

Critical Thinking as a basis for democratic participation

Mary Koutselini, Professor, University of Cyprus

The main aim of the presentation is to place critical thinking in the context of democratic education and life, seen as opportunities for participation, communication and transformation of knowledge and information into decision making and actions. For fulfilling the aim the concept of critical thinking is revisited and it includes the ability to make rational judgments that lead to investigation and interpretation of polysemous messages, metacognitive development and communication. The concrete skills and attitudes that construct the concept of critical thinking according to the contemporary research and literature are examined, justifying the necessity for expanding the concept of curriculum and teaching to life-oriented activities that deliberate from pre-conceived roles. The presentation is grounded on pedagogical and philosophical assumptions supporting the idea that education should prepare learners for thinking and acting on the basis of alternative strategic plans that are fundamental for democratic participation and qualitative life.

Dr Mary Koutselini (<http://ucy.ac.cy/dir/el/component/comprofiler/userprofile/edmaryk>) is Professor of Curriculum and Instruction, the president of the Cyprus Agency for Quality Assurance and Accreditation (CYQAA), Chair holder of the UNESCO chair in Gender Equality and Women's Empowerment of the University of Cyprus. She is also the Coordinator of 15 International, European and National Research programs in the areas of her specialization and active member of a number of national, European and international academic associations and editorial boards of scientific journals.

She participates as expert in national and international working groups and advisory boards and networks. She served as head person of the Center of Learning of the University of Cyprus, of the Department of Education and as external evaluator of Universities, Research, and academic staff in Cyprus and abroad.

She has authored 15 books and more than 150 articles and invited chapters in scientific refereed journals and books.

Organizing the seminar on Critical Thinking

Pavlina Hadjitheodoulou – Loizidou, Head, In-service Training Department, Cyprus Pedagogical Institute

Dr Pavlina Hadjitheodoulou-Loizidou is Head of the In-service Teacher Training Department of the Cyprus Pedagogical Institute. She has been working as a teacher trainer in Intercultural Education at the Institute since 2000. She got her M.A. in Education and Society (1989-1990) at the University of Reading, UK and her PhD in Pedagogics at the University of Ioannina, Greece (1996). She has worked at ASPAITE Pedagogy School in Athens (1996-2000) and as a tutor at the Greek Open University (1998-2009). She has worked as a post doc researcher for the Education of Roma Children project of the Greek Ministry of Education and the University of Ioannina (1996-2000). She has also worked for the Council of Europe Project on Teaching Socio-cultural Diversity and the Pestalozzi Modules on Intercultural Education. During the last years she has been promoting the implementation of action research methodology for teachers' professional learning in the Cyprus Educational System.

Some of her work with the Council of Europe include:

Hadjitheodoulou - Loizidou P. (2011) The benefits of networking: an example from Cyprus, in Huber J. and Mompoin-Gaillard P. (eds) Teacher Education for change – The theory behind the CoE Pestalozzi Programme (pp. 117-134) Council of Europe Publishing.

Arnesen, A. Hadjitheodoulou-Loizidou, P., Bîrzéa, C., Essomba, M., Allan J. (2009) Policies and practices for teaching sociocultural diversity - Concepts, principles and challenges in teacher education. Council of Europe.

Arnensen, A., Hadjitheodoulou-Loizidou, P., Allan, J., Trasberg, K., Chavdarova-Kostova, S., Furch, E., Valianatos, A., Dumont, B., Qiriazhi, V. (2010) Policies and practices for teaching sociocultural diversity - A framework of teacher competences for engaging with diversity. Council of Europe.

Storytelling and Critical thinking

Bojana Golubovic, Pestalozzi Trainer, Serbia

This workshop focuses on the issues of prejudices, stereotypes, values and attitudes connected to the process of constructing, deconstructing and reconstructing. Storytelling has been chosen in order to stimulate critical and lateral thinking as well as approaching issues from multi-perspectives. The general character of this topic allows its applicability in understanding contemporary world as well.

The first activity **“The Mirrors”** is an energizer providing techniques of introspection and observation by employing body language. The participants are standing opposite each other. One is the person, and the other is the person reflected in the mirror. The person moves as the other mirrors the person’s movements. They switch roles. The key terms that are supposed to be reflected are: girl, weather, drink, African, American, poor, beautiful. Participants reflect on their understanding of these terms by discussing what the reasons are for presenting these terms in these certain modes. The second activity **“The danger of a single story”** <https://ed.ted.com/featured/TXtMhXIA#watch> emerges from the energizer. This activity aims to wrap up the previous discussion and opens the perspective on “Each determination is negation” It explores the concepts of prejudices, stereotypes, values and attitudes through the discussion prepared in TEDEd Lesson form **“The Big 6”** is an activity that aims to raise awareness of the process of storytelling (both writing and reading). The BIG 6 are: Predict (what can you expect?) Visualize (what can you see?) Connect (how does this relate to me?) Question (what does the author want?) Clarify (what’s the main point?) Evaluate (now, what do I think?). Thus, one group of participants is presented with the photos that depict the most important parts of the story, while the other are given the story without an end. By working in groups, they are supposed to 1) come up with a story and 2) finish the story. At the end of an activity, each group is presenting their story. The last activity **“7 dwarfs”** is a feedback and evaluation strategy where participants are connecting their feelings to the parts of this workshop.

