A Critical Review on Student Positioning in Mathematics Assessment Research

Multiple attempts in research to re-think mathematics assessment have failed to shift the structures of mathematics assessment. Assessment in mathematics remains largely based on summative tests; similar findings have been reported around the world. Earlier research suggests that teacher-driven assessment positions students as the ‘objects of assessment’ rather than as ‘active agents’ in their own learning (Boud & Falchikov, 2006). At the same time, it has been claimed that the lack of socio-political approaches in mathematics assessment research has further contributed to this ‘assessment stagnation’ (Niemenen, 2020).

In this study, we critically approach mathematics assessment, investigating how students are positioned in research concerning classroom mathematics assessment through a systematic literature review (2015-2020, N = 77). We draw on the Foucauldian conceptualisation of subject positioning to problematise and deconstruct the ‘natural’ opposition of assessee/assessor as constructed in the research articles. Subject positions are not roles or identities but fluid states that are constituted through discourses (Arribas-Ayllon & Walkerdine, 2008). Power constructs a reality in which students are positioned as subjects – as particular types of people. Subjects occupy stabilised positions within discourse and these positions control what can be done, said and thought within a certain sociocultural context; thus, within subject positions, certain kind of agency is enabled. Often, subject positions are made to look natural, which might further limit the agency of those positioned.

Through a discursive-deconstructive reading, we deconstruct students’ positioning in the research articles. What kind of agency is constructed for students in mathematics assessment research? We identify the discourses of measurement, psychologisation, performance and monitoring that construct the position of ‘the assessee’. We argue that all these discourses govern the formation of the ‘assessee’, and thus limit its agency.

Method
The study draws on a systematic literature review whose findings are synthesised through a theoretical approach. To offer a snapshot of contemporary mathematics assessment research, we sought for journal articles published between 2015 and 2020. Finally, we identified 77 articles (both theoretical and empirical) of which 59 concerned formative, 36 summative, and 6 diagnostic assessment (note the overlaps). Older students were overrepresented, as 29 of the studies concerned higher education, and 23 secondary education. The dataset was analysed through a discursive-deconstructive reading (Ikävälk & Brunila, 2019). This approach sheds light on unnatural binary oppositions such as assessee/assessor, active/passive and individual/communal that are often rendered stable and natural. Thus, it was suitable for analysing the unnatural opposition of assessor/assessee and how it was constructed in the dataset.

Expected Outcomes
Our findings indicate that the ideal ‘assessee’ is, above all, an individual, not a communal learner. The implications of our findings on both students’ and researchers’ positioning are discussed, calling for re-thinking student positioning in assessment as resourceful and communal thinkers and doers of mathematics. Finally, we call for reconceptualising mathematics assessment research as socio-political, non-neutral act. We situate our study
within the current COVID-19 pandemic, arguing that it offers an extraordinary context for the mathematics education research community to reflect on the consequences of non-agentic student positioning through assessment.

References


