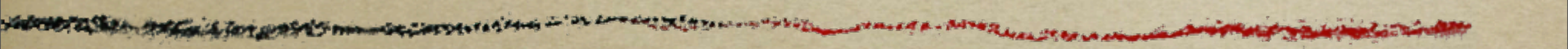


Assessment in Action



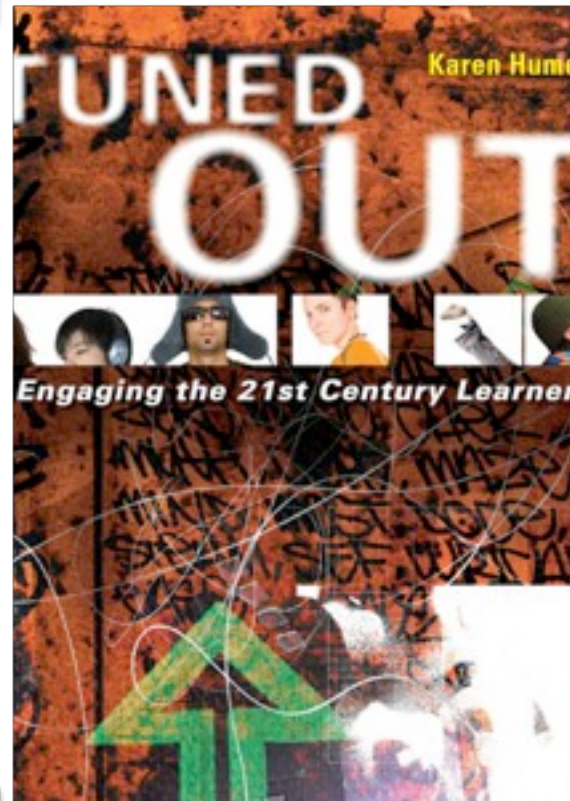
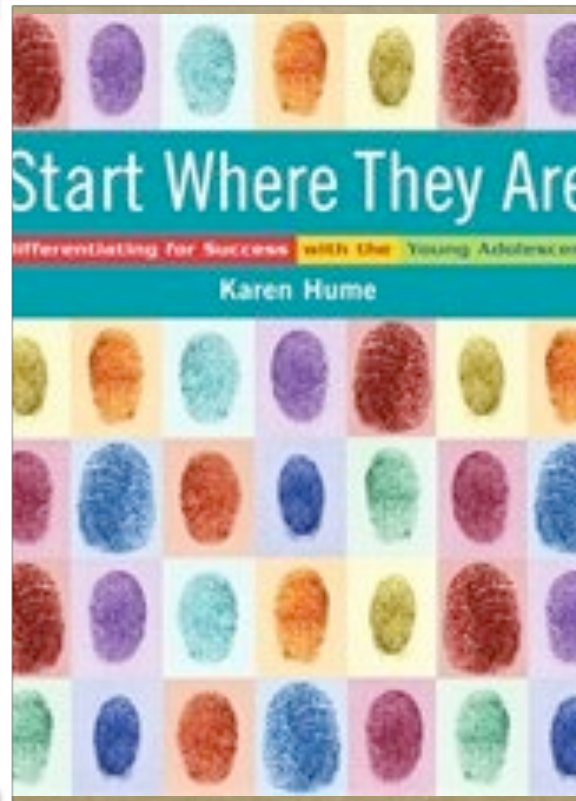
