UTILIZING TECHNOLOGY TO ENHANCE EARLY CHILDHOOD TEACHER QUALITY AND STUDENT ACHIEVEMENT

Assessment and Design Strategies for Improving Student Learning: With Technology Tools

University of Maryland

Educational Technology Research and Outreach

Director: Davina Pruitt-Mentle

Overview

How Do Schools Improve Student Performance?

- Why the fuss?
- Data: how to analyze/interpret system-wide and classroom data
- Connect data to standards and curriculum
- Connect data to Instructional Strategies to improve student achievement

Objectives For the Grant Initiative

Instructional Strategies to improve student achievement as determined from data analysis

- **Background knowledge**: Data - How your school/classroom fits into the bigger picture
  - Where to find state, district and school data
  - How to collect and analyze classroom data
- **Standards:** What we want students to know – locating and connecting the standards
- **Determining Acceptable Evidence**: Tests/alternative assessments/activities/rubrics - how to ask good questions/write good assessments/collect data and re-teach/reassess
- **Learning Experiences and Instruction:** Lesson plans/lesson units/data collection/re-teaching/ alternative differential instruction

Today We Will Cover Background/Standards/Connecting To Technology

Process For Today

- "Instructor Led" Overview
- Blended Instruction
  - Instructor led
  - Hands-on activities
- Debriefing
- Time to Work on Own
- Online resources/ support
- Follow-up session ????

Today's Outcomes

- Understand the **tie between** data (school/district and classroom) and standards (and instructional design)
- Understand **where** and how to locate MSDE/school data and content standards
- Understand **how** to interpret and analyze data from mock case studies
- Become **familiar** with technology tools, like Excel and the vast features within the application
- Apply new knowledge gained to your **own classroom data**

Ready?

How Do Schools Improve Student Performance?

- **Standards**
  - Understanding Standards, Assessments and AYP
- **Process**
  - Leading the School Improvement Process
- **Data**
  - Analyzing and Using Data
- **Instruction**
  - Teaching and Assessing the Content Standards

Pre-NCLB

- We were familiar with standards
- We collected data
- Data commonly disseminated in paper format
- Data underutilized
- Statistical format with little comparison and planning

How do we compare with other schools?

What is the target goal?

No Child Left Behind Act of 2001 (NCLB)

- A landmark in education reform
- Designed to improve student achievement and change the culture of America's schools
- Passage of *No Child Left Behind*, Congress reauthorized the *Elementary and Secondary Education Act* (*ESEA*)--the principal federal law affecting education from kindergarten through high school.

  In amending *ESEA*, the new law represents a sweeping overhaul of federal efforts to support elementary and secondary education in the United States. It is built on four common-sense pillars:
  - Accountability for results
  - An emphasis on doing what works based on scientific research
  - Expanded parental options
  - Expanded local control and flexibility

See Handout

NCLB

- "Although testing may be stressful for some students, testing is a normal and expected way of assessing what students have learned.

- The purpose of state assessments required under *No Child Left Behind* is to provide an independent insight into each child's progress, as well as each school's.

- This information is essential for parents, schools, districts and states in their efforts to ensure that no child--regardless of race, ethnic group, gender or family income--is trapped in a consistently low-performing school."

NCLB

- *No Child Left Behind* requires
  - By the 2005-06 school year, each state must measure every child's progress in reading and math in each of grades 3 through 8 and at least once during grades 10 through 12.
  - In the meantime, each state must meet the requirements of the previous law reauthorizing *ESEA* (the *Improving America's Schools Act of 1994*) for assessments in reading and math at three grade spans (3-5; 6-9; and 10-12).
  - By school year 2007-2008, states must also have in place science assessments to be administered at least once during grades 3-5; grades 6-9; and grades 10-12.
  - Further, states must ensure that districts administer tests of English proficiency--to measure oral language, reading and writing skills in English--to all limited English proficient students, as of the 2002-03 school year.

NCLB

- Students may still undergo state assessments in other subject areas (i.e., history, geography and writing skills), if and when the state requires it.
- *No Child Left Behind*, however, requires assessments only in the areas of reading/language arts, math and science.
- *No Child Left Behind* requires that all children be assessed. In order to show adequate yearly progress (AYP), schools must test at least 95 percent of the various subgroups of children, including their students with disabilities and those with limited English proficiency.
- States must provide reasonable accommodations for students with disabilities or limited English proficiency.
  - native-language versions of the assessment;
  - however, in the area of reading and language arts, students who have been in U.S. schools for three consecutive years will be assessed in English.

