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Andrew Bucki* (ajbucki@langston.edu), Department of Mathematics, Langston University, Langston, OK 73050, and **Abebaw Tadesse**. *A successful new educational program in Mathematics for STEM-C*. Preliminary report.

In this talk we will present successfully tested New Educational Program in Mathematics (NEPM) for STEM-C disciplines. The program employs an innovative and transformative NEPM based on computational thinking with partnership and programming approach to the pedagogy and content of the traditional methods of teaching and learning mathematics including computing sciences.

The fundamental difference between the traditional educational program and the proposed one is that our program makes students active learners, constantly thinking, as if they were talking to a computer instead of rotely transcribing solutions to worked out examples by the instructor. Our approach thus makes it natural to think that they have to create programs to communicate with a virtual computer which, in turn, allows them to translate a definition or property or formula into a computer program. This communication of a concept to a virtual computer is key to increasing the student's conceptual understanding of a mathematical idea. A positive byproduct of this approach may be a greater inclination to further study of computer programming by students.

Some examples illustrating the ideas of the program will be presented. (Received August 13, 2014)