

# Professional Development: Making the Connection to Data- Driven Decision Making

2008 DataDirector User Conference



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LEARNING TECHNOLOGY

<http://moourt.com/ddconference>

## Introduction

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## Today's Goals

- To examine a tech-infused professional development program that creates the foundation for promoting the classroom implementation of data-driven decision making.
- To learn how technology can play an integral role in all facets of data-driven decision making.
  - District
  - School
  - Classroom



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## Today's Agenda

- Looking back at Tech Integration
- Role of Learning Technologies
- PD Format
- PD Program
  - Example: Richmond County School System
- Supporting Technologies for DDM
  - District
  - School
  - Classroom



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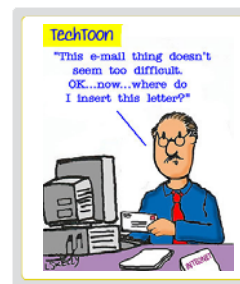
## Top Ten Signs You May Be the Data Guru

1. If the superintendent knows you by name.
2. If teachers run away from you when you arrive with the state data reports.
3. If you get excited when the state reports arrive.
4. If your only friend is the principal.
5. If students ask, "Dude, where's my data?"
6. If you have the state testing dates marked on your calendar as a holiday.
7. If you are the only one who can access the data management system from your home.
8. If you are the only one who has the password to the data management system.
9. If you have more than 100 No. 2 pencils.
10. If you like to tell knock, knock jokes about data.

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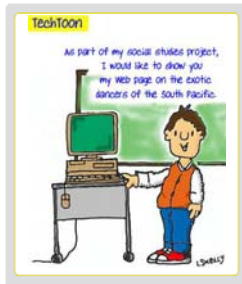
## History of Tech Integration: 1999



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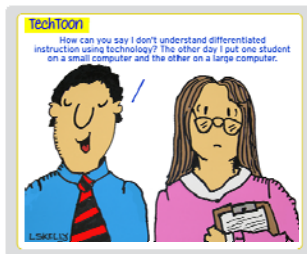
## History of Tech Integration: 2002



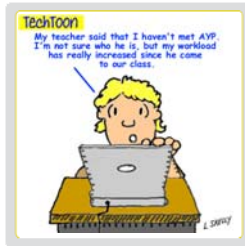
## History of Tech Integration: 2004



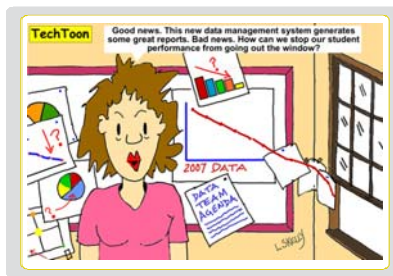
## History of Tech Integration: 2005



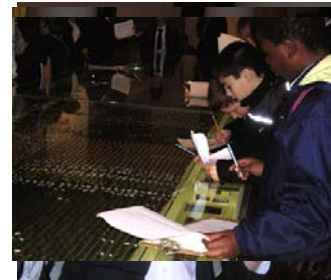
## History of Tech Integration: 2007



## History of Tech Integration: Data, Data, Data



## Today's Kids



## Besides AYP...

Top Skills for New Hires	Employers	Recent Graduates
Teamwork	44%	38%
Critical thinking/reasoning	33%	37%
Oral/Written Communication	30%	37%

Respondents were asked to identify the two most important skills.  
Source: Peter D. Hart Research Associates based on surveys of 305 business leaders and 510 recent college graduates.

## Where are our tech dollars going?

- According to QED (2004), \$5B was spent on hardware and software
  - \$2B in infrastructure and wiring
- 63% dedicated to instructional technology
  - Digital whiteboards
  - Video streaming technologies
  - Voice recognition tools
  - Tablet PCs

## What about administrative technologies?

- The data-tracking requirements imposed by the federal No Child Left Behind law also will receive significant attention from school budget offices this year. It's estimated that schools will spend 21 percent of their technology funds on advanced administrative and enterprise tracking tools, including NCLB-related software.

