TEACHING CRITICAL THINKING FOR DEMOCRATIC PARTICIPATION

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The structure of the presentation

- **Question 1.** The Concept and the Content: What we mean by CRITICAL THINKING and What skills and thinking strategies critical thinking includes.

- **Question 2.** Teaching and Implementation: What research suggests concerning Teaching Critical Thinking.

- **Question 3.** The relationship: Critical thinking and democratic participation

Question 1. The Concept and the Content: What we mean by CRITICAL THINKING - Skills and Thinking strategies

- Different theoretical paradigms lead to different approaches and definitions.

  (e.g. Ennis, 1987, 1989; Facione, 1990a; Halpern, 1998, 2002; Kurfiss, 1988; Lipman, 1988; Paul, 1981, 1992; Siegel, 1985; Sternberg, 1986).

Critical Thinking as Defined by the National Council for Excellence in Critical Thinking, 1987

- Critical thinking is the intellectually disciplined process of actively and skillfully:
  - conceptualizing, applying, analyzing, synthesizing, and/or evaluating information
  - gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.
- In its exemplary form, **it is based on universal intellectual values that transcend subject matter divisions**: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness.

Critical Thinking Defined by Edward Glaser (1941)

- "The ability to think critically involves three things: (1) an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one's experiences, (2) knowledge of the methods of logical inquiry and reasoning, and (3) some skill in applying those methods."

Skills and dispositions…

CT combines skills and dispositions

- Dispositions refer to characteristics of personality, attitudes or trends, that is, the motivation and inclination of the learner to be involved in meaningful critical thinking.
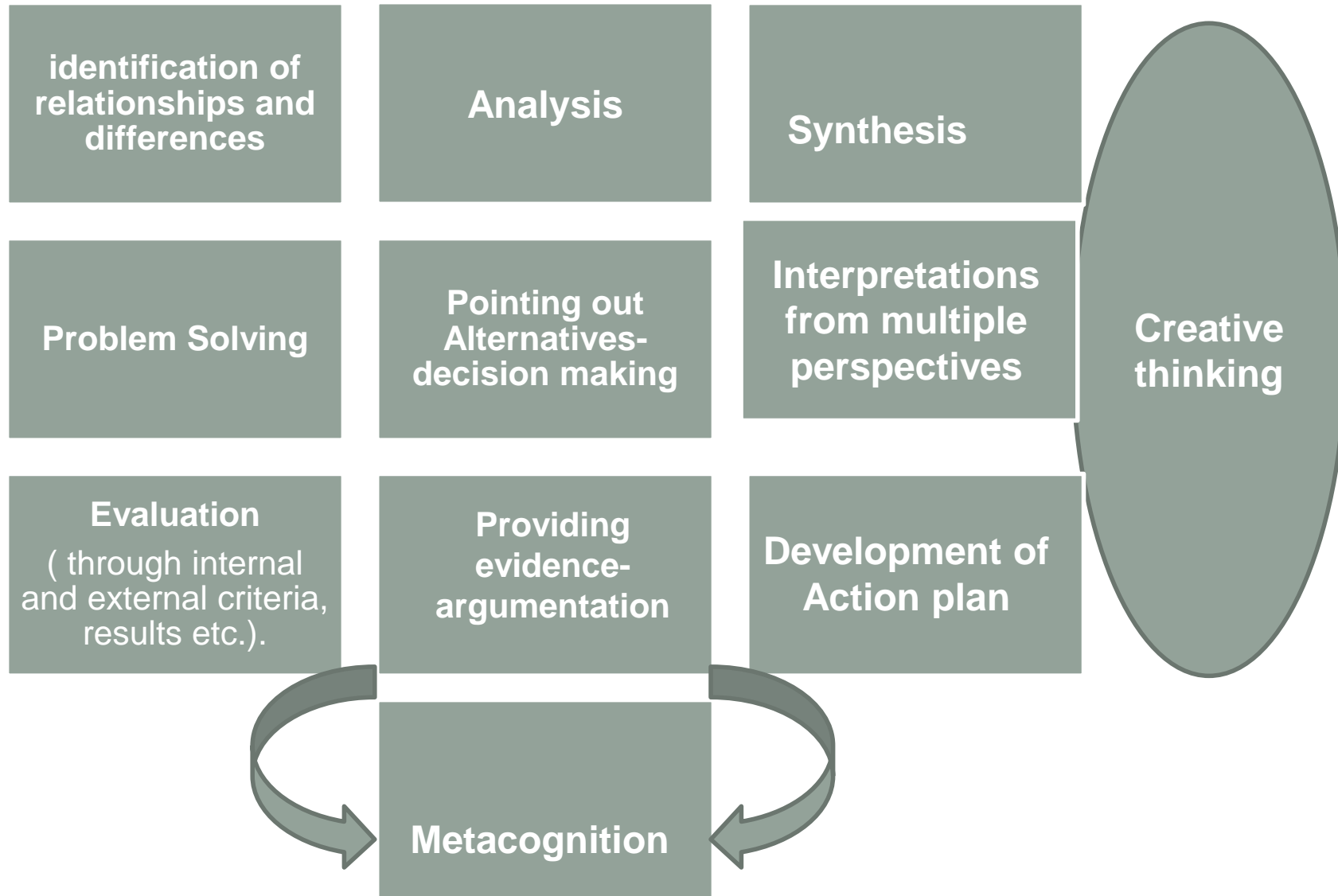
- a) open-mindedness, b) self-confidence, c) willingness to think his/her own thinking, e) truth-seeking, f) perseverance to revisions and results, g) self-control, h) appreciation and value for hard work.

