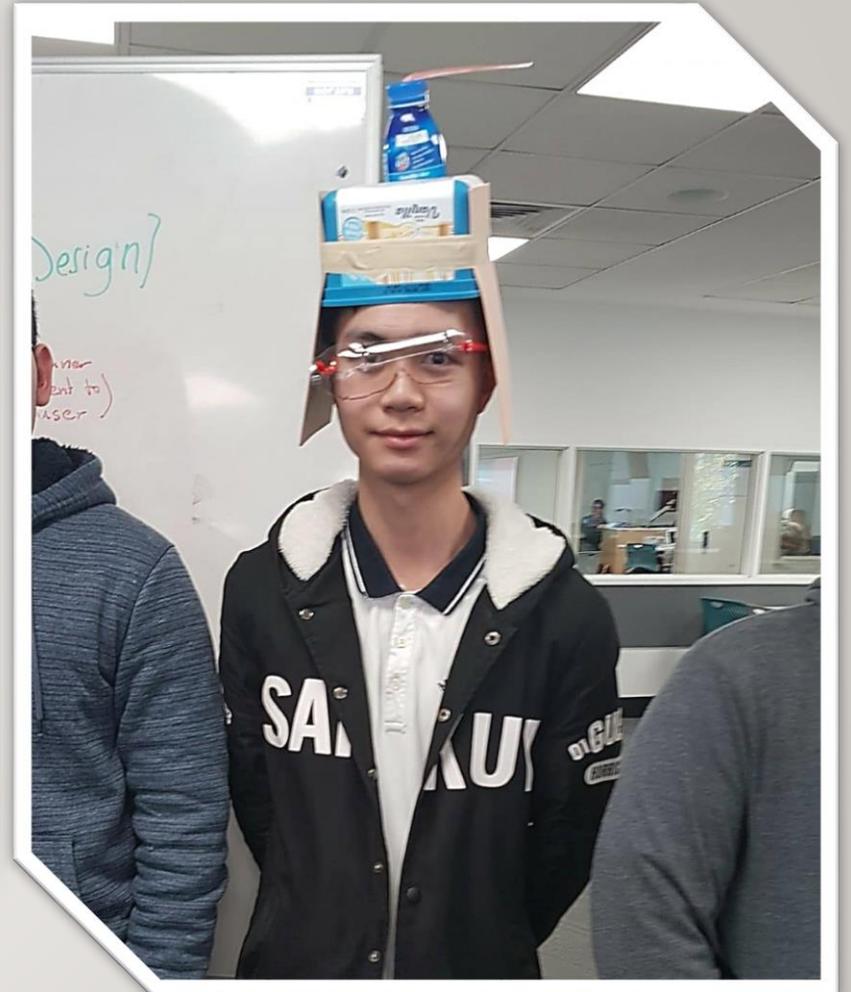
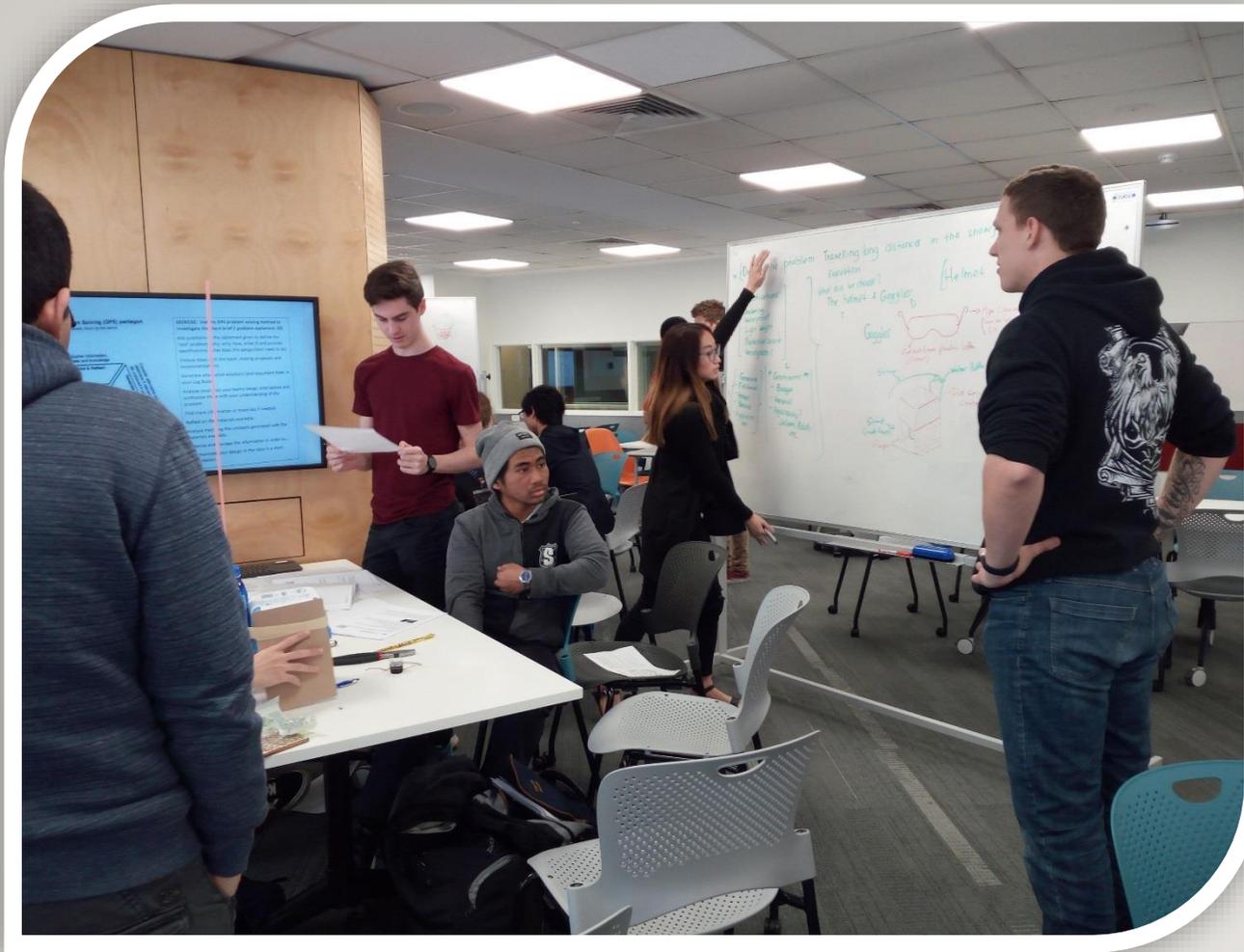
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ENGINEERING