

**UNDERSTANDING MATHEMATICS TEACHERS' COMPETENCIES
AS PERSONALLY, SITUATIONALLY AND SOCIALLY DETERMINED**

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Teacher research is growing. Large-scale assessments such as the “Teacher Education and Development Study in Mathematics (TEDS-M)” (Tatto et al., 2012) have triggered a series of national and international follow-up studies examining competencies necessary to teach mathematics. Substantial progress has therefore been made in understanding that teacher competencies are personally, situationally and socially determined.

On the individual teacher’s side, it is important to note that professional competencies are multi-dimensional in that they include knowledge, beliefs and skills facets, some of which are personal traits (i.e., relatively stable across different classroom situations) whereas others such as perception, interpretation and decision-making skills are more variable. Furthermore, teacher competencies play out in certain social contexts which determine how competencies are transformed into performance in a specific classroom or school. This interaction of personal, situational and social characteristics needs to be taken into account when teacher competencies are conceptualized (Blömeke, Gustafsson & Shavelson, 2015).

The different competence facets develop over time, for example during teacher education but also while teachers are in the profession and gain practical experiences. Thus, mathematics teachers’ competencies are not only a horizontal continuum including a range of facets but also a vertical continuum in terms of performance levels and developmental stages (Blömeke, Gustafsson & Shavelson, 2015). Growth and loss do not necessarily have to happen in the same way for all facets. This means that each mathematics teacher can be characterized through a specific profile of stronger or weaker dispositions, skills and performance.

Complementing this view, Blömeke and Scheerens (in press) included the social context and its impact on the transformation of teacher competencies in classroom performance. Teachers are shaped by social contexts such as teacher education and they work in social contexts such as a school or a country. This talk provides, thus, a multi-level, multi-dimensional conceptual framework of mathematics teachers’ competencies. Results from major studies – in particular the “Teacher Education and Development Study in Mathematics: Follow-Up (TEDS-FU)” (Kaiser et al., 2014) on the development of teachers’ professional competencies will be linked to this framework. Conclusions of what it means to understand competencies as personally, situationally and socially determined will be drawn for future research and pre-service/in-service teacher training.

References

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