CANVAS

From Collection to Impact:

A District Leader's Guide to Using Data

INSTRUCTURE

Are you a data collector or a data user?

The recent proliferation of digital assessment tools along with the rise of more formative and standards-based approaches to learning means K12 schools are swimming in data. A good problem to have? Only if educators know how to effectively use it.

As schools shift focus from high-stakes testing to formative, through-course assessments, district leaders must adjust to these four mindsets to ensure the data collected is used to drive student outcomes.

1. **Collect Data → Use Data**
2. **Measure Learning → Measure Learning Opportunity**
3. **Intermittent Data Analysis → In-the-moment Data Analysis**
4. **Disconnected District Decision-Making → Collaborative Connections with Classrooms**

1. COLLECT DATA → USE DATA

From the federal level to the district level, the pressure on educators to demonstrate student achievement with data is relentless. Longitudinal data collection was once reserved for end-of-year assessments and state standardized tests. But with the rapid increase of educational technology in the classroom, teachers now face a barrage of data points and limited time to analyze them.

Teachers know that data is only valuable if they can put it into action. This common feedback loop drives meaningful data-driven instruction:

1. Teachers plan instruction.
2. Teachers collect student data through formative or summative assessments.
3. Teachers assess student understanding.
4. Teachers pivot instruction based on data analysis.

According to a 2015 Gates Foundation study, virtually all teachers (93 percent) regularly use some form of digital tool to guide instruction. Ideally, technology makes this feedback loop more efficient. In reality, disparate data from a variety of learning tools make analysis a chore. More than two-thirds of teachers (67 percent) say they are not fully satisfied with the effectiveness of the data or the tools for working with data.[1]

Before districts get too granular with data sets, administrators need to set a solid data culture foundation. If educators are going to solicit data from students, they have a moral obligation to use that data to benefit the students they solicited it from.

Just as teachers ask, “What do I want my students to learn?” before they plan lessons, administrators should similarly map backwards and ask themselves, “What are the most critical data points that demonstrate my school or district’s growth?” When data goals are clear, classroom instructional decisions become clear.

Educators should ask these key questions to get the most benefit from their data collection:[2]

- Why are we gathering data in the first place?
- With whom are we sharing the data?
- What actions are we taking as a result of our analysis of the data?
- Does our collection of data lead to higher levels of student learning?

Asking these questions will help educators separate the signal from the noise when it comes to deciding what data to track and use.

2. MEASURE LEARNING → MEASURE LEARNING OPPORTUNITY

Closing the achievement gap has always been a primary concern for educators. But, with the recent necessity for remote learning, there is potential that the gap will widen, leaving educators with the daunting challenge of teaching students with an even wider span of learning needs. The right assessment data allows educators to address individual student performance, while also providing leaders insights into needs for additional institutional supports.

Student learning data can be summative--assessing understanding at the end of a unit. Or, it can be formative, in-the-moment, embedded checks for understanding. There is value in both, but as schools and districts seek to increase equity and access across all learning channels, there is a growing need for shorter, more frequent assessments to ensure student progress in both remote and traditional learning environments.

Formative assessment data enables teachers to adjust instruction in the moment, when it can have the greatest impact on student learning. Effective educators use formative data to inform instruction, target students for interventions, and evaluate their own efficacy.

Pushing educators to move beyond asking, “What worked?” to “What will work better moving forward?” will drive more meaningful data conversations and ultimately, more impactful instruction. Compared to traditional grades of the past, standards-based grading empowers teachers to measure what students know and don’t know—standard by standard.

Advances in assessment technology have enabled teachers to collect complex, standards-based data that goes far beyond the insights of a traditional test. When formative assessments are implemented into the instructional cycle, educators have the opportunity to identify gaps in understanding well before benchmarks and end-of-year testing, lessening the stress that the high-stakes summative assessments bring to schools and districts. Data should always enable educators to look forward, not backward. Its focus should be informative, not punitive.