-Corey Miller, eSchool News

## Data Transparency

- School Matters
  - <http://www.schoolmatters.com>
- Strengths of this site
  - Clear charts and graphs
  - Provides AYP data



## Ongoing Question: Does technology impact student achievement?

The Great Debate



## How can technology have a greater impact on learning?

- Aligning of the stars: It depends on...
  - What outcomes are targeted
  - How technology is integrated into instruction
  - How teachers assess student performance
    - How teachers adjust instruction
- There has to be more systematic approach to instruction
  - DDDM
  - Tech Integration

## What is D<sup>3</sup>M as a system?

*“Data-driven decision-making (DDDM) is a system of teaching and management practices that gets better information about students into the hands of classroom teachers.”*

-Dr. Scott McLeod

## What is D<sup>3</sup>M as a process?

- DDDM is a process that helps teachers and schools to:
  - Identify student achievement needs.
  - Ask good questions about student results.
  - Find the data to answer these questions.
  - Analyze the data to find root causes.
  - Implement action plans to address root causes.
  - Monitor and revise action plans as needed.

## How can this be achieved?



## Data-Driven Decision Making Cycle

- Starts with a simple model



## Professional Development Program

Creating the Foundation

## Importance of PD

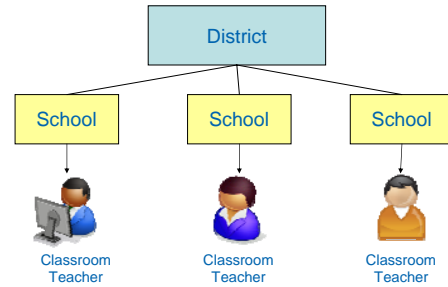
- “...most teachers and other instructional support staff are unprepared to adopt data-driven approaches without extensive professional development and training.”

Robert Marzano

## PD Audience

- Administrators
  - District
  - School
- Lead teachers/data coaches
- Teachers
- Parents

## Trickle Down Effect of D<sup>3</sup>M



## When asking customers, professional development...

- Needs to...
  - Provide a foundation
  - Allow for different learning styles
  - Be meaningful
  - Be hands-on
  - Provide transitional experiences
  - Be ongoing (scaffolding)
  - Be Research-based



## What are considered best practices in PD?

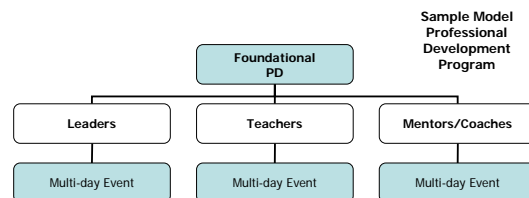
- Systemic
  - Sustained
  - Scaffolding approach
- Recognizing
  - Learning styles
  - Individual needs
  - Individual ability levels
- Focusing on improved instruction
  - Student achievement

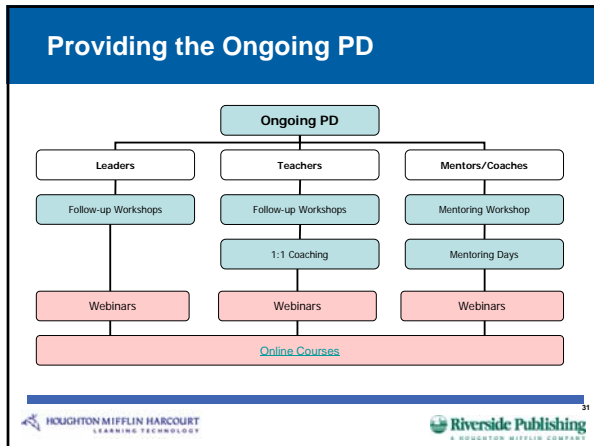
## What does a PD program look like?

- Onsite (F2F)
  - Multi-day events
  - One-day workshops
  - Coaching
  - Conferences
- Online
  - Webinars
  - Podcasts/Blogs
  - Online courses



## Building a Foundation





### Let's Look at an Example

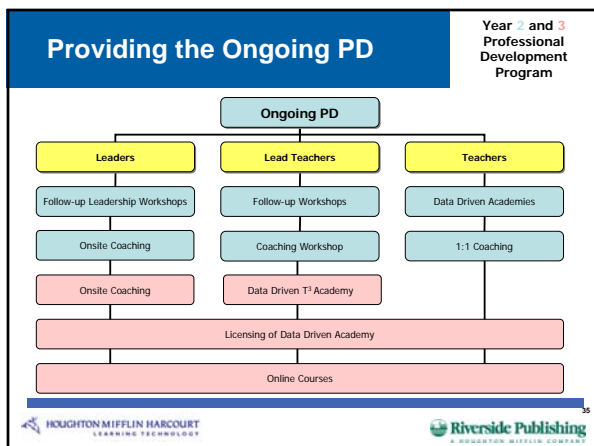
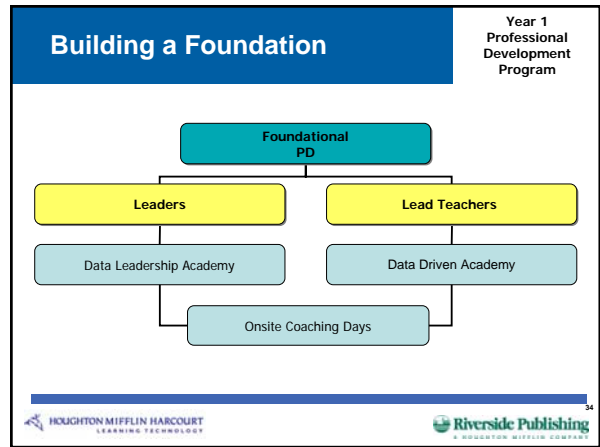
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### Data-driven Professional Development Program

