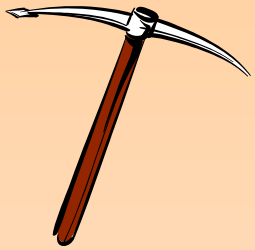
Do-Now: Find your tool kit handout and answer the following questions:



What is one thing about understanding how to build a data team that you want to **pick** up from this session?

What do you **“dig”** about using data?

What is one part of your data that you want to **drill** down into?

MINT- Using Data to Target Instruction Digging Into Data

Miami-Dade County Public Schools

Office of Professional Development

AGENDA Part I

- Norms
- Objectives
- Concepts in Testing
- Making Sense of the Data
- Perception Activity
- Data Analysis Concepts
- So, Where's the Data?

Agenda Part II

- Data Sources
- EDUSOFT
- SPI
- FAIR Assessment/ PMRN
- Pulling It All Together
- Telling the Story - Using Data to Inform Instruction
- Wrap-Up and Debrief

NORMS

Need any clarification?–

Just ask questions!

One person talks at a time.

Respect self and others.

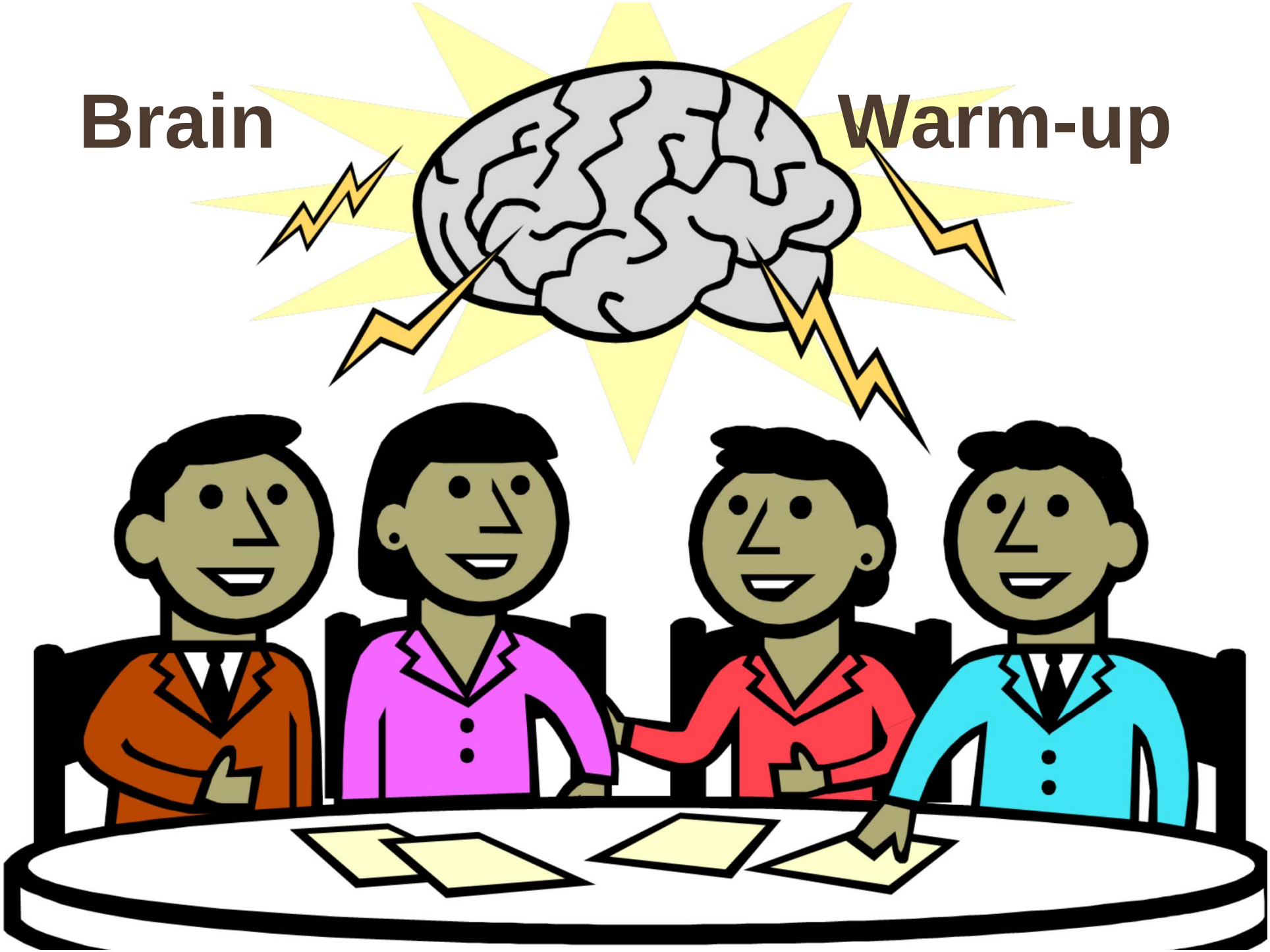
Meaningful engagement activates the learning process.

Set your own learning into action

Objectives

- **Generate guiding questions and access relevant data sources**
- **Enhance data analysis skills**
- **Map out issues evidenced in the data**
- **Strategize and plan to support teaching and learning**

Brain Warm-up

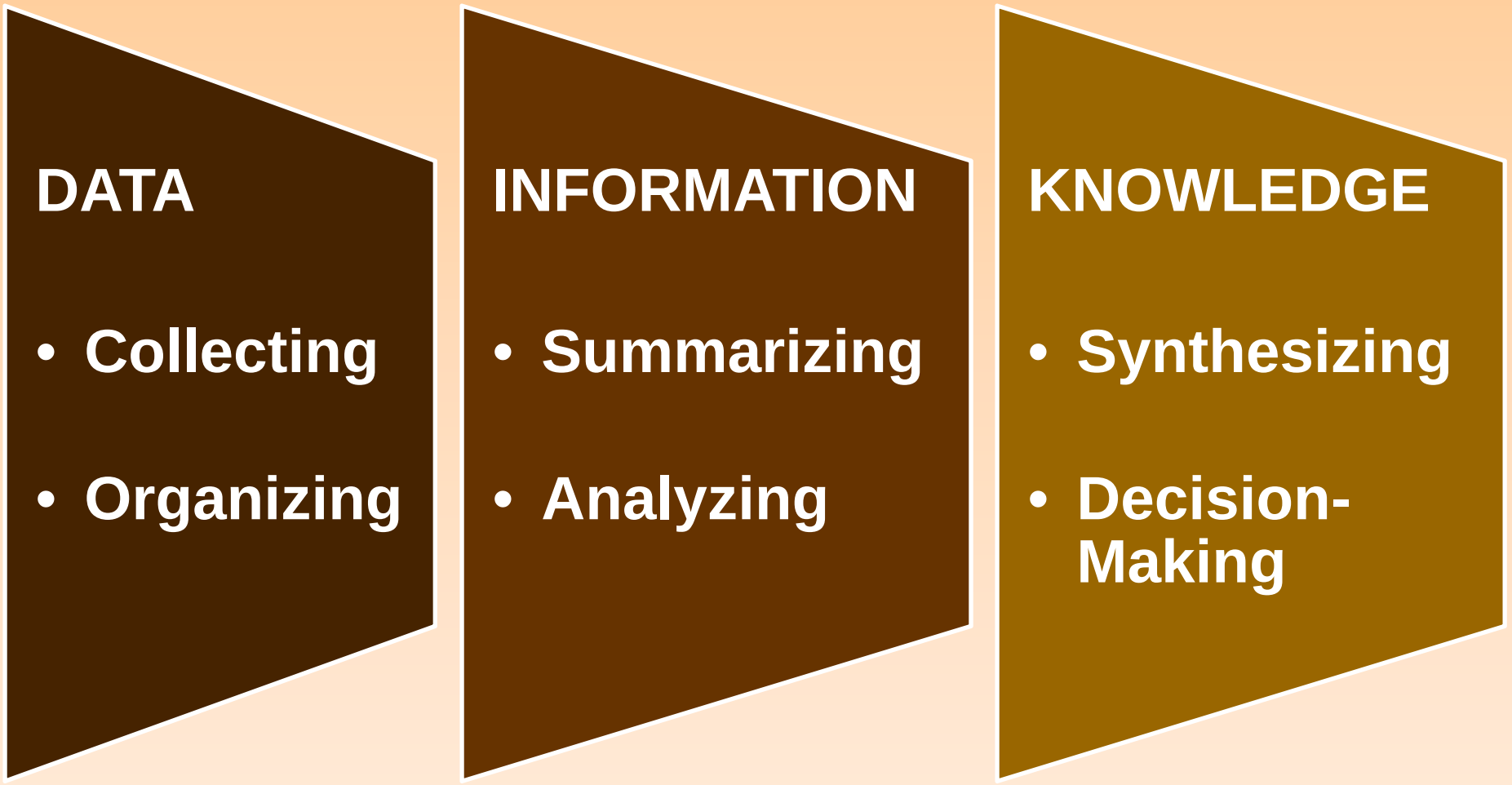


What can data tell us?

Data can…

- provide feedback on the past
- provide a basis to begin planning for the future

Making Sense of Data



Terminology

- Scale
- Scale Score
- Developmental Scale Score (DSS)
- Achievement Level
- Cut Scores
- Content Clusters/Strands
- Rank Order
- Outliers
- Percentile
- Quartile

Data Limitations

- Availability
- Timeliness
- Quality
- Comparability
- Reliability
- Validity
- Inferences


WHAT WE
KNOW
ABOUT
DATA USE IN
SCHOOLS

Status of Data Use: New Study

U.S. Department of Education, Office of Planning, Evaluation, and Policy Development , *Implementing Data-Informed Decision Making in Schools : Teacher Access, Supports, and Use*, Washington DC 2009, over 1000 district, thousands of teachers

www.ed.gov/about/offices/list/opepd/ppss/reports.html

http://ctl.sri.com/publications/downloads/NTA_InterimRpt01.13.09b._1_DDMS.pdf

Study Findings

The Good News: Teacher access to student data is increasing, from 48% in 2005 to 74% in 2007.

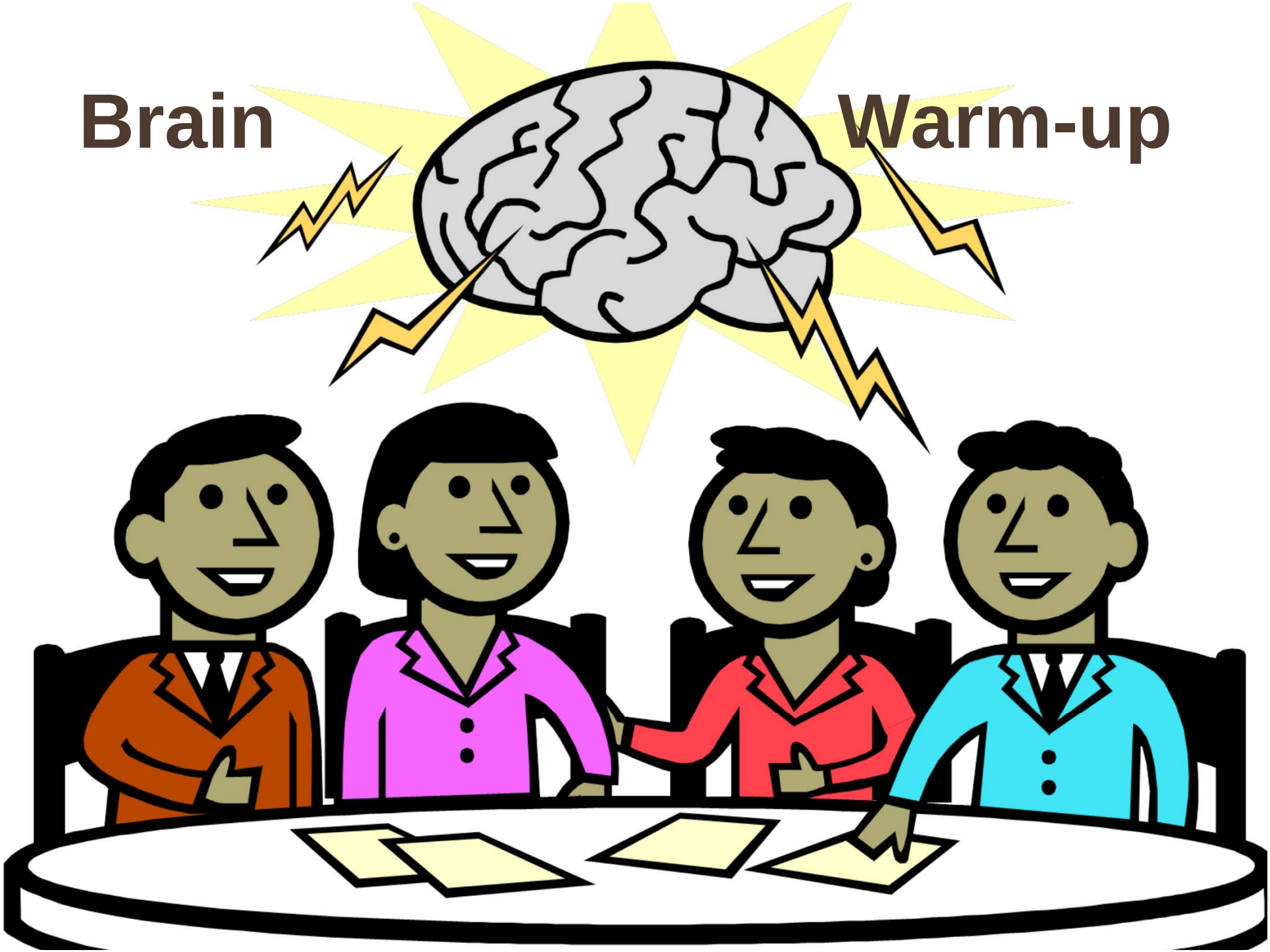
The Bad News: Data are used in school improvement efforts, but there is little impact on classroom instruction.

Study Findings

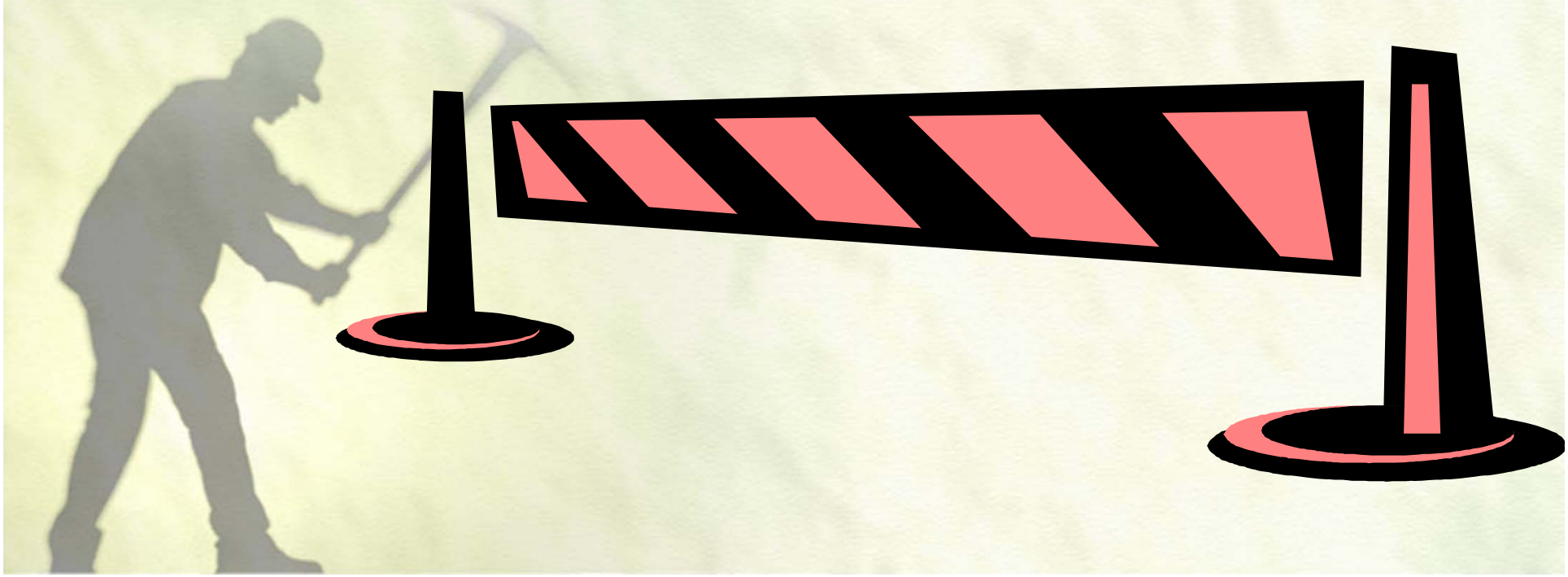
In order to use data for instructional planning effectively, teachers need:

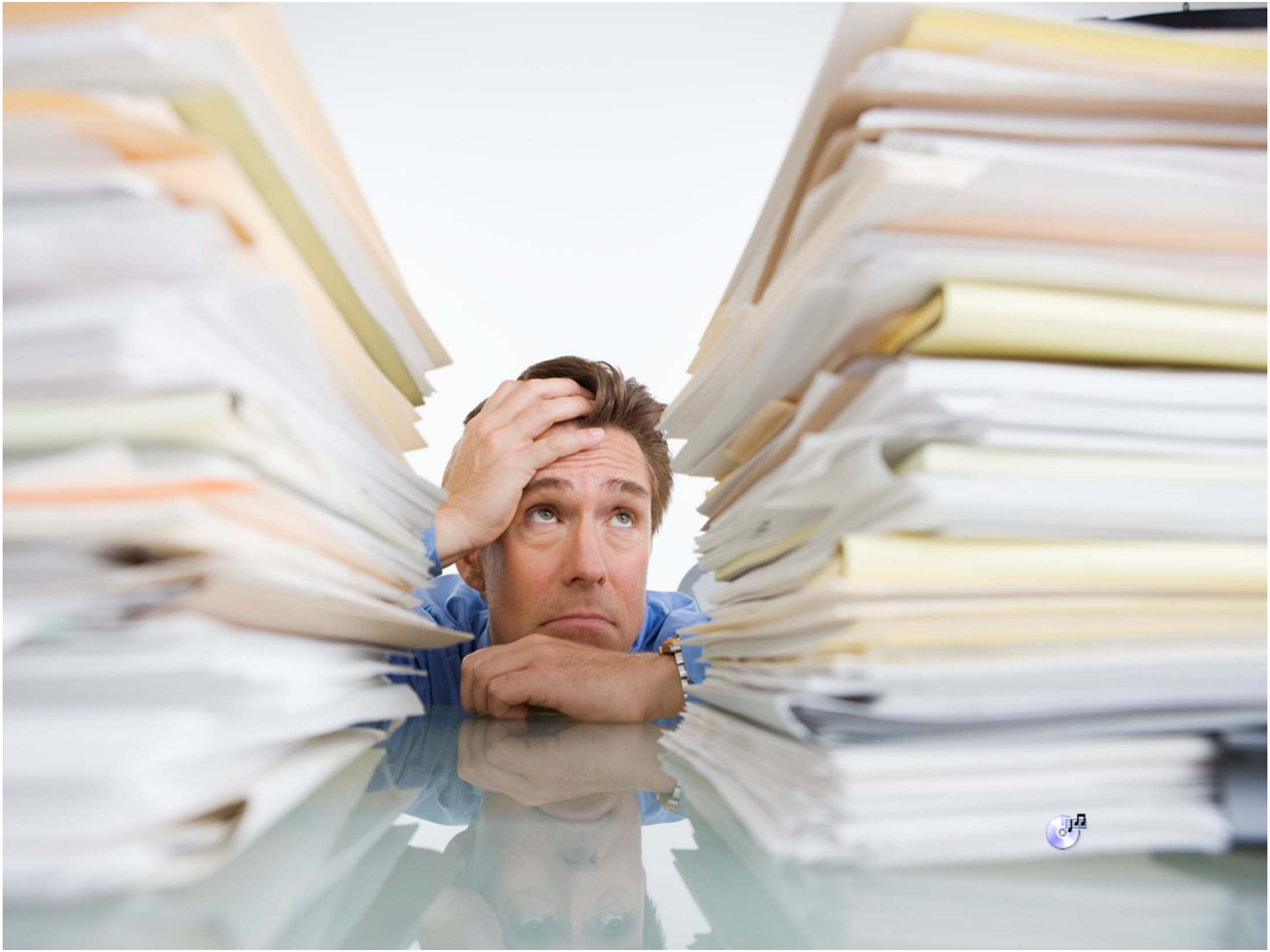
- **Data that are right** – accurate and timely
- **Access** to students' current performance on benchmark or diagnostic tests
- **Data systems** that share or link information
- Ability to do **flexible queries**
- **Training** on using data effectively
- **Time** to analyze and reflect on data
- **Leadership** that supports a data-based culture

