



Vilnius
University



UNIVERSITY OF
WESTERN MACEDONIA

International Multidisciplinary Conference

NURTURING CRITICAL MINDS: Interdisciplinary Perspectives in Education and the Workforce

27–28 June 2024

Vilnius University • Faculty of Philology

ABSTRACTS





**Faculty of
Philology**

Institute of Foreign Languages,
Faculty of Philology,
Vilnius University



University of Western
Macedonia,
Greece

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*Dear Participants of the interdisciplinary conference
“Nurturing Critical Minds: Interdisciplinary Perspectives
in Education and the Workforce”*

On behalf of the Conference Organizing and Scientific Committees, we warmly welcome you to our conference, taking place at Vilnius University, Faculty of Philology, in the beautiful capital city of Lithuania, Vilnius. This conference is organized in a hybrid format to accommodate those unable to attend in person.

Our interdisciplinary conference will cover a diverse range of fields and perspectives on developing critical thinking skills in various academic disciplines and labor market institutions. The primary aim is to present research on the development of students' critical thinking across different university disciplines and to share examples of best practices.

From 2020 to 2023, the Institute of Foreign Languages, Faculty of Philology, participated in the European Commission-funded Erasmus+ project *Think4Jobs*. The idea to organize this conference, dedicated to fostering critical thinking skills, emerged in 2023 during the final project partners' meeting in Emden/Leer, Germany. The decision was made to collaborate with the project *Think4Jobs* coordinator Prof. Dr Dimitris Pnevmatikos and his colleagues from the Department of Primary Education and the Department of Psychology, School of Social Sciences and Humanities, University of Western Macedonia.

The conference will primarily focus on but is not limited to, the development of critical thinking within the disciplines addressed by the Erasmus+ *Think4Jobs* project (teacher education, foreign language teaching, economics, IT, and medicine).

Organising this conference is a tremendous task. We are grateful to the various faculties of Vilnius University for their support and contributions. Special thanks go to the Faculty of Philosophy, Faculty of Mathematics and Informatics, Faculty of Medicine, and Faculty of Economics and Business Administration.

We are especially grateful to Assoc. Prof. Dr Sandra Kairė, Director of the Institute of Educational Sciences, Faculty of Philosophy; Prof. Dr Jurgita Markevičiūtė, Vice-Dean for Strategy, Faculty of Mathematics and Informatics; Assoc. Prof. Dr Karolis Ažukaitis, Vice-Dean for Research, Faculty of Medicine and Assist. Prof. Dr Agnė Jakavonytė-Akstinienė; Dean of the Faculty of Economics and Business Administration, Prof. Dr Aida Mačerinskienė, for their invaluable support and advice. We are also grateful to the Dean of the Faculty of Philology Prof. Dr Mindaugas Kvietkauskas for supporting the conference and providing all the necessary assistance.

I would also like to thank all the members of the Organizing and Scientific Committees for their assistance with various organisational issues. Special thanks go to Agnė Masionė, former administrator of the Institute of Foreign Languages, for preparing all conference visual materials, and to Jūratė Bikulčienė and Aistė Marija Markevičienė for their help in resolving all and many emerging organizational issues. Lastly, I would like to thank all the staff of the Institute of Foreign Languages who worked tirelessly to make this conference a reality.

We invite you to embark on a two-day journey filled with informative, challenging, and thought-provoking keynote presentations, discussions, and both live and online panel presentations. We hope you find the conference productive and enjoyable, and that you enrich yourself with evidence-based research and ideas on how to nurture the critical minds of our students most effectively for their future professions and the betterment of our societies.

On behalf of the Conference Organizing and Scientific Committees,

Prof. Dr. Roma Kriaučiūnienė

Chair of Organizing and Scientific Committees
Vilnius University, Lithuania

Keynote speakers



Kay Hemmerling

Chairman at the Institute for Moral-Democratic Competence, Germany
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Nurturing Critical Thinking vs. Fostering Moral Competence: Psychological Perspectives on Theory and Measurement of Both Concepts and Their Implications for Education

In his keynote speech, Dr. Hemmerling will apply Georg Lind's Dual-Aspects model of morality to various conceptions of critical thinking. According to Piaget (1976) and Lind (2019), behaviour comprises two fundamental aspects: the affective and the cognitive aspects. The affective aspect refers to the content of behaviour, while the cognitive aspect pertains to its structure. Critical thinking is often described as reasoned, reflective thinking (cognitive aspect), which involves a commitment to use reason in the formulation of our beliefs (affective aspect) (McPeck, 1981). Regarding the Dual-Aspect model, we can conceptualize the similarities and differences between critical thinking and moral competence approaches. This distinction of aspects, which can be separately described but are objectively inseparable, is crucial for understanding and measuring both concepts and their underlying theories. The presenter will emphasize the important question: How well do questionnaires measure critical thinking and moral competence (construct validity)? To illustrate, he will introduce the Moral Competence Test (MCT), which measures moral competence. Good construct validity of test instruments is essential when evaluating, for example, the quality of learning environments (Schillinger, 2006; Hemmerling, 2014) or the effects of teacher training. To highlight the interconnections and differences between critical thinking and moral competence, Dr Hemmerling will provide practical examples from the context of small and medium-sized enterprises in Germany.

BIOGRAPHY

Doctor of Natural Sciences, Diplom-Psychologe Kay Hemmerling is a pedagogic psychologist specializing in psychological didactics within professional settings. With a rich professional background, he has contributed his expertise across diverse fields, including geriatric care, hospitality, and as a psychological referral officer within the prison system. Engaging in various social rehabilitation projects, Dr. Hemmerling notably facilitated debates among inmates in high-security prisons. Under the guidance of Prof. Georg Lind, his doctoral research focused on the practical implementation of moral competence within social rehabilitation frameworks. The culmination of his efforts is reflected in his publication "Morality behind Bars" by Peter Lang, which disseminates his insightful findings and analyses.

Dr. Hemmerling became closely associated with Prof. Lind, serving as his assistant and cultivating a friendship while undergoing rigorous training and certification as a teacher and trainer in the Konstanz Method of Dilemma Discussion (KMDD). From

2006 onward, Dr. Hemmerling expertly applied KMDD across diverse educational settings, spanning from primary to higher education institutions. Additionally, he integrated KMDD into various vocational domains, extending support to socio-educational programs for dropouts and the long-term unemployed, providing therapeutic assistance to individuals battling addiction, and delivering professional training sessions. Dr. Hemmerling's commitment to advancing educational practices is evidenced through his leadership in numerous research projects and his role as a trusted scientific advisor to several university research institutes.

Over the past decade, Kay Hemmerling has excelled as an employer and project manager, spearheading multiple EU-funded initiatives. These projects are dedicated to provide support for trainers, students, and process consultants within small and medium-sized enterprises. Through his dynamic leadership and strategic insight, Dr. Hemmerling has played a pivotal role in enhancing the professional development and operational efficiency of individuals and businesses alike across the European Union.

Following the passing of Prof. Georg Lind, Dr. Hemmerling was elected as the first chairman at the Institute for Moral-Democratic Competence (IMDC e.V.). This institute holds a significant position as the official training hub for the Konstanz Method of Dilemma Discussion (KMDD), offering comprehensive training programmes tailored for educators and teacher-training institutions. Under Dr. Hemmerling's stewardship, the IMDC continues to uphold Prof. Lind's legacy, fostering ethical and democratic competencies through rigorous training and educational initiatives.

Inga Jončienė

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Market Situation in Lithuania: Hiring Attitude and Training the Skills

As the labor market situation in Lithuania is changing fast and finding the best Talents for the companies is still challenging, the importance of collaboration and know-how sharing between the academic world and business plays a major role. Therefore, the presentation delivered by the biggest agency in the Baltics will provide a thorough market overview, highlighting current trends and challenges in recruitment. Also, the speaker will share insights on the most trending industries, candidates' expectations, and statistical metrics that indicate and forecast the dynamics of the labor market in the upcoming years. The presentation will emphasize the importance of soft competencies for successful career starts and share valuable tips for effective job interviews, focusing on expectations and optimal self-presentation. Last but not least the presenter will emphasize critical thinking, emotional intelligence, and other soft competencies that are and will be essential in the future.

BIOGRAPHY

Inga Jončienė brings extensive expertise in the recruitment industry, backed by a robust skill set encompassing recruitment, training, client consulting, and business development. With over five years of hands-on experience, she has honed her abilities at the forefront of the Baltic recruitment landscape, notably at the esteemed agency, "Alliance for Recruitment." Inga Jončienė currently leads the Business Development Team across the Baltic region. Her leadership role underscores her proficiency in strategic planning, team management, and fostering client relationships. In addition to her operational responsibilities, Inga is recognized for her effective leadership within the industry. She has been invited to speak at prestigious conferences such as "FSM Talks", "SDG Forums", "HR Savaitė" "Finansų Vadovų Konferencija" among others. Her contributions to these events showcase her insights, expertise, and ability to engage audiences on critical topics within the recruitment and HR domains.