- Three-year, systemic program that provides face-to-face, hands-on professional development that is immediately relevant to Richmond County School System's administrators and teachers in the:
  - Integration of data-driven decision making into daily practices;
  - Improvement of teaching practice; and
  - Improved student achievement in the standards-led curriculum.
- DataDirector training and Professional Development

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### Richmond County School District

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## Let's Take a Closer Look



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Classroom Connect | Connected Workshops

### Data-Driven Academy

Richmond County School System

**WELCOME**

Welcome to your Data-Driven Academy! Houghton Mifflin Harcourt is pleased to offer a professional development event that helps support classroom instruction. For the next three days, you will be involved in an environment where you will learn how to make connections between student data, instruction and student achievement. Promoting data-driven decision making in the classroom, you will acquire the skills and strategies needed to understand the data-driven decision making cycle, identify student achievement needs, identify root causes and create an action plan to raise student achievement.

To enhance and support this experience you will be using this website as your workshop resource. This site includes session presentations, templates and online resources. Houghton Mifflin Harcourt is committed to helping you have a pleasant and meaningful experience at your Data-Driven Academy.

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## What are some PD experiences?

- Hands-on activities wrapped around the student data and core curriculum
- Collaborative activities promoting higher-level thinking skills
- Teacher-generated activity/project
- Ready-to-use templates
- Modeling of best practices
- Online resources and tools
- And more...



## What technology tools, services and resources support DDDM?



## Beware

"A computer lets you make more mistakes faster than any other invention in human history, with the possible exception of handguns and tequila."

- Mitch Radcliffe

## Change, Change and More Change

- What do tech integration and DDDM have in common?



## The District

From the Top Down

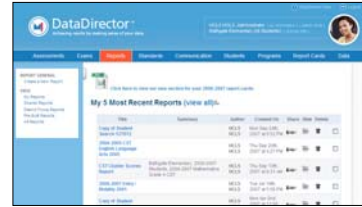


## Laying the Foundation

- Starts with the district
  - Establishing the right data management and assessment system
    - Data Management
      - Access to all data
      - Easy access to reports
    - Assessment
      - Benchmark testing
  - Building a DDDM culture

## Data Management and Assessment System

- Creating the Foundation
  - Data Director



## Building a DDDM Culture

- Build a data infrastructure
- Build a professional learning community
  - Leadership teams
  - Data teams
- Collaborate
- Communicate and promote
- Provide professional development



## National Perspective

- The George Lucas Foundation: Edutopia
  - <http://www.edutopia.org/>
    - Assessments
    - Standards-based projects



## Communication and Collaboration

- Airset
  - [www.airset.com](http://www.airset.com)



## Web-based Learning Environment

- eChalk
  - <http://www.echalk.com/>
- Blackboard
  - <http://www.blackboard.com/us/index.Bb>



## Web-based Learning Environment

- Learning Village
  - Online teaching and learning portal
    - Educational content, curricula, and other resources
    - Tools for communication and collaboration.
    - Professional development
  - <http://hmlt.hmco.com/LV.php>

## The School

### Data-Driven Decision Making

## In a Data Driven School

### Data-driven decision making...

- ✓ Allows administrators, teachers and students easy access to data
- ✓ Reveals patterns and correlations in data
- ✓ Provides real-time intervention
- ✓ Ensures that all students succeed

## In a Data Driven School

### Data-driven decision making...

- ✓ Focuses on learning, student achievement and outcomes
- ✓ Use data to transform teaching and learning
- ✓ Inform school decisions-about books, schedules, grouping, professional development

## Data Driven Instruction

- According to Scott McLeod, data driven instruction has 5 elements:
  - good baseline data,
  - measurable instructional goals,
  - frequent formative assessment,
  - professional learning communities, and
  - focused instructional interventions.

