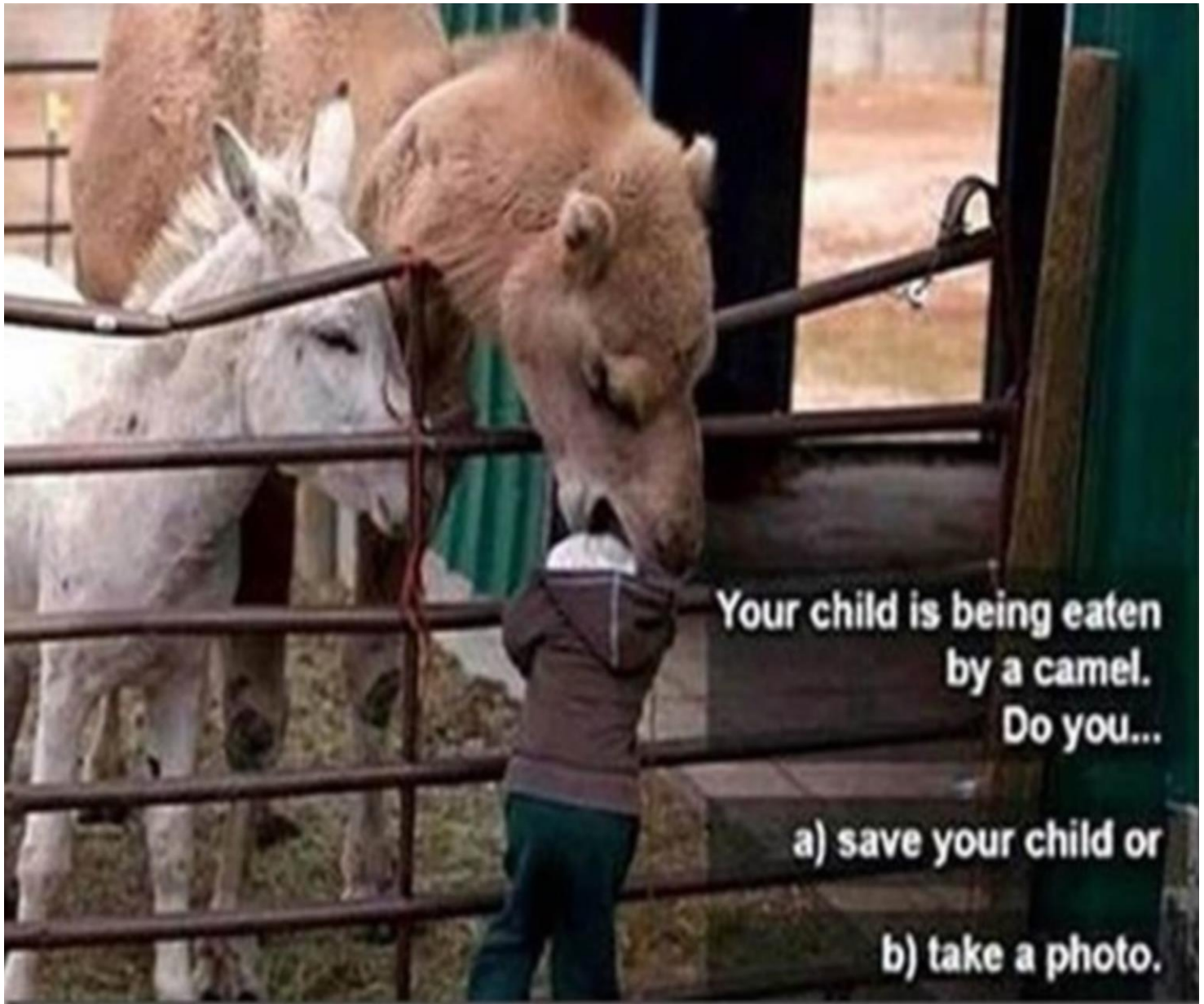
Focus on Educational Change

Outcome: Increase your understanding and appreciation of key concepts and processes related to educational change.

And, to understand where educational change fits into the bigger picture of teaching and learning.

Rationale: Decision making…to increase the chances of being an effective life-long learner related to teaching and learning; to escape mediocrity.

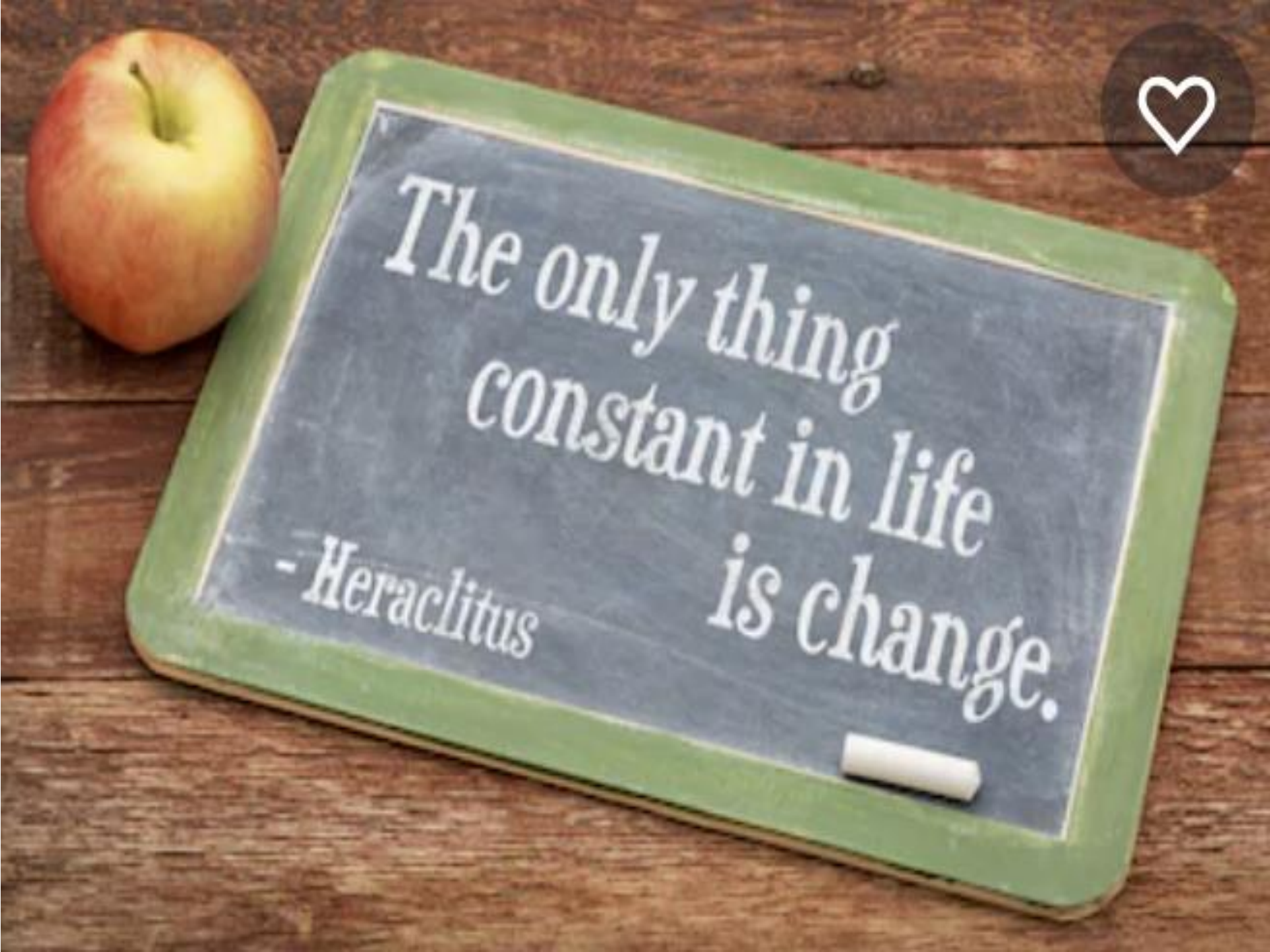
Rationale: Decision making



Caveat

For most of us caught up in the day to day complexity of teaching and learning…refining our understanding of ‘change’ is **not a high priority…**and it is, for most of us, **boring**.