Definitions…

- **SKILLS**

- All cognitive and meta-cognitive skills known in the literature: from Bloom *(analysis, synthesis, evaluation)* to Flavell and contemporary research *(knowledge of cognition, self-direction and regulation of cognition)*.

- They refer, among others, to:

  - Analysis *(e.g. examining ideas, comparing, analyzing arguments …)*

  - Interpretation *(e.g. categorizing, decoding significance, clarifying meaning …)*

  - Evaluation *(i.e. assessing credibility of claims, assessing quality of arguments)*

  - Inference *(i.e. querying evidence, conjecturing alternatives, drawing conclusions…)*

  - Explanation *(i.e. stating results, justifying procedures, presenting arguments..)*

  - Self-regulation processes *(i.e. self-evaluating, self-correcting).*

(Facione, 1990)
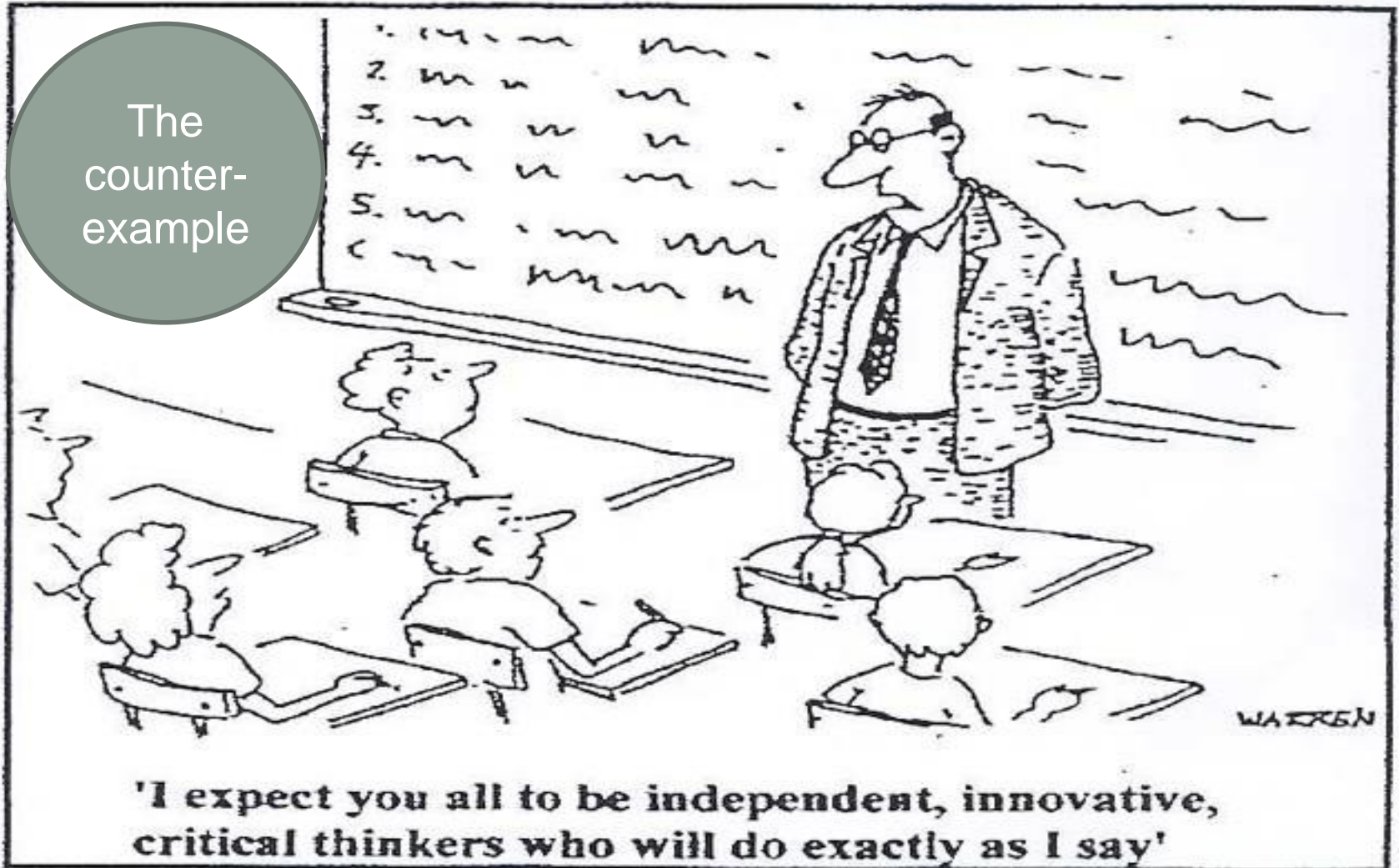
Critical Thinking Skills