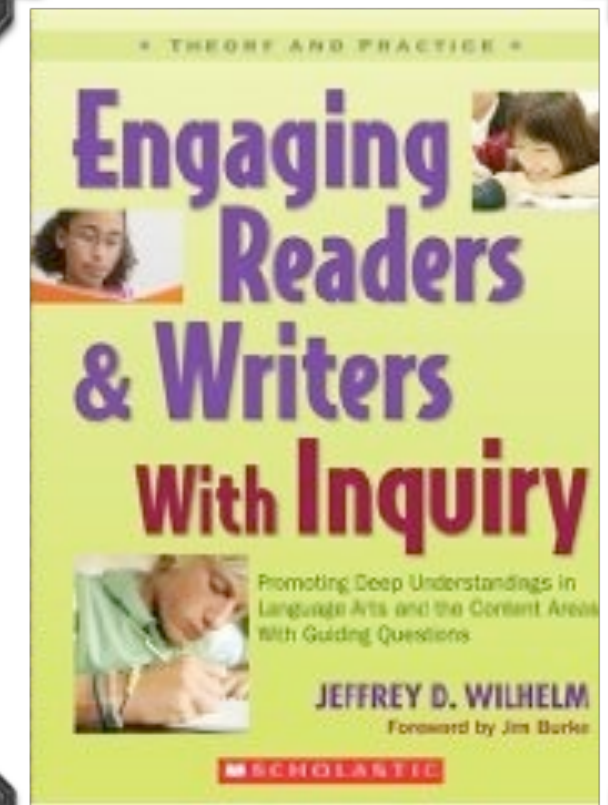
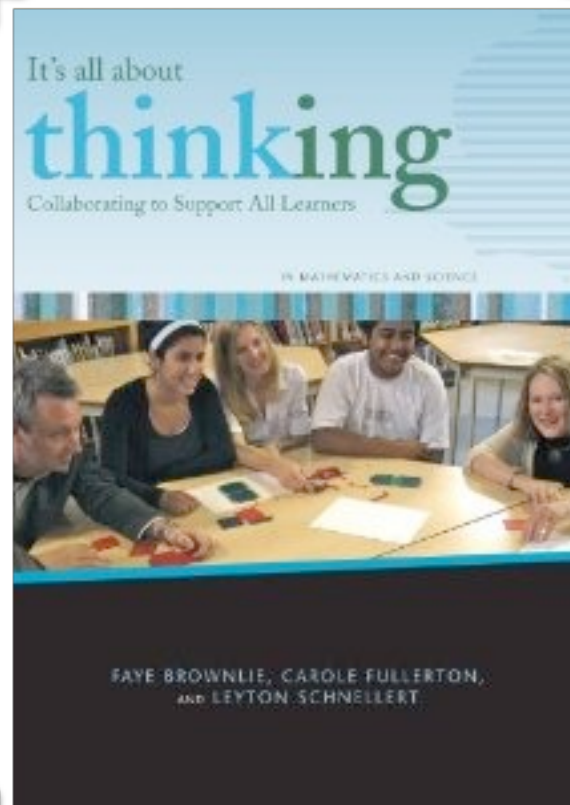
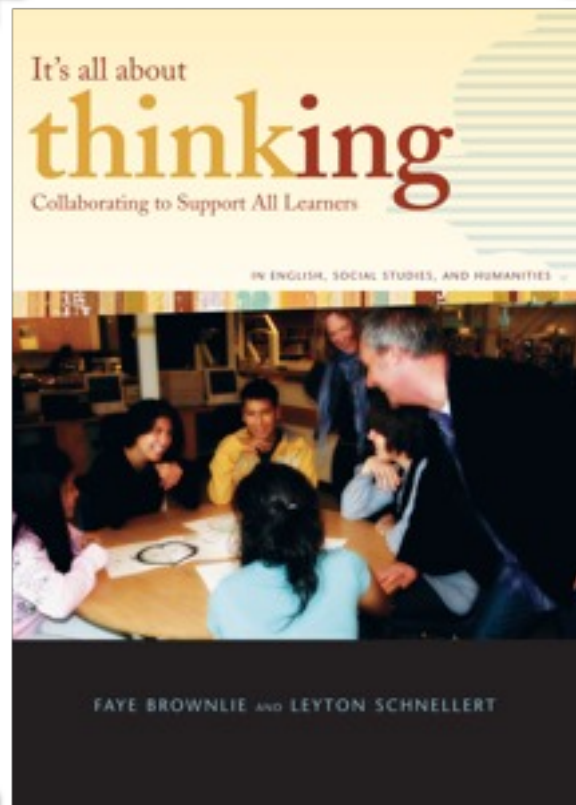
April 20 2012
Jacob Martens

