

## HISD Implementation

### 4. Ensure data-driven accountability

#### *What we will do*

Build robust systems and processes that enable easy access to and use of key data to inform decisions and manage high levels of performance districtwide.

#### *Why we will do it*

Currently, relevant data on students, teachers, and achievement are difficult to access, often not up-to-date, and not always accurate. Furthermore, many people across the district lack the expertise to use data to make decisions.

This creates an opportunity to arm HISD leadership with accessible, timely and accurate data and provide them with the training necessary to understand how to translate data into action. By doing so, we will get better at making the key decisions that affect the performance of the district. Funding for this initiative is focused on Phase 1 which includes minimal training and will provide initial reports. Training beyond Phase 1 is a multi-year program of training and learning through use.

#### LEARNING FROM OTHERS: BROWARD COUNTY PUBLIC SCHOOLS

The importance of comprehensive high-quality data systems is exemplified by other school districts who have successfully implemented architecture that enable frequent and accurate data sharing with schools. For example, at Broward County Public Schools, teachers create year-long student achievement goals by class and by student based on incoming students' prior achievement data and adjust teaching throughout the year through multiple mini-assessments.

#### *Our key strategies will be:*

##### **4.1 Build easily accessible and accurate data architecture, warehouse, and technology infrastructure**

HISD is the last of the top 10 School Districts to implement a comprehensive data management, warehousing and reporting system. Data is not standardized nor integrated across the major sources. Obtaining information requires finding a programmer who can develop a program and produce the report. This complexity makes it difficult to ensure that data in the systems maintain a high degree of accuracy. As a result, HISD will build a new data management infrastructure that will consolidate data into a single source and establish rigorous procedures and controls on data quality. Doing so will increase decision-making effectiveness across the district by giving teachers, power users and leadership easy access to timely, relevant, and accurate data and create a foundation for bringing best practices in technology to the classroom.

## Main elements

### **4.1.1 Create a data warehouse with a business intelligence interface**

Currently, critical data on students, teachers, and achievement are housed in various files, requiring intensive manual effort and long time periods to pull together relevant and useful reports to inform decision making by leadership across the district. Longitudinal data on students and teacher profiles are not existent. To remedy that, HISD will create a central repository where all critical data will be stored. Not only will this make data more accessible, but it will also allow more complex analysis to be done, creating more useful reports that get to the bottom-line of student performance. In addition, a user-friendly interface will also be developed that will allow HISD leadership to be able to access and run their own queries without always having to make requests to the Research and Accountability team.

### **4.1.2 Implement a data quality and data stewardship program**

As data becomes more available and integrated into decision-making, it is important to ensure that it is always accurate at the source. A rigorous process for checking data quality and cleaning data errors does not currently exist at HISD. By implementing a data quality and data stewardship program, HISD will design a system that will put a series of controls and procedures in place to manage data quality from the point it enters the system through to generating output for reports. In addition, there will be clear ownership throughout the system, ensuring accountability for the highest levels of data quality across the district.

### **4.1.3 Re-skill and implement IT infrastructures that support the district**

Modern best practices in technology are not currently applied to IT systems and instructional applications. As a result, HISD has a fragmented portfolio of IT systems and instructional applications, purchased at different price points, applied differently to curriculum, and not integrated into a common architecture. Therefore, HISD needs to develop a special type of instructional application called a collaborative environment, which will allow students, teachers, and administrators to work more productively across a common platform. This will enable all to store and share lessons and homework in a consistent manner and move the district into more of a 21<sup>st</sup> century learning environment.

In order to support the transition to new IT architectures, HISD must revamp its existing IT architecture in areas such as end user computing devices, network connectivity, and information security to ensure that the supporting infrastructure is in place to allow for safe, secure, and ease of access for end users. The ability to support and transition to new IT architectures related to computing devices, connectivity and information security is highly dependent on the availability of resources in the future and is a multi-million dollar cost. Without the proper funding, expectations cannot be met.

## **4.2 Develop and implement performance management tools and practices for decision-making**

Currently, HISD reports on many measures of district and student performance. This proliferation of metrics affects decision-making throughout the district. For example, it is often difficult for the Board to extract the most relevant performance indicators and metrics to measure district progress and adjust policies. Furthermore, key leadership from the Superintendent down to the Department Heads do not have access to a report that provides a snapshot of the most important performance measures that they can use to drive strategy for HISD. Therefore, HISD is developing a set of dashboards that will simplify the current Board Monitoring System to report on only the most critical dimensions of district performance and create similar ones to capture relevant measures for the Superintendent, Chief School Officers, School Improvement Officers, Principals, and Department Heads. This will allow HISD to stay better informed on district progress and enable leadership to make more effective, data-driven decisions.