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identification of relationships and differences	Analysis	Synthesis	
Problem Solving	Pointing out Alternatives- decision making	Interpretations from multiple perspectives	Creative thinking
Evaluation (through internal and external criteria, results etc.).	Providing evidence- argumentation	Development of Action plan	

Metacognition

Metacognition

- The ability to reflect on one's thinking in such a way as to recognize its strengths and weaknesses and, as a result, to recast thinking in an improved form, if needed.

'I expect you all to be independent, innovative, critical thinkers who will do exactly as I say'

Question 2. Teaching and Implementation: What research suggests concerning Teaching Critical Thinking

Research data proved:

- Teacher professional development programmes and teacher empowerment, training & support in preparation for teaching for critical thinking, have a positive impact on strengthening teachers' effectiveness to teach CT.
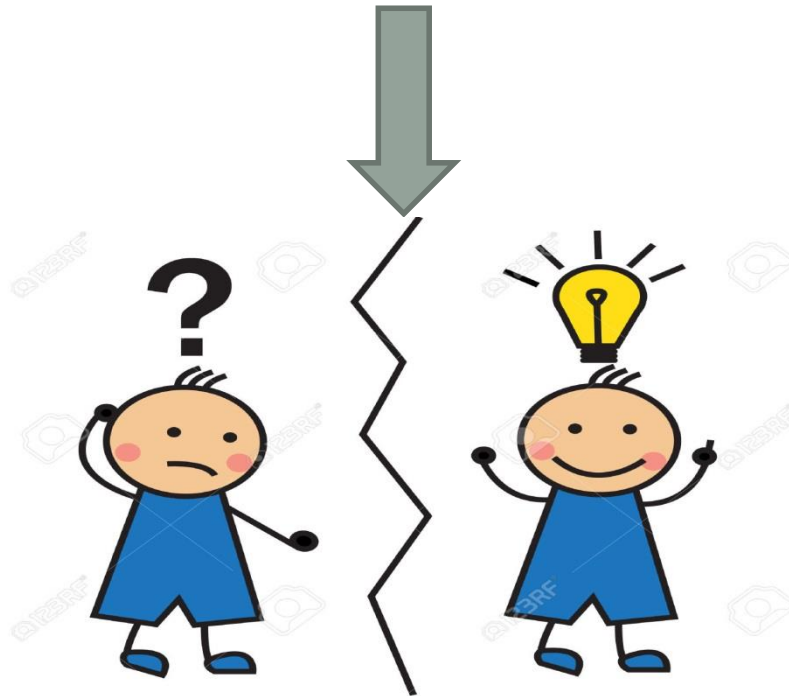
  (e.g. Abrami et al., 2008; Barnes, 2005; Ennis, 1987; Flores et al., 2012; Gul et al., 2014; McGuinness, 1999; Paul, 2005; Paul et al., 1997; Shim & Walczak, 2012).

