Surface, Strategic & Deep Approaches to Learning

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Main Points

Teaching Centric

Student Centered

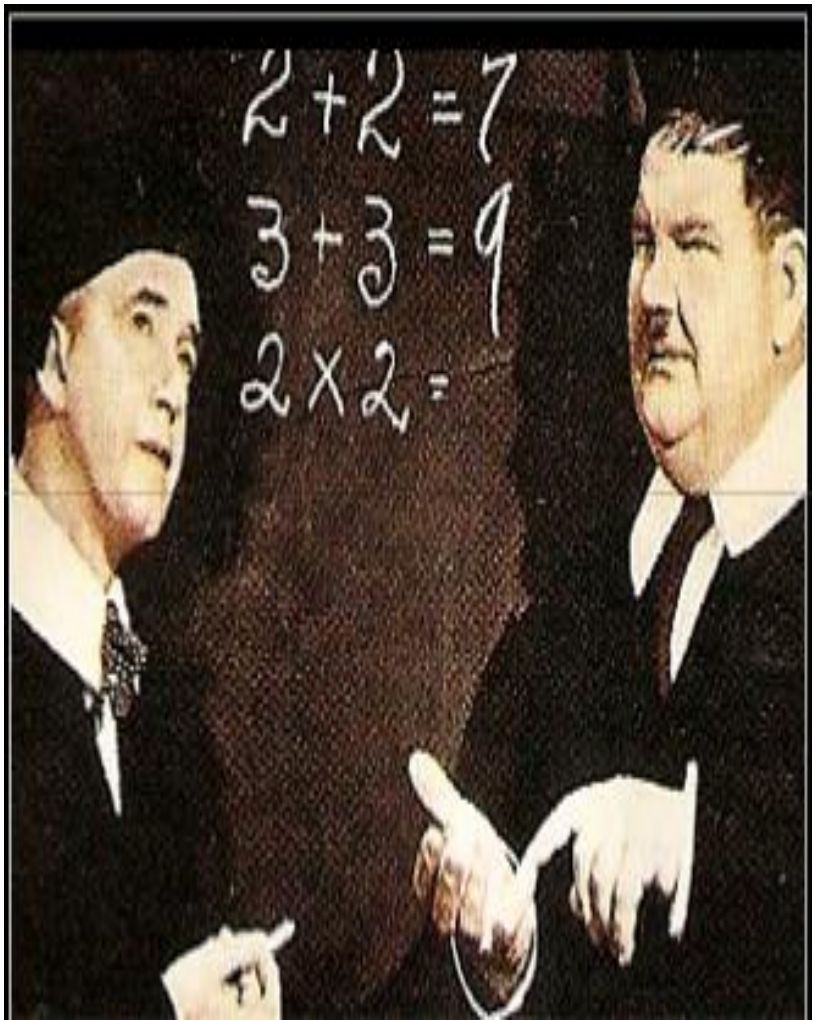
Deep, Strategic and Surface Approaches to Learning

Supercomplexity

Teach Less & Learn More or (TWMS)

Surface, Strategic vs Deep Learning

Marton F. and Säljö R. (1976) On qualitative differences in learning. I – Outcome and Process' British Journal of Educational Psychology 46, pp. 4-11



Surface learners focused on parts of the article to memorize that they might be questioned on

Deep learners engaged in an active search for meaning

Strategic or Preformative learning directs effort to please authority

ADMI 880: Summer 2010













FUTURE




FYI
McDonald's® Canada


Introduce each member of the gro
along the following lines
Name, institution, coun
Primary area of work ex
Most significant achieve
What we have in comm
What kind
What wil


Did Robert MacDermott do a perfect change in his company?
Why yes / why not?
Would you do everything in the same way?
INTENTION
• Controversy between students about the "quality" of the change
• Critical evaluation of pros & cons
fernisli


Never Stop learning
09.06.2010

The thing I remember the most about my favourite teacher ……

Expertise

‘The chains of habit are generally too small to be felt until they are too strong to be broken’.