## The Model

- Ongoing interaction
  - Enhance student learning
  - Inform instructional practices



## Plenty of Data



## Data Management and Assessment System

- Giving access to teachers

- Data Director



## Comparison and Solutions

- Just for the Kids
  - <http://www.just4kids.org/en/texas/>
- Strengths of this site
  - Provides “opportunity gap” info
  - Has Best Practices information
  - Gives concrete examples of school implementation

*“The most promising strategy for sustained, substantial school improvement is developing the ability of school personnel to function as professional learning communities.”*

-Richard DuFour & Robert Eaker,  
Professional Learning Communities at Work (1998)

## Professional Learning Communities

- What technologies support PLCs?



## Change in Education



## Online Collaboration Tools

- Google Docs
  - Share applications
  - <https://www.google.com/accounts/ServiceLogin?service=writely>



## Collaboration

- Microsoft Office Live Workspace
  - Sign up:
    - <http://office.microsoft.com/en-us/officelive/FX102394081033.aspx>
  - Sign in:
    - <http://workspace.office.live.com>



## Online Communities

- Teacher Tube
  - [www.teachertube.com](http://www.teachertube.com)
  - Online community for sharing instructional videos.
    - Ex. [Data Driven Instruction](#)



## Podcasts

- Podcasts
  - A podcast is a collection of digital media files which is distributed over the Internet, often using syndication feeds, for playback on portable media players and personal computers.
  - EPN (Education Podcast Network)
    - <http://www.epnweb.org/>
  - Podomatic.com
    - Create, find and share podcasts
      - <http://www.podomatic.com/>

## Blogs

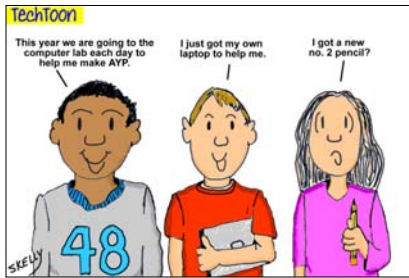
- Short for "Web log"
- A online site that allows an individual or group of individuals to share a running log of events and personal insights with online audiences.
- Blogs provide a means for exploring topics through writing.
  - Blogger
    - <http://www.blogger.com>
  - Edublogs.org
    - <http://edublogs.org/>
  - Bloglines (Aggregator)
    - <http://www.bloglines.com/>
  - Blog Resources (Emerson College)
    - <http://www.emerson.edu/itg/tools/#Blogs>



## The Classroom

### Data-Driven Decision Making

## Giving Students Access



## Simplifying the D<sup>3</sup>M process

- Starts with a simple question:
  - Which data, well analyzed, can help us improve teaching and learning?
- Focus on the needs of the teachers
  - Their use of data has the most direct impact on student performance.

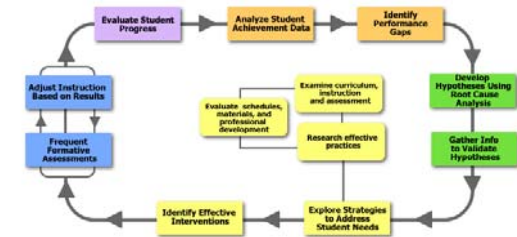
-Mike Schmoker

## Starts with Two Questions

- Data can give teachers the answer to two important questions:
  - How many students are succeeding in the subjects I teach?
  - Within those subjects, what are the areas of strength or weakness?

## Understanding D<sup>3</sup>M

- Expanding the cycle



## Tools of the Classroom

- Facilitate the DDDM processes
  - Data management system
  - Assessment tools
  - Online resources in DDDM
  - Classroom productivity tools
  - Communication and collaboration tools
  - Integrated learning systems



## Accessibility to Data

- TEA Accountability
  - <http://www.tea.state.tx.us/accountability.html>
- Student Assessment Division: Released tests
  - <http://www.tea.state.tx.us/student.assessment/>
- Strengths of this site:
  - Your own state department
  - Most current information
  - Provides subgroup information
  - Released tests

## Root Cause Analysis

- Six Sigma
  - System of practices
  - Example:
    - [The 5 Whys](#): Process
      - Benefits
      - How
      - Examples



## Best Practices: Interventions

- The George Lucas Foundation: Edutopia
  - <http://www.edutopia.org/>
    - Assessments
    - Standards-based projects



