

Acadia Learning – Phase II: Data Literacy

Abstract

This Phase II project grows out of work with school district partners in Phase I, which focused on enabling teachers and students to collaborate with working scientists on research problems.

In Phase I we found that students often have difficulty in making fruitful use of data that they collect. They can usually create graphs that are properly labeled, but many of them struggle to "make sense" of the data. This is troubling, since using data to make sense of the world is at the heart of what science is all about.

In reviewing curricula with partners, we found that students often receive very little training in how to organize and work with data. Science and math teachers often use different terms and conventions with regard to graphs and data. Also, some teachers are uneasy with their own ability to work with data. Consequently, Phase II of the Acadia Learning project will provide professional development (PD) focused on subject content, tools, and pedagogical content knowledge (PCK) to teachers in different subject areas so they can support data literacy.

Beginning our work with two key partner districts from Phase I, we will (1) provide PD to increase the level of data literacy PCK for 25-40 teachers; (2) develop an effective professional learning community in support of ongoing PD; (3) develop curriculum materials to support instruction in data literacy; and (4) develop an assessment tool that teachers can use to identify areas where students need instruction, practice, and correction of misunderstandings.