

MATHEMATICS CLASSROOM STUDIES - MULTIPLE WINDOWS AND PERSPECTIVES

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In some ways, the Third International Mathematics and Science Study (TIMSS) Video Studies of 1995 (Stigler et al., 1999) and 1999 (Hiebert et al., 2003) may be said to be the impetus for classroom studies in many countries. These studies created an awareness of how vast video data were and the possibilities of endless rich analysis. They also stimulated thought and academic discourse, about the conceptual framework and methodology of such studies, which led to subsequent video studies like the Learner's Perspective Study (LPS) (Clarke, Keitel & Shimizu, 2006). This lecture will draw on mathematics classroom studies in Singapore, Hogan et al., (2013) and Kaur, (2009), and illustrate that using a particular frame (window) of analysis a "drill and practice" segment of a lesson was a "systematic consolidation of knowledge" segment when an alternative frame was used. It will also show that a "teacher-centred" lesson from one perspective was a "student-centred" lesson from another perspective and more. The lecture will end with some thoughts about what considerations are critical, for both the collection of video data and its analysis, when studying mathematics classrooms.

References

- Clarke, D., Keitel, C. & Shimizu, Y. (2006). The Learner's perspective study. In D. Clarke, C. Keitel & Y. Shimizu (Eds.), *Mathematics classrooms in twelve countries: The Insider's perspective* (pp. 1-14). The Netherlands, Rotterdam: Sense Publishers.
- Hiebert, J., Gallimore, R., Garnier, H., Givvin, K.B., Hollingsworth, H., Jacobs, J. ..., Stigler, J. (2003). *Teaching mathematics in seven countries – Results from the TIMSS 1999 video study*. U.S. Department of Education, National Centre for Education Statistics.
- Hogan, D., Towndrow, P., Chan, M., Kwek, D. & Rahim, R.A. (2013). *CRPP Core 2 research program: Core 2 interim final report*. Singapore: National Institute of Education.
- Kaur, B. (2009). *Student perspective on effective mathematics pedagogy: Stimulated recall approach study*. Singapore: National Institute of Education, Centre for Research in Pedagogy and Practice.
- Stigler, J.W., Gonzales, P.A., Kawanka, T., Knoll, S. & Serrano, A. (1999). *The TIMSS videotape classroom study: Methods and findings from an exploratory research project in eighth-grade mathematics instruction in Germany, Japan and the United States*. U.S. Department of Education, National Centre for Education Statistics.