Site Project
http://www.mdk12.org/

- Provides a variety of statistical data about Maryland Schools. Information is available on state, district, and school by school basis.
  - **Adequate Yearly Progress**
  - **Maryland School Assessment (MSA) in Reading and Math**
  - **Demographic**
  - **Student Characteristics**

Why NCLB

- Education is inconsistent across school districts, counties, and states
- No common measure of performance
- Apply Business Model
  - Identify schools that need assistance
  - "Take over" schools that continue to be poor performers
  - *If a franchise isn't working – put it under new management.*

Understanding Assessments, Standards, and AYP

- What do students need to know and be able to do?
  - Curriculum Standards-"Voluntary" State Curriculum
- How do we test what students have learned?
- How does MD implement AYP (Adequate Yearly Progress)? http://www.mdk12.org/data/ayp_analyzing/index.asp

How does MD implement AYP (Adequate Yearly progress)?

- **What is AYP? What does NCLB require?**
  NCLB requires that states establish accountability systems designed to:
  - Ensure that all students achieve proficiency in reading/language arts and mathematics by the end of school year 2013-2014.
    - Based on state defined content standards in reading and mathematics.
    - Have assessments aligned to the content standards.
    - Defines at least three student achievement levels: Basic, Proficient, and Advanced.
    - Assesses the progress of subgroups, schools, school districts, and the state annually.
    - Must include other academic indicators.

How does MD implement AYP (Adequate Yearly Progress)?

- Must have consequences based on progress. States, school systems, and schools are accountable for:

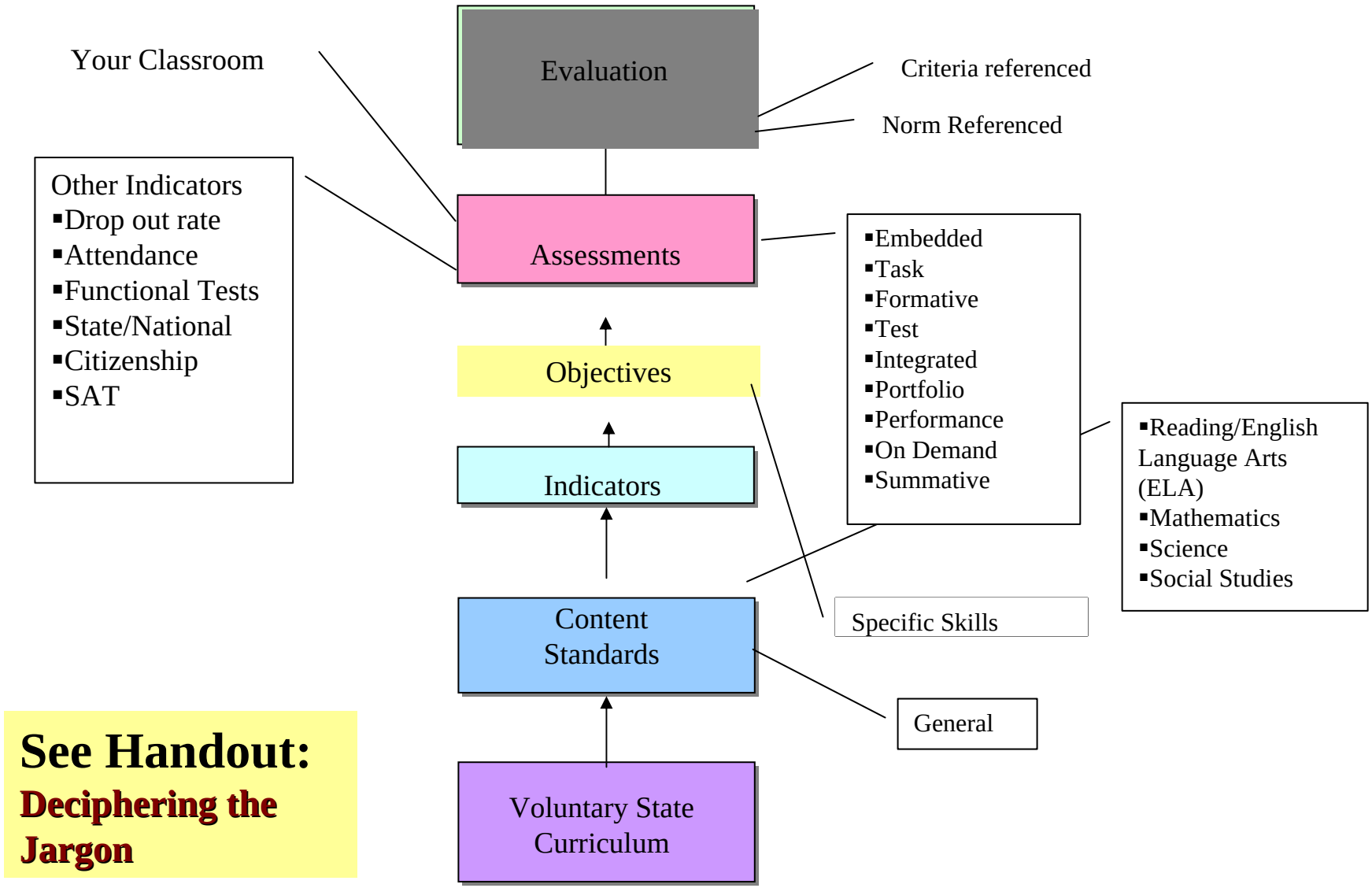
	Proficiency in Reading/ English Language Arts	Proficiency in Mathematics	Another Academic Indicator for Elementary and Middle Schools	Graduation Rate for High Schools
All Students				
▪ American Indian				
▪ Asian				
▪ African American				
▪ White				
▪ Hispanic				
▪ FARMS				
▪ Sp. Ed.				
▪ LEP				