Sandra Kairė

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Critical Thinking for Education in the Anthropocene: What to Expect?

Associate Professor Sandra Kairė will reflect on the future of the school in the new geological epoch of the Anthropocene and the possibilities of critical thinking in it. Various scholars (e.g., Gough, Somerville) and international organizations (like UNESCO) are beginning to agree that education in the Anthropocene must be very different from the education currently practiced in schools - it necessitates a different pedagogy and curriculum. According to Annette Gough (2020), education in an Anthropocene should provide opportunities for learning to live in and engage with the world, which acknowledges that we live in a more-than-human world. Thus, the presenter will seek to reflect on the following questions: How is critical thinking envisioned by scholars and international organizations in the discourse of education in the Anthropocene? What could be the possible role(s) of critical thinking for education in the Anthropocene? Can we expect any changes in critical thinking in the future of the school?

BIOGRAPHY

Sandra Kairė is an Associate Professor and director of the Institute of Educational Sciences (Vilnius University, Lithuania). She is an expert in intercultural education, visuality and education, qualitative research, education in the Anthropocene, climate crisis, and education. She was also inquiring about visual school culture, school spaces, and visual artifacts created by pupils. She specializes in the phenomenological, visual, and posthuman approaches to educational research and practice.

She has recently accomplished postdoctoral research, "Like the ocean we rise": learner-education relation in the epoch of Anthropocene," which seeks to identify essential changes in the educational processes of the children of the Anthropocene. During postdoctoral research, she closely worked with Professor of Education Margaret Somerville (Western Sydney University, Australia), whose conceptual, theoretical, and methodological contributions to place studies have coalesced into a significant body of research worldwide in sustainability education across the educational spectrum from early childhood to school and community-based education. She is a member of the International Research Network "Planetary Wellbeing and Human Learning Group" (Institute for Interdisciplinary Research into the Anthropocene, Australia) (since 2021).

Adam Mastandrea

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Teaching Media Literacy and Critical Thinking in the Language Classroom

The increased prevalence and anti-democratic nature of disinformation, in general, make the teaching of media literacy and critical thinking skills an urgent and essential need. English language learners are at increased risk of consuming disinformation and sharing false or misleading information without understanding the meaning or social impact of the message. This presentation explores the possibilities of innovative media literacy teaching practices aimed at in-depth analysis of contemporary examples of disinformation, conspiracy theories, propaganda, and fake news. The presenter will discuss current approaches to teaching media literacy/critical thinking and then showcase classroom materials that combine aspects of media literacy, critical thinking practices, linguistic approaches to analyzing disinformation, and psychological approaches to examining bias and motive. The goal is to provide direction for the development of resources and activities for language teachers to approach combining media literacy critical-thinking skills, and language instruction.

BIOGRAPHY

Dr. Adam Mastandrea is an Assistant Professor at the Institute of Foreign Languages of the Faculty of Philology at Vilnius University. He holds a PhD in Educational Psychology from the University of Hawai'i Manoa, an MA in Applied Linguistics from the University of Montana, and a BA in Philosophy from Montana State University. Before joining the faculty at Vilnius University, Adam Mastandrea served as a U.S. Department of State English Language Fellow in Lithuania from 2019 to 2022. His teaching experience spans across various countries, including Lithuania, Japan, Montana, Poland, and Hawaii. Adam Mastandrea's research interests lie in the areas of language teaching pedagogy, language teacher identity, and media literacy in the language classroom. His academic contributions and expertise in these domains enrich the educational landscape at Vilnius University and beyond, fostering innovative approaches to language education and teacher development.

Daiva Penkauskienė

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Concept and Context of Critical Thinking in Higher Education

Concept and Context of Critical Thinking in Higher Education The importance of critical thinking and its development is unquestionable as a goal of higher education. Critical thinking is emphasized in the educational policy documents of international and national organizations, in the inaugural speeches of rectors, in the activity reports of higher education institutions, and in the goals of study programmes. It may therefore appear that neither the very concept of critical thinking nor the practice of its critical thinking development should be questioned. But is that the case? Many researchers confirm that, in most cases, critical thinking is easier to grasp as an aspiration than as an outcome, and that neither the concept itself, nor the possibilities to recognize its manifestation in study results are easy and clear. At the same time, it raises the question of the readiness and ability of teachers themselves to develop critical thinking coherently and methodically. This presentation points out the following questions: 1) Is it necessary to have a clear conception of critical thinking and a philosophical-methodological underpinning for the development of critical thinking? 2) How important is the context for critical thinking education? 3) How is critical thinking perceived and recognized by teachers and students? 4) How is critical thinking developed by lecturers themselves? 5) How and at what level does critical thinking need to be developed to meet declarations of strategic documents? 6) Whether the development of critical thinking is a “real demand-based order” or just a formal slogan. These questions will be reflected upon in the light of international and national research, as well as personal professional practice, and will invite discussion about the opportunities and obstacles for the development of critical thinking.

BIOGRAPHY

Daiva Penkauskienė is an Associate Professor at the Institute of Educational Sciences and Social Work at Mykolas Romeris University. Her primary research focus revolves around critical thinking and its development. Collaborating with colleagues, she has contributed to the preparation and publication of over 20 articles, methodological resources, learning tools, and books on this subject. Notably, one of her recent works is the monograph titled “Critical Thinking in Higher Education and Labour Market,” which was published by Peter Lang. In addition to her research endeavors, Daiva Penkauskienė actively engages in teaching, offering a course on the “Development of Critical Thinking” to university students. She also integrates the development of critical thinking skills into other subjects that she teaches. Beyond academia, Daiva Penkauskienė is a founding director of the non-governmental organization “Modern Didactics Centre.” This organization’s pri-

mary initiative is the “Development of Critical Thinking” program, which is continuously refined and implemented across all educational levels and settings. Furthermore, the organization is a founding member of the international consortium “Reading and Writing for Critical Thinking,” in which Daiva Penkauskienė has previously served as a board member and chairperson. Her dedication to advancing critical thinking education both locally and globally underscores her commitment to fostering intellectual growth and empowerment within educational communities.

Dimitris Pnevmatikos

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Creating Critical Thinking Professionals: Challenges for Higher Education and Strategies for Enhancing Critical Thinking

In today's era, characterized by an unprecedented influx of information and rapid technological advancements, the imperative for professionals who excel in critical thinking has never been more pronounced. Higher education institutions stand at the forefront of this endeavor, tasked with forming individuals capable of critical analysis, adaptability, and complex problem-solving. This keynote explores the significant challenges faced by these institutions in nurturing critical thinking skills and outlines actionable strategies to bolster students' critical thinking capabilities. The discourse initiates with an exploration of the critical need for such skills amidst the current landscape of information saturation and technological progression. It scrutinizes the obstacles that higher education faces in its mission to cultivate critical thinkers who are not only well-versed in their respective domains but are also adept at analyzing, evaluating, and synthesizing information efficiently. Moreover, the keynote presents a suite of pragmatic approaches that educators and academic institutions can adopt to foster critical thinking. These encompass active learning methodologies, cross-disciplinary tactics, experiential learning environments, and the integration of technology to refine problem-solving abilities, drawing on successful implementations within various projects. A significant focus is placed on the importance of faculty development in promoting a critical thinking ethos within educational frameworks, highlighting the necessity for continuous training and support. The discussion extends to the critical evaluation of assessment techniques that effectively gauge critical thinking prowess. In wrapping up, the keynote reaffirms the indispensable role of higher education in equipping students with the essential critical thinking skills needed to excel in an increasingly complex and volatile world. By acknowledging the prevailing challenges and deploying efficacious strategies, academic institutions are poised to cultivate a forthcoming cadre of critical-thinking professionals, ready to confront the multifaceted challenges of the 21st century with assurance and adaptability.

BIOGRAPHY

Dimitris Pnevmatikos, PhD, currently serves as the Vice-Head of the Department of Psychology at the University of Western Macedonia in Greece, a department he founded in 2019. Additionally, he holds the position of head of the Lab of Cognitive Science and is a prominent member of the Primary Education Department, where he has made significant contributions to various graduate and postgraduate courses. Throughout his

career, Prof. Pnevmatikos has been deeply involved in academia and research. He served as the head of the Post-graduate Program in Educational Sciences and has supervised an impressive number of theses, including 14 PhDs and three postdoctoral projects. His scholarly contributions extend to over 130 articles and books, covering diverse topics within psychology and education. Notably, he authored the Greek national books for 1st-grade mathematics, demonstrating his impact on education at a foundational level. Prof. Pnevmatikos is highly engaged in professional organizations and committees. He has held key positions, such as Executive Committee member and SIG Coordinator, within the European Association for Research in Learning and Instruction (EARLI) and the Hellenic Psychological Society. Moreover, he served as President of the Association for Values and Knowledge Education (AVaKE) from 2018 to 2022. His expertise is widely recognized within the academic community, as evidenced by his involvement in reviewing for numerous scientific journals and serving on their editorial boards. He also guest-edited a Special Issue on Critical Thinking for the Journal of Education Sciences in 2023. Prof. Pnevmatikos has led several pivotal national and European projects as the principal investigator. These projects, including FP6, Thales, ARISTEIA, and HORIZON2020, as well as ERASMUS+, have contributed significantly to advancing STEM education, understanding cognitive mechanisms in children, designing teacher training courses, fostering critical thinking skills education, and developing Social Assistive Robots (SARs) and digital platforms for schools.