That said, given we do not know the best way to ‘teach’ or engage students in learning…we are continually searching for more powerful ways to ‘teach’…to change.


The only thing
constant in life
is change.
-Heraclitus

Does not matter where you look

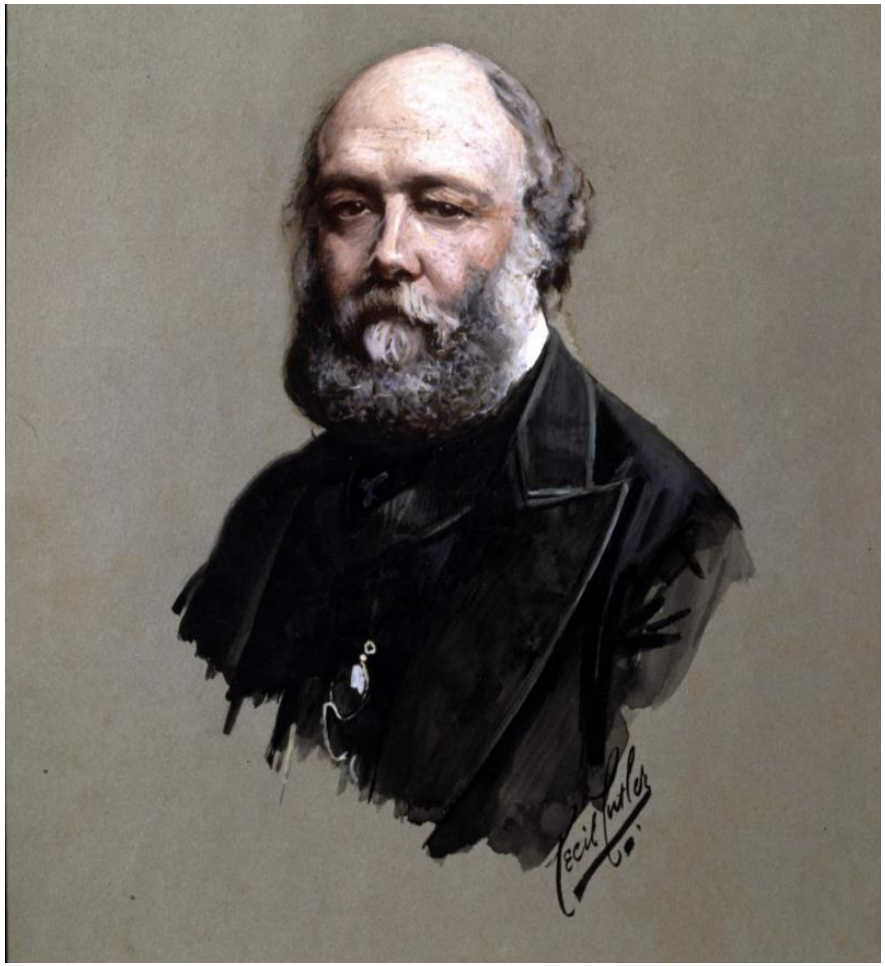
Does not matter what you look at

Or when you look

Change, change, who needs change; things are bad enough the way they are.

Lord Salisbury

1830-1903



Take 100 years

Look back even further…

"It must be considered that there is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things. For the reformer has enemies in all those who profit by the old order, and only lukewarm defenders in all those who would profit by the new order, this luke-warmness arising partly from fear of their adversaries, who have the laws in their favour; and partly from the incredulity of mankind, who do not truly believe in anything new until they have had actual experience of it." (The Prince)

Niccolo Machiavelli 1469-1527

Not always for the better

Sometimes they come back to haunt us

Better or worse? Whose perspective?

Research changed this!

Change is

- **Relentless**
- **Inexorable**
- **Predictable**

All we can do is choose our stance towards it.

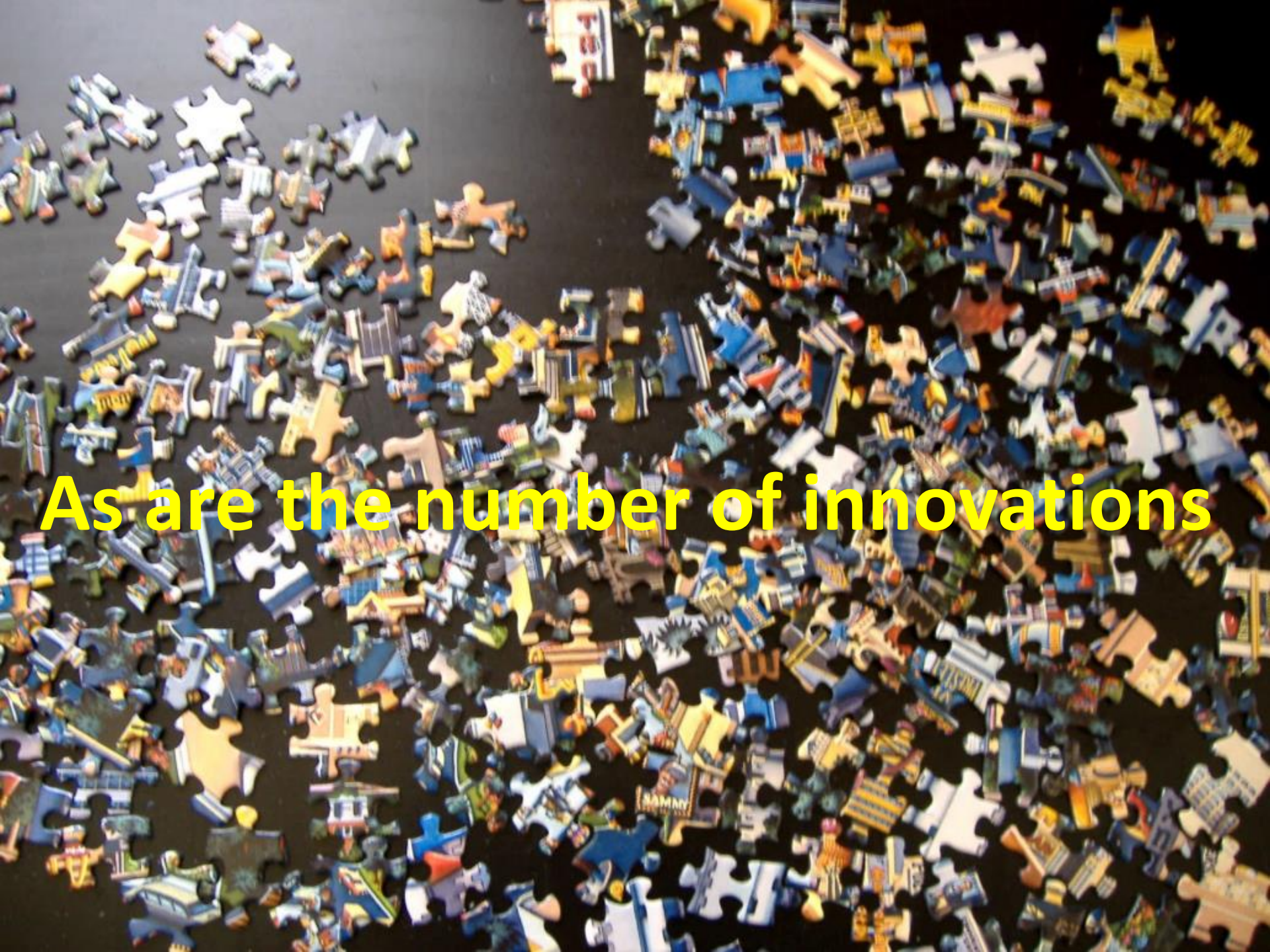
Ironically, sometimes we have to change to keep things constant.