Dr Samuel Johnson
1709 - 1784


communication
noun 1
2 something that

Wisdom

Structure / Discipline

http://www.fotosearch.com/

Stories

http://www.fotosearch.com/

-> Philosophy

- *Transmit*
- *Develop*
- *Apprentice*
- *Nurture*
- *Reform*

-> Pedagogy

- *Lecturing*
- *Socratic*
- *Case/Problem*
- *Community*
- *Experiential*

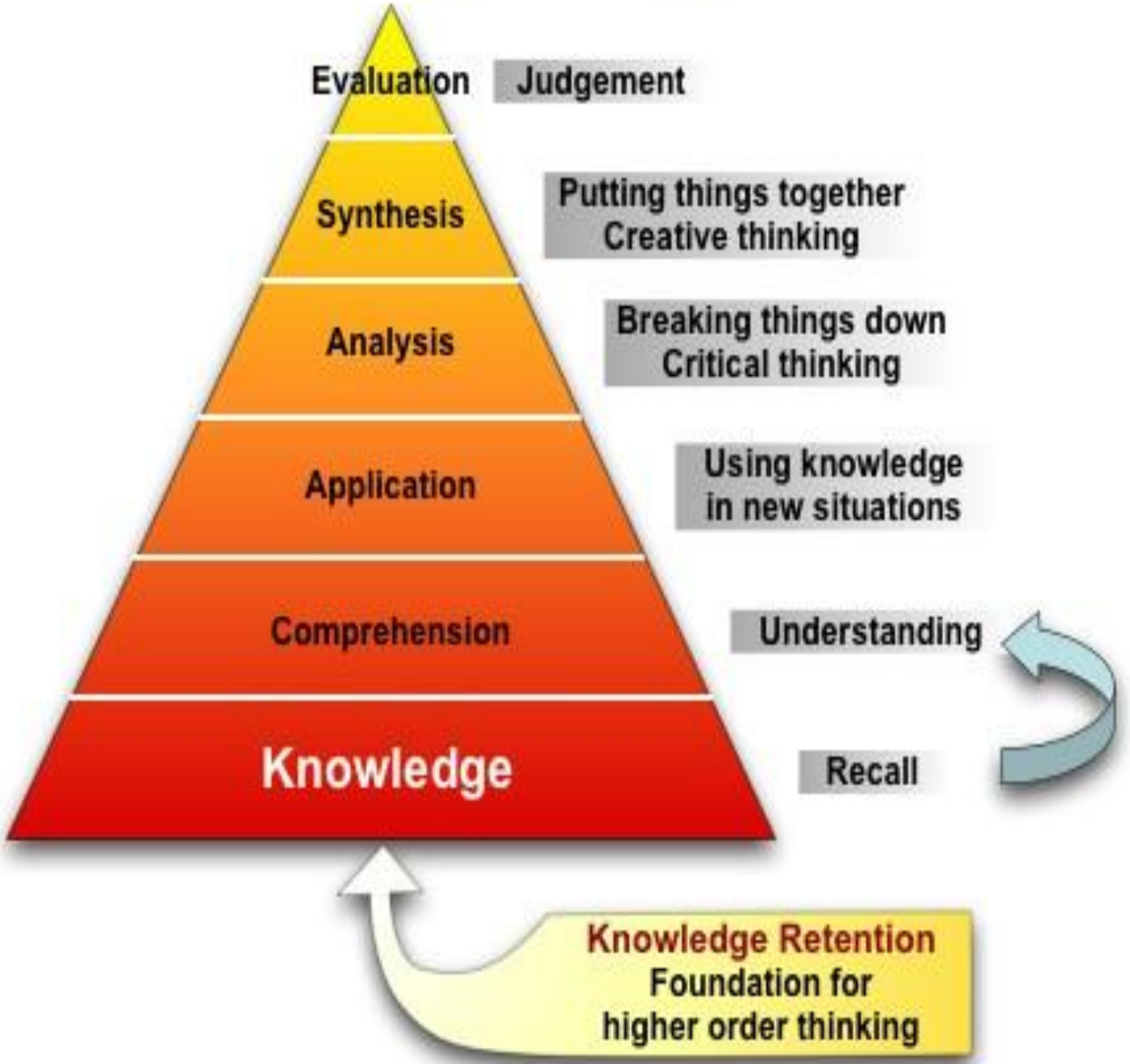
-> Technique

- *Voice/Gestures*
- *Learning Names*
- *Peer Teaching*
- *Debates, Games*
- *Technology*

** Pratt: Data from 40,000 taking TPI*
-> 90% identify with one or two perspectives

Insights from the Literature & Good Practice

Bloom's Taxonomy for Thinking



Practice: The 7 Principles

Insights from the Literature (Chickering & Gamson)

1. ***Student / Faculty Contact***
2. ***Cooperation***
3. ***Active Learning***
4. ***Feedback***
5. ***Time on Task***
6. ***High Expectations***
7. ***Diverse Talents & Approaches***

How many hours/week do you expect to study each week for this course?

A) 0 - 5

B) 6 - 15

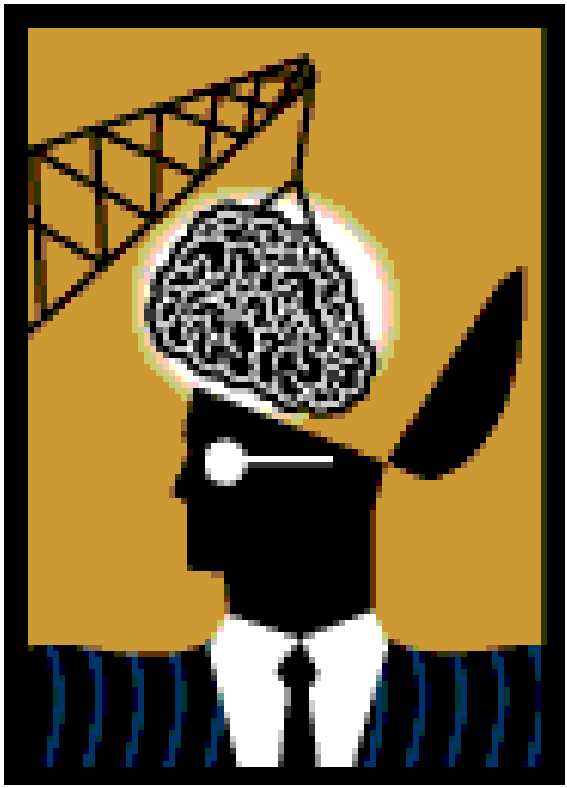
C) 15 +

E) Other

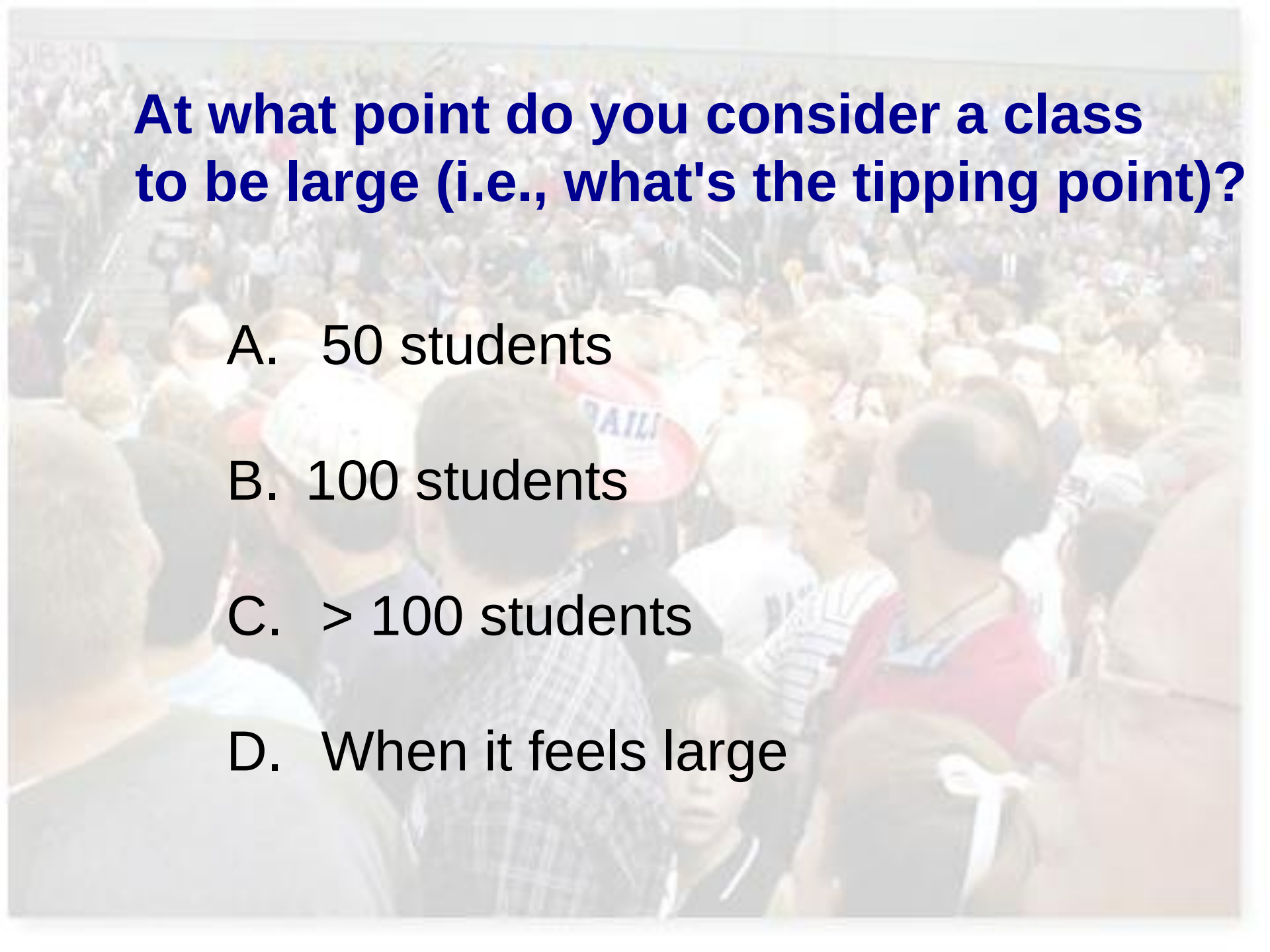
Classroom Issues

Questions For Teaching

- How do you measure prior knowledge?
- What is your source of motivation?
- How can you give quality feedback?
- Is it important to humanize teaching?
- What about inspiration?
- How do I motivate students?



http://www.wallacefoundation.org



At what point do you consider a class to be large (i.e., what's the tipping point)?