Districts will, of course, still collect summative data, but these summative data points should be used as benchmarks in conjunction with teachers’ formative data to provide an adequate roadmap for improving student outcomes.

3. INTERMITTENT DATA ANALYSIS → IN-THE-MOMENT DATA ANALYSIS

Formative assessment data allows educators to capture a snapshot of their students' understanding so they can make timely decisions to drive the learning process forward.

Unlike summative assessment data, which is often gathered at the end of the school year, formative data is readily available to educators and offers much deeper context into student levels of understanding.

District data analysis also needs to occur regularly, rather than intermittently. Some tools offer administrators dashboards to view student learning progress in real time. Analyzing and using this data in the moment rather than at the end of a semester or year enables district leaders to calibrate interventions and evaluate teacher efficacy based on student mastery levels. Rather than broad, intermittent changes, small shifts with real-time data lead to more immediate student progress and targeted instruction.

The University of Chicago Consortium on School Research recommends real-time data be viewed in a roster format so connections with year-end data can be easily analyzed and connected.

A commitment to frequent data analysis requires an increase in collaborations between the central office and classrooms.

4. DISCONNECTED DECISION-MAKING → COLLABORATIVE CONNECTIONS

From the classroom to the district office, data-driven instruction needs to be a team effort. The first step in this is establishing a strong data culture.

The 2017 National Education Technology Plan recommends school leadership develop clear communities of practice for educators at all levels that act as a hub for setting vision and sharing practices but said "few schools have adopted approaches for using technology to support informal learning experiences aligned with formal learning goals."[4]

> *"Rosters are the link between a data system and student-level interventions or Multi-Tiered Systems of Support, and the organization of a roster should … use language consistent with quarterly and end-of-year data. In addition, the format of a roster should allow a team of adults to quickly filter and sort through different sub-groups to move further toward hypothesizing about potential root causes."*
>
> **The University of Chicago Consortium on School Research[3]**

Principals and district leaders need to create a "we" feeling in the school and stress that student achievement is everyone's responsibility.[5]

To form effective data-driven decisions, district and school leaders need to[6]:

- Clearly define the purpose for data collection and analysis.
- Model norms for data conversations.
- Establish a culture of collaboration.

"No educator is an island. Sharing resources and delivering common assessments on a school or district-wide scale forms a solid foundation of consistent data."

Trenton Goble
VP of K12 Learning at Instructure[7]

To ensure productive collaboration between stakeholders, leaders must build a positive data culture. When leaders and educators can agree that all data is good data (it always offers opportunity for growth), they can view each data point for precisely what it is—evidence of the teaching and learning that is happening in their school(s). When professional learning communities use this belief as the foundation for its success, schools and districts can work together toward a common goal of more students doing better everyday. Leaders should prioritize frequent, in-person check-ins and meetings with teachers to normalize productive data conversations and allow all stakeholders an opportunity to provide input on decisions.

How an Assessment Management System Can Help

When district leaders and educators commit to using data in an intentional way, the sea of spreadsheets and bar graphs won't be so daunting. The right assessment tool will support educators by providing them with real-time, actionable data so they can effectively inform their instruction.

An Assessment Management System (AMS) is a powerful way to streamline data analysis, inform instructional decisions, and personalize student learning. And, when used across a district, leaders and teachers get deeper, more actionable insights into learning trends and instructional best practices.

The 2017 National Education Technology Plan acknowledges that "while school and district leaders often leverage data for decision-making, many still need support and better tools so they can get real-time information on how strategies are working."

