

**ZMATH 2014c.00365**

**Teixidor-i-Bigas, Montserrat; Schliemann, Analúcia D.; Carraher, David W.**

**Integrating disciplinary perspectives: the Poincaré Institute for Mathematics Education.**

Math. Enthus. 10, No. 3, 519-562 (2013).

Summary: We describe the development of the Poincaré Institute, an NSF-MSP supported program developed through Tufts University Departments of Mathematics, Education, and Physics and by TERC, in partnership with nine school districts in Massachusetts, New Hampshire, and Maine. We focus on the challenges of developing an interdisciplinary program aimed at improving the teaching and learning of mathematics from grades 5 to 9, the choice of mathematical and educational content of the program, the course structure, and the progress of the first cohort of participant teachers. We also outline the changes we are implementing for future cohorts.

*Classification:* D39 B50 M19

*Keywords:* lower secondary; teaching; inservice teacher education; interdisciplinary approach; middle school mathematics; elementary algebra; functions as core concept; algebraic reasoning; collaboration between mathematicians and educators; professional development; research; content selection; representations; transformations; invariance and change; mathematical model building; real life applications; mathematical applications; everyday mathematics

[http://www.math.unt.edu/tmme/vol10no3/3.TMEvol10no3.iBigasetal\\_pp519\\_562.pdf](http://www.math.unt.edu/tmme/vol10no3/3.TMEvol10no3.iBigasetal_pp519_562.pdf)