

Participation as both a discursive/positional and narrative/lived issue of shifting frontiers.

Assessment in mathematics is about being able to participate at a high degree. Although participation is a concept well-used in research in mathematics education, alongside with theories about acquisition (e.g., Sfard, 1998). These tend to focus on slightly different aspects of participation. However, what needs to be explored when actually all student's opportunities to display knowledge is put forth tends to be neglected. When one turns the analytical focus towards critical disability studies, the valuing of mathematical content seems to be lacking (Tan et al, 2018; Tan & Lambert, 2019). What does this imply?

This proposal explores the current frontiers of assessment through a model that privileges heritage in disability studies (Jansson, 2006; 2010). The model centers on prerequisites that stem from the interplay between the individual and the environment. These two generate the core elements for displaying and exploring levels of participation in the moment of assessment and for understanding the extent to which opportunity to display mathematical content is indeed enacted. The model has the potential to lead to the identification of borders between levels of participation and how the interplay between individual and environment affects the opportunities to display mathematical knowledge. Furthermore, it allows for identifying and exploring connections between or transgressions of borders. In other words, what kind of adaptations or support that is needed.

The model has been used to analyze a moment of national assessment in mathematics and in which a student worked with a special education teacher. During this, the movement between levels in the model revealed an interplay between levels of participation and the mathematical content. In order for this to happen, the relation between teachers and the special education teacher and student, was crucial. Adaptions and decisions were made instantly and ongoing by the special education teacher. Likewise, by looking at movements between levels of participation one realizes that the dynamicity of participation springs from an interdependence between caring and educating (both pedagogical and curricular) practices. I argue that in expanding or challenging today's frontiers of participation, there is a need to explore the interplay between lived personal experiences and the discourses on learning, knowledge, assessment and mathematics in society. Questions regarding how research can contribute to this dynamic interrogation and enactment will be discussed.

Jansson, U. 2005. *Vad är delaktighet, en diskussion av olika innebörder* [What is participation, a discussion of different meanings]. Department of Education: Stockholms University.

Jansson, U. 2010. *Delaktighetens villkor* [The Terms of Participation. Report of ongoing research project]. Department of Education: Stockholm University.

Sfard, A. 1998. "On Two Metaphors for Learning and the Dangers of Choosing Just One". *Educational Researcher* 27(2): 4–13.

Tan, P., R. Lambert, A. Padilla and R. Wieman. 2018. A disability studies in mathematics education review of intellectual disabilities: Directions for future inquiry and practice. *The Journal of Mathematical Behavior*, 54.