Research: Teaching dilemmas

Guidance & Modelling Vs Self direction & Creativity

Explicit Vs Implicit Teaching

Mastery of specific content Vs Thought is free of content

Teaching for critical thinking – Presuppositions

- Through all subjects

- Mastery of context-specific knowledge

- Avoidance of prescribed routines of thinking

- Thinking is reflective and self – directive but it does not work in an empty knowledge system and without skills

Reflective thinking and skills' building

- Reflective thinking is itself an analytic and evaluative process.

- Healthy skepticism and questioning should be enriched by skills of documentation and argumentation.

Top 10 Skills

| 2020	2015
1 Complex problem solving	1 Complex problem solving
2 Critical thinking	2 Coordinating with others
3 **Creativity**	3 People management
4 People management	4 Critical thinking
5 Coordinating with others	5 Negotiation
6 Emotional intelligence	6 Quality control
7 Judgment/decision-making	7 Service orientation
8 Service orientation	8 Judgment/decision-making
9 Negotiation	9 Active listening
10 Cognitive flexibility	10 **Creativity**

(Future of Jobs Report, 2016)

Guidance & Modeling Vs Self Direction & Creativity

- A critically conscious educational system is sensible to the complexity of the public and social life.

- It understands that there is no only one way to develop critical thinking and that learners differ in the way they receive the same instruction.

- Thus, a rich environment and multiple teaching strategies should be provided from direct teaching and modeling to scaffolding and self-reflection.

Explicit Vs Implicit Teaching

- According to <u>meta-analytic studies</u>, explicit instruction on CT has positive effects on students' CT outcomes while <u>the mixed approach</u> has the largest effect *(e.g. Abrami et al., 2008; Bangert-Drowns & Bankert, 1990; Behar-Horenstein & Niu, 2011; Niu et al., 2013)*.
- Educators should approach critical thinking instruction both by integrating critical thinking into regular academic content and, by teaching general critical thinking skills as a stand-alone component.
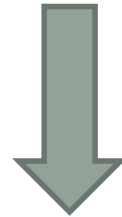
Teaching as a democratic procedure

