

The Stem of Meaningful Learning

Dr. Bassem Kandil
Bassem.kandil1@usj.edu.lb
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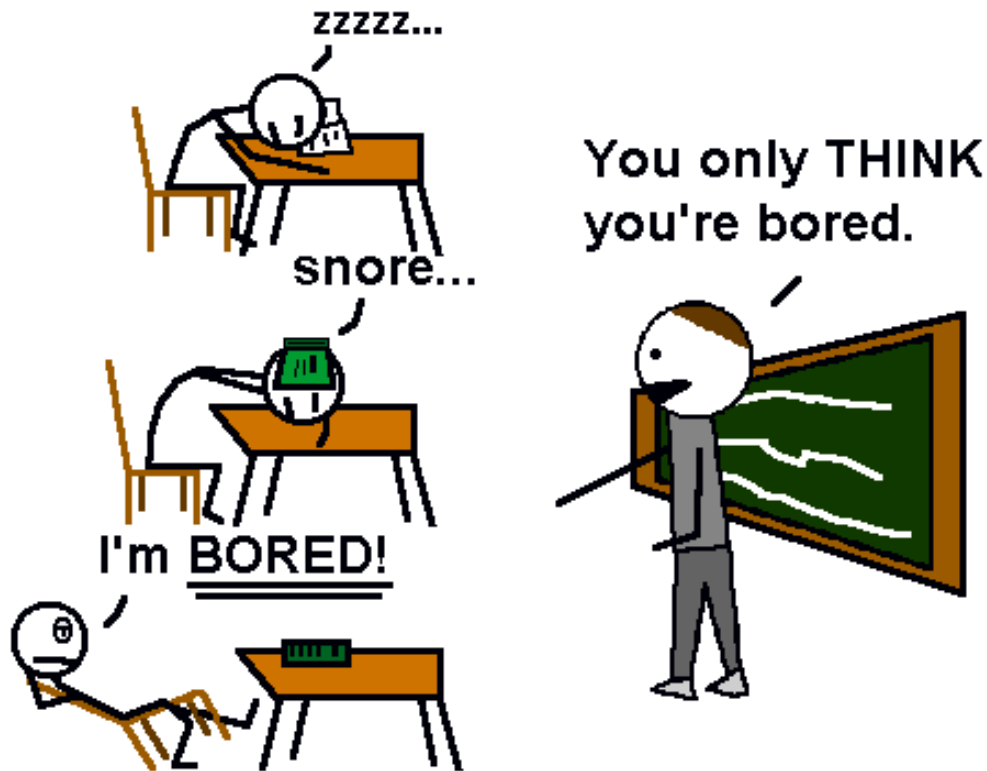
Issues facing many Educational Systems
in the world!