*“If you are going to start doing something new,
you need to stop doing something old.”*

Faye Brownlie

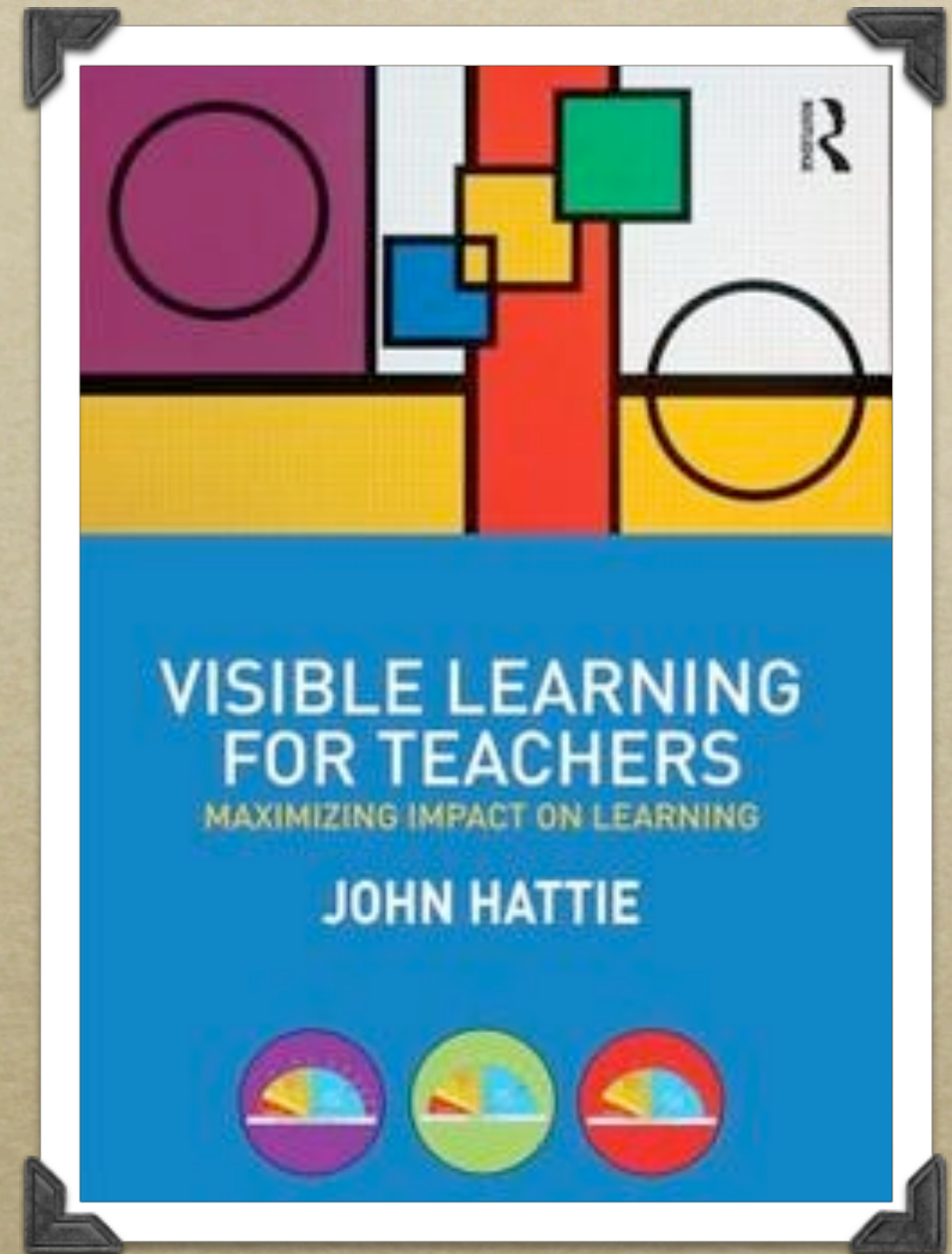
*“Change should be good for students and
manageable for teachers.”*

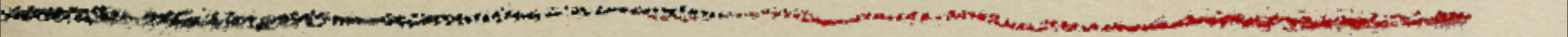
Damien Cooper



Visible Learning for Teachers

Synthesizes the results of 15 years of evidence-based research involving millions of students into what actually works in schools to improve learning AND links them to practical classroom implementation.

