# Sam Spectra and BrightBytes and the endless Possibilities





# The Data Revolution

Over 90% of the world's data was created in the last three years.

#datamatters

# Thriving organizations leverage all available data.

# IS YOUR DATA HELPING YOU TO...



Gain Insight



Predict Behaviors



Drive Change



Create Programs



Develop Cost-Effective Budgets



Measure Progress



Track Trends



Improve Systems



Inform Decisions





Target Professional Development

# PURPOSEFUL DATA IS...

**A**ccurate

Accessible

**\$** Cost-Effective

Standardized

**† ‡** Scalable



Moveable

**6** Centralized

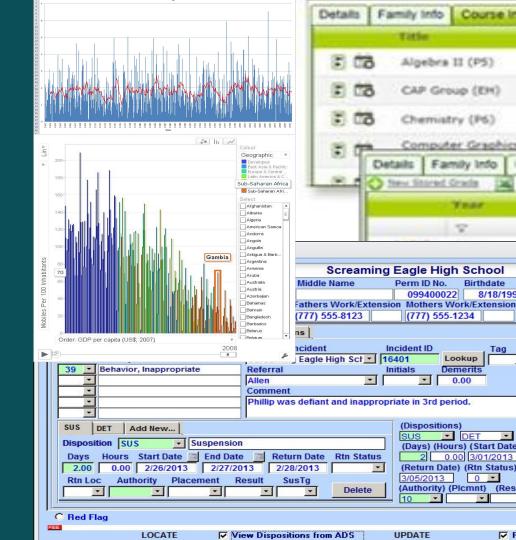
Supported by

Edtech Connectors

**Secure** 

# Educators have access to vast amounts of data,

but we simply can't prosper in the data revolution one data point at a time.



Sam Spectra adds layer of Learning Analytics



# Central Access and BrightBytes Partner to Improve Learning in Mississippi Schools

Central Access empowers Mississippi schools to make informed data-driven decisions by adding deeper analytics to positively impact learning and student well-being across the state.

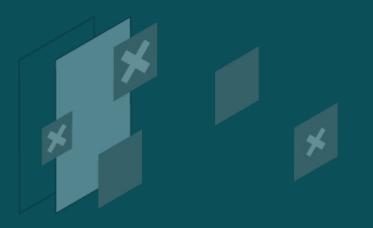


#### THE BRIGHTBYTES TEAM

# Jann Arnold, CPA

### **Director of Partnerships**

- 20 years as Governmental Auditor and CFO for School District
- Mother of three girls, Thrill Seeker, Nature Lover



**PROBLEM** 

# The Education Data Challenge

Data Rich Information Poor

# DATA MANAGEMENT

Integration

Fragmented and antiquated systems

- Interoperability/Quality
   Multiple data standards a
  - Multiple data standards and significant data quality gaps
- Provisioning/Management

No secure and centralized way to share and manage sensitive data

# DATA ANALYTICS

What Matters

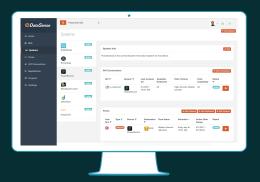
Research on what matters is difficult to access and integrate

Data for Change

Packaging data for usability and impact is challenging and requires special expertise

Actionability

Lack of evidence and research-based recommendations and insights



#### **SOLUTION**

An End-to-End
Platform for
Data Management
& Analytics



#### **Data Management**

- Integration and Standardization
- Quality Management
- Data Provisioning

#### **Data Analytics**

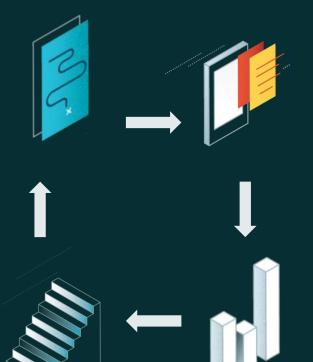
- Expert/Research-Based Analysis
- User-friendly Experience
- Tools to Integrate Data into Practice

# Platform Approach...

1 District Data Integrator

### **Data Integration**

Solve for integration, interoperability, data quality and provisioning



2 Clarity

### Research-Based Analytics

Provide high quality analysis that is informed by research and experts

4 Clarity

#### Actionable Data

Provide tools and content that help integrate data into the day to day practice 3 Clarity

### **Engaging Experience**

Transform analysis into engaging information

# This sounds great...

But, moving data in and out of different systems is difficult and requires a lot of district resources.

A NEW WAY TO ORGANIZE & UNDERSTAND DATA...

# Collection is labor intensive



**Collection is fast** 



A NEW WAY TO ORGANIZE & UNDERSTAND DATA...