A. 50 students

B. 100 students

C. > 100 students

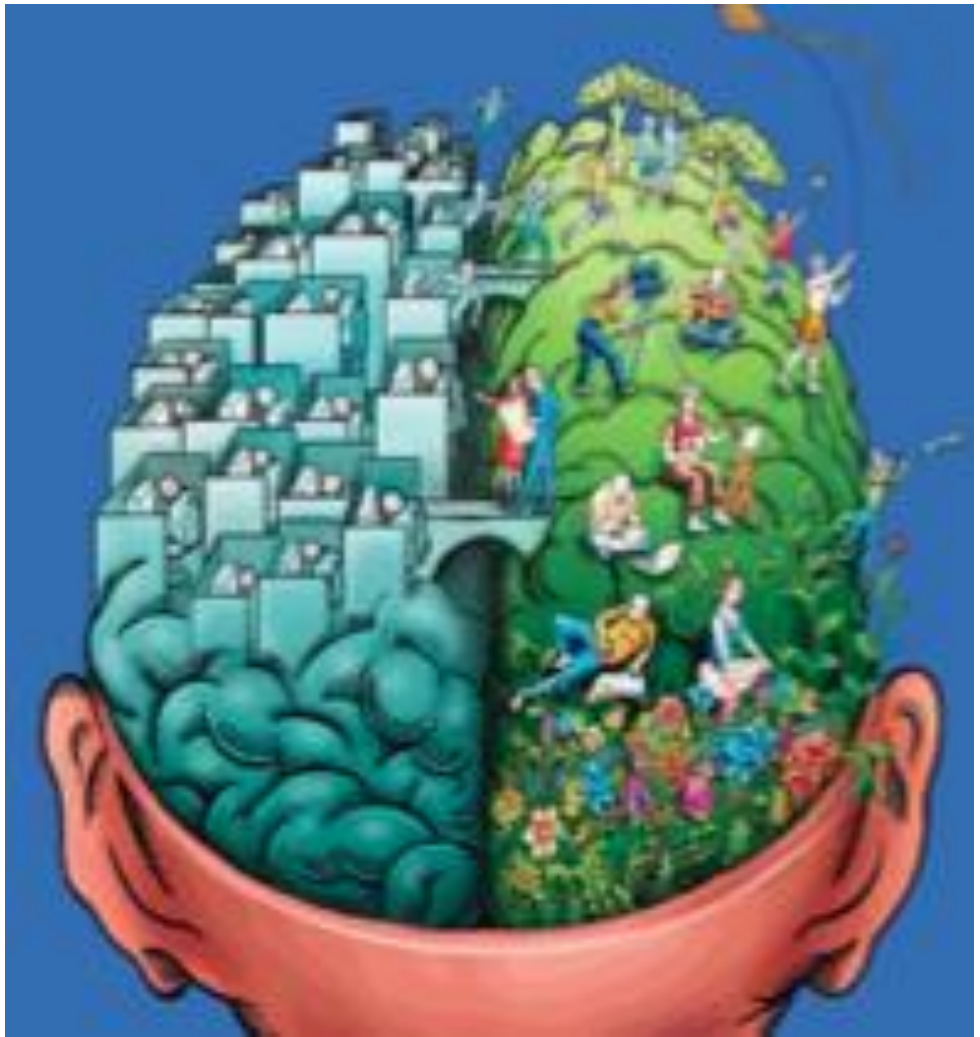
D. When it feels large

Does class size necessarily change student learning?

A. Yes

B. No

C. Depends

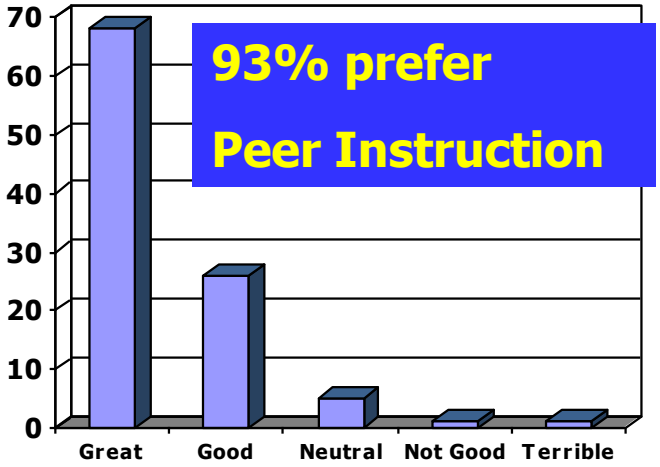


Large Classes

Interactive Teaching in Physics: http://www.youtube.com/watch?v=lBYrKPoVFwg

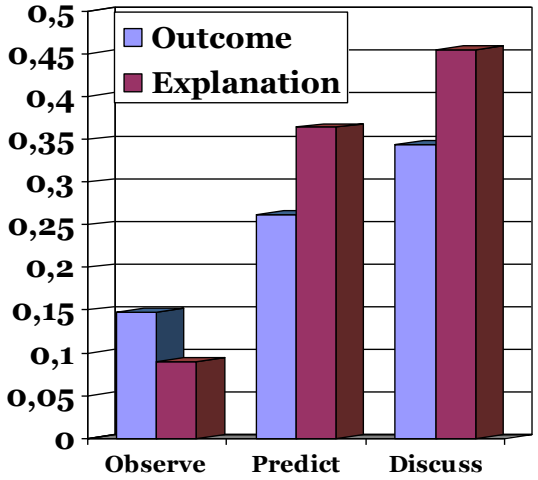
It works!

