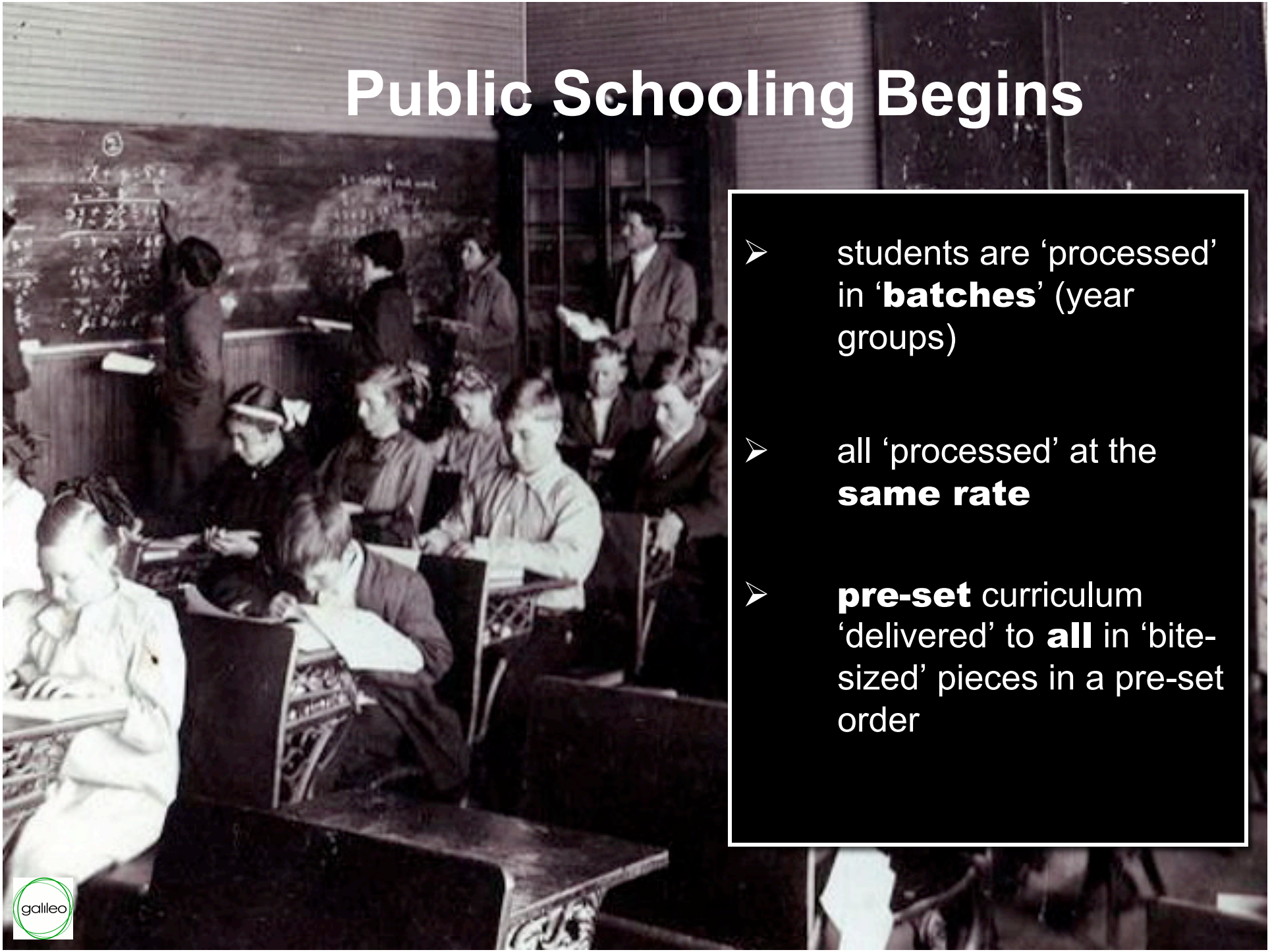
LEADING FOR TODAY'S LEARNERS

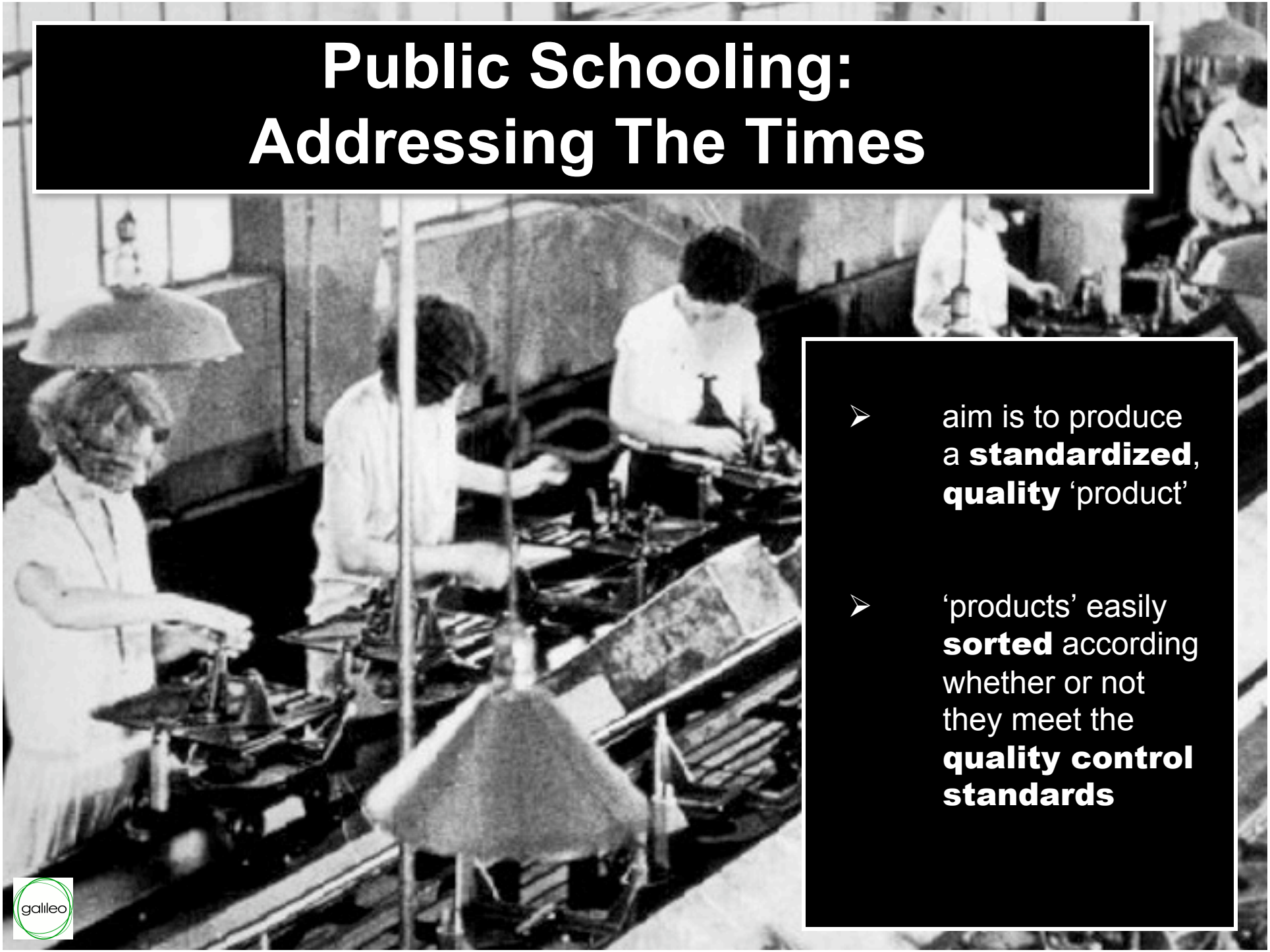
galileo

Public Schooling Begins



- students are ‘processed’ in ‘**batches**’ (year groups)
- all ‘processed’ at the **same rate**
- **pre-set** curriculum ‘delivered’ to **all** in ‘bite-sized’ pieces in a pre-set order