Luís Sebastião

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How Critical is Critical Thinking?

Critical thinking has been identified as a cross-cutting skill that contributes, particularly in the twenty-first century, to academic and professional success in so-called knowledge societies. To the point where the expression “critical thinking” has become a kind of “mantra”, repeated ad nauseam, as a “remedy” against all material and spiritual evils. However, a very particular sense of the word “critical” is worth considering: the one that arises from the so-called “critical theory”, which concerns itself with the relationship between theory and practice and assumes a commitment to the transformation of reality. We can thus understand critical thinking, whether as a strategy for problem-solving and establishing the truth of facts, as opposed to dogmatic and vulgar thinking, or as thinking committed to improving human life conditions. In the first sense, critical thinking is merely instrumental. In the second, it is emancipatory. In this framework, the position advocated here is that it is not enough to advocate for developing critical thinking skills in our young students. Still, we must also ask ourselves how critical the critical thinking we are promoting is. And that obliges us to consider and discuss the axiological framework in which we develop our efforts to promote critical thinking in our societies.

BIOGRAPHY

Luís Sebastião holds a degree in Biology and Geology Teaching (1983) and a PhD in Educational Sciences with a specialization in Philosophy of Education (2001). His primary areas of research and teaching are Fundamentals of Education, Education for Citizenship, and Bioethics. He has authored books, book chapters, and articles in national and international journals within these fields. For extended periods, Luís Sebastião has held managerial roles in both university and public administration. He served as Chairman of the Board of Directors of the Instituto Português da Juventude from 1993 to 1996 and as Director of the Department of Pedagogy and Education, where he is an Associate Professor, from 2001 to 2009 and again from 2017 to 2019. He was Pro-Rector from 2002 to 2006 and is currently the Director of the Center for Research in Education and Psychology (CIEP). Additionally, he is a member of the Ethics Committee of the University of Évora.

Alistair Starling

Co-Founder and Managing Director of the European Diplomats, Germany
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Business Diplomacy: A Symphony of Critical Thinking, Business Acumen, and AI Readiness in the Global Landscape

In the dynamic and interconnected global landscape, Alistair Starling will emphasize the pivotal role of critical thinking and critical reasoning skills as transversal competencies in the realm of business diplomacy. Framed within the context of a symphony, the presentation will highlight the harmonious interplay of critical thinking, business acumen, and AI readiness, underscoring their collective significance in navigating the complexities of the modern business environment. The session will commence by exploring the evolving nature of business diplomacy, shedding light on the intricate dance between nations, corporations, and emerging technologies. Drawing parallels to a symphony, Alistair Starling will draw attention to the need for a balanced and well-orchestrated approach that seamlessly integrates critical thinking with business acumen and AI readiness. Central to Alistair Starling's presentation is the exposition of critical thinking as a transversal skill, acting as the conductor of the symphony. Participants will gain insights into the importance of fostering analytical, evaluative, and problem-solving abilities to make informed decisions in a rapidly changing global context. Alistair Starling will delve into real-world examples, illustrating how businesses and diplomats leverage critical thinking to navigate geopolitical challenges, negotiate deals, and foster international collaborations. Furthermore, the keynote will explore the symbiotic relationship between critical thinking and business acumen. Attendees will be guided through strategies for developing a keen understanding of market dynamics, identifying opportunities, and mitigating risks. The presentation will highlight the essential role of critical reasoning in strategic decision-making, emphasizing its impact on long-term organizational success. As the symphony unfolds, the spotlight will shift to AI readiness, with Alistair Starling underscoring the imperative of integrating technology into the business diplomacy repertoire. The audience will be encouraged to embrace AI as an ally, leveraging its capabilities to enhance decision-making processes while acknowledging the ethical considerations that accompany its use. In conclusion, Alistair Starling's keynote will leave participants with a comprehensive understanding of how critical thinking, business acumen, and AI readiness harmonize to create a symphony of success in the global business arena. The call to action will be to cultivate these transversal skills, positioning individuals and organizations to navigate the intricate melodies of business diplomacy with confidence and foresight.

BIOGRAPHY

Alistair Starling is a former UK Diplomat, at the Foreign & Commonwealth Office (FCO) where he assisted companies in trading and investing internationally for 10 years. He

is multilingual, fluent in English, Italian, and German, and has intermediate proficiency in French. Leveraging his 20 years of experience in the private sector and 10 years in the government sector, he specializes in business development, design, and innovation across first, second, and third-sector organizations. Alistair has been involved in the founding teams of several startups, including The Cambridge Hub and IconMedialab, gaining an understanding of the pace and focus of the commercial sector. He led complex government sales development efforts across Europe and Africa for a well-known brand based in Cambridge. Alistair holds two Master's degrees, one from the University of Cambridge, and an undergraduate degree in the creative industries. He is a confident public speaker and has presented numerous times on TV, fostering active communities of contacts across Europe.

Erika Vaiginienė

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Critical Thinking in the Context of Socio-Technical Revolution: Risks and Opportunities

Profession-oriented universities, as we know them now, were developed due to the Industrial Revolution. In-depth knowledge of a particular discipline was the precondition for efficiency and efficacy in a workplace. The forthcoming Socio-Technical Revolution challenges universities to a radical transformation. It calls for a shift towards (or a return to) mastering skills rather than just mastering a profession. This presentation aims to discuss opportunities and risks opening up for gaining critical thinking skills.

BIOGRAPHY

Erika Vaiginienė is an Associate Professor at the Faculty of Economics and Business Administration at Vilnius University. With a career spanning 23 years in various capacities within the higher education system, she has gained extensive experience as a lecturer, researcher, manager, and evaluator. Erika Vaiginienė's expertise extends to policy advising research projects, with a track record of implementing over 30 such projects since 2008. Notably, she served as the leading methodological advisor for the preparation of "Lithuania 2050", demonstrating her significant contributions to strategic planning initiatives. Active in professional associations, Erika Vaiginienė is a member of the Academy of Management since 2003, the EuroMed Research Business Institute since 2008, and the Foresight Europe Network since 2022. Her commitment to professional development is evident through her certifications as a Research Manager by the European Foundation for Management Development (EFMD) and as a Change Management Integrator by the Adizes Institute, USA. Furthermore, Erika Vaiginienė holds several certificates in foresight methodologies, highlighting her dedication to staying abreast of emerging trends and methodologies in her field.

All sessions



Analysis of Ethical Problems Based on Theory and Practice of Logical Thinking: An Educational Model

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Critical thinking is an essential skill in all fields, including education of ethics and moral reasoning itself. The fundamental thesis and research object of this presentation is that Aristotelian logic may foster critical thinking in moral education and beyond.

This presentation will explore a few theoretical fundamentals, including the interconnectedness between critical and logical thinking, the interface between ethics and logic as well as the possibility to teach/learn ethics following the rules of logical thinking.

Besides the theoretical background, the aim of this research was to create and test a framework for applicability and relevance of Aristotelian logic in lessons of ethics in secondary schools, to develop a methodology and to analyse its practical applicability. The experiment was conducted in 2008-2009 with students of 9-10 grades (98 participants in the experimental group and 102 in the control group). For 6 months, a teacher implemented the methodology of moral learning, including logical thinking. Based on the quantitative test on logical thinking, the treatment group obtained a significantly higher post-test score compared to the control group, which suggests that the methodology had helped to improve students' logical thinking in the moral domain. The experiment was partly repeated in 2024 with the aim to test moral reasoning skills and include logics into the moral education programme.

Logical (e.g., critical) thinking helps to move away from rigidly categorical thinking and to be able to make reflective judgements about the adequacy of varying perspectives. That helps to achieve the main goal of moral education (and education in general) – for school kids to become better thinkers and better people.