Embrace
constant
change.

Managing Change … Is chess

Every move has implications…
even doing nothing


The Possibilities
are Endless

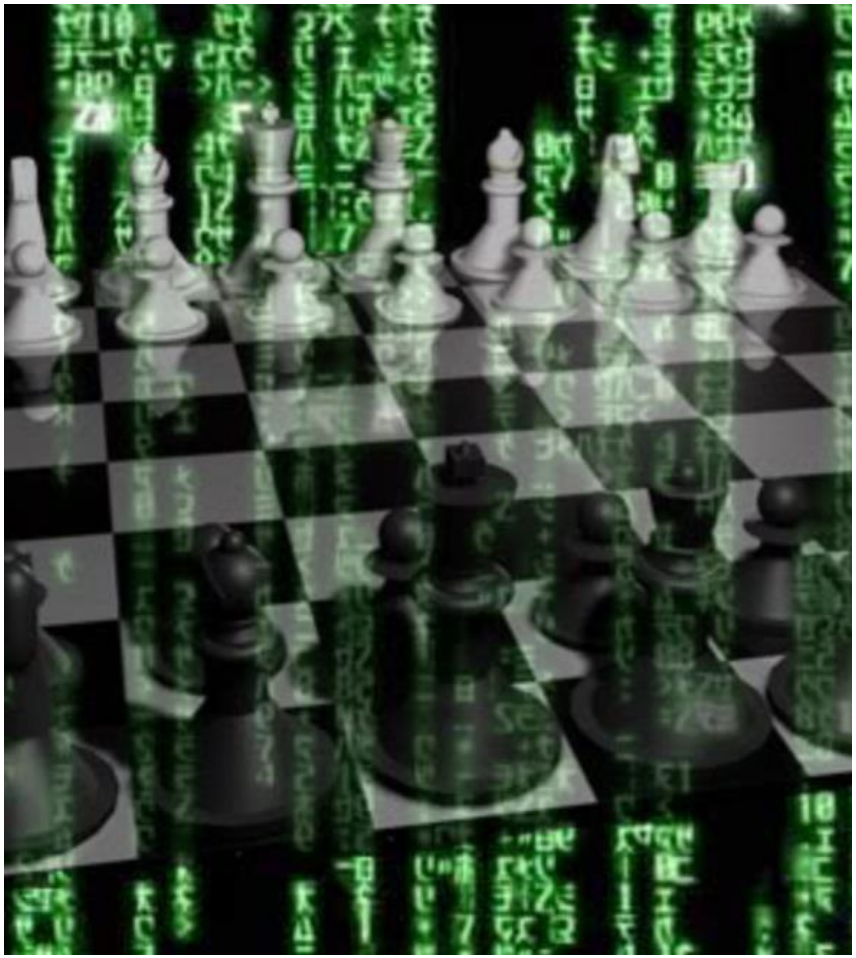

As are the number of innovations

So, you study change…

You understand the players…

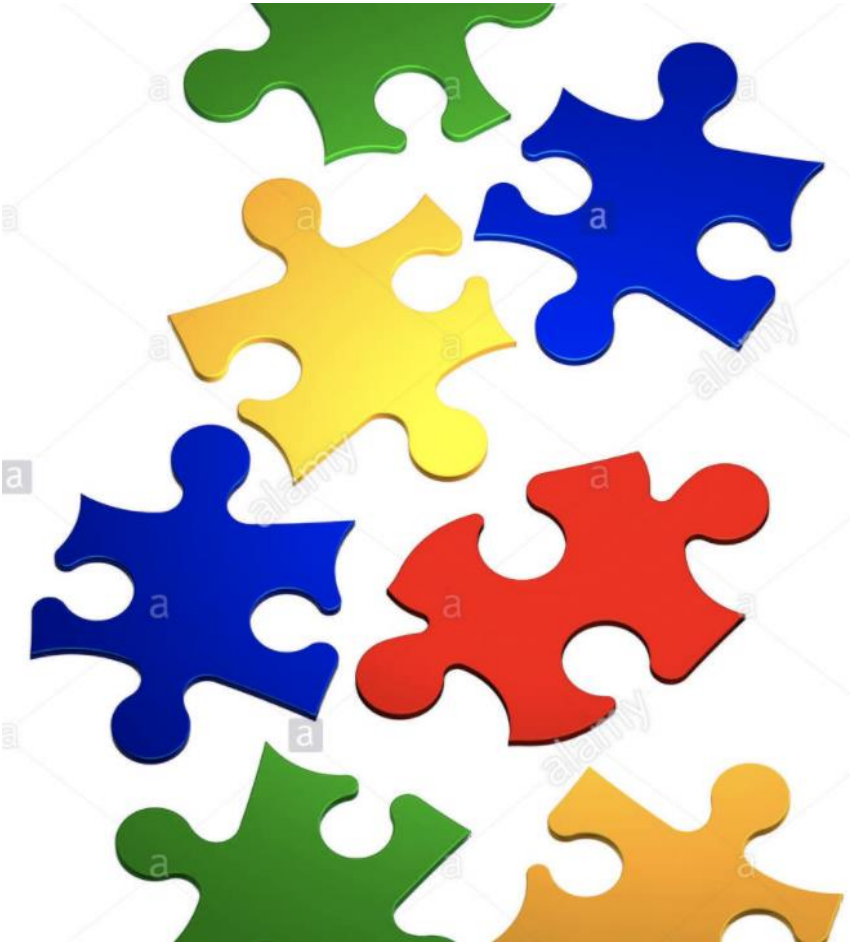
You look for patterns

And the players all move differently



- Ministry of Education
- Faculties of Education
- Teacher Unions
- Business Community
- Parents
- Students
- Teachers
- School Administration
- Etc.

And the players float around…too often disconnected with no evil plot… just no plot at all



- Ministry of Education
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Imagine if they worked together … for students?

- Ministry of Education
- Faculties of Education
- Teacher Unions
- Business Community
- Parents
- Students
- Teachers
- School Administration
- Etc.

John Ralston Saul, 1992 *Voltaire's Bastards*
(Saul is a Canadian scholar)

Thus among the illusions which have invested our civilization is an absolute belief that the solution to our problems must be a more determined application of rationally organized expertise. The illusion is that we have created the most sophisticated society in the history of man. The reality is that the division of knowledge into feudal fiefdoms of expertise has made general understanding and coordinated action not simply impossible but despised and distrusted. P.8

Ironically, if not for students … most would not exist

- ~~Ministry of Education~~
- ~~Faculties of Education~~
- ~~Teacher Unions~~
- **Business Community**
- **Parents**
- **Students**
- ~~Teachers~~
- ~~School Administration~~

(Hmmm…should we strike out ‘~~business community~~’?)

