EmpowerK12

DIAGNOSTIC RUBRIC FOR DATA-DRIVEN CULTURE

Purpose of this Rubric

The *Diagnostic Rubric for Data-Driven Culture* is designed to provide schools and school systems a concrete set of policies and practices guiding use of data analytics to drive improvement. In our experience, we have seen large and small K-12 organizations proclaim to be "driven by data" while making limited use of the information they collect. Our goal with this rubric is to provide tangible data strategies from simple-to-advanced to increase the rigor of data-driven practices in schools.

Diagnostic Rubric Organization

The rubric draft is organized into three main facets of a comprehensive K-12 data strategy: Visionary Staff with Data-Oriented Mindsets, Infrastructure to Support Metrics and Analytics, and Policies and Practices that Govern Data Dissemination and Accountability. Each section includes multiple strategic initiatives with examples of how each initiative may be implemented across three types of school systems: those at the most basic level of data usage or "Data Simple" schools, systems with a concerted focus on data as "Data Focused", and finally those systems who set the standard for being driven by data as "Data-Driven" systems.

VISIONARY STAFF WITH DATA-ORIENTED MINDSETS

Elements	Data Simple	Data Focused	Data-Driven
Identifying Challenges	Discuss issues at meetings where staff identify what they feel are challenge areas	Challenge areas are measurable, specific and quantifiable Some challenges identified based on annual or quarterly reports	Compares local data to a standard of success that's based on data Uses predictive analytics to project future outcomes if issue not addressed
Creating Hypotheses	Possible underlying issues identified based on staff prior experience	Blends qualitative reasoning with quantitative facts	Refers to research when creating hypotheses
Data Savvy	Majority of visualizations limited to bar charts, line graphs, and pie charts Staff know and use data terms like mean, median, mode, and range	Staff know and often use data terms like standard deviation, quartiles, and margin of error Data visualization usage extends to scatter plots and histograms	Staff know and often use data terms like significance, variance, and regression May use advanced data visualization including combo charts, treemaps, dot plots with explicit purpose
Data Diligence	Data collection processes have little oversight or secondary review	Data collected is clean, readily accessible, and verifiable	Uses dashboards and reports that include metrics to identify potential data quality issues
Instructional Staff Mindsets	Teachers create student groups based on which students work well together Teachers review prior year data during planning for new school year	Students groups based on test scores and learning styles Teachers/leaders meet after each term to review data Exit tickets, homework, formative assessment data collected but infrequently reviewed and used to change future lesson plans	Groupings change with frequency based on skill deficit data from exit tickets and assessments Teachers/leaders meet weekly to review student and observation data Prior formative assessment data influences every lesson plan's structure

INFRASTRUCTURE TO SUPPORT METRICS AND ANALYSIS

Elements	Data Simple	Data Focused	Data-Driven
Student Information System	May have a contract for a SIS but its use is limited to minimally required data collection Only certain staff are trained to use multiple domains/elements of the SIS	Staff roles (who enters what) are explicit System includes or has direct connections to attendance, behavior, gradebook, enrollment, assessments	Appropriate stakeholders know how export data for individual analysis System uses latest technology (e.g. API's) to store and deliver data
Data Organization	Data is contained in the SIS and sometimes on a share drive but also often only found within individual staff computers or folders	Uses a server or cloud-based drive with folders that contain datasets organized by domain Information is centralized in one location with permissions to avoid accidents	Historical data is available and fits in the most current data model All data is integrated into a centralized warehouse or analytics tool
Analytics Tools	Use canned reports offered by source services Additional analysis limited to graphs and charts created in Excel	Creation of dashboards that show changes in datasets over time Reports include a mix a data domains "Advanced" use of Excel and PowerPoint to deliver user-friendly reports	Complete data integration with multiple K-12 domains into tool Reports are interactive and include ability to drill-down and select filters All stakeholders are trained on the analytics tool
Data Differentiation	Tools and systems chosen produce one set of results that all levels of personnel use	Generated reports have a different focus for teachers and for administration	Reporting tools are highly customizable so that metrics are differentiated for teachers, admin, Board, specialists, support providers, etc.

POLICIES AND CONSISTENT PRACTICES THAT GOVERN DATA DISSEMINATION AND ACCOUNTABILITY

Elements	Data Simple	Data Focused	Data-Driven
Data Meetings	Most "data" meetings are ad hoc and only held when issue is flagged May meet once or twice per year to hold specific data meetings from Exec Dir down to teachers, typically at evaluation time	Staff hold quarterly and annual data meetings from Exec Dir down to teachers and assistants	Staff hold monthly (or more frequent) data meetings from Exec Dir down to teachers and assistants Meetings have a pre-defined structure, balance discussion and analysis
Outcomes & Action	Organizational goals are decided without prior review of data Ad hoc reports or meetings are requested to review goals	Outcomes/goals are linked to review of prior data and are measurable Goals are included on reports and dashboards	Policy changes are tracked and dashboards show before/after results There is a data report exclusively built around organizational goals Analyses include a focus on highlights and actionable takeaways
Communication & Availability	When school leaders address staff, goals are reviewed, often without quantified updates	School leaders often use data in communications but can be selective and not entirely transparent	All stakeholders have access to data reports and analytics tools School leader all-staff e-mails address challenges and topics with quantitative information and refer to goals Communication about data is honest and transparent
Data Cycle	Staff practice is to talk about what needs to get done, but lacks clear ownership and identification of outcomes/metrics	Clearly defined roles/owners of challenges along with plan for tracking data along the way	Staff take time to help each other improve data literacy, opportunities for advanced data analysis development Beginning of cycle focuses on prior results along with projected outcomes
Institutional Knowledge	Organization lacks any plan for transition in data staff Very little, if any, professional development time spent on teaching new data analysis skills	Some written documentation about what gets analyzed and when Outline of an effective transition plan for data staff members One or two PD sessions for teachers focus on data analysis	Organization has training manuals and data handbooks that all data staff use and update as appropriate Ongoing data skills opportunities available for all staff levels via PD, focus groups, one-on-one training