Keywords: *Critical thinking, logic, ethics, moral education, moral reasoning*

Critical Thinking Through Literary Criticism or Thirteen Ways of Looking at a Blackbird

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This talk is about the role of critical thinking as both an intellectual and ethical tool in teaching literary criticism in a university English literature class. Critical thinking must consider diverse viewpoints and their ethical implications in critical reception; otherwise, it falls short of being truly critical. The first section sets the stage for the university classroom as an ideal interpretative community, where diverse epistemological assumptions shape textual meanings. This reflection draws on Stanley Fish's theory of interpretative communities, David Bleich's theory of epistemological assumptions, and Wolfgang Iser's phenomenology of reading to understand how these theories inform literary analysis and define our comprehension and reception of literature as an academic discipline and its pedagogy. In contrast, the second section transitions from theory to practice, outlining academic pedagogical strategies for teaching literary criticism, such as research-based discussions, writing assignments, and small-scale research projects. This part focuses on the practical challenges and realities of helping students analyse, interpret, and evaluate literature to cultivate their critical mindset. Practical examples and authentic case studies will be provided, illustrating how a text can be read from multiple perspectives using diverse theories. Reflections on challenges, such as balancing group validation (group-centered thought) with individual (self-centered) thought, will also be included. This suggests that critical thinking does not exist in a vacuum but interacts with our underlying assumptions about knowledge and reality. A university English literature class is an environment where students can develop critical thinking, intellectual, and hence ethical character. By integrating theoretical insights with practical strategies, we can prepare students for both academic and real-world challenges.

Keywords: *critical thinking, literary criticism, literary analysis, interpretation, epistemological assumptions.*

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Critical Thinking Beyond Disciplines: How to Measure the Immeasurable?

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Background: As the world faces complex global challenges, such as climate change and health crises, innovative and collaborative solutions are becoming increasingly urgent (Klein, 1990). This urgency highlights the role of interdisciplinarity in higher education institutions, positioning it not merely as an academic ideal but as an essential framework for addressing multifaceted problems. Despite its theoretical importance, a significant gap exists between the valorisation and practical application of interdisciplinarity in higher education.

Purpose: This presentation aims to bridge the existing gap by demonstrating how universities can effectively implement interdisciplinarity, transforming it from a conceptual ideal into a measurable, practice-oriented approach that enhances reflection, critical thinking, and communication skills as a means of interdisciplinary understanding across disciplines (Spelt 2009).

Methodology: The approach involved results from a pilot quantitative study employed in 2023 using the Interdisciplinary Understanding Questionnaire (IUQ) designed by Schijf et al. (2022). This instrument assessed Lithuanian students' understanding of interdisciplinary, focusing on their knowledge of various disciplinary paradigms, interdisciplinarity, and skills in communication, collaboration, reflection, and critical reflection.

Results: Preliminary findings indicate significant variations in students' understanding of interdisciplinary and critical reflection skills, highlighting disparities based on disciplinary backgrounds. The results suggest a correlational relationship between the level of understanding of interdisciplinary and the students' academic disciplines.

Conclusion: The study underscores the necessity for universities to adopt approaches to interdisciplinary beyond theoretical acknowledgement. By fostering an educational environment that genuinely integrates interdisciplinarity into the teaching and learning processes, universities can better equip students to tackle real-world problems effectively. This shift requires curricular adjustments and a cultural change within institutions to nurture critical and reflective thinking across disciplinary boundaries.

Keywords: *Interdisciplinarity, higher education, critical thinking, educational strategies, quantitative research*

Developing Creativity as a Precondition of Critical Thinking in Language Studies at the University of Health Sciences Using Non-traditional Activities

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Critical thinking, like other abilities formed by liberal education, should be developed with the help of active learning methods while studying not only general university education, but also professional education disciplines. An educated person must be able to interpret information creatively and make informed decisions based on data. Creativity is no longer associated only with the field of art and culture, but also with education, business, research and health studies, emphasizing such components as hypothesis generation, synthesis, analysis, application of existing knowledge in various fields. The importance of creativity in higher education is revealed through the unique feature representing creativity - the ability to make unique decisions in new and diverse situations.

The mission and goals of the institution that trains health specialists include aspects such as social responsibility, development of scientific research, and public involvement. Communication skills, the ability to learn and develop professional qualifications throughout life are perceived as necessary competencies to ensure successful medical practice. An educational institution should promote students' critical thinking and develop problem-solving skills. Also, the student must be encouraged to take responsibility for his own learning process and be prepared for life-long independent learning. This means the need to choose appropriate teaching and learning methods and methods that cover all areas - knowledge, skills, values.

The purpose of the report is to discuss the experience of developing creativity as a precondition for critical thinking in language studies at the University of Health Sciences using non-traditional activities. The following activities of the Department of Languages and Education are presented in the report: video simulations „Visit to the Vet“, multimedia project „I Am Talking about my World“, festival „Languages Day“, improvement of practical language skills by organizing excursions to Kaunas museums, travelling to Italy and France, as well as using tandem learning method. The peculiarity of these activities is that both Lithuanian and international students participate and learn together. The aim of those

activities is bringing together the LSMU community, reducing the gap between Lithuanian and international students, and increasing interest in various languages and cultures of the world. It is assumed that these activities provide opportunities to develop the creativity of health science students, which corresponds to one of the assumptions of critical thinking

Keywords: *creativity, critical thinking precondition, university of health sciences, language studies, non-traditional activities*

The Disco+ Project and Critical Thinking

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The Disco+ project is an Erasmus+ project for the initial and in-service training of STEM (Science, Technology, Engineering and Mathematics) teachers in various European countries (Lithuania, Romania, Hungary, Spain, Italy and France). The objectives of this project are to train teachers to include students with special needs, to focus on science teaching and to implement an intercultural approach. The cooperative practice of teachers working in transnational teams to design their teaching situations is at the heart of the project.

Teaching science, even with the aim of including as many pupils as possible, must involve the development of critical thinking, because teaching science and getting pupils aged 8 to 14 to do science means making them understand that data can be questioned, and that methods can also be questioned. Including students does not mean lowering standards.

The project is divided into four phases:

- four eTwinning training sessions involving around 100 participants (and 12 trainers), culminating in posters (STEM, inclusion, critical thinking, gender equality) which were presented in Vilnius last week.
- the production and testing of a serious game designed to question inclusion in STEM situations.
- the production of STEM sessions that will be tested identically in the six countries, in order to extract comparative analyses in which the question of critical thinking will be an important focus of analysis.
- the production of a MOOC combining all the work carried out to offer open-source training.

We are currently at the stage of summarising the posters, which show that critical thinking in science applies both when initial representations are made and processed, and when the experimental results obtained are discussed. The game is currently being tested and will be improved in mid-June 2024.

Keywords: *Critical thinking, science, inclusion, teacher training, teaching.*

Debate as a Pedagogical Tool for Verbal Communication Skills at the Tertiary Level: Does it Offer More?

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Debate has long been regarded as a teaching strategy to promote critical thinking and collaborative learning (Brown, 2015; Oros, 2007). Scholars regard debate as a teaching technique promoting higher order thinking skills (Dipta et al., 2023). However, lack of research on debate activities at tertiary level is also emphasized (O'Neill, 2024). Therefore, in the current study we employed debate as a pedagogical practice. Students ($N=35$) studying at the English language teaching program at a state university in Türkiye worked in groups of five to six and debated with against each other in Verbal Communication Skills course for six weeks around such topics of social issues as emergency and first aid during earthquakes, climate change, environmental catastrophes, fires, and deforestation, and gender equality/inequality. The students were required to read two to three background texts and watch video clips on the topic to stimulate their interest, activate their knowledge and acquire relevant knowledge. This also aimed at enabling them to mind map to review the ideas and sub-ideas of all the texts and videos. Volunteers as camera operators recorded the debating teams' performance. The debating teams were later asked to watch the video of their debates and reflect on it individually around such aspects as their verbal and non-verbal communication skills, group cooperation skills, and linguistic skills to argue for and against the debate topic. They were also asked to evaluate what enabled them to get stronger in their verbal and non-verbal communication skills. The results showed that the students considered that they worked and cooperated very well, kept improving despite such problems with tone, pace, eye contact, or gestures in the first few debates. Later reflections revealed that the students become more critical of their debate performance in terms of adequate and effective participation, speech confidence, and the role of adequate preparation.

Keywords: *classroom pedagogy, communication skills, debate, English language learners, group cooperation.*

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Interweaving Critical Thinking Skills, Reflective Writing, and Intercultural Communicative Competence: Their Role in Intercultural Education

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In today's increasingly globalised world, effective engagement across diverse cultures is of utmost importance. While institutions of higher education prioritize the development of students' intercultural awareness, the role of critical thinking and reflective writing remain underexplored. This paper investigates the intertwinement of intercultural communicative competence (ICC), critical thinking skills, and reflection in intercultural education. Specifically, it examines how critical thinking contributes to students' ability to interpret and evaluate observations in intercultural encounters, and to reflect on diverse perspectives.

The research question guiding this study is: How do critical thinking skills and reflective writing contribute to the development of students' intercultural communicative competence? The study aims to elucidate the role of critical thinking skills and reflective writing in the course of "Intercultural Communication" through a project-based task designed for international students. Equipped with theoretical knowledge in the subject, introduced to the basics of critical thinking and reflective writing, the students embarked on a semester-length project to explore the socio-cultural aspects of the host country (in this case, Lithuania) and reflect on their experiences in diaries. To achieve the aim, there were pursued two objectives: firstly, to conduct a comprehensive literature review on critical thinking, reflective writing, and intercultural communicative competence to identify theoretical connections. Secondly, to analyze how critical thinking and reflective writing skills contribute to the development of students' ICC. Drawing on the empirical evidence from 112 students (informants) representing 22 countries, the paper provides insights into the dynamics of students' ICC development, identifies a range of key skills necessary to be developed in intercultural education, and offers considerations for future research and practice.