Brain Warm-up

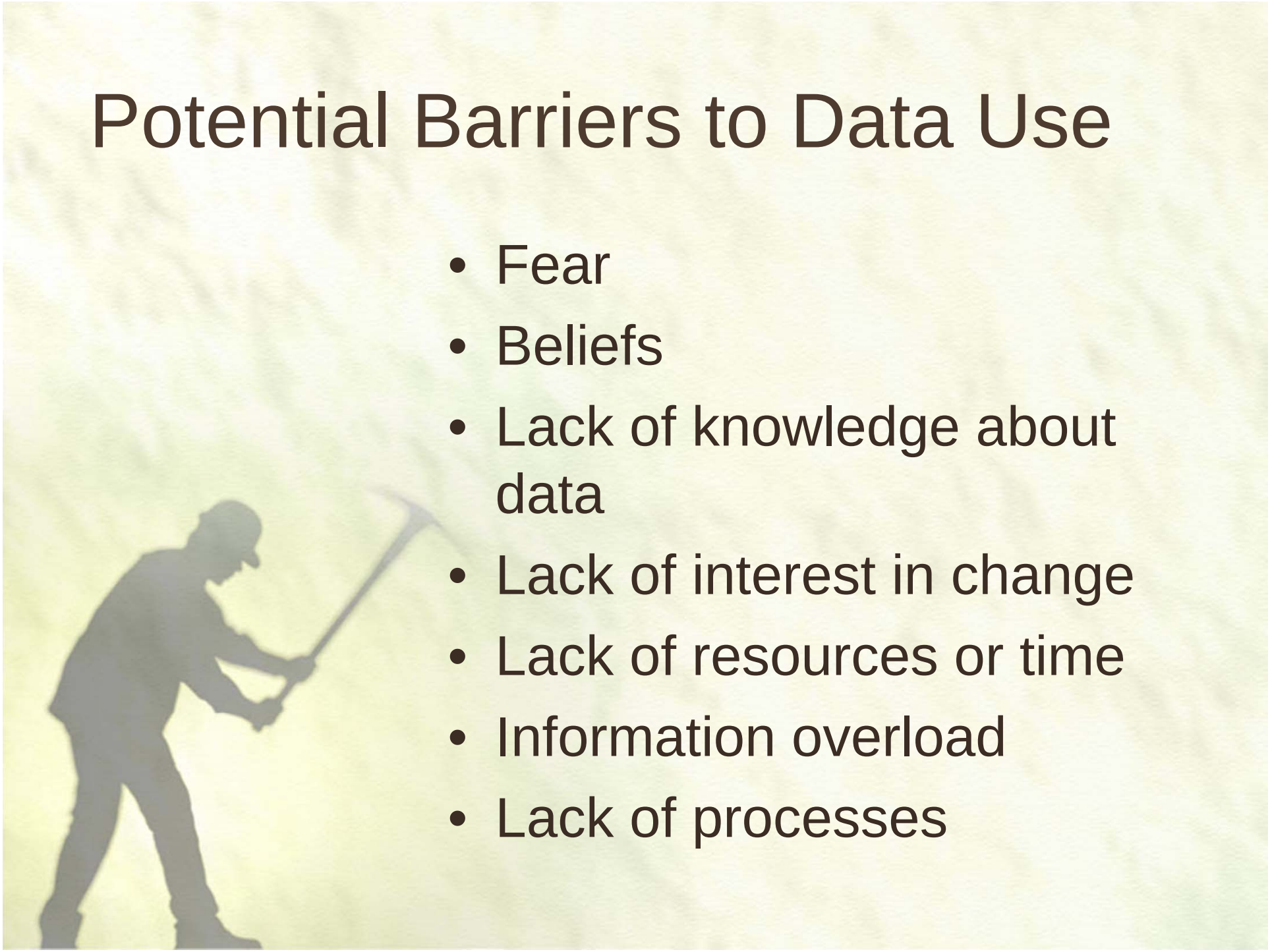


The biggest barriers to effective data use…





Potential Barriers to Data Use



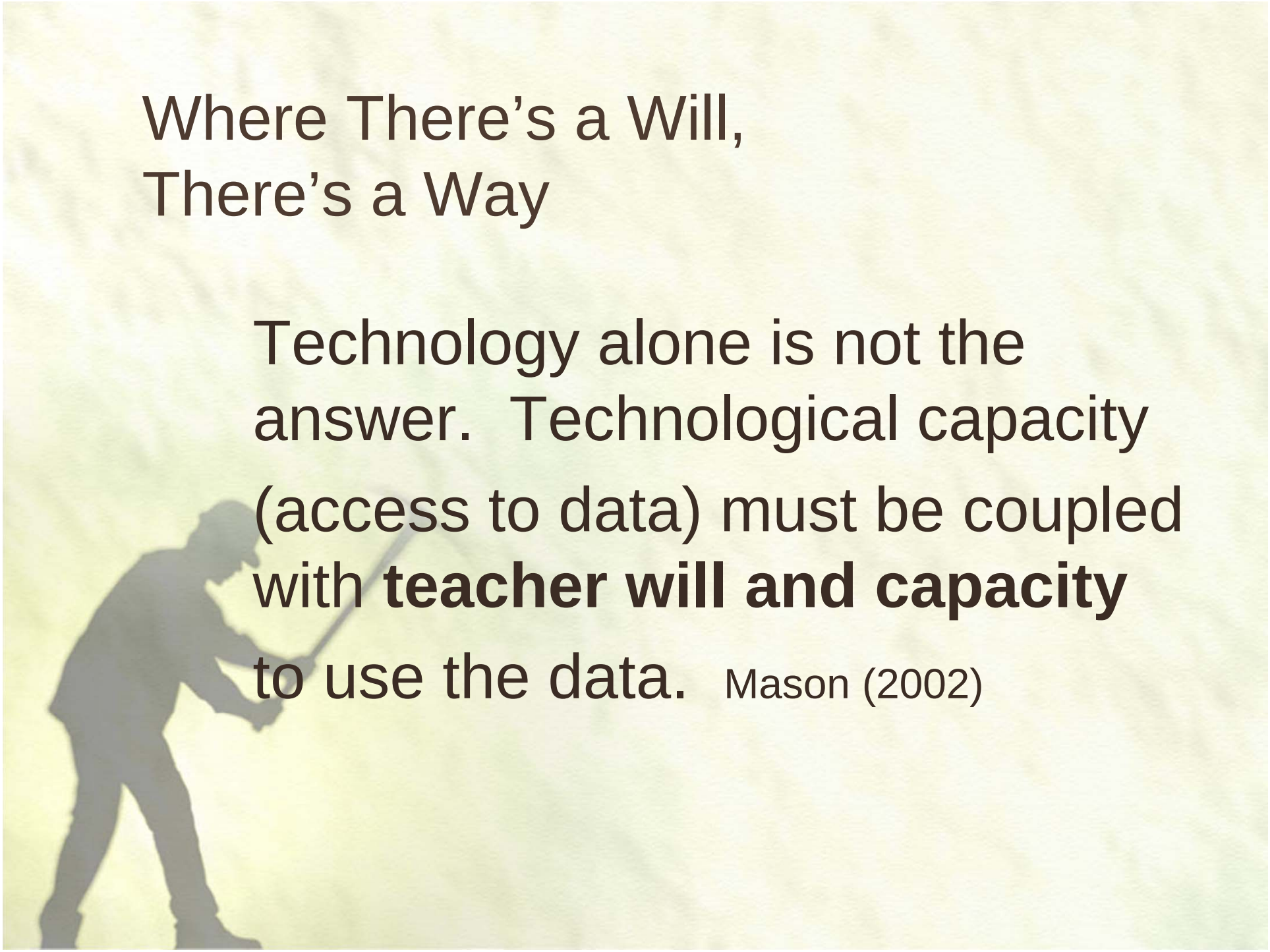
- Fear
- Beliefs
- Lack of knowledge about data
- Lack of interest in change
- Lack of resources or time
- Information overload
- Lack of processes

What does the research say about factors impacting the **use** of data to inform decision-making?

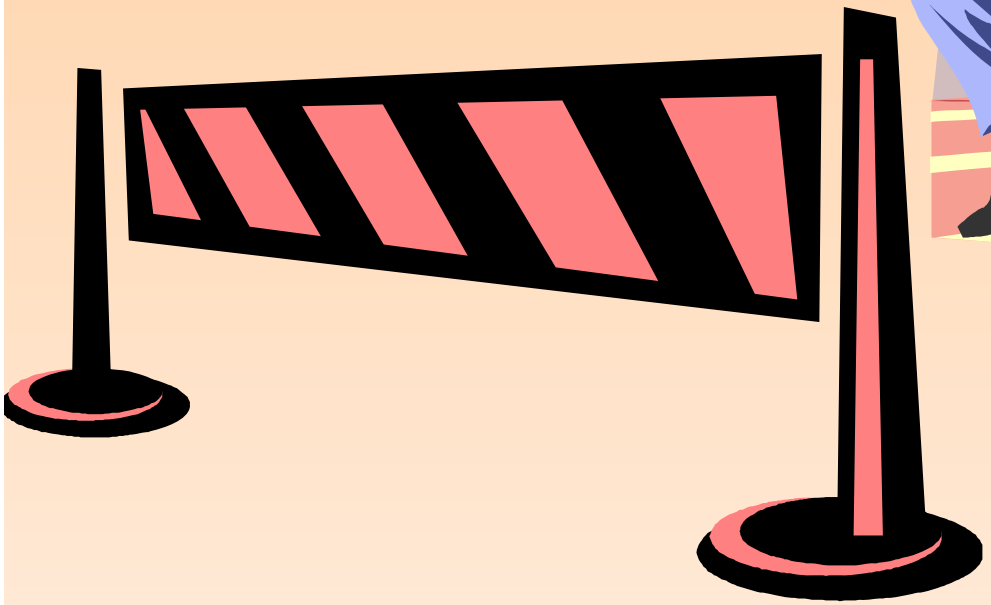
- Accessibility
- Quality
- Timeliness
- Time
- Pressures
- Knowledge
- School culture

Where There's a Will, There's a Way

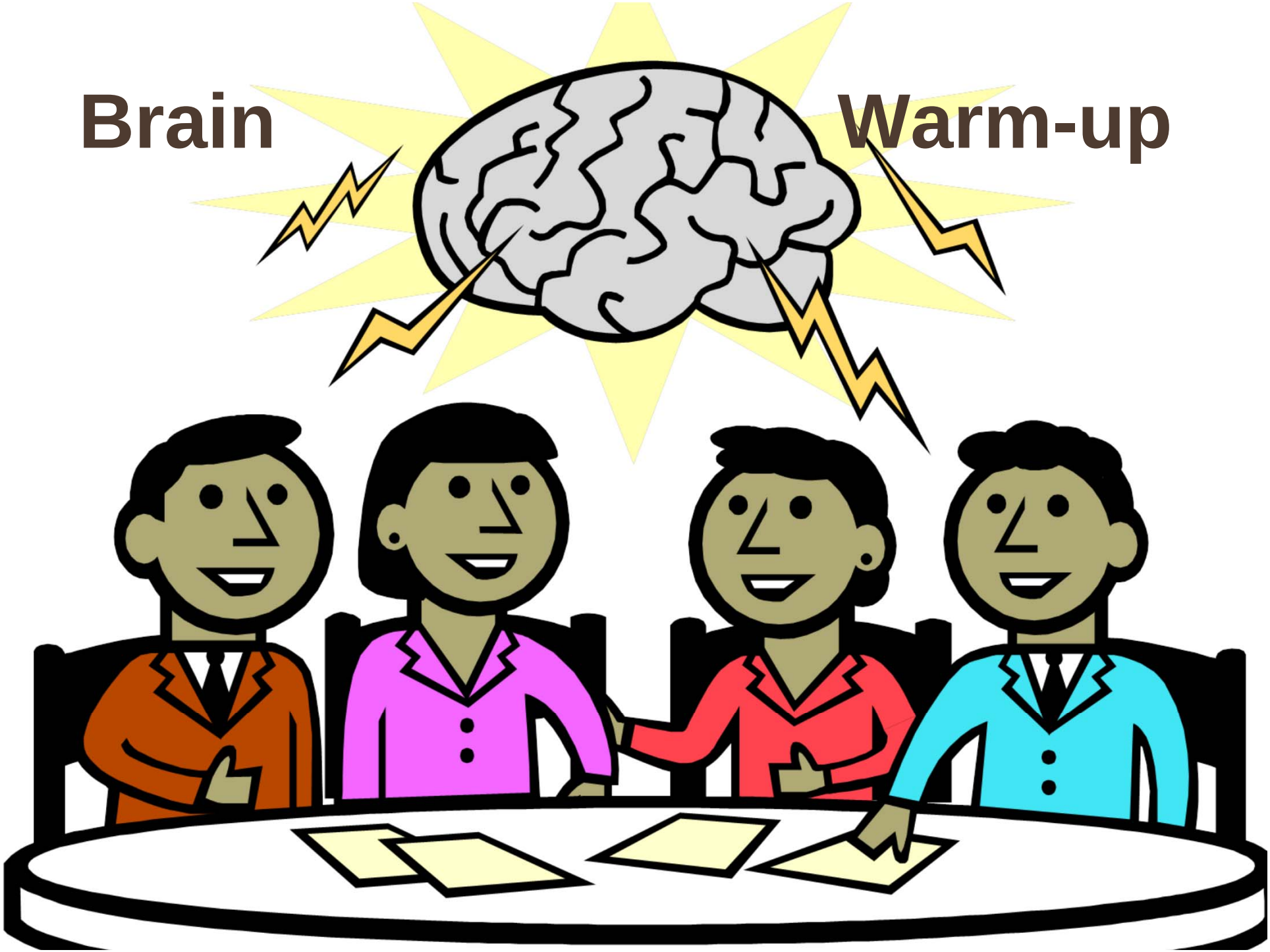
Technology alone is not the answer. Technological capacity (access to data) must be coupled with **teacher will and capacity** to use the data. Mason (2002)



Barriers and Strategies

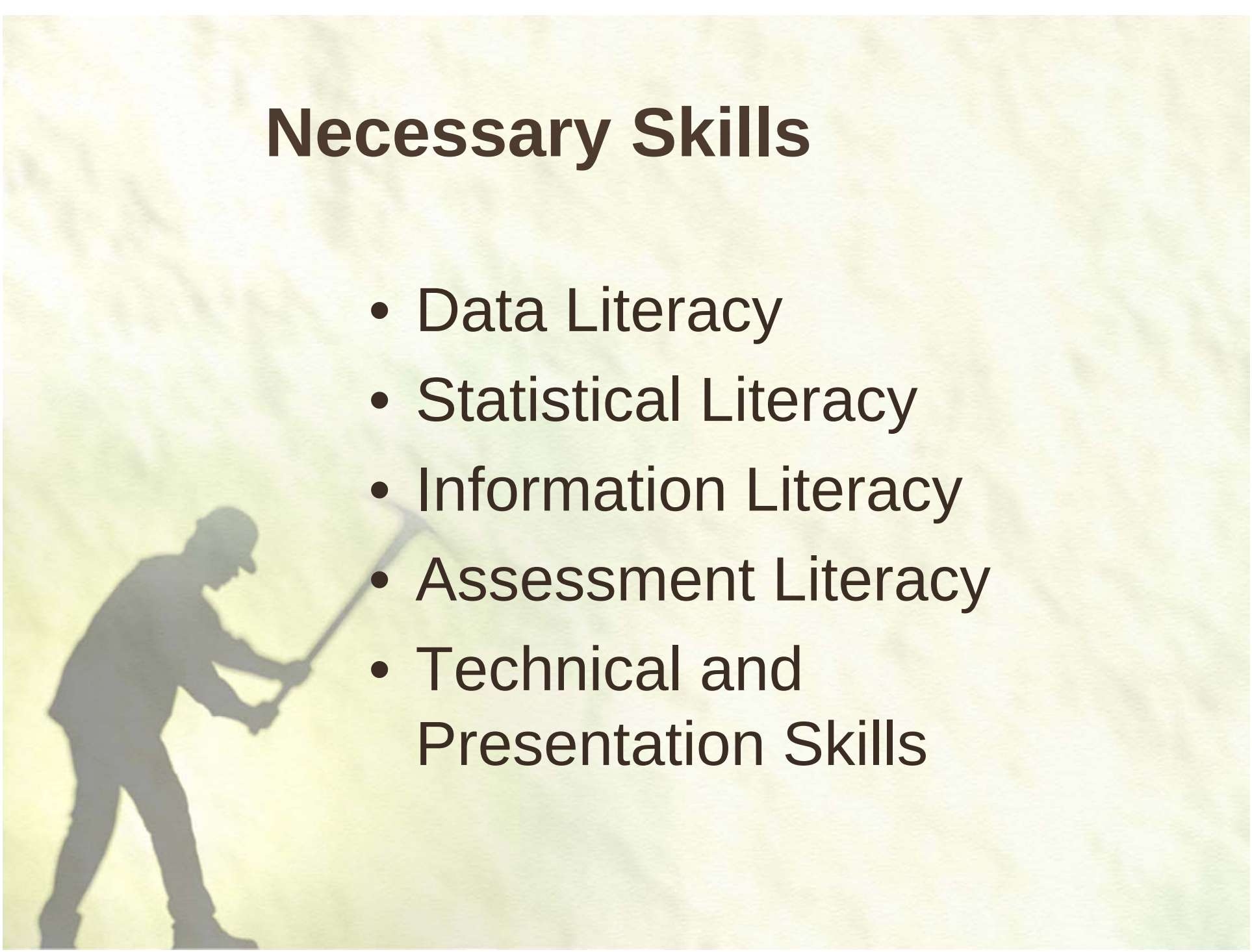


Brain Warm-up



Necessary Skills

- Data Literacy
- Statistical Literacy
- Information Literacy
- Assessment Literacy
- Technical and Presentation Skills



Data Literacy

Knowing WHAT to know

“What gets MEASURED
Gets IMPROVED.”

