**The effect of maths anxiety as a barrier to learning**

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**Purpose:**

Mathematics Anxiety (MA) is a debilitating emotional reaction to mathematics that is increasingly recognised in psychology and education (Carey et al., 2019). How students think and feel about themselves is argued to shape their behaviour, especially when facing challenging circumstances (Bandura, 1977). MA can emerge in any situation where mathematical thinking is required, resulting in those who experience it avoiding any kinds of mathematics situations and career activities involving mathematics (Carey et al., 2019). The purpose of this paper is to consider the effect MA can have on students with possible dyscalculia.

**Method:** My research followed a mixed-methods model utilising pedagogical action research for the improvement of practice in education (Norton 2014). It explored the impact of Mastery teaching on the thoughts and feelings of student teachers in their second year of a B ed degree as they complete a 10 week programme  on the delivery of the Primary Maths curriculum. Quantitative Data included pre and post questionnaires measuring MA and anxiety about teaching maths alongside weekly self-reports measuring four constructs of MA. Qualitative data was generated from semi-structured interviews were conducted mid-way during the intervention.

**Findings:** Whilst the findings indicated no statistically significant reduction in overall MA, the intervention group reported improved understanding and increased confidence over the course of the study. The qualitative data indicated positive participant responses to an alternative pedagogy suggesting potential strategies to alleviate some of the anxiety and potential for engagement. Building maths resilience and increased subject knowledge may assist in reducing barriers and having concrete manipulatives with peer support can increase self-efficacy and increase maths learning, highlighting the need for sustained interventions.