مشاكل تواجه العديد من النظم التعليمية في العالم

Symptom #1

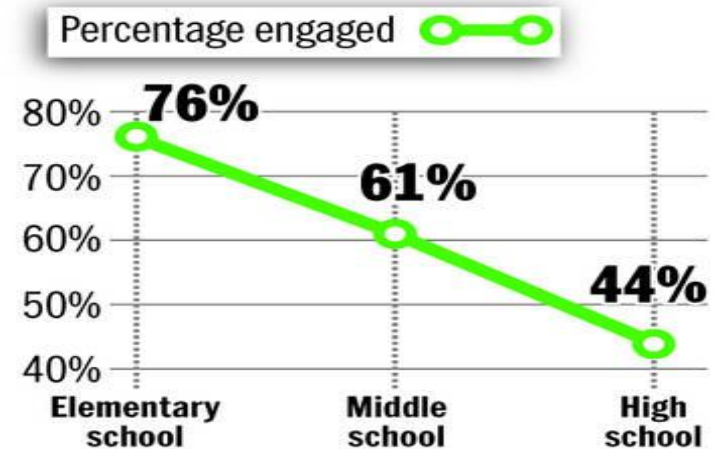
Boredom in Schools

الملل في المدارس



Students disengage from school as they get older

Student engagement is highest in elementary school, lowest in high school



SOURCE: Gallup Student Poll

DESERET NEWS GRAPHIC

Symptom #2

Unacceptable students' behaviors

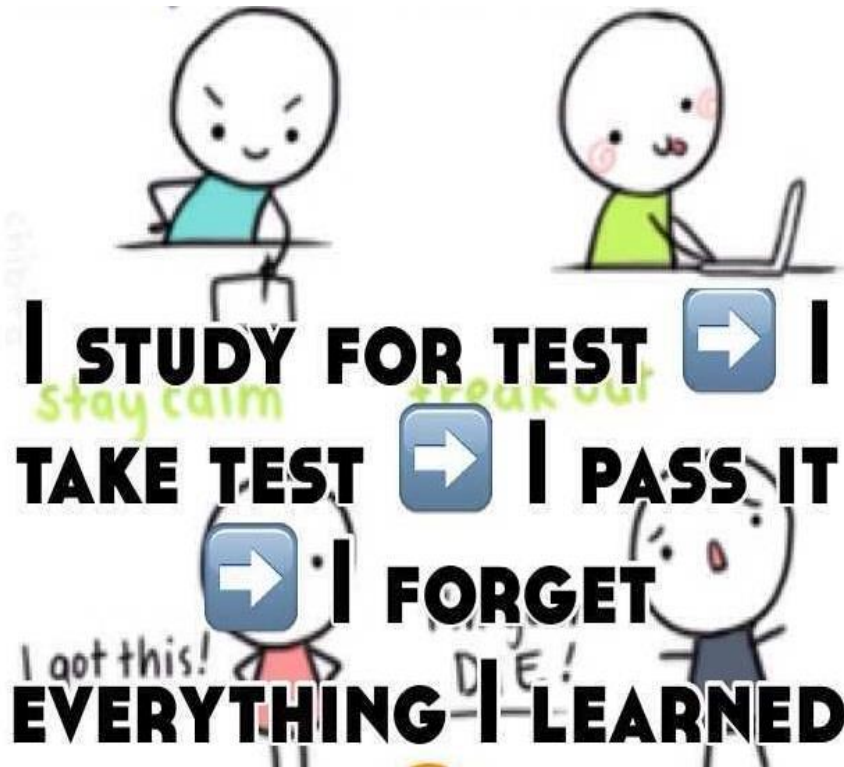
تصرفات او سلوكيات الطلاب غير المقبولة



Symptom #3

Forgetting everything they learned (at the end of the academic year)

نسيان ماتم تعلمه



Sometimes I wonder why I go to school if I'm just going to forget everything I learned anyways. I mean, my mom forgot, my sister forgot, aunt and uncle. I want to learn something I'll remember not forget.

Symptom #4

The prosperity of private tutoring...

إزدهار التعليم الخصوصي...



Private Tutor

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa.

Symptom #5

Grades are more important than learning?!

العلامات أهم من التعلم؟

Final ACADEMIC MARKS						
1st Qtr	2nd Qtr	1st Sem	3rd Qtr	4th Qtr	Fnl Exm	Fnl Mrk
A	A		B+	B		B+
B+	C+		C+	C		C+
B+	B+		B+	B		B+
B	D+		C	C+		C
B+	C		C	C+		C+
B+			B+	B		B
B	B+		B+	A		B+
						B+



Symptom #6

Underachievement in International Exams

اداء متدني في الإمتحانات العالمية؟

The performance of our students (MENA region) on international exams such as TIMSS and PISA is below average, and it is getting worse with time!



**TIMSS
&
PIRLS**

Symptom #7

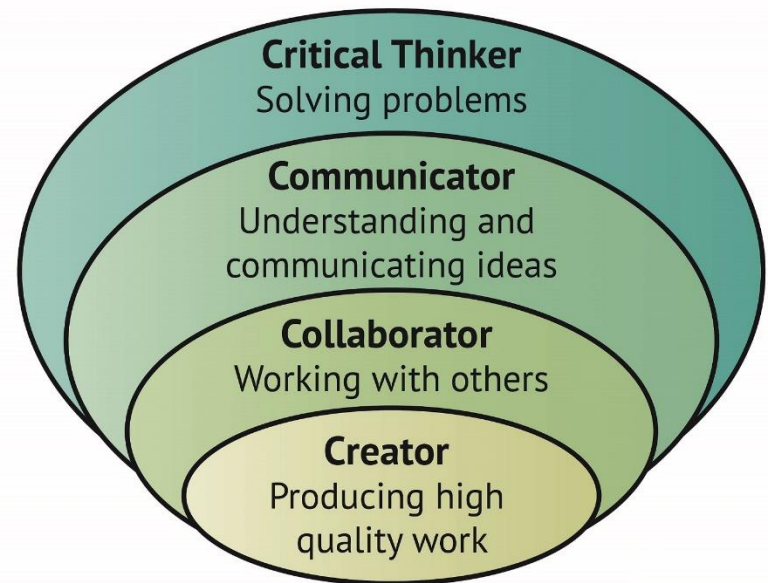
Low performance levels concerning 21st century skills

Are our students:

- Critical thinkers?
- Problem solvers?
- Good communicators?
- Good collaborators?
- Innovative and creative?