Peter Drucker

Statistical Literacy

- Critically evaluate statistical materials and representations
- Understand the limitations of inferences made based on data
- Understand key concepts in statistics and measurement
- Select and apply appropriate tools and formats to analyze, summarize, report on, and represent data

Statistical Literacy Resources

International Statistical Literacy Project

http://www.stat.auckland.ac.nz/~iase/islp/

Statistical Reasoning, Thinking, and Literacy International Forum

http://srtl.stat.auckland.ac.nz/

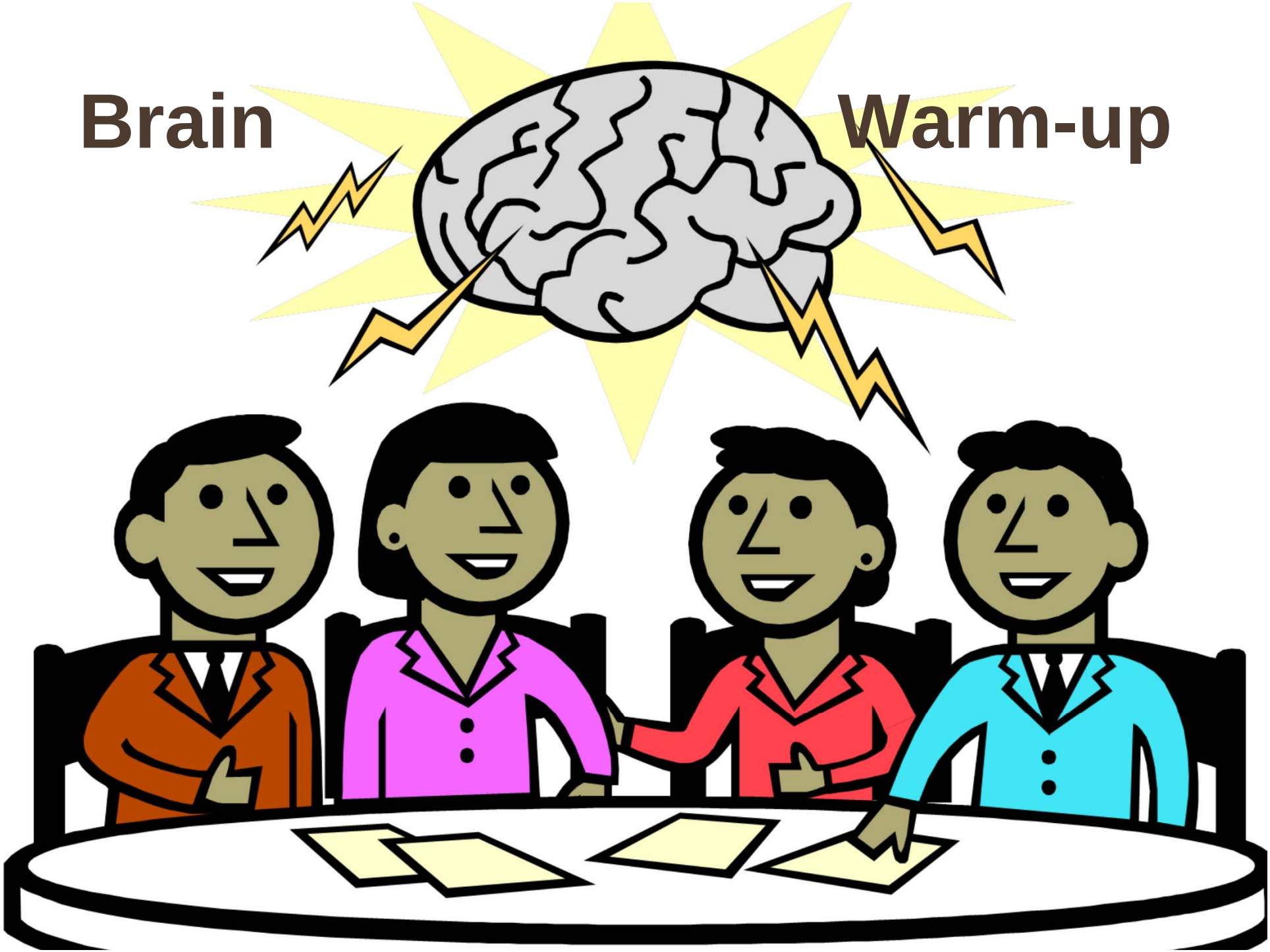
W. M. Keck Statistical Literacy Project

http://www.statlit.org/

Information Literacy

- Recognize when and what kind of information is needed
- Identify and access appropriate information resources
- Evaluate the information quality based on source(s) and content
- Effectively use information for a specific purpose
- Understand the issues affecting access and use of information, including laws, regulations, and institutional policies

Brain Warm-up



Assessment Literacy

“Teachers today, perhaps more so than ever before, have a need to be knowledgeable consumers of test information, constructors of assessment instruments and protocols, and even teachers about testing.”

What Teachers Need to Know About Assessment, National Education Association 2002,

Lawrence M. Rudner and William D. Schafer, editors

Assessment vs. Evaluation

Assessment (testing) is measuring what students know and can do. (Observed performance)- ***how the data are generated***

Evaluation (analysis) is the process of placing those results within the context of what students should know and be able to do. (Comparing to standards or expectations)-***what you do with the data***

Fundamental concepts Assessment:

- Is based on professional judgment, assumptions, and values.

  What is assessed, when, and how is a function of this judgment.

- Requires the ability to understand and interpret results.

  Information literacy *Statistical literacy*

  Assessment literacy *Data literacy*

Fundamental concepts Assessment:

Involves trade-offs and balances in design and implementation

- Standards to be assessed in testing and reporting
- Test length vs. time constraints
- Format options vs. cost/scoring efficiency
- Purpose: formative vs. summative
- Criterion-referenced vs. norm-referenced

Fundamental concepts Assessment:

- Influences student motivation and learning (*What gets measured gets improved*. Peter Drucker)
- Contains potential for error
- Serves to inform and improve instruction
- Must be reliable and valid
- Must be fair and ethical
- Should use multiple methods to compile a picture of performance

Standardized tests…

- Sample of questions or activities
- Reflect a large body of knowledge in a subject area
- Because of multiple constraints, only sample a **subset** of the possible content to assess mastery of the **whole**
- **Assume all of the content has been taught**, so the variation in the subsets sampled is a valid measure

Test Preparation Continuum

1. **Instruction on district objectives without referring to the objectives measured on the standardized test. (ALWAYS OK)**
2. **Teaching test-taking skills. (GENERALLY OK)**
3. **Providing instruction on objectives that may have been based on what various tests measure. (MAYBE OK)**
4. **Providing instruction based on objectives specifically matching the test to be administered. (IFFY)***
5. **Providing instruction where the practice materials or instruction follow the test question format. (IFFY)***
6. **Provide practice or instruction on a parallel form of the same test. (NEVER OK)**
7. **Providing practice or instruction on the actual test. (NEVER OK)**

Free Assessment Literacy Resources

"What Teachers Need to Know About Assessment"

National Education Association 2002

http://echo.edres.org:8080/nea/teachers.pdf

"Thinking About Tests and Testing: A Short Primer on Assessment Literacy"

Gerald W. Bracey

American Youth Policy Forum 2000

http://www.aypf.org/publications/braceyrep.pdf

Free Assessment Literacy Resources

DART 2009 11th edition

Florida Department of Education

http://www.flbsi.org

Free Assessment Literacy Resources

Practical Assessment Research and Evaluation

A peer-reviewed electronic journal. ISSN 1531-7714
http://pareonline.net/

Key Question: What Is the Use of the Data You Collect?

- How do you use data to inform instruction and improve student achievement?
- How do you determine which data are the most important to use, analyze, or review?
- *In the absence of data, what is used as a basis for instructional decisions?*

Think – Pair - Share

- Work **independently** to identify three ways in which you use data to make decisions about students, teaching, and learning, and the sources of data that you use for each one
- **Discuss** this with your partner to identify commonalities and differences in how you use data

“Data is relationships…the more things you have to connect together, the more powerful it is.”

Tim Berners-Lee, inventor of the World Wide Web

From the TED talk available at: http://www.ted.com/talks/lang/eng/tim_berners_lee_on_the_next_web.html

Let's Go to Lunch! Activity

Find the handout in your packet.

Rank each item on the list of foods from the one you like most (1) to the one you like least (4).

Rank all items, using each number only once.

Place your choices on the chart.


Out to
LUNCH!


So, Where's
the Data?

What Data Do We Have?

State Assessment results (FCAT)

- Snapshot – only once a year.
- Aligned with state standards
- Reading, Mathematics, Writing, and Science
- DSS allows longitudinal comparison in Reading and Mathematics.

Data Sources

FCAT results

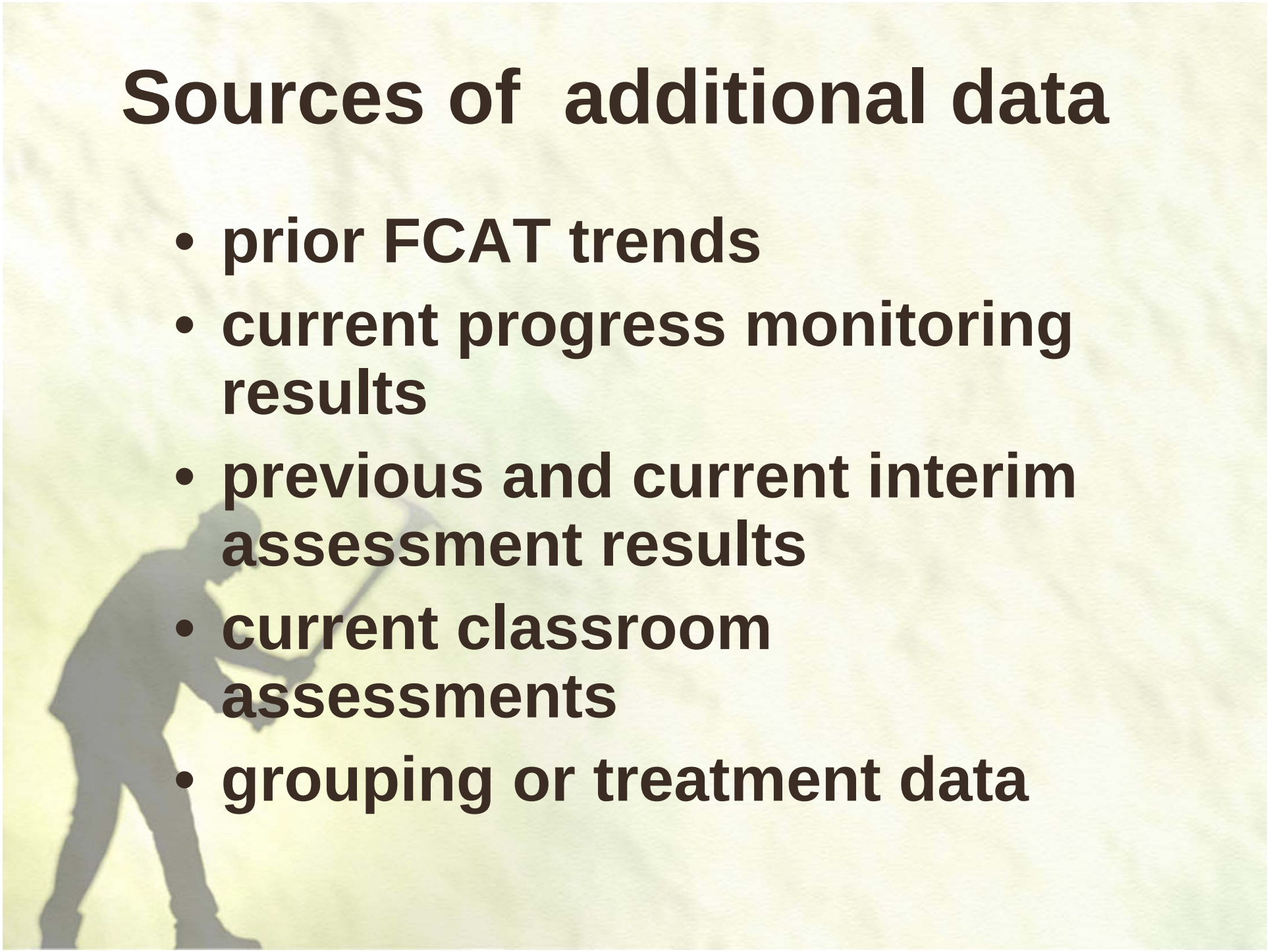
- State and district websites
  - static longitudinal for the school of the students tested each year
- SPI and SnapShot
  - Current students' historical results

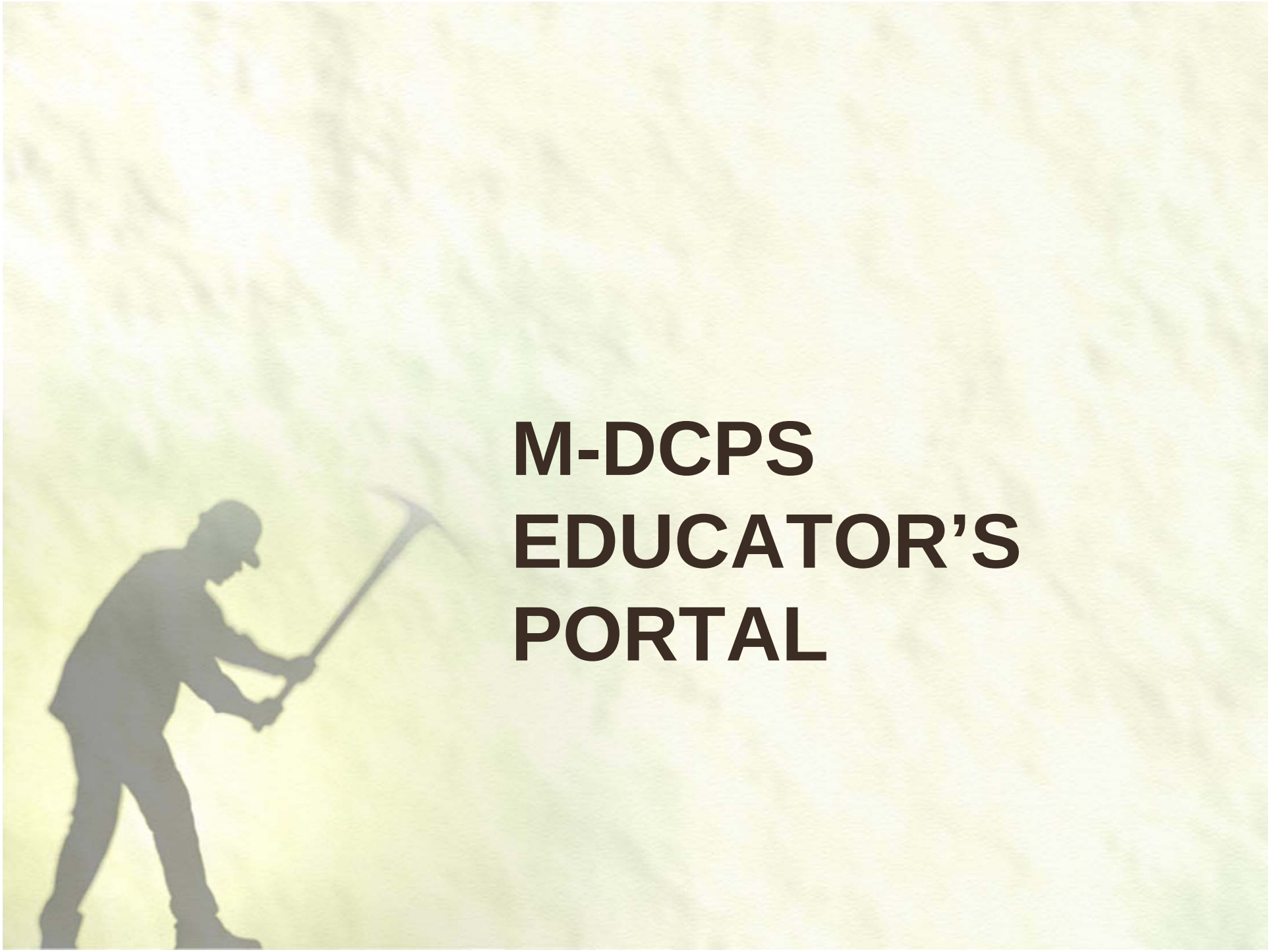
Interim Assessment results

- Edusoft – Current students' Interim Assessment results

Sources of additional data

- prior FCAT trends
- current progress monitoring results
- previous and current interim assessment results
- current classroom assessments
- grouping or treatment data