Students Like it



and learn more

Crouch, Fagen, Callan, Mazur

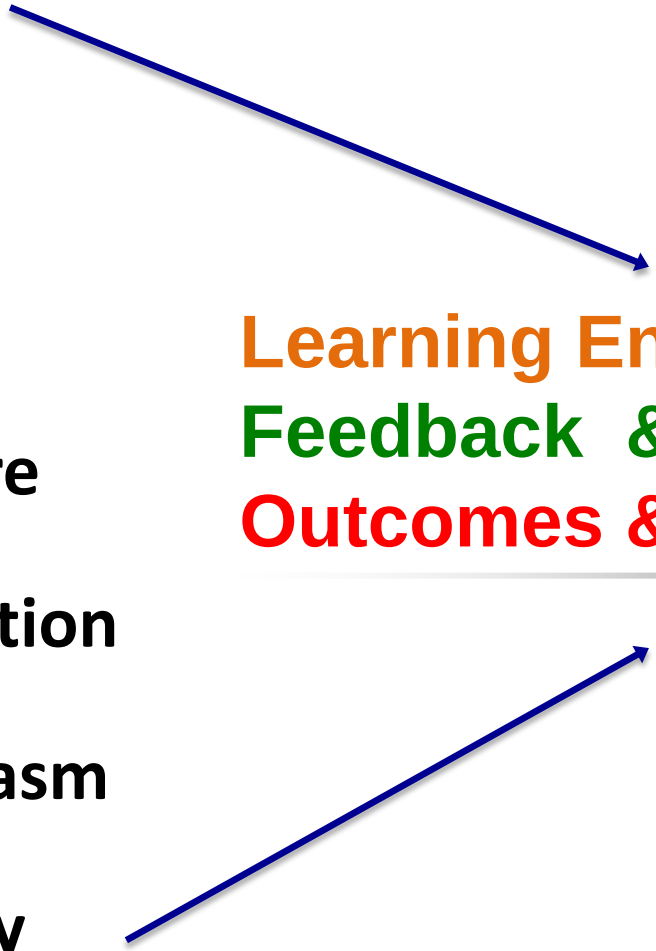


What correlates most highly with teaching effectiveness?

A. Giving feedback
B. Explaining clearly
C. Stimulating interest
D. Being well prepared
E. A & C

Student Evaluations suggest 7 aspects of Effective Instruction & Quality of Learning:

1. Clarity
2. Level
3. Pace
4. Structure
5. Explanation
6. Enthusiasm
7. Empathy



Learning Environment;
Feedback & Support;
Outcomes & Assessments

Perry & Smart (1997)
Entwhistle, Nisbet & Bromage (2005)


STUCK
PLACES

ISSUES

- Teaching is not scholarship
- Roles and rewards
- Research on teaching & learning (what do we know?)
- Faculty& professional development
- Other

ISSUES

Rjoseph Roksa & Richard Arum (2011) *The State of Undergraduate Learning,* Change Magazine, *35 - 38*

Limited Learning

- 7% gain in (a) critical thinking (b) analytical reasoning and (c) writing
- 45% show no gains in learning over 1st two years in university

Time in Learning

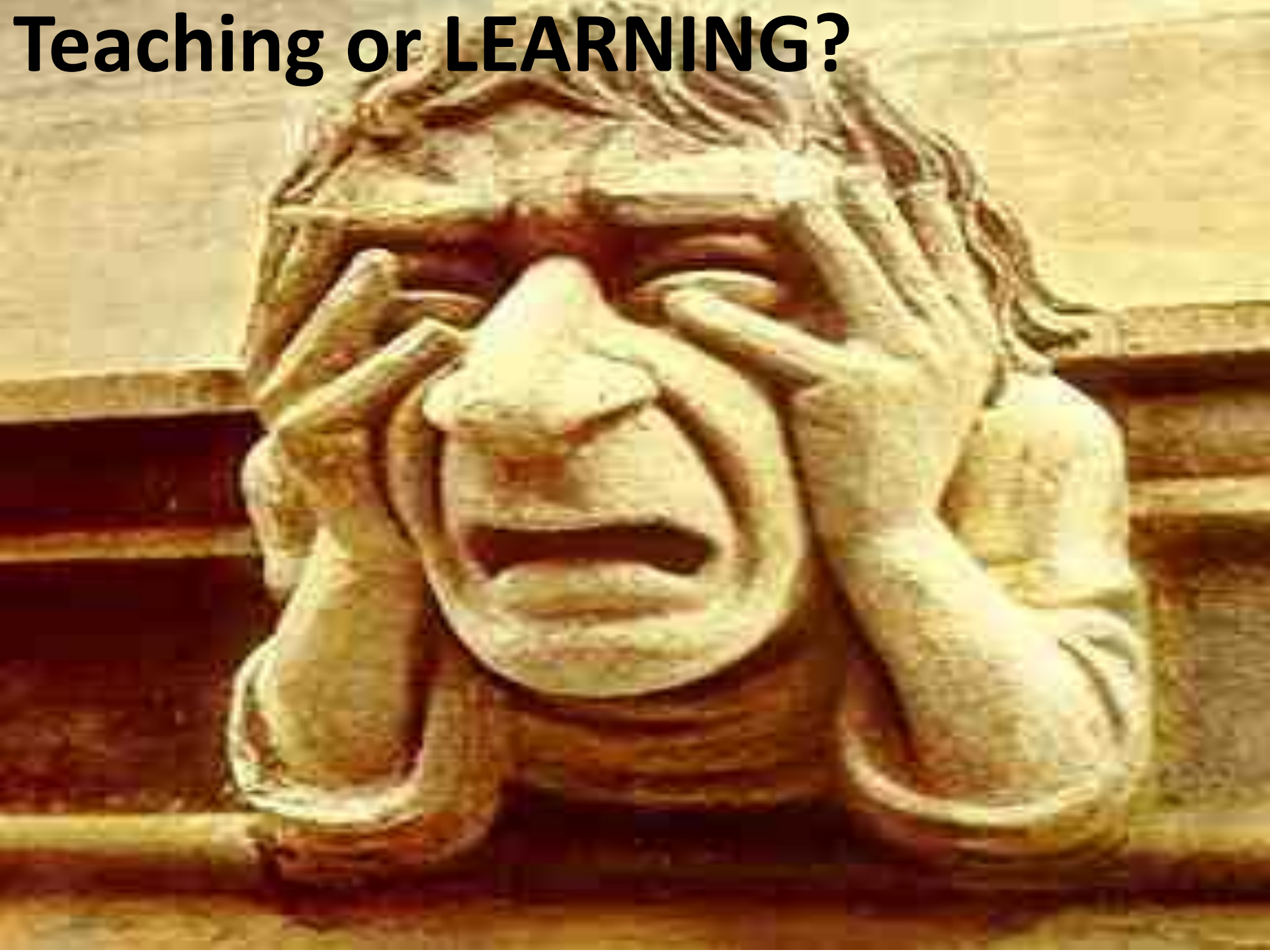
- On average, 12 hours/week; 40% reported less
- 15 hours in class; About 15% of 7 days on academics

Expectations

- 1/2 had not taken one course requiring more than 20 pages of writing
- 1/3 had not taken one course requiring more than 40 pages of reading

2,300 Students took the "Collegiate Learning Assessment across 24 Institutions twice (05/07)

Teaching or LEARNING?