So why wouldn’t they work together?

Side Bar - Parents

Joyce Epstein's research showed that the number one predictor of student achievement is the extent to which parents are directly (helping with homework) or indirectly (getting a tutor) involved in their child's/children's learning.

Agenda ‘A’

1. The big picture 8 ‘pieces’
2. The process of change over over time (three major shifts)
3. The classification of change (three genres)
4. The process of learning and transfer …acquisition
5. The process of learning and transfer …refinement

Why the dart board metaphor?

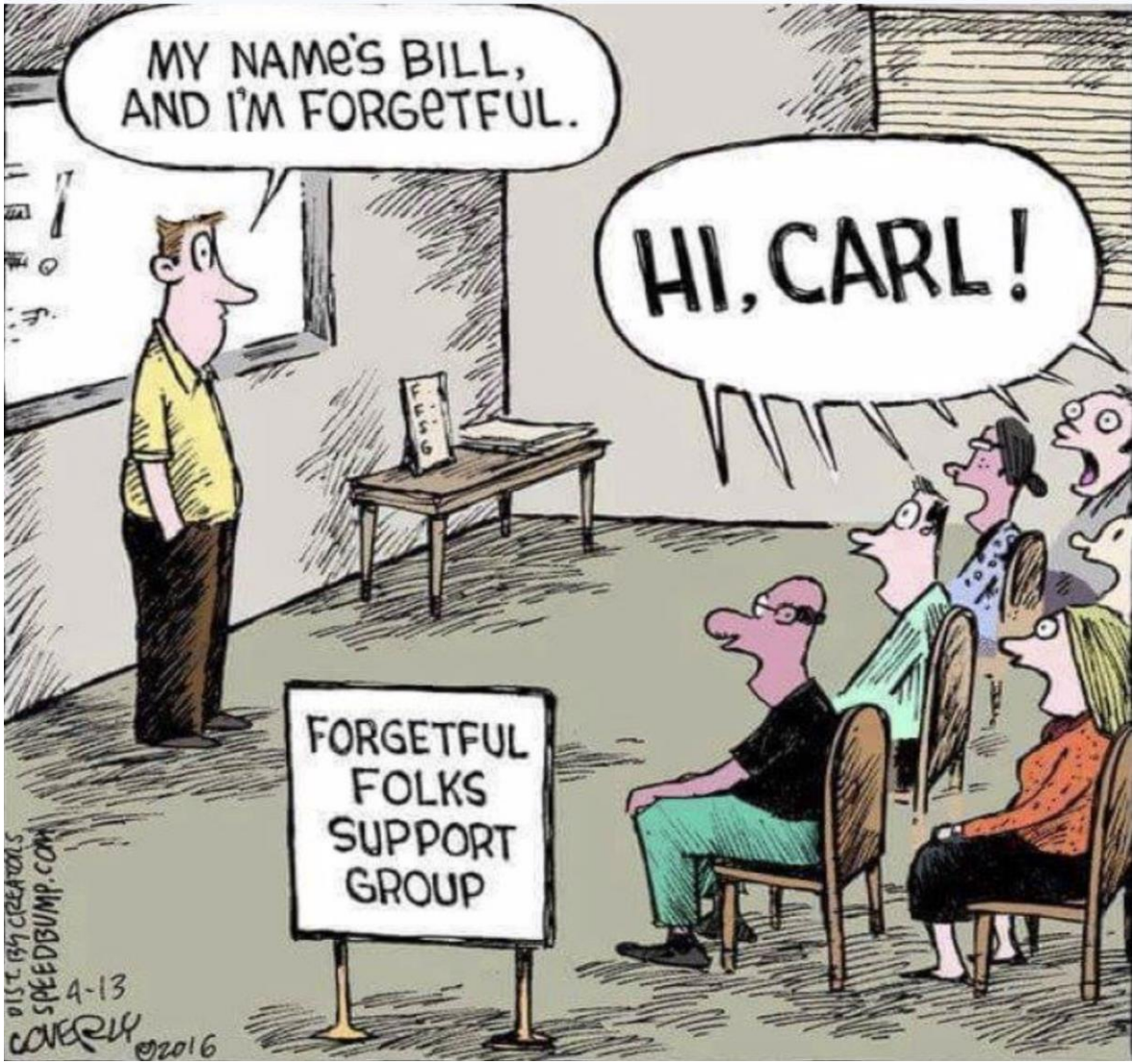
Some moves/decisions/innovations are more powerful than others

Regarding the outcomes…

I don't expect you to remember all of this. **At this stage of your career this will not seem as important.**

BUT it will impact you from day 1; it is impacting you right now.

Perhaps pick out a few key ideas you would like to keep in mind.



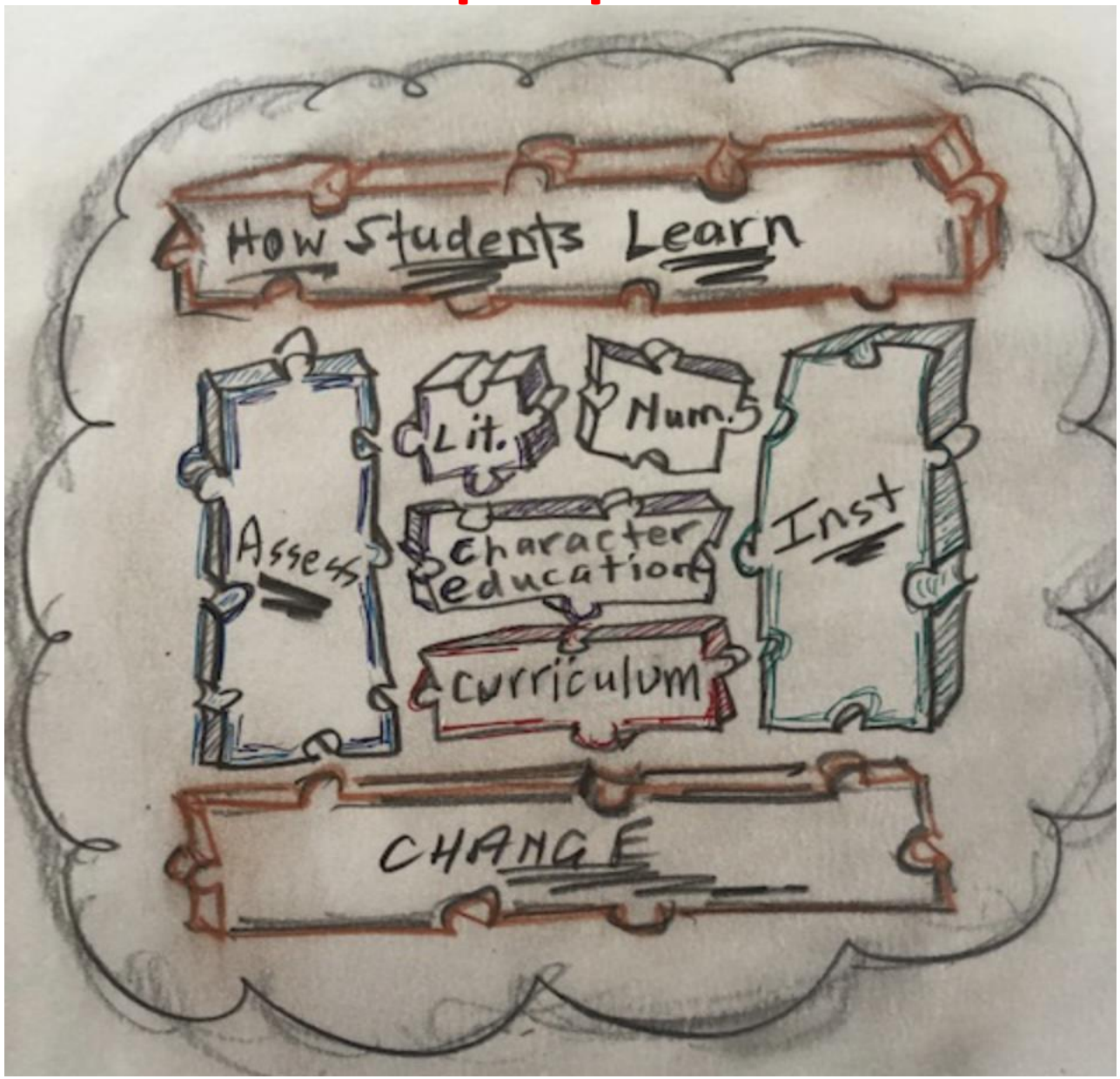
1. The big picture 8 'pieces'