Public Schooling: Addressing The Times

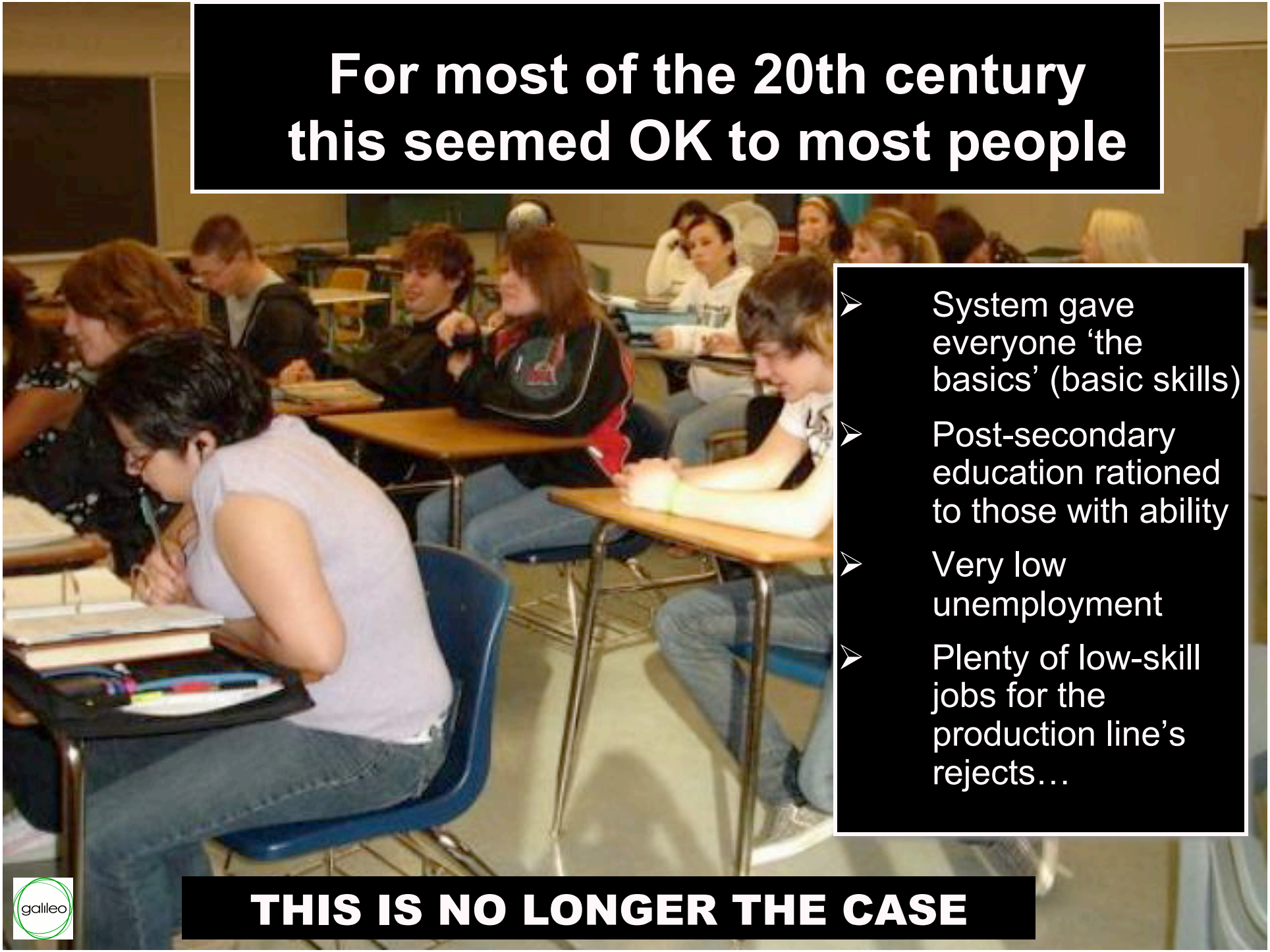


- aim is to produce a **standardized**, **quality** ‘product’
- ‘products’ easily **sorted** according whether or not they meet the **quality control standards**

THE ‘PRODUCTION LINE’ MODEL

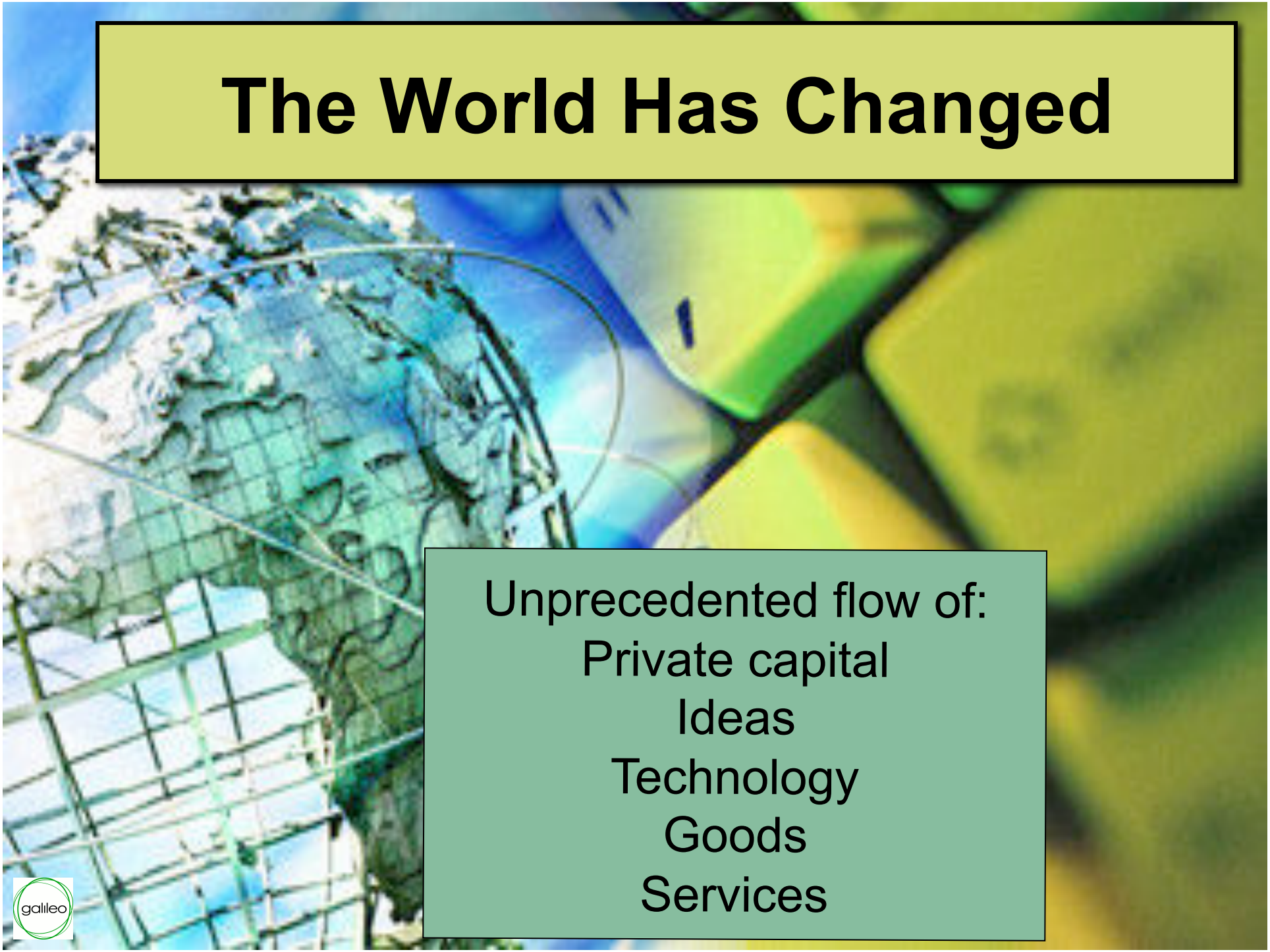
- the traditional **academic curriculum** is the **quality control** mechanism -- used to **sort** students
- many are **rejected** - and allowed to **drop off** the production line

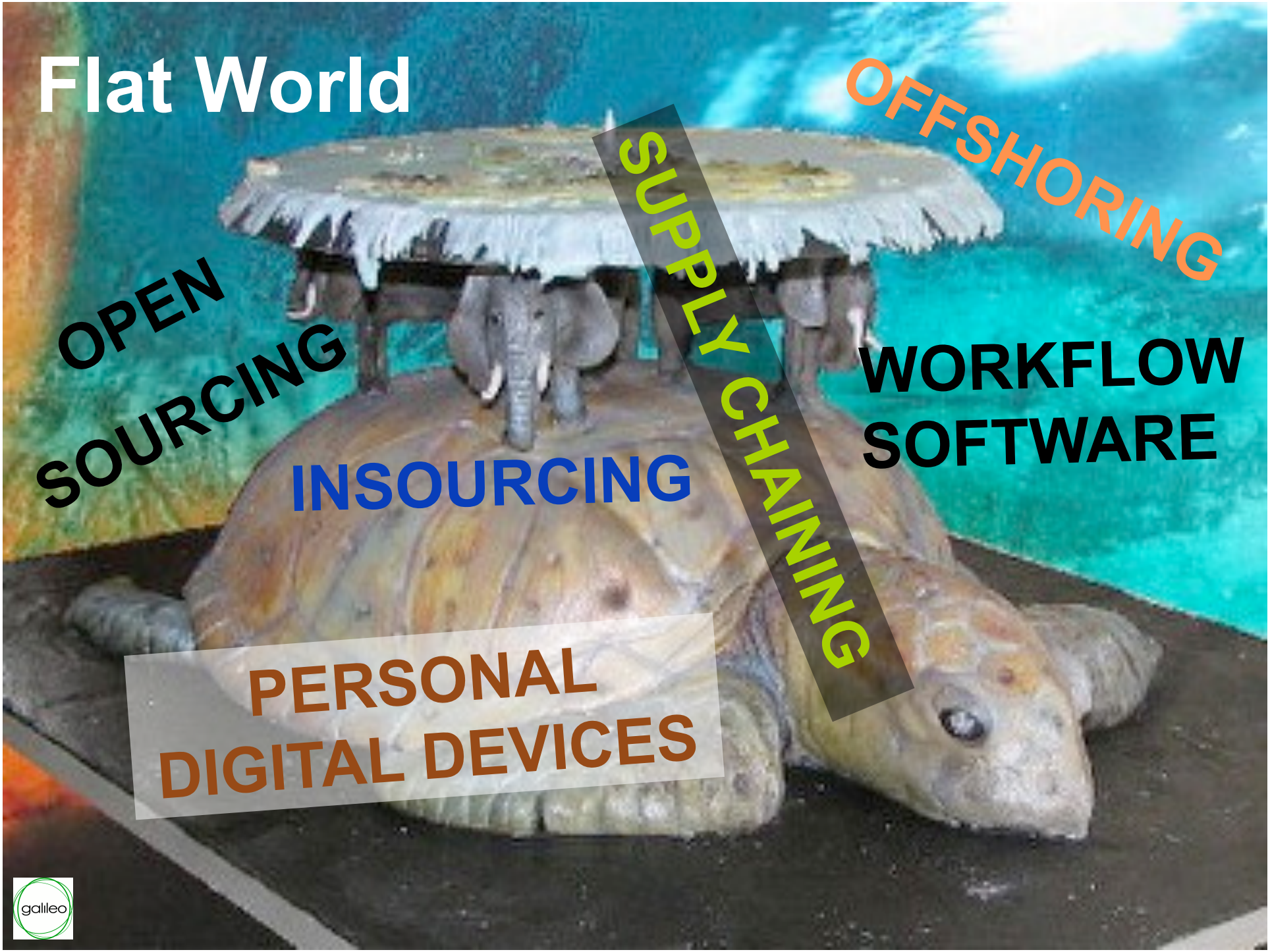
For most of the 20th century this seemed OK to most people



