

EVIDENCE-BASED CPD: THE GERMAN CENTER OF MATHEMATICS TEACHER EDUCATION (DZLM)

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Short description of the Discussion Group: aims and underlying ideas

Conceptualizing and developing CPD in an evidence-based way, meaning that strengths of different approaches to CPD are evidenced by empirical findings whether by means of quantitative or qualitative research methods, is challenging (Rösken-Winter, Hoyles & Blömeke, 2015). Even more demanding is spreading evidence-based CPD by scaling initiatives and innovations which then maintain themselves for an extended time period. In this regard, aligning research and policy as far as possible is crucial and demands CPD approaches on a systemic level (Hoyles & Mundi 2013). Following the examples of other countries, in Germany a center was established to implement such an approach. The DZLM (Deutsches Zentrum für Lehrerbildung Mathematik—German Centre for Mathematics Teacher Education) intends to provide high-quality CPD for mathematics teachers while settling principles and quality criteria to define CPD standards. The center gives particular emphasis to the research-based development of CPD courses while following a Design-Based Research approach. Aim and rationale of the discussion group are to focus on the development of CPD, thus to attend to conditions and requirements, on the one hand, and to outline how research perspectives can be pursued that contribute to our knowledge about effects and sustainability.

Planned structure:

During the two sessions short inputs are presented to guide the discussion:

Tuesday, 16.30-18.00: Planned timeline	Topic	Material / Working format / presenter
16.30 – 16.40	Introduction and overview on the structure of the DG	Slides; Bettina Rösken-Winter, Katja Eilerts,
16.40 – 16.45	Input: Research-based development of CPD	Slides; Petra Scherer, Rolf Biehler
16.45 – 17.00	Discussion on focus themes	Small group, plenum
17.00 – 17.05	Input: CPD for multipliers (master studies)	Slides; Anke Lindmeier, Katja Eilerts
17.05 – 17.25	Discussion on focus themes	Small group, plenum
17.25 – 17.30	Input: Consolidating international CPD networks	Slides; Katja Maaß, Günter Törner

17.30 – 17.50	Discussion on focus themes	Small group, plenum
17.50 – 18.00	Conclusion: Bringing the three strands together	Bettina Rösken-Winter, Katja Eilerts

Friday, 16.30-18.00: Planned timeline	Topic	Material / Working format / presenter
16.30 – 16.35	Looking back to session one	Slides; Bettina Rösken-Winter, Katja Eilerts
16.35 – 16.40 16.40 – 17.00	Input: Effects of CPD Discussion on focus themes	Slides; Lars Holzäpfel Small group, plenum
17.00 – 17.05 17.05 – 17.25	Input: Scaling at large Discussion on focus themes	Slides; Bettina Rösken-Winter Small group, plenum
17.25 - 17.30 17.30 – 17.50	Input: Out of field teaching Discussion on focus themes	Slides; Marc Bosse, Sven Schüler Small group, plenum
17.50 – 18.00	Conclusion: Bringing the three strands together	Bettina Rösken-Winter, Katja Eilerts

During the discussion the following questions will be addressed: Input 1: How can CPD be composed based on research findings? How can quality principles be assured in course designs? Input 2: What are the characteristics of CPD courses for multipliers? How can scaling efforts be pursued while addressing multipliers? Input 3: How can national efforts to systemize CPD offers be conveyed into international CPD networks and how can we learn from each other? Input 4: What do we know about effects of CPD and how can we measure impact of courses that contain many different aspects? Input 5: How can research contribute to ensuring that design and quality aspects endure scaling of statewide coordinated CPD? Input 6: What do we know about requirements of teachers teaching out-of-field and what are the essential research findings contributed from an international perspective?

References

Hoyles, C., & Ferrini-Mundy, J. (2013). Policy Implications of Developing Mathematics Education Research. In M. A. Clements, A. Bishop, C. Keitel, J. Kilpatrick, & F. Leung (Eds.), *Third International Handbook of Mathematics Education*. New York: Springer.

Last names of the authors in the order as on the paper

Rösken-Winter, B., Hoyles, C. & Blömeke, S. (2015). Evidence-based CPD: Scaling up sustainable interventions. *ZDM Mathematics Education*, 47(1), 1–12. doi:10.1007/s11858-015-0682-7.