

# WS9 UNDERSTANDING LEARNING THROUGH TEACHING IN THE MATHEMATICS CLASSROOM

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Over the course of a teacher's career his/her focus of attention concerning the teaching process is likely to change, partly through necessity (e.g. due to the introduction of a new curriculum) and partly through gaining experience and expertise. Some practitioners appear to be more open to change their focus than others. But, just as it is recognized that different children respond to different learning styles (Sternberg, 1994), perhaps the same is true for different teachers and their ability to learn about, and modify, their teaching. Perhaps different catalysts are required for different individuals to initiate the process.

In 1997 Gal and Vinner's PME presentation led to a cross cultural study using videos of mathematics teaching in an Israeli classroom as an aid to teaching student teachers in Israel and the U.K. One of the most striking findings of the study was that the trainees in the two countries were drawn to different aspects of the practice they observed. A possible explanation is that none of those in the U.K. sample understood Hebrew and therefore, despite the use of sub-titles, the balance of oral: visual information was different to the situations in which they usually found themselves (Gal et al., 2003). Other strategies to engage teachers in thinking about their practice include the use of interactive CD roms as demonstrated by Sullivan and Mousley at PME 22.

This working session will actively engage participants in a range of activities (such as role play, observation and reflection) designed to promote alternative insights and discussion into how to stimulate teacher learning within the mathematics classroom.

## References

- Sullivan, P. and Mousley, J. (1998) Conceptualising Mathematics Teaching. In A. Olivier and K. Newstead (Eds.) *Proceedings of the 22nd Conference for the International Group for the Psychology of Mathematics Education*, Stellenbosch, South Africa
- Gal, H., Linchevski, L. and Cockburn, A. (2003) Sharing Materials for Teacher Training. In A. Peter-Koop and V. Santos Wagner (Eds.) *Collaboration in Mathematics Teacher Education*. Dordrecht: Kluwer.
- Sternberg, R. (1994) Allowing for Thinking Styles. *Educational Leadership*, 52, 36-40