Surface, Strategic & Deep Approaches

SURFACE:

- Fear
- Superficial
- Memorization
- Lacking Context

STRATEGIC:

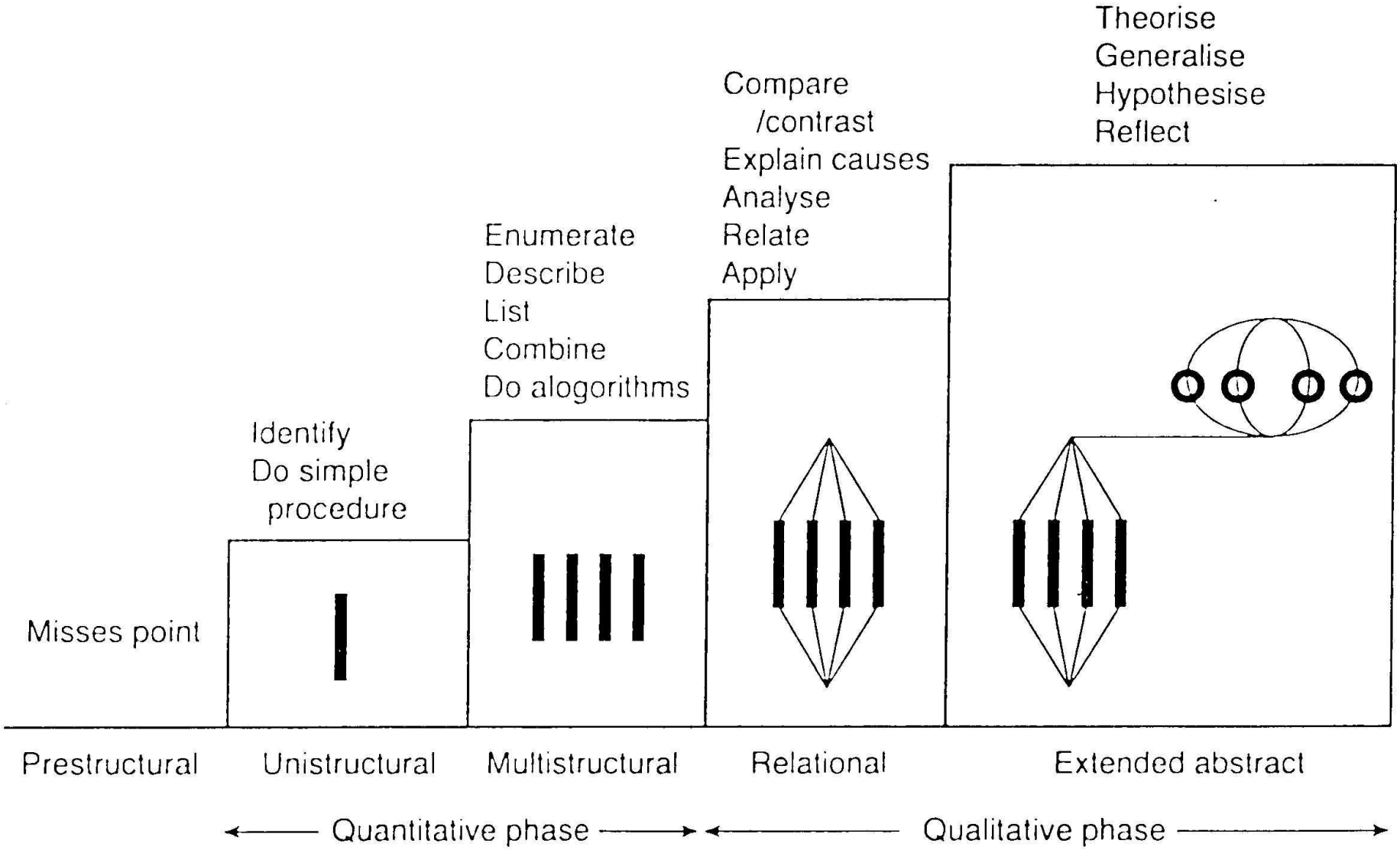
- Exam Learning
- Performative
- Persistent, Clever
- Often superficial

DEEP:

- Curiosity
- Seeking Understanding
- Meaning, Reflecting
- Evaluating

Teaching Teaching & Understanding Understanding: http://www.youtube.com/watch?v=iMZA80XpP6Y

A Taxonomy (Biggs)



Source: Biggs, J. (1999). Assessment: An integral part of the teaching system. AAHE Bulletin. Vol51. No.9. p.12

How much do students retain?