What are the Federal Requirements of AYP?

- Adequate yearly progress is designed to ensure continuous improvement each year toward the goal of 100% proficiency in 2014.
  - Improvement targets are particularly focused on subgroups of students who, historically, have the furthest to go.
  - The goal of 100% proficiency ensures that all students not just low performing students are expected to **continuously progress.**

US Department of Education Overview

- The Accountability and AYP PowerPoint and PDF files developed by the US Department of Education describe the federal requirements of AYP:
  - http://www.mdk12.org/mspp/ayp/accountabilityayp.ppt (2.1 MB) Downloadable PowerPoint file for high speed connections.
  - http://www.mdk12.org/mspp/ayp/accountabilityayp.pdf (388 KB) Printable PDF Acrobat file.


Your Classroom
Evaluation
Criteria referenced
Norm Referenced
Other Indicators
▪Drop out rate
▪Attendance
▪Functional Tests
▪State/National
▪Citizenship
▪SAT
Assessments
▪Embedded
▪Task
▪Formative
▪Test
▪Integrated
▪Portfolio
▪Performance
▪On Demand
▪Summative
Objectives
Indicators
▪Reading/English Language Arts (ELA)
▪Mathematics
▪Science
▪Social Studies
Content Standards
Specific Skills
General
Voluntary State Curriculum
See Handout:
Deciphering the Jargon