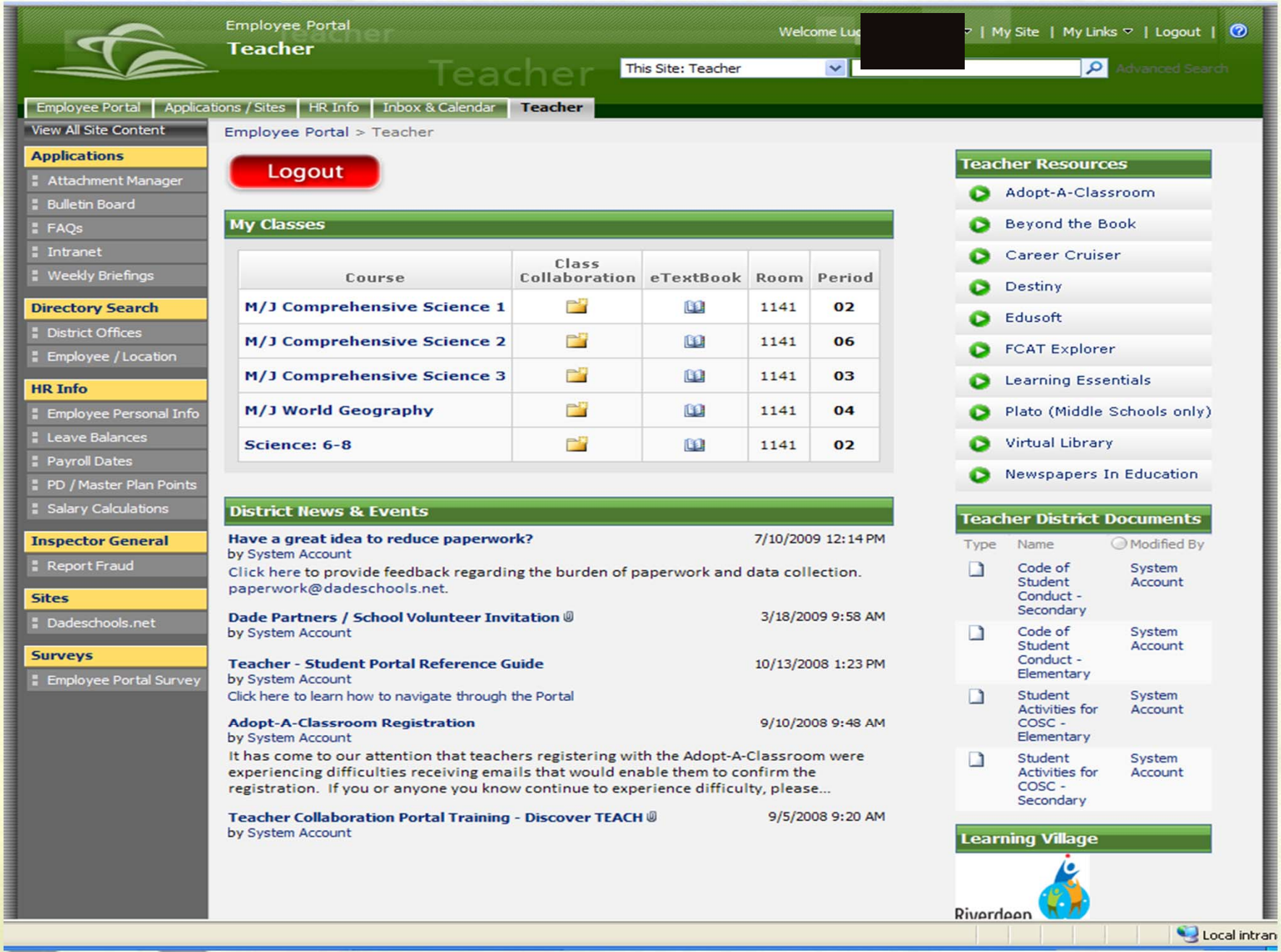


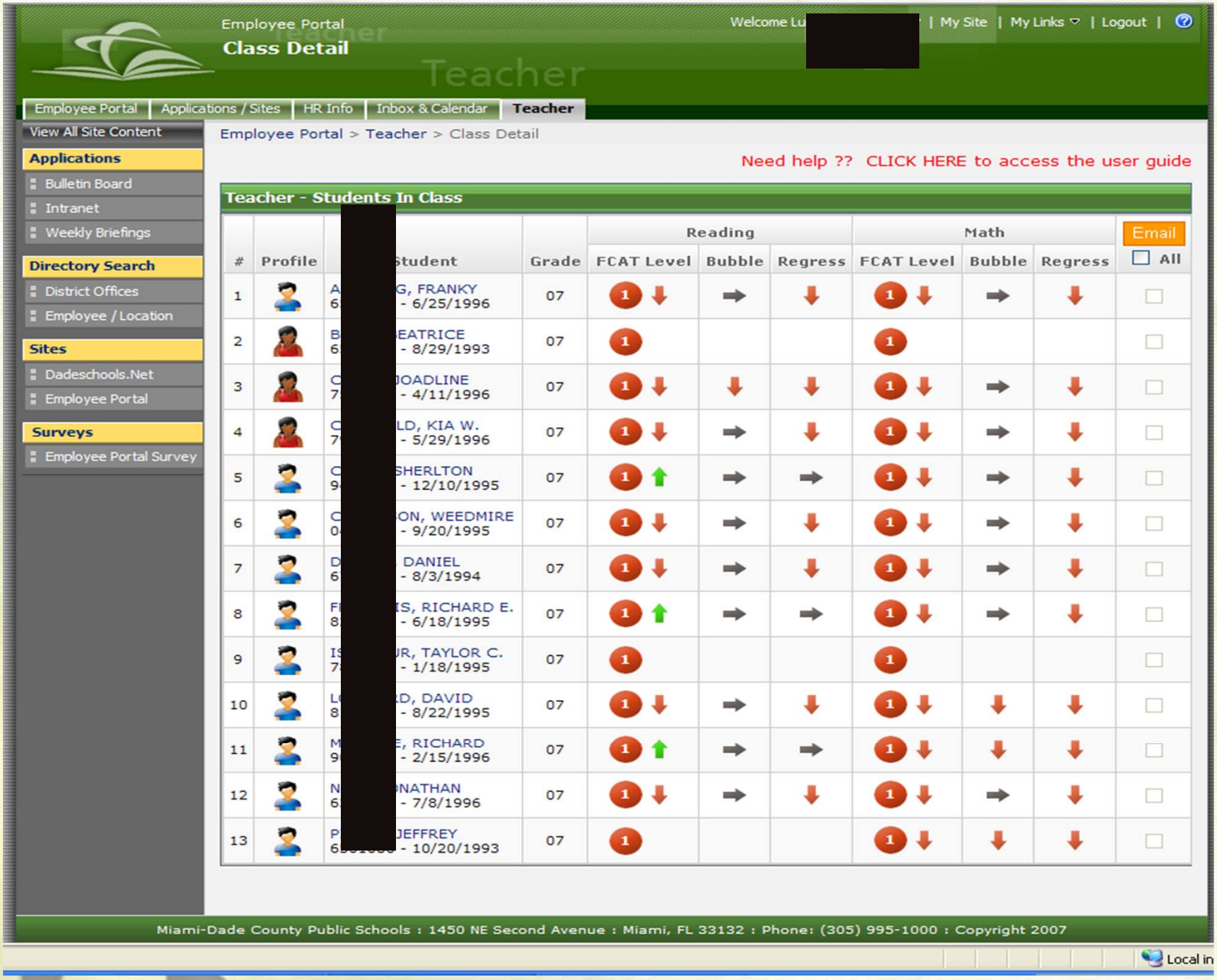


M-DCPS EDUCATOR'S PORTAL

Teacher Portal

- Alert Box System – Can receive alerts specifically tailored for them. Also serves as an *Emergency Alert System* for all users.
- E-Mail- Outlook Web Access to Dadeschools.net email
- Function tabs –Career Cruiser, Edusoft, Destiny, FCAT Explorer, Newspapers in Education, and more
- "My Classes" View
- E-mail to students -teachers can send emails to student's new District email account
- New Class Roster provides current student assessment information


Employee Portal
Teacher
Welcome Luc [redacted] | My Site | My Links | Logout |
This Site: Teacher
Advanced Search
Employee Portal | Applications / Sites | HR Info | Inbox & Calendar | Teacher
View All Site Content
Applications
Attachment Manager
Bulletin Board
FAQs
Intranet
Weekly Briefings
Directory Search
District Offices
Employee / Location
HR Info
Employee Personal Info
Leave Balances
Payroll Dates
PD / Master Plan Points
Salary Calculations
Inspector General
Report Fraud
Sites
Dadeschools.net
Surveys
Employee Portal Survey
Employee Portal > Teacher
Logout
My Classes
Course | Class Collaboration | eTextBook | Room | Period
M/J Comprehensive Science 1 | 1141 | 02
M/J Comprehensive Science 2 | 1141 | 06
M/J Comprehensive Science 3 | 1141 | 03
M/J World Geography | 1141 | 04
Science: 6-8 | 1141 | 02
District News & Events
Have a great idea to reduce paperwork? 7/10/2009 12:14 PM
by System Account
Click here to provide feedback regarding the burden of paperwork and data collection.
paperwork@dadeschools.net.
Dade Partners / School Volunteer Invitation 3/18/2009 9:58 AM
by System Account
Teacher - Student Portal Reference Guide 10/13/2008 1:23 PM
by System Account
Click here to learn how to navigate through the Portal
Adopt-A-Classroom Registration 9/10/2008 9:48 AM
by System Account
It has come to our attention that teachers registering with the Adopt-A-Classroom were experiencing difficulties receiving emails that would enable them to confirm the registration. If you or anyone you know continue to experience difficulty, please...
Teacher Collaboration Portal Training - Discover TEACH 9/5/2008 9:20 AM
by System Account
Teacher Resources
Adopt-A-Classroom
Beyond the Book
Career Cruiser
Destiny
Edusoft
FCAT Explorer
Learning Essentials
Plato (Middle Schools only)
Virtual Library
Newspapers In Education
Teacher District Documents
Type | Name | Modified By
Code of Student Conduct - Secondary | System Account
Code of Student Conduct - Elementary | System Account
Student Activities for COSC - Elementary | System Account
Student Activities for COSC - Secondary | System Account
Learning Village
Riverdeep
Local intran



Employee Portal
Class Detail
Welcome Lu [redacted] | My Site | My Links | Logout |
Teacher
Employee Portal | Applications / Sites | HR Info | Inbox & Calendar | Teacher
View All Site Content
Applications
Bulletin Board
Intranet
Weekly Briefings
Directory Search
District Offices
Employee / Location
Sites
Dadeschools.Net
Employee Portal
Surveys
Employee Portal Survey
Employee Portal > Teacher > Class Detail
Need help ?? CLICK HERE to access the user guide
Teacher - Students In Class

#	Profile	Student	Grade	Reading			Math			Email
				FCAT Level	Bubble	Regress	FCAT Level	Bubble	Regress	All
1		A [redacted] G, FRANKY - 6/25/1996	07	1 ↓	→	↓	1 ↓	→	↓	
2		B [redacted] EATRICE - 8/29/1993	07	1			1			
3		C [redacted] OADLINE - 4/11/1996	07	1 ↓	↓	↓	1 ↓	→	↓	
4		C [redacted] LD, KIA W. - 5/29/1996	07	1 ↓	→	↓	1 ↓	→	↓	
5		C [redacted] SHERLTON - 12/10/1995	07	1 ↑	→	→	1 ↓	→	↓	
6		C [redacted] ON, WEEDMIRE - 9/20/1995	07	1 ↓	→	↓	1 ↓	→	↓	
7		D [redacted] DANIEL - 8/3/1994	07	1 ↓	→	↓	1 ↓	→	↓	
8		F [redacted] S, RICHARD E. - 6/18/1995	07	1 ↑	→	→	1 ↓	→	↓	
9		I [redacted] R, TAYLOR C. - 1/18/1995	07	1			1			
10		L [redacted] D, DAVID - 8/22/1995	07	1 ↓	→	↓	1 ↓	↓	↓	
11		M [redacted] E, RICHARD - 2/15/1996	07	1 ↑	→	→	1 ↓	↓	↓	
12		N [redacted] NATHAN - 7/8/1996	07	1 ↓	→	↓	1 ↓	→	↓	
13		P [redacted] JEFFREY - 10/20/1993	07	1			1 ↓	↓	↓	

Miami-Dade County Public Schools : 1450 NE Second Avenue : Miami, FL 33132 : Phone: (305) 995-1000 : Copyright 2007
Local in

Miami-Dade County Public Schools
Individualized Educational Portfolio

9/9/2009 10:55 AM

6631-NORTH MIAMI MIDDLE

** Historic Information is collected at the end of the associated school year and may not reflect subsequent adjustments. **

STATUS	Active	GENDER	M	BIRTHDATE		PRIVATE SCHL	N
ESOL LVL	5	GRADE	07	HOMEROOM		WEIGHTED GPA	
		LUNCH STATUS	FREE	DATE ENTERED	7/6/1998	MAJOR AREA OF INTEREST	

ATTENDANCE INFORMATION

SCHOOL YEAR	EXCUSED	UNEXCUSED	TARDIES
0910	0	0	0
0809	0	1	0
0708	1	6	1

GUARDIAN INFORMATION

HOME LANGUAGE SURVEY

LANGUAGE HOME	LANGUAGE STUDENT	RESPONSE 1	2	3	SURVEY DATE
HC	HC	Y	Y	Y	7/6/1998

LATEST STUDENT FCAT AND NRT SCORES

READING

TEST DATE	CURRICULUM GROUP	SCALE	LEVEL	DEVELOPMENT	WORD/PHRASES	MAIN IDEA/PURPOSE	COMPARISONS	REFERENCE/RESEARCH
03/2009	ESE	240	1	1316	4 of 8	9 of 20	1 of 11	2 of 6

MATH

TEST DATE	CURRICULUM GROUP	SCALE	LEVEL	DEVELOPMENT	NUMBER SENSE, CONCEPTS & OPERATIONS	MEASUREMENTS	GEOMETRY & SPATIAL SENSE	ALGEBRAIC THINKING	DATA ANALYSIS & PROBABILITY
03/2009	ESE	182	1	1123	0 of 9	1 of 9	1 of 9	2 of 8	2 of 9

WRITING

TEST DATE	CURRICULUM GROUP	PROMPT TYPE	SCORE

SCIENCE

TEST DATE	CURRICULUM GROUP	SCALE	LEVEL	DEVELOPMENT	PHYSICAL/CHEMICAL	EARTH & SPACE	LIFE/ENVIRONMENTAL	SCIENTIFIC THINKING

NRT READING

TEST DATE	PERCENTILE	STANINE	SCALE
03/2009			

NRT MATH

TEST DATE	PERCENTILE	STANINE	SCALE
03/2009			

PRIMARY EXCEPTIONALITY INFORMATION

EXCEPTIONALITY	EVALUATION	IEP	IEP DURATION	INCLUSION PERCENT
Specific Learning Disabled	12/1/2006	4/3/2009	4/2/2010	

EXCEPTIONALITY PROGRAMS

EXCEPTIONALITY	STATUS	SST EVAL REF	CURRENT EVAL	ELIGIBILITY	EVAL TYPE	PLACEMENT
Language Impaired	P	6/26/1998	6/26/1998	7/2/1998	S	7/6/1998

Edusoft

- District Interim Assessment and state assessment results
- Can include site-made tests using item bank
- Aligned with standards
- Multiple measures
- Multiple report formats
- Updated periodically

CURRENT STUDENTS' RESULTS

Accessing Edusoft

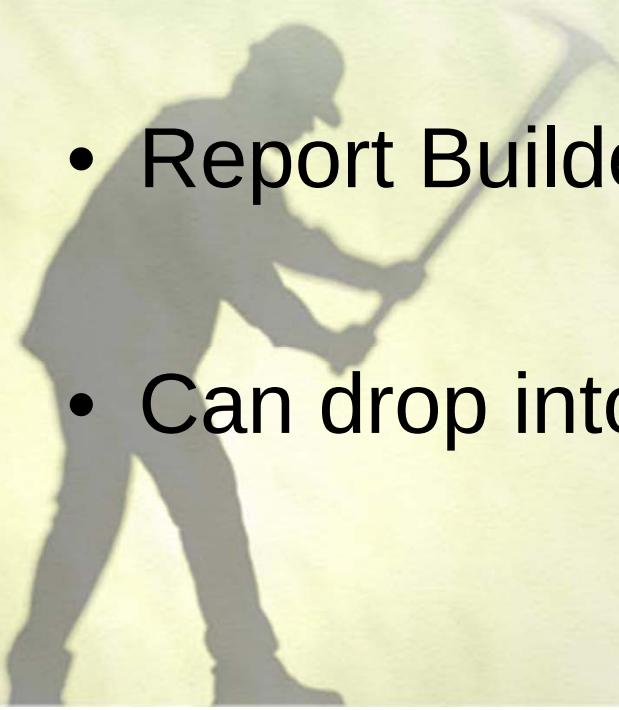
- www.Edusoft.com

or

- Log in through M-DCPS Educator's Portal
- Need USER ID and Password

EDUSOFT REPORTS

- Performance Band Reports
- Class List Report
- Report Builder Customizing
- Can drop into EXCEL



Edusoft - Module

Edusoft

Administrator

Multiple Measures | Benchmark Exams | Teacher Tools | Curriculum | Admin

Assessments | Reports Locker | Reports | Item Analysis | Intervention Groups | Instructional Tool

grunt09.edusoft.com Contact Support Library Logout

Help

Benchmark Exam Reports

Performance Band Reports

Performance Band reports show you average scores for a class or group, divided into performance bands. You can create these reports for all students, for each period, or for individual students.

Class List Reports

Class List reports show you how each student in a class or group performed on an exam. You can create these reports for all students in a group or for one or more periods.

Student Performance Report

Student Performance reports show you how an individual student performed on multiple assessments. You can choose to include standards or question groups and select different score types.

Report Builder

Report Builder shows you how a group of students performed on up to four assessments. You can see the results for different score types grouped by period, by demographic information, or by many other options.

School Comparison Reports

School Comparison reports show you overall, per standard, or per question group scores for each school in a school group. You can schedule these reports for one or more assessments that occur during a given time frame.

Edusoft - Module

Edusoft

Multiple Measures | Benchmark Exams | Teacher Tools | Curriculum | Admin

Assessments | Reports Locker | Reports | Item Analysis | Intervention Groups | Instructional Tool

Administrator

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Help

Performance Band Report

You can use options saved in your Reports Locker to generate this report. Choose saved options

Selected exam: Grade 10 Reading - BBA August 2009 (Teacher _____ Period _____)

General report options:

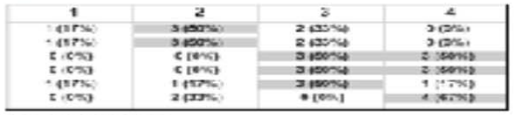
Create one report for: Each Period

In addition to overall scores, show scores for each:

- [x] Standard
- [ ] Question Group

Choose how to display additional scores:

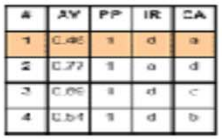
- ( ) Show the number of students in each band



- (•) Show the average score for each category

Item analysis:

- [x] Include item analysis
- [x] Highlight the bottom 40% of questions



Cancel Continue

9/9/2009

Edusoft - Module

Performance Band Report

Selected exam: Grade 10 Reading - BBA August 2009 (Teacher _____ Period _____)

Choose schools:

- ○ All My Schools
- ○ One: 7381 Miami Norland Senior High
- ◉ Multiple: View schools [Select Schools]

Choose periods:

- ◉ All
- ○ Specific: View periods [Select Periods]

Select Students Based on: Tell me more...