- System gave everyone ‘the basics’ (basic skills)
- Post-secondary education rationed to those with ability
- Very low unemployment
- Plenty of low-skill jobs for the production line’s rejects…

THIS IS NO LONGER THE CASE


The World Has Changed
Unprecedented flow of:
Private capital
Ideas
Technology
Goods
Services
galileo


Flat World
OFFSHORING
SUPPLY CHAINING
OPEN SOURCING
WORKFLOW SOFTWARE
INSOURCING
PERSONAL DIGITAL DEVICES
galileo

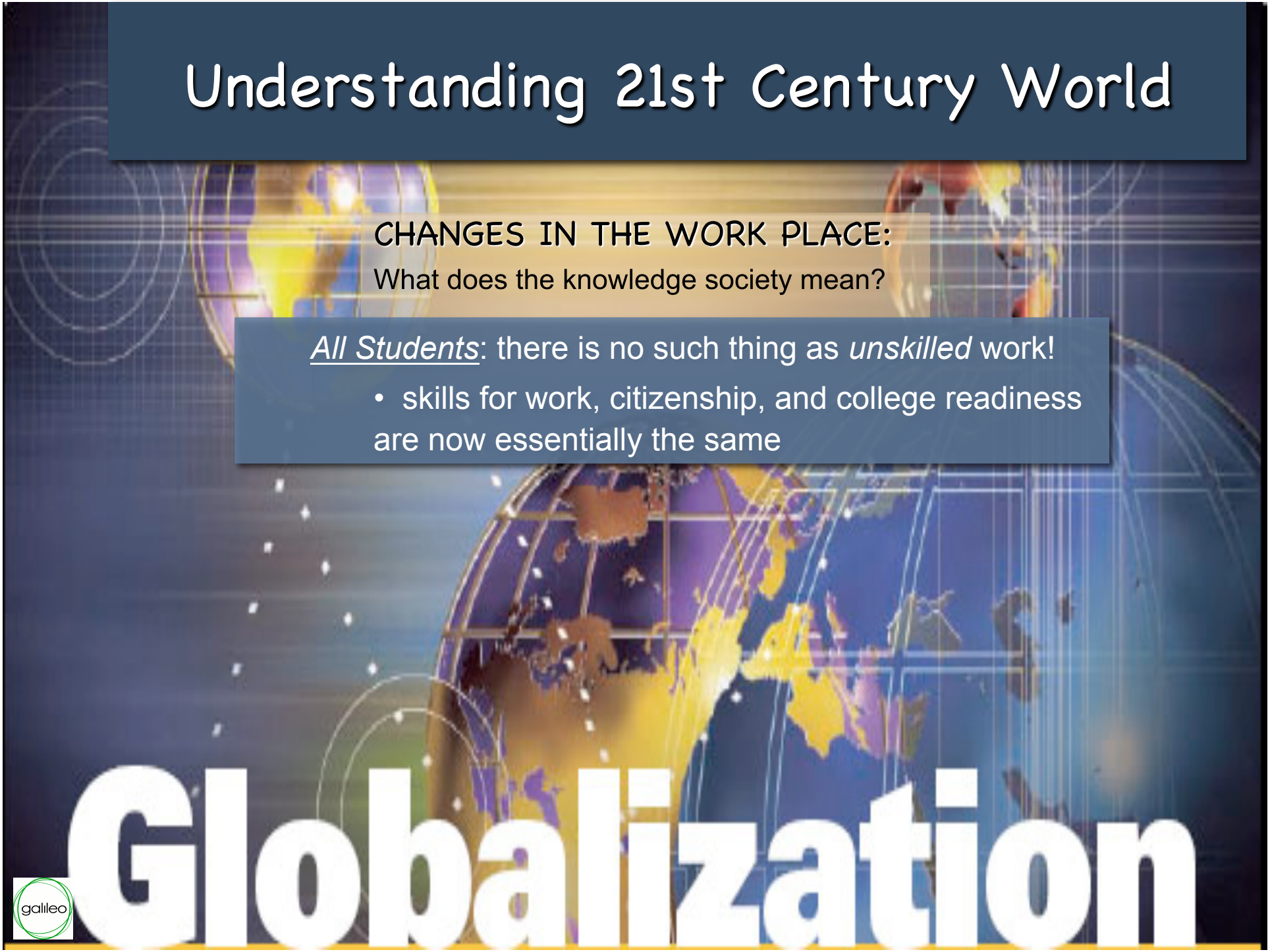
Understanding 21st Century World

CHANGES IN THE WORK PLACE:

What does the knowledge society mean?

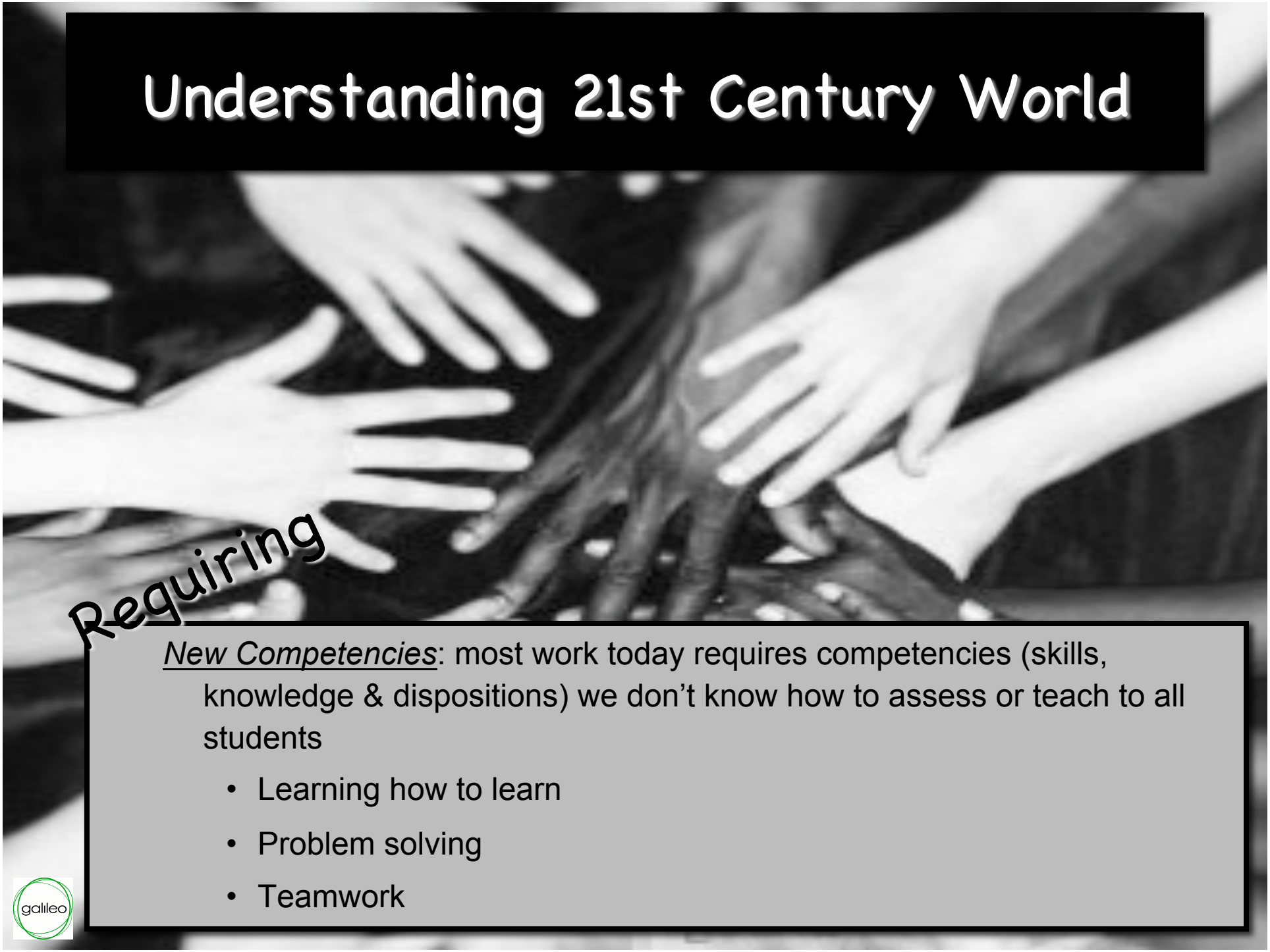
All Students: there is no such thing as *unskilled* work!

