

Panel on Teacher Education

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ICMI Study 23

Primary Mathematics Study of Whole Numbers

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Common themes

- Increased emphasis on problem solving
- Role of and working with representations
- ***On the mathematics education agenda for many years***
- ***Mixed success***
- ***Singapore?***
- ***Scaling up?***

Is the question

- What could *teachers* do differently?
- What could *we* (teacher educators) do differently?

What is our theory of change?

- Choosing to improve is a rational decision
- Evidence that fear of loss may be a more powerful motivator than possible gain

What is our theory of action?

- Knowledge/beliefs → changed practice
- Context/conditions → action →
knowledge/beliefs adapted

WHITEHEAD ON LEARNING

Precision
Generality
Romance



Where is the $1/x$ button?

Opportunity to work on x^{-1}

Muttering

“But why would anyone ever want to do that?”

Romance



Romance

A sunset over the ocean with a boat and silhouettes of people. The sun is low on the horizon, casting a warm glow over the water. The sky is filled with soft, colorful clouds. In the foreground, a small boat is visible on the water, with several people standing on it. The overall mood is romantic and serene.

“If you want to build a ship, don’t drum up the men to gather wood, divide the work and give orders. Instead, teach them to yearn for the vast and endless sea.”

Antoine de Saint-Exupery