10% of reading

20% of hearing

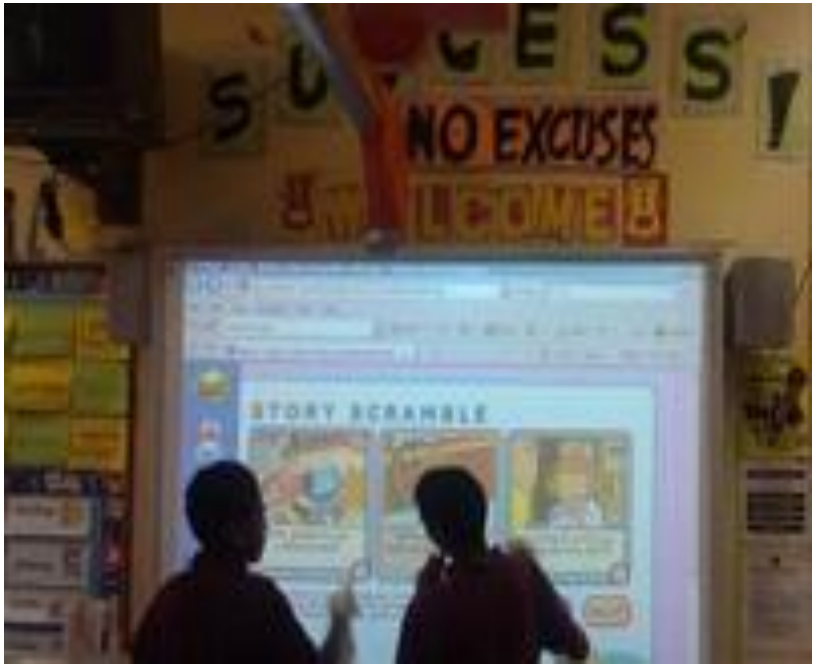
30% of seeing

50% of seeing & hearing

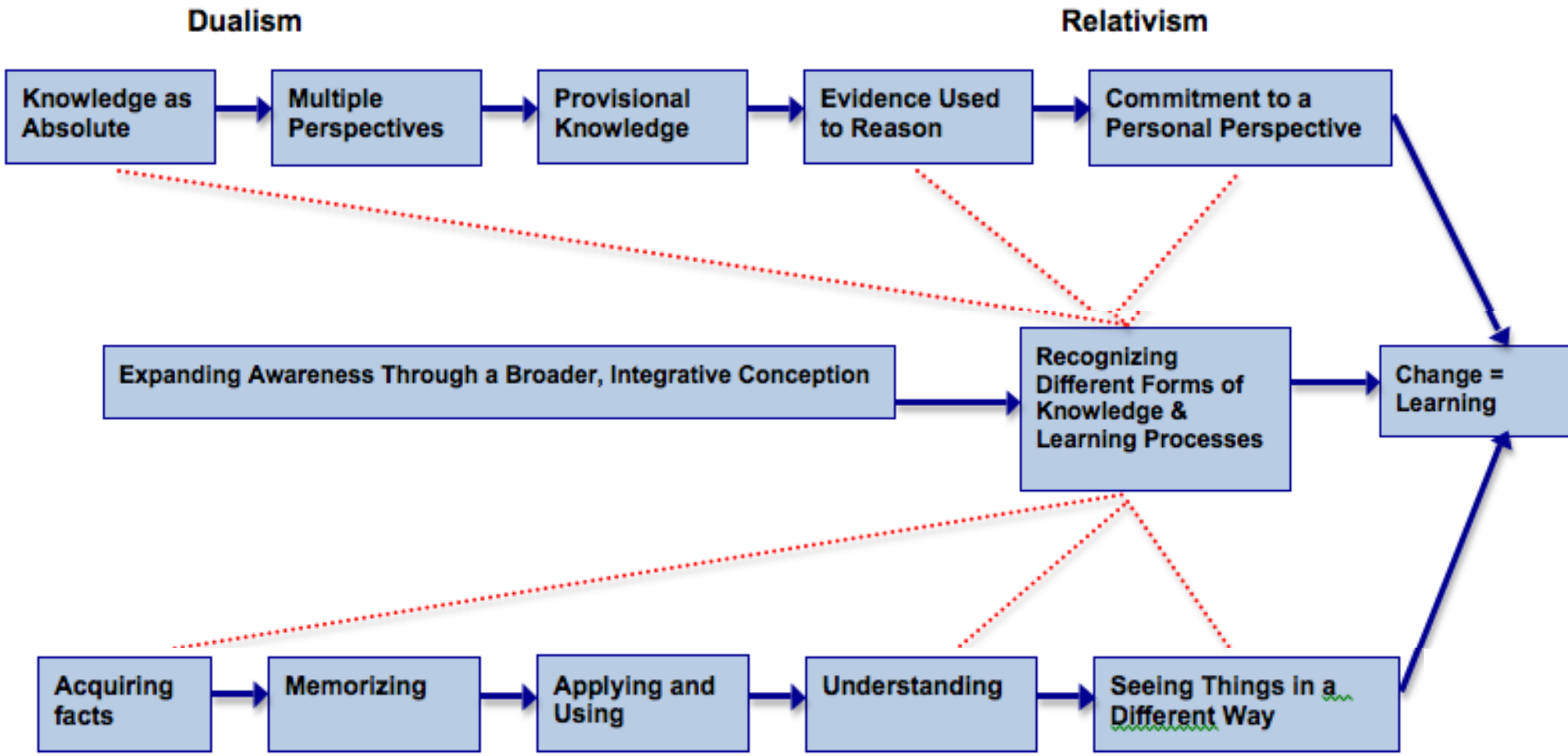
70% of talking with others

80% of using & doing

95% of what they teach someone else



Conceptions of Knowledge

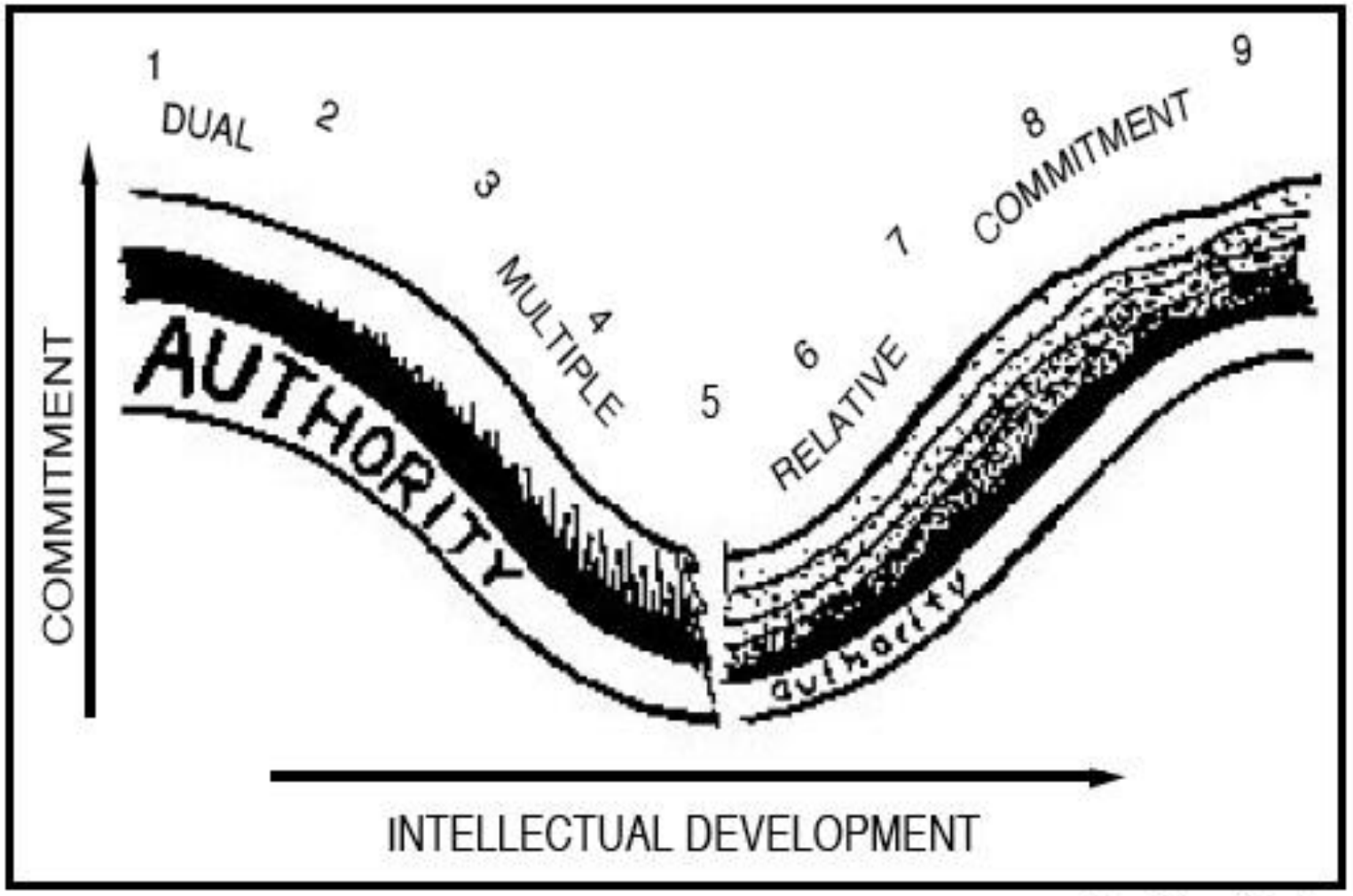


Conceptions of Learning

Source: Enwistle (2007, 129)

Perry's Model of Intellectual Development

(Culver & Macros, 1982)



Perry's Model of Intellectual development

(Baxter & Magolda, 1991)

Phase	1st year	2nd year	3rd year	4th year	5th year	6th year
Absolute knowing: knowledge is certain, but student doesn't have access to it	68%	46%	11%	2%	0%	0%
Transitional knowing: absolute knowledge in some areas; awareness of discrepancies among experts	32%	53%	83%	80%	31%	8%
Independent knowing: knowledge is mostly uncertain; so learners equal to authorities, views as valid as teachers	0%	1%	5%	16%	57%	55%
Contextual knowing: nature of knowledge uncertain but some knowledge claims are better than others in a particular context	0%	0%	1%	2%	12%	37%