EMERGENCY



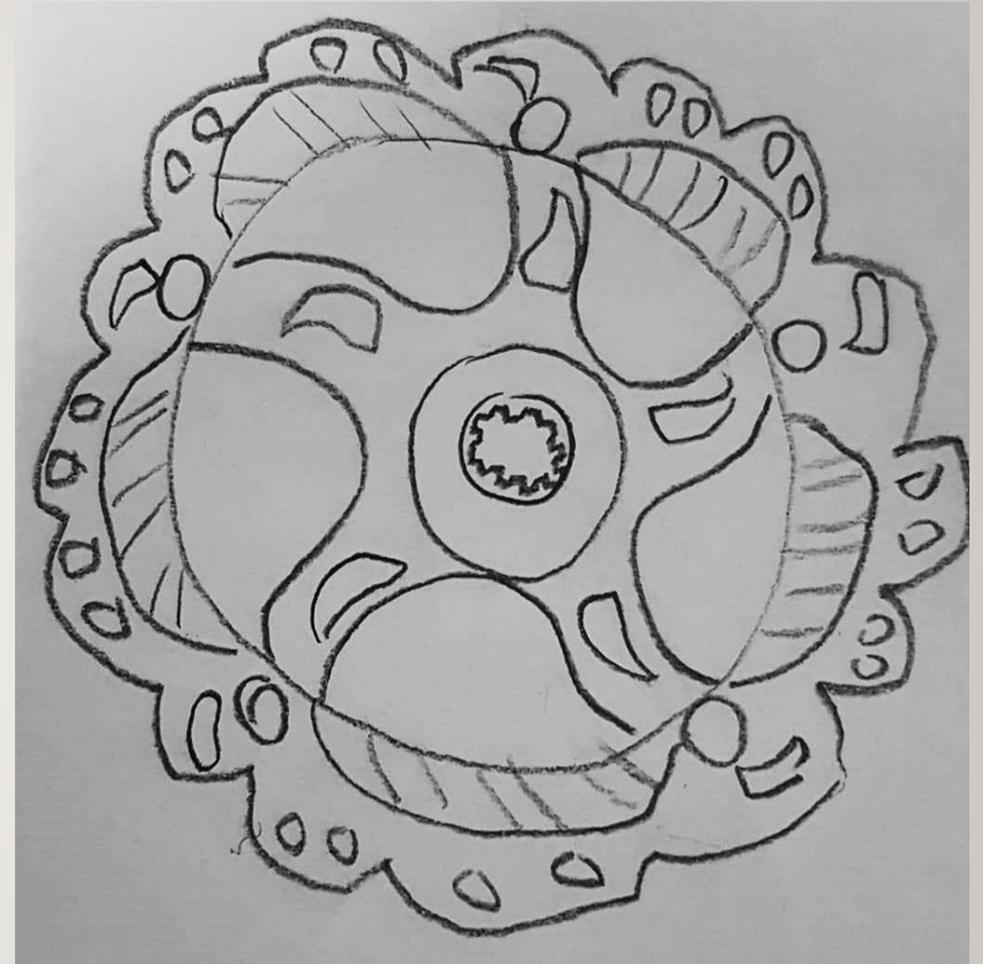
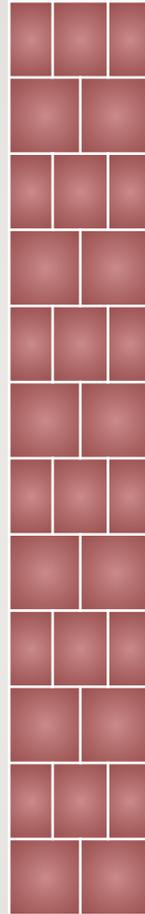
