

# POWERING STUDENT LEARNING WITH DATA ANALYTICS IN K-12

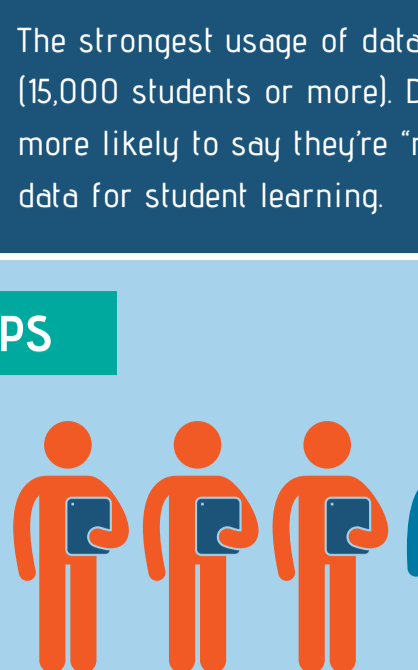
THE SMART USE OF BIG DATA AND LEARNING ANALYTICS CONTRIBUTES TO BETTER PEDAGOGIES, EMPOWERED STUDENTS AND IMPROVED OUTCOMES.

THE Journal surveyed K-12 education decision-makers on the use of data and its impact on student learning in their schools and districts. Here's what they said:

## PERSONALIZING LEARNING

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**76%**

SCHOOLS AND DISTRICTS THAT USE STUDENT DATA TO PERSONALIZE LEARNING

The strongest usage of data shows up in the largest districts (15,000 students or more). Districts with fewer students are more likely to say they're "making progress" in their use of data for student learning.

## DATA AT YOUR FINGERTIPS



**6 in 10** Educators have access to an online dashboard.



**8 in 10** Educators can access data in real time.



More than **9 in 10** of districts with at least 50,000 students use dashboards.

## WHAT QUESTIONS EDUCATORS WOULD ASK

Given access to the right data about student learning, educators have a flock of questions they'd ask:

What practices—good and bad—impact student learning and success?

Are our interventions effective?

What should we do to help the students thrive?

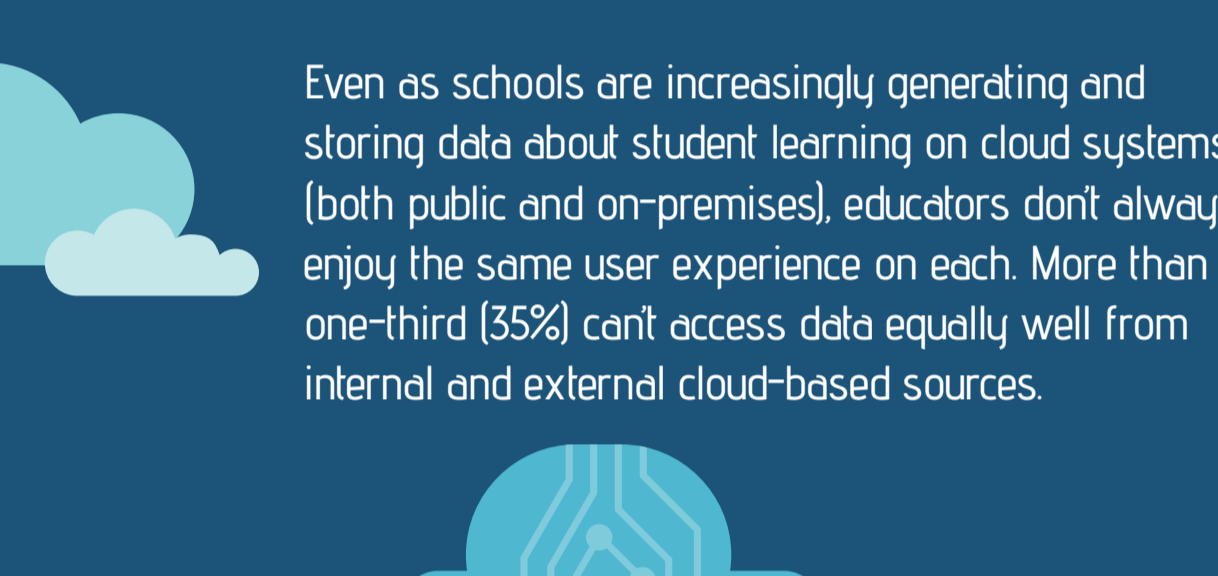
What are the main areas of concern where we need to transform curriculum?