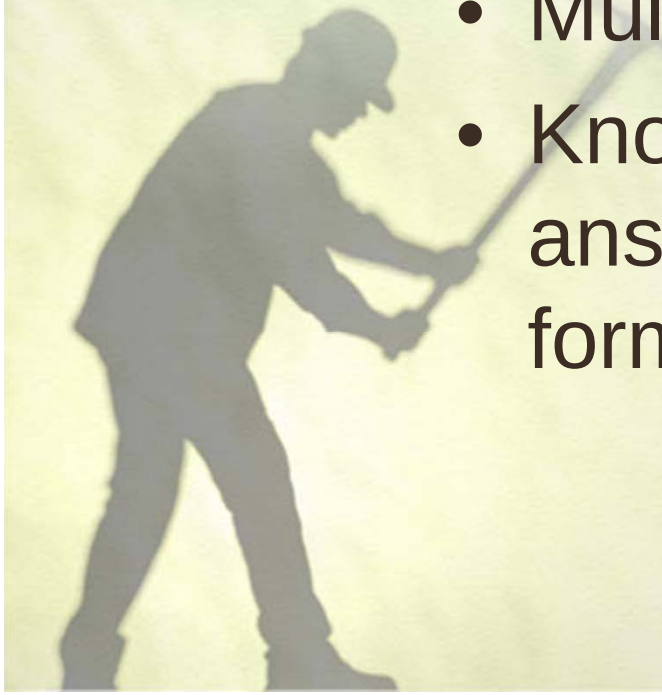
Teachers:	All
Grades:	All
Ethnicities:	All
Ed Programs:	All
Custom Groups:	All
Gender:	All
Course:	All
Test Delivery:	All
Roster:	2009-2010 Fall, School Year, Semester 2

Clear Options

Cancel Continue

EDUSOFT Performance Band Reports

- Overall “feel” for how a group of students performed on an assessment
- Multiple options of report types
- Know what question you want to answer to decide on the report format

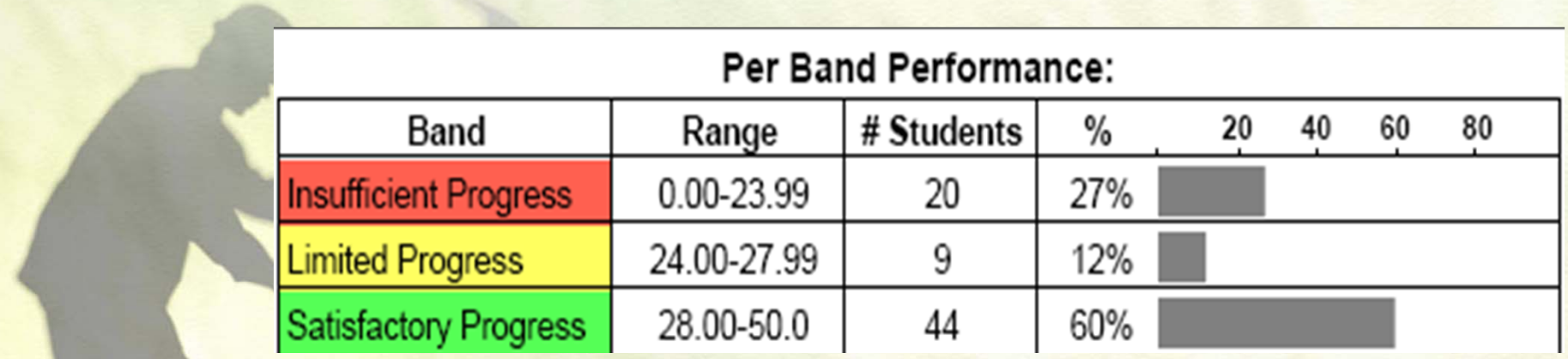


Identify Patterns and Trends: Performance Bands

- Review and compare results across classrooms (and common assessments to determine similarities and differences
- Identify percentage of students in each performance group
- Determine acceptable level of student performance

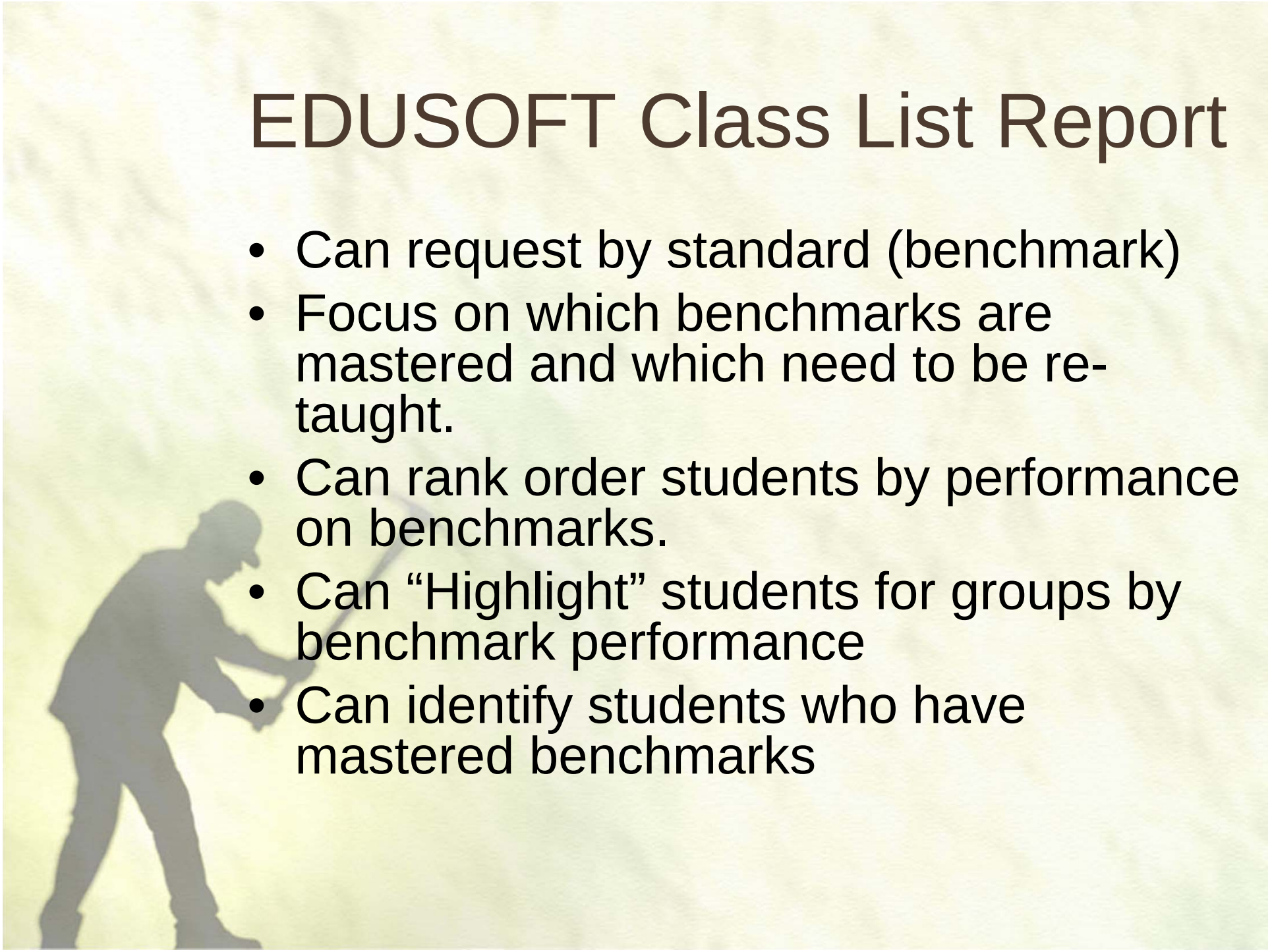
Per Band Performance:

Band	Range	# Students	%
Insufficient Progress	0.00-23.99	20	27%
Limited Progress	24.00-27.99	9	12%
Satisfactory Progress	28.00-50.0	44	60%



EDUSOFT Class List Report

- Can request by standard (benchmark)
- Focus on which benchmarks are mastered and which need to be re-taught.
- Can rank order students by performance on benchmarks.
- Can “Highlight” students for groups by benchmark performance
- Can identify students who have mastered benchmarks



Item Analysis by Benchmark

Identify target strands/standards

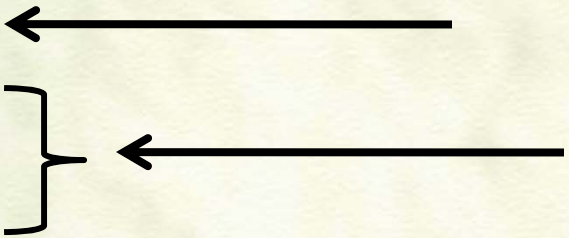
Analyze strengths and weaknesses by benchmark using Item Analysis Report

Per Standard Performance

Standard	Avg Score:	
MA.A.1.2: MA.A.1.2.1	2.67/4 (67%)	N/A
MA.A.1.2: MA.A.1.2.2	2.53/4 (63%)	N/A
MA.A.2.2: MA.A.2.2.1	2.77/4 (69%)	N/A
MA.A.3.2: MA.A.3.2.1	3.76/6 (63%)	N/A
MA.A.3.2: MA.A.3.2.2	2.65/4 (66%)	N/A
MA.A.4.2: MA.A.4.2.1	1.65/4 (41%)	N/A
MA.B.1.2: MA.B.1.2.2	2.03/4 (51%)	N/A
MA.B.2.2: MA.B.2.2.2	2.05/4 (51%)	N/A
MA.B.3.2: MA.B.3.2.1	1.56/4 (39%)	N/A
MA.C.1.2: MA.C.1.2.1	1.67/4 (42%)	N/A
MA.D.1.2: MA.D.1.2.1	2.54/4 (63%)	N/A
MA.E.1.2: MA.E.1.2.1	2.17/4 (54%)	N/A

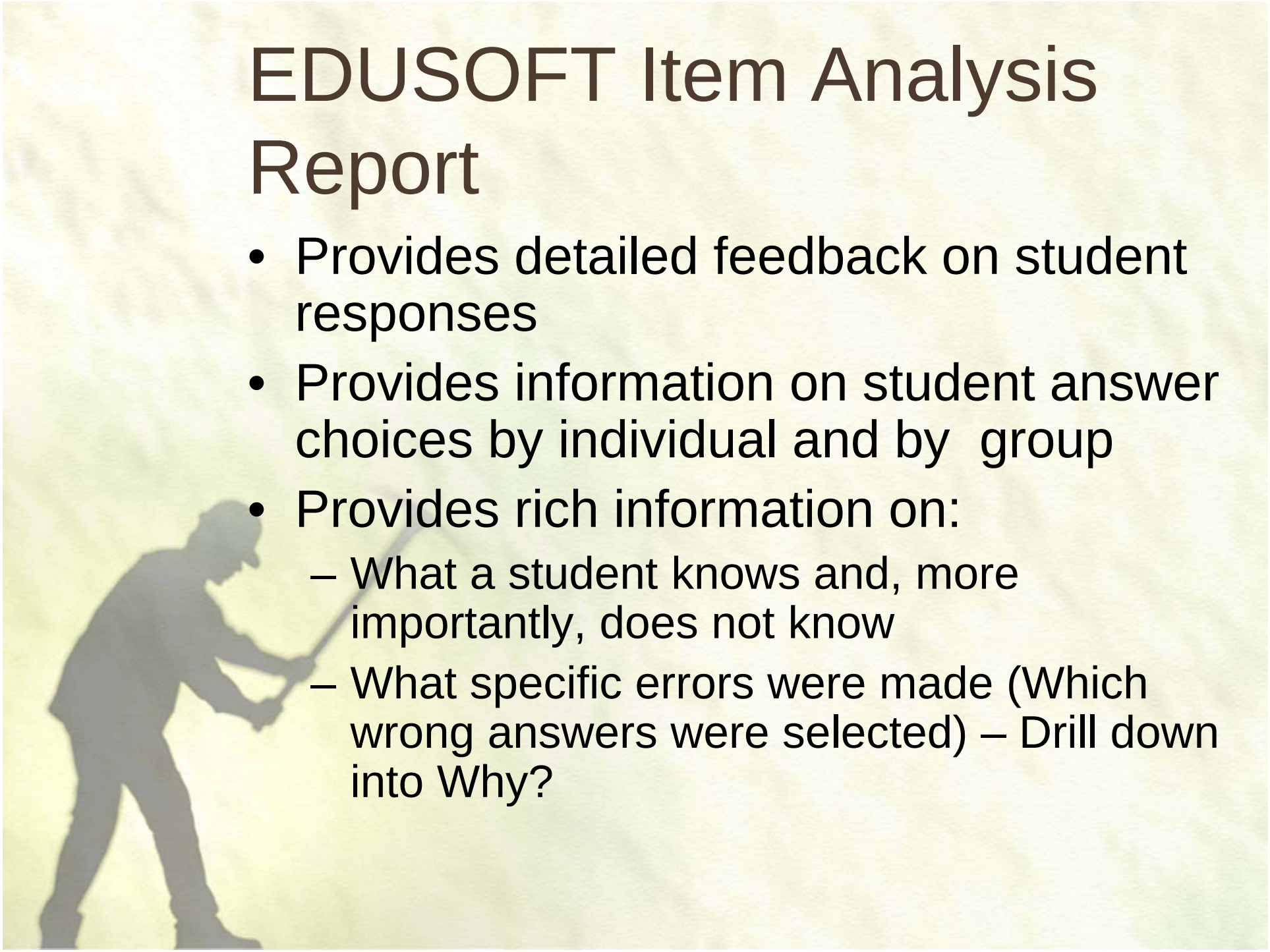
-MA.B.3.2: MA.B.3.2.1 - The student solves real-world problems involving estimates of measurements, including length, time, weight, temperature, money, perimeter, area, and volume.
Multiple-Choice: 10, 13, 22, 24, 29

-MA.A.4.2: MA.A.4.2.1 - The student uses and justifies different estimation strategies in a real- world problem situation and determines the reasonableness of results of calculations in a given problem situation.
Multiple-Choice: 26, 36, 40, 46



EDUSOFT Item Analysis Report

- Provides detailed feedback on student responses
- Provides information on student answer choices by individual and by group
- Provides rich information on:
  - What a student knows and, more importantly, does not know
  - What specific errors were made (Which wrong answers were selected) – Drill down into Why?



Analyze Strengths and Weaknesses

Question Group Performance:

Question Group	Avg Score:	Band:
A. Number Sense, Concepts, and Operations	16.03/26 (62%)	N/A (0.00-26.0)
B. Measurement	5.65/12 (47%)	N/A (0.00-12.0)
C. Geometry and Spatial Sense	1.67/4 (42%)	N/A (0.00-4.0)
D. Algebraic Thinking	2.54/4 (63%)	N/A (0.00-4.0)
E. Data Analysis and Probability	2.17/4 (54%)	N/A (0.00-4.0)

Item Analysis:

Multiple-Choice

Question #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Average Points	0.50	0.67	0.70	0.54	0.41	0.41	0.52	0.54	0.56	0.72	0.66	0.35	0.73	0.62	0.61	0.80	0.58	0.61	0.67	0.93	0.75	0.61	0.35	0.32	0.73
Points Possible	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Most Freq. Incorrect	C	I	B	H	B	I	C	H	B	I	A	F	D	F	A	H	A	I	D	I	B	G	A	G	C
Correct Answer	B	H	C	I	A	G	B	G	C	H	B	G	C	H	B	G	D	G	B	F	A	H	C	H	D

Question #	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Average Points	0.39	0.60	0.46	0.12	0.52	0.50	0.56	0.67	0.75	0.78	0.37	0.65	0.63	0.44	0.53	0.61	0.35	0.69	0.58	0.37	0.36	0.67	0.54	0.73	0.29
Points Possible	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Most Freq. Incorrect	H	A	I	D	H	A	F	D	H	C	G	A	G	D	G	C	H	A	G	D	H	A	I	A	F
Correct Answer	I	C	G	A	I	B	G	B	I	A	H	B	F	C	H	D	G	C	I	C	I	B	F	D	G

Looking Deeper: Item Analysis

Item	% Correct	Discrimination	A	B	C	D	F	G	H	I	OMITTED
sort by	sort by	sort by	sort by	sort by	sort by	sort by	sort by	sort by	sort by	sort by	sort by
Multiple-Choice -> 29	11%	0.13	10.9*	23.5	18.7	46.2	0	0	0	0	0.8
Multiple-Choice -> 30	54%	0.27	0	0	0	0	16.3	9	19.4	54.5*	0.8
Multiple-Choice -> 31	57%	0.43	21.3	57.1*	10.6	10.2	0	0	0	0	0.8
Multiple-Choice -> 32	61%	0.52	0	0	0	0	24.2	60.6*	7.3	7	0.9
Multiple-Choice -> 33	73%	0.61	5.1	73.3*	9.3	11	0	0	0	0	1.3

Item Analysis Quick Reference Sheet

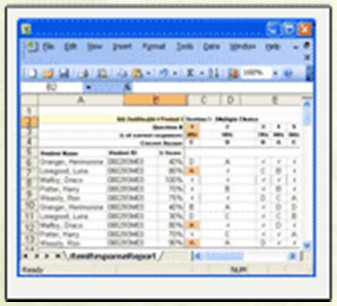
Question Group	Item	% Correct	Discrimination	A	B	C	D	F	G	H	I	OMITTED
Main Idea, Plot, and Purpose	Section 1 -> 16	44%	1.00	0	0	0	0	44.4*	22.2	5.6	16.7	11.1

Terminology	Meaning	Interpretation	Item Statistic	Indicator	Instructional Focus Question(s)
% Correct –P-value (Difficulty index)	Measure of the percentage of students answering an item correctly.	• 44%, or nearly half of the students answered this item correctly • The difficulty level (P-value) of the item is 0.44	• P-value < 0.25 indicates a difficult item • P-value > 0.95 indicates an easy item	• Relevant for determining whether students have learned the concept being tested. • Adequate numbers of easy and difficult items allow students with achievement levels of both extremes to be measured.	• Was the item easy or difficult for the examinees? • Are the results for other items from this benchmark/strand similar? • Was the content covered adequately?
Discrimination (Point-Biserial)	Correlation of a student's response to that item and their total score. The discrimination index is a measure of the question's ability to differentiate between high and low scorers on the test.	• This item answered correctly by students who have the general knowledge/skill being measured by the test	• Items with Point-Biserial >.30 discriminate sufficiently between low and high abilities.	• Positive Point-Biserial indexes indicate students having high test scores on the test performed well on the item. • Negative Point-Biserial indexes indicate that students having low test scores answered the item correctly, while higher scoring students answered it incorrectly. • Denotes misunderstanding or mis-learning of the content.	• Is there a common misunderstanding of the content among students? • How might the content be presented to clear up misconceptions?
Distractors (Answer Choices)	A comparison of the proportion of students choosing each response option.	• Nearly half chose the correct answer, "F", but almost ¼ chose a distractor, "G". • In-depth view of how students responded to the test item	• The percent of students selecting the correct answer (denoted with an asterisk) is the same as the P-value. • Percentage of students selecting incorrect options (distractor) is displayed under the corresponding letter (A-I).	• Incorrect answer options are clues to students' misunderstanding of the content and thus should guide appropriate remediation. • About an equal selection of all options is an indication of guessing.	• Why might students have chosen the distractor over the correct response? • What common type of error is represented by each "popular" distractor? • How would you re-teach the concept to address the misconception?
Omitted (Omit Rate)	Measure of the percentage of students not responding or marking options.	• 11.1% of the students selected one (and only one) option	• Omit rate of over 5% should be reviewed.	• High omission rates could mean that students were not familiar with the item content. • High omission rates on items at the end of a test could indicate that students did not have sufficient time to finish or were unmotivated.	• Did students have sufficient time to complete the assignment? • Were students familiar with the content? • Were they motivated?