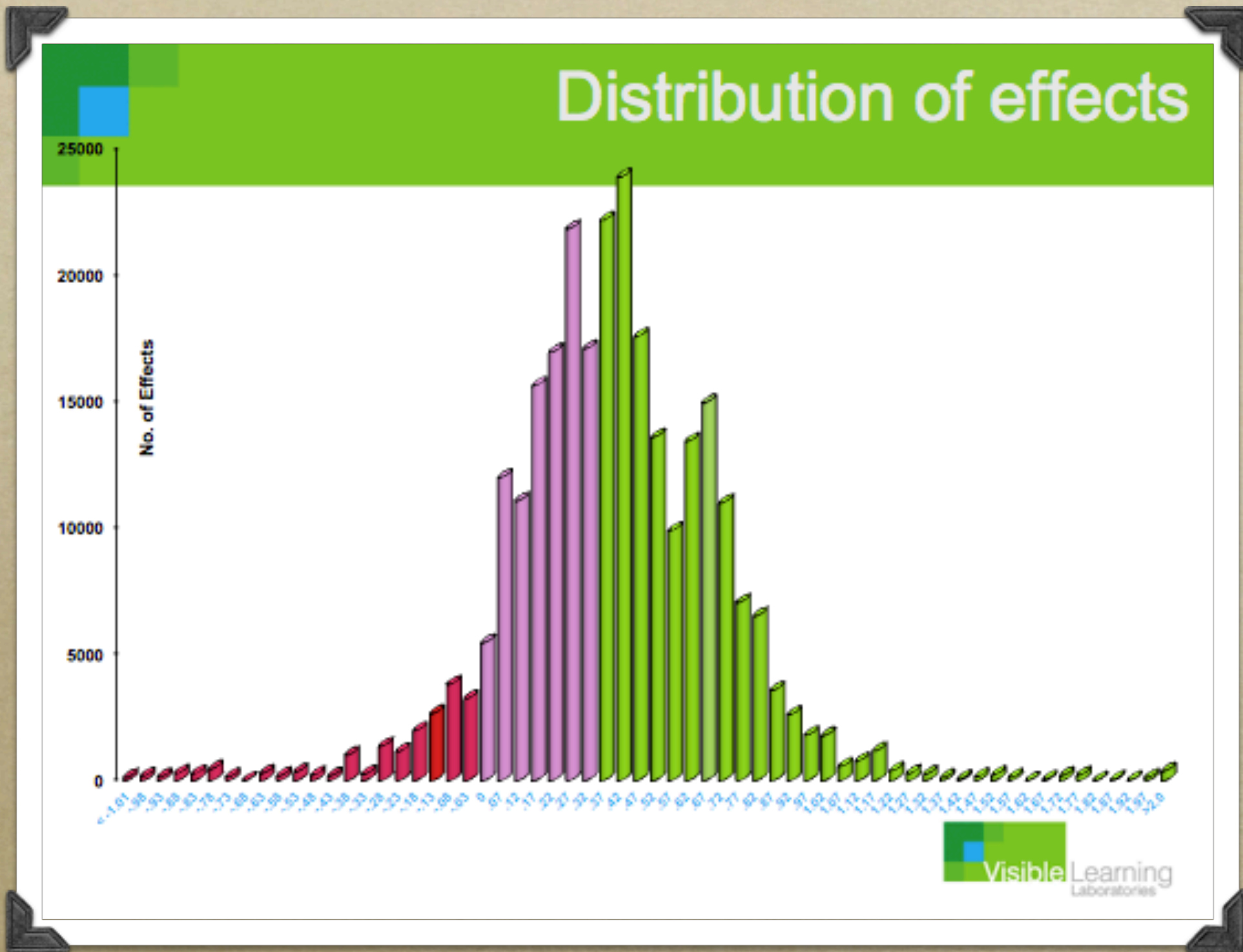




Let us use information about
what students need to succeed
to identify
what teachers need to succeed