Where are my students in the mastery continuum?

Are students on pace to achieve grade-level goals?

What learning style suits this student best?

Does this student need tutoring?



## IT'S RAINING BUCKETS OF DATA!

GIVING TEACHERS ACCESS TO DATA TO IMPROVE STUDENT LEARNING ISN'T SEAMLESS. It requires tapping into multiple data sources with a multitude of analytics tools.

WHEN PERFORMING ANALYTICS ON STUDENT LEARNING...

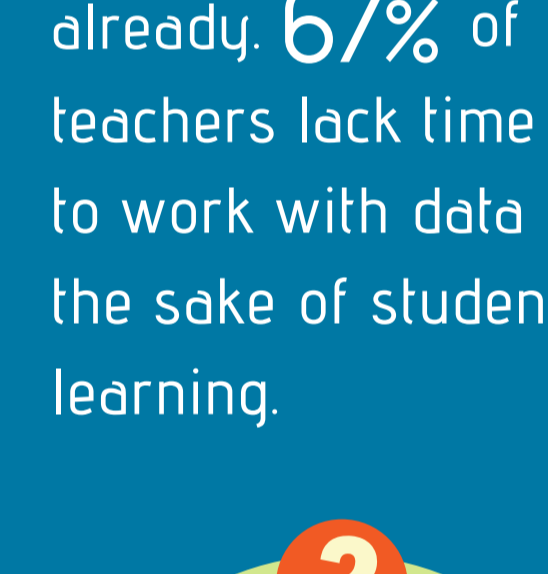
**78%**

OF EDUCATORS NEED ACCESS TO TWO OR MORE DATA SOURCES. (AND 14% USE 5 OR MORE SOURCES.)