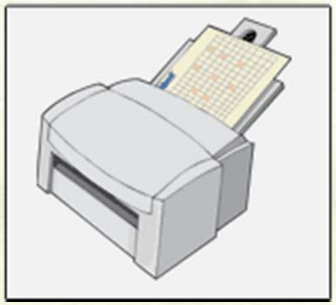
Item Response Report Page Format Options

Selected exam: Grade 10 Reading - BBA August 2009 (Teacher _____ Period _____)

Web page



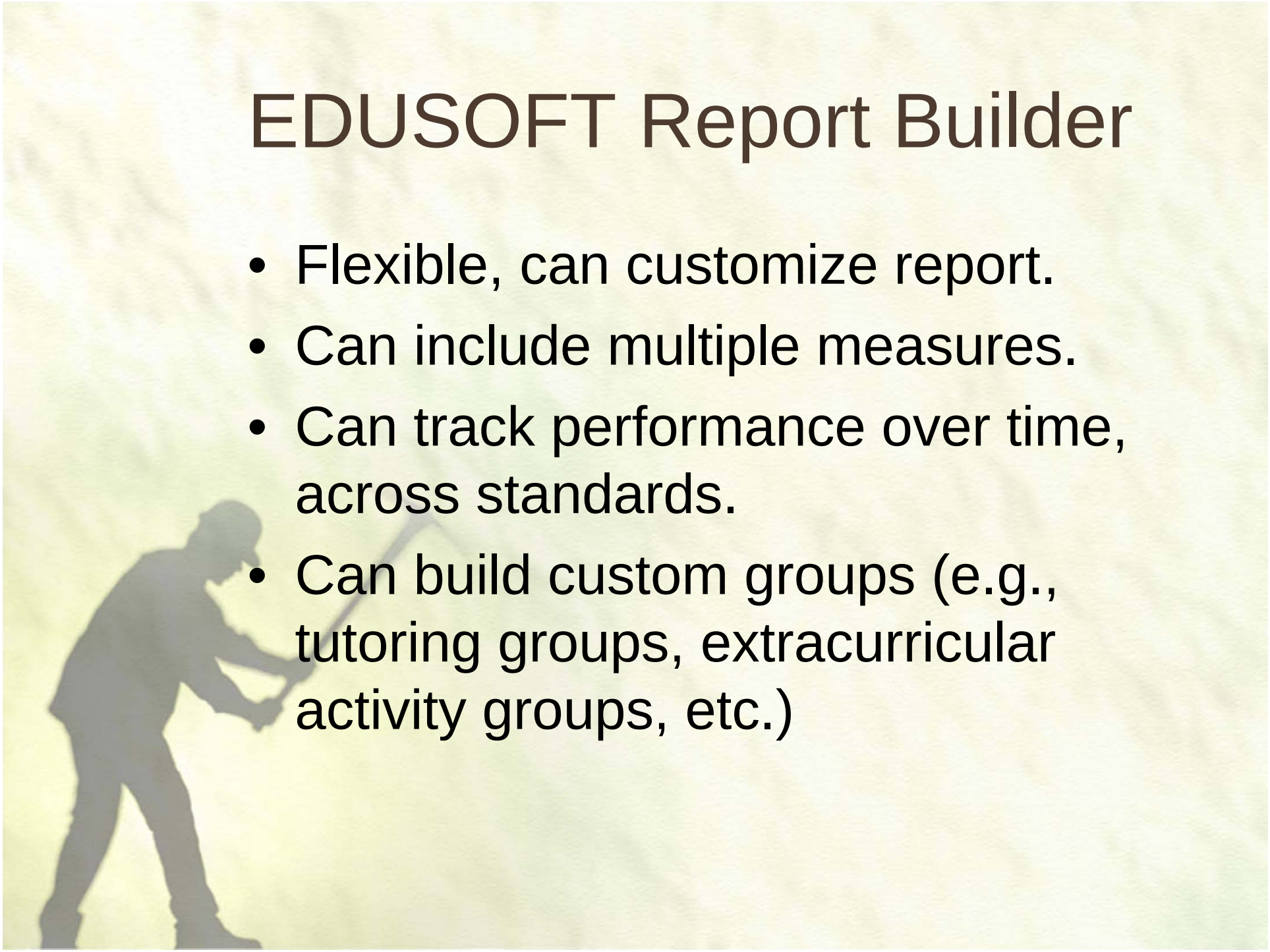
Spreadsheet



Printer-friendly

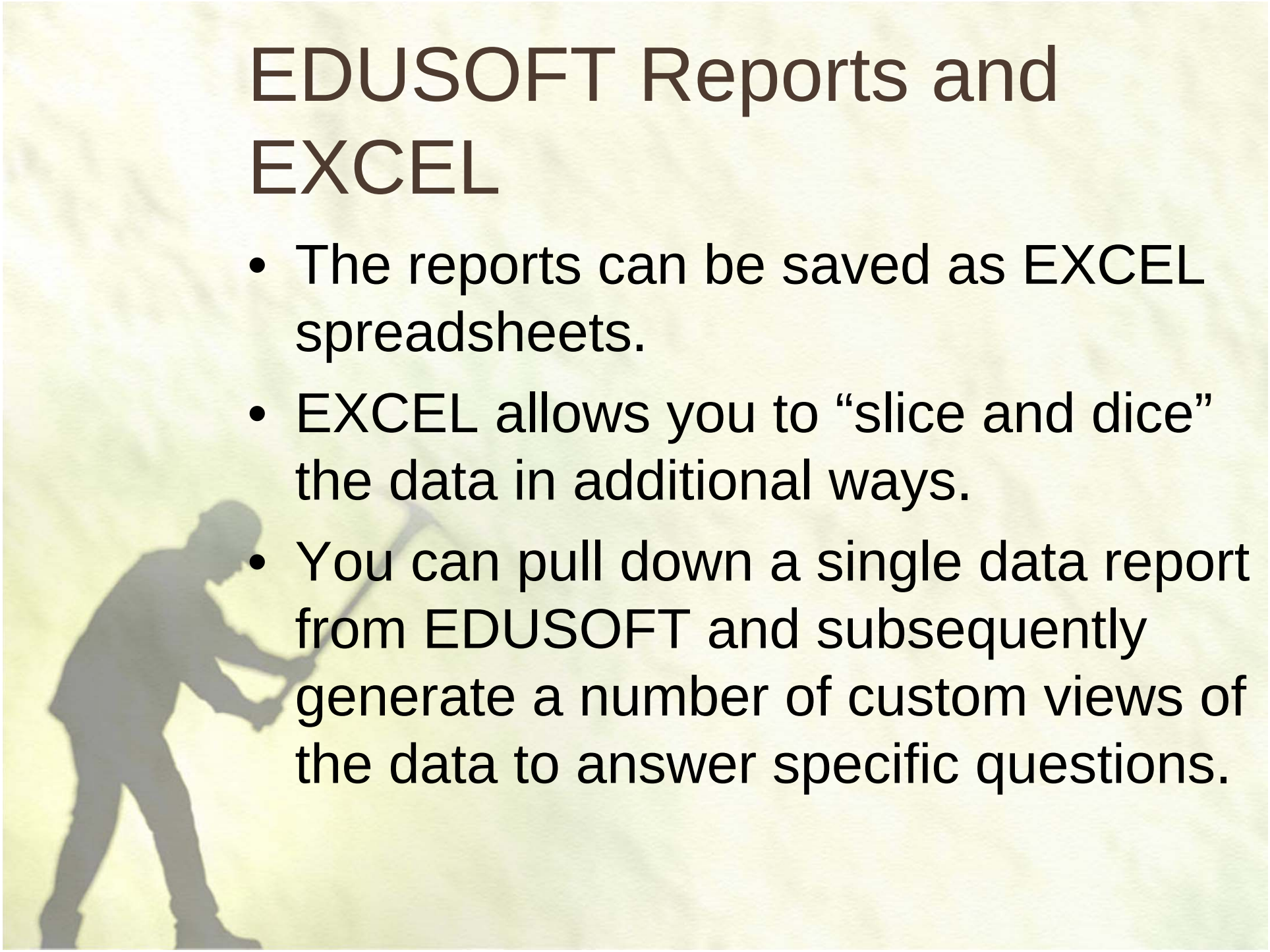
EDUSOFT Report Builder

- Flexible, can customize report.
- Can include multiple measures.
- Can track performance over time, across standards.
- Can build custom groups (e.g., tutoring groups, extracurricular activity groups, etc.)

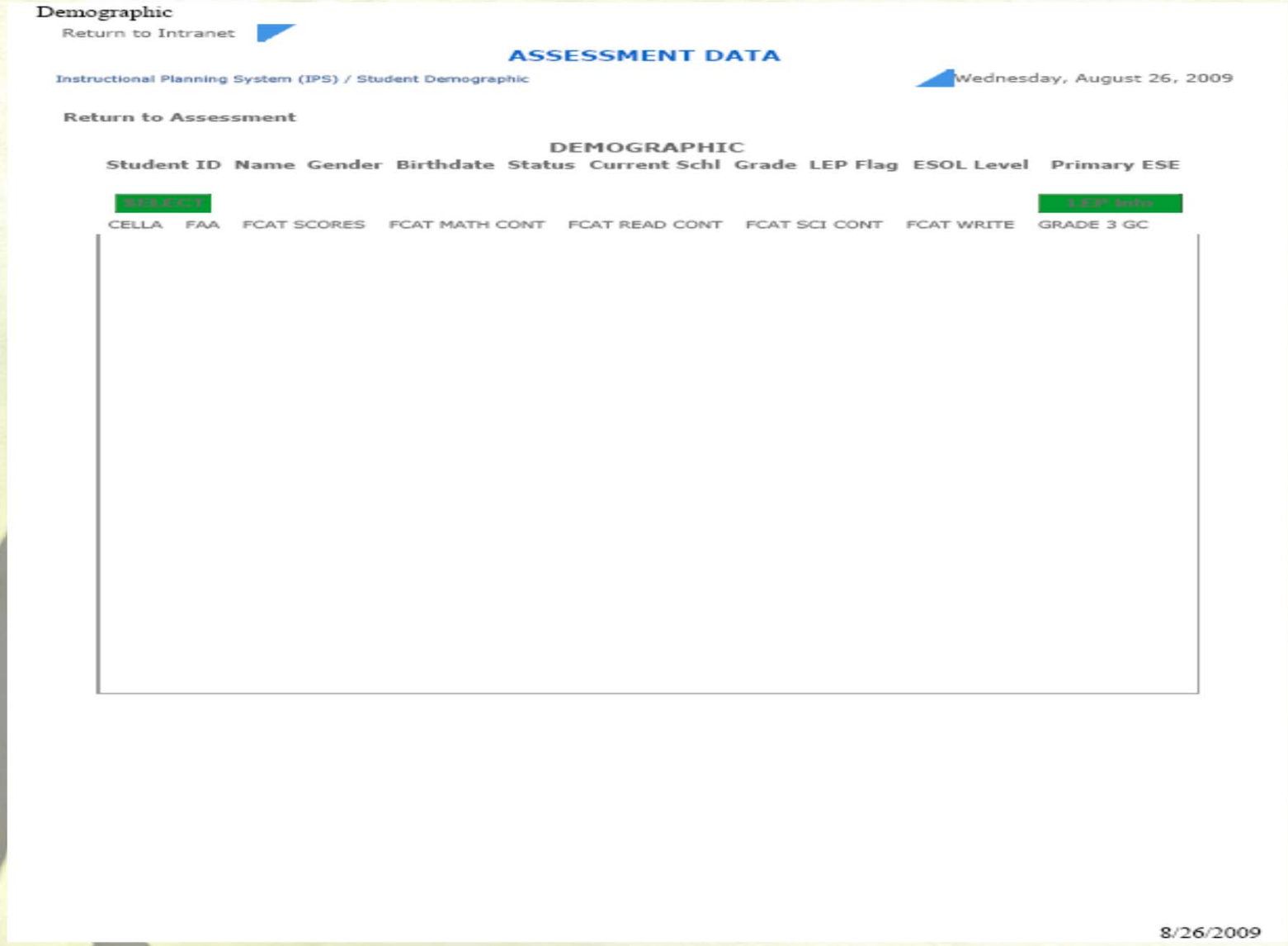


EDUSOFT Reports and EXCEL

- The reports can be saved as EXCEL spreadsheets.
- EXCEL allows you to “slice and dice” the data in additional ways.
- You can pull down a single data report from EDUSOFT and subsequently generate a number of custom views of the data to answer specific questions.



SPI


Demographic
Return to Intranet
ASSESSMENT DATA
Instructional Planning System (IPS) / Student Demographic
Wednesday, August 26, 2009
Return to Assessment
DEMOGRAPHIC
Student ID Name Gender Birthdate Status Current Schl Grade LEP Flag ESOL Level Primary ESE
SELECT
LEP Info
CELLA FAA FCAT SCORES FCAT MATH CONT FCAT READ CONT FCAT SCI CONT FCAT WRITE GRADE 3 GC
8/26/2009

Other Data Sources

SPI (Intranet)

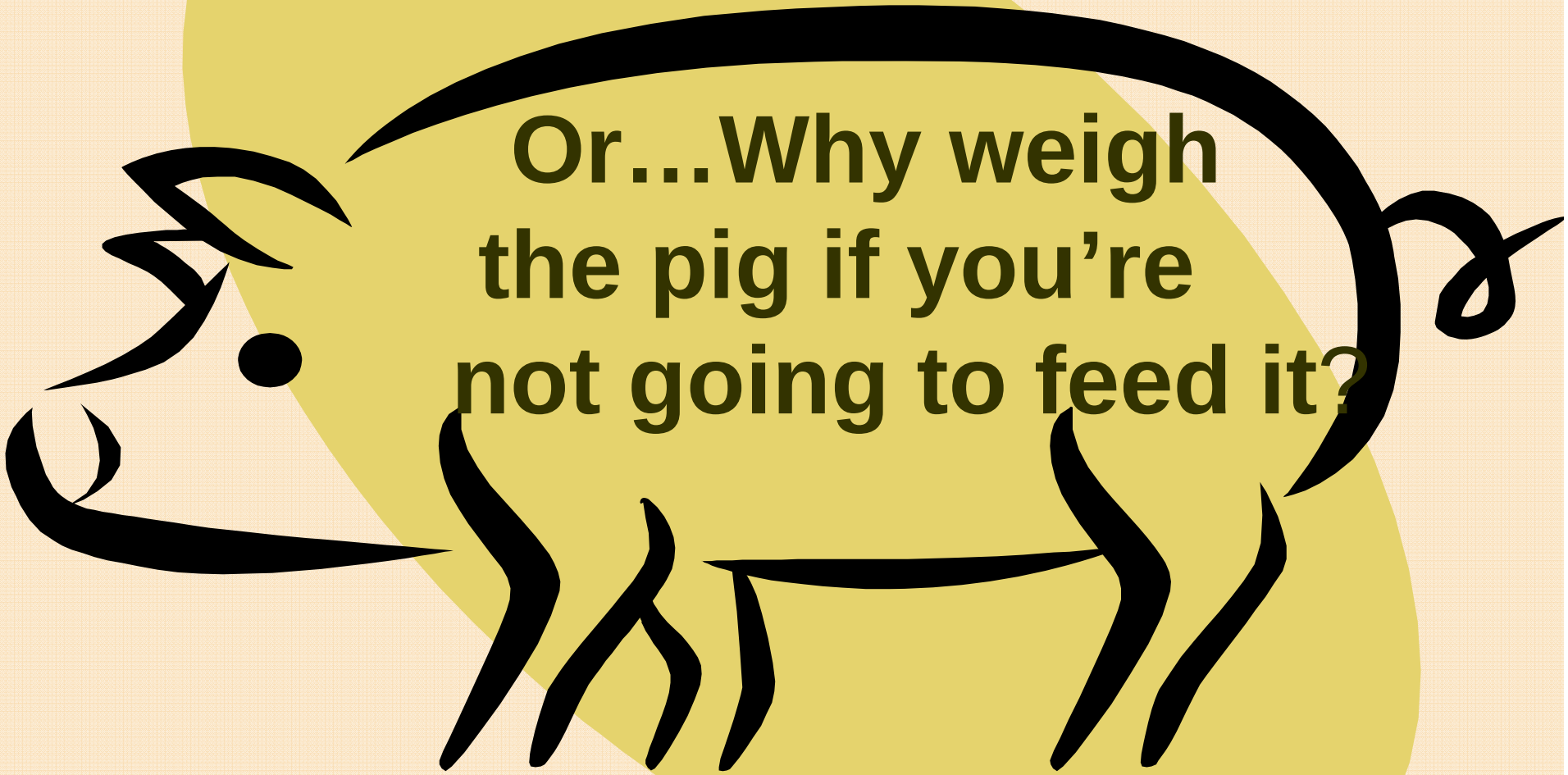
- **FCAT**
- **Grade 3 Good Cause**
- **CELLA**

PMRN

- **FAIR data**

ISIS (SAT, ACT, AP, IB, etc.)

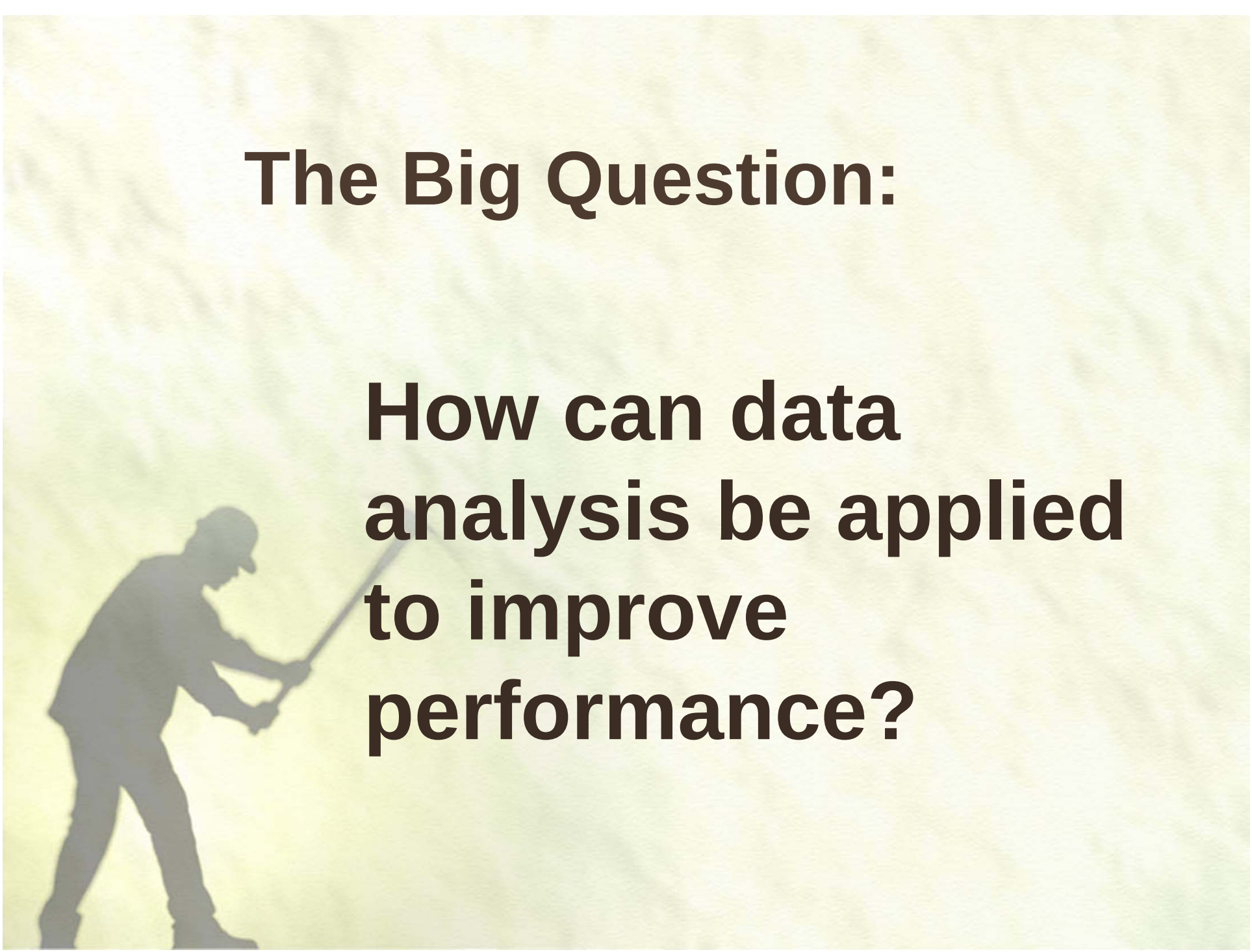
Data Should Lead to Action



Or…Why weigh the pig if you're not going to feed it?

The Big Question:

How can data analysis be applied to improve performance?



Data Analysis: The Big Picture

- **What do we want to know?**
- **What do the data show?**
- **How did we get here?**
- **Where do we need to go from here?**
- **How will we get there?**
- **Who needs to share the work?**

Knowledge is Power

"When teachers have current information about the skill levels and proficiencies of students sitting in their classrooms, they are better able to modify their instructional strategies."

Pardini, P. (2000 Winter) Data, well done: Six examples of data-driven decision-making at work. *Journal of Staff Development 21* (1), 12-18

Resources for Data Analysis Information

- http://www.norman.k12.ok.us/090/index_files/page0009.htm
- http://www.nsrfharmony.org/protocol/doc/data_driven_dialogue.pdf

Resources on Building Data Analysis and Presentation Skills

Just Plain Data Analysis

http://lilt.ilstu.edu/jpda/

Gapminder

http://www.gapminder.org

Flowing Data

http://flowingdata.com/about/

Averages Lie!
How is each student doing?