1. Literacy
2. Numeracy
3. Social responsibility
4. Curriculum
5. Instruction
6. Assessment
7. Change
8. How students learn

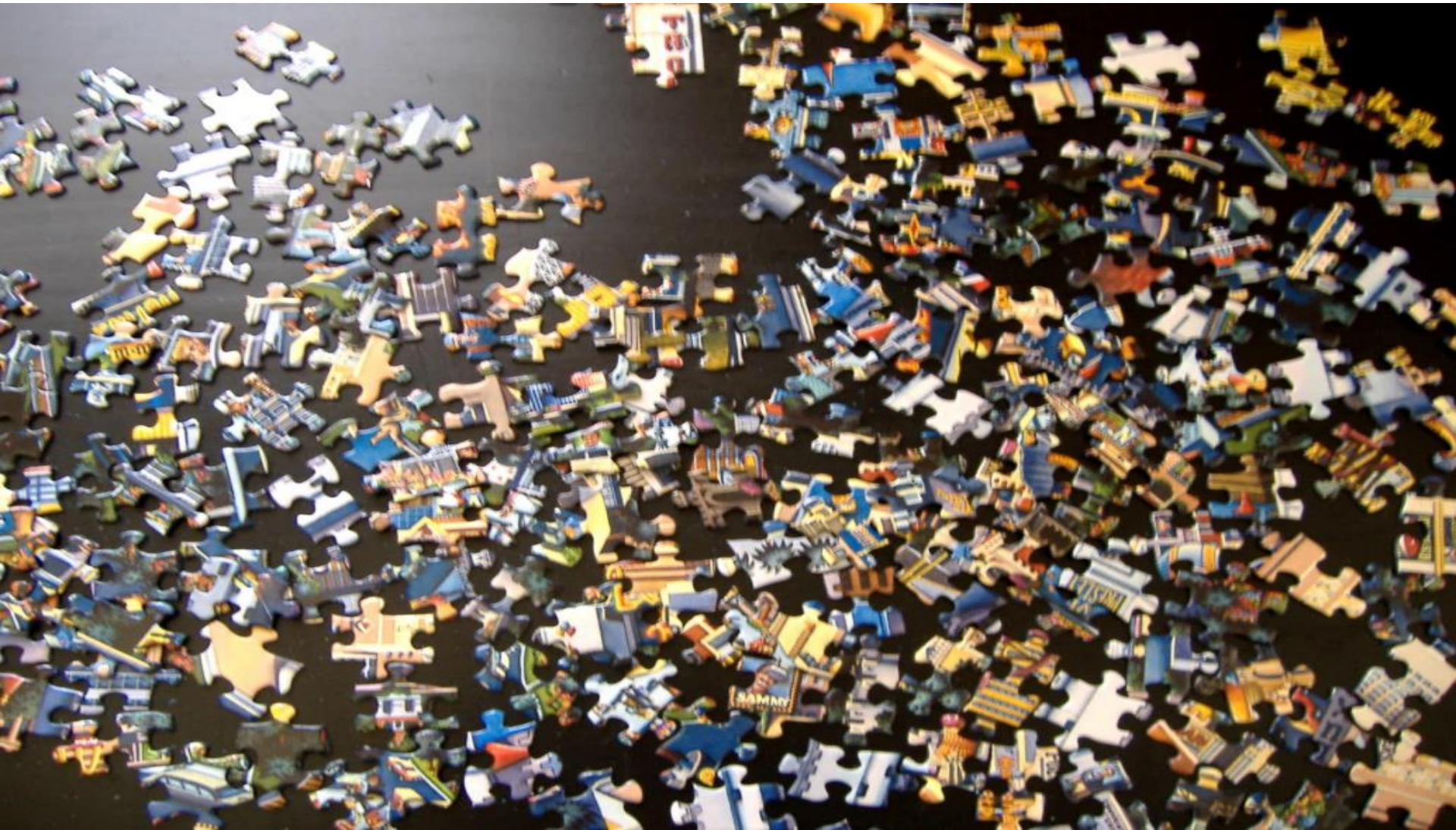
1a. How do they fit together?

1. Literacy
2. Numeracy
3. Social responsibility
4. Curriculum
5. Instruction
6. Assessment
7. Change
8. How students learn

One perspective



Don’t lose sight of what else is there



#1 Summary

- Those factors play out in all educational organizations in the industrialized world.
- In terms of assessment… *literacy* and *numeracy* have been the key focus.
- The key weakness is a failure by all stakeholders to understand an act on what is known about classroom, school, and most importantly, systemic change.

#2. The process of change over over time (three major shifts…phases)

1. **How to go about 'initiating' change**
2. **How to go about 'implementing' change**
3. **How to go about 'institutionalizing' change**

So, what factors are key to each phase/shift?

Keep in mind that we spend most of our time initiating change…and even there, we typically fall short.

A Comparison…
the process of Chess & Change

Chess

- Beginning
- Mid Game
- End Game

(note that the end game is the most complex)

Educational Change

- Initiation
- Implementation
- Sustaining/developing the internal capacity

(note that developing the internal capacity is the most complex)

Phase 1: initiation – 8 factors
…pick the key killer of change

1. Quality of the innovation need, practicality
2. Access to the innovation
3. Advocacy from central administration
4. Teacher and principal advocacy
5. External change agents
6. Stakeholder pressure/support/apathy
7. Policy funds for the innovation
8. Problem solving and bureaucratic orientations
9. Connecting to/respecting previous change efforts

Phase 1: initiation – 8 factors

RED= is the killer BLUE=danger zone

- 1. Quality of the innovation **need, practicality**
- 2. Access to the innovation
- 3. **Advocacy from central administration**
- 4. Teacher and **principal advocacy**
- 5. External change agents
- 6. **Stakeholder pressure/support/apathy**
- 7. Policy funds for the innovation
- 8. Problem solving and bureaucratic orientations
- 9. **Connecting to/respecting previous change efforts**

Phase 2: Implementation – 6 factors
Pick the key killer of implementation

- 1. Power of the innovation
- 2. Learning Process/Quality
- 3. Attention to Levels of Use from CBAM
- 4. Building Connections with Stakeholders
- 5. Building Internal Capacity
- 6. Researching the process and impact (start with qualitative at this phase)

Phase 2: Implementation – 6 factors

RED= is the killer BLUE=danger zone

PURPLE=emerging as key to assessment

- 1. **Power of the innovation**
- 2. **Learning Process/Quality**
- 3. **Attention to Levels of Use from CBAM**
- 4. Building Connections with Stakeholders
- 5. Building Internal Capacity
- 6. Researching the process and impact (start with qualitative at this phase)

Assessing change efforts (rubric)

Implementation Below in Chart 3 are the factors we selected from Chart 1 for implementation: Power of the innovations, quality of the learning processes, levels of use, connecting stakeholders, building the internal capacity, and researching the process.

