

PVAAS and Data Management Case Studies
Produced by the University of Pittsburgh Institute of Politics
Education Policy Committee
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Introduction

Since 2007, the Education Policy Committee of the University of Pittsburgh Institute of Politics has taken a particular interest in the issue of “data-driven education” as a means of improving K-12 student achievement and school performance. The committee held three forums: one broadly covering applications of data-driven education in summer 2007, and two in 2008 more specifically focused on the use of the Pennsylvania Value-Added Assessment System (PVAAS).

Following those forums, the committee arranged a meeting among representatives of southwestern Pennsylvania Intermediate Units, the Pennsylvania Training and Technical Assistance Network (PaTTAN), and the team charged with managing statewide implementation of PVAAS. This group discussed its experiences with district-level use of PVAAS and other data tools, and it recommended that the Institute of Politics prepare case studies describing in greater detail what effective districts have done.

The Intermediate Units, PaTTAN, and PVAAS Core Team experts agreed on the following list of topics for use in case study development:

- Implementation steps taken by the schools studied
- How they assembled their data teams
- The organizational and time structures used by schools and districts that have become active in data-driven planning
- How they analyzed their school and student data, including PVAAS data—what questions they asked when reviewing the data, and how they determined action steps based on those data
- Measurable change and improvement that have resulted from the application of PVAAS results
- How they disseminated the data (e.g., public release, parent meetings) and the results of those communications

We hope you will find these two case studies useful in informing the work of your own school district or organization. If you have comments or suggestions for additional case studies, feel free to submit them to us by calling 412-624-1837 or by emailing iopadmin@pitt.edu. Additionally, if you have specific PVAAS questions, they can be directed directly to the PVAAS Core Team by calling 717-606-1911 or by emailing pdepvaas@iu13.org.

PVAAS in Action in a Local School District: A Conversation with Assistant Superintendent Larry Robb from Armstrong School District

The Armstrong School District serves 5,700 students living in 437 square miles of Armstrong County, including the county's largest communities, Kittanning and Ford City. The district has four secondary buildings (West Shamokin, Ford City, Kittanning Sr. and Kittanning Jr.) and seven elementary schools; it also sends 340 students in grades 11-12 to Lenape Career and Technology Center. About 40 percent of its students qualify for free or reduced-price lunch. The following comments were provided by assistant superintendent Larry Robb in a July 2009 interview.

How has your district gone about creating a culture of using data?

Five years ago the Armstrong School District began a district-wide initiative to use the Getting Results framework for planning at every school building, regardless of whether the building was on a school improvement list. The school district invited a consultant to conduct a number of professional development opportunities with teams of teachers from each building to kick off the school improvement planning process. From that process the district developed data teams, composed of the principal, counselors, and teachers, at each building. Principals are responsible for assembling the data teams.

The school district has invested substantial time in professional development by instructing the data teams in data analysis, root cause analysis, goal setting, and best practices. In addition, the district has conducted small group training with a consultant to focus on instructional planning using data.

At the central office level, the district has established an accountability team with membership including the superintendent, assistant superintendent, curriculum and special education staff, and representatives from the buildings. This is the district's oversight committee for the use of data and school improvement planning. Each member is assigned to provide support to one attendance area to implement and monitor the progress of the Getting Results framework.

The district views the principals as key instructional leaders within their buildings and provides them with opportunities to continually learn, discuss, and implement instructional strategies using PVAAS, student data, and formative assessments. Monthly principal meetings are focused on instruction, dealing with topics such as building principal-teacher relationships with regard to curriculum, instruction and assessment. The district has also worked at developing teacher leaders and providing them with the same level of support.

The district uses EdInsight as its data warehouse for class rosters, grades, attendance, and test information.

How do the data teams in your district organize their time? What data do they review and what is their process for analyzing the data?

Each building's data team will start examining its data in late summer. Before that, each principal has a data meeting with central office staff to preplan for examining PSSA, 4Sight benchmark assessment, and PVAAS results. We have charged principals with comparing the

data on each student with the courses they are taking and making sure that students are properly placed. We also begin planning for intervention for individual students. During this meeting, interventions from the previous year are examined to determine their effectiveness.

The district has planned in-service time at the end of each nine weeks to review its benchmark assessments. Teams of teachers examine the data to determine the effectiveness of core instruction, as well as individual and classroom needs to be addressed during flex time and targeted tutoring. The district has more intense progress monitoring for those already receiving interventions. The central office accountability team has a midyear review with each principal after Christmas to monitor the progress of the building's Getting Results plans.