- **Taking into account students' learning style and needs**
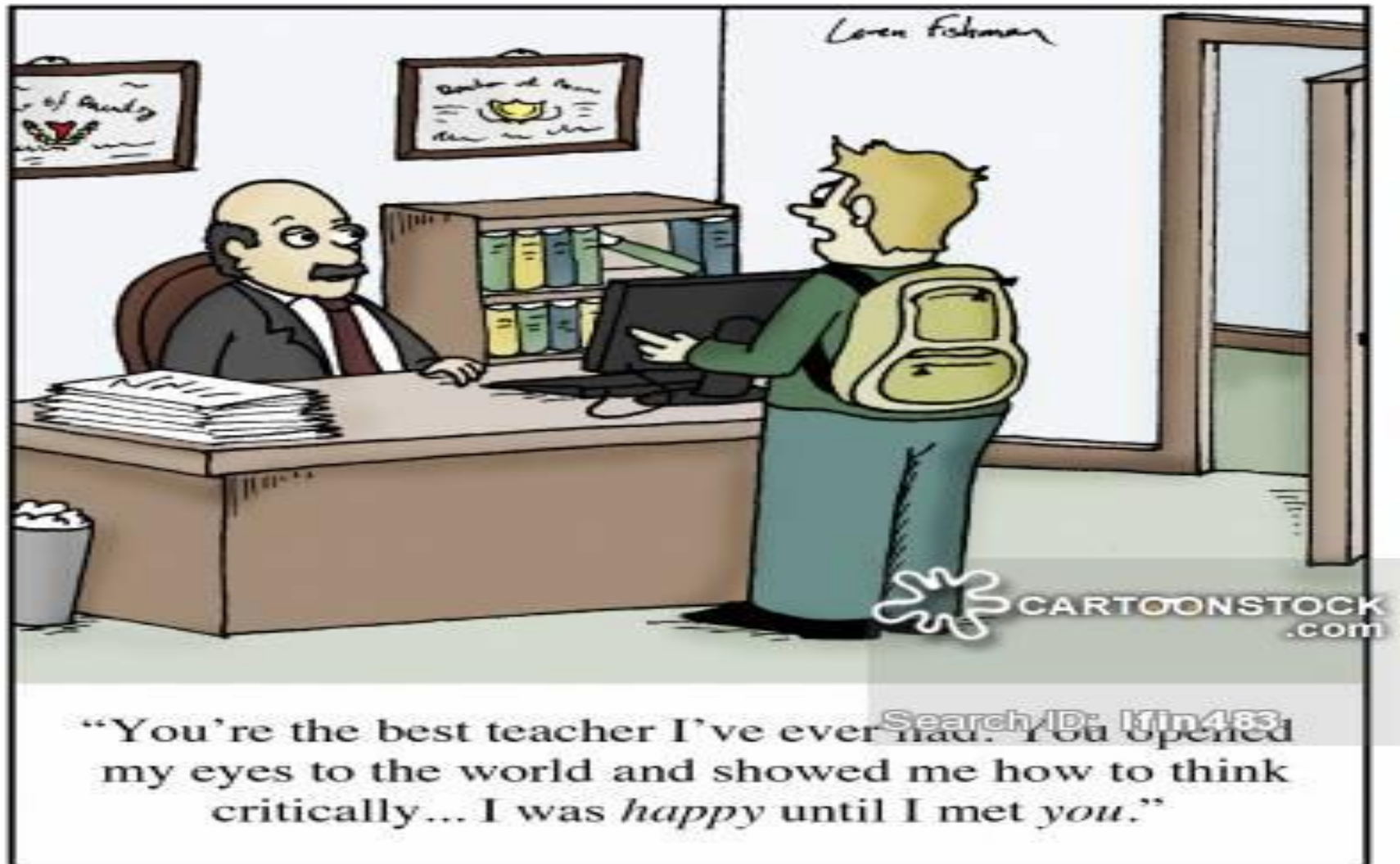- **Mixed approach: Tailored and differentiated teaching and learning**

The side-effects of covering the content

"You're the best teacher I've ever had. You opened my eyes to the world and showed me how to think critically... I was *happy* until I met *you*."

What is the meaning of democratic education

Democratic education and life

Opportunities for:

➢ participation

➢ communication

➢ and transformation of knowledge and information **into decision making and actions in the private, political, economic and educational settings.**

Democratic education is a presupposition for democratic participation

- Democratic education provides opportunities for learning to all children.

- Tailored instruction and differentiation of teaching and learning based on different needs of different persons.

- Respect for students' different pace during learning and different modalities during working on assignments.

- Investment on cultivation of skills that lead to critical thinking.

Democratic participation is a presupposition of democratic education and not vice versa

- The ultimate purpose is to Make schools democratic, that means not just teaching about democracy but democratically making and implementing democratic processes and decision making.

- This can be achieved through multiple paths: students' participation in decision making and rules making within the school and promoting the intellectual, social, moral reasoning of participants.

What do we mean "to think critically in the real (democratic) life" ?

- To have skills that support, for example:
  - Analysis of situations that call for interpretation, evaluation and decision making:
    - *Political decisions, i.e., what party to vote and how we can interpret the politicians' discourse and their implicit theories.*
    - *Educational decisions, i.e., in what programme of studies to be enrolled in Higher education or how to produce evaluation criteria for the programmes offered.*
    - *Social Decisions, i.e., decisions concerning Mass Media, entertainment and the uncovering of the confusion of information and opinions during talk shows and News*