WE LEARN DIFFERENTLY

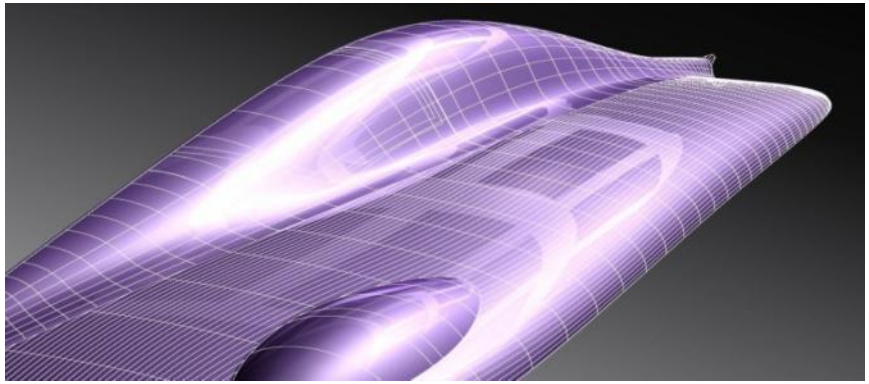
COGNITIVE DIFFERENCES

SUPERCOMPLEXITY & TECHNOLITERACY

Characteristics of the 21st century

- Uncertainty
- Speed and acceleration
- Complexity
- Multiculturalism
- Mobility of the population
- Conflict (social, military)
- Inter-generational tension
- Need for ethical citizenship
- Information saturation
- Proliferation of knowledge
- Globalisation
- Internationalisation
- Private /public sector tension
- Increasing panic

- Unpredictability
- Risk
- Need for flexibility and agility
- Entitlement v responsibility
- Scarcity of resources
- Austerity
- Sustainability
- Need for prudence
- Transparency & accountability
- Discontinuity and rupture
- Shifting paradigms
- Poverty v affluence
- Outsourcing of jobs
- Youthfulness

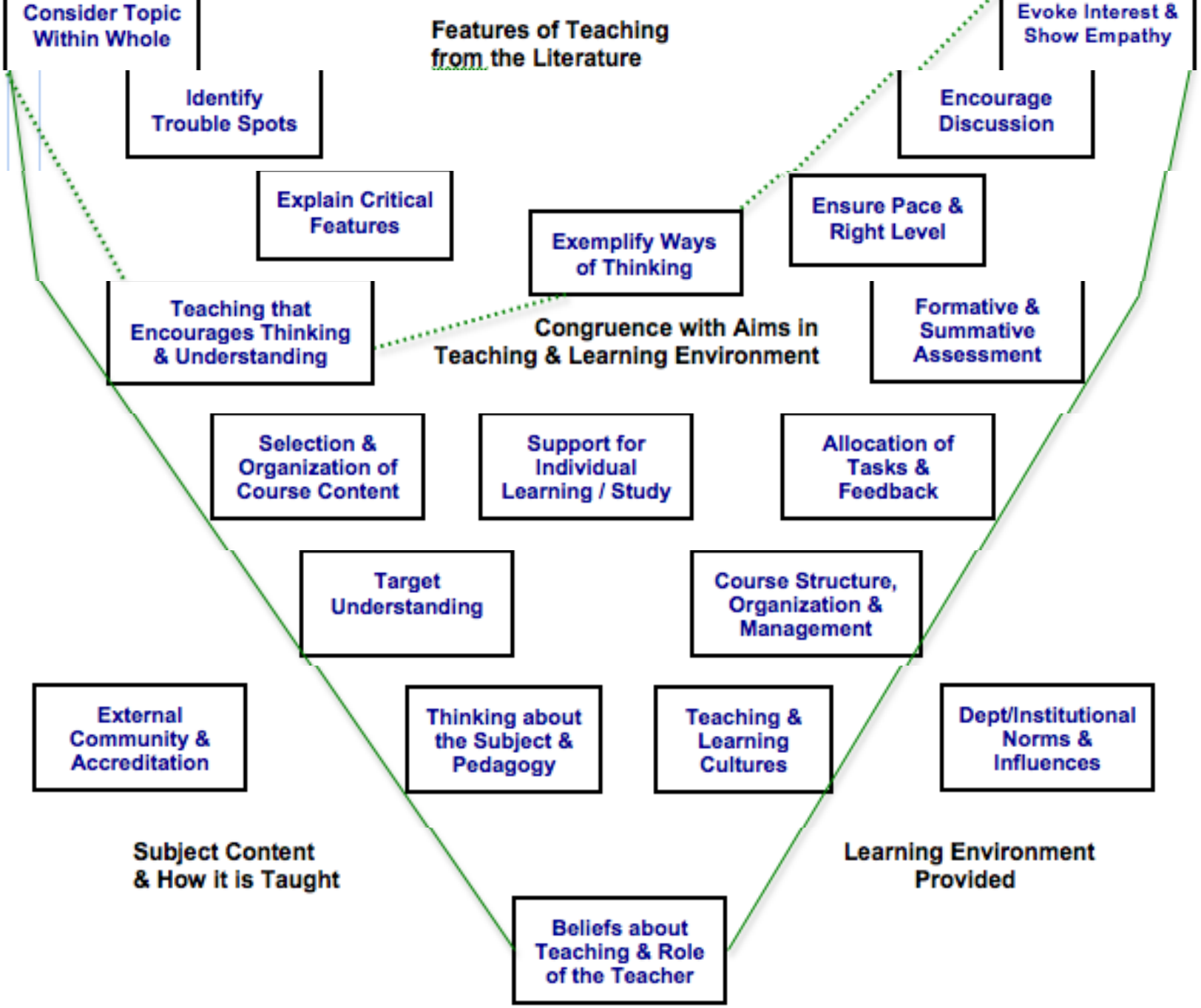


With Permission from R. Land. ISSOTL Liverpool Presentation, October, 2010

What stimulates learning?

- First year experience
- Learning communities
- Collaborative projects
- Undergraduate research
- Big Issues
- Community-based learning
- Internships

George Kuh (2008). *High-impact Educational Practices*



Entwistle (2010)

Features of the Teaching Learning Environment

Student Characteristics

Entwistle (2010)

Real learning requires stepping into the unknown, which initiates a rupture in knowing...