The building principals plan department meetings or grade level meetings on a monthly basis to discuss instructional issues. At the secondary level teachers have half an hour after the students leave. At the elementary level, we provide substitutes on a rotating basis, arranged well ahead of time, so that teams from each grade can meet during the day.

Last year the district focused on goal-setting with students, using 4Sight as a tool to help them set goals for themselves between assessments. Goal setting is done with students as young as first grade and has become an effective tool. Use of formative assessments will be our primary focus this year. The district is working with a consultant on this initiative. Principals will provide professional development focused on the components of formative assessment at monthly after-school faculty meetings. All of the principal's classroom walkthroughs will be tied to formative assessment.

When I first entered administration and went to the Intermediate Unit for training, someone was talking about the concept of IEPs for every student. It's not formalized as IEPs, but that is where we are now—developing individual plans for each student through the scheduling process and interventions.

What changes have you seen take place as a result of creating a culture of using data?

In math, the district has found that if students get to Algebra 2 in their junior year they will achieve proficiency. The district used this as a key indicator to plan its math curriculum. Students were going from an hour of math in elementary school, plus "flex time" if they needed remedial assistance, to 42 minutes a day in middle school; those 42 minutes did not appear to be enough time. So the district implemented "Class and a Half" in grades 7-9. If a student has math during first period, he or she will have an extra math class two or three days a week at second period. If the student also needs extra reading help, his or her reading class is scheduled for third period and the second period is shared between math and reading. An elective is sacrificed to put this time into the schedule. In grades 7-12 the district provides targeted tutoring at least two days a week with small groups of one to six students.

At grades 9-12 the district is implementing common semester exams in core content areas. These are important because of the gap in assessment data between grades 8 and 11. The benchmark assessments at grade 9 do not give much helpful information because they are based on grade 11 standards. State, district-wide, and classroom assessments are used together to make decisions about individual student performance in relation to standards (e.g., whether a student is meeting

certain mathematics standards), about modifying classroom instruction for all students (e.g., whether more instructional focus is needed on mathematics problem-solving skills), and about the focus of school improvement (e.g., whether professional development is needed in the area of mathematics content knowledge).

What impact has using PVAAS data had within your district?

PVAAS provides good insights in terms of whether various programs and interventions are giving the desired results. For example, by examining the results of the “Class and a Half” students as a group, the central office accountability team can see quickly whether these students are making acceptable growth.

PVAAS led the district to develop accelerated math in grade 6 because it showed that higher-level students were not making desired levels of growth, as well as because the number of students taking advanced placement math in grades 11 and 12 was low. PVAAS has also caused the district to reflect on what it was doing with elementary flex time; this time is now used to give students an opportunity to accelerate, not just to focus on weaknesses. With the special education subgroup, PVAAS offers more insight than the PSSA scores as to whether those students, even if not yet proficient, have made a year or more of growth. The district has pursued the Read 180 program in order to give additional opportunities to special-education students.

PVAAS permits the district to remove individual student issues and “compare apples to apples” across the district. For example, if grade 5 is not doing well in reading, district staff look for root causes at that grade level. If a particular building is in the red area, the root cause examination will focus on instructional practices in that building, since the core curriculum is the same throughout the district. The district works with teachers on an individual basis and has two elementary math coaches providing support in classrooms.

Does your district have a plan in place for disseminating PVAAS data?

The district publishes PVAAS overall results in a district newsletter. District leadership has discussed releasing student PVAAS projection reports to parents, but has not taken that action yet. Getting principals and teachers to understand the system first has been a process. District staff have made reference to PVAAS results when communicating with individual students who they believe could be doing better. Putting data in students’ hands has been very valuable, as the students want to know how they are doing and want to do well.

PVAAS in Action in a Local School District: A Conversation with Assistant Superintendent Mary Bucci and Director of Pupil Services Michael Loughead from Pine-Richland School District

The Pine-Richland School District serves approximately 4,500 students in two townships of northern Allegheny County. It recently restructured its school building assignments and now has three elementary schools (K-3), one upper elementary school (4-6), one middle school (7-8), and one high school (9-12).

The following comments were provided by Mary Bucci (Assistant Superintendent, Elementary Education) and Michael Loughead (Director, Pupil Services) in an April 2009 interview.

How are the data teams in your district assembled and how do they organize their time?

Formerly, we had data teams at the building level. Principals would select people based on whoever was good with or interested in data; there was no systematic process, except that the guidance counselor was always involved. The team had to find a time to meet, and then we had to get substitutes for the classroom teachers. It was all such an event. Our goal was to make it a part of how we do business in our buildings.

