

Dr. Colleen Vale, Editor
Mathematics Teacher Education and Development

December 3, 2015

Dear Dr. Vale,

I am writing to submit a manuscript entitled “K-8 Pre-service Teachers’ Algebraic Thinking: Exploring the Habit of Mind Building Rules to Represent Functions” for possible publication in Mathematics Teacher Education and Development Journal. The 5704-word manuscript is not under submission to any other journal or publisher. We presented an earlier version of this work at the 35th Conference of the International Group for the Psychology in Mathematics Education in Ankara, Turkey.

We report on our research in which, through the lens of the algebraic habit of mind Building Rules to Represent Functions, we examined 18 pre-service middle school teachers’ ability to use algebraic thinking to solve problems. The data revealed that the pre-service teachers’ ability to use different features underlying the habit of mind Building Rules to Represent Functions varied across the features. Significant correlations existed between eight pairs of the features. The ability to justify a rule was the weakest of the seven features and it was correlated with the ability to predict patterns and the ability to chunk information. Our findings provide implications for teacher education by suggesting that helping pre-service teachers strengthen their algebraic thinking might be aided by targeting learning activities at appropriate groups of features.

I hope you find the manuscript interesting and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Marta Magiera". The signature is written in a cursive, flowing style.

Marta Magiera