

Data Literacy for Student Support

Four steps to help your team turn student data into meaningful action.

FREE
for all schools

The Data Literacy Cycle

- 1 Access**
Find the right data sources and understand what is available to you.
- 2 Interpret**
Make sense of the numbers and avoid common pitfalls.
- 3 Act**
Turn insights into meaningful interventions and supports.
- 4 Communicate**
Share results so your entire team gets smarter together.

This is a cycle, not a sequence. Communication informs access. Learning drives better interpretation.

What's Inside

Step 1: Access

Where student data lives, leading vs. lagging indicators, and the three numbers that matter most.

Step 2: Interpret

Rates vs. counts, the danger of averages, why trends matter, and a Do This / Not That guide.

Step 3: Act

Matching signals to supports, the monthly data review workflow, and fidelity of implementation.

Step 4: Communicate

Different audiences and messages, the three-question framework, and building a data culture.

Built by practitioners, for practitioners.

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WHERE STUDENT DATA LIVES

Most schools already have a wealth of student data. The opportunity is in knowing what you have and where to find it. A 2006 RAND study by Marsh, Pane, and Hamilton found that once educators gain clarity about which data sources are available and how to access them, the conversation changes completely.

The systems your school already uses contain powerful information about how students are doing. The key is knowing which system holds which data, how often it updates, and how it connects to the early warning indicators that predict student outcomes.

Data Source	What It Contains	Update Freq.	ABC Link
Student Info System	Demographics, enrollment, address, family contact	Daily	Attendance
Gradebook / LMS	Grades, assignments, progress, missing work	Weekly	Course
Discipline System	Referrals, suspensions, incidents, patterns	As they happen	Behavior
Assessment Platform	Test scores, benchmarks, screeners, progress	Quarterly	Course
EW Dashboard	Risk flags, combined indicators, predictive scores	Varies	A + B + C

Key Insight

Connecting these systems to each other is where the real power comes in. A student might be flagged for chronic absence in the SIS while the gradebook shows a separate concern. When you bring those views together, you get a complete picture.

LEADING VS. LAGGING INDICATORS

Not all data points are equally useful for intervention. Leading indicators show what is happening now and give you something to act on. Lagging indicators show what already happened. Both matter, but leading indicators are where your energy should go.

LEADING INDICATORS (Act Now)

- Attendance this week or month
- Current grades and course progress
- Recent discipline referrals
- Assignment completion rates
- Classroom engagement observations

LAGGING INDICATORS (Already Happened)

- End-of-year test scores
- Final course grades
- Annual suspension rate
- Graduation / retention status
- Year-end dropout rate

* Quick Start: The Three Numbers That Matter Most

If you only look at three data points, look at these: (1) attendance rate this month, (2) discipline referrals in the past 30 days, and (3) current course grades. These three predict most student outcomes. Balfanz's research at Johns Hopkins has shown that these ABC indicators, when combined, can identify up to 60% of future dropouts as early as sixth grade.

Step 2: Interpret

RATES VS. COUNTS

A school with 50 chronically absent students sounds the same as another school with 50 chronically absent students. But if the first school has 500 students and the second has 250, they are very different situations. Counts tell you the size of the problem. Rates tell you the severity.

School A (500 students)

10%

Manageable with universal supports

School B (250 students)

20%

Needs targeted intervention now

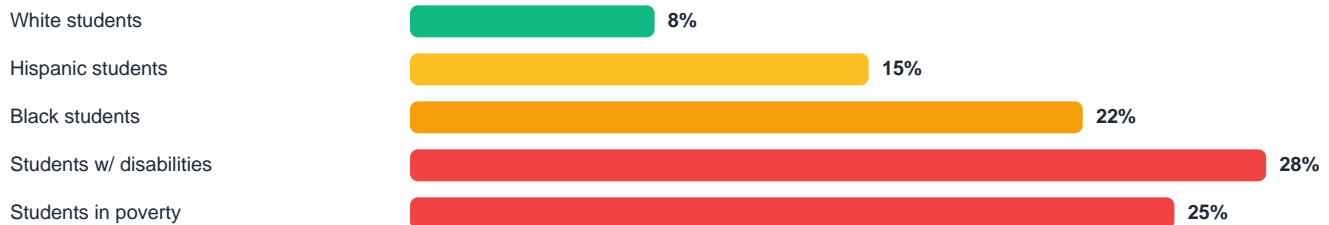
Both schools have 50 chronically absent students. Same count. Very different story.

THE DANGER OF AVERAGES

A school-wide average hides critical disparities. When someone says "our chronic absence rate is 12%," it sounds manageable. But averages smooth over the real story. The students who need the most support often belong to subgroups where the rate is two or three times the average.

Lincoln Middle School: Overall chronic absence rate: 12%

But when disaggregated by subgroup:



Watch Out: Averages Mask Inequity

A school with 12% chronic absence overall might have 25% chronic absence among students with disabilities or students in poverty. Always disaggregate by race, ethnicity, disability status, socioeconomic status, and English learner status.

WHY TRENDS MATTER MORE THAN SNAPSHOTS

A student who went from 95% to 88% attendance is in a very different situation than a student who has been at 88% for three years. Direction matters as much as the number. Always ask: Is this getting better or worse? How fast?

Student A: 75% in English (last quarter: 88%). Declining.

HIGH

Needs intervention now. The declining trend suggests something changed.

Same current grade. Different stories. Trends tell the real story.

Student B: 75% in English (last quarter: 73%). Improving.

MODERATE

Making progress but still needs support. The trend is positive.

Same current grade. Different stories. Trends tell the real story.

