WORLD ACADEMY OF ART AND SCIENCE

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ROMA TRE UNIVERSITÀ DEGLI STUDI

Universities' Perspectives of Effective Future Learning

Critical Thinking in Higher Education

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Aims of higher education

- Two types of qualifications provided by higher education
  - Special qualifications for a specific profession or a specific discipline, focusing on factual knowledge
  - General academic qualifications, including
    - Analytical abilities
    - Independence
    - Creativity
    - Critical thinking
- Increasing importance of general academic qualifications, in particular critical thinking

Information
in the new information society

- Overabundance
- Complexity
- Speed
- Fragmentation
- Polarization
- Relativization
  - «Fake news»
  - «Alternative facts»
- Social media bubbles (without confronting different views)

Problems and challenges

- Finding or absorbing what information is available
- Deciding what information is most relevant
- Understanding whether information is true or false
- Determining which information is based on the most recent research and knowledge
- Understanding the contextual conditions for various information

Factual knowledge in higher education

- Society is changing more rapidly, research is developing faster, and facts cannot be learned once and for all
- Technical skills and knowledge taught to students may be obsolete or nearly obsolete when the students enter the workforce
- Research results, knowledge and facts are available and searchable online in various media
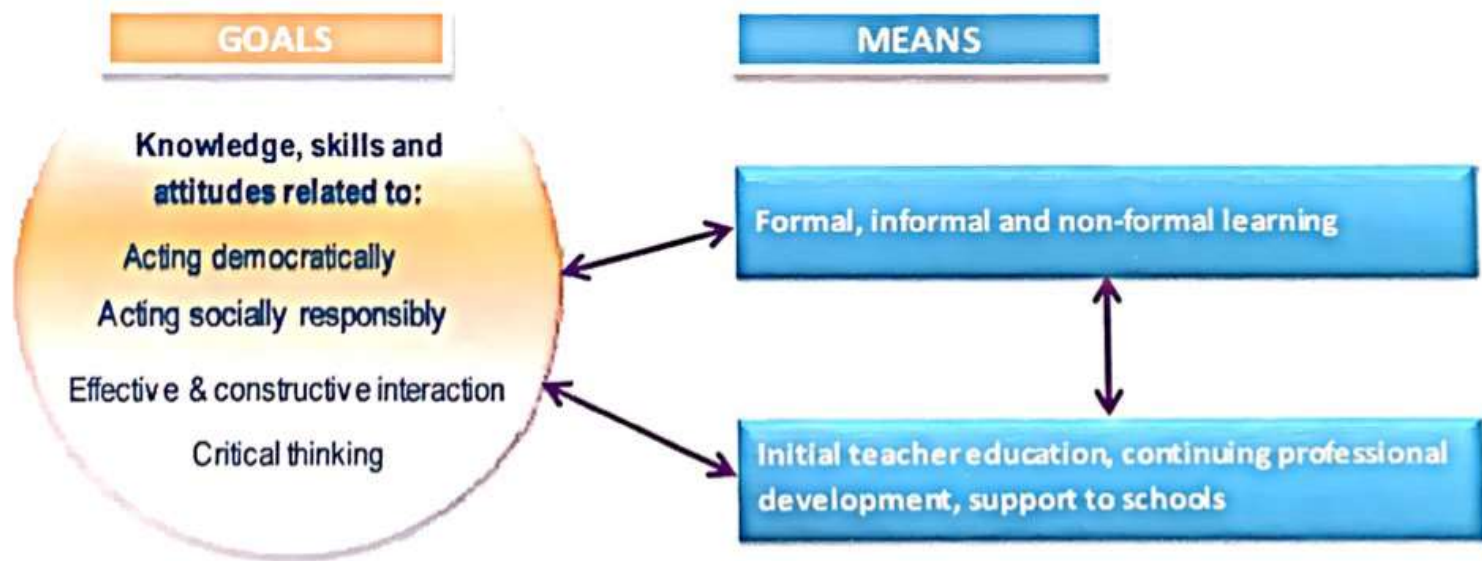- Factual knowledge can be found outside school and must be updated after school

Critical thinking in higher education

- Critical thinking is reflective and reasonable thinking that is focused on deciding what to believe or do (Ennis 1985)
- Critical thinking is a necessary competence for
  - Finding information
  - Determining relevance of information
  - Assessing truth of information
  - Contextualizing information
  - Confronting different information
  - Combining various information
- Critical thinking is a necessary process for identifying available, relevant, true and valid knowledge
- Teaching for understanding and critical thinking is more important than short-term memorization of isolated bits of knowledge
- Teaching for understanding and critical thinking becomes more and more important

Critical thinking and citizenship education

- Critical thinking is related to citizenship education

The conceptual framework: goals and means of citizenship education in school

GOALS

MEANS

Knowledge, skills and attitudes related to:

