

MATHEMATICS TEACHING-RESEARCH JOURNAL ONLINE VOL 8, N 3-4 Fall and Winter 2016/17

Editorial

Colleagues, we have two more Aha! Moments submitted to our collection, one from Korea in the geometrical context, and another from Poland during the process of understanding the concept of unknown while learning linear equations. We present them bare, without yet any attempt at interpretation. Soon we will interpret the whole collection to see how Piagetian theories and Koestler theory understand them.

Next we have an interesting article from Lehigh University in Bethlehem, PA which investigates the CCMS professional development for pre-service teachers' impact upon teachers beliefs. Unfortunately, Common Core curriculum has been a bit compromised due to the overemphasis on testing and the inability of testing industry to guarantee technological support for that testing. Lynn Columba and Megan Stotz, in their excellent and optimistic presentation, show that such an impact indeed exists. Our own belief is that unless such a PD is closely connected to practice, even for pre-service teachers, it will not leave lasting impression. It is an appropriate moment then to introduce our "refurbished" Teaching-Research/NYCity methodology (TR/NYCity Model), which with the incorporation of Koestler's bisociativity theory grew in the Chapter 1 of the Creative Enterprise of Mathematics Teaching Research book published recently by Sense Publishers in Netherland announced on the MTRJ website.

As immediate examples of the Teaching-Research/NYCity model we present two papers coming from technical fields at Hostos CC, Mathematics Department and Radiology Unit of the Urban Health Department. Both of them originated through the reflection on teaching mathematics at Hostos CC and propose new approaches based on that reflection, first proposes a method of integrating trigonometric integrals without the use of sec, cosec, and cotan, but solely using sin and cos functions. As the authors, Terry Brenner and Juan Lacay say *By concentrating on cosine, sine and tangent rather than all six trigonometric functions, you will attain a better understanding with less clutter in your mind*. The second paper, by Jarek Stelmark addresses difficulties in understanding inverse square law by students radiology. He supported the concept of the Inverse Square Law by 3 labs exercise for student showing a very direct connection between the law, the time of exposure to the radiation and involved mathematics. He noted increase of understanding by a pre-test/post-test method.