DO THIS, NOT THAT: DATA INTERPRETATION

Do This

Disaggregate by subgroup

Break data by race, gender, disability, EL status, and poverty to find hidden gaps.

Look at trends over time

Compare this month to last month, this year to last year. Direction matters more.

Use rates, not just counts

"50 students are chronically absent" needs context. 50 out of 200 vs. 50 out of 1,000.

Ask "why" before acting

A dip in attendance could mean a flu outbreak or something deeper. Investigate first.

Combine multiple indicators

One data point is a clue. Two or three together tell a much more reliable story.

Celebrate progress

If a student went from 70% to 82% attendance, that is meaningful growth worth recognizing.

Not That

Report only school-wide averages

Averages hide the students who need the most help and mask systemic inequities.

React to a single data point

One bad week is not a trend. One good week does not mean the problem is solved.

Compare raw numbers across schools

Without rates, comparisons are meaningless. A school of 2,000 will always have bigger counts.

Assume correlation is causation

Students who eat breakfast may have better attendance, but breakfast may not cause it.

Use data to confirm what you believe

Confirmation bias is real. Let the data challenge your assumptions.

Ignore good news

Data is not just for finding problems. It is for finding what works so you can do more of it.

MATCHING SIGNALS TO SUPPORTS

Different risk signals call for different responses. A student who missed three days last month does not need the same response as a student who has missed 30% of the school year with two course failures and a suspension. Matching the level of intervention to the level of risk is what separates schools that move the needle from schools that just generate reports.

Risk Signal	Level	Response	Example Interventions
Attendance 85-90%	Moderate	Targeted (T2)	Mentoring, check-ins, family outreach
Failing 1 core course	Moderate	Targeted (T2)	Tutoring, study skills, teacher collab
2+ ABC flags	High	Intensive (T3)	Case management, wraparound, counselor
Chronic abs + failing + referrals	Critical	Intensive (T3)	Full team intervention, family meeting

THE MONTHLY DATA REVIEW WORKFLOW

A 30-minute meeting once a month with the right people in the room and the right data on the table can transform how your school supports students. The IES (2009) found that schools with regular, structured data review meetings see measurable improvements in student outcomes.

- 1 Pull Data**
Extract ABC data for the past month (first week of each month).
- 2 Identify at Risk**
Find your top 20-30 highest-risk students based on flags.
- 3 Assign Champions**
Give one adult champion to each student.
- 4 Match Supports**
Pick interventions that fit the student's risk profile.
- 5 Document Plans**
Write down what you are trying and who is doing it.
- 6 Review Progress**
Meet again next month. See what moved. Adjust.

Quick Win: The Monthly Meeting

Set up a monthly 30-minute data review meeting. Bring your gradebook, attendance records, and discipline data. Review your 20 highest-risk students. Assign one adult champion to each. Check progress next month. This single practice moves the needle more than any software or professional development.

FIDELITY & PROGRESS MONITORING

The most effective schools treat interventions the same way they treat instruction: with intentionality, consistency, and data. The University of Chicago Consortium found that fidelity of implementation is the single biggest factor in whether an intervention succeeds. Every intervention needs three components:

- **Assign Ownership**
Every intervention needs one adult who owns it and reports back at each data review.
- **Monitor Progress**
Track the specific data point the intervention targets. Let the data tell you if it is working.
- **Adjust or Sustain**

DIFFERENT AUDIENCES, DIFFERENT MESSAGES

A principal needs different data than a teacher. A parent needs different data than a counselor. Matching your message to your audience is half the battle. The Data Quality Campaign found that educators are significantly more likely to use data when it is presented in a format that directly answers their questions.

Teachers	<i>"How are my students doing right now? What should I change?"</i>
Parents/Guardians	<i>"Is my child on track? How can I help at home?"</i>
Counselors	<i>"Which students need support? What barriers are in the way?"</i>
Principals	<i>"Where do we focus resources? Are we making progress?"</i>
Board/Community	<i>"How are we doing overall? Are we closing gaps?"</i>

THE THREE QUESTIONS FRAMEWORK

Every data presentation, email, or report should answer these three questions in order:

- 1 What are we looking at?**
Describe the data clearly: which students, which metric, which time period.
- 2 What does it mean?**
Interpret the pattern: what is the story? who is affected? better or worse?
- 3 What should we do?**
Recommend specific actions: who does what, by when, to address the issue.

DATA STORYTELLING BASICS

- Lead with the insight, not the table. Instead of "Here is our attendance data," try "We identified 47 students whose attendance dropped significantly."
- One chart per slide or email. Visual clutter obscures the message. Show one main idea per visualization.
- Label your axes. Every chart needs clear labels. If someone has to ask what an axis means, you have already lost them.
- Use color purposefully. Color is not decoration. Highlight the insight: red for high risk, green for progress, gray for baseline.
- Say "So what?" out loud. Before you present, ask yourself: Why does this matter? Why should my audience care?

BUILDING A DATA CULTURE

A healthy data culture has three characteristics: curiosity (people want to understand), safety (nobody gets blamed for bad numbers), and action (insights lead to changes). It starts with how you talk about data in every meeting.

"I noticed something..."

Instead of "The data shows," try "I noticed our 9th graders have a lower attendance rate. Have you seen that too?" Invites reflection.

"I'm not sure what this means."

Admitting uncertainty makes data approachable. Opens dialogue and makes colleagues feel their expertise matters.

"Let's check that next month."

Data conversations are recurring. This consistency is what builds a real data culture.

Data literacy is not a one-time training. It is a practice you build over time, one conversation at a time. Start with the data you already have, ask one good question, and follow the cycle: access, interpret, act, communicate.

References & Resources

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Visit strategicstudent.com for interactive tools, intervention guides,
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