...

The Four Cs of 21st Century Skills



Symptom #9

Unemployment Crisis

مشاكل البطالة

So, our students (future workers) are not equipped with the skills required by the jobs of the future...



The main causes

- Those that are related to the teaching/learning,
- Those that are related to assessment



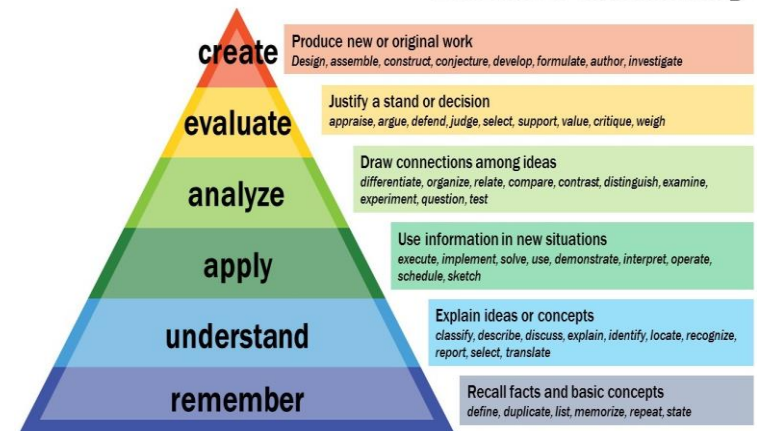
Possible causes related to teaching / learning

Rote Learning

Rote or passive learning, lower- order thinking, and inert knowledge, are all routines or practices we suspect are taking place in our educational system.



Bloom's Taxonomy





Common lesson planning pitfall

One of the weaknesses of lesson planning / instruction is that it focuses on the short term goal(s) of learning the content. For instance, Romeo and Juliet:

Did you read Romeo and Juliet?

Do you remember some of the key scenes?

Do you understand the relationship between families and how they impacted the relationship between R&J?

None of the above is the long term transfer goal...

A **LTG** could be : Can you transfer your learning about R&J and families strive to other contexts and to your own life in terms of understanding families' strive?