Deciphering the Jargon

Go To: www.edtechoutreach.umd.edu

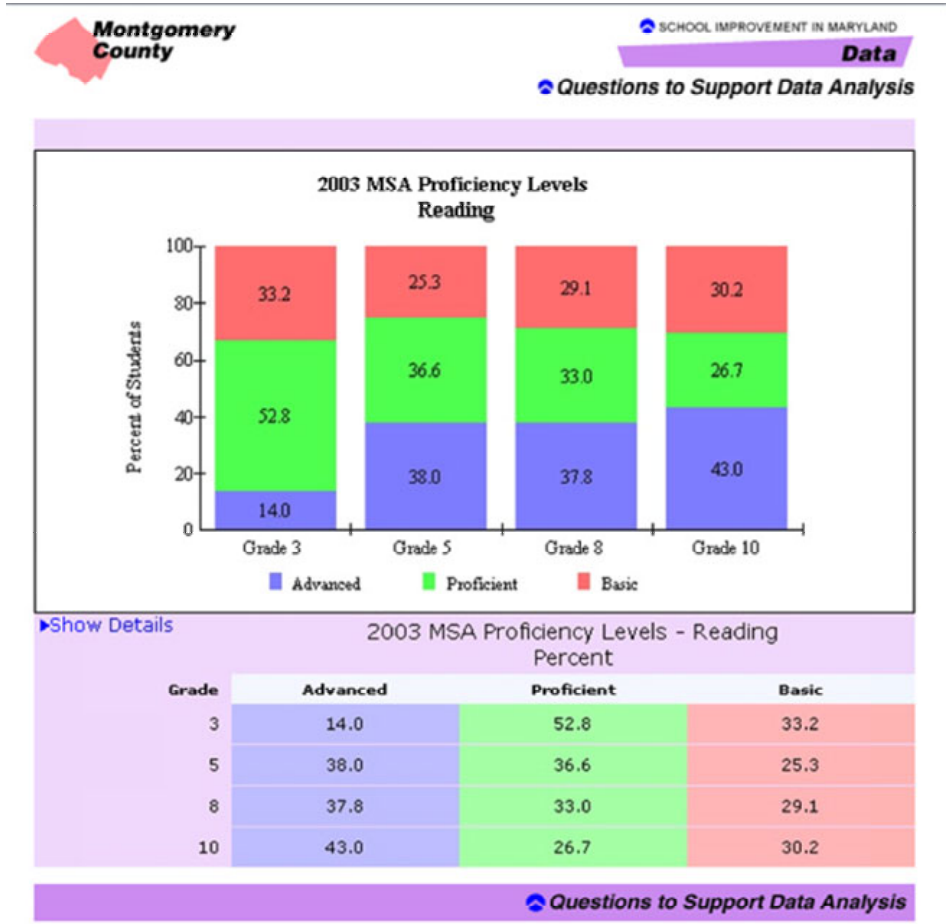
- First we will take a short pre-assessment survey (on-line)…when finished start
- Exploring School Achievement Scavenger Hunt
  - Break up in small groups
  - Each group should access a computer
  - See handout- **Scavenger Hunt Activity**
    - **Click on the link on the website and download to the floppy (A Drive)**