- skills for work, citizenship, and college readiness are now essentially the same



Changing the way we live, the way we produce things, the way we communicate, the way we learn

Understanding 21st Century World

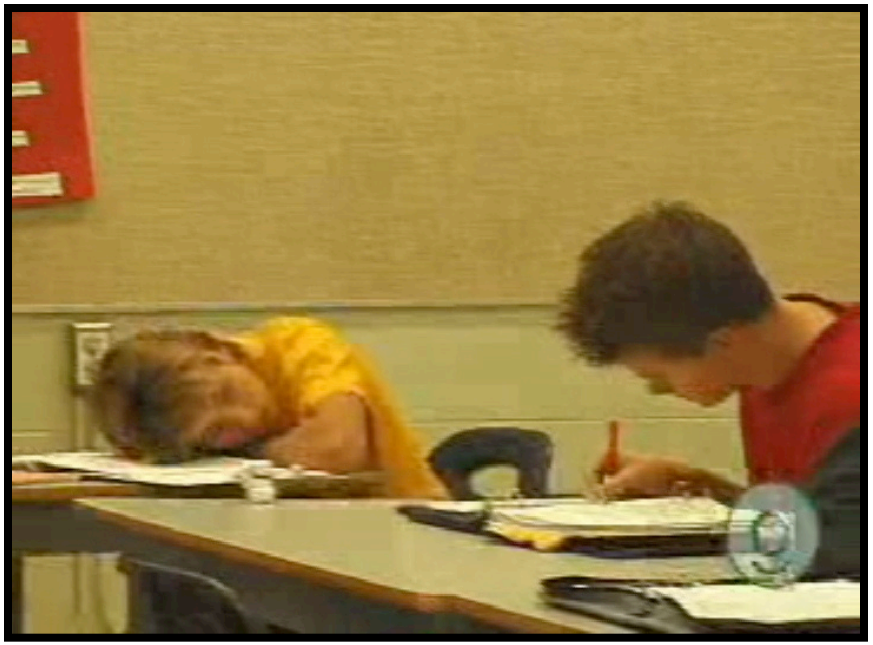


Requiring

New Competencies: most work today requires competencies (skills, knowledge & dispositions) we don't know how to assess or teach to all students

- Learning how to learn
- Problem solving
- Teamwork

Skills For Industrial Age



- Punctuality
- Following instructions
- Recognizing the authority of the supervisor
- Working on monotonous tasks for a long period of time

21st Century Skills

Digital-Age Literacy

* Basic, scientific, economic, and technological literacies
* Visual and information literacies
* Multicultural literacy and global awareness

Inventive Thinking

* Adaptability and managing complexity
* Self-direction
* Curiosity, creativity, and risk taking
* Higher-order thinking and sound reasoning

Effective Communication

* Teaming, collaboration, and interpersonal skills
* Personal, social, and civic responsibility
* Interactive communication

High Productivity

* Prioritizing, planning, and managing for results
* Effective use of real-world tools
* Ability to produce relevant, high-quality products

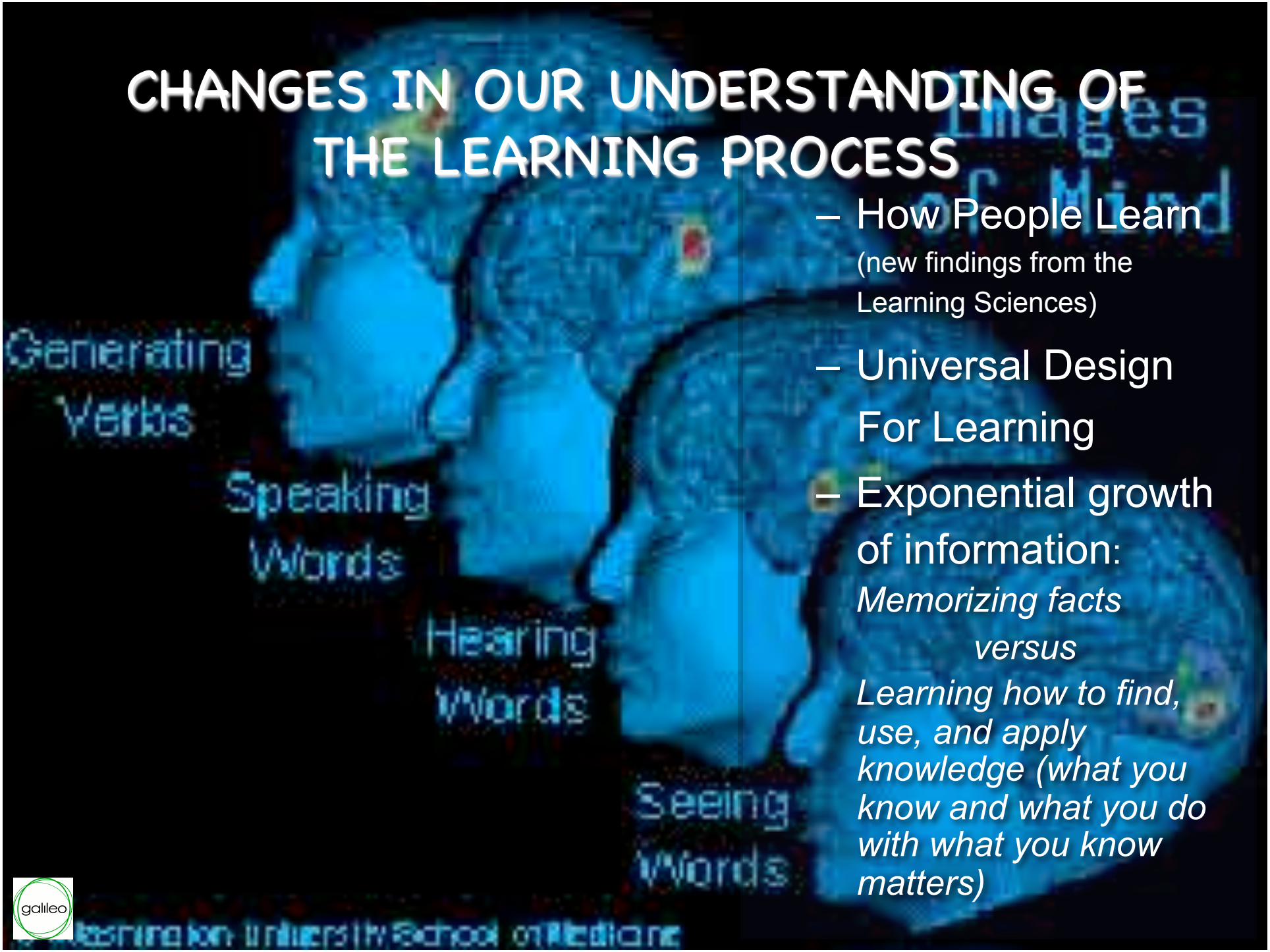
http://www.ncrel.org/engauge/skills/skill21.htm

Knowledge In Today's World

- is a process, *not* a 'thing'
- *does* things
- happens in teams, between people, *not* in individual 'experts'
- can't be 'codified' into 'disciplines'
- develops on an as-and-when needed basis
- develops to be replaced, ***not*** stored.

galileo

CHANGES IN OUR UNDERSTANDING OF THE LEARNING PROCESS



- How People Learn
  (new findings from the Learning Sciences)
- Universal Design For Learning
- Exponential growth of information:
  Memorizing facts
  versus
  Learning how to find, use, and apply knowledge (what you know and what you do with what you know matters)