Acting democratically

Acting socially responsibly

Effective & constructive interaction

Critical thinking

Formal, informal and non-formal learning

Initial teacher education, continuing professional development, support to schools

Critical thinking and citizenship education: A new report

- National policies on citizenship education at school in European countries is examined in a recent report from Eurydice
- Citizenship education is usually integrated into other subjects
- Where citizenship education is provided as a separate subject, there are substantial differences between countries in the duration of provision

Citizenship Education at School in Europe 2017

Eurydice Report
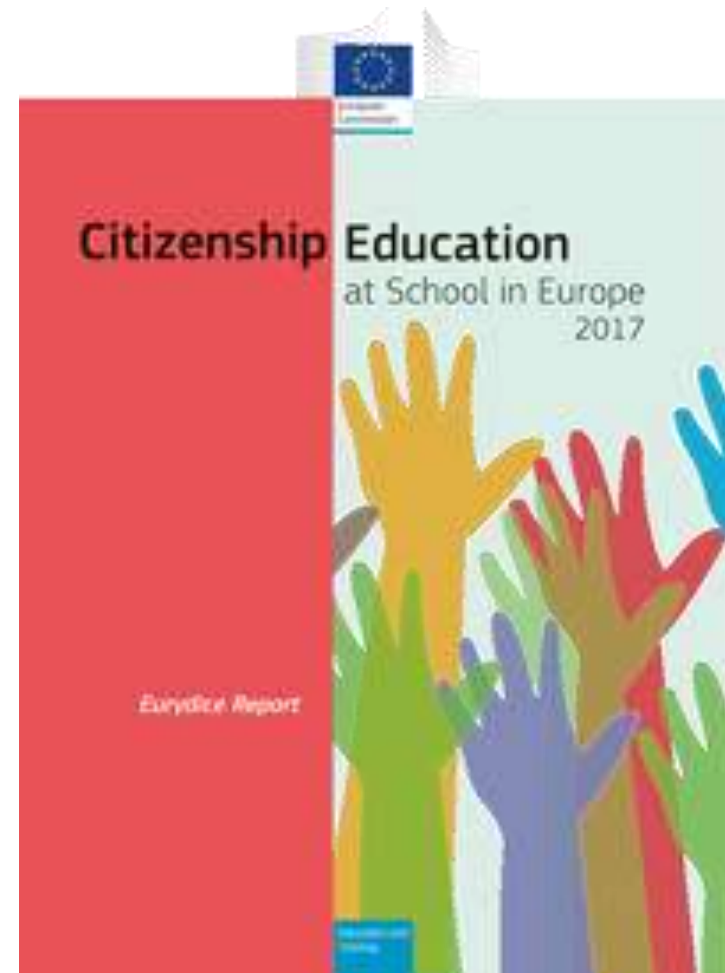
Critical thinking and intellectual virtues

- Critical thinking is related to intellectual virtues (Baehr 2013), including
  - Intellectual curiosity
  - Patience and focus
  - Fairness and open-mindedness
  - Intellectual humility
- Nurturing growth in critical thinking and intellectual virtues is important in addition to disseminating factual knowledge proper to specific academic professions or disciplines
- Nurturing growth in critical thinking and intellectual virtues becomes more and more important

Developing skills for critical thinking

- Measures for intellectual virtues (and critical thinking) in education (cf. Baehr 2013)
    - Emphasizing a supportive institutional culture
    - Direct instruction in intellectual virtue concepts and terminology
    - Self-reflection and self-assessents for fostering intellectual virtues
    - Making explicit connections between the course material and intellectual virtues and vices
    - Providing opportunities to practice the actions characteristic of intellectual virtues
    - Integrating virtue concepts and standards into formal and infomal assessments
    - Teachers acting as models of intellectual virtues

Summary

- Factual knowledge taught to students may be obsolete after a short time
- Information on knowledge and facts is available and searchable online
- Students can find information on facts outside school and must update their factual knowledge after school
- Critical thinking is a necessary process for identifying that information which is available, relevant, true and valid in different contexts
- Teaching for understanding and critical thinking becomes more and more important

Selected references

- Baehr, Jason (2013): «Educating for Intellectual Virtues: From Theory to Practice». *Journal of Philosophy of Education (47),* p. 248-262.

- Ennis, Robert H. (1985): «A Logical Basis for Measuring Critical Thinking Skills». *Educational Leadership,* p. 44-48.

- Eurydice Report (2017): *Citizenship Education at School in Europe..* Brussels: Education, Audiovisual and Culture Executive Agency.

- Valentini, Laura (2017): *Audience responsibilities.* Bergen: Holberg Prize Symposium (*http://www.holbergprisen.no/holbergsymposiet-2017-kommunikasjonsetikk*).