"My average student is doing great. Half my class thinks 2+2=3 and the other half thinks 2+2=5."

Targeting Instruction

"WHICH STUDENTS"

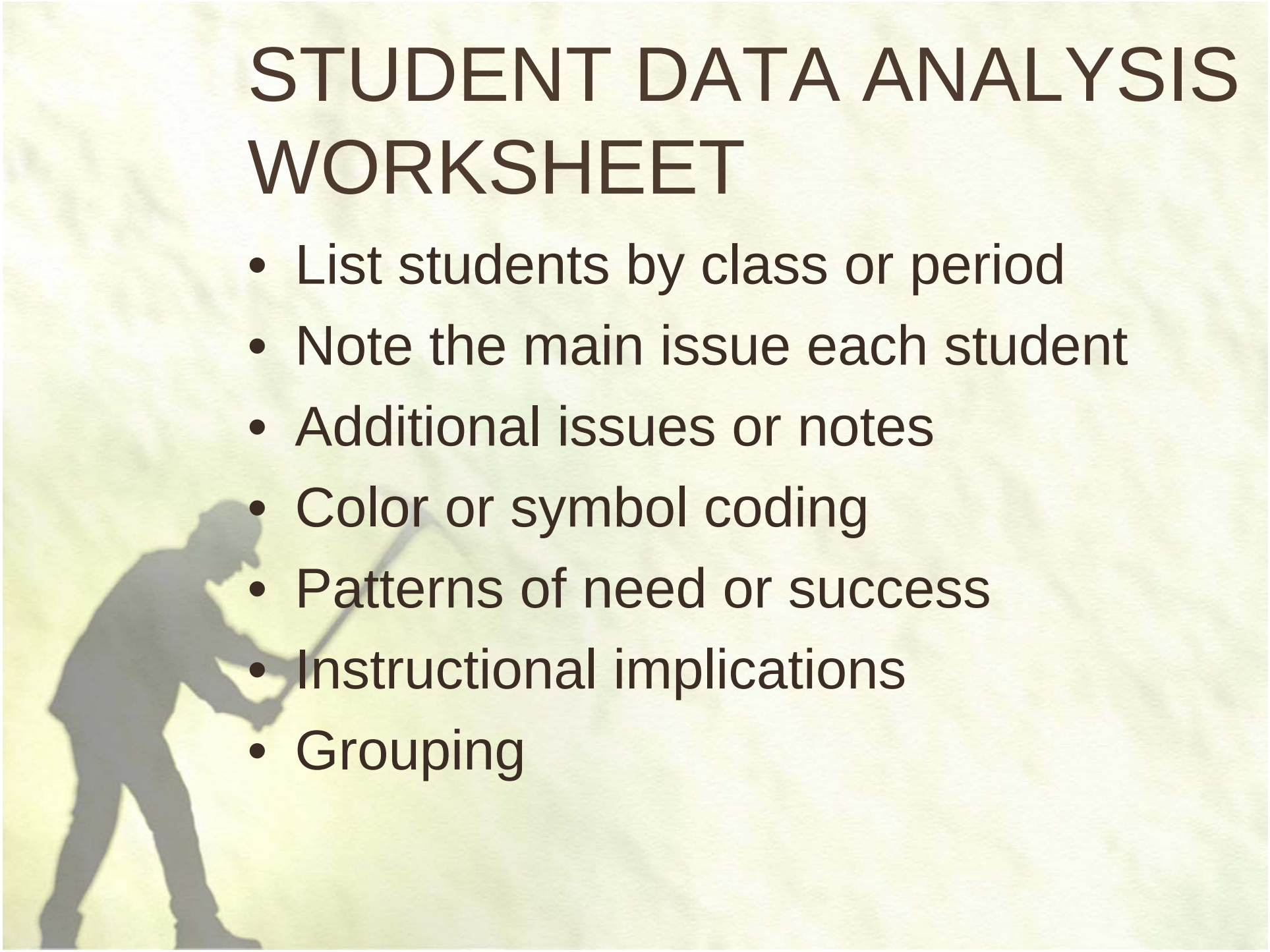
not

"HOW MANY STUDENTS"

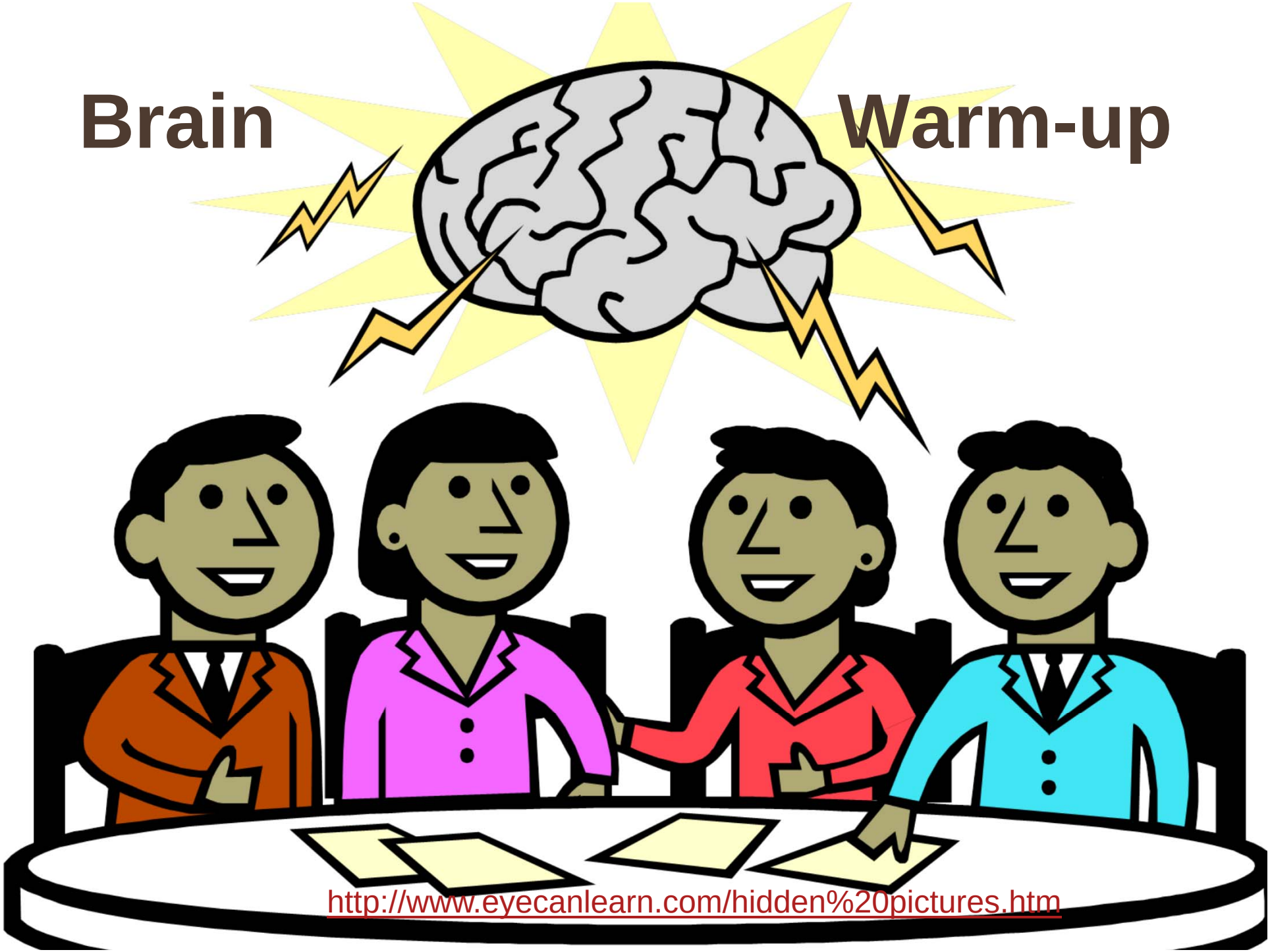
as framework for targeting instruction

STUDENT DATA ANALYSIS WORKSHEET

- List students by class or period
- Note the main issue each student
- Additional issues or notes
- Color or symbol coding
- Patterns of need or success
- Instructional implications
- Grouping



Brain Warm-up



http://www.eyecanlearn.com/hidden%20pictures.htm

Mining the Data

Effective Data Presentation: Telling the Story

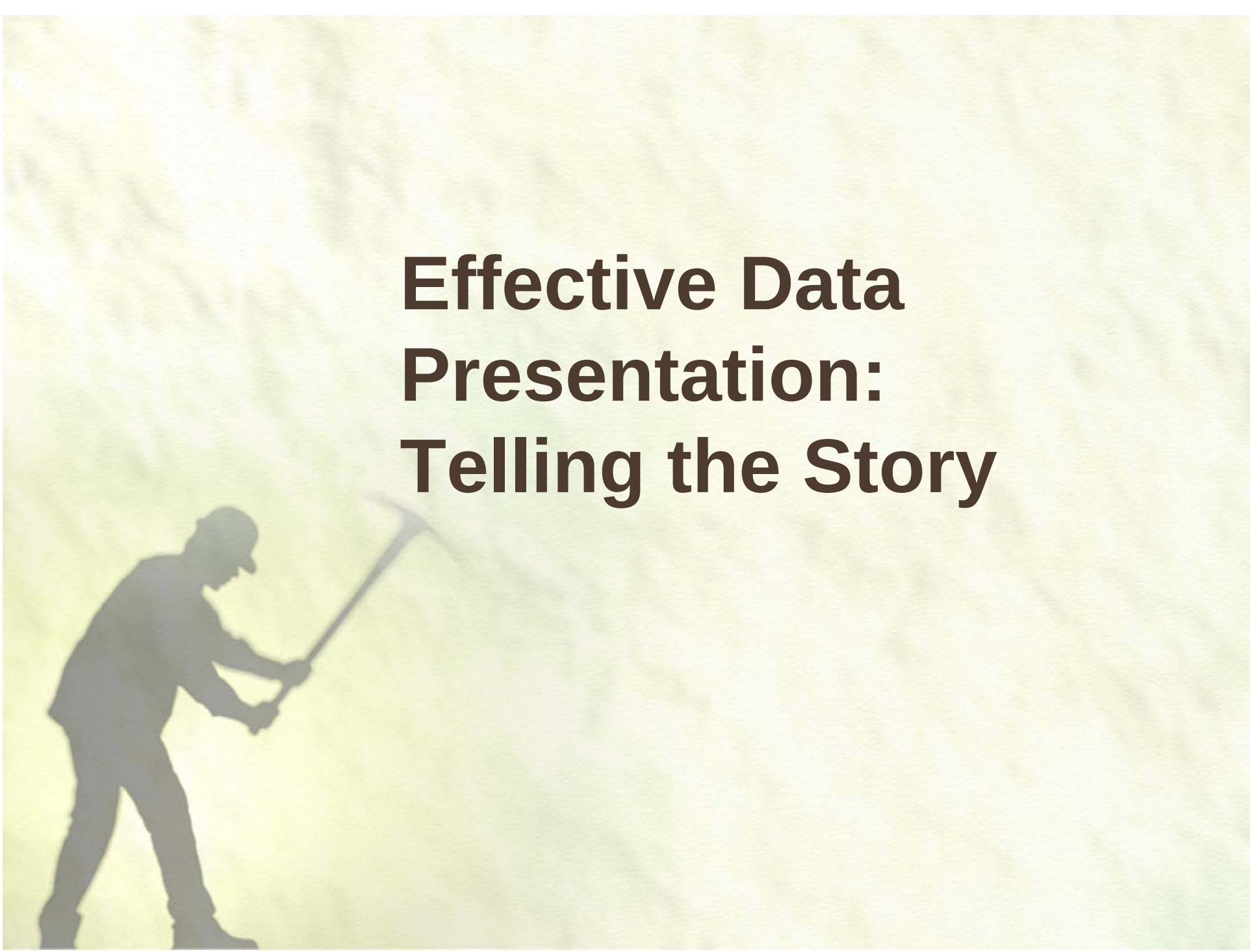
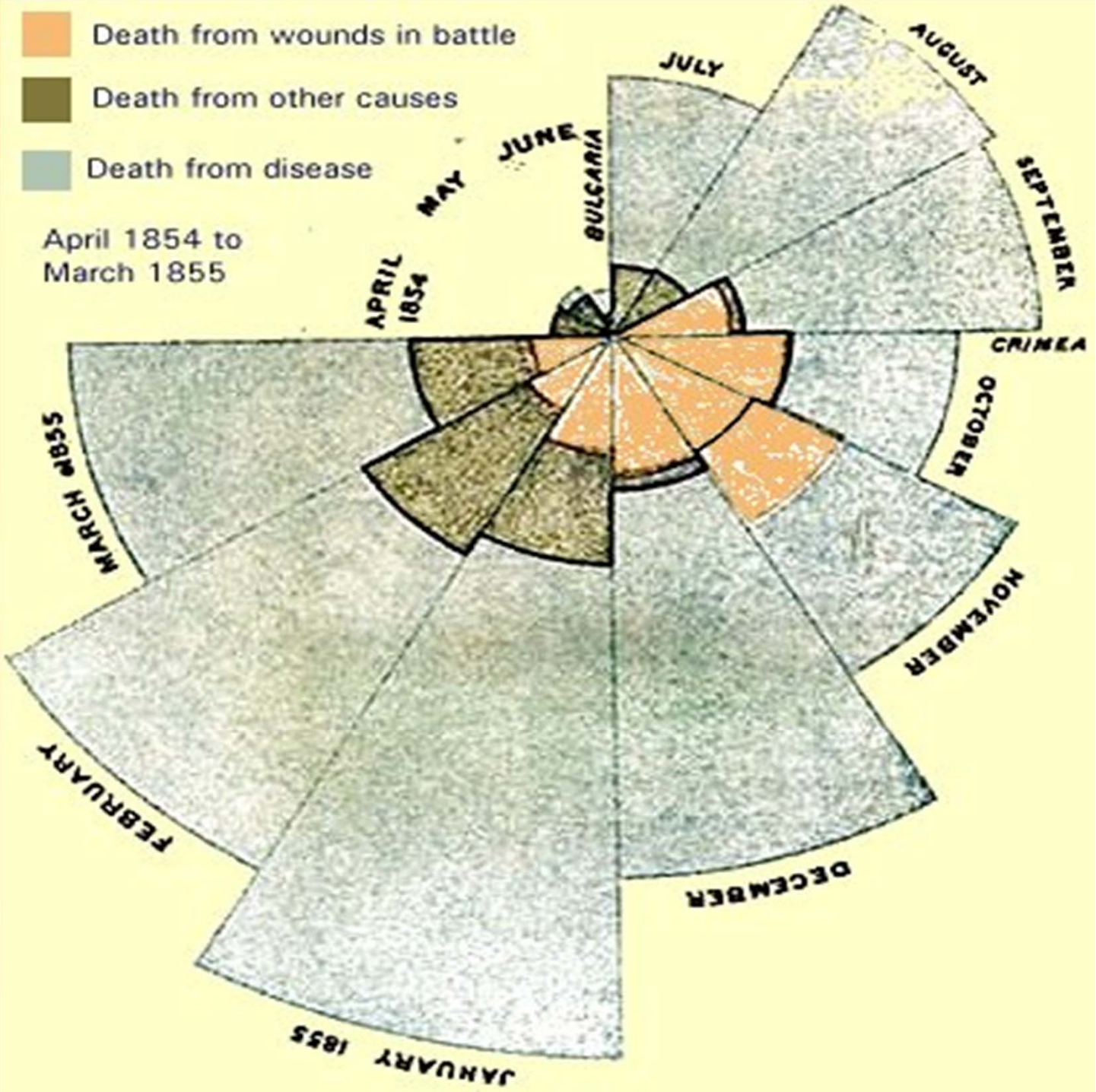


Table showing the Estimated Average Monthly Strength of the Army; and the deaths and Annual Rate of Mortality per 1000 in each month, from April 1854, to March 1856 (inclusive), in the Hospitals of the Army in the East

		Deaths			**Annual rate of morality per 1000**		
Month	**Average size of army**	**Zymotic diseases**	**Wounds & injuries**	**All other causes**	**Zymotic diseases**	**Wounds & injuries**	**All other causes**
Apr 1854	8571	1	0	5	1.4	0	7.0
May 1854	23333	12	0	9	6.2	0	4.6
Jun 1854	28333	11	0	6	4.7	0	2.5
Jul 1854	28722	359	0	23	150.0	0	9.6
Aug 1854	30246	828	1	30	328.5	0.4	11.9
Sep 1854	30290	788	81	70	312.2	32.1	27.7
Oct 1854	30643	503	132	128	197.0	51.7	50.1
Nov 1854	29736	844	287	106	340.6	115.8	42.8
Dec 1854	32779	1725	114	131	631.5	41.7	48.0
Jan 1855	32393	2761	83	324	1022.8	30.7	120.0
Feb 1855	30919	2120	42	361	822.8	16.3	140.1

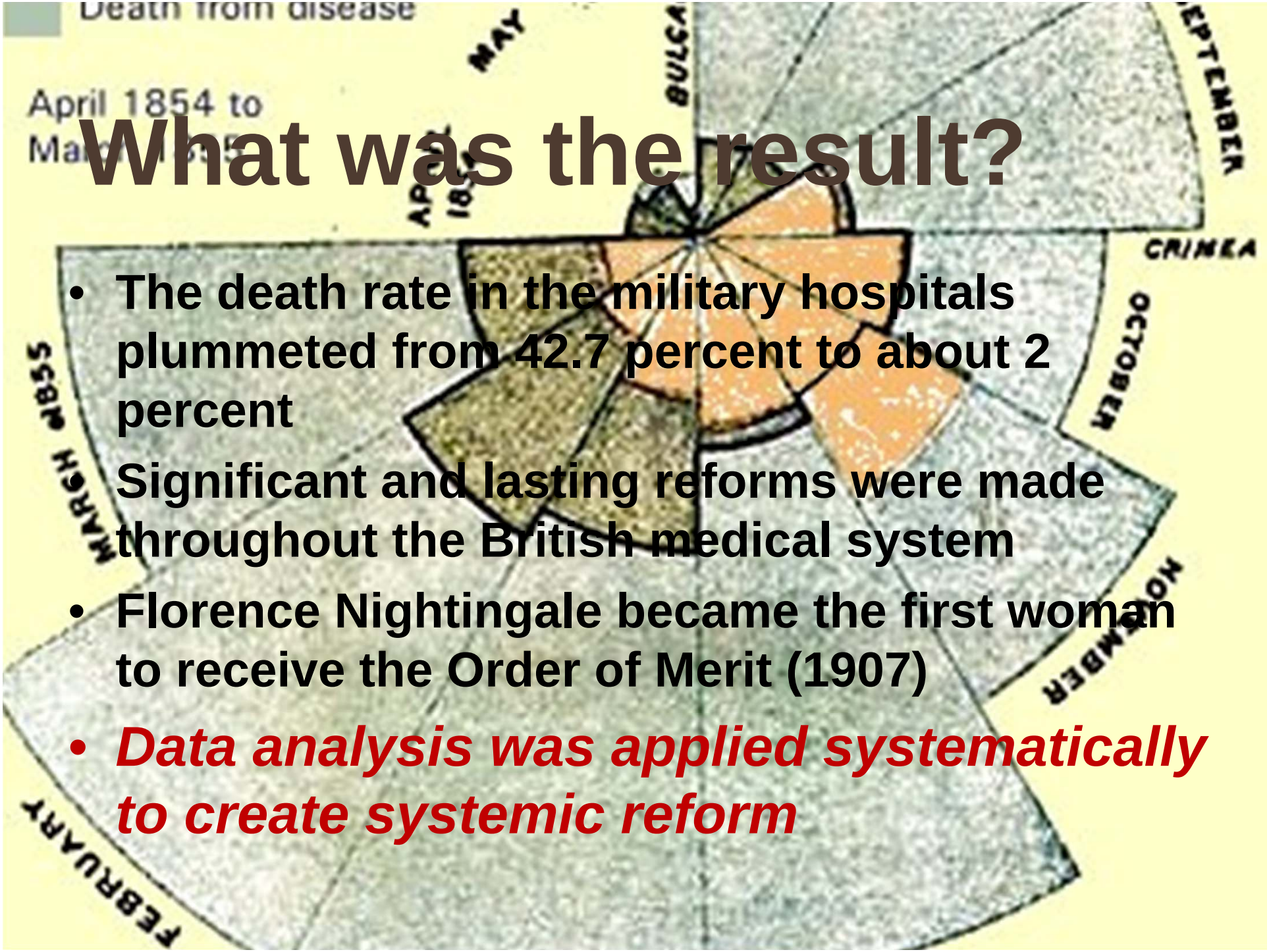
Source:
Nightingale, F., *Notes on Matters Affecting the Health, Efficiency, and Hospital Administration of the British Army. Founded Chiefly on the Experience of the Late War.* Presented by Request to the Secretary of State for War. Privately printed for Miss Nightingale, Harrison and Sons, 1858.



