Using Data
A TERC INITIATIVE

Rowland Unified School District

A Leadership Model For Data Use That Embraces Three Key Components: Expectation, Support, Involvement

Rowland Unified School District (RUSD) started with a vision and some core beliefs. These important rudiments led them toward building a culture of using data to inform and improve—from central office to classroom. They came to recognize data not as a compliance issue, but a means to inform solutions and monitor ongoing progress. Their story of using data for meaningful change can serve as a touchstone to inspire others.

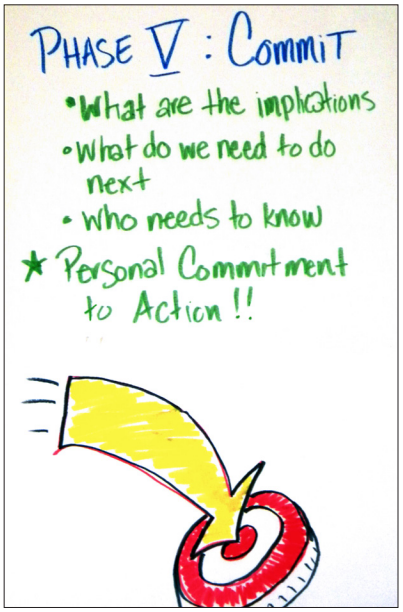
In December of 2013, we asked the Learning Director for Curriculum, Staff Development, and Student Assessment in the central office of Rowland Unified School District, this question:

What success headline would you write for your district?

He said … *Leader Support for Using Data Results in Measurable Gains*

If we had asked the same question three years earlier, the response would have been quite different. Rowland Unified School District in Los Angeles County California was in "needs improvement" status in 2009 and was given a state mandate to develop an improvement plan to make Academic Performance Index (API) gains.

Looking forward, Rowland Unified, under the leadership of now-retired Superintendent Dr. Maria Ott, set out to promote, expect, and accept nothing short of excellence—making a collective commitment to become the best school district in California. Their efforts exemplify a scenario in which leaders built a strong culture of data literate educators district-wide. They focused on three key components of effective leadership that drive "Using Data For Meaningful Change"—expectation, support, and involvement (ESI).



Roland Unified's vision focused on excellence attained by collaborative inquiry and commitment to action. Every meeting ends with a personal commitment to action.

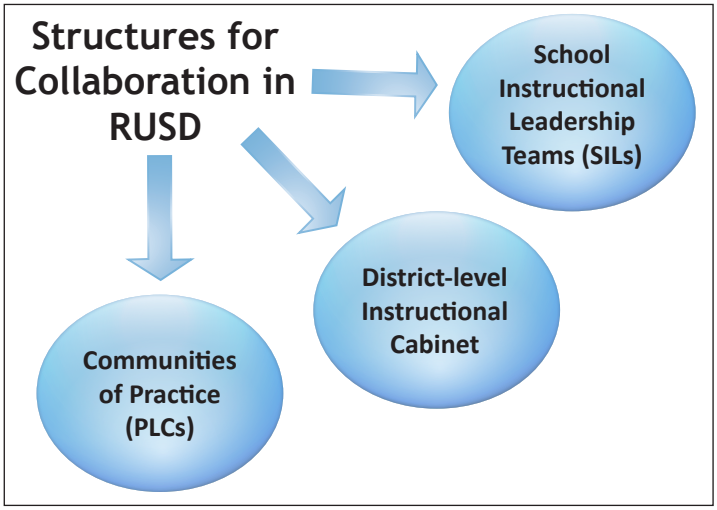
A Vision For Excellence Attained by Collaborative Inquiry

Determined to turn things around, district leaders articulated their vision and core beliefs. The vision focused on **excellence attained by collaborative inquiry** and **commitment to action**. Core beliefs about how best to realize this vision embraced some basic must-haves:

- District-wide agreements about efficacious instruction
- Cultural proficiency across the system to improve teaching and learning
- Commitment to working collaboratively
- Active practice of inquiry and reflection in their work

Education leaders in Rowland can be applauded for their firm understanding that there is no "magic bullet." Change takes time, commitment, and grit; and they planned for the long and steady road toward improvement. Through a partnership with the Ball Foundation, led by JoAnn Lawrence the district's now-retired Director of Curriculum, Staff Development and Assessment, central office administrators and selected school staff spent a year learning about processes that support team structures and communities of practice. At each school, School Instructional Leadership Teams (SILs) and interest-focused professional learning communities (PLCs) were established—all supported by a district-led Instructional Cabinet made up of school principals working closely with district leadership. The SILs were made up of school administrators and teachers representing each grade level.