Keywords: *critical thinking, reflective writing, development of intercultural communicative competence, international students, intercultural encounters*

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Critical Reflections: Student Teachers' Critical Thinking Competencies in the Context of Education for Sustainable Development

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UNESCO's 2030 Agenda for Education for Sustainable Development (ESD) emphasises critical thinking (CT) among the necessary competencies that prospective teachers should have to tackle global challenges like environmental sustainability and social justice. At the same time, CT is crucial for nurturing informed, responsible global citizens ready to contribute to a just society. Meeting these demands requires higher education instructors to transform their teaching by employing active, student-centred methods like case-based teaching. Still, this transformation is challenging for higher education instructors and the empirical evidence remains scarce. The aim of the current study was to explore CT in teacher education through Education for Sustainable Development (ESD), analysing nine undergraduates' responses in case studies for practicum preparation.

Our bottom-up content analysis revealed eight higher order categories. The analysis indicates that student-teachers engage with thinking processes akin to established CT models proposed by scholars like Dewey, Brookfield, and Garrison. That notwithstanding, student-teachers encountered challenges while engaging with the case studies, such as difficulties in comprehending complex problems and reasoning sufficiently. As a second step, we used the Critical Thinking Quality of Response Rubric (CTQRR) to assess the quality of student-teacher CT. The interrater agreement was high ($k=.86$) and after discussion, the two raters reached full consensus. Three CT competence levels emerged from the rubric assessment: the deficient, emerging, and competent critical thinkers.

Our findings have practical implications for teacher education. Higher education instructors can enhance student-teacher CT through scaffolded interventions that refine their epistemological beliefs and boost their comprehension and argumentation skills. The rubric assessment highlights the necessity for higher education instructors to implement structured CT development strategies that are tailored to different student-teacher CT profiles.

Keywords: *Critical thinking, education for sustainable development, teacher education, case studies, Critical Thinking Quality of Response Rubric*

The Importance of Critical Thinking in the Development of Practical Skills in Nursing Students

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Critical thinking is a skill that allows individuals to properly assess the information being received and choose what is important and appropriate. Critical thinking is essential for nursing students because many students are not good at solving problems, tend to learn without selecting information, do not differentiate the vital from the trivial, and lack intrinsic motivation to think. Therefore, it is necessary for students studying in nursing programmes to think critically, that is, to critically analyse and assess situations and problems, argue, draw reasonable conclusions, and independently make decisions and take responsibility for them. All of this helps students to learn successfully and to develop mature, thoughtful, independent, proactive individuals, who can adapt to understanding challenges and real situations.

The importance of critical thinking for nursing students during classes will be analysed during the presentation, and active learning methods that help nursing students critically think and engage with various nursing situations will be discussed.

Keywords: *education; critical thinking; nursing students; methods*

Development of Critical Thinking through Phenomenon-Based Learning: Experiences of Foreign Language Teachers

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The current research findings state that Phenomenon-based learning (further PhenoBL) is one of the successful didactic innovations that enable the development of Four Competencies: Creativity, Critical thinking, Collaboration, and Communication. Still, as with every innovation, PhenoBL provokes a lot of argumentative reasoning the major ideas of which might be grouped into pros and cons that are centered around the failure or success of the implementation of innovation. The research tries to answer the question of how are foreign language teachers in Lithuania prepared to apply the PhenoBL method in TFL in Lithuanian schools.

As there are not so many investigations directed toward the teachers' attitudes about the results of the implementation of PhenoBL, especially in FLT (Foreign Language Teaching), this research aims to examine the attitudes of foreign language teachers in Lithuania, about the implementation of the PhenoB, while employing the quantitative research approach. The quantitative survey results have indicated the relevance of having foundational knowledge about the processes of any innovation implementation, revealed the importance of didactic knowledge about the PhenoBL itself, highlighted the role of the teacher as a guide in the process, and the complementary nature of teaching languages using PhenoBL without replacing the curriculum. The teachers stressed the idea that the PhenoBL focuses on the process rather than the final product and can be integrated differently depending on the linguistic abilities of the learners which empowers students not only to manage the language learning process themselves but also puts emphasis on increasing critical thinking abilities.

Keywords: *critical thinking; foreign language teaching; innovative methods; phenomenon-based learning*

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The Role of Perceived Importance of Critical Thinking Skills and Self-Reported Critical Thinking Skills for Work Engagement

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Research question: How are the perceived importance of CT skills and self-reported CT skills associated with work engagement?

Background. Numerous studies have revealed that CT and work engagement are interlinked concepts important for an organisation success. CT can foster employees' engagement and motivation and, vice versa, high work engagement can promote CT. However, it is not clear whether employees with higher levels of CT skills are likely to exhibit greater work engagement. The role of self-reported CT skills as a mediator in the link between the perceived importance of CT skills and work engagement is under-researched.

The purpose of this study was to explore the links between the perceived importance of CT skills, self-reported CT skills, and work engagement.

Methodology. The study applied a cross-sectional design, and the sample consisted of 2012 employees; the mean age was 41.93 (SD=11.42). To analyse the links between the constructs, three instruments were used: The Work Engagement Scale (UWES), the Perceived Importance of the CT Skills Scale (PICTS), and the Self-Reported CT Skills Scale (CTS). For the statistical analyses, SPSS v.26.0, AMOS v.26.0, JASP v.18 and JAMOVI v.2.2.1 were applied. CFA showed the acceptable model fit and validity of the scales in the Lithuanian population.

Results and conclusion. The structural equation modelling (SEM) results revealed the complex model of the links between the perceived importance of CT skills, self-reported CT skills, and the elements of work engagement, namely, vigour, dedication, and absorption. Several self-reported CT skills (decision-making, interpretation, analysis, and argumentation) statistically significantly mediated the links between the perceived importance of CT skills and the elements of work engagement (vigor, dedication, and absorption). However, no significant mediation effects were found between the perceived importance of CT skills, some self-reported CT skills (e.g., formulation, evaluation), and work engagement.

Keywords: *Critical thinking (CT), labour market, employees, work engagement.*

Fostering Critical Thinking in University Classrooms with Action-oriented Approach

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Within the framework of action-oriented approach, it is generally perceived that students need to engage actively in practicing language in real-life situations, fostering communication as a vehicle to acquire real-life skills that are applicable in their social environment (Picardo et al., 2019). Using Bloom's Taxonomy model, educators can design assignments that challenge students to analyse, create, and evaluate rather than remember and understand the information (Zapalska et al., 2018). Critical thinking abilities and problem-based learning should be integrated into language learning curricula at universities (Poštić et al., 2022).

The current presentation aims to focus on the methodological implementation of the action-oriented approach at Vilnius University, Faculty of Philology. More specifically, the overview of the tasks will be exemplified with students' responses and impressions on the activities and tasks performed in the classroom. A qualitative methodology was used to collect the data in the form of open questions using the SWOT (Strengths, Weaknesses, Opportunities and Threats) methodology from approximately 500 first-year students over a five-year period (2019 autumn semester to 2023 autumn semester).

The data were collected four times within an academic year, in the middle and at the end of each semester from students studying Computer Science and Software Engineering at the Faculty of Mathematics and Computer Science. The students were asked to share their experience, impressions and the impact the course English for academic purposes had on their work and research.

The research findings have shown that the majority of students tend to enjoy academic speaking activities, especially academic debates, learning to see stances from different perspectives, locating trustworthy scientific sources to prove their argument, analysing research articles and collaborating as a team. Students' critical thinking, creativity, persuasiveness, and argumentation skills were emphasized as the most relevant for their academic achievements and their upcoming careers. It can thus be argued that the students have successfully learnt a great deal in the academic English course.

Keywords: *action-oriented approach; methodology; teaching; critical thinking; students' feedback*

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Encouraging Critical Thinking in Chemistry Classroom

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The Chemistry subject in school is well known as one of the most difficult and least liked by students. Chemistry often presents complex abstract concepts and requires a strong foundation in mathematics, which can be challenging for many students to understand. Critical thinking skills enable students to approach these concepts analytically, fostering deeper understanding and the ability to connect theories with real-world applications, thus making chemistry more accessible and engaging. Another distinctive aspect of chemistry lies in its reliance on chemical models to describe phenomena. Unlike observable changes in color and substance, many chemical processes occur at the molecular level, beyond direct perception. Consequently, theories in chemistry often hinge on mathematical calculations, bridging theoretical frameworks with the tangible properties of reactions. This necessitates a nuanced understanding of abstract concepts and their practical implications, underlining the interdisciplinary nature of chemistry. Critical thinking techniques can help in learning and deepening the subject of chemistry.