Bojana Golubović is a teacher of philosophy, logic and debate at High School „Svetozar Marković“ in Niš, Serbia. She teaches in debate and applied logic/critical thinking in English at American Corner Niš and Access program and formal logic and philosophy in French at bilingual class in Gimnazija „Svetozar Marković“, Niš.

She is engaged in the community as the member of the Board of directors of the PONS foundation, President of The City of Nis Debate Club and as the founder of The City of Niš Debate Tournament. For her engagement in the field of Human Rights and Democratic Citizenship, she was nominated for the Tzar Constantine Award for Tolerance, 2014. and European Award for Democratic Citizenship, 2015.

She was the representative of the Serbian education at the TED Summit in June 2016, at Banff, Canada as one of the 30 innovative educators in the world. Becoming one of the members of the TIE's (Ted Innovative Educators), she initiated TED-Ed Clubs in her City and started implementing TED Ed programme in her school as well as in the region.

During the summer she teaches debate in USA (Loyola, Baltimore and Babson, Boston, 2016. and Chapel Hill, NC, Marymount University, Arlington, American University, Washington D.C.). She is an expert of the Anne Frank House, Amsterdam, The Netherlands and Council of Europe Pestalozzi Programme.

Metacognition and Critical Thinking

Bojana Golubovic, Pestalozzi Trainer, Serbia

This workshop focuses indirectly on the issues of self-awareness and self-reflection and directly on the notion of thinking as it is. Metacognition has been chosen in order to stimulate critical thinking as well as to nourish responsibility through strengthening self-reflection. Approaching the same questions from multi-perspectives is the core activity of this workshop.

The first activity "Think" is an energizer providing techniques of observation, analysis and synthesis by employing body language. The participants are given the task to connect thinking to the terms that explain thinking the best. Participants work in groups and are supposed to present the definitions of thinking after 4 minutes brainstorming activity. The second activity "Why do we love?" is a searching for an answer by the process of introspection. Participants are given 5 minutes to think about the reasons of love and answer the question: "Why do I love?" After they write down their answers together with the reasons for their claim, they watch the TEDEd Lesson: <https://ed.ted.com/lessons/why-do-we-love-a-philosophical-inquiry-skye-c-cleary>. After watching the animated lesson, participants are connecting their answers to the given ones trying to produce a final answer to this question. The next activity "Interpretation: Subjectivity" starts with a short story being told, from the point of view of an external narrator. The participants are asked to retell this story from different points of view, in order to re-think the events in their different perspectives. At the end of this activity, participants discuss the process of thinking. "Responsibility" is the workshop that activates the thinking about concepts such as: being responsible-free-having obligation-force someone-fault. Participants read through the circumstances trying to answer whether they are responsible for that or not. This way, participants understand the connection between self-awareness, reflective practice and responsibility. The last activity "Metacognition" is a feedback and evaluation strategy where participants are connecting their thoughts and feeling to the Subjectivity and Responsibility parts of this workshop.

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Promoting critical thinking through argumentation on socio-scientific issues

Andreani Baytelman, Teacher Trainer, Cyprus Pedagogical Institute

This workshop focuses on instructional strategies and practices at the level of the classroom, for enhancing **critical thinking** as a **citizenship competence**. In this context, learning to think critically is conceptualized as the acquisition of the competence to participate critically and responsibly in the communities and social practices of which a person is member. In particular, we use **controversial socio-scientific issues** (real-life dilemmas), which are important dilemmas to human society in general, in order to promote participants' argumentation and decision-making skills. Introducing participants to argumentation and decision-making about socio-scientific issues, we would like to promote:

1. Understanding, identifying, constructing, and evaluating arguments.
2. Understanding how to improve arguments' quality – evaluating evidence and sources - using criteria to assess information.
3. Understanding the epistemological basis of knowledge – thinking in terms of likelihood and uncertainty.
4. Understanding the nature of socio-scientific issues as complex, open-ended, often contentious dilemmas, with no definitive answers, and with social, ethical, economic, scientific, aspects, etc.
5. Recognizing personal and social values and perspectives that impact on argumentation and decision-making regarding socio-scientific issues.
6. Evaluating evidence from different perspectives and avoiding confrontational interactions. In response to socio-scientific issues and other dilemmas, valid arguments can be constructed from multiple perspectives.
7. Understanding that deliberative democracies require citizens who are able to critically and openly discuss controversial issues and engage in meaningful and respectful dialogue to deal with differences.
8. Enhancing critical thinking as a crucial aspect of the competence citizens need to participate in a democratic society.

