

# Learning from Leaders: Establishing a Districtwide Data Culture

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*Miami-Dade: A Case Study*  
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## Introduction

Findings from a previous study conducted by Curriculum Associates found that having a strong data culture was a common characteristic of schools and districts whose students experienced high growth. This paper seeks to explore what a data culture looks like within a successful district while getting into the *how* of implementation. It will also provide practical advice to educators looking to establish new data-driven practices to support their students' growth.



# Miami-Dade County Public Schools

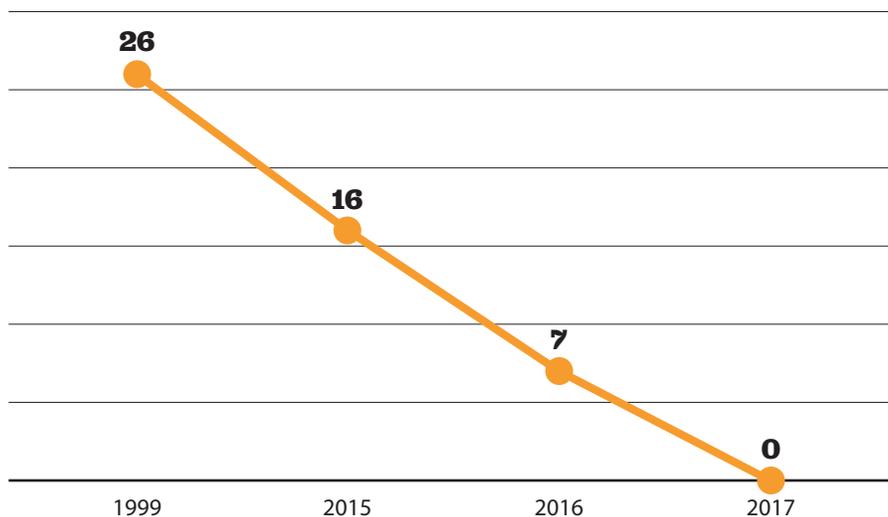
Miami-Dade County Public Schools, led by Superintendent Alberto M. Carvalho, is the fourth largest school district in the United States. It serves 345,000 students who speak 56 different languages and represent 160 countries in 392 schools.

Superintendent Carvalho is a nationally recognized expert on education transformation, finance, and leadership development and was named National Superintendent of the Year in 2014. During his tenure, M-DCPS has become one of the nation's highest-performing urban school systems receiving systemwide accreditation from AdvancEd in 2014. In 2012, the district won the Broad Prize for Urban Education, which recognizes districts that have shown major gains in student achievement.

Recently, Miami-Dade has made monumental improvements in student achievement, graduation rates, and overall school performance grades. School performance grades are calculated by the Florida Department of Education based on 11 components, some of which include learning gains and student achievement on statewide standardized assessments.

When school performance grades were first issued in 1999, 26 schools in Miami-Dade received a failing grade. The total number of failing schools has since decreased dramatically, from 16 schools in 2015 to only 7 schools in 2016. In 2017, Miami-Dade experienced a historic achievement: not one school in Miami-Dade received an F rating.

**Schools in Miami-Dade Receiving a Failing Grade**





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– Ms. Maria Izquierdo,  
Chief Academic Officer,  
Office of Academics  
and Transformation

A multitude of factors have contributed to Miami-Dade’s success in education. One of these factors is their ability to build a strong data culture throughout the entire district. Ms. Maria Izquierdo, the Chief Academic Officer for the Office of Academics and Transformation, highlights how data has enabled the district to provide more freedom to their teachers. “We need teachers to be the artists of their craft. We don’t want them to be spending their days disaggregating data, we want them to use their time to meet their kids where they are. We want to create systems that provide more freedom for them to practice their art.”

Miami-Dade has built these systems and structures to gather, process, and analyze data, allowing teachers and administrators to better understand their students’ and schools’ needs, and structure interventions accordingly without having to spend additional time disaggregating data. Ms. Gisela Feild, Administrative Director for Assessment, Research, and Data Analysis, attributes improvement in student achievement to data culture. “By knowing kids’ weaknesses and what they are struggling with, we can be more targeted with interventions. A strong data culture exposes information to everyone, giving them notice and putting them on alert. They are more aware of everything that is going on with our students and how they can take action.”