### Main elements

#### **4.2.1 Adapt Board Monitoring System to create a dashboard that provides a snapshot of the most important district performance measures**

The current Board Monitoring System is very comprehensive and detailed, resulting in a voluminous set of reports and targets that make it difficult to glean the most critical indicators of district performance. As a result, HISD will create a dashboard that summarizes the most important metrics in an easy to view format. This will give the Board a powerful tool to help drive more effective decision-making that is grounded in objective data and analyses.

#### **4.2.2 – 4.2.6 Create a dashboard that summarizes important performance metrics for key district leadership**

Currently, HISD leadership must sift through a variety of different reports and/or make one-off requests to the Research and Accountability department to find relevant indicators or analyses on district, school, and student performance. The consequence is that decisions are often made without access to the information necessary to make them effectively. This gap creates an opportunity to develop dashboards that pull the most applicable metrics into an integrated view for use by different groups of district leadership to help manage performance, monitor progress on key initiatives, and drive more effective decision-making. HISD will develop dashboards for the following district leadership groups:

- (4.2.2) *Superintendent*: will contain metrics that are aligned with the Superintendent's performance evaluation
- (4.2.3) *Chief School Officers*: will contain metrics that will report on key school, teacher, and student performance indicators and track progress of major initiatives against project milestones organized by elementary, middle, and high schools
- (4.2.4) *School Improvement Officers*: will contain metrics that will report on key school, teacher, and student performance indicators for their portfolio of schools

- (4.2.5) *Principals*: will contain metrics that will report on teacher, student, and administrative performance indicators for the school under their responsibility
- (4.2.6) *Department Heads*: will contain metrics that will report on performance indicators relating to department operations and track progress of major department initiatives against project milestones

#### **4.2.7 End User Training**

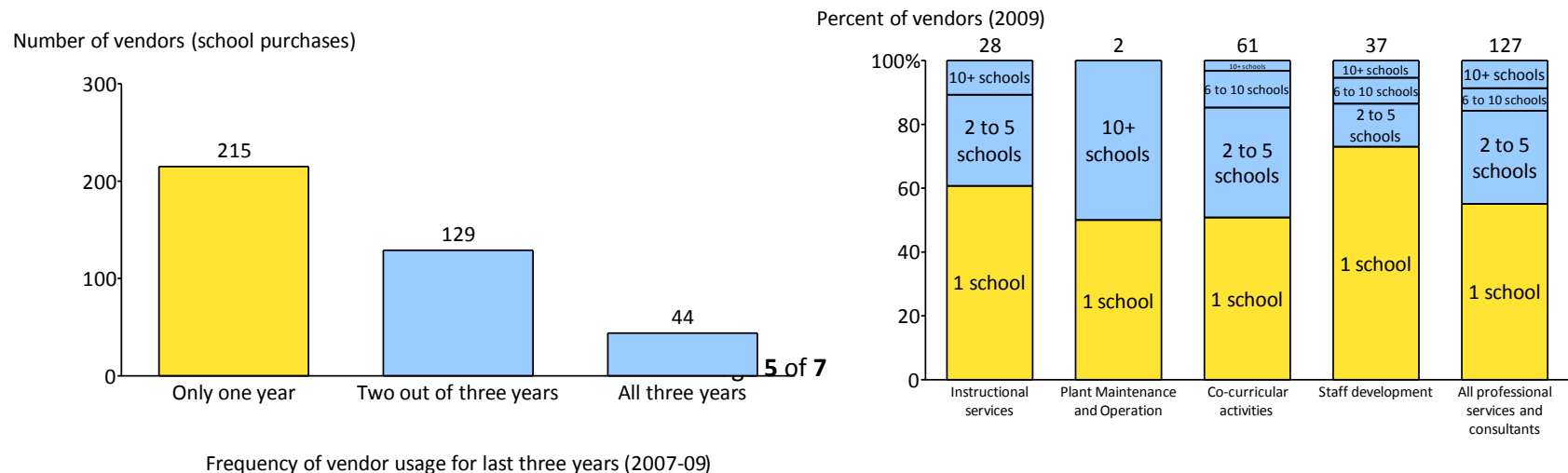
The topics of end user training would include system training, scorecard interpretation (data sources, support model, as well as district response.) and data governance processes.

- (4.2.7.1) Initial Implementation Training - Conference Room Pilot – To occur in the pre-implementation phase  
A conference room pilot will be planned and managed by the project team with assistance from the Lead Business Analyst. The conference room pilot will include a select group of end users. The purpose of a conference room pilot is to review the project with a small group of end users in order to receive their feedback, address any questions and concerns and gain their acceptance of the system. This effort will refine the requirements for the ongoing, continuing training needed for users needing refresher courses, new employees hired at HISD, or existing employees changing positions.
- (4.2.7.2) Instructor-Led, Hands-On Classroom Training – Year 1 of implementation  
Instructor-led, hands-on training is envisioned for the initial, districtwide system deployment or new modules and significant functions.
- (4.2.7.3) Web-Based Training (WBT) – Subsequent years  
Web-based training can be produced in-house as is currently used for the existing, major ERP systems. Web-based training is appropriate for topics that have stable content (few changes from year-to-year), are needed by a relatively large number of employees, and can be presented in discreet segments of 60 minutes or less.
- 4.2.7.4 Training Product Deliverables
  - a) Custom WBT training modules for each user by role type.
  - b) End-user training manuals and job aids for each end-user role.
  - c) Classroom training including presentations for use during classroom, WBT (web based training) and Conference Room pilot instructions and facilitation guide.

