

Preparing Teachers to Teach for Deep Understanding: A Curriculum-Based Approach

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Summary

A central goal of most professional development in Earth science is to help teachers prepare their students to develop a deep understanding of subject matter. In this article, we describe an approach that accomplishes this goal by preparing teachers to use a principled approach to adapting high-quality curriculum materials for middle-school Earth science units. This approach integrates training in how to use the American Geological Institute's Investigating Earth Systems curriculum with TERC's Earth Science by Design program to help teachers become better designers of curriculum. Evidence from a randomized controlled trial indicates the approach is effective in improving the quality of teachers' assignments and in improving student achievement. From district staff's point of view, the program is effective because it prepares teachers to become critical consumers of curriculum materials.

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