West Virginia Department of EDUCATION
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A Cohort Study of Arts Participation and Academic Performance

Students who earned two or more arts credits during high school were more likely to score at proficient levels for mathematics and RLA, and to score at or above the national average composite score on the ACT PLAN.

While few students with disabilities reach proficiency in reading/language arts, they were up to twice as likely to do so if they exceeded the minimum number of arts credits required for graduation.

Participation in more than the minimum arts requirement is associated with higher proficiency rates at graduation.

In West Virginia, one arts credit is required for graduation. This study examined whether participation in arts instruction beyond the one-credit minimum correlated with improved academic proficiency.

Method of study. We studied a cohort of 14,653 public high school students who stayed at grade level during the four-year period from 2007 through 2010. Arts participation was defined as the total number of credits in all arts disciplines earned during students' tenure from Grade 9 through Grade 12. We examined the presence and magnitude of associations between arts participation and proficiency (Mastery or above) in mathematics and reading/language arts (RLA) on the WESTEST 2 and for scoring at or above the national average composite score on ACT PLAN. We also calculated the odds of achieving these outcomes relative to the level of arts participation.

Findings. Students who earned two or more arts credits during high school were about 1.3 and 1.6 times more likely to score at proficient levels for mathematics and RLA, respectively. Students who earned two or more arts credits also were about 1.5 times more likely to have scored at or above the national average composite score on the ACT PLAN.

Significant associations between arts participation and RLA proficiency held across subgroups of students with and without disabilities and/or economic disadvantage; however, for mathematics, we observed significant associations only for nondisabled students. While few students with disabilities reach proficiency in reading/language arts, they were up to twice as likely to do so if they exceeded the minimum number of arts credits required for graduation.

Compared to earning a single arts credit, for mathematics there was no advantage in earning a second arts credit; however, students were about 1.3 times more likely to reach proficiency when earning three arts credits and 1.6 times more likely when earning four or more. The odds were better for RLA. There was a slight advantage in proficiency for students earning two credits, but the advantage rose to 1.6 and 2.2 times when students earned three, or four or more arts credits, respectively.

While few students reached Above Mastery and Distinguished status, their odds of doing so increased somewhat if they earned additional arts credits. The odds of achieving Mastery in mathematics were only modestly improved—1.3 times greater when students earned two or more arts credits and 1.5 times greater for achieving Distinguished; but were slightly higher for reading/language, rising from about 1.4 times for Mastery to 2.0 times for Distinguished.

Limitations of study. The highest grade in which WESTEST 2 is administered is 11th grade, yet arts participation was measured through students' 12th-grade year. Likewise, the students completed ACT PLAN testing in 10th grade, two years prior to their scheduled graduation. Finally, the study was correlational and no claims were made as to causation.

For more information, contact Dr. Andy Whisman, Office of Research (swhisman@access.k12.wv.us), *or download the full report: A Cohort Study of Arts Participation and Academic Performance* available from the Office of Research website at http://wvde.state.wv.us/research/reports2012/ArtsCohort2012.pdf.