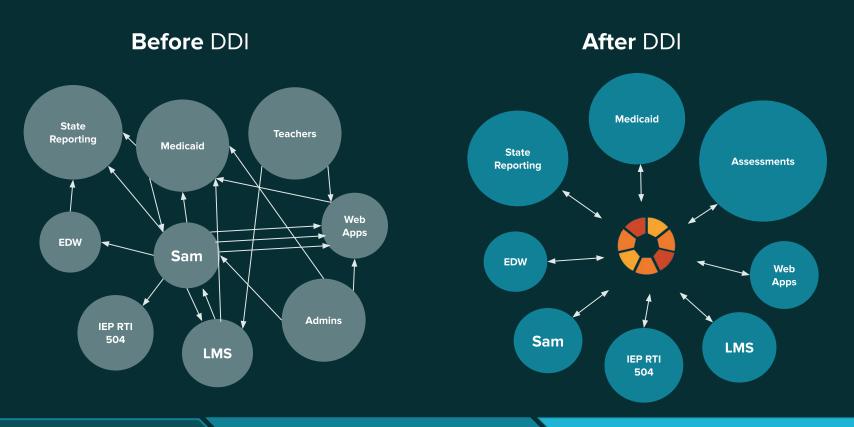
# Collected across multiple platforms



Scalable across multiple systems

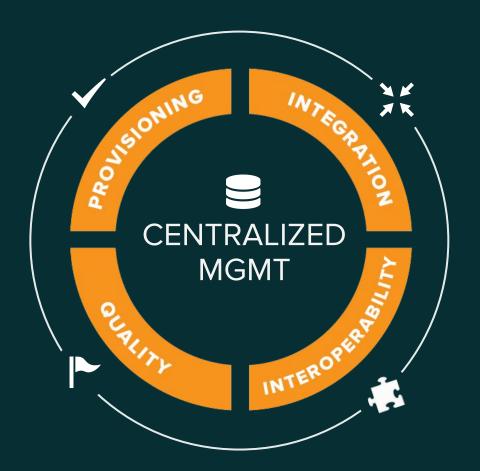


## The District Data Integrator (DDI)



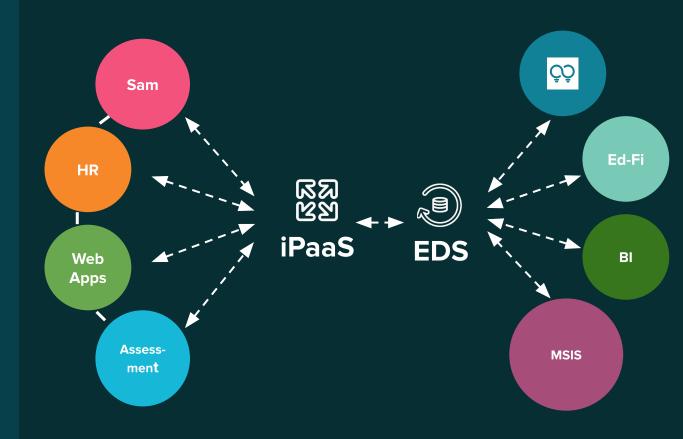
Iterative Replacement of Integrations

# **CENTRALIZED MANAGEMENT**



# Interoperability

THE POWER OF
CENTRALIZING
EDUCATION DATA



# **Effectively Change Student Trajectories**

# How are you...



Accurately identifying all students at risk along the K-20 continuum?

Ensuring students are connected to the right services and support at the right time?

Monitoring efficacy of programs and student progress?

### **Analytics Suites on the Clarity Platform**

# 21st Century Learning

Plan and measure technology initiatives to drive student learning

# **Early Insights**

Identify, connect, & monitor at-risk students throughout the K-20 continuum

### **Data Portals**

Provide a clear understanding about complex organizational data to all stakeholders







The Early Insights Suite

# Identify, Connect & Monitor

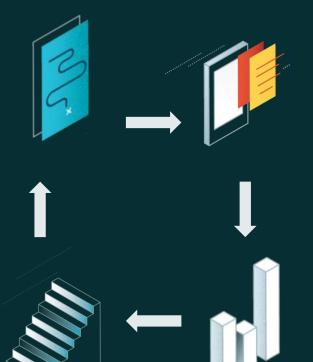


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#### BRIGHTBYTES RESEARCH PARTNER

# The American Institutes For Research (AIR)

Founded in 1946 1800+ Employees

#### **MISSION:**

To conduct and apply the best behavioral and social science research and evaluation towards improving people's lives, with a special emphasis on the disadvantaged.



AMERICAN INSTITUTES FOR RESEARCH®



**Common Early** 

**Indicators for** 

**On-time High** 

Graduation

Warning

School



# Course Performance



**Attendance** 

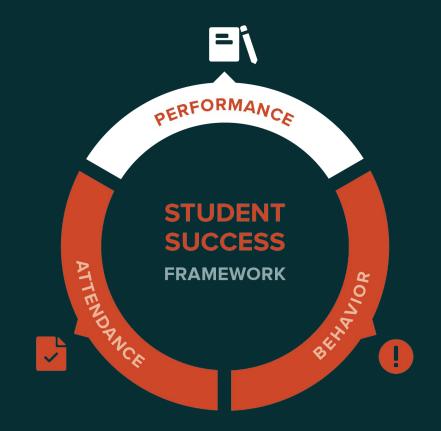


Behavior

# STUDENT SUCCESS FRAMEWORK

#### **PERFORMANCE**

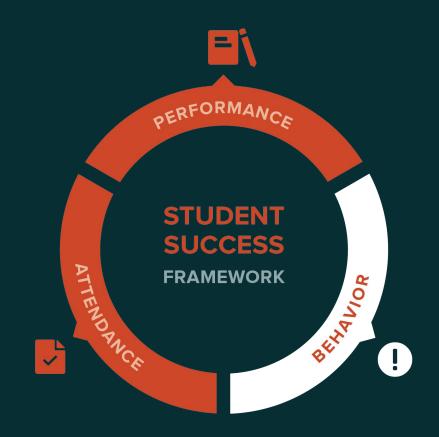
- Coursework
- Advanced Coursework
- Gateway Coursework
- Assessments
- College Entrance Exam Participation



# STUDENT SUCCESS FRAMEWORK

#### **BEHAVIOR**

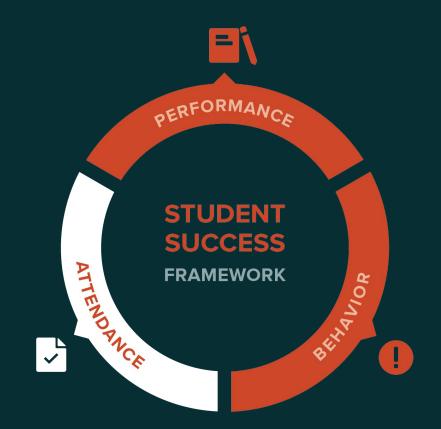
- Behaviors: Minor
- Behaviors: Major
- Consequences: Referrals
- Consequences: Detentions
- Consequences: Suspensions
- Consequences: Expulsions



