Jupiter Ed

CUSTOMER SUCCESS STORY

Steven Rubenstein
Beverly Hills High School
Beverly Hills USD, CA

Dr. Steven Rubenstein at Beverly Hills High School in Beverly Hills, California, admits that big data can be overwhelming, and if you are untrained in statistics, interpreting the data can be a challenge. Beverly Hills Unified School District needed a strategy for the collection, reporting, and analysis of big data to improve student performance.

Used properly, data can improve education immensely.

It was important to find a solution that was easy for teachers and administrators to capture and view data so they could spot trends and patterns and reflect on the implications so they could plan their next-step approaches.

Introduction

The Challenge

Beverly Hills Unified School District is making great strides with their efforts to tame and use big data effectively, but, like all districts, they are learning as they go along.

The collection of data was a challenge for Beverly Hills schools. "A few years ago, we had a real problem in our district: we had a very expensive system to house all of our student scores and demographic data. However, few teachers were actually using the system," shared Dr. Rubenstein.

Despite the district's many trainings and professional development sessions, the district found that teachers did not import their benchmark assessments into the system nor did they run reports to show the efficacy of what they were doing. "Our data was spotty and incomplete, and was not particularly useful," continued Rubenstein.

Why weren't teachers using this fancy system? Simply put, it was a lot of extra work with too many steps. Teachers had to export scores on benchmark assessments from their gradebooks, follow a complex procedure in the analytics tool to receive those scores, and then import the scores into the system. Worse yet, reports were difficult to produce—one wrong selection in the report set-up, and no data would be returned. In addition, teachers didn't want yet another username and password to access one more Web site. The following is Steven Rubenstein's experience:

Steven Rubenstein's Story

The Solution

I suspect that many teachers and administrators feel the way I do about our increasing reliance on big data. And yet I'm endlessly fascinated by data. Luckily, we had an excellent working relationship with Jupiter Ed. Jupiter Ed supplied our gradebook system in our district a couple of years earlier. The company already had a strong student information system and had been thinking about introducing an analytics component. So we collaborated with them to produce a system that would meet not only our needs, but also the needs of other school systems across the country.

Jupiter iO, the all-in-one system, is what we now have in place. Jupiter iO has many advantages over what we've used in the past. The analytics component is integrated with each teacher's gradebook. With this system, teachers can simply connect an assignment or assessment with the analytics module by clicking a checkbox and then choosing the right analytics template. Teachers don't have to duplicate information, and they can name their assignments and assessments anything they choose.

At the same time, administrators receive the results of the state testing in an electronic format, which then can be imported into the system. In our district, we're importing high school exit exam scores, annual state testing, CELDT scores, and even fitness tests.

The highest priority will always be the data that's used publicly to measure our schools' performance against that of other schools and the data needed to measure our accreditation goals, but we have a real interest in gathering as much data as we can.

Once the scores are stored in the Jupiter iO system, there also needed to be an easy process to present that data in clean and comprehensible reports. With Jupiter iO, teachers can run a variety of reports about their students' performance. For example, they can compare student performance on summative versus formative assessments, see how their students measure up compared with other students in the school

and in the district, and compare student performance from year to year. Because our data warehouse system is part of the gradebook, teachers can compare a host of data points to performance on their own assessments.

Administrators can also view student scores and print reports that track trends and even compare schools and individual teachers. In our district, this feature has been helpful in providing support to the teachers who need to improve their methods and choose intervention programs for struggling students.

We also needed to provide everyone involved with better tools to understand the data we are receiving. A system to warehouse and report on data is useless if nobody looks at that data. In order for our time working with data to be productive, all the stakeholders needed to be invested in the process. While our district administrators ultimately create the game plan and give us directives, it is partly formulated as a result of collaboration with teachers and counselors.

It's also critical for every district to recognize that there will be resistance to looking at data, but rather than steamrolling over what might be legitimate objections, it is important to address them head on, so that we all understand how our data might be useful in developing approaches to improving student achievement.

The Results

In our district we pride ourselves on a culture where we continually strive to improve, and conversations about our data are now an important part of that process. During every collaboration—whether it is a staff development day, a department meeting, or a grade-level planning session—we spend some time looking at and discussing the data.

In my AP Literature, I pore through my students' scores on the AP exam. I compare my students' performance to that of my students in previous years. I compare their performance to their grades in class and their scores on practice tests. I look at how many students improved over the course of the year and whether that improvement was reflected in the final results. And I try to figure out if I've really made a difference and what techniques and activities introduced in a particular year made an impact in the long run. I know that even though the data is sometimes mystifying and will never provide me with absolute certainty, it also supplies me with a good way to test my assumptions about my teaching, reflect on my practices, and strategize about improvements I might make.

Big data has also furnished important information about individual students, as well as the strengths and weaknesses of particular schools in the district. Moving forth, we'll have more data points available for analysis and interpretation.

All districts should start developing effective systems for maintaining, reporting, analyzing, and responding to their data. When comparing scores, Jupiter iO indicates whether differences are statistically significant. However, we all need better training and guidance on understanding the more complex issues with determining the significance of the data. In our district we haven't completely solved this issue, but I suspect that ultimately all districts will need to create administrator positions for well-trained statisticians who would assume the role of data guru and guide.

Tapping into the curiosity of teachers and other stakeholders (even students!) made the data less threatening and provided us with opportunities to experiment with ways to improve. Once we developed a new plan of action, the process wasn't over. We later looked at how our new approach worked, asked new

questions, and are still continuing to refine our methods. We found it best to position our explorations of data around questions that we all wanted answered. All our stakeholders started by figuring out what they needed to know and then located the right data and determined the best ways to examine that data to derive answers to our questions:

- How do we know if we're effective?
- Are we reaching all the students?
- What methods work best?

Final Thoughts

Because of our new abilities to gather data, we entered into a brave new world where technology gives great insight into student learning. A key in the entire process is to create a culture where the stakeholders—teachers, administrators, counselors, parents, and students—are all invested in maintaining a continuing meaningful conversation about the data and its implications. It is important to find a solution that will support your internal system and protocol.

About Jupiter iO & Learning Analytics

Jupiter iO Learning Analytics helps teachers and administrators turn data into decisions by instantly comparing schools, classes, and demographics: Which curriculum is better? Which teaching methods are more effective? Which students need more help? Which students need intervention (RTI)?

Other systems only show averages and graphs, but Jupiter iO takes it further by analyzing pre-tests, post-tests, control groups, and the distribution of data, to show with scientific certainty if the differences are statistically significant.

Jupiter iO allows schools to import state tests, and create their own district benchmark assessments. Learning Analytics is included in the Jupiter iO all-in-one solution, so teachers and administrators can test students online and analyze the results instantly, without any data entry or importing.

Jupiter iO gives educators the tools necessary to make informed decisions and to support student success in a results-driven environment.

Dr. Steven Rubenstein

English Teacher & Technology TOSA (Teacher on Special Assignment)
Beverly Hills High School, Beverly Hills, California

- Campus Student Population: 1,639 students
- Campus Teacher Population: 102 teachers
- District Student Population: 4,187 students
- District Teacher Population: 320 teachers
- District Campuses: 5 campuses

sales@jupitered.com ▪ JupiterEd.com ▪ 888-367-6175