



A professional development pathway
for teachers to teach mathematics
for, about and through problem solving

Ho Kai Fai

National Institute of Education,
Singapore
kaifai.ho@nie.edu.sg

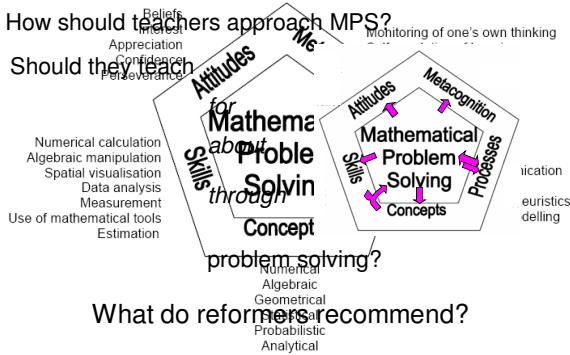
Introduction

- Problem solving should play a prominent role in the curriculum
- Many approaches to problem solving instruction
Eg: teaching **for** problem solving
teaching **about** problem solving
teaching **through** problem solving
- How do the 3 approaches overlay or underpin the role problem solving should play in the curriculum?

The case of Singapore math curriculum

How should teachers approach MPS?

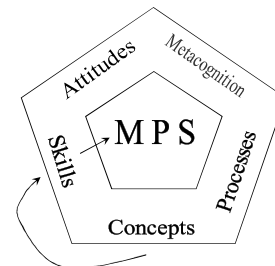
Should they teach



What do reformers recommend?

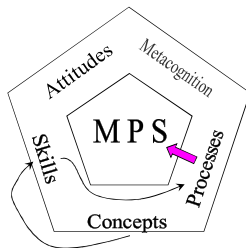
A professional development pathway

Extant practices of some teachers

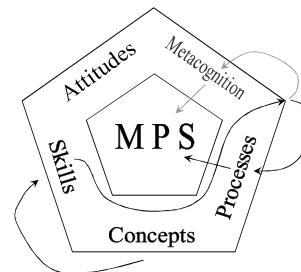


A predominantly 'teaching for problem solving' approach

A 2nd stage: teaching *about* problem solving

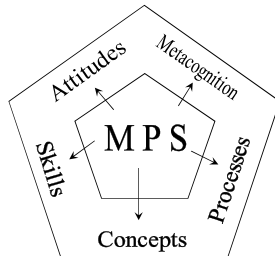


A more advanced stage of teaching *about* problem solving



How this approach might look like

The third stage:
Teaching *through* problem solving



Examples of problems

Discussion and conclusion

- How viable or feasible is the professional development pathway?
- Would teachers take it up? Why/why not?
- Should teachers adopt the teaching *through* problem solving approach?
- What is at stake?

Thanks!

Ho Kai Fai

National Institute of Education,
Singapore

kaifai.ho@nie.edu.sg