After an intense and dedicated year of successful training that focused on defining shared norms of collaboration and building collaborative structures well-linked for communicating improvement goals from district to school to classroom, Rowland Unified's leaders reached an epiphany. They were ready to engage in collaborative inquiry centered around their shared vision to improve student achievement—more specifically, to close achievement gaps among their student populations. However, they were surprised to discover an essential missing element: data literacy.

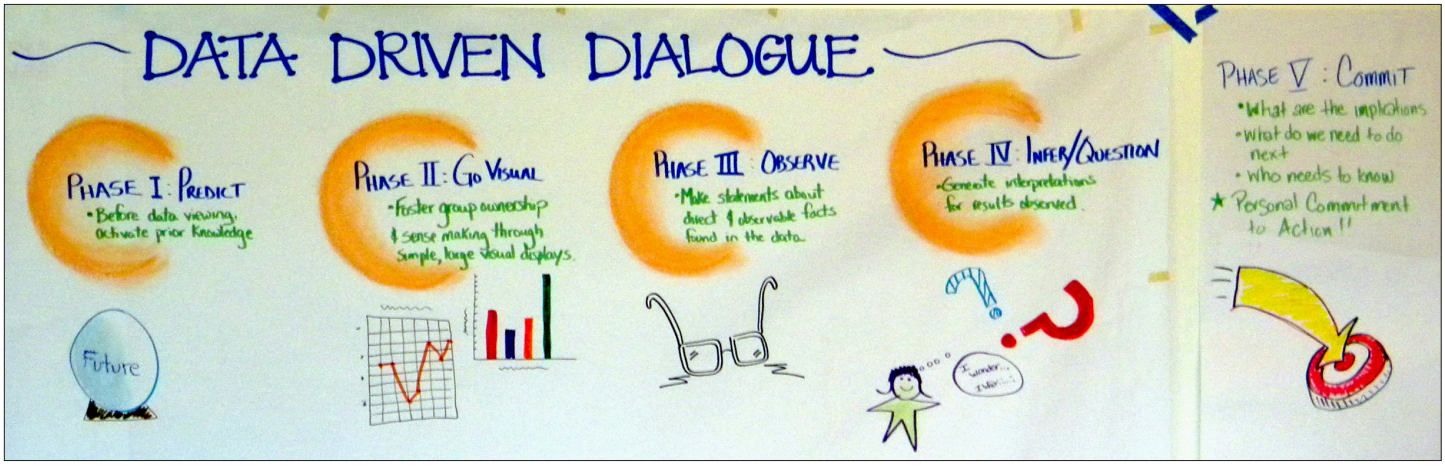


Moving From Realization to Real Action

Historically, most Rowland schools looked at their new state standardized test data at the beginning of each school year, but they were all over the place in terms of how to understand and interpret that data … and acknowledge its limitations. Schools in "needs improvement" status are required to create quarterly reports marking progress on grade-specific Checkpoint Benchmarks. Knowing this, the district's first step was to create common assessments to evaluate each benchmark, and then align the Checkpoint assessment dates with the quarterly reporting requirements. Additionally, they realized the need to define a cohesive approach for identifying and analyzing other data that might relay a deeper and more complete story to guide improvement at both the systems level and the classroom level.

The district sought to establish a uniform set of proven data analysis processes and structures that would support a rich district-wide data-literate culture. They strongly believed that central office and school administrators must understand and model exemplary data literacy skills for staff, as well as support the development of teacher-level data leaders. These priorities led school and district-level leaders to spend the next year working with TERC's Using Data facilitators.

Between 2011 and 2012, 89 School Instructional Leadership (SIL) team members—representing a team from each of Rowland Unified's 22 schools—and the district's Instructional Cabinet members, including 13 district leaders, worked with TERC to apply their newly acquired collaborative-inquiry skills. These emerging data leaders mastered a four-phase Data Driven Dialogue process as they analyzed multiple data sources in order to pinpoint student learning challenges evidenced in the data.



TERC facilitated a 4-phase data driven dialogue process that Rowland embraced with gusto and customized it by adding Phase 5: Commit.

They drilled down through aggregate and disaggregate data in order to uncover achievement gaps among their student populations. They investigated results by strand and item, connecting evidence across data sources to confirm their findings. They examined student work samples in order to plan for differentiated instruction.

Throughout the year they customized the TERC Using Data materials to mirror California language. They drew upon existing reporting templates and procedures to help teachers understand that the new processes were not "one more thing to do." Rather, they were an extension of existing practice that could illuminate new ideas about improving teaching and learning.