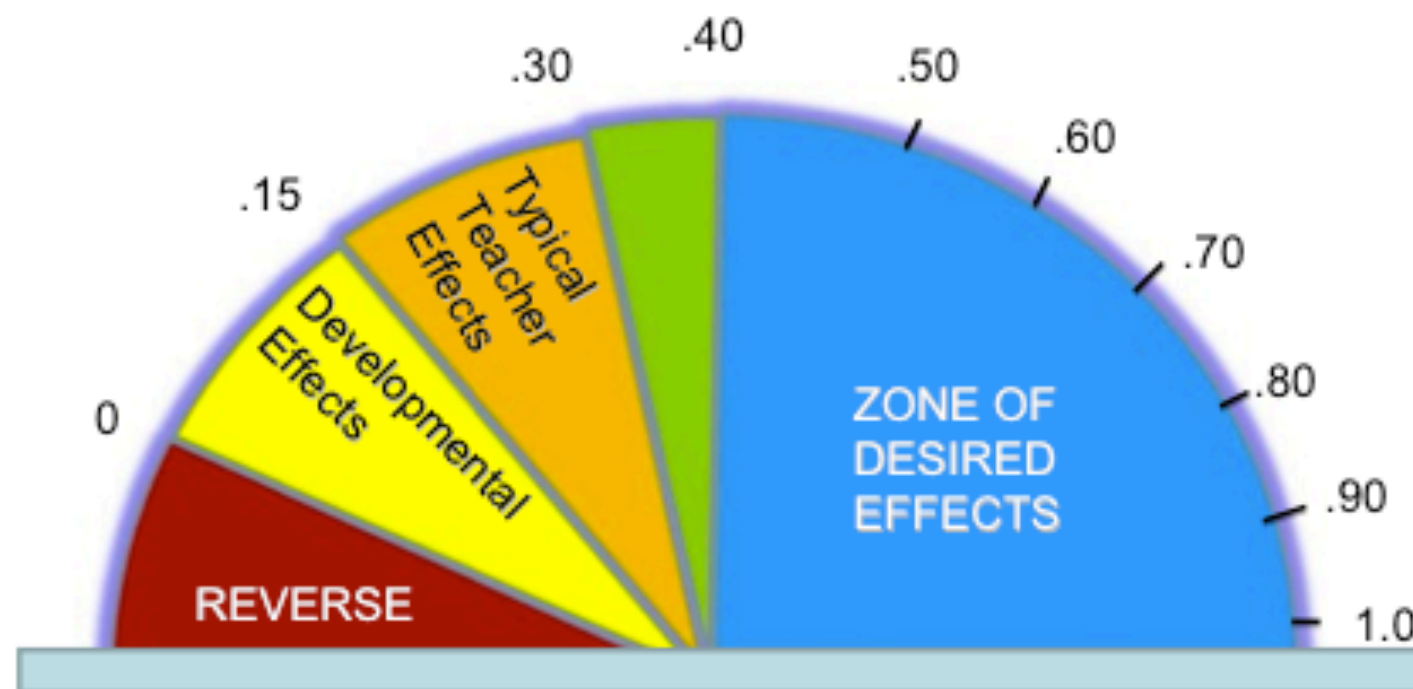
Effect Size

- *a scale used to evaluate the effect of various influences*
- *measures the amount of change*
- *effect size of 0.3 is barely noticeable*
- *effect size of 0.7 is clearly noticeable*



Distribution of Effects

Influences on Achievement



Hinge Point

Gender (male compared with female achievement)	0.12	133	Low
Ability grouping/tracking/streaming	0.12	131	Low
Matching teaching with student learning styles	0.17	125	Low
Within-class grouping	0.18	120	Low
Reducing class size	0.21	113	Low
Individualizing instruction	0.22	109	Low
Using simulations and gaming	0.33	86	Medium
Teacher expectations	0.43	62	Medium
Professional development on student achievement	0.51	47	Medium
Home environment	0.52	44	Medium
Influence of peers	0.53	41	Medium
Phonics instruction	0.54	36	Medium
Providing worked examples	0.57	32	Medium
Direct instruction	0.59	29	Medium
Cooperative vs individualistic learning	0.59	28	Medium
Concept mapping	0.60	27	High
Comprehension programs	0.60	26	High
Vocabulary programs	0.67	17	High
Acceleration (for example, skipping a year)	0.68	15	High
Meta-cognitive strategy programs	0.69	14	High
Teacher-student relationships	0.72	12	High
Reciprocal teaching	0.74	11	High
Feedback	0.75	10	High

Appendix D

Influences on student learning

*John Hattie 1999-2009 – research from 180,000 studies
covering almost every method of innovation*

<u>Method of Innovation</u>	<u>Effect Size</u>
Feedback	0.73
Teacher-Student Relationships	0.72
Mastery Learning	0.58
Challenge of Goals	0.56
Peer Tutoring	0.55
Expectations	0.43
Homework	0.29
Aims & Policies of the School	0.24
Ability Grouping	0.12

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Short List of Influences

Research Summary

What works best for students is similar to what works best for teachers

- *Attention to setting challenging learning intentions*
- *Being clear about what success means*
- *Attention to learning how to better assess what teachers & students know and understand*

Key Questions

For Learner Engagement and Connection

- *Where are you going with your learning?*
- *How is it (your learning) going?*
- *Where to next?*
- *Who are two adults in this school who believe you will be a success in life?*

How do we get there?

