

**ZMATH 2015f.00974**

**Gadanidis, George**

**Coding as a Trojan horse for mathematics education reform.**

J. Comput. Math. Sci. Teach. 34, No. 2, 155-173 (2015).

Summary: The history of mathematics educational reform is replete with innovations taken up enthusiastically by early adopters with-out significant transfer to other classrooms. This paper explores the coupling of coding and mathematics education to create the possibility that coding may serve as a Trojan horse for mathematics education reform. That is, once we accept that young children are able to learn complex and abstract coding concepts, such as algorithms, loops, variables and conditional statements, then we are more likely to accept that they can learn more complex and abstract ideas of mathematics. In addition, coding is a natural fit to mathematics, as it can be used to model and investigate mathematical relationships and as coding and mathematics have a shared logical structure.

*Classification:* P20 P50 D30

*Keywords:* educational reforms; coding; algorithms; simulation