# STUDENT SUCCESS FRAMEWORK

#### **ATTENDANCE**

- First 30 Days
- Attendance To Date
- Tardies
- Chronic Absenteeism

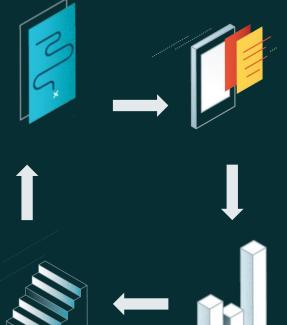


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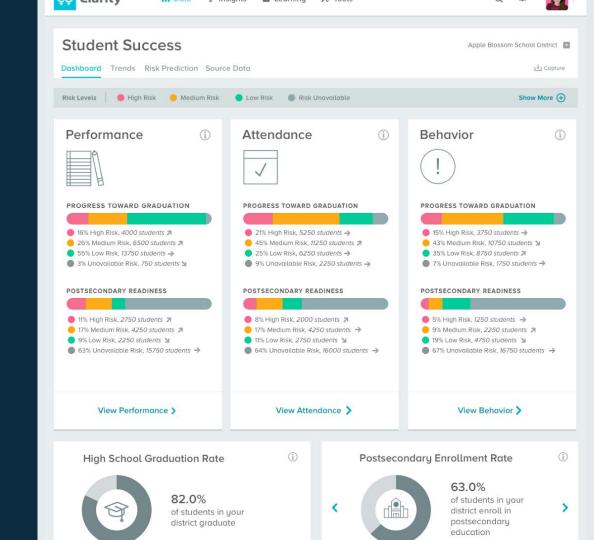
### **Engaging Experience**

Transform analysis into engaging information

# STUDENT SUCCESS (District Level)

# Comprehensive Dashboards to Highlight Target Areas

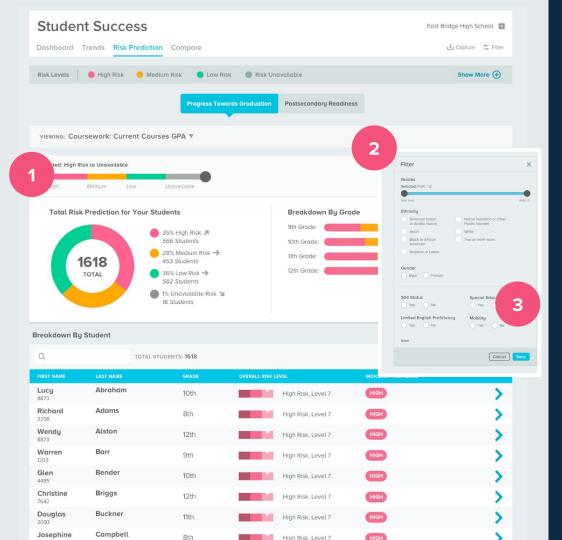
- 1. Easily see which schools need the most support
- 2. Quickly identify target areas of greatest need



#### Peer Social Emotional Learning Chart Trends 100 80 ercentage of Students 58% 60 53% 40 25% 26% 20 Most Favorable Least Favorable Favorable No Data Available 1.687 Student Responses | Data updated on Jan 15, 2019 School District II COMPARE Stripes FIlters/Grades/Demographics... Teachers Why This Matters District ncontrolled Students' ability to positively express themselves with peers in controlled All ES in District

# OBTAIN COMPARATIVE & GRANULAR VIEWS

Compare data between the district and specific schools, or filter by demographics to compare results and identify patterns



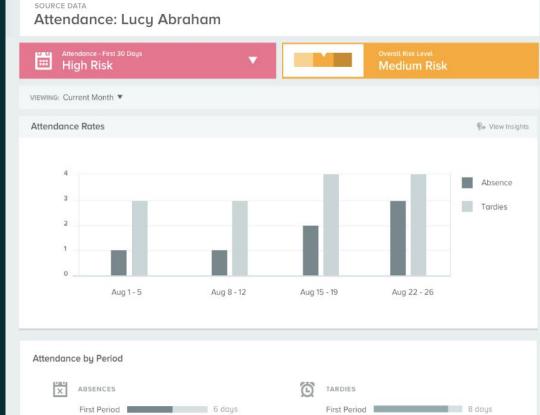
#### **RISK PREDICTION (School Level)**

Access Aggregate Reports with Advanced Filters

- See your organization's risk allocation at a glance
- 2. Filter by specific demographics
- Identify individual students as early as first grade

#### STUDENT PROFILE DATA

Explore source data that informs risk level





#### **REPORTS**

Access a personalized report unique to every organization with easy-to-read infographics for quick decision-making.



#### The Context

The Importance of HSG & PSR Milestones

Receiving a high school diploma and enrolling in postsecondary education are two incredible edu milestones, with numerous benefits for students, graduates are more likelig to earn higher solaries gorintul employment, and stug out of prison (Ame Promise Alliance, 2017). Research also suggests education levels lead to longer, healthier lives (N himmer & Colona, 2018).

This reality creates an interesting challenge for meet these milestones, students often need sujecritier this support is implemented, the better. Suggests that educators should focus on develat "College minister" in students as early as elemi-(Bottonz, Bridgeland, DePooli, Fox, & Ingram, 26 institutes of Research, 2013).

The Student Success module uses a research framework to predict the risk of students not in key milestones, and helps educators provide it's too late. It customizes its predictions based districts data, giving you powerful insights interest student in your school.



#### District Snapshot

Demographics are immutable: they cannot be changed and therefore are not foctored into the predictive models: We want the model inputs to be those factors that can be changed by the actions of stakeholders to positively impact student outcomes. Still, emergraphics play a very important role when it comes to understanding the stories your data tell, this is why they are included here.



#### Special Education / Individual Education Plan (IEP)

Although rates vary widely from state to state, the U.S. Department of Education reports that 62% of high school students in Special Education programs graduate from high school on time (Education Week Research Center, 2015).