There are:

- *No silver bullets.*
- *No tips & tricks.*
- *No short cuts.*

Six Key Strategies

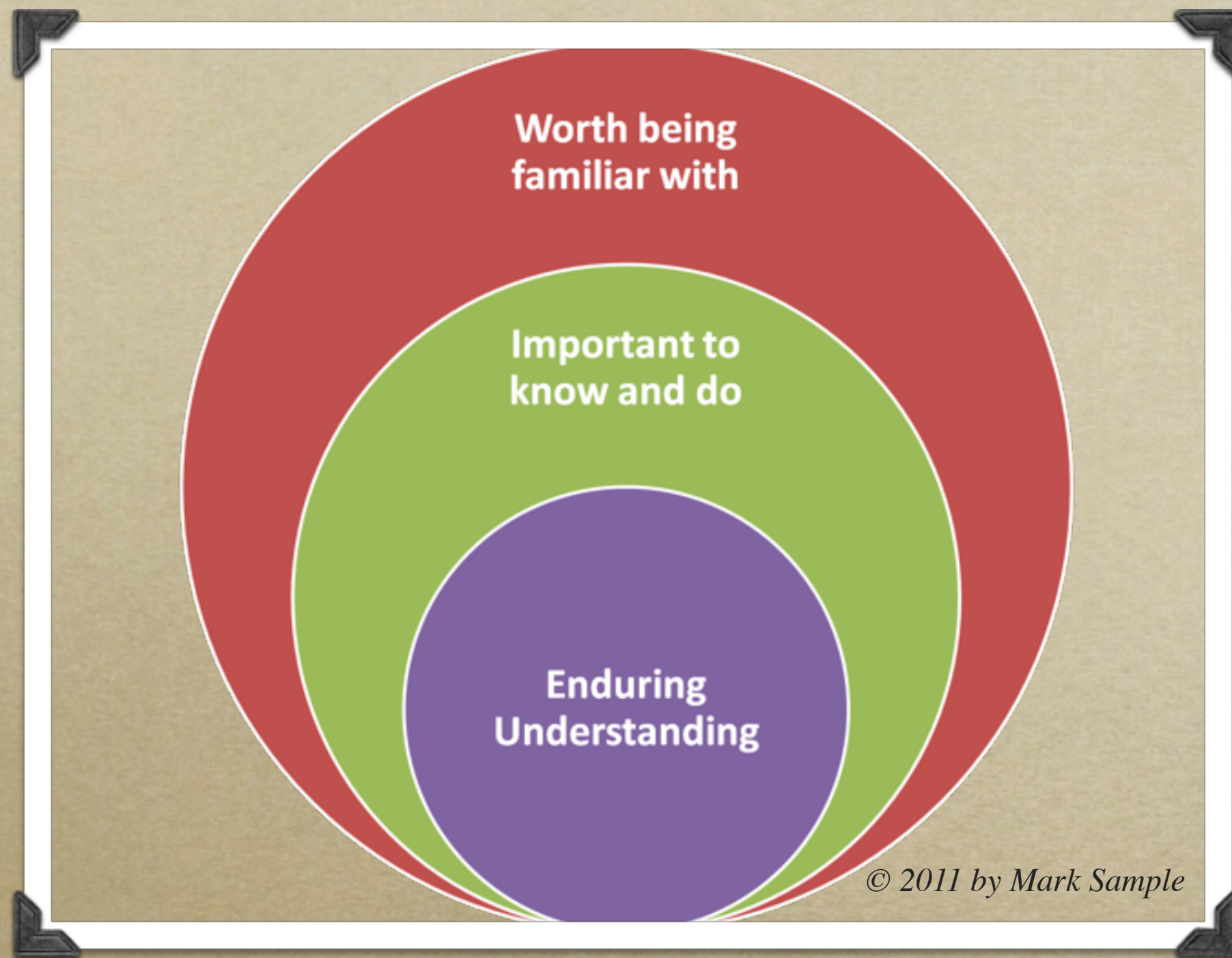


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Need a framework

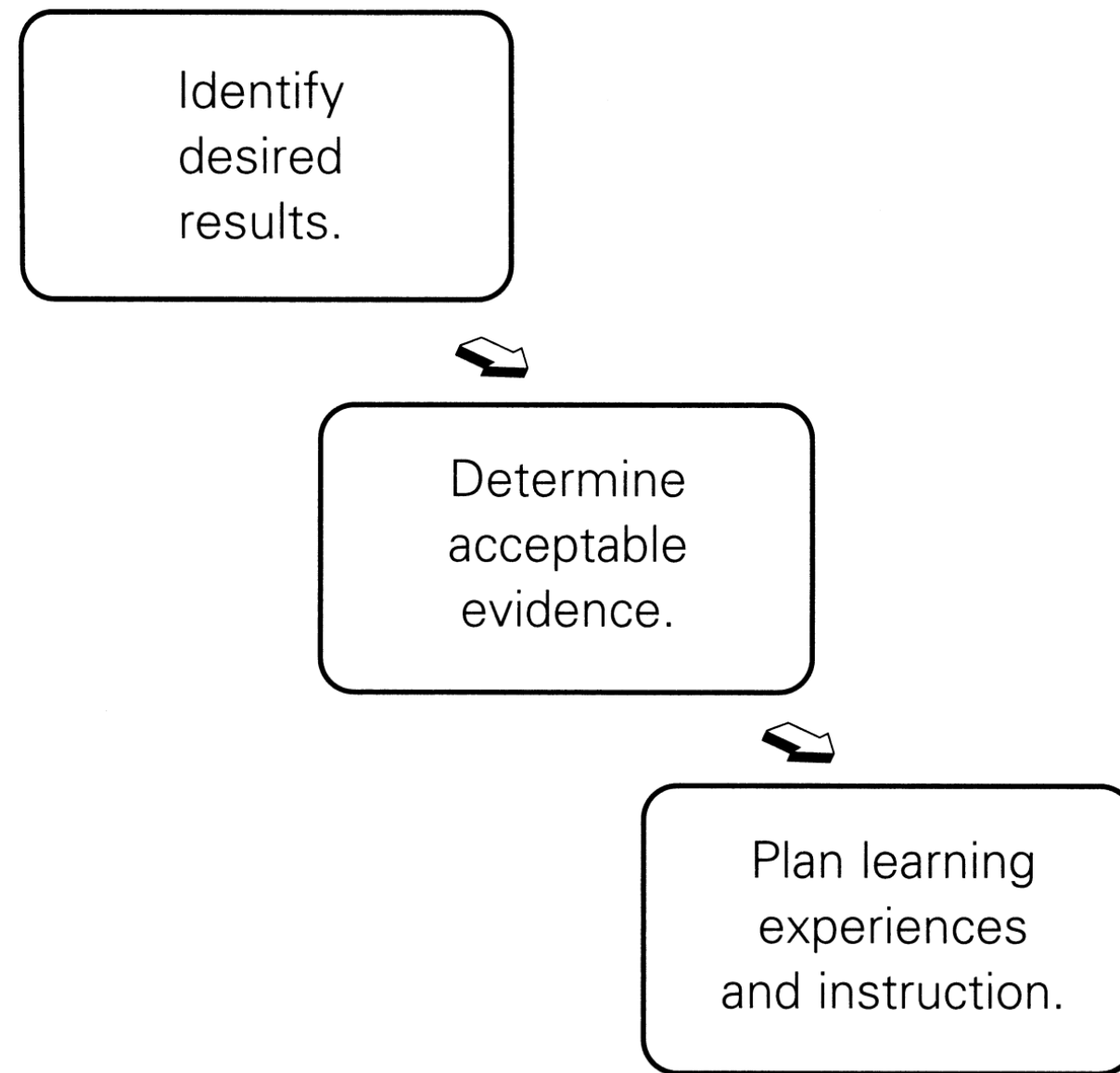
Parts to Start With

- *Learning Intentions & Success Criteria*
- *Feedback that moves learning forward*
- *Peers as Resources*



Start with Learning Intentions

FIGURE 1.1 **STAGES IN THE BACKWARD DESIGN PROCESS**



Backward Design

Clear Learning Intentions

A process I have used:

