Redeploying Resources Through Technology Integration

Two Districts Experiences
THE STURGIS STORY
Sturgis Public Schools

Collaboration..Shared Services..Consolidation- not if, but when...
Consultants for District efficiency
Examined all of our district processes
  –Business and Instruction
Knew we needed to reduce/contain costs to be sustainable
  –didn’t replace retiring employees
Sturgis Public Schools

Needed to increase funding—But how?  
Suffered from an application explosion  
Needed to increase the accuracy, timeliness and efficiency of data in the multitude of applications.  
– state reporting  
– speed to learning
Sturgis Public Schools

Level Data ties it all together… “like the circulatory system of the human body, it makes all of the vital organs function as a single system.”

Julie Evans- Assistant Superintendent
Sturgis Public Schools
What is Level Data doing for us?

We currently have Powerschool, Meal Magic, Active Directory, Google Apps, Transportation, Easy IEP and Data Director seamlessly tied together so data flows between the applications without any manual intervention.

What we currently **don't** have is....
Easy Button for STATE REPORTING!
Ric Peterson of PPSC LLC.

PROJECT RED
The Project RED Mission

Research three major issues related to U.S. education:

• **Improving student achievement.**
  Unlike other segments, public education has seen only isolated benefits attributable to technology. Project RED seeks to define technology models that lead to improved student achievement.

• **Evaluating the financial impact of technology on budgets.**
  Little work has been done to show the positive financial impact of educational technology. Project RED identifies cost savings, cost avoidance, and revenue enhancements.

• **Assessing the impact of continuous access to a computing device by every student.**
  Does continuous access increase education outcomes? What conditions are necessary to lead to increased academic achievement and financial benefits? What are best practices regarding technology?
What are the outcomes we wish to improve?

*from survey responses and national agenda*

### All Schools
- Fewer disciplinary actions
- Lower dropout rates
- Less paperwork
- Lower paper and copying expenses
- Higher teacher attendance
- Higher test scores

### High Schools
- Higher AP course enrollment
- Higher college attendance plans
- Higher course completion rates
- Higher dual/joint enrollment in college
- Higher graduation rates
Properly implemented technology saves money.

- Most discussions focus on the high costs of technology, not the potential for savings.
- Project RED shows that properly implemented technology can provide immediate short-term savings at all levels.
- For example, LMS features can reduce copy machine and bubble sheet expenses (through the switch to online formative assessment).
- To the extent that school systems are willing to change practices and states are willing to change policy, the savings can grow substantially over time.
- For example, longer-term state-level savings can come from reduced dropouts and dual/joint enrollment.
Key Implementation Factors (KIFs)

Which technology practices improve learning the most?

1. *Intervention classes:* Technology is integrated into every class period.
2. *Change management leadership by principal:* Leaders provide time for teacher professional learning and collaboration at least monthly.
3. *Online collaboration:* Students use technology daily for online collaboration (games/simulations and social media.)
4. *Core subjects:* Technology is integrated into core curriculum weekly or more frequently.
   - *Online formative assessments:* Assessments are done at least weekly.
1. *Student/computer ratio:* Lower ratios improve outcomes.
2. *Virtual field trips:* With more frequent use, virtual trips are more powerful. The best schools do these at least monthly.
4. *Principal training:* Principals are trained in teacher buy-in, best practices, and technology-transformed learning.
1:1 Schools Have Greater Savings

Pct. of Respondents

<table>
<thead>
<tr>
<th></th>
<th>Paperwork Reduction</th>
<th>Copy Machine Expense Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1 Schools</td>
<td>40%</td>
<td>24%</td>
</tr>
<tr>
<td>All Other Schools</td>
<td>22%</td>
<td>11%</td>
</tr>
</tbody>
</table>
1:1 Works When Properly Implemented

<table>
<thead>
<tr>
<th></th>
<th>Proper 1:1*</th>
<th>All 1:1</th>
<th>All Other Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paperwork Reduction</td>
<td>100%</td>
<td>88%</td>
<td>77%</td>
</tr>
<tr>
<td>Disciplinary action reduction</td>
<td>92%</td>
<td>65%</td>
<td>50%</td>
</tr>
<tr>
<td>High-stakes test scores</td>
<td>90%</td>
<td>70%</td>
<td>69%</td>
</tr>
<tr>
<td>Drop-out rate reduction</td>
<td>89%</td>
<td>58%</td>
<td>45%</td>
</tr>
<tr>
<td>Paper and Copy Machine</td>
<td>83%</td>
<td>68%</td>
<td>65%</td>
</tr>
<tr>
<td>Graduation Rates</td>
<td>63%</td>
<td>57%</td>
<td>51%</td>
</tr>
</tbody>
</table>

*Proper 1:1: Those schools practicing the top 4 Key Implementation Factors (13 schools): Rev. Intervention Classes Every Period, Principal Leads Change management, Online collaboration Daily, Core Curriculum weekly.
Throne

PROCESS IS THE PRODUCT
Reinventing Your Business Model

What do these companies have in common?
Diamond - Rio in 1998
Best Data – Cabo in 2000
Apple iPod- 2003

The TRUE innovation was to make downloading digital music easy and convenient. A combination of hardware, software, and service.
Business model

Definition = Consists of four interlocking elements that, taken together, create and deliver value.