13% of students



#### RL

While research has shown that family poverty levels are related to dropout risk, school and community poverty (though otten overlooked) also contribute to the dropout crisis (Rumberger, 2013).

55% of students



#### SOA Status

Section 504 is a civil rights law designed to ensure that children with learning impairments have equal access to an education. Unlike the related IDEA (Individuals with Disabilities Education Act), 504 does not require schools to create an individualized education program (IEP)" (Office for Civil Rights, 2014).

3% of students



#### Limited English Proficient (LEP)

Research from the National Center of Education Statistics shows that students with limited English proficiency (LEP) have a 62% graduation rate within their 4-year cohorts (National Center for Education Statistics, 2015).

7% of students



#### Mobility

Students moving from one school to another (for resons other than grade promotion) are more likely to demonstrate a "wide array of negative behavioral and educational automes, including dropping out of high school" (DeLuca, Estacion, & Gosper, 2012).

2% of students



#### Homeless Yout

A study of 3rd- through 8th-grade students in a large, urban school district found mat student homeiessness and high rates of residential mobility present "substantial risk for lower academic achievement" (Cutul et al., 2013). For more information see the McKinney-Wento Homeless Assistance Act.

3% of students



QQ BrightBytes

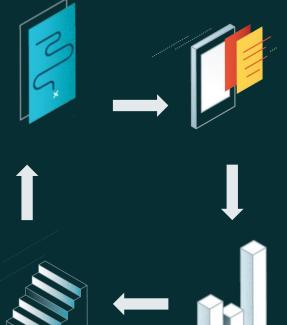


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### **Engaging Experience**

Transform analysis into engaging information

#### STUDENT SUCCESS

#### Attendance to Date



∳ Game
Changers

1 Innovators

Quick Win

<< 1 of 7 > >>

#### **Create Attendance Response Teams**



Address chronic attendance issues using dedicated response teams. For each grade level, create a small team that includes teachers, administrators, and other school personnel. Have the teams use the Early Warning data to identify students in their assigned grade who are at risk for attendance.

Next, ask them to divide up the high

and moderate risk students. Each member will work directly with their assigned students and their families to identify and record potential causes for students' chronic absenteeism.

(Adapted from "Stepping Up the Pace")

Arm Attendance >
Response Teams with
Tools and Strategies

#### **INSIGHTS**

- 1. Quick Wins
- 2. Game Changers
- 3. Innovators

# **Bridging the Gap**



Accurately identifying all students at risk along the K-20 continuum?

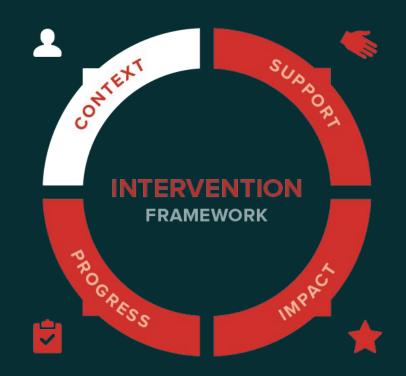
Ensuring students are connected to the right services and support at the right time?

Monitoring efficacy of programs and student progress?

# **INTERVENTION** FRAMEWORK

#### **CONTEXT**

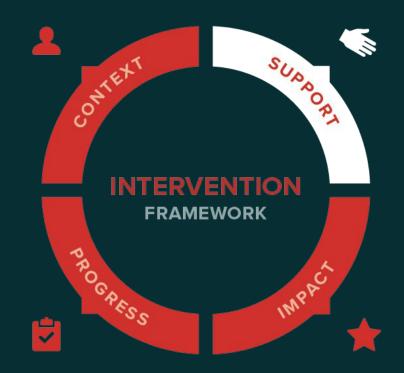
- Summary Concerns & Referrals
- Concerns Escalated



## **INTERVENTION** FRAMEWORK

#### **SUPPORT**

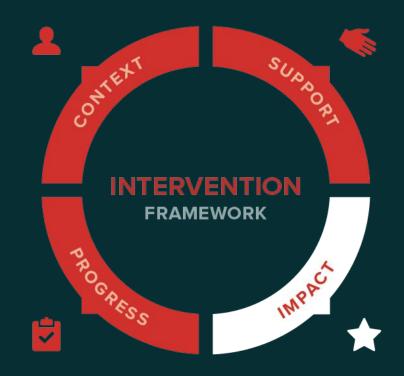
- Resources Utilized
- Connected Referrals



## **INTERVENTION** FRAMEWORK

#### **IMPACT**

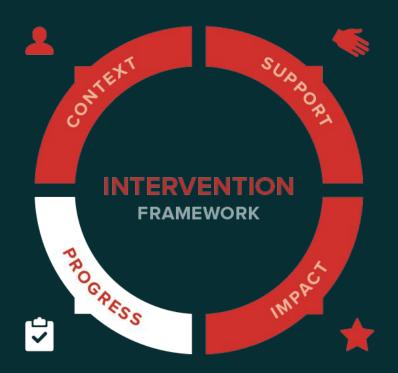
- Students ActivelyReceiving Services
- Students who Recently Completed Services
- StandardizedMeasurements