## **Understanding What Makes a “Strong Data Culture”**

In Miami-Dade, having a strong data culture means that data informs strategy/actions at every level: classroom, school, and district. Redundant testing is minimized to allow teachers to focus on fewer data elements and to maximize student instructional time. Teachers have more detailed information about all their students’ strengths and needs, enabling them to be more efficient and purposeful in planning just what students need, thereby increasing efficiency of teaching time. At all levels, data is at the forefront of instructional delivery and planning decisions, and is used to evaluate the effectiveness of instructional delivery.

### **At the District level, data is used to:**

- Guide decision-making for changes in instruction and operation
- Understand the greatest needs throughout the district and how to allocate support accordingly
- Evaluate products or vendors

### **At the School level, data is used to:**

- Gauge teacher quality and instruction
- Provide additional coaching and support
- Identify best practices
- Highlight areas of success and uncover areas that need attention
- Enhance communication of a school’s status, progress, and planning to address needs to the district

# How Did They Get Here: Steps to Implementing a Strong Data Culture

Implementing a strong data culture districtwide doesn't happen overnight. It begins with small steps focused on building technology infrastructure and staff capacity. A strong data culture necessitates technology that can quickly access and distribute data. Without high-quality technology, teachers, staff, and school and district leaders cannot access data to inform instruction and drive decision-making. Teachers and staff must also have the capacity to make sense of the data and have a shared understanding and willingness to use the data to inspire direct action. Leadership at the district level plays an essential role in establishing a shared vision and expectations for what a "strong data culture" looks like in the day-to-day responsibilities of school leaders, teachers, and staff. In addition to establishing a vision, it is imperative to provide training to equip staff with the tools to access, interpret, and understand data to drive decisions and actions.



## Leveraging Technology Infrastructure to Analyze Data

Having an appropriate, capable technology infrastructure is an essential piece of the foundation of a strong data culture. Miami-Dade purchased education technologies that offer targeted data to inform instruction, and they also constructed pieces in-house.

**They created a data warehouse and dashboard** to facilitate data conversations, with customized dashboards and analyses for each school. A tool called *Power BI* allows for this level of customization, yet still provides a level of standardization in the specific data sets and views to which schools have access.

**They redesigned the portal to be more teacher driven**, utilizing a color scheme that allows educators to process and understand characteristics about their students quickly. This portal also streamlined data distribution.

**They purchased *i-Ready Assessments* to replace mid-year assessments and serve as a baseline for the beginning of the year.** Teachers triangulate data to determine if the students need intervention and tier their *i-Ready* usage based on their Diagnostic placement and historical data.

**They adopted *i-Ready Instruction* to provide students with a personalized learning path and teachers with data to pinpoint changes in instruction.** This tool also enabled them to manage data faster.



## Building Staff Capacity

As the technological systems are put into place, educators can begin to hone their skills in accessing, processing, and interpreting data to enhance their roles.

**Miami-Dade tackled this step by collaborating with partners** who are expert in the data and how it can be used to design professional development sessions focused on building the skills to interpret data and act based on findings. These sessions provide guidance to educators on what data

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elements are relevant, how to ask powerful questions, use data to answer those questions, and understand the implications of these answers. The district office focused on developing its school leaders who in turn could then lead their schools. School leaders were specifically trained to look at *i-Ready* and Florida Standards Assessment (FSA) data, understanding what educational and operational strategies can be deployed to address students with the lowest scores.

**Miami-Dade provides further support and direction for their staff by creating resident experts at each school through their Instructional Coaches Academy (iCAD).** These resident experts meet monthly to share best practices, receive professional development, analyze data, and collaborate with their colleagues. Principals selected which of their staff members would serve as the iCAD representative for each grade, with the guidelines that these individuals should be respected by all teachers in the building and have good relationships with the principal and a majority of the teachers. During these meetings they have specific materials and handouts to bring back to their schools. Not only does this strategy create a go-to person for teachers and the principal in a school, this resident-expert strategy helps the central office communicate more effectively and maintain consistent messaging with individual schools.