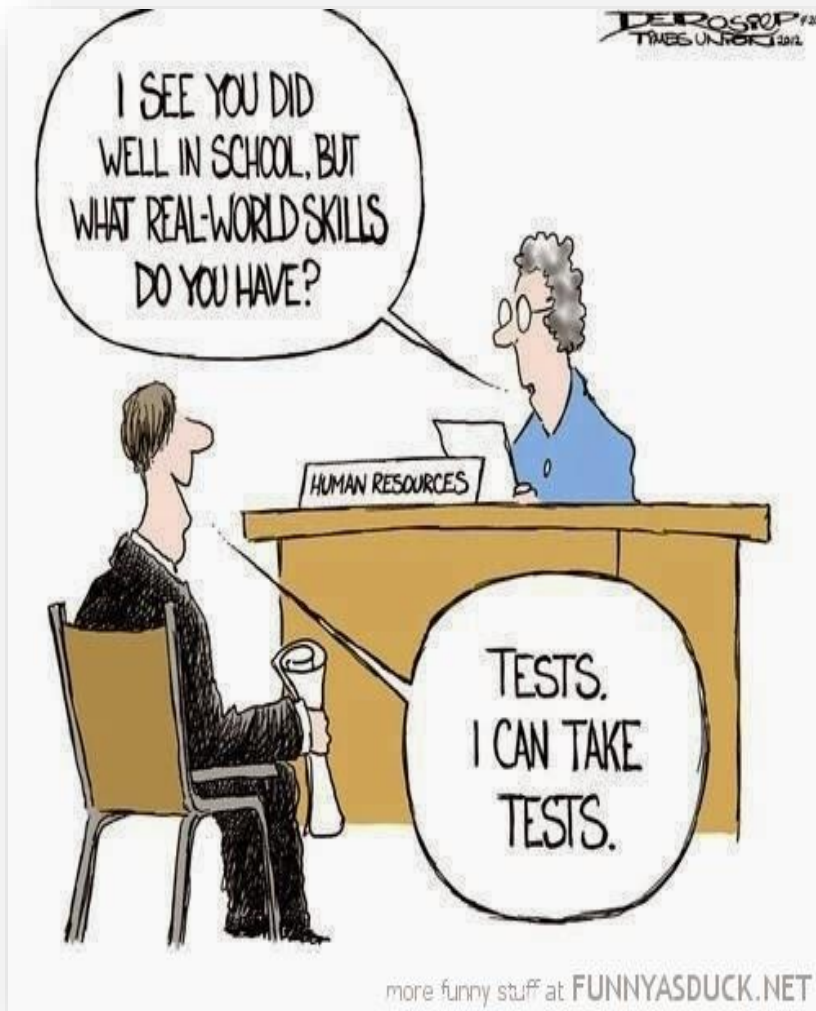
Common lesson planning pitfall

Emphasis on short term goals is usually followed by:

“Did you learn what I just taught you?” types of assessment...

Possible causes related to assessment

Teaching to the test (test pollution)



We tend to prepare our students for upcoming tests by solving questions (or providing hints and clues) that are similar to the questions on the tests...

- Title of the chapter
- Interrelated parts in the same question that act as hints ...
- ...



Causes related to assessment

Lack of Authentic Problems

- Lack of problem solving that are contextualized in real-life situations. So, if our unit about fractions, then

Possible causes related to assessment

The emphasis on Summative assessments rather than on Formative ones.

Formative assessment is a process not an event
The importance of feedback...

