Investing in Educator Data Literacy Improves Student Achievement

Evidence of Impact: The Oregon Data Project

Investing resources in providing educators with job-embedded training that addresses both their technical needs and perceptions of data use will impact student achievement. States have not sufficiently invested in their educators by providing them the resources they need—including access and training on how to use data in the classroom—to do the vital work of improving student learning.

Oregon has emerged as a shining example of this type of investment in educators. The Oregon DATA Project provides the state's teachers with job-embedded professional development, granting access to student data and comprehensive training on how to use those data to make decisions in the classroom.

> *"[The] benefit is that we're all here for student achievement, and we all want to see our kids grow, and we sometimes forget that when we're in the middle of the data . . . (but this project) helps us put those faces and eyeballs back on the numbers and remember we're all here for the kids." – Oregon Teacher*

In 2011 Oregon released a report detailing the impact of their investment in the state's educators and found the following:

- **Participating schools were closing the achievement gap at a faster rate than schools without access to data training.**
- **Teachers in participating schools felt more comfortable using data in their classrooms, suggesting a culture change around data use.**

Pivotal Role of the State

States are best positioned to take the lead in setting up policies, practices, and district collaboration that will lead to improved educator understanding of how to use data to improve classroom practices and increase student achievement. While states have made remarkable progress in their efforts to implement statewide longitudinal data systems, collecting data alone is not enough to improve student learning. Neither is making data available to educators sufficient to drive use. Targeted training empowers educators to incorporate data use into their efforts to improve instructional practices, which leads to improved student learning. Consequently states can ensure that investments in data systems are maximized by building the capacity of educators to use those data.

Oregon has taken on that pivotal state role of implementing educator data training. Beginning in 2007 the Oregon DATA Project has worked to systematically understand the needs of the field and use that understanding to build educator capacity to use data. The goal is to train teachers on the value and use of data to enhance classroom practice and improve student learning by giving teachers the resources to collect, analyze, and use longitudinal data.

The DATA Project met these goals by:

1. Evaluating the needs of the field

2. Developing a training model based on those needs

3. Creating instructional teams to serve as trainers

4. Delivering job-embedded data training
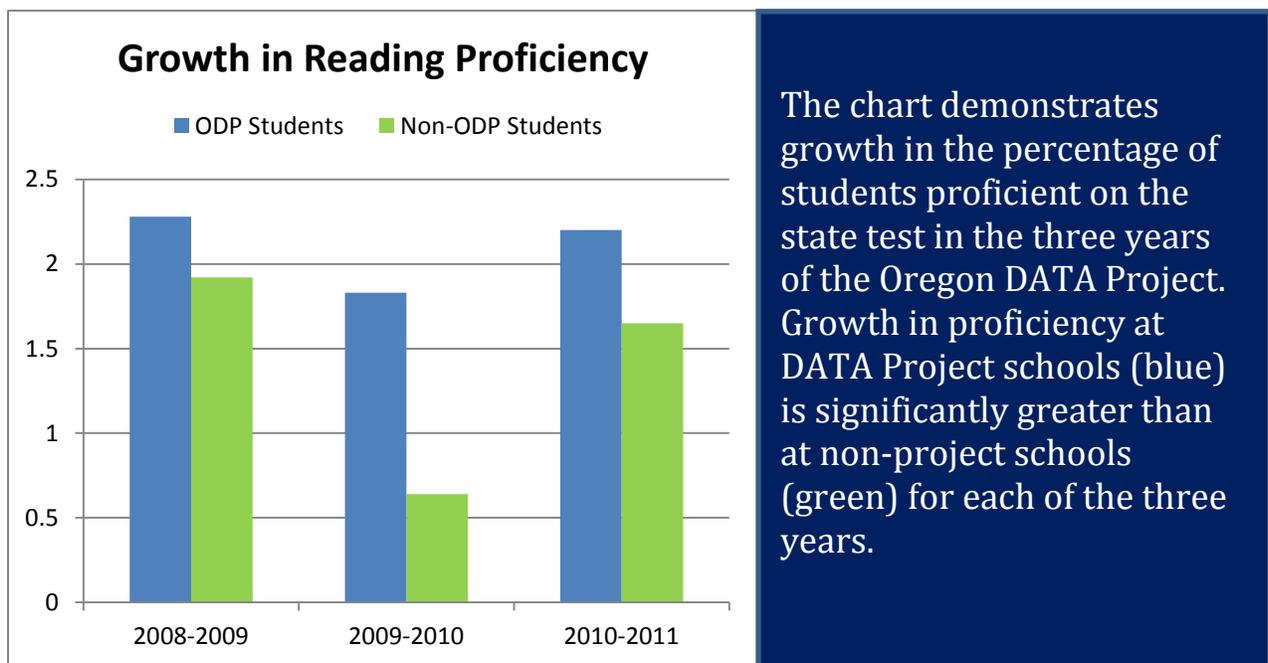
The Million Dollar Question: Is This Working?

In partnership with researchers at the University of Arkansas, Oregon evaluated the effectiveness of the program to meet stated goals. In 2011 the state released a report highlighting the success of the DATA Project in just the first two years of teacher-level training. Two key questions guided the evaluation:

- Does job-embedded professional development on data use to impact classroom practice **improve student learning** compared to schools not receiving training?

- Do teachers who receive job-embedded professional development on data use practice **better data-driven decision making** in their classrooms than teachers who do not?

In short the answer to both these questions is *yes.*

At the beginning of implementation there was an achievement gap between schools that participated in the Oregon DATA Project and those that did not. Just two years of professional development for teachers in participating schools yielded the following:

- The percentage of students at or above proficient on the state test **grew** significantly more than students in those schools whose teachers did not receive training on data use in their classrooms.

- The **achievement gap** between the two groups of schools **decreased in reading** and **closed in math.**

Growth in Reading Proficiency

The chart demonstrates growth in the percentage of students proficient on the state test in the three years of the Oregon DATA Project. Growth in proficiency at DATA Project schools (blue) is significantly greater than at non-project schools (green) for each of the three years.

In addition to noteworthy student gains, the DATA Project has made great strides in creating a new *culture of data use* in Oregon schools. At the beginning of implementation, most participating teachers worried that the project would have a negative or burdensome impact on themselves and their students. Widespread distrust of data led educators to rely on other methods to improve student learning. Furthermore, teachers lacked confidence in their ability to interpret data and use them to make decisions in their classrooms.

By the end of the evaluation period, however, some of teachers' concerns about trusting data and using them in their classrooms were ameliorated. Teachers felt better about accessing, interpreting, and using data in their classrooms to improve student learning.

The Oregon DATA Project has gone deeper than just traditional professional development: it has addressed concerns teachers have about data use and provided teachers with effective strategies for using data in the classroom. It is this combination of building competencies and changing culture that contributed to the significant student achievement gains in participating schools.

Investing in People Is the Key to Success

Oregon provides the best example to date of how investing in teachers can improve both their technical capacity and perceptions about using data. States can go further to not only provide teachers access to those data but also provide comprehensive training that addresses both the skills and attitudes needed to use those data to improve student learning. We now have the evidence that investing in job-embedded data training for teachers—providing them with the tools they need to use data in the classroom—is also an investment in improved student learning.

Resources

- State Action 9: Educator Capacity to Use Data

- Oregon DATA Project- Building Educators' Capacity to Use Data

- Data Quality Campaign's State Action 9

- Data-driven Districts: Building Culture and Capacity to Improve Student Achievement