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BLIND DRAWING

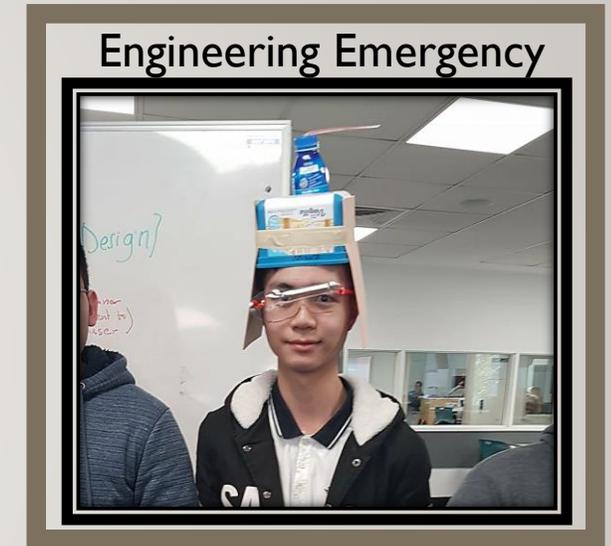
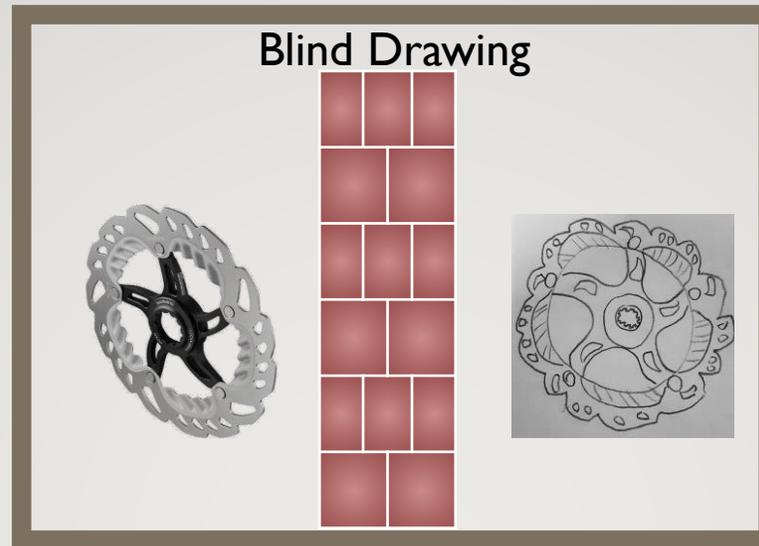