LEARNING

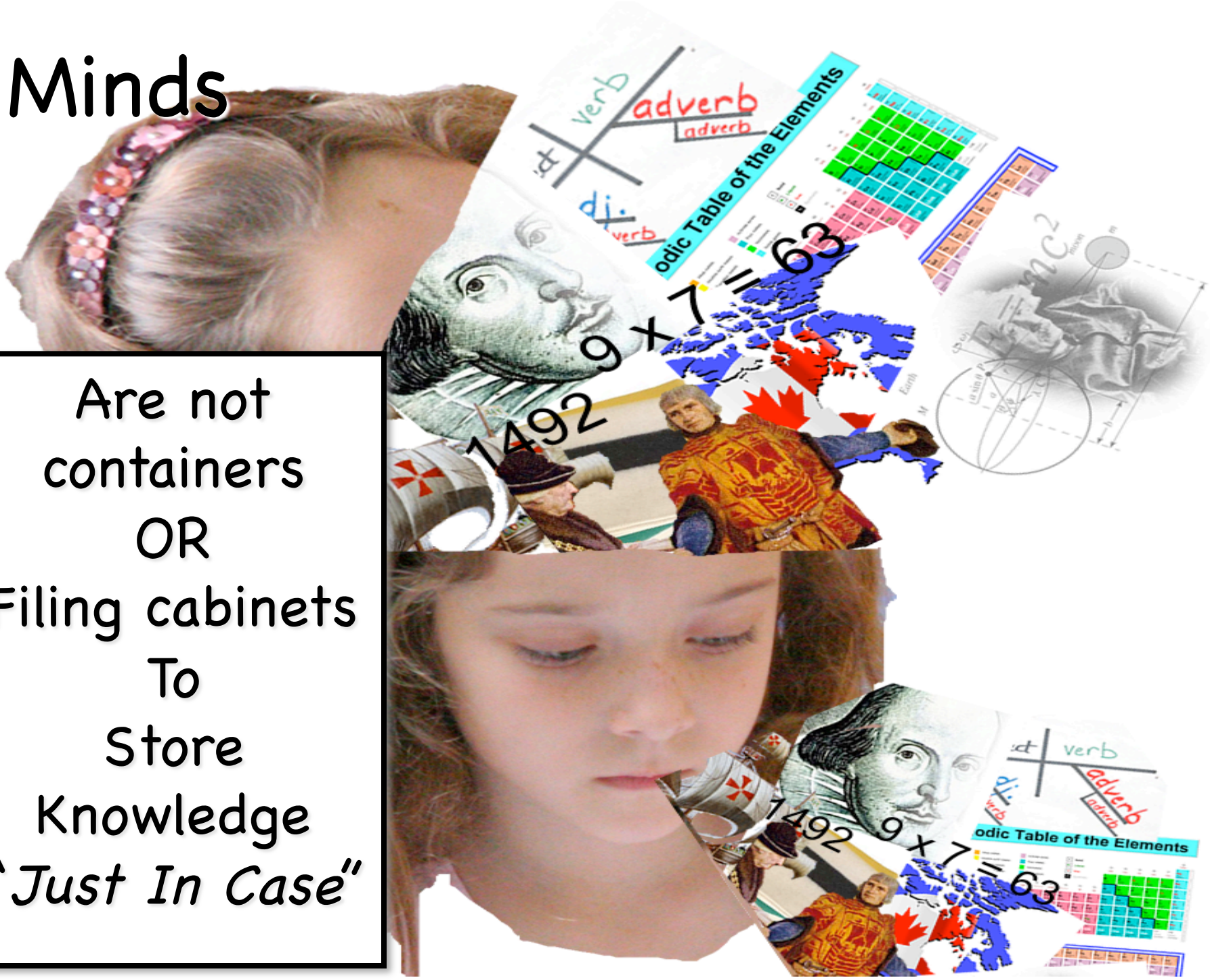
- involves generating knowledge *not* storing it
- is primarily a group - *not* an individual - activity


Happens in Real World Contexts


Should be ‘just-in-time’
not ‘just-in-case’


needs to be à la carte, not en bloc.

Minds



Are not
containers
OR
Filing cabinets
To
Store
Knowledge
"*Just In Case*"

MINDS

are RESOURCES

that can be CONNECTED

to

other resources

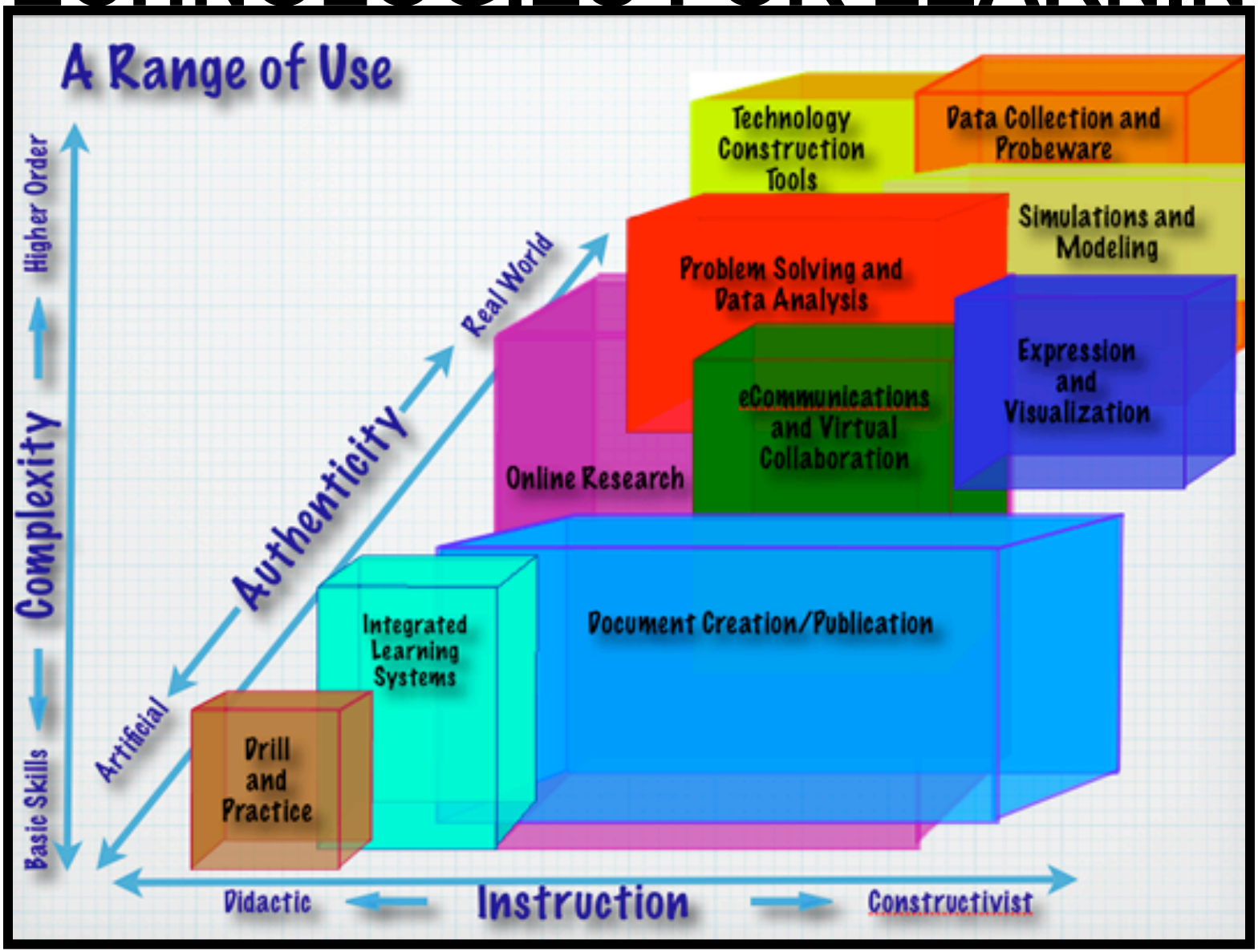
in order to

GENERATE *NEW* KNOWLEDGE

http://www.nap.edu/catalog.php?record_id=9853

Technology has a large role to play in 21st century schools. Technology, alone cannot drive reform.

TECHNOLOGIES FOR LEARNING



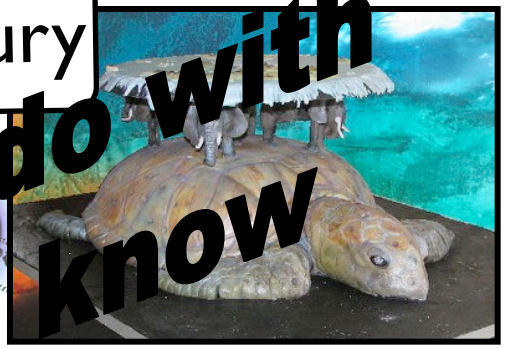
Metiri Group, http://www.metiri.com/Solutions/RangeOfUse.htm