## Focusing On the Right Data

Building staff fluency and comfort with analyzing and interpreting data is not enough to build a strong culture that uses data effectively and successfully to drive change. The key is for school leaders and staff to focus on the right data, relevant to their role and their goals. **To support staff in bringing the right data into focus, Miami-Dade thoughtfully designed dashboards with the most relevant student-, school-, and district-level data for their different users.**

### Some of the demographic and operational data featured in these dashboards include:

- Student attendance
- Teacher absences
- The number of action-plan cycles per subject
- The number of coaching cycles open, closed with no review, or closed
- School grade trends compared to goals
- Exceptional student achievement and growth
- English Learner achievement and growth
- *i-Ready Diagnostic* and Topic 1 test results (depending on the tools the school is using to track results)

This action from the district eases the process of looking at and interpreting data for school leaders and teachers, as they don't have to sift through data before analyzing it for insights; all of the most important elements are crafted into various dashboards.

Another way to provide support and guidance to staff in the consumption and interpretation of the right data is to **implement processes that leverage specific pieces of data, analyses, and insights.** At Miami-Dade, one of these processes is called Data Assessment and Technical Assistance Coordination of Management (DATA/COM).

DATA/COM is a conference between district leaders and all principals of Tier 2 and Tier 3 schools, hosted by the superintendent three times a year. Principals are asked detailed questions regarding their school's status, operations, and growth. Sharing operational and instructional data with the superintendent allows principals to understand where additional resources are needed and allocate support accordingly. This process requires each principal to develop an understanding of and become intimately familiar with their school's data.

## Taking a closer look at DATA/COM:

### Principals come together with the superintendent and the cabinet three times a year:

Each principal has three minutes to present data on their school. The superintendent and cabinet provide feedback and action items that the principal then relays to his/her staff and teachers. The cabinet members follow up with the principals based on specific action items.



### Each DATA/COM has a specific focus:

#### Opening of Schools:

This meeting is held prior to the opening of schools each year. Principals present their plans to increase student achievement and address potential operational challenges. Data elements include test scores and school performance grades from the previous year.

#### Baseline:

This meeting is typically held in October. Principals' presentations focus on student achievement from assessments during the first few weeks of school, any new or refined systems to ensure continued improvement, and any operational issues.

#### Mid-Year:

This meeting is held in January or February, with a focus on mid-year assessments or other diagnostic tools designed to predict end-of-year performance. Also discussed are any adjustments to the instructional approaches and personnel in place to accelerate student growth. Additional interventions for targeted student improvement may be developed during this meeting and monitored for fidelity of implementation and success.

Prior to each DATA/COM, staff from the central Assessment, Research, and Data Analysis office partner with staff from the Education Transformation Office (ETO) to identify what data elements will be used to measure school performance that are aligned with the district's strategic goals and objectives.

### Examples of data elements include:

#### General data included in any DATA/COM:

Demographic information (number of students enrolled, percentage of students with special learning needs), student suspensions and withdrawals, budget issues, supplies, and staff vacancies.

#### Baseline:

Florida Standards Assessment, End-of-Course Assessments in Algebra 1, Algebra 2, Geometry, Biology, U.S. History, and Civics.

#### Mid-Year:

*i-Ready* results, Mid-Year Assessments in core content areas, high school juniors and seniors that have met graduation requirements in reading and mathematics.

  This combination of improved fluency with the standards and data reports or dashboards, as well as identifying specific instruction strategies, **has allowed educators to pinpoint where their students are struggling and adjust instruction with specific teaching techniques or material to target those nuances.**

## Examining Impacts

After working to create a strong data culture, Miami-Dade is seeing the impact at all levels throughout the district. At an operational level, schools have successfully improved attendance, discipline, and the overall learning environment. There is also a deeper understanding overall of the existing data and how to use it effectively across the district.

**Principals are using data more consistently with teachers.** Some principals are encouraged to conduct data chats with teachers and focus on identifying the students in the lowest 25th percentile who will need extra support. They discuss how teachers are planning to differentiate instruction, how often differentiation will occur, and what it will look like in practice. Teachers are also asked to hold conversations with students and parents about their data.