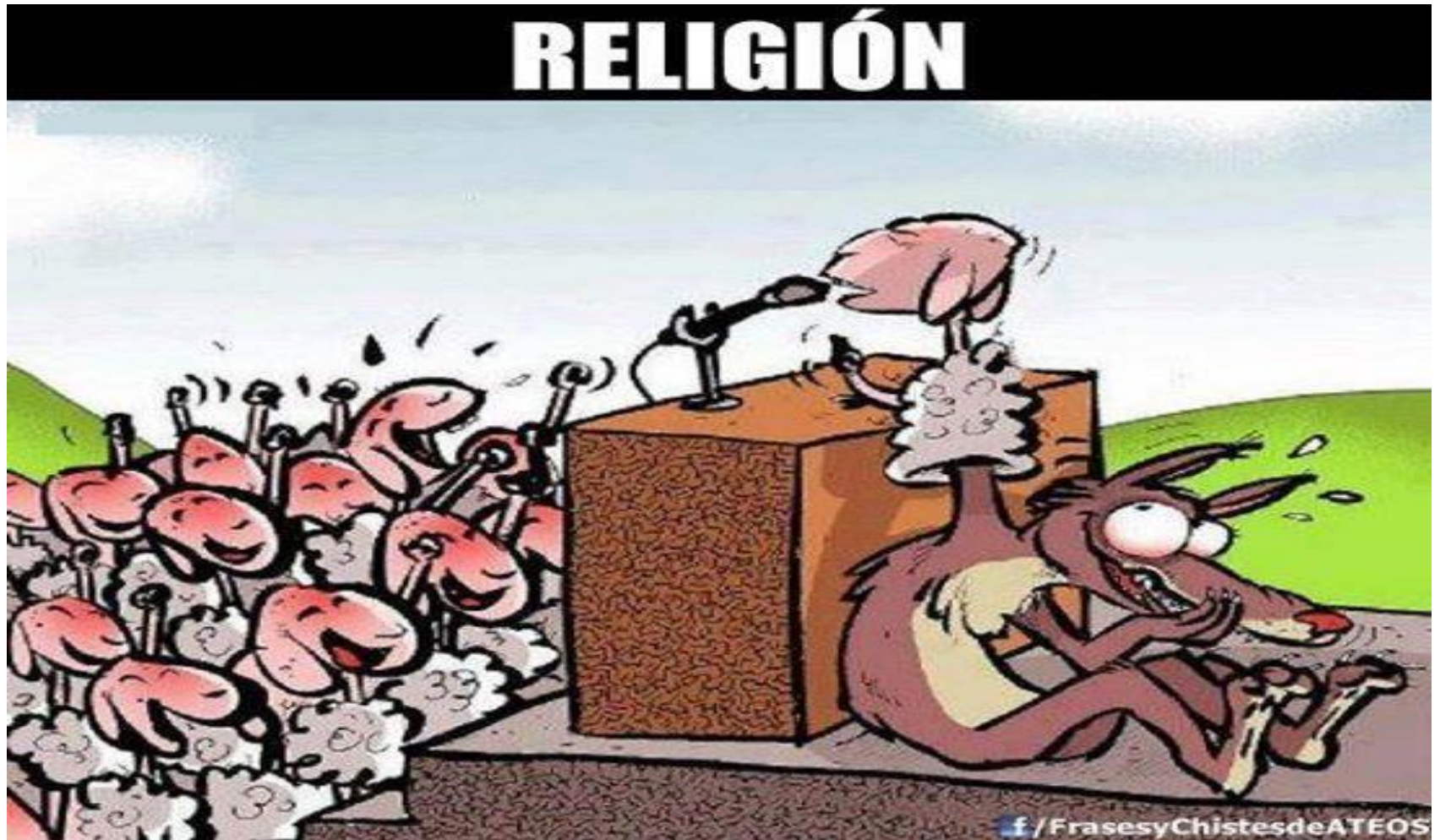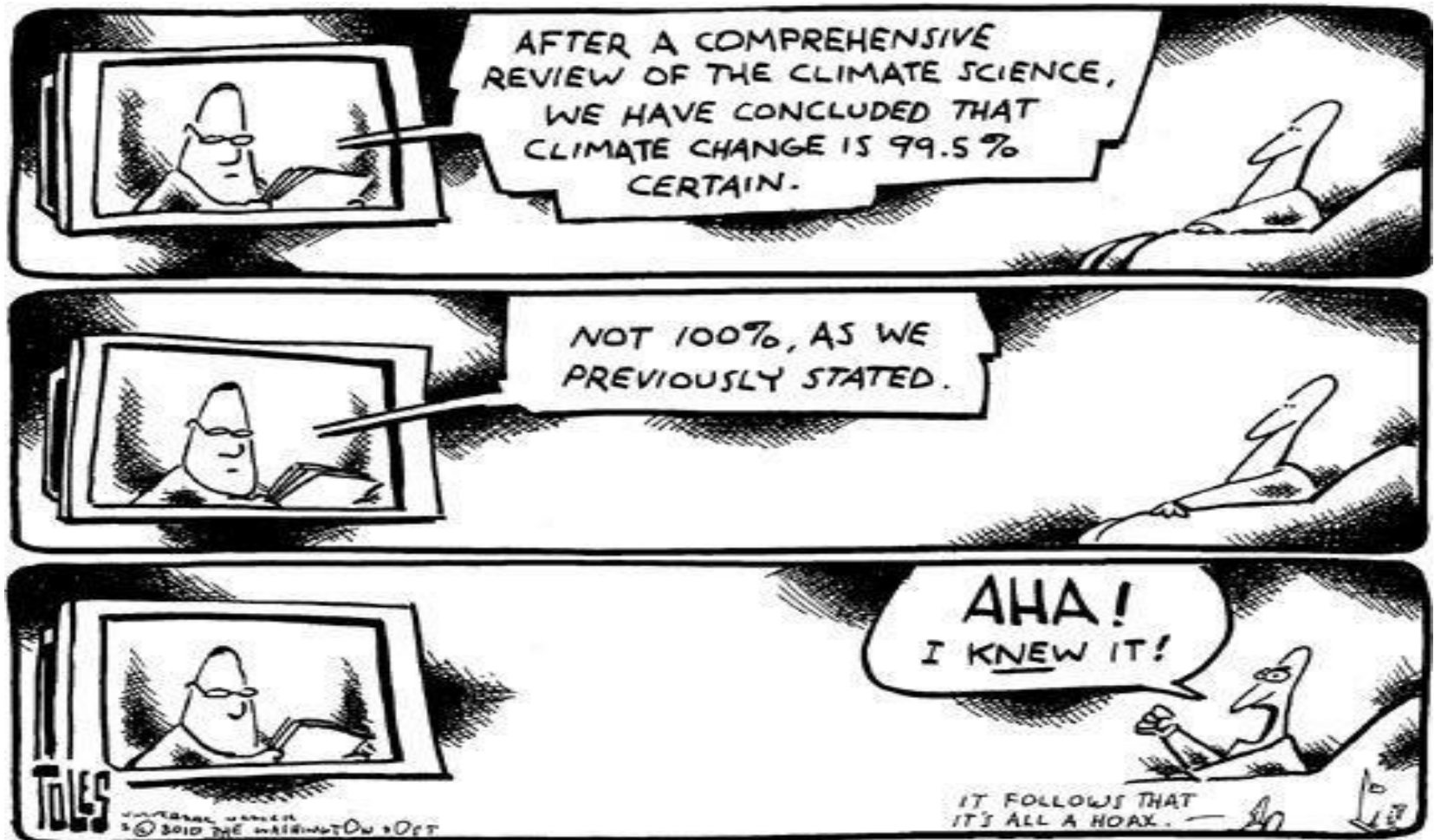# To think critically about mass media and the violence of cartoons