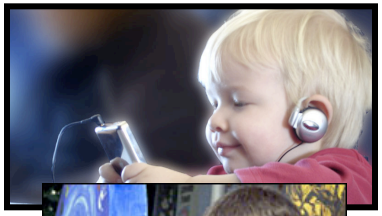
20th Century

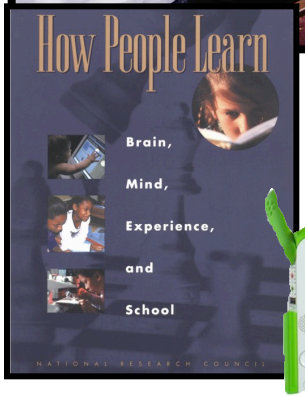
What you know

21st Century

What you do with what you know







YOU

LEADING FOR TODAY'S LEARNERS

Day 2

“Projects” vs. Project/Problem Based Learning

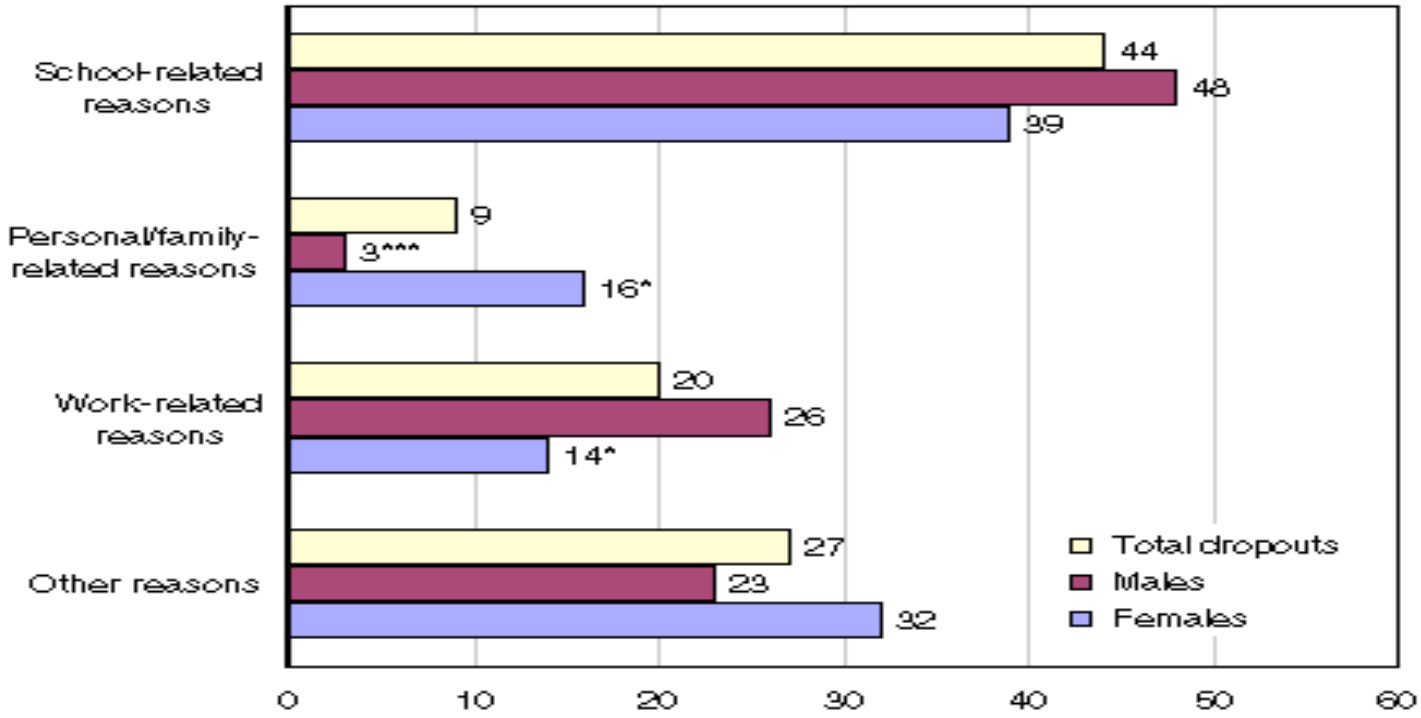
Projects

- Loose set of activities
- Supplements the curriculum
- Thematic
- Broad summative assessments
- No management structure

Problem/Project Based Learning

- Inquiry-based. Use Thought Provoking Question as a focus.
- Part of the curriculum
- Focused
- Aligns specified outcomes with assessment for learning
- Uses project management tools to structure learning

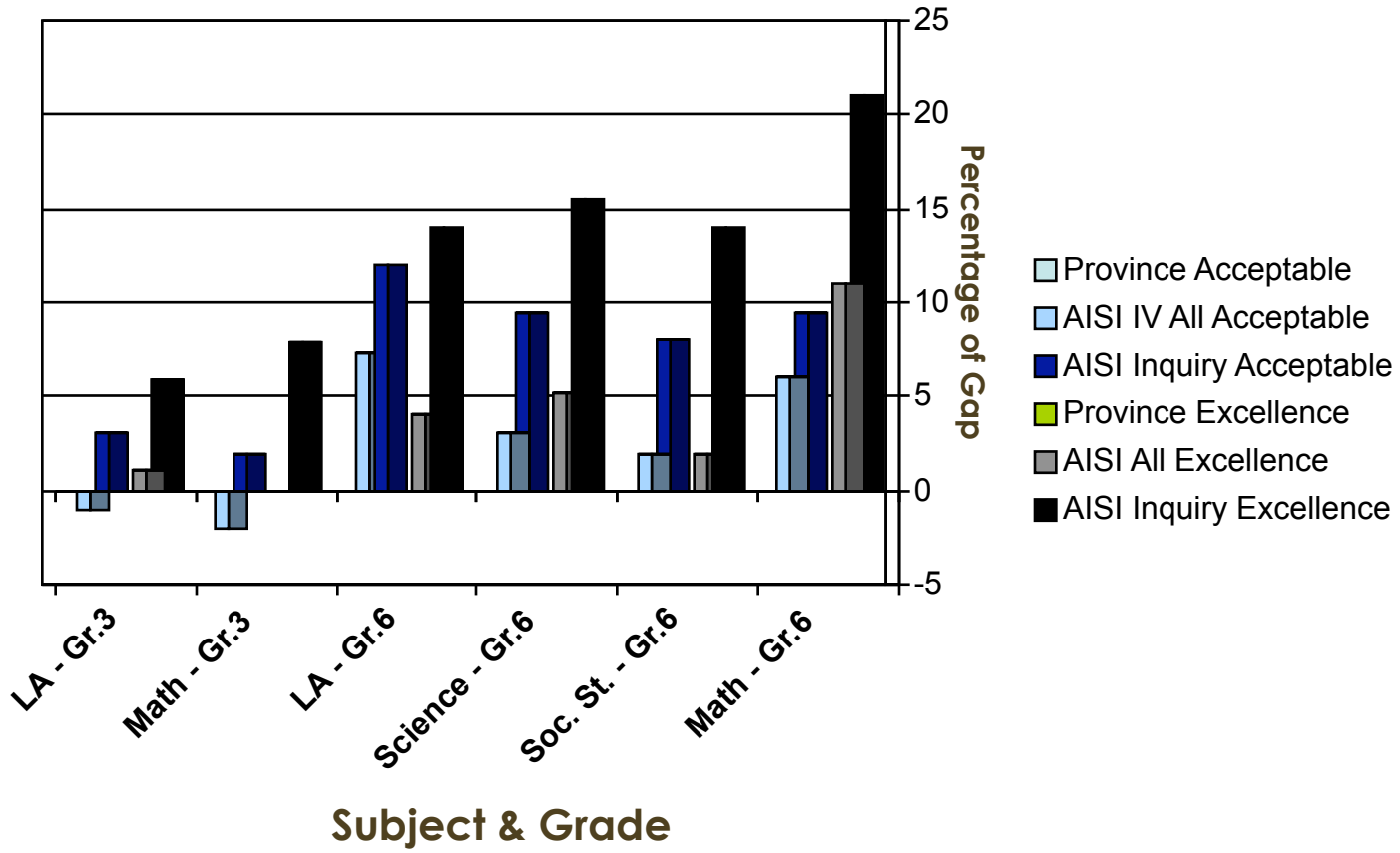
Boring….



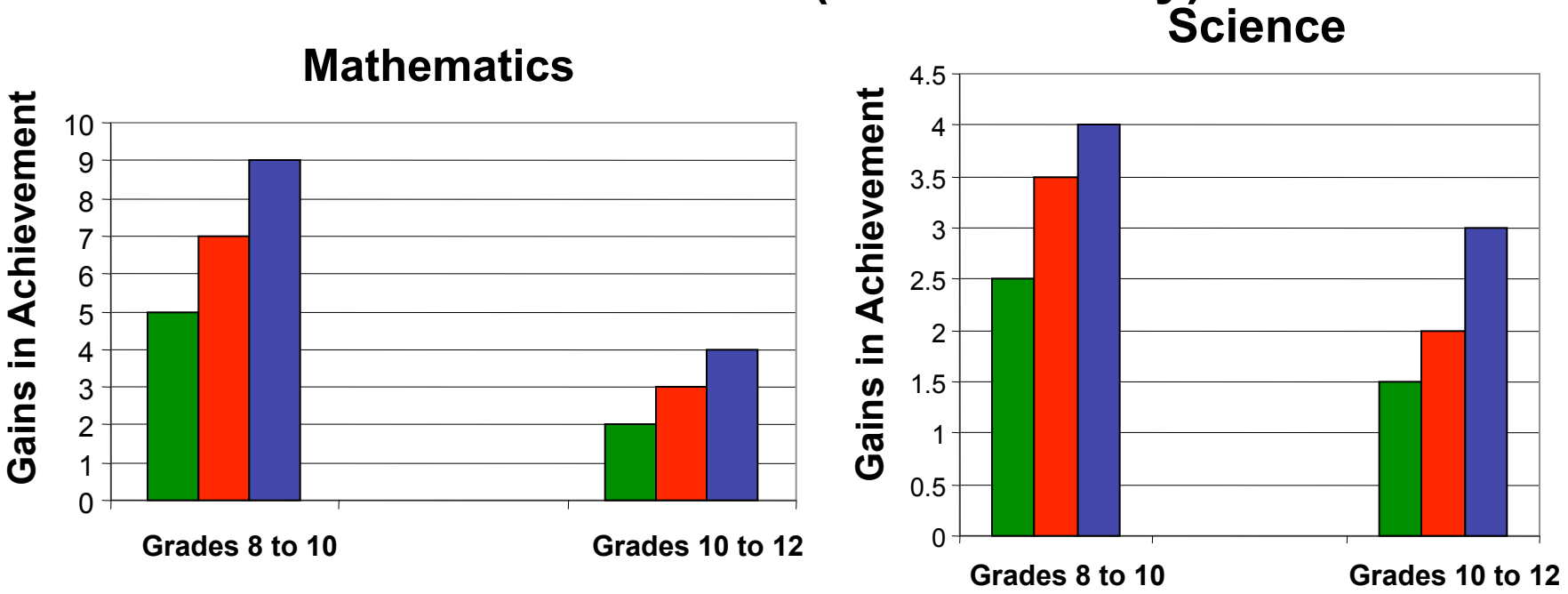
- *"The subjects they teach in school are incredibly boring, it's just dried up cardboard, it doesn't have any taste or flavor of what really happens."* (student, Trying to Learn, 2003, http://www.teachers.ab.ca/Quick+Links/Publications/Other+Publications/Trying+to+Teach+Trying+to+Learn+Listening+to+Students/) (YIT, 2002)

Does Inquiry Impact Student Achievement on Standardized Examinations?