In 1933, outlining his perspective on education, Dewey portrayed the reflective thinker as someone capable of adapting their cognition, decision-making processes, and conclusions by synthesizing external information with internal experiences. Dewey's impact on the discourse surrounding cognition and the formation of thoughts was profound, redirecting educational approaches from mere memorization of textbook content towards active engagement with and interpretation of the information contained within. Paradigm shift in chemistry education towards a more holistic approach that prioritizes the development of critical thinking skills alongside content knowledge. By embracing critical thinking as a cornerstone of chemical education, we can empower students to become adept problem-solvers, lifelong learners, and conscientious contributors to the scientific community and society at large.

Keywords: *chemistry, didactics, critical thinking*

Exploring the Turkish EFL Instructors' Perceptions of their Multicultural Teaching Competence

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This study aims to investigate how Turkish EFL instructors face the challenge posed by linguistically and culturally diverse students in their classrooms. More specifically, the study aimed to explore the instructor's perceptions concerning their multicultural teaching competence in terms of four dimensions, namely awareness, knowledge, attitude, and skill. A mixed-method research design was utilized to conduct the study. Through a triangulated approach, data were collected through Critical Multicultural Teaching Competency Scale (Acar-Çiftçi, 2016), video-stimulated interviews, and semi-structured interviews. A purposeful sampling method was pursued in the selection of participants and 114 EFL instructors working at the School of Foreign Languages in various universities to collect quantitative data. The qualitative data of the study were collected through video-stimulated interviews with four instructors and semi-structured interviews with 20 instructors who also responded to the scale.

The findings acquired from the scale revealed that the participating instructors perceived themselves as highly competent regarding multicultural attitudes and moderately competent in awareness, knowledge, and skill dimensions. The qualitative findings also showed that the participating instructors were amply competent in terms of multicultural teaching. In the interviews, for instance, the participating instructors particularly emphasized the cultural diversity of students and the significance of showing empathy and avoiding prejudices in regards to multicultural awareness; placed considerable emphasis on the essential role of experience for multicultural knowledge; valued diversity as richness, an opportunity for communication and learning about differences in regards to multicultural attitude; and emphasized the ability to bring students from diverse groups together for multicultural skills.

Keywords: *Cultural and linguistic diversity, multicultural education, multicultural teaching competence, EFL.*

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Can we teach Economic Ethics to AI?

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The rising popularity of Chat GPT begins to show a sign that some people (especially younger generations) delegate their cognitive and decision-making processes to AI-driven interfaces. In business, repetitive and standardised operations are often outsourced, and as such, this phenomenon in AI cannot be negatively evaluated per se. Nevertheless, as AI increases its efficiency and effectiveness, the amount and scope of cognitive tasks AI can perform is destined to expand - but can AI perform these tasks ethically? This introductory presentation summarises the current art of AI in economic activities while considering the ways in which we can 'teach' ethics to AI. Surprisingly, the highest hurdle seems to exist not in the realm of technological advancement, but in the sphere of critical thinking.

Keywords: *cognitive tasks, AI, economic activities, ethics, critical thinking.*

Teaching Critical Thinking: Believe Half of What You See and None of What You Hear...

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How can students within Higher Education recognise, and gain the benefits of, genuine critical thinking skills relevant to both their studies and their lives outside of learning? This talk will focus on i) helping students understand some of the key factors that help inform true critical thinking and ii) an EAP classroom methodology and content for putting these factors into practice.

In Higher Education, critical thinking is an oft-used term that is almost in danger of becoming so familiar to some students that it ceases to have any real meaning, much less any practical application. It is always there but perhaps never quite understood as to how it could be utilised. Based on critical thinking lessons from the EAP unit within the School of Modern Languages, Literatures and Cultures at Maynooth University, this short talk will provide a small set of key terms used to aid students' understanding of critical thinking while also demonstrating how students can be given interactive activities within a lesson framework that lead to a better understanding of critical thinking and its benefits.

The methodology used is informed by the work of several highly prolific authors within the field of critical thinking in (English language) Higher Education and is supported by vast classroom teaching experience. The aim is to craft lessons that do not simply transmit de-contextualised theory to students but rather seeks to gradually draw them further into a discovery-type of learning experience regarding critical thinking and instil a sense of curiosity and appreciation of the topic.

The hoped-for end result is that students will become sufficiently aware of the value of critical thinking, so that they will be able employ it in their own studies and, ultimately, in their lives outside of Higher Education, in a place rather scarily known as, *'The real world...'*

Keywords: *value, scepticism, curiosity, truth, danger*

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Reflection on Language Teaching Process from Critical Thinking Perspectives

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The scope of the report is the two-year educational period (from the third to the sixth semester), focusing on its goal and the steps to be taken to achieve it. The language teaching process is directly linked to the knowledge of a culture and of the way of thinking, thus, to understand and use linguistic information, it is necessary not only to memorize vocabulary, and phrases but also to know psychosocial factors:

- to know what is meant by a phrase or omission of words,
- to understand the customary way to talk about certain people, things, or events,
- to have a background on how representatives of various professions and social circles exchange information in a certain language,
- to be able to discern the meaning of information in day-to-day language and that of mass media.

Starting with the translation and contrasting as the main methods, the students gradually pass on to the text analysis. At the beginning, they are offered a simple scheme: 1 – to name characters and the event, 2 – to describe a context, and 3 – to specify the applied value. While in the course of Spanish for specific purposes taught in the 6th semester, various mass media texts and broadcasting material are used. The analysis is complemented by defining the purpose of the text: to inform or entertain, and the understanding of the context is expanded by considering the specifics of the media: its mission, vision, and the possible profile of the user. When examining the interview, special attention is paid to the formulation of the question, as well as the organisation of the text.

Keywords: *perspective, contrasting, analysis scheme, stages of learning, context expansion*

Critical Minds at Work. Deconstructing “Waiting for the Barbarians”, by J.M Coetzee

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In the realm of contemporary literature, J.M. Coetzee’s “Waiting for the Barbarians” emerges as a profoundly symbolic work, engaging with pertinent themes such as power dynamics, identity formation, and the perils associated with authoritarian rule. This present study endeavours to undertake a comprehensive deconstruction of Coetzee’s magnum opus, employing a diverse array of critical methodologies to meticulously unravel its intricate layers.

The investigation will explore various dimensions of “Waiting for the Barbarians,” scrutinizing its treatment of themes encompassing colonialism, imperialism, and the interplay between oppression and resistance. Through close readings, comparative analyses, and interdisciplinary perspectives, the study aims to interrogate the novel’s depiction of the Other, the construction of identities, and the nuanced considerations of culpability and coercion.

By scrutinizing the narrative strategies, character dynamics, and socio-political contexts within “Waiting for the Barbarians,” the study seeks to elucidate its significance within the broader spectrum of postcolonial literature and contemporary intellectual discourse.

Central to this inquiry lies the examination of colonial hegemony and its repercussions on both the colonizer and the colonized. By dismantling the dichotomies inherent within the colonial narrative – namely, those of ‘self’ and ‘other’ – the study unveils the intricate interplay of dominance and subjugation, agency and resistance. Additionally, the exploration of the Magistrate’s existential odyssey serves as a focal point for comprehending the existentialist currents permeating the novel, as he grapples with existential inquiries surrounding meaning, truth, and individual responsibility amidst societal injustices.

Drawing upon an array of literary theories and philosophical frameworks, the paper analyzes the strata of meaning embedded within the text. Through an exhaustive examination of characters, themes, and narrative techniques, we aim to unearth the latent messages about power dynamics, identity formation, and moral considerations within “Waiting for the Barbarians.”

Keywords: *postcolonialism, identity, literature, Coetzee, deconstructionism*

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Nurturing Critical Thinking in Nursing: How to Nurture and Develop critical Thinking in Nursing Students

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Critical thinking is a way of seeing one's thoughts and decision-making processes. A critical thinker cannot be easily manipulated because they think for themselves and make their own decisions. By considering all available information, choosing relevant data, critically evaluating it, and examining arguments for and against it, they form their own independent opinions.

Critical thinking is crucial for nurses, who encounter various situations on a daily basis and have to find appropriate solutions. To assess the situation and make informed decisions, nurses need to take into account several aspects: the patient's clinical assessment, the patient's safety, communication and cooperation with the patient and other team members, and the availability of problem-solving skills.

This presentation highlights the development of students' truth-seeking, open-mindedness, analyticity, self-confidence, curiosity, and reflective practice.

