

WG5: WNA connections with other areas

- Theme centrally focused on environments in which key ‘glueing’ ideas of mathematics related to WNA are featured. Across the papers and discussion sessions, these ideas encompassed multiplicative thinking and proportionality, measurement, generalizing, and mathematical models that attended to structure and generality.
- Central to some contributions, and implied or assumed in others, was the need to further develop teacher education in ways that promote understanding of connections and relations within and beyond WNA.
- Emphasis on the creation of representations such as actions, gestures, mental models and diagrams that construct mathematical relations



Thanks to all WG5 participants!

Hamsa and Sybilla

The focus for Working Group 5 was *Whole numbers and connections with other parts of mathematics*. In this chapter, drawn from the discussions in the ICMI 23 Study conference, we place emphasis on the ways in which connections within and beyond WNA were conceptualized. A central and recurring emphasis was on features that quilted together key ideas in the context of WNA, while allowing for extension beyond traditional WNA boundaries in terms of both mathematical content areas and mathematical thinking and working. Multiplicative thinking, encompassing proportional situations and functional thinking, was a key area of focus, with attention to definitions, models and task situations on the teaching side, and children's creation of representations on the learning side – of multiplicative situations. The need to