## **INTERVENTION** FRAMEWORK

#### **PROGRESS**

- Services Completed
- Process Summary

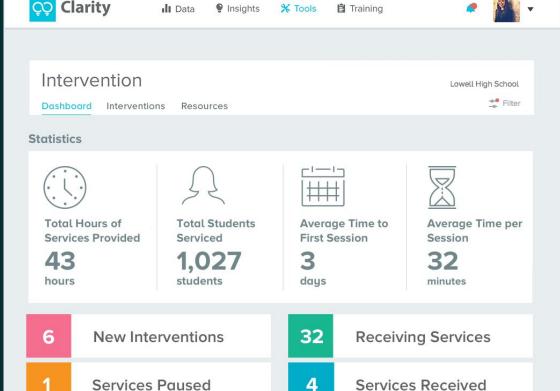




## AT-A-GLANCE DASHBOARDS

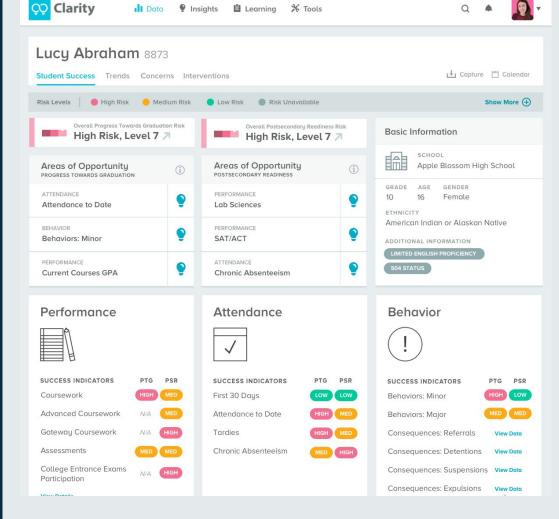
Create the Right Support for Students

Ensure proper resource allocation



#### STUDENT PROFILE

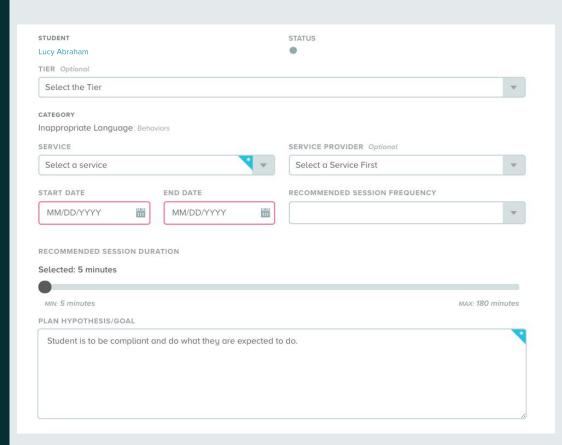
- 1. Areas of Opportunity
- 2. Basic Information
- Domain and Indicator Risk Levels
- 4. Trends
- 5. Concerns
- 6. Intervention



#### **NEW INTERVENTIONS**

Assign Interventions to Students Easily

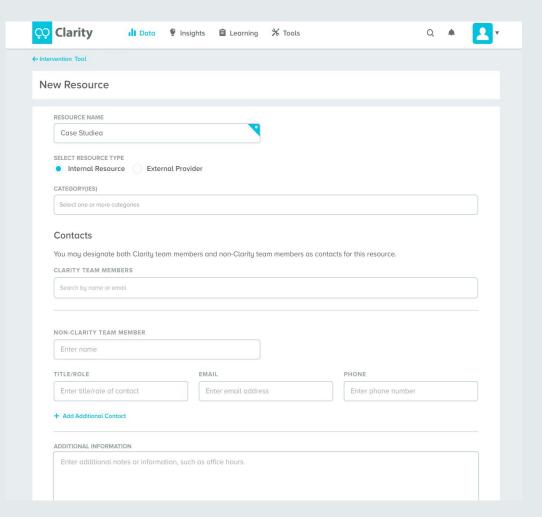
Refer students for the most beneficial services



#### **ADDING RESOURCES**

## Provide Resource Mapping

Select appropriate resources and determine contacts for each intervention effort



# Explore Intervention History

Lucy Abraham SCHOOL Apple Blossom High School GRADE 10 AGE 16

Profile Trends Interventions

#### **Lucy's Interventions**

2				
LAST UPDATED	CATEGORY	RESOURCE	STATUS	Si
Aug 31, 2016	Fighting		New Intervention	0
Aug 19, 2016	Bullying, Harassment	Coach	Receiving Services	1
Aug 11, 2016	Change in Academic Performance	Achieve 3000 Reading	<ul> <li>Receiving Services</li> </ul>	1

## The Process of Slipping Away

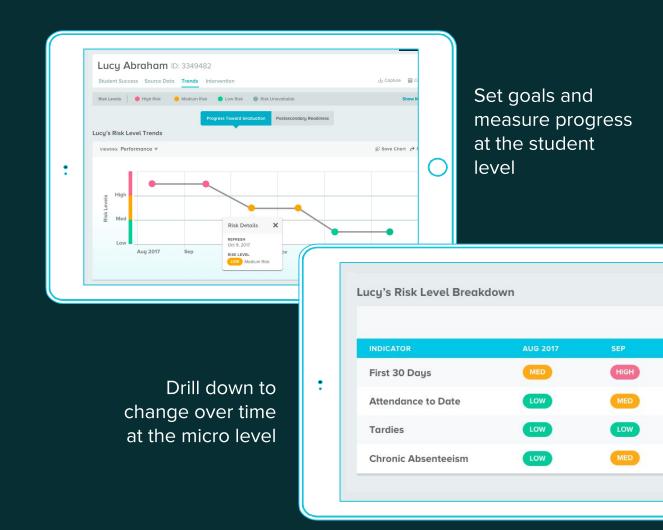
Students
Identified as
At-Risk

Students
Connected
to Support
Services

Students that Complete Support Services

## TRENDS & AT-A-GLANCE VIEWS

Understand Intervention Effectiveness



**The 21st Century Learning Suite** 

Plan and Measure Technology Investments to Drive Student Learning Safely





## \$13B

Total Ed Tech Investment

## Challenges of 21st Century Learning



37%

Of Purchased Apps Are Never Activated



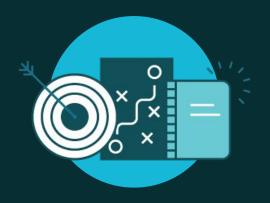
353

Public School Cybersecurity Attacks in 2018

(EdWeek; Data Quality Campaign) The Education Technology Industry Network (ETINU.S); FERPAlSherpa; K-12 Cybersecurity Map, Inside Higher Ed)

## Drive Effective 21st Century Learning

## **How Are You:**



Measuring the effectiveness of technology programs in your district?



