

TAKING THE DIDACTIC TRIANGLE TO THE NEXT LEVEL: A 3D HEURISTIC MODEL FOR ANALYSING SUBJECT SPECIFIC APPROACHES TO MENTORING

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School based mentors have an influential role to play in the training and education of novice teachers. However, nationally and internationally support for mentors is sparse and rather generic, at the expense of subject specific support (Barrera-Pedemonte, 2016), while the mentoring issues discussed and reported in the literature are mostly of a generic nature, more concerned with general rather than with subject-specific teaching situations. Within the specific context of mathematics classrooms, subject specific mentoring has not received much attention neither in the UK, nor internationally. To fill this gap, the current study was carried out with the aim of tapping into and learning from experienced mathematics school mentors. The research questions about the knowledge for teaching mathematics that mentors foreground when supporting novice mathematics teachers. Guided by the 2D didactic triangle theoretical construct (Straesser, 2007), an interview protocol was developed to probe into school mentors' views of the kind of knowledge, skills and values they aim to instil in their mentees (novice teachers), and aspects of teaching and learning mathematics they bring to mentor-mentee conversations were also sought.

In this oral communication, we report on how the data collected from three experienced mathematics school mentors indicates that the Mentor-Mentee-Subject-Students relationships are quite complex, and not well captured when interactions were described using the 2D didactic triangle. It emerged that the new 3D adaptation is a more nuanced model, with potential to draw attention to all its components, such as 'facets' and 'edges' of interactions (e.g., Mentor-Subject-Mentee & Mentee-Subject), all of which interact in complex ways when mentors and mentees work together with a focus of the specific subject content. The potential such heuristic has as a tool to help to structure and ground mentor-mentees conversation in relation to the specific subject taught will be discussed and exemplified with data collected from interviews with three experienced mentors.

References

- Barrera-Pedemonte, F. (2013). *High-Quality teacher professional development and classroom teaching practices: Evidence from Talis 2013*. Paris: OECD Publishing.
- Straesser, R. (2007). Didactics of mathematics: more than mathematics and school! *ZDM*, *39*(1), 165–171.