School Improvement Leadership Teams (SILs) comprised of administrators and teachers engage with data during regularly-schedule collaborative inquiry sessions.

Harking back to their original vision statements, they elaborated on the four-phase Data Driven Dialogue process they were using and added a fifth phase, which they call "Commit." It was inspired by TERC's meeting wrap-up mantra consisting of three call-to-action questions: What did we learn? What are our next steps? Who needs to know?

Above all, they established a comfort-level with teachers by placing real emphasis on the Data Safety Regulations shared by the TERC facilitators;

- *Don't use data to punish administrators, teachers, students, schools or districts*
- *Don't use data to blame students or their circumstances*
- *Don't jump to conclusions without ample data*
- *Don't use data as an excuse for quick fixes. Focus on improving instruction!*

Through their fidelity to applying the processes they were learning, data teams succeeded not only in uncovering gaps in individual student's skills and understandings, but they noted a widening achievement gap between their Hispanic student population and other student demographic groups. For example, based on the 2012 state data, 57% of Grade 8 students were

below proficiency in Algebra 1. The weakest strands were Functions/Rational Expressions and Quadradics/Polynomials. This was supported by the district Checkpoint Benchmark Assessment data, with 47% below proficient. By disaggregating the data, they determined that only 19% of their Asian student population was below proficient, compared to 67% of their Hispanic students. Hispanic students represent 64.81% of the districts 15,000 students and Asians represent 20.89%. **A**n informed starting point was established.

The natural tendency at this point is to seize on solutions to "fix" the problems. However, Rowland Unified learned to take a more focused and resource-savvy approach. As trends emerged across multiple data sources and for individual students and student groups, Rowland administrators and teachers examined what might be contributing to the student learning problems that came to light. They practiced strategies that helped them to verify root causes of the learning challenges uncovered in the data and strategically undertake solutions. They developed action plans and monitored progress toward success. Over time, they began to see results.

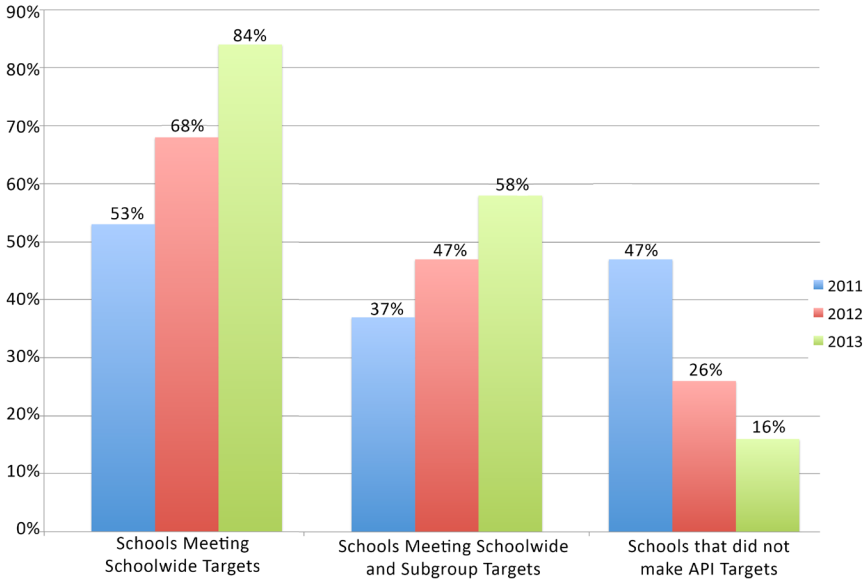
From Student Learning Challenges to Achievement Results

Faced with the mandate to make API and now armed with a deeper understanding about problems, their causes, and a plan for taking action, the district's pay-off emerged.

Over a three-year period, administrators and teacher data leaders modeled data analysis processes. Principals brought the quarterly findings of their school SIL Teams to the District Instructional Cabinet. Using the same Data Driven Dialogue process, the Cabinet analyzed the school-level data findings to explore district-wide trends. Uncovering issues across schools held implications for several district policy changes, including providing specified release time for the SIL Teams to collaboratively analyze data and design action plans aligned with the District's Improvement Plan. Since the original school SIL Teams included teachers from different grade levels, they were able to engage peers with data analysis and collaborative inquiry about problems, causes, and solutions during grade-level and other improvement and curriculum team meetings.