- d) Appropriate employee communications to announce availability of training opportunities and classes leveraging the district's learning management system and communication channels.
  - e) Rapid response e-mail during the implementation to identify issues and organize quick response to end-user problems. End-user questions will be collected from the e-mail inquiries and classroom training; assembled into "FAQ" documents and distributed to all user types and support teams.
- 4.2.7.5 Training Resources Needed
    - a) Ongoing integration with professional development organization.
    - b) Leverage existing training classrooms at key HISD locations for classroom trainings.
    - c) Outlook e-mail account dedicated to receiving questions and concerns from end-users.
    - d) Training database environment reserved for training.
    - e) Instructor for classroom based training. In Year 1 the Lead Business Analyst would serve in this role. In subsequent years, the content should be integrated with the district's on-boarding activities and internal role-based, required training currently facilitated through the internal professional development organization.

### 4.3 Design effective and efficient business processes and procedures for optimization of resources and results

HISD's purchasing practices at both schools and central office are currently fragmented and inconsistent. As the graphic on the left hand chart below shows, fewer than 10% of vendors were used in each of the last three years. Furthermore, half of the vendors on the districts' approved list were used by only one school in the past year as shown in the graphic on the right hand side below.



HISD recognizes this as an opportunity to standardize the purchasing process and develop a system to capture feedback on the service levels provided by the vendors selected by HISD. By creating a more efficient procurement system, the district will realize cost savings, improve the quality of the vendors it works with, and help educators and school administrators free up valuable time they can use to devote to instruction.

#### Main elements

#### **4.3.1 Design and implement effective and efficient processes for selecting, obtaining, and evaluating instructional services and materials**

School leadership currently views the procurement process as bureaucratic and inefficient, taking valuable time away from other activities such as instruction. Vendor quality and contract prices are very inconsistent across the district, driven primarily by the lack of useful information about the providers that are available to schools and their track records of success. In a survey of principals, a clear need for action emerged:

*“We need some means of standardization of what we purchase so that we can get economies of scale.”*

*“I feel hampered at times in trying to acquire instructional services from vendors as the current procurement process is burdensome.”*

*“We need consistency. There are too many vendors with too many prices.”*

Furthermore, principals were very open to allowing Central Services help select the “right” vendors in order to achieve greater efficiency in the procurement process:

*“It would be really nice if HISD could recommend vendors based on the schools that are actually implementing the programs.”*

*“A recommendation list of programs and practices would go a long way in helping to make purchasing decisions.”*

*“I want to know which instructional services are proven and successful and used by other schools.”*

As a result, HISD is revamping the entire purchasing process for instructional services and materials – from vendor selection to vendor evaluation. Doing so will reduce the time burden on school administrators while providing them with the knowledge they need to select high quality vendors who have been pre-qualified, priced, and contracted. An important change will be the

development of a simple and intuitive system that will match daily needs at schools for instructional services and materials to pre-qualified solutions, minimizing or eliminating any effort required on the part of school leadership to manage a portion of these procurement activities. Furthermore, a simple feedback loop will be developed that will allow school leadership to evaluate vendor service levels and effectiveness of purchases, which will be incorporated into refining pre-qualified solutions and shared with schools across the district. By standardizing the procurement process, HISD will achieve cost savings and increase the effectiveness and quality of vendors the district contracts with.

#### **4.3.2 Design processes for schools to evaluate and share experiences about vendors**

As part of the simple feedback loop that HISD is designing and incorporating into the new procurement process for instructional services and materials, an Amazon-type feedback system will be developed to gather feedback from school leadership on their contracted vendors. Input on quality of service, effectiveness of materials and services rendered, and other general comments on their experience with vendors that school leaders have chosen to use will be captured, aggregated, and published in a user friendly forum that will be accessible to schools across the district. These feedback ratings will allow school leaders to make more informed choices about the vendors they select by incorporating the experience and evaluation of other schools.

#### **4.3.3 Define a business process for procurement of services and materials off of recommended vendor list**

In standardizing the procurement process for instructional services and materials, HISD has been conscious of balancing efficiencies gained with pre-qualified solutions with giving schools the choice to select vendors. As a result, HISD will allow higher performing schools to recommend new vendors to Chief School Officers, undertake a RFP process and undergo a controlled pilot. Research must be provided by schools to support their recommendations and agree to a one year or less proof of performance. Depending on the results of this process, recommended vendors may be added to the portfolio of pre-qualified solutions.