Scavenger Hunt

Debriefing

MSDE

- MSA Data
  http://www.mdk12.org/data/msa_analyzing/index.asp



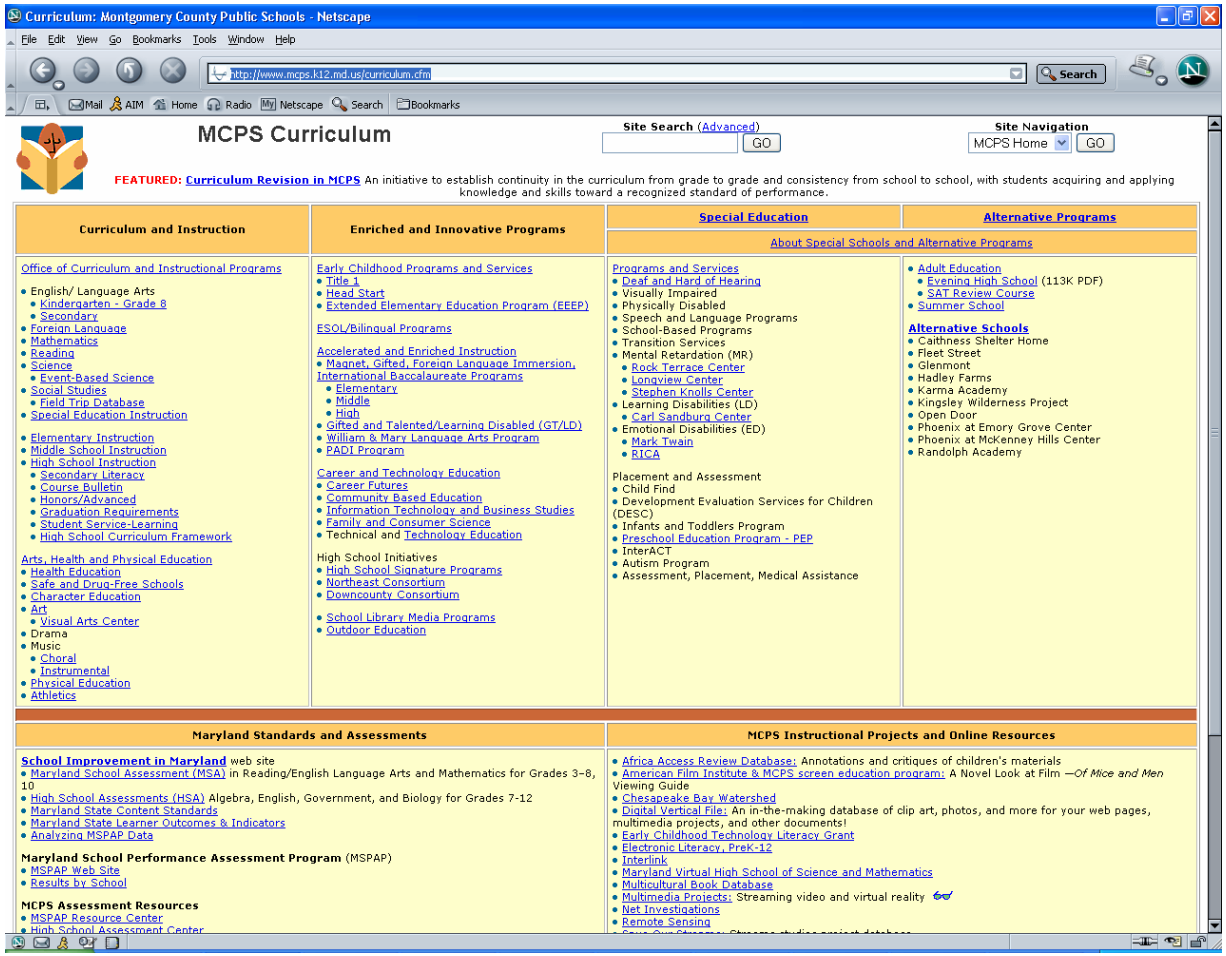
MCPS

Maryland Teacher Technology Standards

- Home site

  http://www.mcps.k12.md.us/departments/technology/techstandards/

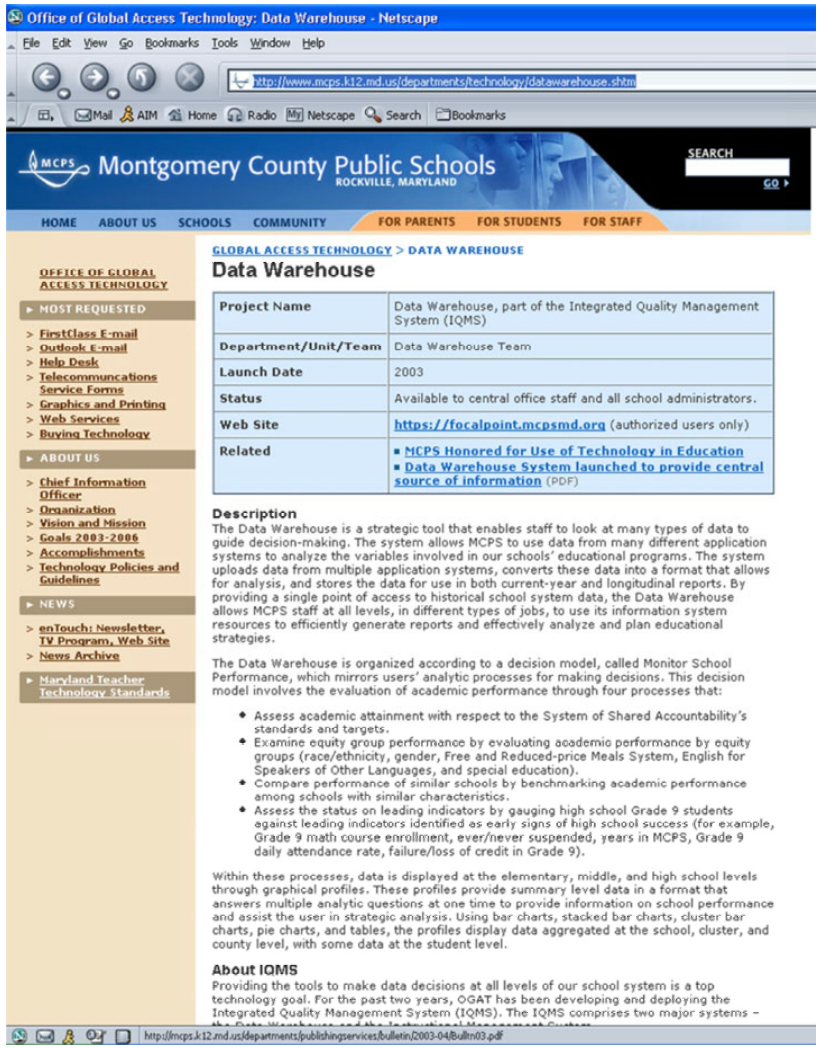
Content Standards



- Curriculum
  http://www.mcps.k12.md.us/curriculum.cfm

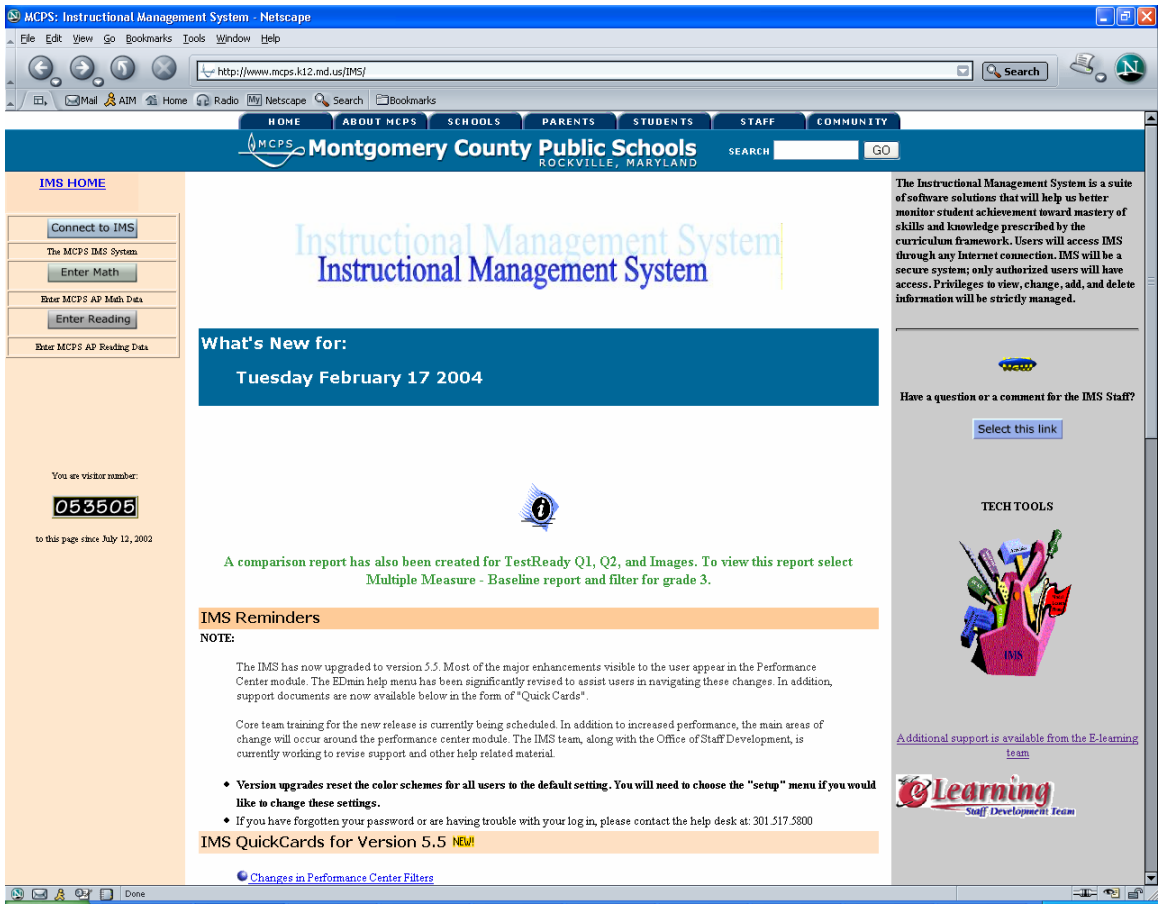
Data Warehouse

- Data Warehouse http://www.mcps.k12.md.us/departments/technology/datawarehouse.shtm
- Limited to central office staff and school administrators



Instructional Management System

- Main Site http://www.mcps.k12.md.us/IMS/
- User Request Form http://www.mcps.k12.md.us/IMS/IMSRequest2.pdf
- By default – each teacher has an account to see ***their students only*** (no request needed)



Data Shortcomings

- By default – teacher has no access to Data Warehouse
- By default – teacher can only see their current students
- Administrators can see everything

HOW CAN A TEACHER PLAN FOR THE FUTURE?

Break!

Identifying Desired Results

- From your scavenger hunt you also had the chance to visit several background data resources **regarding your school**
- Give **an overview** of the school, student population and academic achievement
- Other possible resources or information not obtainable through the data resources?