Dr Andreani Baytelman is Biochemist, having a Ph.D. degree in Learning Sciences, a M.Sc. in Clinical Biochemistry, a M.Ed. in Natural Sciences Didactics and a Post-Graduate Certificate in Virology. She has worked as a Biology Teacher in Secondary Education, Ministry of Education of Cyprus, as a Teaching Staff in a Pre-Service Biology Teacher Training Program, Department of Educational Sciences, University of Cyprus, as a Teacher Educator in In-service Teacher Department, Cyprus Pedagogical Institute, as Member of Biology Curriculum Committee and as a Content Expert regarding Biology for the Design and Development of Digital Educational Content (DEC), Ministry of Education Cyprus. Currently, she is education officer at the Cyprus Pedagogical Institute and assistant director A' in secondary education. She participated as a collaborating teacher in several EU-funded projects (e.g. CoReflect, Profiles, Assist-me), has published articles on science education and has presented her work in various international and national conferences. She is also co-author of Biology books and STEM teaching materials for secondary education.

Critical Thinking: Inquiry, Argumentation, Modeling

Efi Papparistodemou & Christina Stavrou, Teacher Trainers, Cyprus Pedagogical Institute

Critical thinking is a way of thinking that enables us to think at the highest level we are capable of. This workshop will emphasize the process of using critical thinking as an organizing concept for instruction at the school level, aiming at preparing critical thinkers. It will include a review of basic student-centered paradigms and practices for promoting critical thinking: inquiry-based learning, argumentation and modeling. Participants will be able to:

1. form a basic concept of the interrelation of critical thinking and inquiry-based learning, modeling and argumentation
2. link inquiry, argumentation and modeling with school curricula through examples
3. form a basic concept of how to question students so that they, in turn, analytically question what they learn
4. work on observing lesson plans and activities as critical-thinking supportive instances (inquiry practices, higher-order thinking skills).

Dr Efi Papparistodemou is a mathematics educator. She holds a PhD in Mathematics Education (Institute of Education-UCL, University of London), an MA in Mathematics Education (Institute of Education-UCL, University of London), a BSc in Mathematics and Statistics (University of Cyprus) and a BA in Education (University of Cyprus). She has worked in different positions concerning mathematics education: as a teacher, as a special math educator trainer, as a writer of the new pupils' mathematics textbooks and as an Assistant Professor in Mathematics Education. Now she is working in Cyprus Pedagogical Institute in the In-Service Teacher Training Department. She has been involved in European and other projects concerning Mathematics, Statistics Education and Technology. She publishes in international scholarly journals and proceedings and edited volumes in relation to mathematics and statistics education, technology education, prospective teachers and teacher development in mathematics.

Christina Stavrou is an assistant head teacher of primary schools in Cyprus and, since 2010, she has been working on secondment as a Teacher Trainer at the In-service Teacher Training Department of the Cyprus Pedagogical Institute. She holds a Teacher diploma from the Pedagogical Academy of Cyprus, a BEd from the University of Athens and a MA in IT in Education degree (Institute of Education, University of London). She is a PhD candidate at the University of Cyprus (Department of Education). She has a long teaching experience in primary schools and has been implementing inquiry-based learning and ICT in the learning process. At the CPI she is working as a teacher trainer and as a critical friend in school-based teachers' professional development programmes. She has worked as a member of the Geography Curriculum Development Group, producing students' learning outcomes for Geography and teaching material including learning and assessment activities, lesson plans and teaching units.

Geography Lesson

Cleopatra Mouski, Makedonitissa C – Stylianos Lenas Primary School
Theodora Damianou & Andriani Siakidou, Cyprus Pedagogical Institute

Ms Theodora Damianou (MA in Geography in Education) **and Ms Andriani Siakidou** (MA in Human Geography) are primary school teachers, who work at the Cyprus Pedagogical Institute as members of the Geography Curriculum Development Team. In cooperation with **Ms Cleopatra Mouski**, a primary school teacher, who holds a Master of Arts in Educational Studies (University of Cyprus), they developed and taught a Unit of Geography lessons, based on Geographical Enquiry learning. The Unit focuses on Industrial locations in Europe. The lesson presented at the workshop is part of this Unit's work.

Math Lesson

Christina Christou, Makedonitissa C – Stylianos Lenas Primary School
Efi Paparistodemou, Cyprus Pedagogical Institute

Dr Christiana Christou is a schoolteacher in a primary school. She holds a PhD in Science Education (University of Cyprus). She designed and she will teach a math lesson in a 5th grade classroom on the concept of sampling. The lesson is part of an interdisciplinary project that focuses on conducting a small scale research among school's students regarding their reading habits, following the proper research method. The project also assists the school's main goal of the effective implementation of mobile devices in everyday teaching through the professional learning of in service teachers program supervised by Dr Efi Paparistodemou from the Cyprus Pedagogical Institute. Additionally, this lesson is part of the Erasmus KA2 project named "The Living Book" in which the school is a partner.