1. Customer Value Proposition
2. Profit formula
   Define value for the customer and the company
3. Key resources (how to fund this)
4. Key processes
   Describe how value will be delivered to both the customer and the company
• Innovation has been defined as the introduction of a new or improved thing (e.g., product, service, process) that has the capability of impacting the bottom line

• Innovation Strategy – tied to corporate strategy

• Managing Innovation – direction (what types to pursue), sourcing (internal and external, VOC), screening (prioritizing)
The challenges facing districts

- Data demand, complexity, and urgency has EXPLODED!
- Typically don’t focus on the core business processes within the district
- Enrollment/Business process (how many applications)
- Teaching and learning process (how to teach and what to teach)
- Typically don’t leverage technology to automate processes
- Need for Improved accuracy and timeliness of data
- Sustainability of district knowledge (attrition and layoff)
Benefits to a District

• No redundant data entry
• Clean and accurate data, the first time and every time
• District personnel should spend time interpreting data, not cleaning it
• Data people in the district should be focusing on reporting information, not moving data between applications
• Real time access to information
• Efficient processes
• Happy Customers
Current Application List

- KeyTrain
- Meal Magic
- Active Directory
- PowerSchool
- Schedule Star
- MS Live@Edu
- Life Touch
- Career Cruising

- Destiny
- Connect EDU
- Docufide
- Poly Plot
- EasyIEP
- Accelerated Reader
- Armed Forces Recruiting
- Pearson Studio – eCollege, Limelight, Inform
FOUNDATION OF DATA QUALITY
Level Data - The Foundation for Quality Data

Level Data works with each school district defining the processes associated with student enrollment, hiring employees and other key functions that require redundant data shared between applications. We then automate as much of those processes as practical. This solution is the FOUNDATION for Data Driven Decision Making and district data quality.
Student Enrollment

Single point of entry for Student data thru your Student Information System.

<table>
<thead>
<tr>
<th>Student Management Sys</th>
<th>Enroll New Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Smith, Mary A.</td>
</tr>
<tr>
<td>Address</td>
<td>123 Triangle Lane</td>
</tr>
<tr>
<td>Phone</td>
<td>555-555-1212</td>
</tr>
<tr>
<td>Date of Birth</td>
<td>1996-03-28</td>
</tr>
<tr>
<td>Guardian</td>
<td>James Smith</td>
</tr>
<tr>
<td>Grade</td>
<td>7</td>
</tr>
</tbody>
</table>
How it Works…..

• Process Kick-off meeting
  • District process and application “owners” are united for group discussions on their processes
    • The processes are documented
    • Each participant understands their role in the process
  • Applications are reviewed and Vendor dialogs are initiated
  • Secure VPN established with the district to facilitate data exchange
    • Fully managed and hosted service, no hardware to support, no software to upgrade or support
Why is this critical now?

- Every reason you have already heard today!
- If you want to ultimately change student outcome, you need access to clean, accurate, complete and timely data.
- State and Federal funding requires clean and accurate data
- Districts data requirements are expanding constantly
- Can’t and shouldn’t hire more staff
- Parents want accurate and up to date information
**Why is this critical now?**
*(an example of a 2300 student district)*

<table>
<thead>
<tr>
<th>Positions Impacted (based on 46 weeks)</th>
<th>Hours per days spent on data</th>
<th>Hours per week spent on data</th>
<th>Hours per year spent on data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Service</td>
<td>1</td>
<td>5</td>
<td>230</td>
</tr>
<tr>
<td>Transportation</td>
<td>0.75</td>
<td>3.75</td>
<td>173</td>
</tr>
<tr>
<td>Secretarial/SIS</td>
<td>4.5</td>
<td>22.5</td>
<td>1035</td>
</tr>
<tr>
<td>Technology</td>
<td>2.25</td>
<td>11.25</td>
<td>518</td>
</tr>
<tr>
<td>Library/Media</td>
<td>1.25</td>
<td>6.25</td>
<td>288</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td><strong>2243</strong></td>
</tr>
</tbody>
</table>
How much does it cost?

The Level Data Service is an annual subscription

• One-time charge of $6000 per district
• Costs are based on the number of students in the district and the number and type of applications requiring connectivity
• Typical first year per student costs range from $4 to $6/student
• Annual subscription fees drop each year for the first five years
How am I going to pay for it?

Over the last 24 months, districts using Level Data have demonstrated increases in Free and Reduced count between 5% and 11% (avg. 7%) once they started using the service. These numbers have been appropriately discounted to reflect the depressed economy.

To put that in perspective, let’s assume that a 2300 student district with a 40% F &R rate increases the free rate by 4%. That equals an increase of $81,000 based on lunch reimbursement and Section 31a At Risk funding. Additional funding for USF, breakfast, snack etc. are not reflected in these numbers.
How am I going to pay for it?

<table>
<thead>
<tr>
<th>Eligible for Free lunch</th>
<th>835</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible for Reduced</td>
<td>162</td>
</tr>
<tr>
<td>Ineligible</td>
<td>1606</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>2603</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increase in Reimbursement</th>
<th>$39,314.88</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in 31a At Risk Funding</td>
<td>$41,756.00</td>
</tr>
<tr>
<td>Total immediate impact on funding</td>
<td>$81,070.88</td>
</tr>
<tr>
<td>First year cost for Level Data</td>
<td>-$21,618.00</td>
</tr>
<tr>
<td>Potential Financial impact to District</td>
<td>$59,452.88</td>
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</tbody>
</table>
How am I going to pay for it?

The potential F/R financial savings are one example of how to fund your data quality initiative. There are many other ways that can be exercised with a little creativity.

The important thing is that you start and start as soon as possible. It’s not going to get any easier.