**There is a consistency of messaging between district goals and school goals,** thanks to the additional lines of communication through weekly briefings from the district to principals, DATA/COMs, iCADs, adapted professional development sessions, and more.

Better grasping the data has also allowed educators to enhance their understanding of the existing dashboards and *i-Ready* reports. **Miami-Dade has also noticed an increased understanding of the standards that need to be taught.** Staff throughout the district, from teachers to principals to curriculum support specialists to the office of transformation, are more effectively identifying actions to target and address student, school, and staff needs uncovered by the data. For example, the department of English Language Arts has created numerous resources of specific teaching strategies and content for students based on their Mid-Year Assessment results. After understanding where their students are based on their Mid-Year Assessments, teachers can quickly access these strategies and cater to the different needs of their students accordingly. Mid-Year DATA/COMs have also focused on specific actions that principals and the district should take in response to the data results they review.

This combination of improved fluency with the standards and data reports or dashboards, as well as identifying specific instruction strategies, has allowed educators to pinpoint where their students are struggling and adjust instruction with specific teaching techniques or material to target those nuances. As a result, in 2017 Miami-Dade experienced record-level third, fourth, and fifth grade FSA scores.

# Advice for Districts Looking to Establish a Strong Data Culture

As you consider fostering a strong data culture in your school or district, consider the following key pieces of advice offered by Miami-Dade:



## Start the process organically:

- **Focus on a few schools or staff members** who are already comfortable with data and possibly have a proven track record for using data effectively.
- **Iterate your process** often.
- **Slowly scale out** to the district at large.



**Create a shared vision** with everyone in the district, and demonstrate how data relates to your broader goals.



**Ensure that the technology infrastructure is in place** and has the capabilities to match your vision: your data should be as real time or as close to real time as possible.



Decide on procedures at the district level and **ensure policies exist to safeguard student privacy.**



**Provide minimum expectations to establish consistency** across all your schools.



**Identify the key questions** educators and principals should be using the data to answer.



**Provide adequate professional development from the top down**, starting with the superintendent and the cabinet, to ensure that your principals and educators are trained in how to interpret and act on data.

- **Create follow-up sessions or other activities** to ensure that your principals and educators have crystallized the information they learned in professional development sessions.



**Leverage your school site leaders to assist in the standardization** of communication, usage, expectations, and training.



**Create generic data views that streamline** the consumption of data and analysis for principals and educators, but allow for modification by the principal to meet their specific needs.



Provide the time and the structure for educators to **conduct regular data chats at all levels.** (See following page for data chat resources.)

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## Data Chats

Data becomes much more powerful when leaders, teachers, and students use it as a tool to engage in rich conversation. For leaders, this means unpacking the data and discussing what is going well, areas for improvement, and specific actions teachers can take to adjust instruction. For teachers, this means using data to describe students' strengths, areas for growth, goals, and specific actions. These conversations increase student engagement, promote student ownership over their own learning, and give students a voice in charting their path of success in partnership with their teacher.



These **leader-focused Data Chat guides** provide guiding questions and tips to facilitate your:

- Leader-to-Leader conversations about how to unite staff around shared student success goals
- Leader-to-Teacher conversations about how to use data to drive instructional decisions

To download these guides, please visit: [i-Ready.com/LeaderDataChats](https://i-Ready.com/LeaderDataChats).



This **teacher-focused Data Chat guide** provides guiding questions and tips to facilitate Teacher-to-Student conversations. Also included is a worksheet for students to use during a data chat.

To download this guide, please visit: [i-Ready.com/TeacherDataChats](https://i-Ready.com/TeacherDataChats).



## About *i-Ready*

Curriculum Associates' *i-Ready Assessments* and *i-Ready Instruction* for ELA and mathematics combine valid and reliable assessments with sophisticated instructional resources targeted to each child's specific academic needs. The program also provides a system of comprehensive, actionable reports to guide decision-making at the district, school, class, and student levels.

Learn more at [i-Ready.com/Tour](https://www.i-ready.com/Tour).



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