Chart 3: Rubric on the factors affecting implementation (bold represents our level or levels)

Factors	Level 1	Level 2	Level 3	Level 4
Power of the Innovation(s) (this refers to the effect size of each innovation on student learning)	little to no attention paid to power – most innovation have low power	beginning to think about power – and some innovations are more powerful	**working at understanding power; a clear shift occurring towards selecting more powerful innovations**	clear understanding of power and educators consider power when making instructional decisions

Phase 3: Continuation – 6 factors

Pick the key killer of continuation

1. Project is embedded in district culture - willingness to continue funding
2. On-going support of the principal
3. Planning for staff turnover – [keeping key players]
4. Building the internal capacity to continue
5. On-going support of all stakeholders through policy and programs**
6. Researching and reporting on multiple aspects of the change project (qualitative and quantitative)

Conundrum

- **If you can't play the game you are going to lose.**
- **In educational chess … you will at best perpetuate mediocrity**

#2. Summary

What do Mind Maps, framing questions, the three phases of change and Think Pair Share have in common?

They are all innovations that require a collective knowledge/understanding, skill and practice to make them 'come alive'.

#3 The classification of change: 3 genres
(The work of Robert Ellis)

Level 1: Grounded Research…searching for patterns, innovations

Level 2: Research on the impact of an innovation in a classroom, or a few classrooms and schools

Level 3: Research on the impact of an innovation on the system (most to all classrooms/schools in a system)

Level 3 is the rarest of all three levels of research.

3 Genres Defined using David Perkins (Harvard)
4 Questions from his text '*Knowledge as Design*'

1. What is the structure of the concept (its essential characteristics or attributes)?
2. What is the purpose of the concept?
3. What are the model cases of the concept?
4. What is the value of the concept?

Perkins argues that if the learner cannot answer those 4 questions related to a concept…the the concept owns the learner (simple Knowledge as Information)

Perkins 4 Questions
Common Denominator(CD)

1. **Structure:** a number that the denominator of two proper fractions being added or subtracted will fit into equally.
2. **Purpose**: to facilitate the adding or subtracting of two proper fractions
3. **Model Cases:** 1/2 +1/3…CD = 6, 2/5+3/4…CD=20
4. **Value:** solve problems involving adding fractions with unlike denominators.

Level 1: Grounded Research

1. **Structure:** An inquiry to collect data related to a question…often from an hypothesis; qualitative/narrative in structure
2. **Purpose:** to investigate ideas…search for alternatives, better ways…often results in a deeper understanding, development of an innovation
3. **Model Cases:** attributes of effective group work, Multiple Intelligence, brain research & emotions
4: **Value:** production of wisdom, more effective ways of thinking/acting…for educators…teaching

Level 2: Impact in a classroom, or a few classrooms and schools

1. **Structure:** limited research, qualitative and quantitative that inquires on the impact of an innovation on student learning.

2. **Purpose:** to assess effectiveness of an innovation

3. **Model Cases:** impact of wait time in questioning on student responses; impact of effective group work on student achievement

4: **Value:** Develop confidence/support for decisions made in the design of learning environments

(Most common type of educational research.)

Level 3: Impact on the system
(most to all classrooms/schools in a system)

1. **Structure:** pervasive, long term research, qualitative and quantitative, that inquires into the impact of an innovation on student learning at the level of the system

2. **Purpose:** to assess effectiveness of an innovation

3. **Model Cases:** ETBI's Instructional Leadership Program (Ireland); Durham Board's Bertelsmann award (Toronto, Canada)

4: **Value:** Develop confidence/support for decisions made in the design of learning environments at the level of the system

Side Bar – Level 3 Research

Michael Fullan, one of the most respected educator/researcher/writers on educational change in the world wrote article published out of the University of Melbourne in 2011. The article focused on the Four *Wrong Drivers of Educational Change.* He then identified the one key 'right' drivers of educational change. **Focus on improving the instructional practices of all teachers within a system.** The ETBI is working to do that…now 13 years into the project.

#4. The process of learning and transfer …acquisition

This section focuses on how we acquire knowledge/information/theory/skills and then how we transfer that learning from the workshop to the workplace.

That answer is fairly logical

What do you think would be the components or steps of learning a skill…say 'how to wax a cross country ski' to prepare it for going skiing?

Your sitting in the workshop…what do you expect will happen??

That answer is fairly logical

Would these seem logical?

1. **Get some information…maybe some theory**
2. **See a demonstration…someone models how to do it**
3. **You get a chance to practice and**
4. **You get some feedback on how you are doing**

That answer is fairly logical

Would that be enough?

If not, why? What would you want as an additional step?

Consider what happens in a soccer game…or you get back to the garage and now you have to change the brakes on the car.

Skill Training Model: Peer Coaching

Training Criteria	Understanding	Skill Acquistion	Transfer of Learning
Theory /Information (T)	Minimal	3 %	0 %
(T) Plus Modeling (M)	Increases a bit	5 to 10 %	3 to 5 %
TM Practice and Feedback PF)	Basic introductory understanding	90 %	5 to 10 %
TMPF Peer Coaching/follow-up support	Deeper more integrative understanding… especially as time increases	> 90 %	> 90 %

#4. Summary

The process of learning and transfer …acquisition

We need all five components

1. **The presentation of theory or information etc.**
2. **A demonstration or a model or modeling (visual)**
3. **Chance to practice in the workshop/course**
4. **Get feedback on that practice**
5. **Get follow-up support back at the workplace (classroom/school)**

#5. The process of learning and transfer …refinement

This section extends #4 to now include dealing with how we refine and extend our use of the innovation over time.

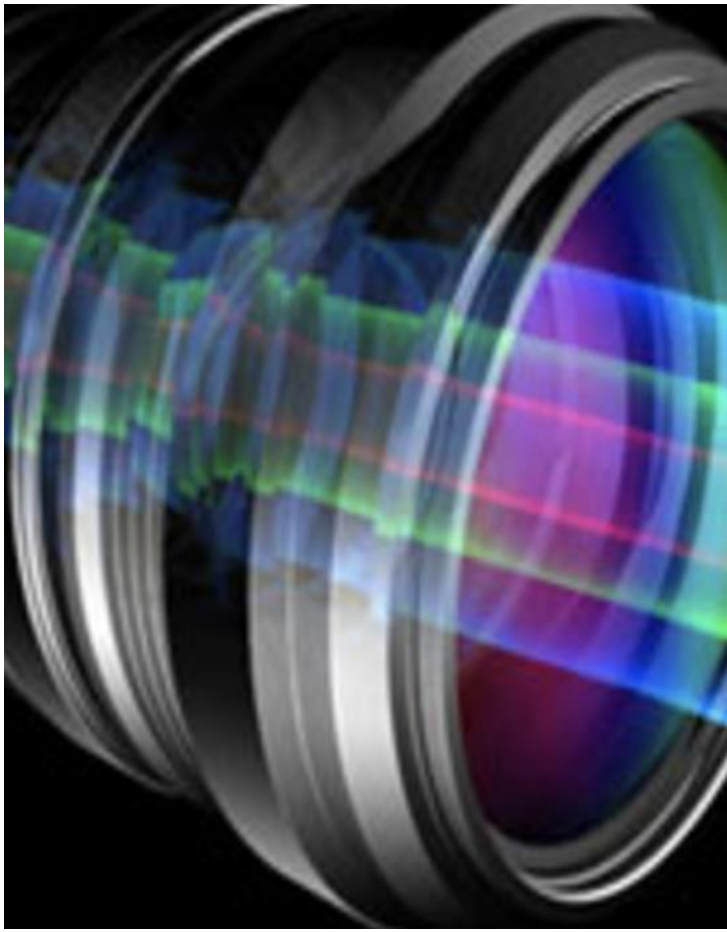
Keep in mind that it is not the ‘piano lesson’ that makes one a great pianist; it is the effort done between the lessons.