We knew we were changing our grade configurations [from elementary and middle schools to elementary K-3, upper elementary 4-6, and middle 7-8] and saw that as a great opportunity to rebuild our schedules from the ground up. In our elementary schools, we lengthened the lunch and recess times to 30 minutes each. Our teachers do not have recess duty. We negotiated informally with our union, saying we would give the teachers a full hour, five days a week, and that on three of the five days we wanted teachers at each grade level to meet as a team. They are to use this time to look at data, give feedback specific to that grade level, and collaborate around instructional solutions. This is in addition to teachers' individual planning time. The principal can join the meetings, not as an agenda-setter but as a participant. The idea is to push data examination down to each grade level. We still need building-level teams, but they can be smaller now.

At the middle and high schools, teams meet by department. Middle school teams are expected, at least once a week, to discuss student data and determine how their instruction will change as a result of the data. The middle school has built teaming into the schedule, so there is a prearranged time for teams to meet. At the high school there is time for teachers to meet at the end of the day.

What data do the data teams in your district review, and what is their process for analyzing the data?

Our first step is to take a global view of the data together. In the case of PVAAS, we look at where we see red, yellow, and green at the district level. In some districts a small group of administrators or a data specialist will do this and present the findings to everyone else. Our approach is more time-consuming and involves pulling several teachers out of classrooms. But we have found that, if teachers and principals reflect on the data themselves first, they are more engaged in the process.

We always start by looking at where we are doing well or making progress. We look first for larger district trends, such as our district's tendency to perform better in math than in reading, or gender differences. We then move to grade-level skills performance. Building teams often want to move directly to which students did or did not perform well, and people frequently jump to conclusions without really reflecting on the data, so we have to remind them that we are not at that point yet.

When the data teams break off and start working on their data, we have them follow carefully the Getting Results template (which provides a good template of foundational questions) or a root cause process. Root cause analysis takes a fair amount of professional development, and each year we have to review and refresh the team.

When people "own" the data, they have the desire to make changes. Thus it is important to provide time for people to look at and process the data themselves. Members of each building's data team can then go to other teachers at their grade level and work with them toward decisions such as possible curriculum changes.

What changes have you seen take place as a result of creating a culture of using PVAAS data?

Our middle school PVAAS results caused us to see that our high-performing students were not making the level of growth they should have been achieving. This confirmed the gut-level feeling of some middle school teams who had wondered if their students were receiving sufficient challenges. Around the same time our superintendent had received training on pre-Advanced Placement programs, so we looked at implementing pre-AP at the middle school. In the past it might have taken three years to carry out this change; PVAAS was a catalyst to make it happen immediately. We sent teachers to training, started a pilot program, and responded to objections with clear data showing that these students were not growing and that we could not wait another year or two. Last fall's data suggest that our students are now showing acceptable growth.

At the elementary level, prior to PVAAS we had implemented flexible grouping in math at the primary level to add rigor for all students. PVAAS results showed that this approach was working for math, but reading data were not as healthy. Those results energized us to move toward a similar flexible grouping model for reading. Again, without the PVAAS data we would not have seen the urgency of change.

There have also been changes at the other end of the academic spectrum. Seeing that our special-education subgroup had flat-lined gave us a sense of urgency about finding research-based interventions in reading.

What impact has using PVAAS data had within your district?

Over the past six years we have been more open with our community about data. We meet with the board once a year to give them an overview of our data. Reviewing PVAAS data with the board has helped them become more comfortable with the growth concept. We have spoken to several PTO meetings about PVAAS. We are undertaking an analysis of district procedures and may begin sending students' PVAAS reports to parents.

We are comfortable being public with PVAAS because we believe in a two-way accountability street. We say in our strategic plan that parents are our partners, and we believe giving them the information is the right thing to do, as long as we help them understand it. To have such a rich data source and not make it available seems to be a waste of resources.

Do you have other recommendations for districts regarding the use of data?

When you respond to the data strategically and make transformational changes, you have to open your thinking up to changes all through the system. For example, adding rigor at the elementary and middle-school levels has implications at the upper end. Your leadership has to be open to this fluidity.

Many districts focus on getting to the proficiency percentages [required by No Child Left Behind]. But if you are just thinking about moving the lowest students up, you have lost the opportunity to make the district better for everyone. We have used resources to help students at both ends and to give students in the middle more rigorous opportunities.