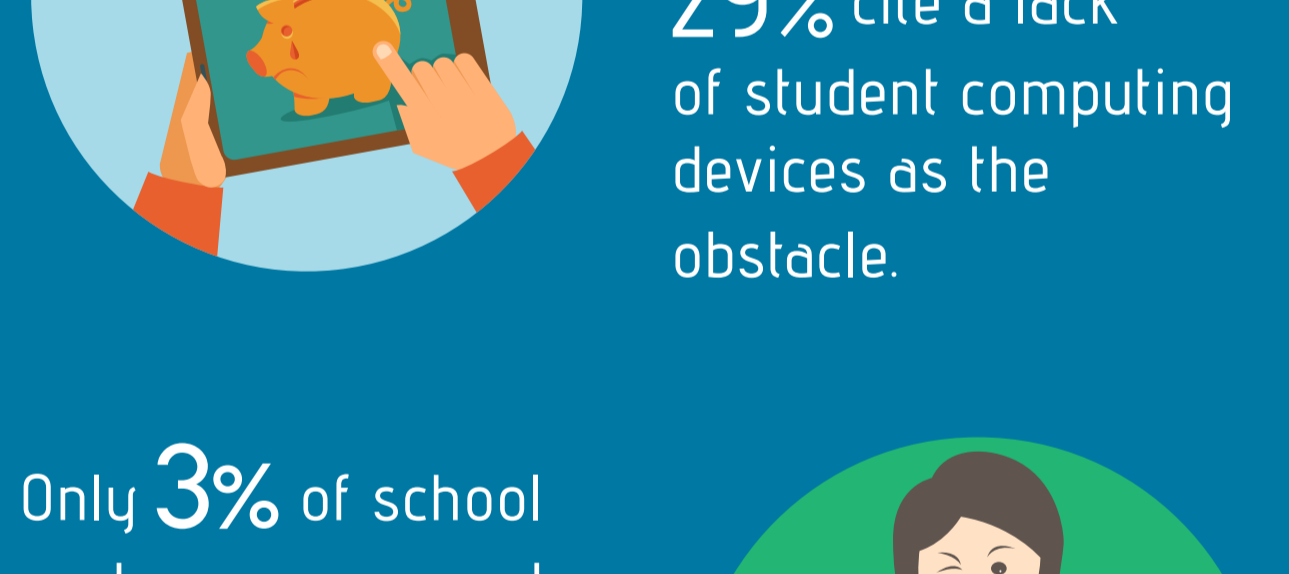
**54%**

OF EDUCATORS HAVE TO USE 2 OR MORE TOOLS FOR PERFORMING ANALYTICS.



## UNLOCKING VALUE REQUIRES EXCELLENT DATA MANAGEMENT

Even as schools are increasingly generating and storing data about student learning on cloud systems (both public and on-premises), educators don't always enjoy the same user experience on each. More than one-third (35%) can't access data equally well from internal and external cloud-based sources.



Nearly **2 people in 10 (17%)** report that accessing external cloud resources is slower.

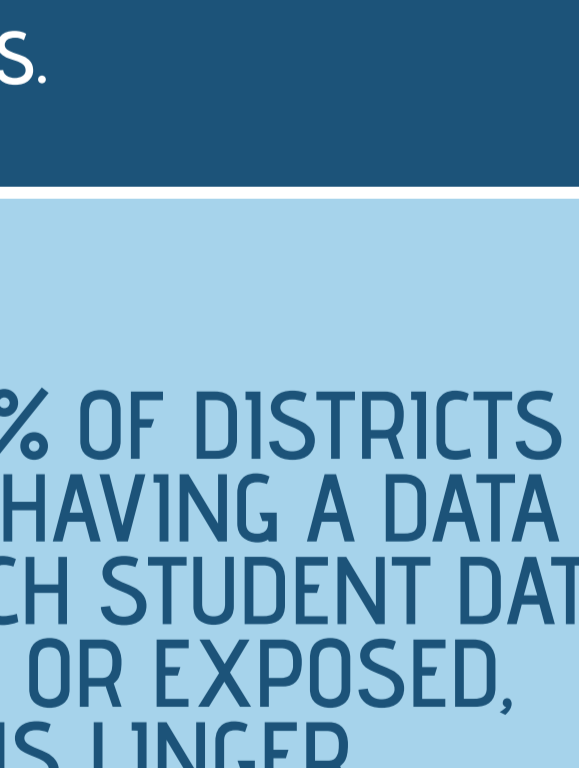
## WHAT HOLDS UP DATA USAGE

**LACK OF TIME, SKILLS AND BUDGET**



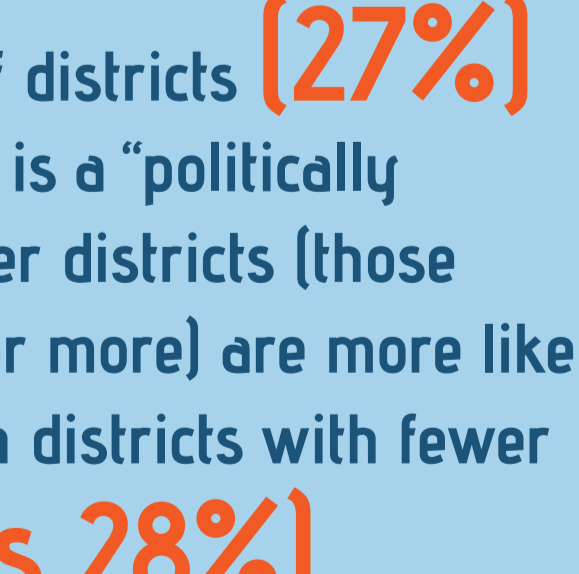
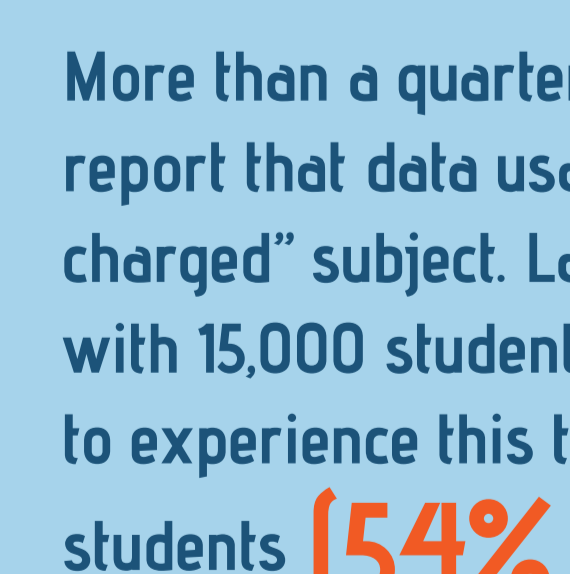
Teachers report they have too much to do already. **67%** of teachers lack time to work with data for the sake of student learning.