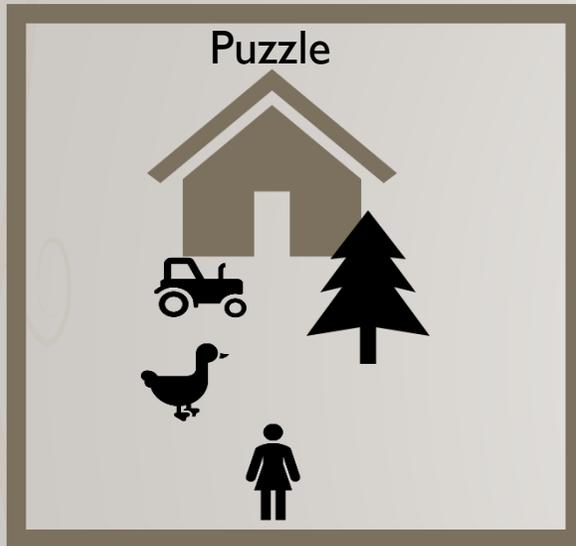


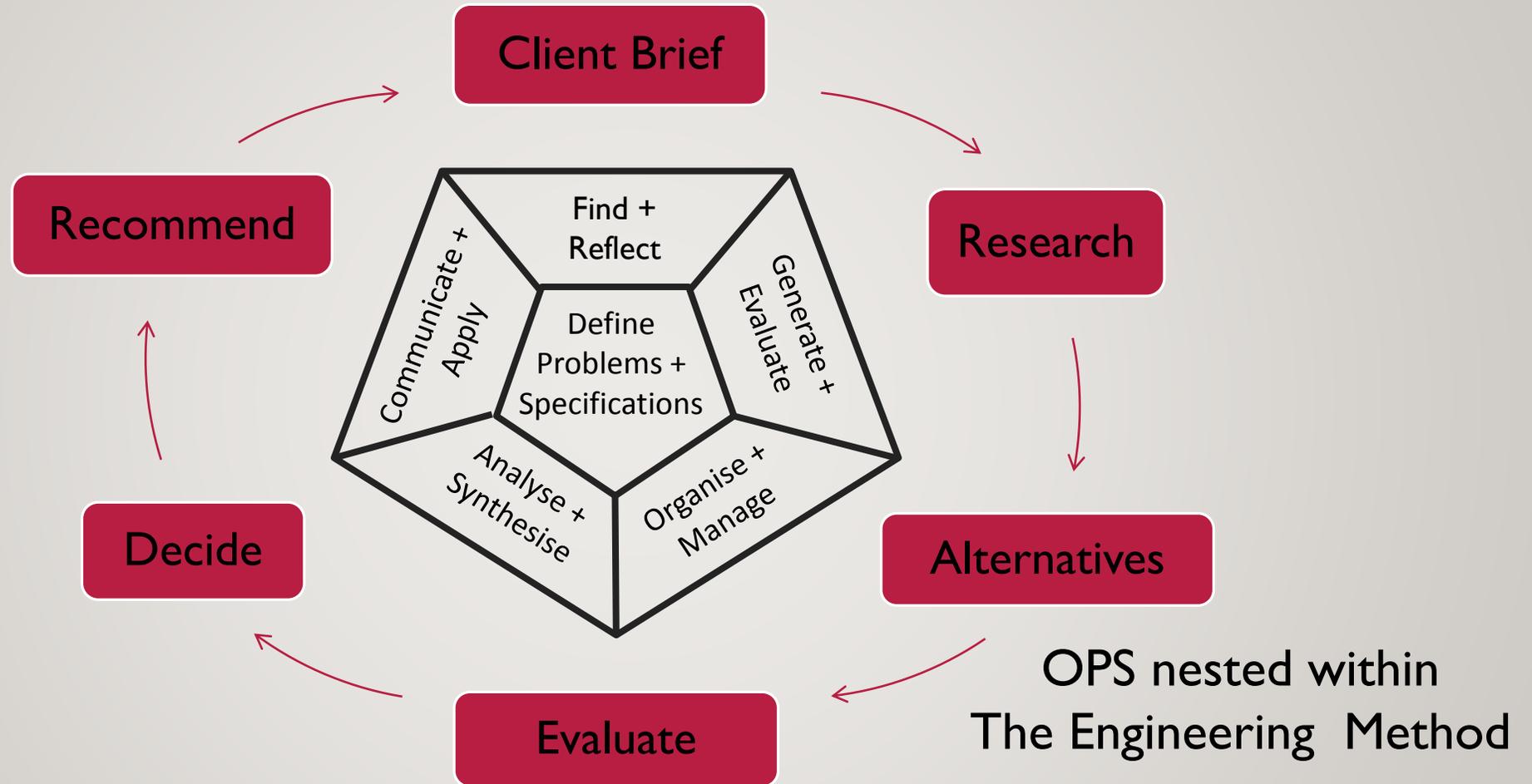
Background

The Journey

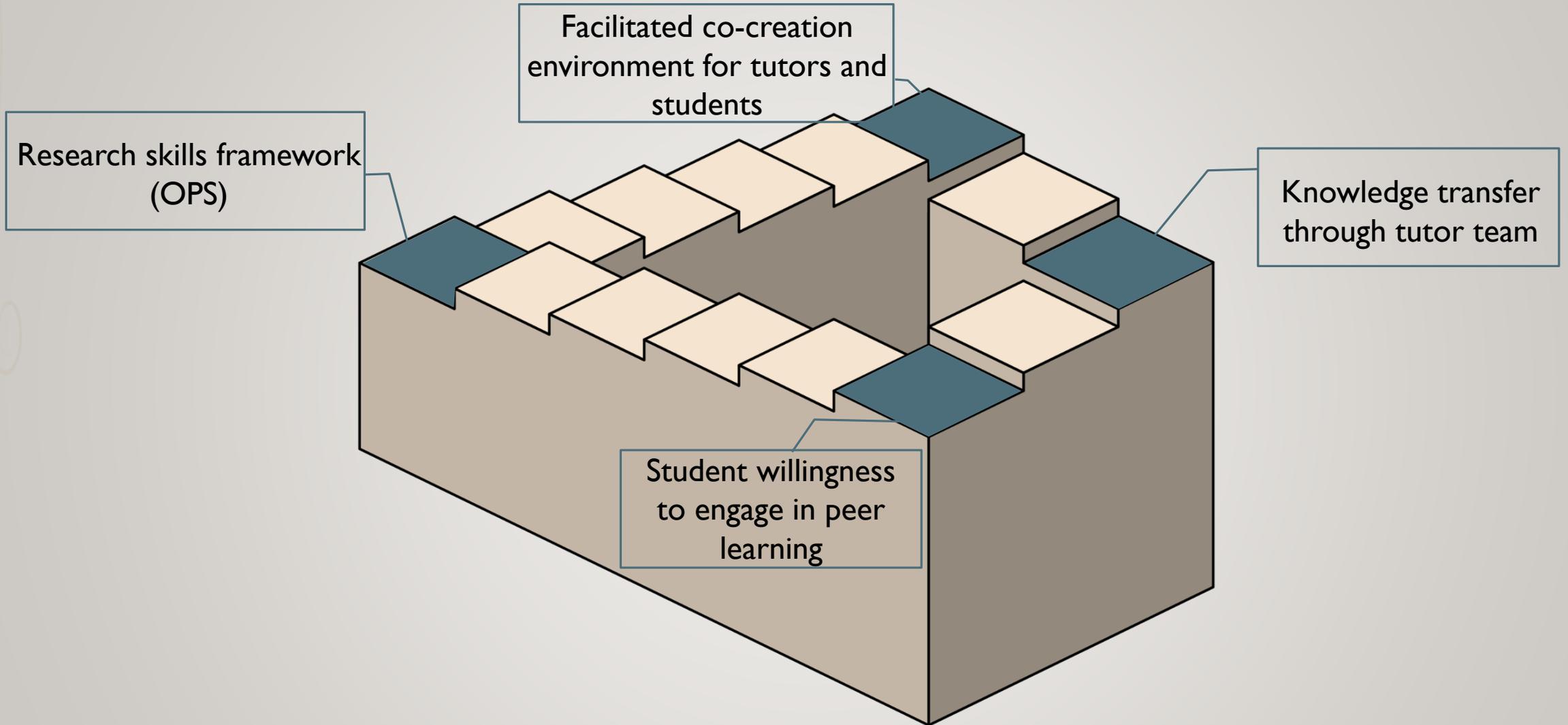
Implementation

Reflections





THE PENROSE STAIRS OF DGPP SUCCESS



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