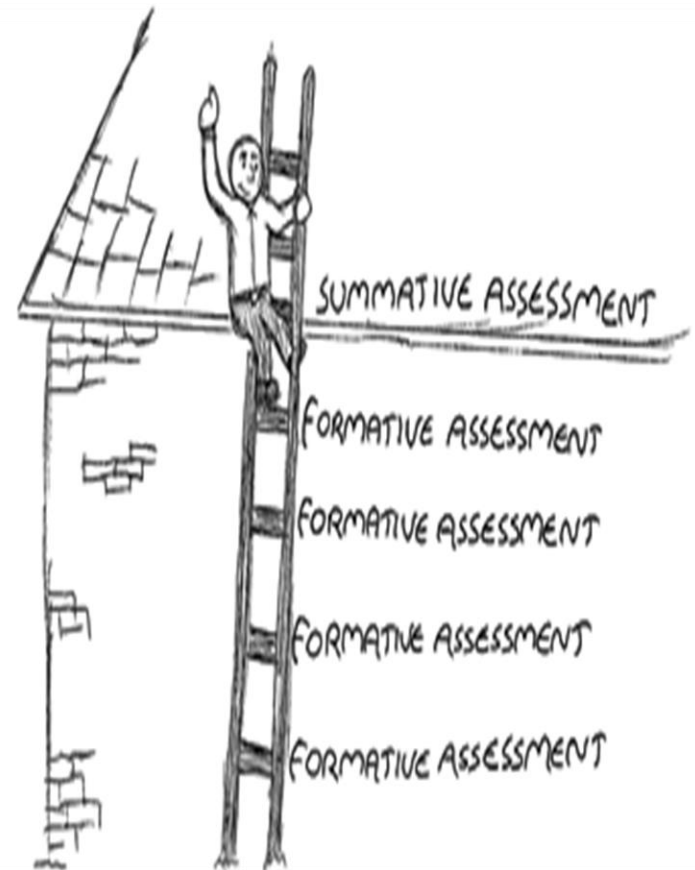
FORMATIVE SUMMATIVE



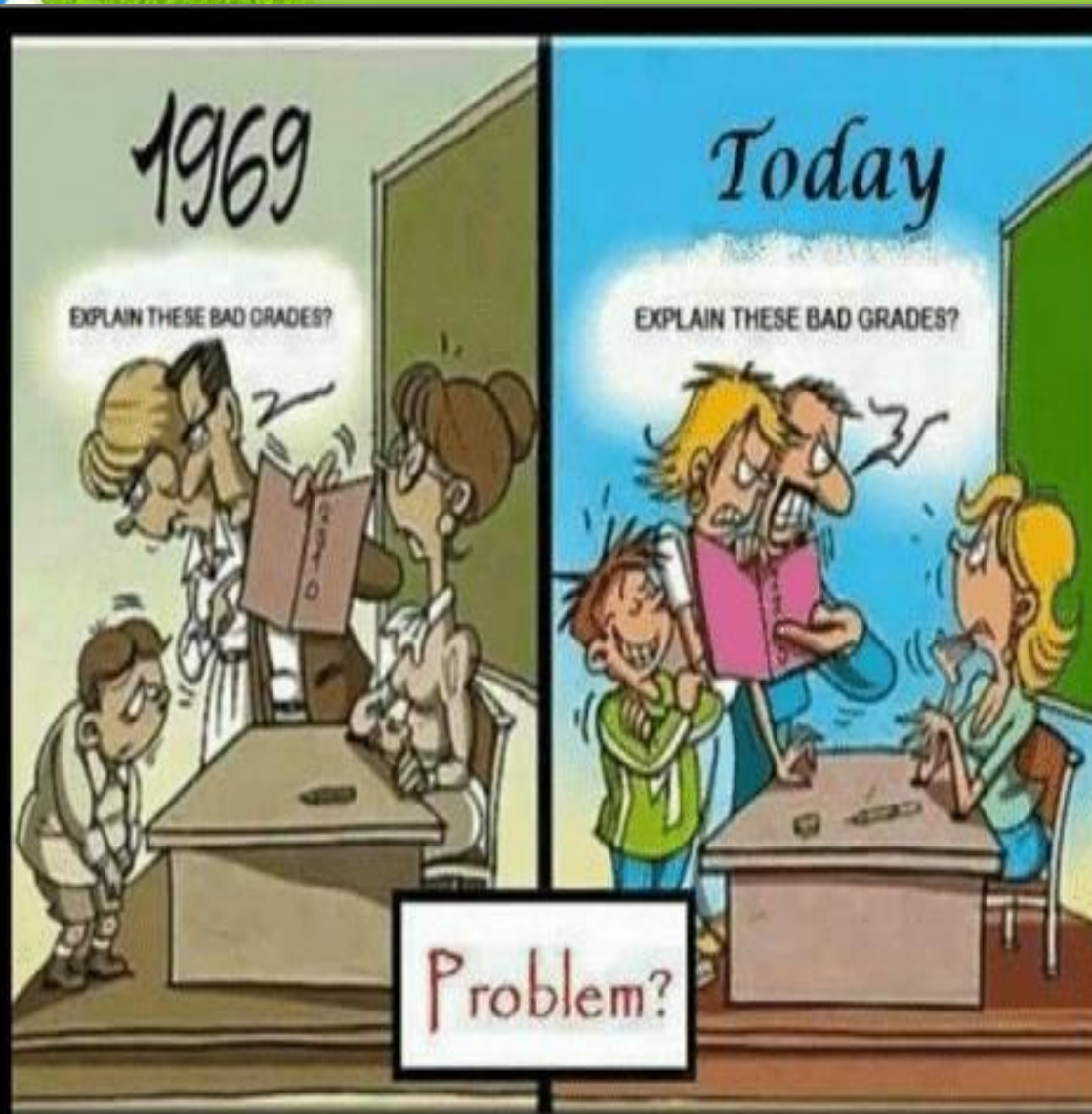
WHEN THE CHEF
TASTES THE SOUP



WHEN THE GUESTS
TASTE THE SOUP



Possible causes related to assessment Grades Inflation



In an attempt to avoid conflict with parents and / or administration, some teachers are being extremely generous in assigning grades to students...



Reforms keep failing....

الإصلاحات تستمر بالفشل

- Outputs at work are the results of more than the workers' individual skills and individual efforts. A third and powerful factor is the effect of the system on the output" (Leonard, 1991, p. 139).

النواتج في العمل لا تتعلق فقط بالمهارات الفردية للعمال والجهود الفردية. العامل الأهم والأقوى هو تأثير النظام على هذه المخرجات

- Senge (2006) considered systems thinking as "the discipline for seeing interrelationships rather than things, for seeing patterns of change rather than static snapshots" (p. 68).

- <https://www.youtube.com/watch?v=yuvHvi84TFw>



Reforms keep failing....

الإصلاحات تستمر بالفشل

- Systemic Issues
- Stakeholders are not able to identity the root causes of the issues or problems. Something that calls for the collection and analysis of relevant data...

One possible cause is the *lack of meaningful learning*.



Meaningful Learning

- Educators need to aim for *transfer* of learning in everything they do (planning, instruction, assessment). As such, they need to provide the opportunities and secure the conditions that allow learners to construct knowledge and pursue deep understanding.

**(Deep Understanding → Transfer of Learning →
Meaningful Learning)**