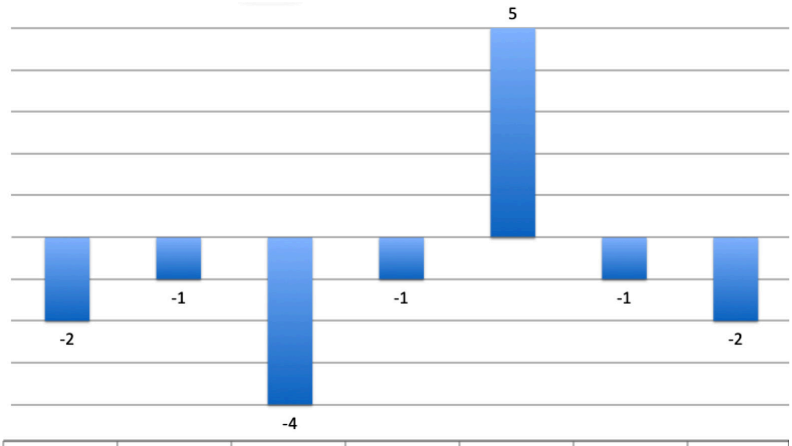
Between 2011 and 2013 API growth continued to increase, with only 53% of Rowland Unified's schools meeting API the first year, compared with 84% by the third year. API growth was also seen in the disaggregated school data for student subgroups, increasing from 37% of the schools to 58% (see Figure 1). Overall, the district met API targets for every student subgroup except students with disabilities, and that still represented a 29-point average jump from their 2009 API base.

Fig. 1. Academic Performance Index (API)
RUSD Three-Year Trend



Much to Rowland Unified's pride, when compared with similar schools in their geographic area, they were outranked by only one district, Norwalk-LaMirada, that made +6 API growth between 2012 and 2013 compared with Rowland's +5. And none of the other California districts in their cohort met API targets that year (see Figure 2).

Fig. 2. API Growth: Base 2012 to Growth 2013



California	Baldwin Park	Bassett	Hacienda La Puente	Rowland	Walnut Valley	West Covina
-2	-1	-4	-1	5	-1	-2

Four of Rowland Unified's schools—Alvarado Intermediate, Blandford Elementary, Stanley G. Oswalt Academy, and Ybarra Academy of Arts and Technology—were selected by the California Business for Education Excellence (CBEE) to be on the "2013 Honor Roll." Schools receiving this distinction are recognized as higher performing schools in the state for increasing academic performance and closing achievement gaps among all of their students. Honor Roll schools exhibit these criteria: high expectations for all students; ongoing collaboration among teachers to improve practice; targeted use of data to pinpoint challenges and monitor progress; continual intervention for struggling students; and mastery of content knowledge and pedagogical practices. Both Alvarado Intermediate and Ybarra Academy have high populations of socio-economically disadvantaged students that have shown a significant increase in grade-level proficiency over four years for all subgroups. Blandford Elementary and Stanley G. Oswalt Academy are STEM (science, technology, engineering, and math) Schools that CBEE named among 100 Honor Roll Schools in the state that have higher poverty and higher performances in math and science.

(SOURCE: http://www.rowlandschools.org/apps/news/show_news.jsp?REC_ID=365212&id=0)

Results Beyond Test Scores

TERC believes that results can be interpreted as more than increased test scores. What else can constitute results?

If using data for meaningful change means consulting data to inform improvement, then successfully uncovering the causes of student learning problems evidenced in the achievement data can point the way toward effective long-term solutions. Since Rowland Unified's student learning problem centered around Algebra 1, they set out to learn all they could about the Algebra program in the district. They examined possible contributing factors related to issues of curriculum, instruction, assessment, equity, and critical supports. This is what they uncovered …

By looking at classroom-level data and student work samples, and conducting classroom observations/walk-throughs, program reviews, and student surveys, the SILs discovered a discrepancy across schools regarding differentiated instruction and placement criteria for

allowing low socio-economic students into Algebra 1 in Grade 8. This latter practice had the greatest effect on their Hispanic student population.

The district and schools were previously unaware that some students were denied the chance to take higher-level math courses in high school based on presumptions made about their abilities prior to Grade 8. In 2012-13, Rowland revised the placement criteria district-wide to ensure greater consistency and equity for Algebra 1 Grade 8 placement. In order to scaffold more student-centered and differentiated instruction, they planned for future professional development opportunities in two areas: building mathematics content knowledge for elementary teachers and developing higher-level questioning techniques and formative assessment skills for all teachers.

Results Reflected in Professional Growth

Rowland Unified was additionally interested in measuring the effects of their efforts on the way members of the School Instructional Leadership (SIL) Teams gauged their own growth. Based on a self-assessment given to SIL team members after their year of data-literacy training, the survey noted an increase in professional growth, understanding, and the ability to take action.