Presenting Data Effectively

Clear	Unclear
Accurate	Misleading or Distorted
Easy to Understand	Cluttered or Muddled
Interesting	Boring, Dull
Simple and to the Point	Cluttered, Overly Busy or Fussy
Clearly Labeled- Correct Scaling	No Labels – Inappropriate Scaling
Appropriate to Audience	Inappropriate for Audience

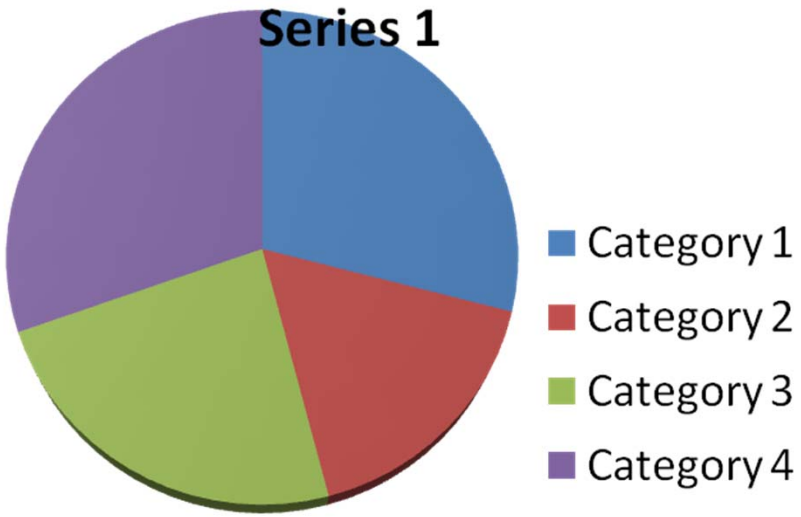
What was the result?



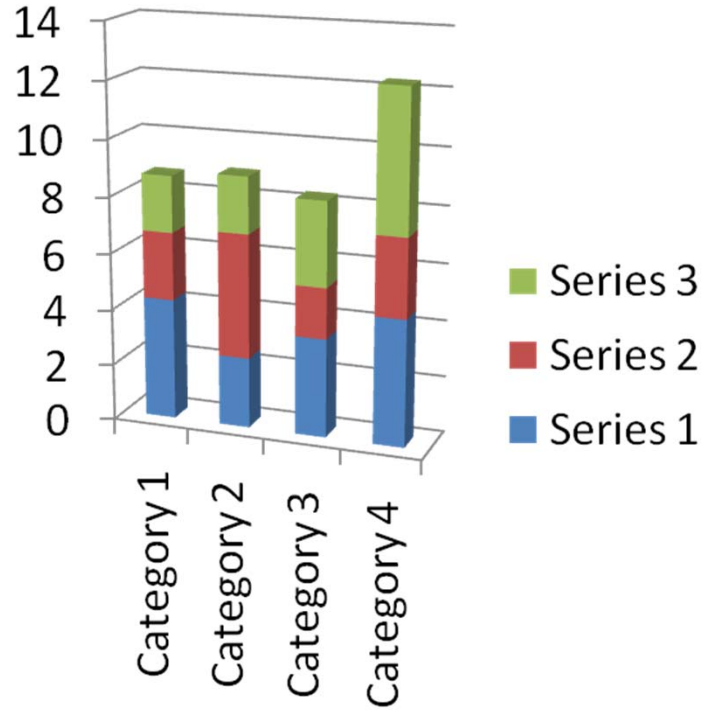
- The death rate in the military hospitals plummeted from 42.7 percent to about 2 percent
- Significant and lasting reforms were made throughout the British medical system
- Florence Nightingale became the first woman to receive the Order of Merit (1907)
- ***Data analysis was applied systematically to create systemic reform***

Examples of Data Presentation Formats

Pie Chart

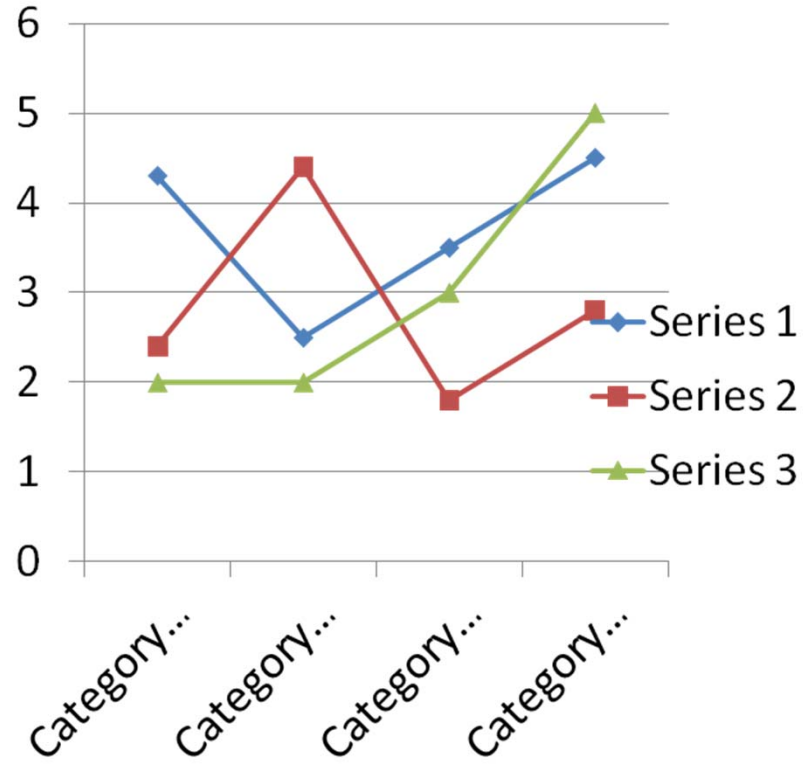


Stacked Bar Chart

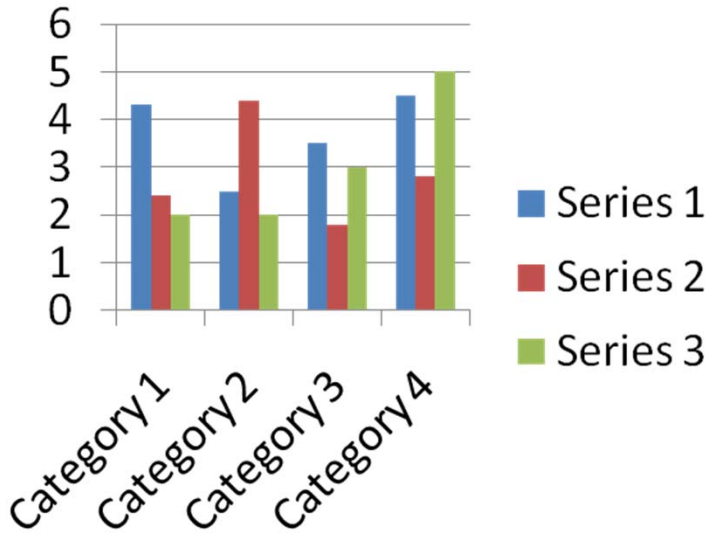


Examples of Data Presentation Formats

Line Chart



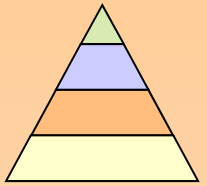
Bar Chart



GRAPHIC DATA PRESENTATION








Activity:

- Look at your data. With your partner, select and prepare a graphic representation to present **one element** of your data.
- Use the rubric in the packet to review your graph and answer the questions.

The Data Dialogue: *Putting it all together*

Framing the Data Conversations

- ***WHAT?***
- ***SO WHAT?***
- ***WHO CARES?***
- ***HOW COME?***
- ***NOW WHAT?***

SMART GOALS AND ACTION PLANS

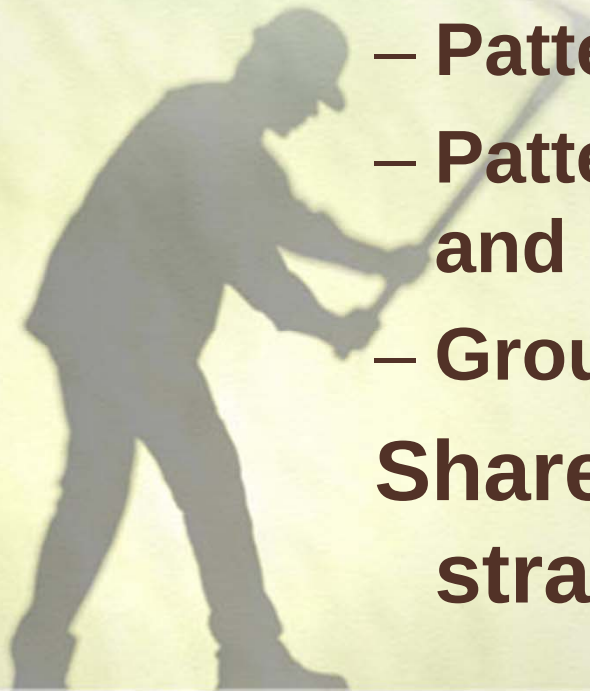
- **Specific (What will you do?)**
- **Measurable (To what level or extent?)**
- **Attainable (Is this within reason based on your starting point?)**
- **Relevant (Is this tied into your overall goal?)**
- **Time-Specific (Starting when, measured when, and accomplished by when?)**

Supporting Effective Data Use

Engage in data-based dialogue about the students regarding

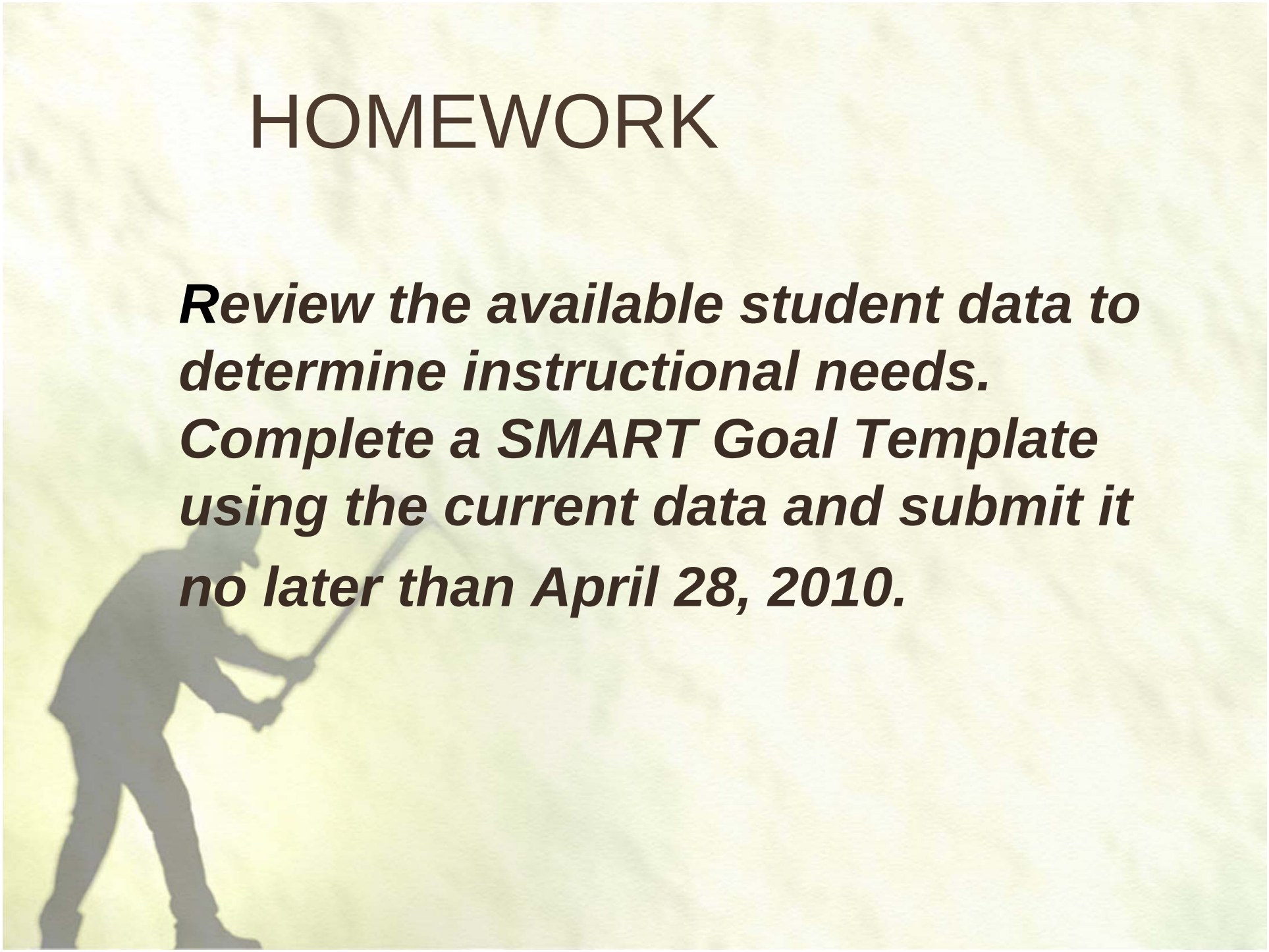
- **Individual performance**
- **Class or group performance**
- **Patterns over time**
- **Patterns of evidence about learning and gaps**
- **Grouping for instruction, not life!**

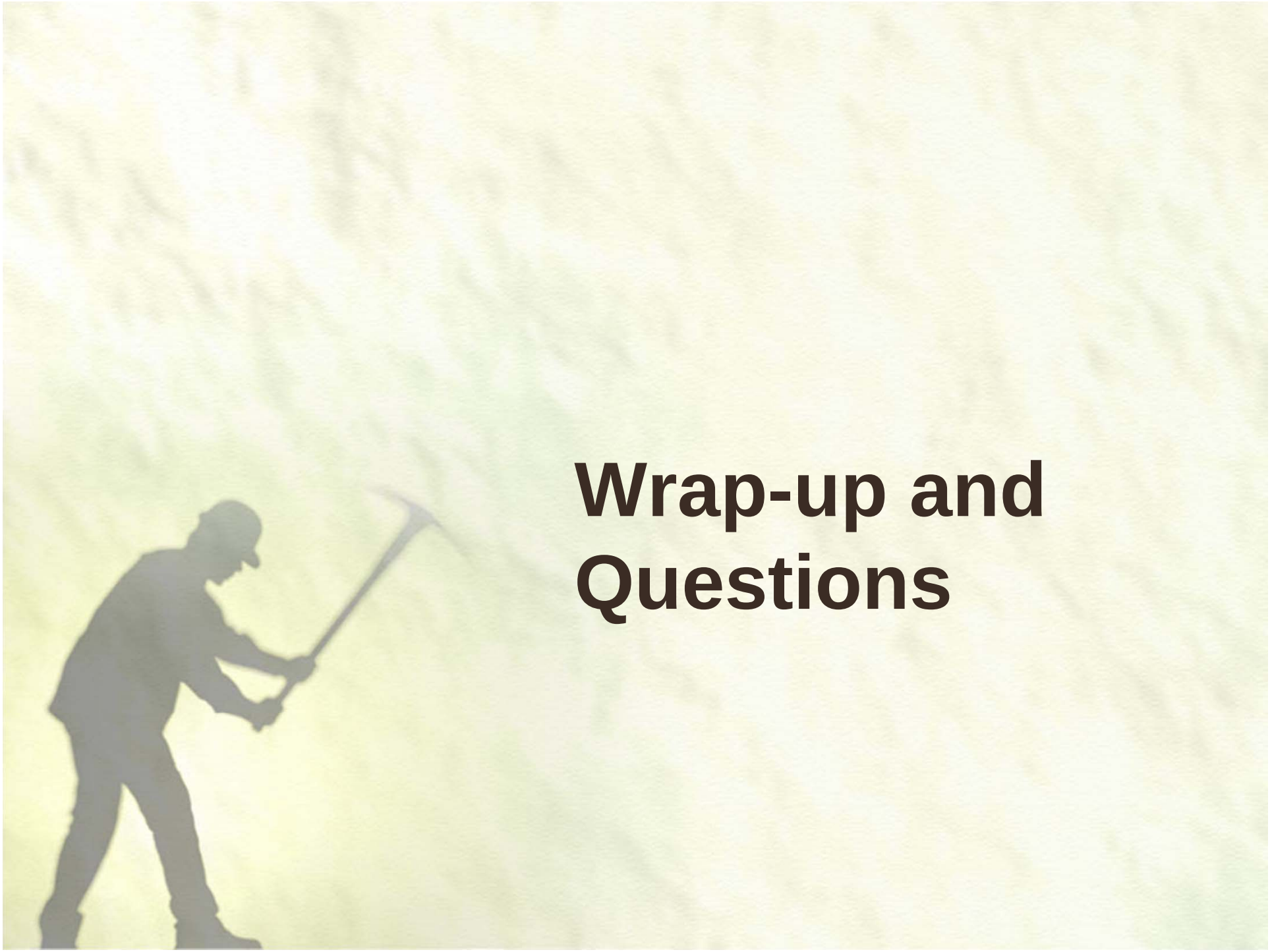
Share resources, expertise, and strategies



HOMEWORK

Review the available student data to determine instructional needs. Complete a SMART Goal Template using the current data and submit it no later than April 28, 2010.





Wrap-up and Questions

Reflection

What is one nugget of information that you got from this session?

What skills are you going to cart away with you to share with your colleagues and students?

What is one concept into which you want to drill down even more?

CONTACT INFORMATION

Ada Fernandez-Vicaria

Curriculum Support Specialist

Professional Development

Mail Code 9017

305 995-7566

afvicaria@dadeschools.net