Building future-ready classrooms?

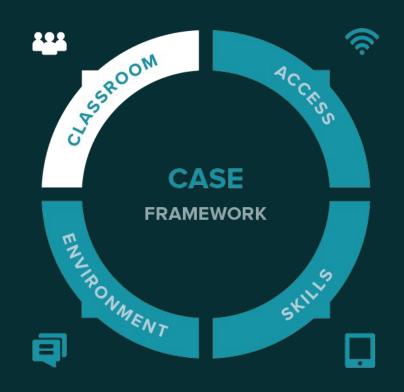


Ensuring a safe and secure environment for digital learning?

# TECHNOLOGY & LEARNING FRAMEWORK

#### **CLASSROOM**

- Use of the 4Cs
- Digital Citizenship
- Assessment
- Assistive Technology



# DIGITAL PRIVACY, SAFETY & SECURITY FRAMEWORK

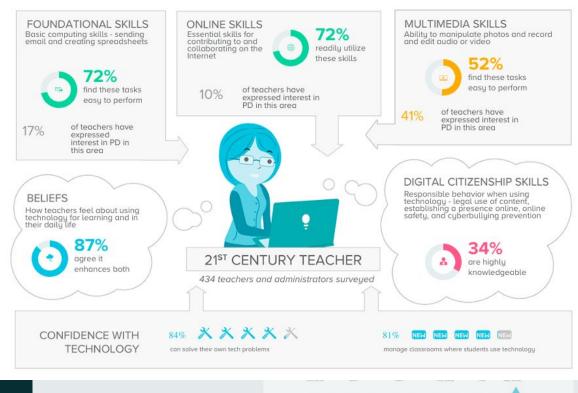
#### **POLICIES**

- Digital Safety & PrivacyTeam
- Digital Safety
- Digital Privacy



#### **REPORTS**

Access a personalized report unique to every organization with easy-to-read infographics for quick decision-making.





#### DIGITAL PRIVACY, SAFETY AND SECURITY

PARTNERING FOR A SAFE DIGITAL ENVIRONMENT

#### **REPORTS**

Access a personalized report unique to every organization with easy-to-read infographics for quick decision-making.