- 1. Photocopy “Suggested Achievement Indicators”*
- 2. Re-write/Revise to make “student friendly”*
- 3. Separate into Know’s & Do’s*
- 4. Articulate the “Big Ideas” using KUD*
- 5. Make a “flashy” newsletter*

Sc 9 Unit Plan Reproduction (draft version)

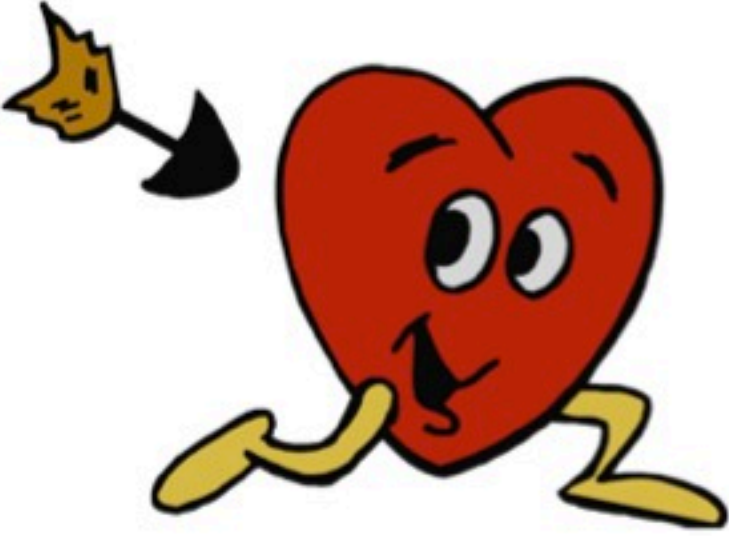
More at:

<http://martensvsb.wordpress.com/unit-plans/>

Is Sex Necessary

Science 9
Mr. Martens

Reproduction



Our Inquiry into **IS SEX NECESSARY** will help us better understand that:

- Cell division by Mitosis is a normal part of growth & repair for any multi-cellular organism.
- The activity of a cell is controlled by.....
- Cells need complete sets of chromosomes to function.
- A specialized kind of cell division is needed to produce the sex cells needed for sexual reproduction.
- Organisms that reproduce sexually are much more adaptable to changes in their environment.
- Modern technology has increased the ways in which humans can reproduce.

Key Words


- Nucleus
- DNA
- Gene
- Chromosome
- Mitosis
- Meiosis

What's Coming Next

After we have deepened our understanding of Body Systems we focus all of our attention on one body system,

the one that defends our body,

MY QUESTIONS



Science 8 • Biology • <http://martensclass.wordpress.com> • jmartens@vsb.bc.ca

Feedback

That Moves Learning Forward

- 1. Descriptive*
- 2. Task focused*
- 3. Provides scaffolding*
- 4. Timely & Time Given to Apply*
- 5. Recognize's "Fixed" vs. "Growth" mindset*

Exemplary	Accomplished	Developing	Beginning
Complete & in depth understanding of concepts. Answers are correct, with elegant solution strategies.	Solid understanding of concepts. Most answers are correct. Solution strategy has few errors	Basic understanding of concepts. Errors and inconsistency reveal some missing elements.	Does not demonstrate basic understanding of concept. Substantial errors and/or omissions.

Concept #11:**Solve problems involving the law of conservation of energy.**

A 50. kg girl slides down a 5.0 m long playground slide. The top of the slide is 2.0 m above the ground and the bottom of the slide is 0.5 m above the ground.

How fast would one expect her to be moving at the bottom of the slide?

E**A****D****B**

Map for improvement: drawing, formulas given, working shown, correct calculation, sig figs, answers clearly indicated

Rubric to Grade Tool

LEVEL	Beginning	Developing	Accomplished	Exemplary
LETTER GRADE	I / F	C- / C	C+ / B- / B / B+	A - / A / A+
PERCENTAGE	0 30 45	55 60 66	70 73 80 85	86 93 100

NOTE: We chose these benchmarks based on the British Columbia's Ministry of Education's grading policy. Each level of achievement divided into the highest possible percentage, the lowest possible percentage and a middle percentage. We attributed the C+ to 70% because 70% is in the middle of the C+ range.

Four Point to Grade Tool