Nearly half of teachers (**49%**) and a third of staff (**33%**) lack data analytics skills and **21%** say they receive no training to change that.

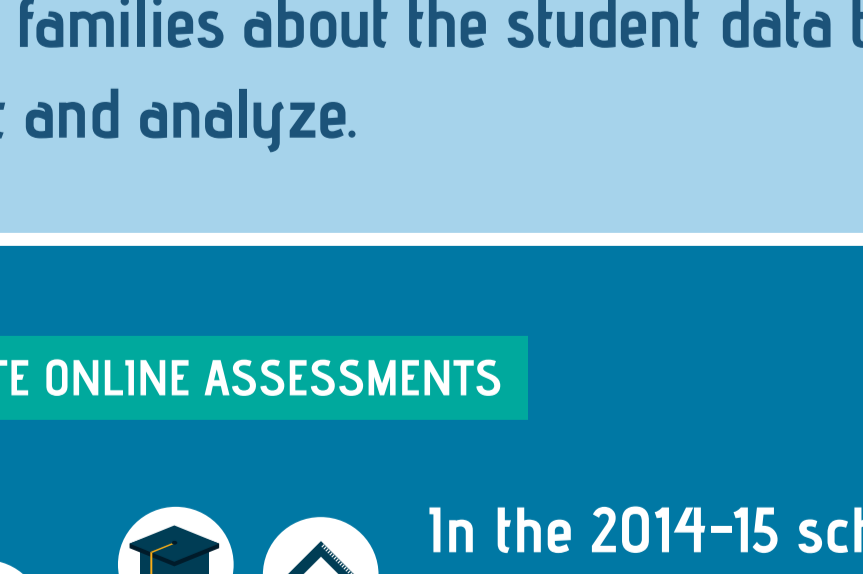


Only **3%** of school systems say parents object to data collection. Only **8%** report lack of support by school leadership.

Budget is a barrier for **45%** of districts and schools and **29%** cite a lack of student computing devices as the obstacle.



## THE PROBLEM OF "DIRTY" DATA



**19%**

Data integrity and replication problems beset nearly 1 in 5 education users.

## DATA WORRIES

WHILE ONLY 3% OF DISTRICTS REPORT EVER HAVING A DATA BREACH IN WHICH STUDENT DATA WAS STOLEN OR EXPOSED, CONCERNS LINGER.

As U.S. Department of Ed Chief Privacy Officer Kathleen Styles has stated, schools have no rules or policies on "how much data to collect, how long to keep it and who has access to it."



More than a quarter of districts (**27%**) report that data usage is a "politically charged" subject. Larger districts (those with 15,000 students or more) are more likely to experience this than districts with fewer students (**54% vs 28%**).

Larger districts are also **18%** more likely to notify families about the student data they collect and analyze.

## BRING ON STATE ONLINE ASSESSMENTS



In the 2014-15 school year, many districts finally had timely access to student learning results from online assessments through PARCC, Smarter Balanced and other state-developed tests. Common Core is generating massive amounts of student data that need analysis.

More than half of educators believe state online exams will generate data that can be used to improve student learning. Only **14%** say the assessment data won't help.



**54%**

THE JOURNAL

DELL Software

For more information, please visit: <http://software.dell.com/solutions/big-data-analytics/>