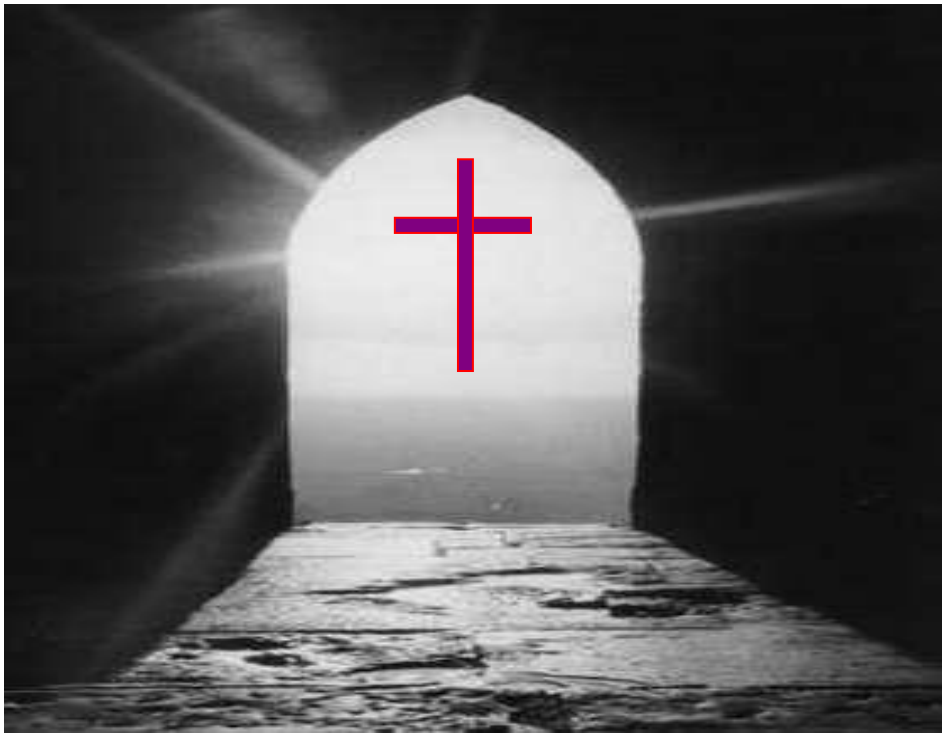
By definition, all scholarship is concerned (directly or indirectly) with encountering the unknown.

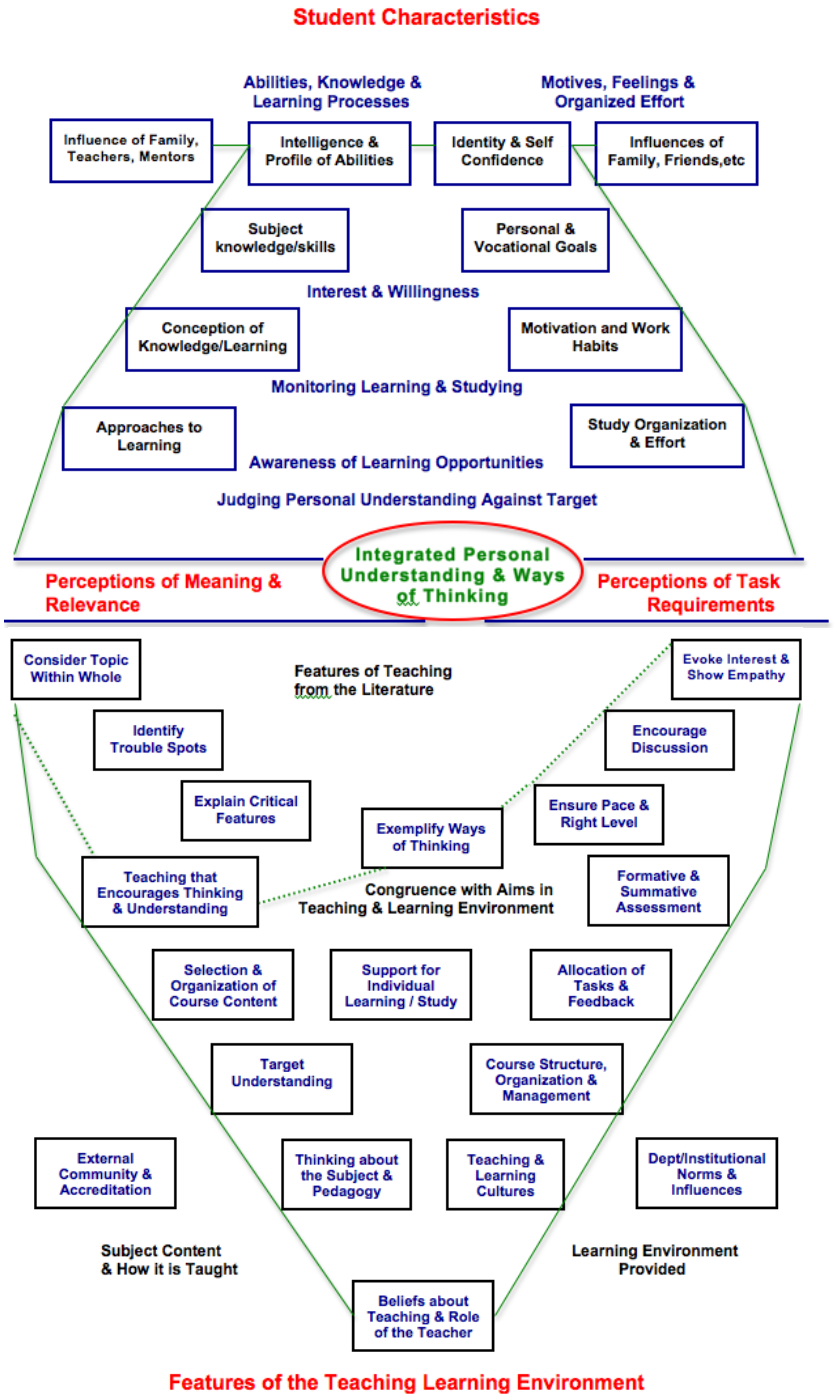
Schwartzman 2010 p.38


There are…
“Conceptual gateways”
“portals”

…that lead to a new way of understanding, a transformed internal view of subject matter, subject landscape, or even world view…

without which the learner cannot progress





"Considering the evidence of current research on teaching…involves seeing the purpose of higher education <u>beyond the acquisition of knowledge and skills</u>; to recognize that the <u>demands of current society and employment</u>, graduates need to have acquired a <u>personal (and deep) conceptual understanding</u> of the main ideas and thinking in their area of study so as to experience <u>*learning that lasts*</u>.

Only this will provide flexibility in applying knowledge, skills, and understanding that will suffice at a time of rapid change and *supercomplexity* in dealing with emerging issues and new problems".

Resources

Teaching Large Undergraduate Classes: A guide for faculty and teaching assistants http://citl.gwu.edu/pdf/LargeClasses.pdf

Teaching Large Classes: A video by Graham Gibbs http://videtis.ucis.dal.ca/clt/all_fcp.mov

Preparing to Teach the Large Lecture Course by Barbara Gross Davis http://teaching.berkeley.edu/bgd/largelecture.html

Beating the Numbers Game: Effective teaching in large classes by Felder http://www4.ncsu.edu/unity/lockers/users/f/felder/public/Papers/Largeclasses.htm

Education is “the kindling of a flame, not the filling of a vessel”.

Socrates (380 BC)

Learning is “… not filling a bucket… but the lighting of a fire”

Yeats (1893)

Thank you!