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**
- Knowledge, skills and attitudes related to:
  - Acting democratically
  - Acting socially responsibly
  - Effective & constructive interaction
  - Critical thinking

**MEANS**
- 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
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-assessments 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 informal 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