## Student Collaboration Tools

- Google Docs
  - <https://www.google.com/accounts/ServiceLogin?service=writely>



## Collaboration

- Microsoft Office Live Workspace
  - <http://office.microsoft.com/en-us/officelive/FX102394081033.aspx>



## Classroom Community

- Weebly
  - <http://www.weebly.com/>
  - WYSIWYG (what you see is what you get) website building tool for non-techies offers a one-step process for adding online content.
  - Add RSS feed readers that will display headlines that link back to the latest posts on your favorite blogs



## Classroom Community

- Pbwiki
  - <http://pbwiki.com/> or <https://my.pbwiki.com/>
  - What is a wiki?
    - <http://www.commoncraft.com/>



## Online Curriculum

### United Streaming

- <http://streaming.discoveryeducation.com/index.cfm>



## Online Learning

### HippoCampus

- High school level
- <http://www.hippocampus.org/>



## Online Learning

### Edu 2.0

- <http://www.edu20.org/home>



## Online Learning Tools

### Read Write Think

- Practices and resources in language arts and reading instruction
- Components
  - Lessons
  - Standards
  - Web Resources
  - Student tools
- URL: <http://www.readwritethink.org/>



## Online Learning Tools

### Interactive Mathematics

- Virtual Library
  - <http://nlvm.usu.edu/en/nav/vlibrary.html>



## Assessment

*"When the cook tastes the soup,  
that's formative. When the guests  
taste it, that's summative!"*

• Robert Stake

## Formative Assessment

“Links teaching, learning and assessment for changing conceptions that include:

- Creating/capitalizing on teachable moments and
- Providing immediate feedback on how to improve understanding.”

Richard Shavelson 2005

## Types of Assessment Tools

- Observations
- Authentic assessment
  - Rubrics
- Exit cards
- Self and peer assessment
- Interviews
- Record keeping
- And more...



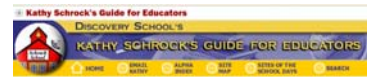
## Teacher Tools

- 4Teachers.org
  - [www.4teachers.org](http://www.4teachers.org)



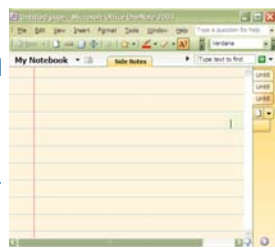
## Assessment Tools

- Kathy Schrock's Guide for Educators
  - Assessment and Rubrics
    - <http://school.discoveryeducation.com/schrockguide/assess.html>



## Microsoft OneNote 2003

- Take, organize, find and share notes.
- Take quick or detailed notes in your own style, gather research from a variety of sources and collect or record information wherever you are.



## Understanding the Technology

The Internet is a great way to get on the Net.

--Bob Dole

## Are you ready for tech-infused professional development?



You want me to read about data-driven decision making?

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## Top Ten Signs You May Be "Technology Challenged"

- 1) If you still have a VCR and it is still blinking 12 o'clock...
- 2) If you've replied, "Podcast? No. I am not familiar with that fishing pole."
- 3) If you think broad band is the elastic in your underwear...
- 4) If you think a "blog" is something that clogs your toilet...
- 5) If you think WWW stands for the World Wide Wrestling association...
- 6) If it takes you more than 10 minutes to turn on your computer...
- 7) If you think a PDA is your local podiatrist...
- 8) If you think "uploading" is pumping your septic tank...
- 9) If you think MySpace is an outside storage service...
- 10) If you're still mastering the Apple IIe...

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## Session Resources

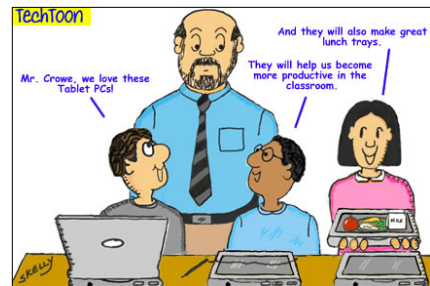
- Houghton Mifflin Harcourt
  - Learning Technology
    - [http://www.hmco.com/divisions/learning\\_tech.html](http://www.hmco.com/divisions/learning_tech.html)
  - Riverside Publishing
    - [http://www.hmco.com/divisions/riverside\\_publishing.html](http://www.hmco.com/divisions/riverside_publishing.html)
- Handouts
  - <http://moourl.com/ddconference>
- Session Cartoons
  - Techtoon: <http://techtoon.tripod.com>

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## Thank you for attending!



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