



Editorial from Małgorzata Marciniak, a Managing Editor

It has been year since I began my duties as a Managing Editor of the Mathematics Teaching Research Journal and I treasure every minute of it. The journal has been going through numerous transformations to match the digital standards of modern times. We have been working on our webpage and hoping that it will be updates soon. The current volume, V10 N2, of the Mathematics Teaching Research Journal

The summer edition of volume 10 contains articles about creative pedagogy, analytical approach to assessment, student research initiative, and a review of a popular mathematics book.

The article “Teaching Middle School Mathematics through Robotics Project-Based Learning” by B Falk and L. Columba discusses robotics project in the middle school mathematics classroom and outside. The authors interviewed two robotics program mentors and analyzed findings from their reports. As the final conclusion, the authors make a suggestion for increasing the efforts of investigating whether teaching the students robotics increases their learning in mathematics.

In their article “Methods of Mitigating the Effects of Stereotype Threat on Female Students’ Mathematics Performance in a High School Geometry Classroom” A. Chodnowsky and L. Columba uncover the lack of awareness of the gender threat among students and teachers. The authors performed three surveys in a 20-student classroom and create three hypotheses for their work: students are aware of the stereotype; students are not aware of the stereotype threat; students are not aware of the impact of the stereotype threat on their performance. In their conclusions they point out that the good intentions of the teacher are the crucial factor in influencing the performance of the female students regardless the awareness of the stereotype.

J. A. Telese in his article “The Relationship Between Assessment Practices and Hispanic and White Eighth Grade Students’ Mathematics Achievement: An Analysis of 2013 NAEP Data” examined data from the 2013 NAEP eighth grade mathematics assessment. He performed multiple regression analyses to examine the relationship between the frequency of use various assessment strategies and student mathematics achievement. The results of his work show that Hispanic students’ mathematics performance was at a lower level than non-Hispanic (White) students. What is the most interesting in his article indicates that both groups of students had lower mean composite scores as the reported frequency of assessment increased. The findings of the article suggest that formative assessment strategies have a negative relationship with the Nation’s eighth

grade mathematics students. This result calls for additional reflections on the amount of the assessment and its alignment with other teaching tools.

This volume continues the recent tradition and contains a book review. The book “Prime Obsession: Bernhard Riemann and the Greatest Unsolved Problem in Mathematics” written by John Derbyshire was reviewed by a veteran of popular mathematics book reading, Roy Berglund. Hopefully the tradition will continue in further volumes since the amount of mathematics books on the market is currently overwhelming but only some are truly amazing.

The article “Creating Undergraduate Research Opportunities Through Interdisciplinary and Intercollegiate Collaboration” by M. Powell presents an Illinois initiative, The Intercollegiate Biomathematics Alliance that brings together students and faculty in their efforts of shared research projects in biomathematics. One of their major ways of developing undergraduate research is through a research workshop. Projects are initiated by faculty inviting students to collaborate with them, and students are provided the opportunity to present their work at a national conference and publish in a peer-reviewed journal. The article describes the details of the research workshop and give insight into contributions to both the success and challenges of successful research with undergraduate students.

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