Negative look

It is common for parents of young children to start thinking critically and negatively about television after they see the violence of cartoons.

To analyze and interpret the political discourse and actions

To get the real meaning and its purpose

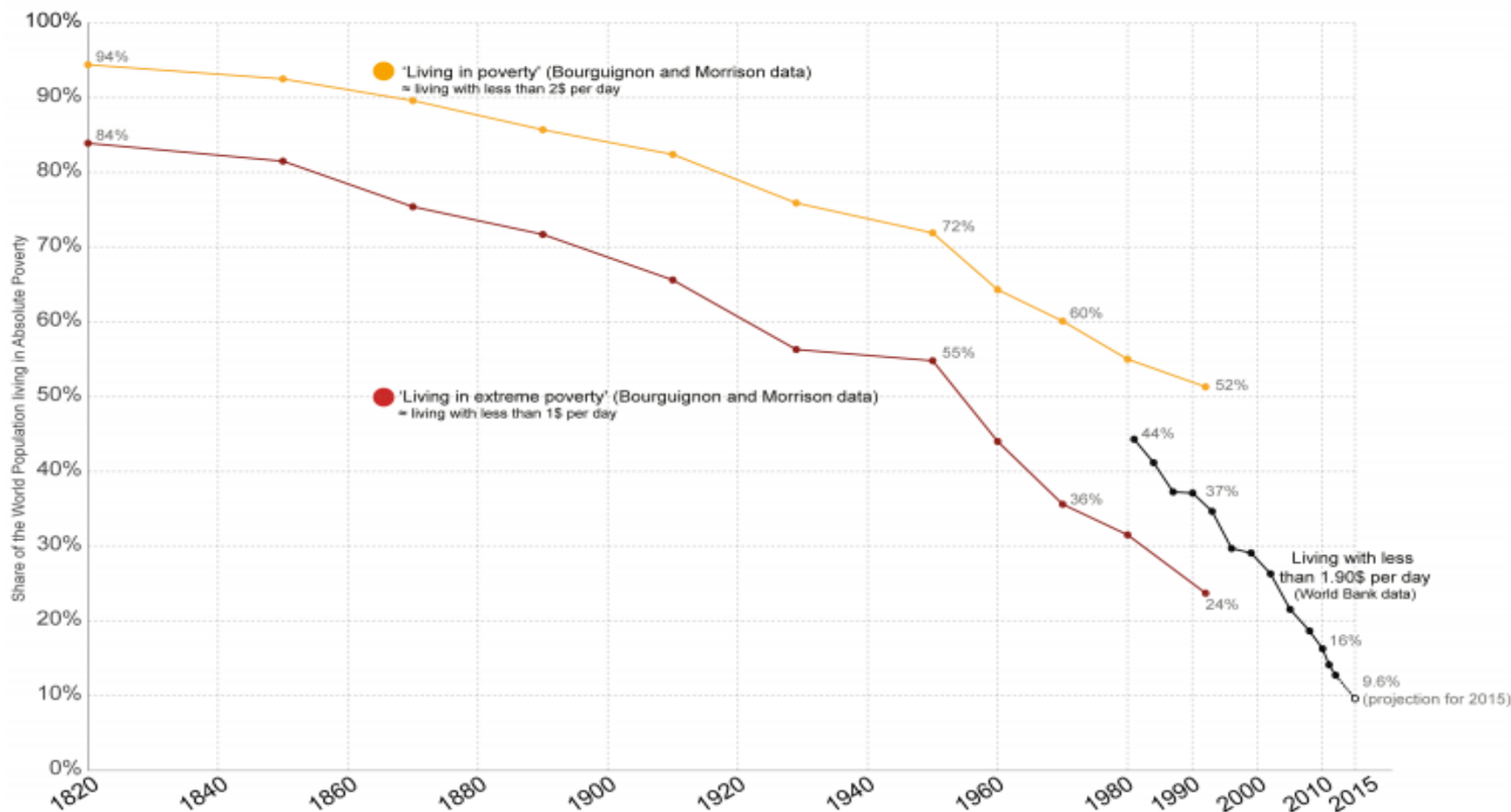# To uncover the false reality …

To understand gender inequality…

To read and interpret social statistics…

Share of the World Population living in Absolute Poverty, 1820-2015
All data are adjusted for inflation over time and for price differences between countries (PPP adjustment).

'Living in poverty' (Bourguignon and Morrison data) = living with less than 2$ per day

'Living in extreme poverty' (Bourguignon and Morrison data) = living with less than 1$ per day

Living with less than 1.90$ per day (World Bank data)

Data sources: 1820-1992 Bourguignon and Morrison (2002) – Inequality among World Citizens, In The American Economic Review; 1981-2015 World Bank (PovcalNet)
The interactive data visualisation is available at OurWorldinData.org. There you find the raw data and more visualisations on this topic.   Licensed under CC-BY-SA by the author Max Roser.

As a conclusion…

- Critical thinking is the ability to be in control of one's thinking. It is a purposeful reflective process, a disciplined, self-directed thinking *(Ennis, 1989, 1991 ;Facione, 1990a; Facione, 2011; Fischer et al., 2009)*.

- Critical thinking includes the ability to consciously examine the elements of one's reasoning, or that of another, and evaluate that reasoning against universal intellectual standards: clarity, accuracy, relevance, depth, breadth, and logic *(e.g. Paul, 1992).*