Keywords: *critical thinking; nursing; students; open-mindedness; reflective practice*

Action Research-Based Practice as a Basis for Developing Critical Thinking in Primary School Pupils

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Action research in educational practice is defined as a systematic exploration of how to change the *status quo* in educational practice, and how to find new ways of doing things in order to bring about positive change for all those involved in the educational process, i.e. to improve student learning and achievement (Anderson, Herr, & Nihlen, 2007; Menter, Eliot, Hulme, & Lewin, 2011; Efron & Ravid, 2013). It is an activity that enables the planning of a strategy for action, which is implemented, systematically monitored, reflexively reflected upon and modified (Dolbec & Clément, 2000; Mertler, 2009; Lafontaine, 2006, 2016; Clark, 2012; Carignan, Beaudry, & Larose, 2016; Eden & Ackermann, 2018). In action research, the teacher as researcher takes on the responsibility of solving a particular learning problem (Macaire, 2007), and this cannot be done without deep critical thinking skills, which is why it is important to have deep, reflective educators in schools. Action research enhances teachers' capacity for professional development, autonomy, and the ability to evaluate and take responsibility for educational practice and its improvement (Efron & Ravid, 2013).

Research question: How does action research help develop students' critical thinking capacities?

Conclusions: It is important to note that most of the focus group participants in our study demonstrated their deep understanding of action research through examples of their work and their reasons for using certain aspects in their educational process. In addition, some aspects were transferred by the teachers to other activities, and some action research projects were so relevant to the children that they carry the experience even when they are in a different classroom and in a different context.

Keywords: *Action research, critical thinking, primary school pupils*

Expressing Critical Thinking Among Primary School Teachers When Creating an Educational Environment That Provides Opportunities for Students to Set Short-term Goals and Reflect on Them

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Reflection is widely recognised as one of the essential lifelong learning skills that greatly influences continuous personal and professional development. It is one of the key competencies in primary, secondary, and higher education systems as it enables students to analyse, evaluate, and actively learn (Colomer et al., 2020). Reflection connects past and new experiences with existing knowledge and skills; it allows critical evaluation of new experiences and their connections with previous skills in various contexts, focusing attention on future transformations (Bassachs et al., 2020; Cañabate et al., 2020). Reflection can also help identify the unique learning style(s) of each student in terms of systemic thinking, general and specific abilities, attitudes, and emotions (Bubnys, 2019).

The aim of the research is to investigate, during activity research, what short-term, one-week personal goals primary school students can independently set and how they are able to reflect on the methods of reaching goals and the results achieved while fostering reflection and self-assessment skills in appropriate conditions.

Research objectives:

- Discuss how to create a reflective learning environment conducive to fostering critical thinking skills for both teachers and students.
- Conduct a qualitative content analysis of students' personal journals discussing students' self-set learning goals and their implementation decisions in the development of reflection skills.

Conclusions. Systematic application of learning reflection can help change formal learning habits and improve students' learning outcomes as metacognitive skills developed during reflection serve as one of the most important factors influencing conscious learning (Kulgemeyer et al., 2021). Reflection can facilitate the definition of individualised learning paths for acquiring knowledge, developing specific competencies, and applying acquired experience in the relevant context (Sachs et al., 2019).

Learning journals are understood as ongoing reflective writing related to learning content or the learning process. The method of learning journals is most commonly used in universities or school lessons but it should not be used in a content-free space; instead, it should be linked to specific learning and action situations.

Keywords: *Short-term learning goal setting and implementation, reflection, experiences, primary school students, school case*

Critical Thinking in Informatics Education: Developing Computational Thinking

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Critical thinking is considered one of the core components of 21st-century skills, encompassing a broad range of abilities and competencies essential for success in the modern world. Even in its early stages, informatics (or computer science) education has naturally contributed to developing students' critical thinking through the subject's primary goals of information processing with information technologies and developing complex information systems (Fagin et al., 2006). Students' development of multiple skills, including critical thinking, creativity, communication, collaboration, problem-solving and decision-making, learning to learn, ICT literacy, and personal and social responsibility, can be facilitated by implementing programming instruction as part of informatics education (Hu et al., 2024).

In recent years, students' computational thinking (CT) in education has been stressed as "thought processes involved in formulating problems and their solutions so that the solutions are represented in a form that an information-processing agent can effectively carry out" (Cuny et al., 2010). CT has expanded beyond informatics as it allows us to solve problems using computers and understand social and natural phenomena (Denning & Tedre, 2022).

In this presentation, we look at the development of critical thinking through the lens of informatics education and computational thinking at different levels of education. Recent national Lithuanian initiatives and historical perspectives are presented. Various ways of thinking developed within informatics education (critical thinking, computational thinking, design thinking) and their relationships are discussed.

Keywords: *informatics education, computational thinking, digital literacy, critical thinking, design thinking*

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Developing Critical Thinking Skills in Writing Summaries in English

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Critical thinking is essential for contemporary societies in the context of the enormous amount of information and evolving technologies. Students' critical thinking is influenced by numerous factors including digitalization, generation peculiarities, and usage of AI. All this encourages educators to look for new ways and solutions in the development of students' critical thinking skills. Summary writing relates very closely to the ability of the students to use critical thinking. It is necessary that students deeply engage with the text to comprehend, analyze, select and take reasoned judgement to identify the main idea and then support it with relevant arguments. Critical thinking skills will help the students to prioritize correctly discarding irrelevant details while conveying the gist of the article. This study attempts to explore the strategies that would be effective in enhancing students' critical thinking skills to develop recommendations for teaching summary writing in English. The answers to a questionnaire on critical thinking in summary writing might lead to an instruction scheme that would make summary writing easier with critical thinking on the mind. This research could be a meaningful insight for further exploration of effective methods when learning to write summaries in English.

Keywords: *summary writing, critical thinking*

The Ethical Economist: Integrating Justice and Equity into Economic Decisions

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This study explores the critical intersection between economics and ethics, focusing on the necessary role of ethical considerations in economic decision-making. It examines how principles such as fairness, equity and resource allocation affect the macroeconomic and microeconomic environment. By integrating ethical dilemmas into the economics curriculum, educators can significantly improve students' critical thinking and ethical thinking skills.

The research contends that understanding and resolving such dilemmas is essential for preparing students to face real-world challenges, where economic decisions often have significant ethical implications. By examining current educational practices and theoretical frameworks, this discussion highlights effective strategies for integrating ethical issues into economic studies, thereby developing a generation of economists equipped to make decisions that are not only economically sound but also ethically responsible. This approach not only enriches academic discourse, but also prepares students to make positive contributions in a variety of professional contexts, promoting a more just and equitable society.

Keywords: *Ethical Economics, Economic Decision-Making, Justice and Equity, Ethical Thinking*

Development of Critical Thinking, Creativity and L2 Reading through Online Group Problem-Solving Tasks for Undergraduates of Finance

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This study aims to investigate the possible effects of online group problem-solving tasks on undergraduates' Critical Thinking (CT), creativity, and reading comprehension. To this end, a convenient sampling of Persian first-year students of non-English majors (finance) in Iran was selected as the participants. A homogeneous group of 60 Persian first-year students was randomly assigned into two groups: experimental (N=30) and control (N=30) (N Total=60) based on the OPT test results. The data collection and the treatment were accomplished on the platforms of LMS, Google Docs, email, and WhatsApp. The experimental group was instructed with online group problem-solving tasks for 12 sessions during the second semester of the academic year 2020-2021. The results revealed that the experimental group outperformed the control group in CT, creativity, and L2 reading comprehension. Further, the experimental group reported a positive attitude toward online group problem-solving tasks. One of the major contributions of this research is addressing the paucity of CT and creativity studies for non-English majors in L2 academic courses in Iran. This may also help signify the crucial role of 21st-century skills (i.e., CT and creativity) for a successful life in educational aspects.

Keywords: *critical thinking; creativity; L2 reading; online group problem-solving*

The Interplay Between Critical Thinking, Emotional Touchpoints and Personalised Learning: Experiences from Two Erasmus+ Projects

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Critical thinking (CT) is, among other things, a rational, sceptical and unbiased analysis or evaluation of factual evidence. Yet given the cognitive, emotional and behavioural levels of integration of information, cognitive performance must be married to emotional responses as well as behavioural expressions. The present paper explores our experiences from two Erasmus+ projects, *KA220-SCH Women's Legacy: Our Cultural Heritage to Equity* and *KA203 Innovative Teacher Education Through Personalised Learning (INTERPEARL)*. In the first project, critical thinking was combined with the method of emotional touchpoints in literature analysis, and in the second project, CT was applied in the personalisation of two teacher training programmes at Vilnius University.

Our findings suggest that the interplay between critical thinking and emotional touchpoints in literature analysis promotes higher order thinking via emotionally charged reasoning and organisation. Such an interplay develops one's ability to reflect over texts and see a broader picture vis-à-vis the ultimate meaning and alternative directions in life. In regard to personalisation as a novel approach to teacher education, which the INTERPEARL project aimed to develop, CT as the ability to identify central issues, interpret facts, apply generalisations, etc. aligns with the frameworks of social constructivism, reflective practice and mediated learning, the pillars personalised learning rests upon.

