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How common is the common core? A global analysis of math teaching and learning.

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Summary: The U.S. educational system is undergoing rapid and substantial changes with many states grappling with the adoption of the Common Core State Standards in Mathematics (CCSSM). Important research questions remain unanswered regarding the potential efficacy of the CCSSM to improve student math performance compared with students around the globe. This article utilized TIMSS 2007 8th-grade math assessment results and curricular frameworks to (1) measure the degree of overlap between the CCSSM and TIMSS standards, and (2) use this finding to create a predictive model to determine the potential efficacy of the CCSSM in improving the U.S. 8th-grade student math performance compared with six culturally matched, TIMSS-assessed countries, provinces, and states. Comparisons of CCSSM and TIMSS-assessed jurisdictions show that the CCSSM holds many items in common with TIMSS-assessed jurisdictions, but lacks rigor in some key areas. The CCSSM deficiencies include algebraic knowledge and problem solving at the 8th-grade level, and are a significant detractor from the CCSSM when compared with TIMSS.

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