One area of highest effect related to a growing confidence with taking a leadership role in mentoring others to become data literate. In 2011 only 34% reported having the knowledge, processes, and skills to assist others in the school community to analyze data and use it to take action. By 2012, that number increased to 84%.

Armed with this new confidence, Rowland Unified's data leaders regularly model effective data use and have been able to share their learning with colleagues. As a result, using the five-phase Data Driven Dialogue process as part of the conversation whenever teams convene to analyze data saw an increase in schools from 30% to 68% according to respondents. Using disaggregated data to identify problems and issues, monitor results, and close achievement gaps noticeably increased from 29% to 51%. Additionally, respondents noted a shift from 30% to 58%—moving away from placing blame for poor achievement on students, their families, and circumstances that cannot be changed.

The district's goal is to have all schools and all teachers regularly implementing processes to analyze data and prepare evidence-based action plans that articulate verified causes for the student learning challenges uncovered during analysis. The efforts are ongoing.

WRAP-UP: Rowland Unified's Model As a Beacon For Others

Rowland Unified School District has demonstrated an understanding that vision, leadership, and commitment matter tremendously. They also acknowledge that the work is incremental and must be deliberate. Their efforts exemplify a scenario in which:

- Leaders clearly communicate expectations to their stakeholders that:
  - *All students will achieve—no excuses*
  - *All programs and initiatives make decisions based on evidence*
  - *Multiple data sources are consulted and analyzed solely to guide improvement and never to lay blame.*

- Leaders support teachers by providing:
  - *Structured time for collaborative inquiry and team problem solving*
  - *Professional development that introduces formal processes for data analysis and identifying root causes of student learning challenges*
  - *Easy access to a robust data system populated with timely and reliable data (Including data about achievement, demographics, attendance, behavior, etc.)*
- Leaders stay actively involved with the using-data processes in order to:
  - *Allow data-informed solutions to flow from the top down and the bottom up*
  - *Ensure evidence-based and continuous progress monitoring*
  - *Provide a safe improvement-driven culture that acknowledges, rewards, and celebrates success—and learns from missteps.*

All school systems have a responsibility to equalize educational opportunity and successfully prepare young people to compete in a knowledge-based, global economy. Many verbalize this commitment in their written mission statements. In Rowland Unified School District the mission is manifested in a growing district-wide culture of data literacy leading to improved learning for all students.

Teachers Engaged in Data Dialogue

School-based data teams meet regularly to analyze data and pinpoint student learning problems.

Central Office Cabinet Members Engaged in Data Dialogue

District office leaders engage in the same data driven dialogue process as school-based data teams. They analyze school reports to surface district trends and make policy and resource decisions.

DEMOGRAPHICS Rowland Unified School District

Rowland Unified School District is located 40 miles east of Los Angeles, serving the communities of Rowland Heights, Walnut, La Puente, City of Industry, and West Covina. According to the district website, it prides itself in being one of the leading mid-sized school districts in California. Based on 2013 statistics, the estimated 15,000 students are represented as 64.81% Hispanic, 20.89% Asian, 8.15% Filipino, 3.29% white, 1.98% African American, and .88% other cultural groups. There are eleven K-6 elementary schools, three K-8 academies, two intermediate schools, two high schools, 1 Continuation High School, a Community Day School, and two charter schools. In 2010 the poverty rate was 17.2% of the total population, with an 11.7% poverty rate for children under 18 years of age. Educational attainment levels for the population 25 years of age and over were 79.9% high school graduates and 30.3% college graduates.

About Using Data at TERC

Using Data (UD) is a professional learning experience and an approach to preparing teachers to use data effectively – in ways that result in changes in organizational structures, content pedagogy, and content knowledge of specific concepts and skills. The Using Data model, developed by TERC with support from the National Science Foundation (NSF) and the Eisenhower Regional Alliance for Mathematics and Science Education, introduces data coaches, teachers, and school leaders to a process through which they learn to frame questions, collect data, formulate hypotheses, draw conclusions, take action, and monitor results. The model was extensively tested in both large urban and rural districts. In the years since the field test period, it has continued to successfully enable schools to meet API requirements within a year of implementation. Using Data works nationally and internationally to improve learning opportunities for all students. For more information, see http://usingdata.terc.edu

TERC is an education-focused Research and Development non-profit that works at the frontiers of theory and practice to contribute to a deeper understanding of learning and teaching; enhance instruction through teacher professional development; develop applications of new technologies to education; create curricula and other products; and support reform in both school and informal settings.