The Learning Outcomes Module

## Evaluate Technology's Impact on Learning

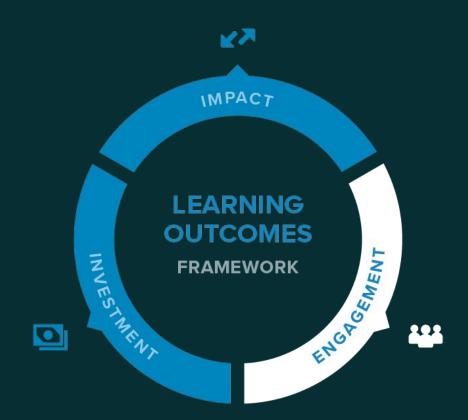
# **LEARNING OUTCOMES**FRAMEWORK



# **LEARNING OUTCOMES**FRAMEWORK

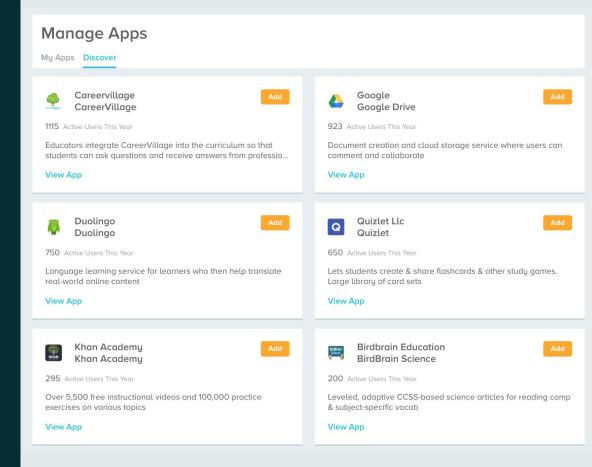
#### **ENGAGEMENT**

- Usage
- Perception



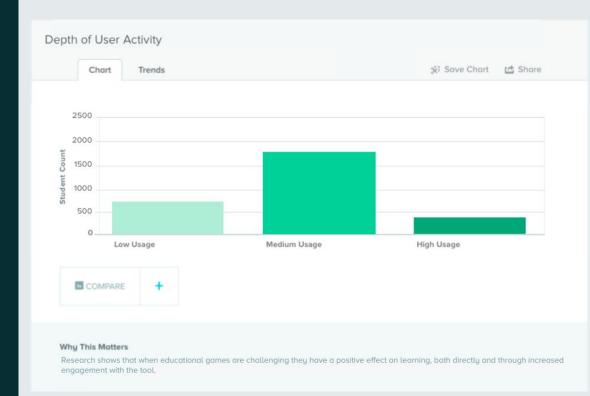
## DISCOVER ALL ACTIVE EDUCATION APPS

Easily identify apps with the largest presence in your organization



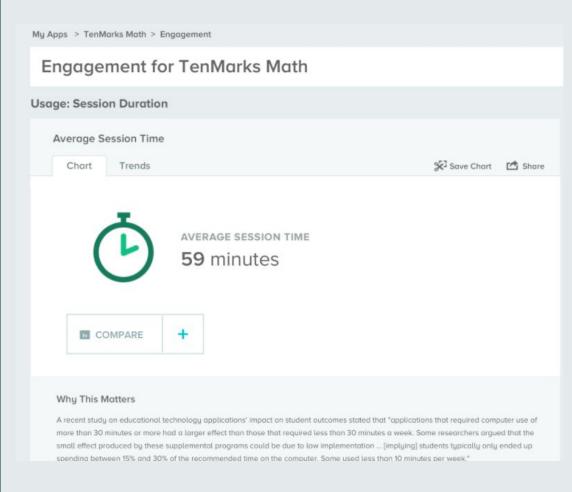
## EASILY MEASURE THE DEPTH OF ACTIVITY

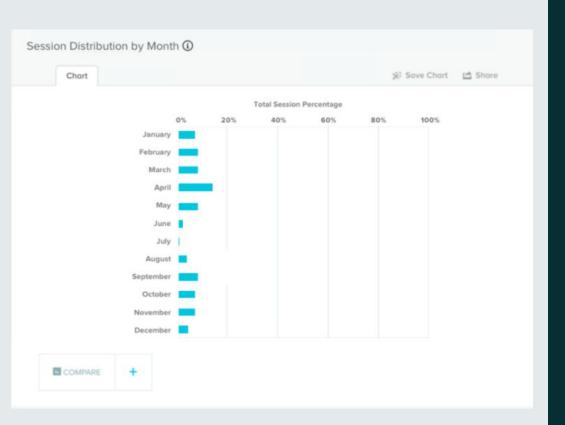
Understand the type of usage across your organization



## ACCESS A HOLISTIC SNAPSHOT OF AN AVERAGE SESSION

Compare student usage across apps



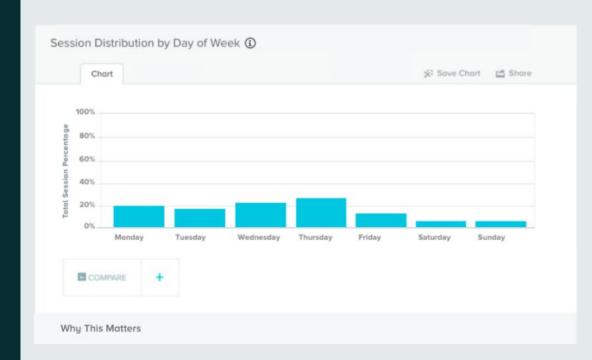


MONITOR MONTHLY
APPLICATION
ENGAGEMENT THROUGH
THE YEAR

Ensure students are using the right apps at the right times to drive learning

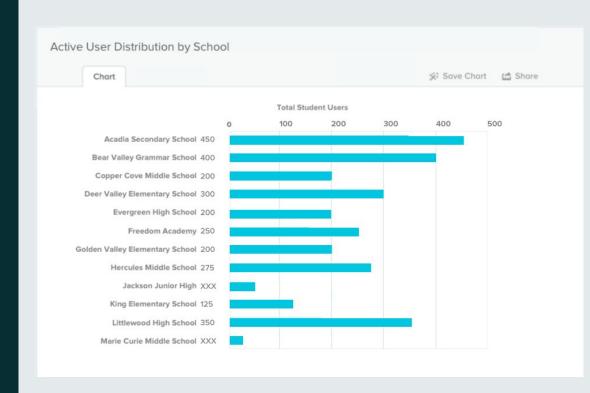
### GAIN INSIGHT INTO ENGAGEMENT BY DAY OF THE WEEK

Identify when students engage most with specific apps



## VIEW ADOPTION ACROSS SCHOOLS

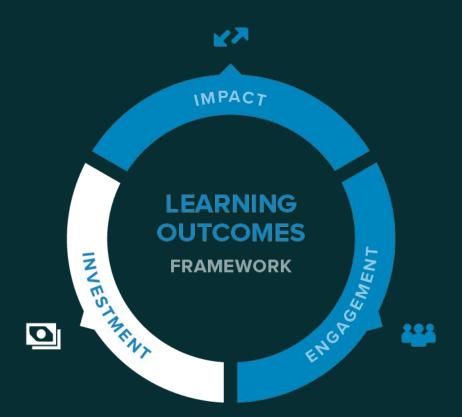
Instantly compare usage across multiple schools and share results with stakeholders



# **LEARNING OUTCOMES**FRAMEWORK

#### **INVESTMENT**

- Subscription
- Adoption



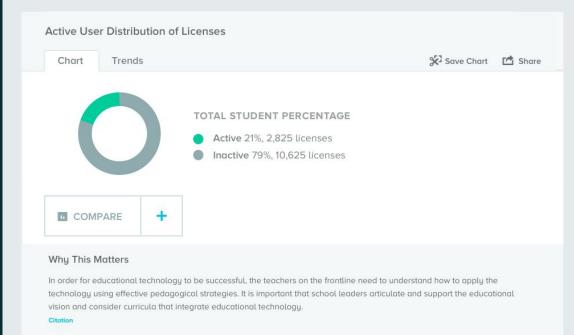
My Apps > TenMarks Math > Investment Investment for TenMarks Math Adoption Active User Distribution by Grade Chart % Save Chart Share **Total Student Users** 200 300 400 500 12th Grade 11th Grade 10th Grade 9th Grade 8th Grade 7th Grade 6th Grade 5th Grade 4th Grade 3rd Grade 2nd Grade 1st Grade Kindergarten

