

Too Little Too Late: American High Schools in an International Context

William H. Schmidt

Recently, increasing attention has become focused on the inadequacy of the American high school experience for adequately preparing individuals for the jobs of the future as well as for life more generally. This inadequate preparation is explored primarily through the findings from the twelfth grade portion of the Third International Mathematics and Science Study (TIMSS) with supporting evidence coming from the most recent National Assessment of Educational Progress (NAEP) Reports in the areas of mathematics, science, US history, civics and geography. The paper focuses on definitions of mathematics and science literacy, the degree to which students in the United States can be considered to have achieved any sort of literacy in these areas, and examines the curriculum connection in the development of this literacy. The development of mathematical and scientific literacy over grade levels is examined using TIMSS data. The relationship of high school course taking to twelfth grade literacy in mathematics and science is not only viewed as the culmination of the high school experience but this is also viewed in the international context of TIMSS and as the culmination of an educational system that is characterized by a splintered vision. TIMSS revealed that the mathematics and science literacy of United States twelfth grade students was quite poor by international comparison, statistically outperforming only Cyprus and South Africa. Proficiency in these two areas is critical not only to the future success of graduating seniors but to the national workforce. The U.S. technology sector, which accounted for nearly one third of the national's economic growth over the past few years, had to employ over one and quarter million individuals who were foreign educated in order to fill an unmet need because of inadequate preparation in basic mathematics and science on the part of the US education system. Specific policy issues are discussed relative to the comparatively poor level of literacy the U.S. education system fosters in the cumulative sense together with high school specific policies that fail to stipulate important and rigorous standards for all students.