

# Online Self-directed Professional Development Courses for K-12 Math and Science Teachers

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Abstract:

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Teachers' professional development is not new, nor is online learning. Demands for online teacher professional development has rapidly increased in the past 25 years, with the proliferation of the Internet and information technology. According to the Wayfind 2011-2012 of Georgia teachers, k-12 teachers in math and science both recognized needs for professional development in certain content areas. In addition, the results also show the need for professional development in using technology in classroom teaching. Therefore, the Center for Education Integrating Science, Mathematics and Computing (CEISMC) and the Georgia Department of Education started developing a series of math and science online professional development courses since 2011. By the end of 2012, eight online professional development courses will be developed and ready for delivery. This brief paper endeavors to share tips, lessons, and experiences that have been learned during this process of development.

## Introduction

- Self-paced Learning
- Online Learning
- Course Content Design
  - Background
  - Course Components: General Structure and Features for Self-paced Learning
- Online Course Standardization: Format, Copyright issues, use of video and pictures, citation
- Collaboration and Cooperation: Dos and Nots