Key Flaws in Professional Development of Teachers

- One day workshops
- Don’t come in teams
- No follow-up support
- Principal does not attend
- Few pay attention to the research on change
- Don’t stay with anything long enough to get good at it

One Key Lens to Assess Change Over Time

- **Concerns Based Adoption Model (CBAM)**
- **Developed by Gene Hall and Shirley Hord**
- **Over 40 years of research**
- **Millions of dollars on their research**
- **Few use it because they don't stick with something long enough to take advantage of their work**



Two Main Lenses

Levels of Use

Refers to shifts in level of skill over time

Can take several years to shift from one level to another

One can also shift 'backward'

Stages of Concern

Refers to concerns people have as they shift from one level of use to another…natural

Concerns don't go away…they simply become more sophisticated

Levels of Use of an Innovation
e.g. instructional methods

- ***Non User***
- ***Orientation***
- ***Preparation***
- ***Mechanical***

No Impact on student learning

- **Routine**
- **Refined**
- **Integrative**

Impact on student learning

Levels of Use of an Innovation

No to little student benefits

- Non-use – you've never tried it/may know about it
- Orientation – you're finding out; taking a course etc.,
- Preparation – you're planning your first attempt
- Mechanical – you're starting, not that effective yet

Noticeable to very noticeable student benefits

- Routine – you've done it quite a bit; getting smooth
- Refined – you are very skilled; expert level
- Integrative – you are integrating it with other methods

Applying Levels of Use to an instructional skill: Framing Questions

	Mechanical	Routine	Refined
All students actively involved	Few students are actively involved	Most students usually actively involved	Most to all students actively involved most of the time
Teacher balances accountability and safety	Seldom – often one or the other but not both; less effective	More often both; reasonable effective	Almost always both; enacted effectively
Appropriate Wait Time	Working at it but not always appropriate	Usually applies it and most often appropriate	Almost always applies it precisely
Teacher aware of the Level of Thinking re a taxonomy of thinking such as Bloom's taxonomy	Knows about Bloom's but struggling to apply it effectively; students do not know about Blooms	Understands Bloom's and becoming more skilled at applying; Students beginning to learn Bloom's	Understands and effectively applies Bloom's taxonomy most of the time; students also skilled at Bloom's
Teacher responds effectively to student responses	At times, but not always that effective	Becoming more proficient; usually quite skilled	Effectively and consistently responds effectively
Teacher shifts from Covert to Overt	At times, but too often not intentional	Most of the time; usually when required, but not a lot of variety	Most of the time or when appropriate, uses variety in enacting
Teacher distributes questions and distributes wisely	A few students respond to most questions	Most students more frequently involved	Most to all students appropriately involved

Mechanical Level of Use

- A pirate walked into a bar, and the bartender said, "Hey, I haven't seen you in a while. What happened? You look terrible."
- "What do you mean?" said the pirate, "I feel fine."
- "What about the wooden leg? You didn't have that before."
- "Well," said the pirate, "We were in a battle, and I got hit with a cannon ball, but I'm fine now."
- The bartender replied, "Well, OK, but what about that hook? What happened to your hand?"
- The pirate explained, "We were in another battle. I boarded a ship and got into a sword fight. My hand was cut off. I got fitted with a hook but I'm fine, really.."
- "Well what's with the eye patch?" "Oh," said the pirate, "One day we were at sea, and a flock of birds flew over. I looked up, and one of them shit in my eye."
- "You're kidding," said the bartender. "You couldn't lose an eye just from bird poop."
- "Well, It was my first day with the hook."

Summary Rubric: How would you assess the 'learning process' for educators in this project?

	Level 1-Mechanical	Level 2-Routine	Level 3-Refined
Training process I, T, M, P, PC	I, M., usually no chance to practice.	I, T, M, some P, no to little coaching.	I, T, M, P and follow up support (PC).
Support by principal in terms of attending the workshop and back at the school	Virtually none; principal usually does not attend workshops.	Principals starting to be more supportive; at times attends workshops.	Principal very supportive; whenever possible attends workshops.
Opportunity to work with other teachers	Little to no opportunity.	Some opportunity but not sufficient.	Usually adequate; at times with teachers from other schools.
Support by organizational leaders/building internal capacity	Little to know support; little thought put into developing internal capacity.	Becoming more involved; supporting a shift to developing internal capacity.	Clearly supportive(at multiple levels) and working collaboratively to build internal capacity.

Mechanical = Implementation Dip

- Things will get worse before they get better

- The only way to avoid the dip is to go to the workshop but don't ever try to implement it.

Mechanical Level of Use

"I know I'm not supposed to interfere, but how's the dog going to climb through that?"