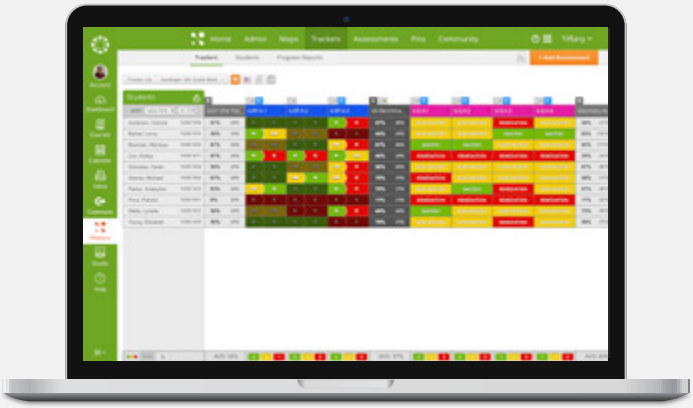
The optimal assessment system, the plan states, is interoperable with other learning tools and balances multiple assessment approaches.[8]

Using a common platform for assessment means districts can spend less time on data aggregation from disparate sources and more time using data to drive student growth.

As Canvas's AMS, MasteryConnect is an integrated formative and benchmark assessment system that delivers the standards-aligned performance data educators need to target interventions, drive instruction, and supercharge collaborative teams. Although a powerful system on its own, when paired with Canvas LMS educators will have a centralized hub to assess student progress and deliver personalized curriculum. Additionally, as part of the open Canvas Learning Management platform. Canvas allows educators to connect to the systems and apps they are already using, delivering a truly customizable learning ecosystem for teachers and students.

Read more on the following page about how MasteryConnect can help your district shift from just collecting data to actually using it in an impactful way.

Streamline Data-Driven Instruction



FORMATIVE ASSESSMENT

Search, create and launch formative assessments to get immediate feedback about what your students know—and don't know—so you can target interventions and adjust instruction in the moment.

BENCHMARK ASSESSMENT

Easily create benchmarks using item authoring tools or integrated item banks for teachers to deliver and score in the classroom. Set proficiency targets, measure growth, and incorporate benchmark data into the formative process. The Benchmark Compare feature offers a side-by-side view of students' formative and benchmark assessment data, allowing educators to identify important patterns and trends in student levels of understanding.

CURRICULUM PLANNING

Map your curriculum by adding lesson plans, activities, videos, and other resources aligned to any set of standards. And save time by building on maps year after year.

TEACHER COLLABORATION

Fuel your PLC with collaborative tools, like common assessments and comparison reports, to gain insight into best practices, learning trends, and instructional approaches.

INTEGRATION

When you pair MasteryConnect with Canvas LMS, you get single sign-on and automatic data passback, so teachers can launch formative or benchmark assessments directly from the Canvas interface.

Learn more about how MasteryConnect helps you streamline data analysis, inform instructional decisions, and personalize student learning.

MasteryConnect is part of the Canvas Learning Management Platform, a set of teaching and learning tools designed to deliver the digital online learning foundation for schools of all sizes. Administrators and educators can easily integrate the systems and apps they need to support students in the classroom or fully online. The Canvas Platform includes tools to support learning management, assessment management, video creation and curation, course catalog, student success and portfolio tools, and more. Designed from the start to be open and easy to use, Canvas has become the world's #1 LMS by creating strong connections between educators and learners.

Endnotes:

1. Bill and Melinda Gates Foundation. (2015). Teachers Know Best: Making Data Work for Teachers and Students https://s3.amazonaws.com/edtech-production/reports/Gates-TeachersKnowBest-MakingDataWork.pdf

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3. Moeller, E., Seeskin, A. & Nagaoka, J. (2018). Practice-Driven Data: Lessons from Chicago's Approach to Research, Data, and Practice in Education. Chicago, IL: UChicago Consortium on School Research.

4. U.S. Department of Education. (2017). Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update. Retrieved: https://tech.ed.gov/files/2017/01/NETP17.pdf

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6. Datnow, A., Park, V., & Kennedy-Lewis, B. (2013). Affordances and constraints in the context of teacher collaboration for the purpose of data use. Journal of Educational Administration, 51(3), 341–362.

7. Goble, T. (2020). 5 truths for building a successful data culture. eSchoolNews. Retrieved: https://www.eschoolnews.com/2019/12/17/5-truths-for-building-a-successful-data-culture/

8. U.S. Department of Education. (2017). Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update. Retrieved: https://tech.ed.gov/files/2017/01/NETP17.pdf

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