Gap Analysis

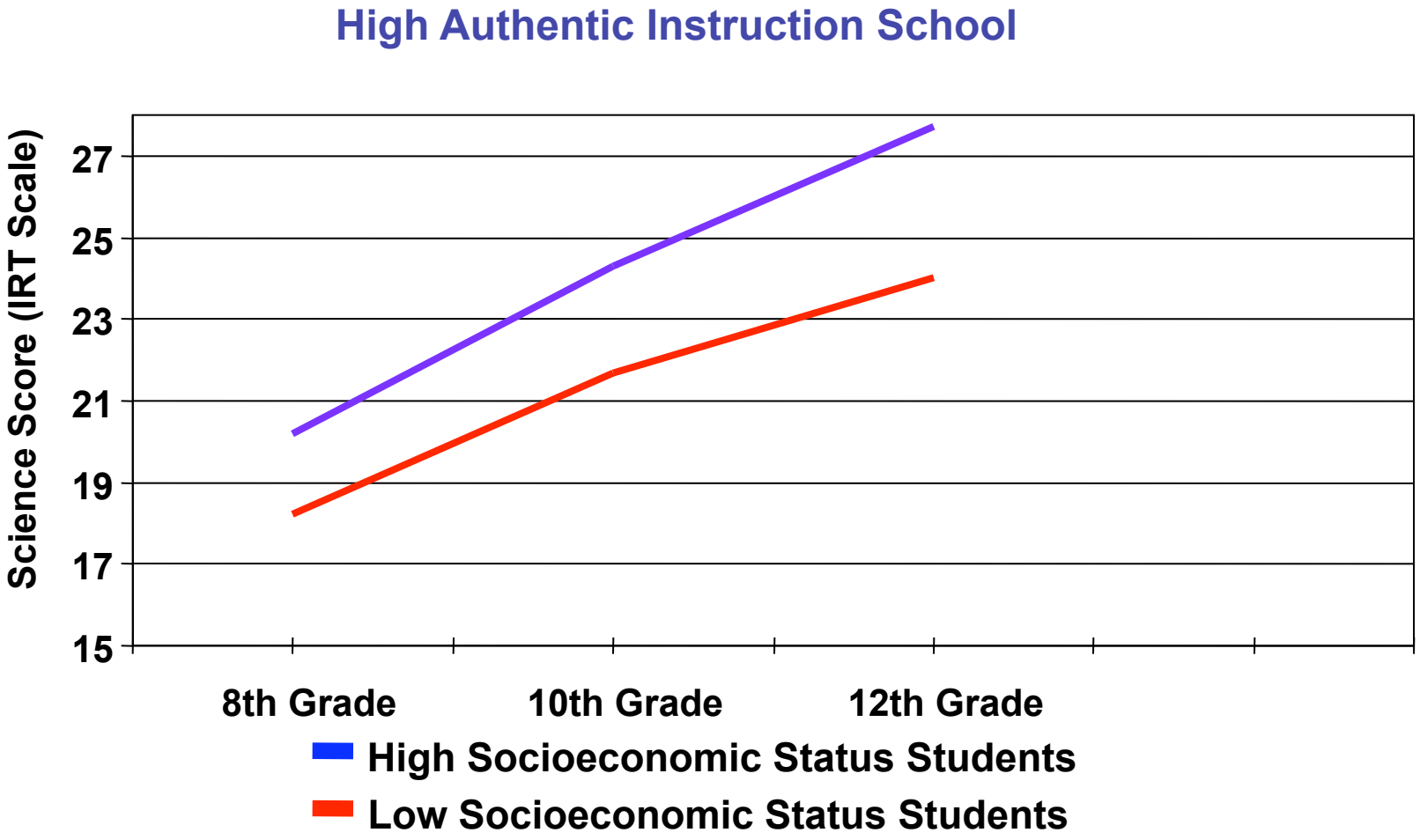


High School Mathematics and Science Conventional Achievement Gains According to Levels of Authentic Instruction 1000 schools (NELS Survey)



Source: Lee, Smith & Croninger (1995, 1997), cited in Newmann & Wehlage (1995)

High School Authentic Instruction and Conventional Achievement for Low and High Socioeconomic Students



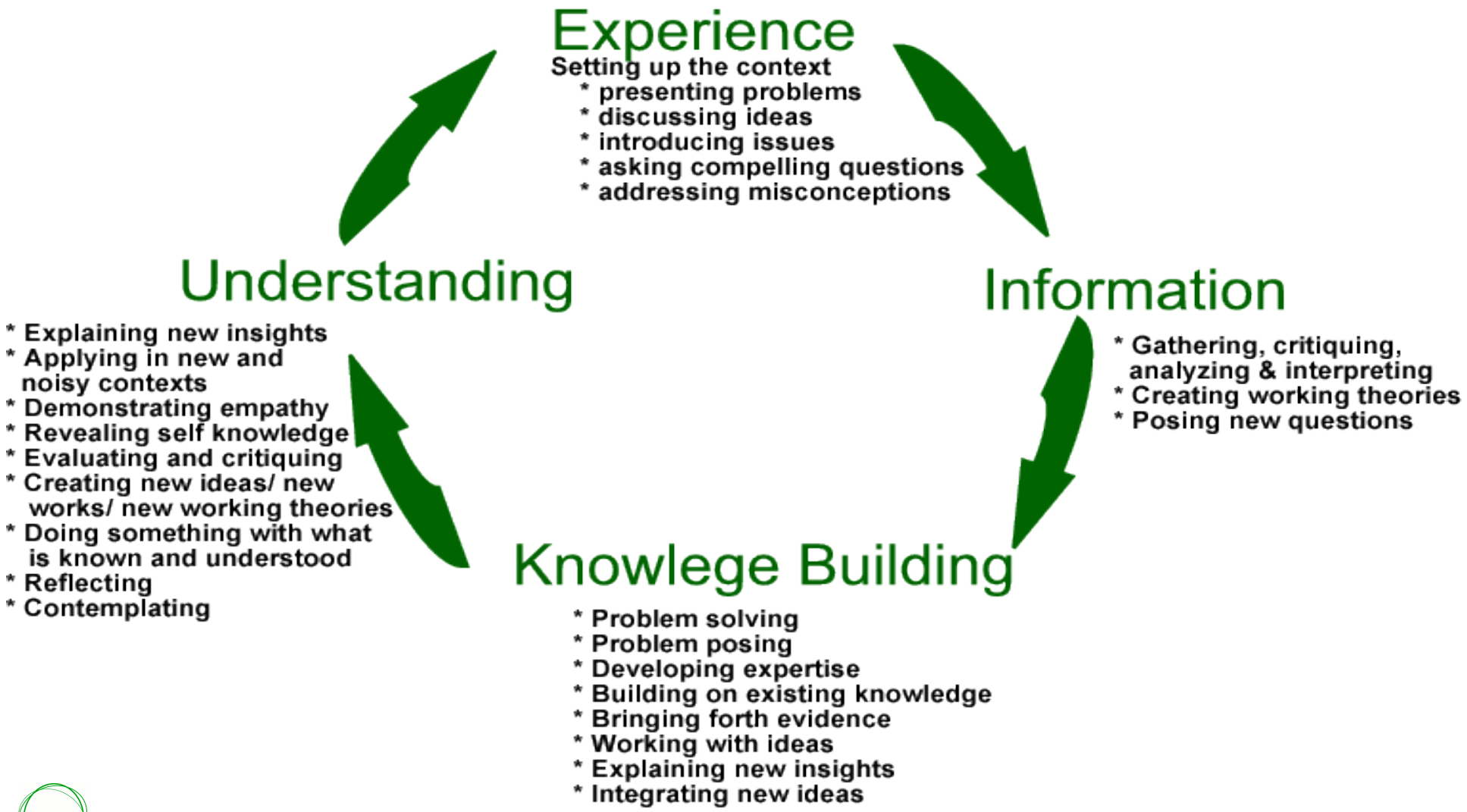
Source: Based on Lee, & Smith (1994, 1995); Lee, Smith & Croninger (1995,1997), Newmann & Wehlage (1995)