Stages of Concern when implementing an Innovation … e.g. instructional methods

- *No Concerns*
- *Information Concerns*
- *Personal Concerns*

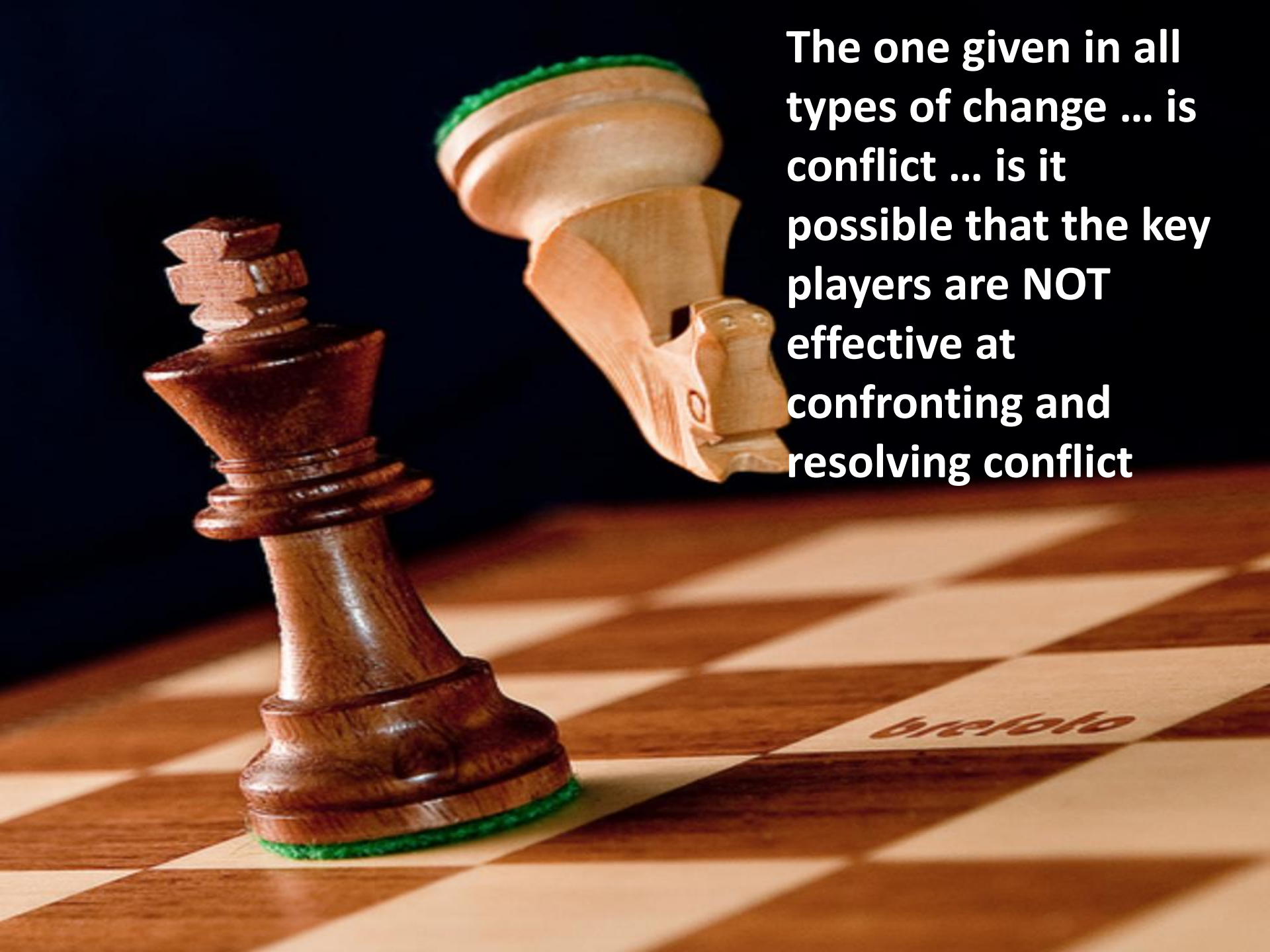
No Impact on student learning

- *Impact Concerns*
- Collaborative Concerns

Impact on student learning

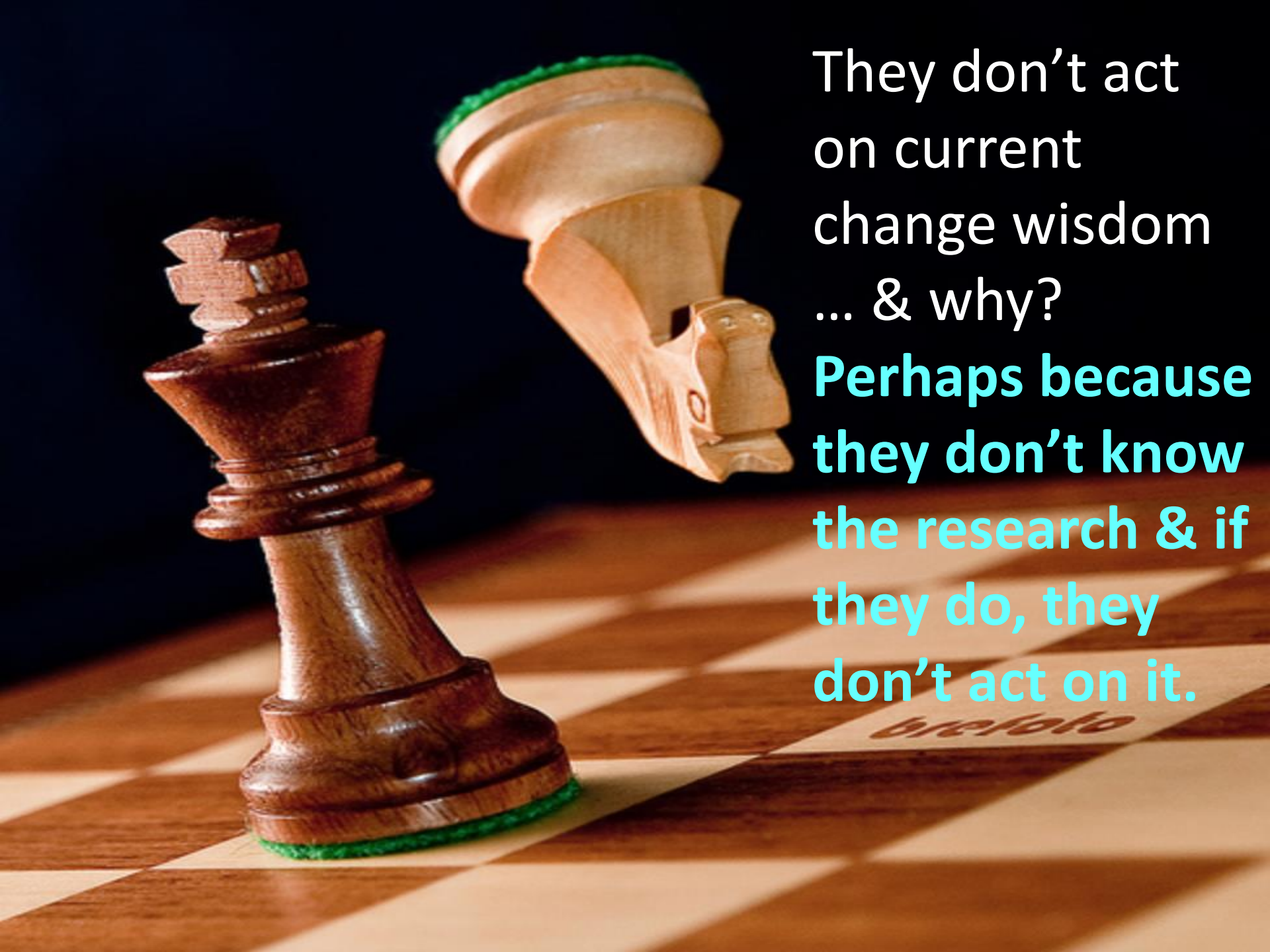
Summary of Part A…ideas for Part B

- People approach change differently
- Career cycle impacts how they approach change (beginning, middle, end)
- School Culture impacts change efforts
- Conflict and change are like ice-cream to the cone
- Conflict and change are neither good nor bad; how we approach them determines the outcome


The one given in all types of change … is conflict … is it possible that the key players are NOT effective at confronting and resolving conflict


Why?


They don’t act
on current
change wisdom
… & why?


They don’t act on current change wisdom … & why?
Perhaps because they don’t know the research & if they do, they don’t act on it.

Humour sums it up…

Common advice from knowledgeable horse trainers includes, "If the horse you're riding dies, get off." This seems simple enough, yet in the education business we don't always follow that advice. Instead we choose from an array of other alternatives, which include the following:

Horse analogy…

- Buy a stronger whip
- Trying a new bit or bridle
- Switching riders
- Moving the dead horse to a new location
- Riding the dead horse for longer periods of time
- Saying things like: “This is the way we’ve always ridden dead horses”
- Appointing a committee to study the horse

Horse analogy…

- Visiting other sites where they ride dead horses more efficiently
- Increasing the standards for riding dead horses
- Creating a test to measure our riding ability
- Comparing how we ride today with how we rode twenty years ago
- Complaining about the standard of horses these days
- Coming up with new styles of riding
- Blaming the horses parents – the problem is often in the breeding

Key Point…

The mindset that works for whole system reform is the one that inevitably generates

individual and collective motivation and

corresponding skills to transform the system.

Michael Fullan