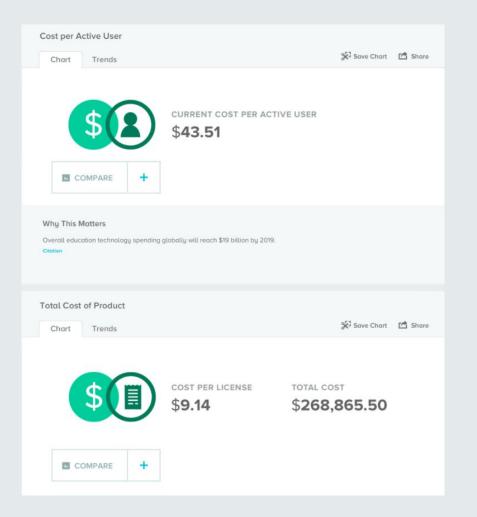
## QUICKLY ASSESS ADOPTION BY GRADE

Identify areas with high usage and areas to target for improvement

## EASILY SEE WHICH LICENSES ARE BEING USED

Find opportunities to improve adoption or reallocate resources





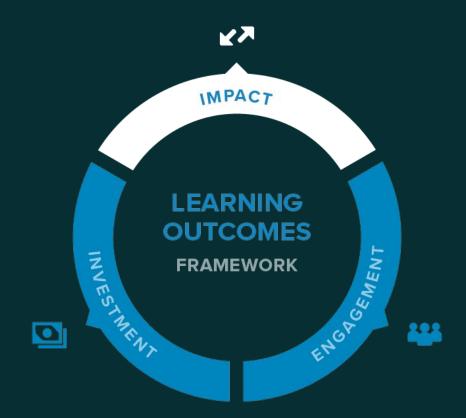
#### **INSTANTLY DISCOVER ROI**

Know the true price of licenses, and easily share results with stakeholders to inform next steps

# **LEARNING OUTCOMES**FRAMEWORK

#### **IMPACT**

- Achievement
- Other learning outcomes



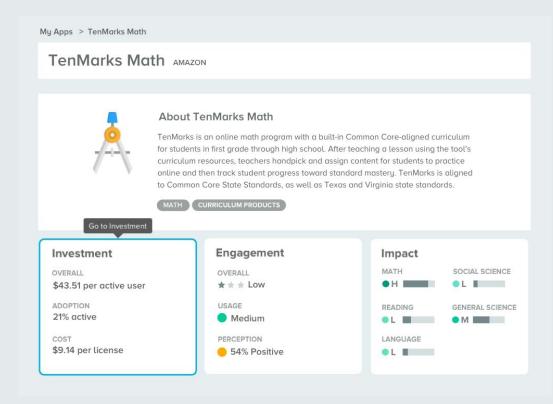
#### **QUICKLY ASSESS IMPACT**

Understand each digital tools' effectiveness at a single glance



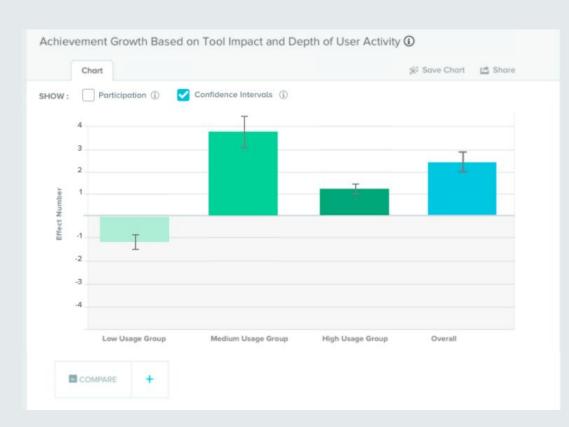
## GAIN A DEEPER UNDERSTANDING OF EACH APP

Drill down into individual products to access contextual information and data



## MEASURE RETURN ON LEARNING (ROL)

Ensure each tool is an investment toward positive student growth



## **Analytics Suites on the Clarity Platform**

## 21st Century Learning

Plan and measure technology initiatives to drive student learning

## **Early Insights**

Identify, connect, & monitor at-risk students throughout the K-20 continuum

## **Data Portals**

Provide a clear understanding about complex organizational data to all stakeholders



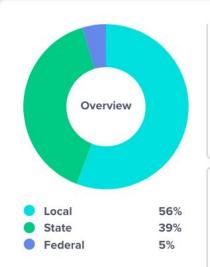




#### **Financial Portal**

## Districtwide Overviews ...Funding

**56** Funding ①





Local (1) \$529,055,935

View Fund Breakdown



Federal () \$44,156,956 View Fund Breakdown

**\$948,237,050** TOTAL



View Fund Br

Other rev through lo sources. from the s interest, a items.

\$81,5

#### **Financial Portal**

... and Spending





#### Construction, Debt, Refinancing & Other

View Fund Breakdown

These expenditures are those that are not associated with day-to-day operation of school activities. They are comprised of major construction projects, debt payments, acquisition of land, and other programs.

\$184,762,397 TOTAL

**Total Spending** 

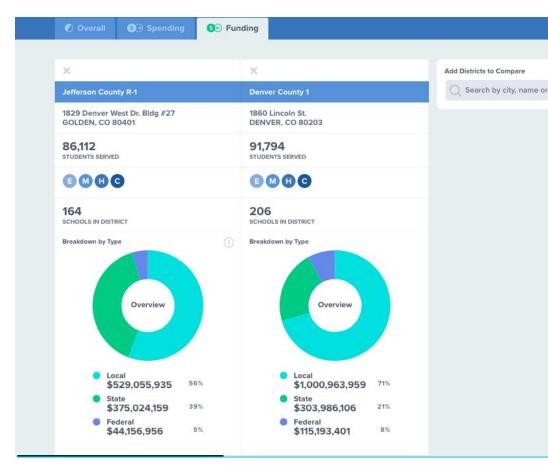
\$1,065,922,207

Totals may not sum due to rounding (1)



#### **Financial Portal**

## Compare District Funding



0





## THE INDUSTRY STANDARD

**26K** Schools Globally

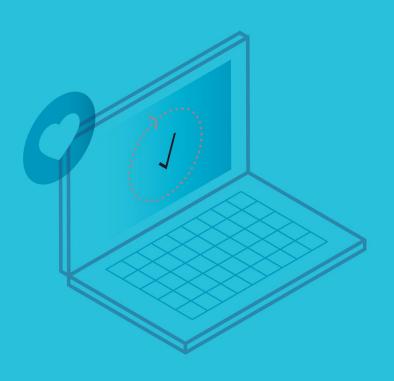
1 in 5 US Schools

2800 Districts in 47 States

& 8 Countries

Deep Experience in K-12 Education

Trusted by
Customers
93% Renewal
Rates



## **Questions?**

## Stop by Booth #



0