

A case study addressing mathematics anxiety in an adult learner, drawing on mathematical resilience and self-determination theory

Sue Johnston-Wilder¹ and Kate Mackrell²

¹*Warwick University*, ²*Independent researcher*

In this paper, we bring together Self-Determination Theory (SDT) and mathematical resilience (MR) to address mathematics anxiety. We illustrate how MR tools can specifically facilitate learner emotion regulation, by developing mathematical learning competence, leading to greater wellbeing, learning and a release from mathematics anxiety.

Uncovering classroom power dynamics through student drawings

Mariam Makramalla

University of Cambridge

Underpinned by Freire's "pedagogy of the oppressed", this paper evaluates student mental imageries of power dynamics in the classroom with the help of a drawing activity. The activity was conducted with 60 students, who all study mathematics at the same Egyptian school, which in turn is governed by the national framework for mathematics instruction. The mixed-methods analysis was underpinned by the Draw a Science Teacher Test (DAST) as an analytical framework. Findings revealed a distant relationship between teacher and student a subtle sense of student inferiority, which seems to have turned into a normalised attitude.

From student scribbles to institutional script: Towards a commognitive research and reform programme for university mathematics education

Elena Nardi¹, Irene Biza¹, Bruna Moustapha-Corrêa², Evi Papadaki¹, Athina Thoma¹

¹*University of East Anglia*, ²*Universidade Federal do Estado do Rio de Janeiro*

We propose that commognitive analyses have the capacity to offer nuanced pedagogical evaluations through tracing and dissecting discursive shifts which occur as a result of medium/long term interventions. We present two example studies to support our proposition: commognitive analyses from both show how the discursive shifts orchestrated by these interventions generate new narratives about mathematics and its pedagogy, de-ritualised participation in mathematical routines and, ultimately, meta-level learning.

Higher Applications of Mathematics – how to teach statistics effectively

David Young¹, John Reilly² and Sue Pope³

¹*University of Strathclyde*, ²*Education Scotland*, ³*Scottish Qualifications Authority*

In Scotland, SQA is introducing a new Higher in Applications of Mathematics with the application of statistics a substantial part. The University of Strathclyde has secured funding from the Scottish Funding Council to develop an SCQF level 7 award in statistics for teachers of the new Higher.

Disclosure statement

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