The Inquiry Learning Community

Learner Centered

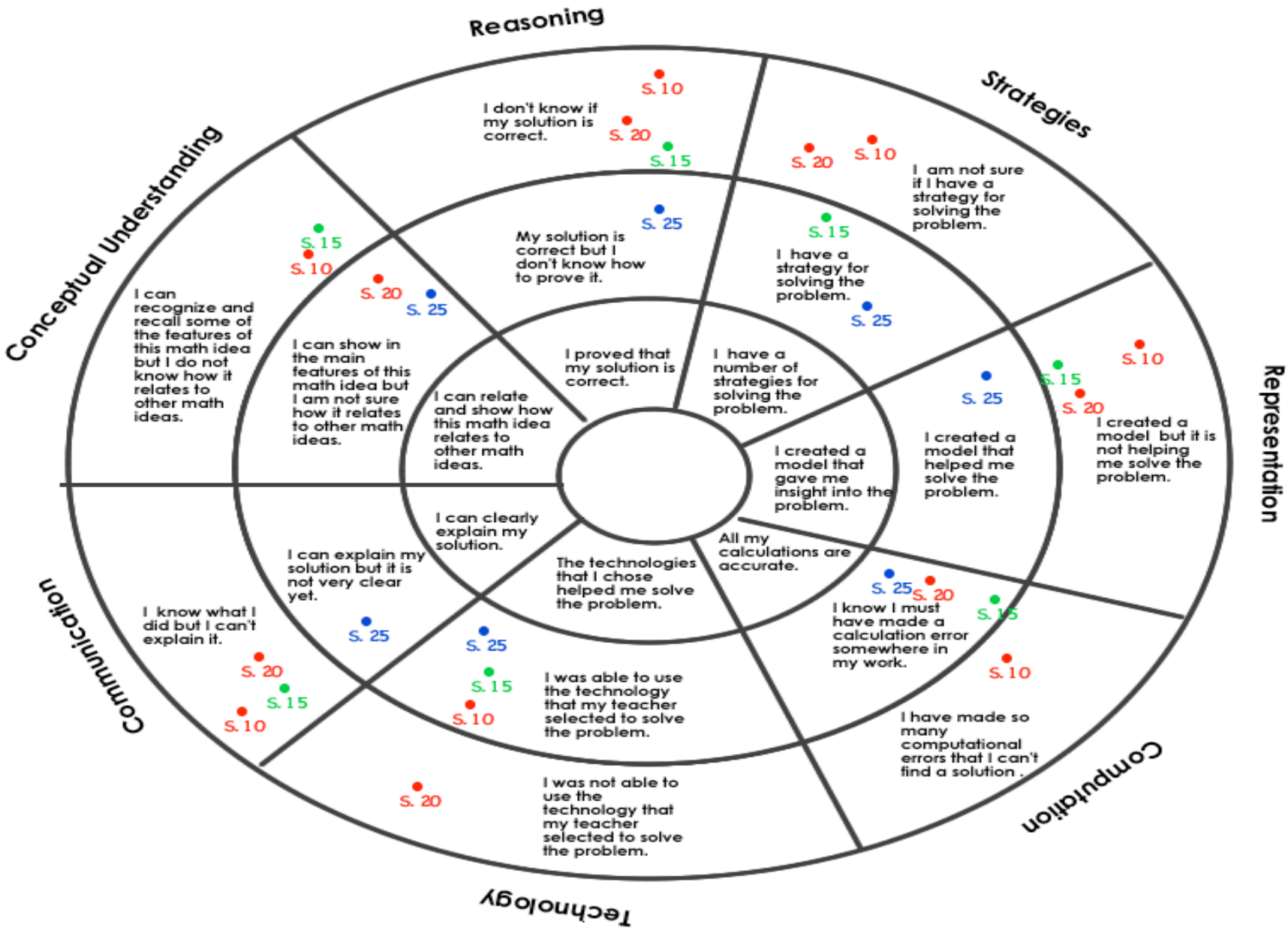
Knowledge Centered

Assessment Centered




galileo


Revised Bloom's Taxonomy
Analyze
Create
Comprehend
Remember
General Tasks



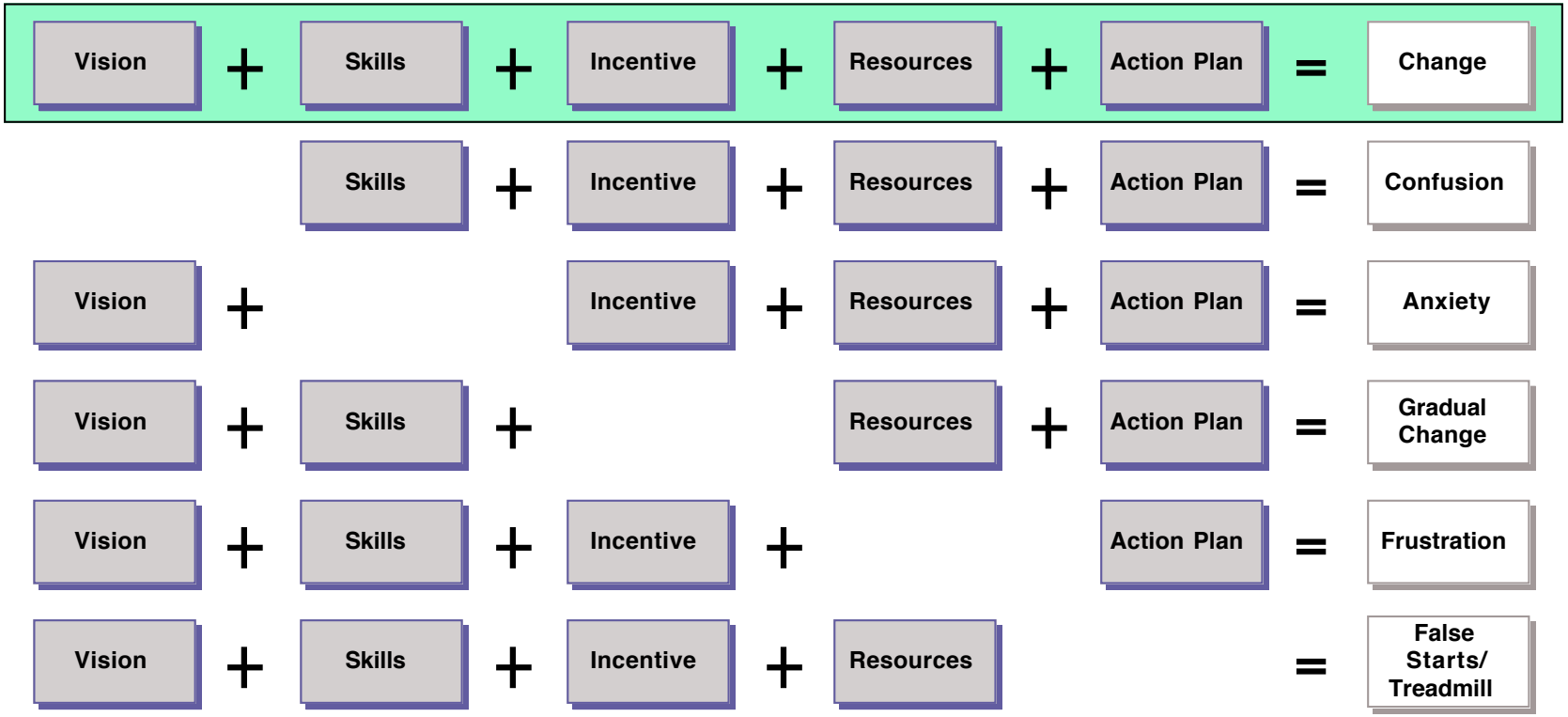
Evidence of Learning in the 21st century classroom

	→			
Trait 1			Criteria	
Trait 2				

Evidence of Learning in the 21st century classroom

	→			
Trait	**Criteria**	**Details**		
Task	An adult at work or in the community tackles the problem, issue or question posed by this task.	1. Activities match as nearly as possible the real-world activities. 2. Students can answer the question, “who in the world…		

Change: What Does It Take?



From Knoster, T. (1991). Presentation to TASH Conference. Washington D.C.
Adapted by Knoster from Enterprise Group, LTD.

Strong Principal Leadership is Essential

The average correlation between principal leadership behavior and school achievement is
.25
which means….

a one standard deviation increase in principal leadership is associated with a 10 percentile point gain in school achievement.

Marzano, 2006

Leadership for Incremental Change

- Emphasize relationships
- Establish strong lines of communication
- Be an advocate for the school
- Provide resources
- Maintain visibility
- Protect teachers from distractions
- Create culture of collaboration
- Look for and celebrate successes

Marzano, 2006

Leadership for Second Order Change

- Develop a shared vision
- Shake up the status quo
- Expect some things to seem worse
- Propose new ideas
- Base decisions on evidence
- Tolerate ambiguity and dissent
- Talk research and theory
- Provide feedback on instruction
- Create explicit goals for change
- Define success in terms of goals

Marzano, 2006

Average School, Average Teacher

	Percentile Entering	Percentile Leaving
Average School/ Average Teacher	50th	50th

Marzano, 2006

Highly Ineffective School, Highly Ineffective Teacher

	Percentile Entering	Percentile Leaving
Average School/ Average Teacher	50th	50th
Highly Ineffective School/Highly Ineffective Teacher	50th	3rd

Marzano, 2006

Highly Effective School, Highly Ineffective Teacher

	Percentile Entering	Percentile Leaving
Average School/ Average Teacher	50th	50th
Highly Ineffective School/ Highly Ineffective Teacher	50th	3rd
Highly Effective School/ Highly Ineffective Teacher	50th	37th

Marzano, 2006

Highly Ineffective School, Highly Effective Teacher

	Percentile Entering	Percentile Leaving
Average School/ Average Teacher	50th	50th
Highly Ineffective School/ Highly Ineffective Teacher	50th	3rd
Highly Effective School/ Highly Ineffective Teacher	50th	37th
Highly Ineffective School/ Highly Effective Teacher	50th	63rd

Marzano, 2006

Highly Effective School, Highly Effective Teacher

	Percentile Entering	Percentile Leaving
Average School/ Average Teacher	50th	50th
Highly Ineffective School/ Highly Ineffective Teacher	50th	3rd
Highly Effective School/ Highly Ineffective Teacher	50th	37th
Highly Ineffective School/ Highly Effective Teacher	50th	63rd
Highly Effective School/ Highly Effective Teacher	50th	96th

Marzano, 2006

Highly Effective School, Average Teacher

	Percentile Entering	Percentile Leaving
Average School/ Average Teacher	50th	50th
Highly Ineffective School/Highly Ineffective Teacher	50th	3rd
Highly Effective School/ Highly Ineffective Teacher	50th	37th
Highly Ineffective School/ Highly Effective Teacher	50th	63rd
Highly Effective School/ Highly Effective Teacher	50th	96th
Highly Effective School/ Average Teacher	50th	78th

Marzano, 2006