“Mock" School Data Interpretation

- **In small groups, prepare a short summary of a "mock" school data interpretation.**
- We will use XXXXX Elementary School.
- **Using any or all the sources of data available, prepare a quick overview of your interpretation of this school. For example, what population does this serve? (socio-economic/gender/ethnic/FARMS data) How did this school perform on last year's state technology inventory? Based on last year's performance scores, what areas are of concern for this school? Any other demographics you can pull up (i.e., what's the neighborhood population? what age group? cost of living? educational status? what activities and resources are available for this community).**

See Handout

Mock School

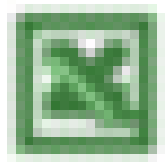
Debriefing

Using Technology to Help !

- Excel
  - Grades/Grade book Exercise
  - Differentiated Instructional Strategies

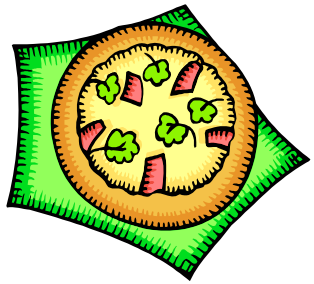
Open Excel

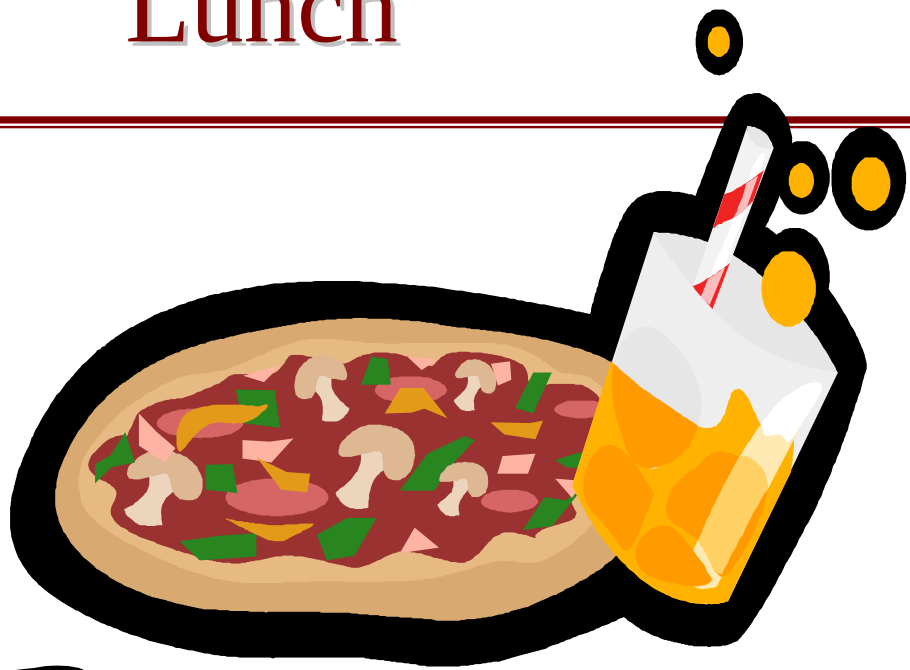
- Educational Technology Outreach Resource Center
- Excel Help
- **Try The Excel Starter Exercise**

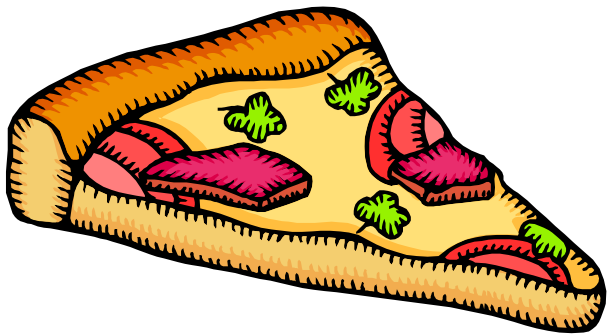


www.edtechoutreach.umd.edu

Lunch







With Excel

- Educational Technology Outreach Resource Center
- Excel Help
- **Graphing**
- **Let's Try Some Case Studies**
- **case_studies.xls**

www.edtechoutreach.umd.edu

Excel

- Walk Through With “Advanced Not So Hard Features”
- Work on own
- On-line Post Assessment
- Evaluation Smile Sheet (handout)

Questions?

Contact Information:
Davina Pruitt-Mentle
Director: Educational Technology Outreach
University of Maryland
2127 TAWES
College Park, MD 20742
(301) 405-8202
dp151@umail.umd.edu