Keywords: *Critical thinking, ERASMUS+, cognitive performance, emotional touchpoints, personalised learning*

The Role of Logic in Reasoning: An Argumentative Theory

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Reasoning and human reason is often held in high regard, although findings in cognitive psychology tend to contradict such an intuition. The famous Wason selection task depicting a practical use for *Modus tollens* and *Modus ponens*, where only 10% of subjects managed to find a correct solution is a perfect example. This raises questions: is reasoning really meant to improve our knowledge and decision-making? Is reasoning a superpower? H. Mercier and D. Sperber would answer both questions negatively and for that purpose they seek to reformulate the function of reasoning. Following the aforementioned authors, an evolutionary account of reasoning is given which is not at odds with the influence of the socio-cultural domain. They subscribe to a position stating that the function of reasoning is argumentative i.e. the role of reasoning is to persuade others. Reasoning is aligned more closely with intuitive inferences about reasons, where humans are very good at forming conclusions and coming up with reasons to support them (not the other way around) and are very good at evaluating if the conclusions others make follow from their premises. What is of note here is that the standard logical view of reasoning applies only when evaluating the reasoning of others. The upshot of my work is that I introduce the Adoption Problem which is an argument that some basic inferences must be logical in a certain sense (which is not in conflict with a position that reasoning is not logical). The argumentative theory of reasoning raises questions as “how do we teach critical thinking to subjects that don’t reason logically?” for it is clear that changes need to be made. The conclusion points to a common ground between reasoning and inference where logic still has an important role, yet the way reasoning must be understood is radically different.

Keywords: *reasoning, inference, rule-following, argumentation, adoption problem*

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Critical Thinking in Statistics and Statistical Literacy

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Critical thinking is a vital skill essential for both students and employees. According to Ennis (2010), critical thinking is “reasonable reflective thinking focused on deciding what to believe or do,” while Dyer (2011) describes it as a proactive approach to engaging with information, ideas, and arguments. It involves actively questioning, scrutinizing underlying assumptions, and evaluating the soundness and validity of reasoning.

Critical thinking and statistical literacy are prerequisites for responsible citizenship in democratic societies (Ben-Zvi & Makar 2016). Teaching statistics with a focus on critical thinking empowers students to move beyond mere memorization of formulas and procedures. Instead, it cultivates their ability to analyse data, interpret results, and draw meaningful conclusions. Being critical in statistical contexts involves employing specific abilities to evaluate statistical data critically. Statistical thinking provides a structured framework of analytical principles to guide and support reasoning, whereas the components of critical thinking are not necessarily structured in such a fashion.

Instructors can promote critical thinking in statistics courses by presenting real-world scenarios or case studies. This approach prompts students to critically examine underlying assumptions, identify potential biases, and evaluate the validity of the statistical methods employed. Emphasizing data visualization and interpretation can enhance critical thinking skills. Students should scrutinize graphical representations, identify patterns or anomalies, and critically assess the implications of the data. This process reinforces their understanding of statistical concepts and develops their ability to communicate findings effectively.

Incorporating group discussions and collaborative problem-solving activities can further promote critical thinking. Through peer-to-peer interactions, students can challenge each other’s perspectives, debate alternative approaches, and collectively arrive at well-reasoned solutions. Additionally, exposing students to the limitations and potential misuse of statistical methods can cultivate a critical mindset. Discussing ethical considerations, such as data privacy and responsible data handling, helps students develop a nuanced understanding of the broader implications of statistical analysis.

Keywords: *statistical literacy, critical thinking, statistical thinking, data visualization and interpretation*

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CognitiveSTATS: an E-Platform for Advancing Statistical Literacy and Critical Thinking Skills

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The abundance of statistical data and visualizations in contemporary society poses a significant challenge, as their misinterpretation directly impacts people's beliefs and decisions. The global pandemic underscored the widespread deficiencies in the public's ability to interpret statistical information critically. Crucially, these challenges persist across different domains and are expected to intensify as the reliance on data continues to grow.

In this talk, we will present the results of the interdisciplinary research project CognitiveSTATS, funded by the European Social Fund (SMART Covid call). The project aimed at developing a prototype for an innovative educational platform fostering statistical literacy. Given that most people do not have the opportunity to pursue formal education in statistics, the research-based platform created during the project aims to help the general public to develop essential statistical intuitions, crucial for comprehending and critically evaluating the most relevant data and phenomena. In order to ensure the effectiveness and attractiveness of the platform, an innovative technological solution was proposed, based on: 1. experimental research and the application of its results, 2. an innovative system architecture that considers cognitive mechanisms, 3. the development of statistical intuitions through familiar data and their visualizations.

The research conducted during the project has pinpointed significant shortcomings in statistical literacy and prevalent numerical cognitive biases within society, such as the exponential growth bias. Furthermore, the project has successfully identified common instances of graph and data manipulation in the public domain. Additionally, the research has shed light on the considerable impact of math anxiety on individuals' engagement with mathematics and statistics.

The practical and theoretical implications of these results will be discussed, emphasizing the importance of multidisciplinary education for adults beyond formal schooling.

Keywords: *statistical literacy; educational platform; cognitive mechanisms of learning; visualizations; math anxiety*

Is My Visualization Better Than Yours? Analyzing Factors Modulating Exponential Growth Bias in Graphs

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Humans tend to systematically underestimate exponential growth and perceive it in linear terms, which can have severe consequences in a variety of fields. Recent studies have attempted to examine the origins of this bias and to mitigate it by comparing the use of the logarithmic vs. linear scales in graphical representations. However, these studies have yielded conflicting results regarding which scale induces more perceptual errors.

In the current study, through an experiment with a short educational intervention, we further examined the factors modulating the exponential bias in graphs and suggested a theoretical explanation for our findings. Specifically, we tested the hypothesis that each scale can induce misperceptions in a particular context. In addition, we explored the effect of mathematical education by testing two groups of participants: those with a background in humanities versus in formal sciences.

The results of this study confirm that, when used in an inadequate context, both logarithmic and linear scales can dramatically affect the interpretation of visualizations representing exponential growth. In particular, while the log scale leads to more errors in graph description tasks, the linear scale misleads individuals when predicting the future trajectory of exponential growth. The second part of the study revealed that the difficulties with both scales can be reduced through a short educational intervention. Importantly, while no difference between participant groups was observed before the intervention, participants with a better mathematical education showed a stronger learning effect in the posttest. The findings of this study are discussed in light of a dual-process model.

Keywords: *cognitive bias; exponential growth; graph perception; logarithmic scaling; mathematical literacy*

Transformative Pedagogy in Liberal Arts: Developing Metacognitive Competences via Translation

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In this paper, Jack Mezirow's cognitive-analytic approach to transformative learning is used as a point of departure to approach teaching literary texts in a foreign language. First, this paper will explore how difference and failure in translation are employed in the classroom as valuable aspects of foreignness and multiplicity. Bilingual teaching of literary works fosters critical thinking, predisposing students to experience disorientation, examine their assumptions, recognize the dissatisfaction with only one language at hand, explore alternatives of experiencing the world, try out new cultural and linguistic roles. These metacognitive competences are promoted by the productive tension of failure experienced in translation and placing students in a multilingual learning environment.

Second, this paper will explore how the lacunae of Mezirow's cognitive-analytic approach are complemented by embracing pedagogy of failure which highlights the difficulty, thus putting to work the oscillation between languages as a crucial feature of interpretive methodology itself. Oscillating between languages in the perpetually shifting quicksand of translation, students find themselves negotiating the impossibility of exact transfer, experiencing play of differences caused by the disorienting encounter with the literary work. These hermeneutic oscillations, swaying between disorientation and belonging, subvert the logic of consuming and subsuming, propel students into a liminal experience where singularity of what each language aims to express is palpable, thus exposing students to absence of a fixed identity.

I suggest that such intrinsic elements of critical thinking lead to formation of metacognitive competences helping students to transcend habitual dualistic model of thinking outside of classroom as well, contributing to the development of learners' autonomy required for resolving dilemmas, developing self-awareness and ability to make reasonable choices as autonomous learners, moving them into a third space of critical thinking (Bhaba, 1994).

Keywords: *transformative pedagogy, translation, metacognitive competences, liberal arts*

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Eyes Without a Face and Bodies Without Limit. The Actuation of the Mad Scientist

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This article aims to analyze literary and visual resorts of the body as an object of pathology, of obsession and revenge as shown in the novels of Jean Redon and Thierry Jonquet and their counterpart in film, represented by Georges Franju and Pedro Almodóvar's creations. Their origins stem from the French *noir* novel, and as the films mentioned are rather scarcely received, this approach to contextualise the four creations is not necessarily an easy task. Moreover, as critics note, both novels and films have significant bizarre and shocking characters and are not to the liking of all mainstream cinema or literature lovers. We are envisaging a period of half a century, the last half, where the objectification of the body is no longer a novelty; however, the idea of using the (living) body as a source of spare parts or that of arbitrary forced sex change still raise eyebrows, if not even induces distress. The male and female bodies are delimited by an increasingly blurred line, be it cultivation and skin graft or transgender experiment. The selected corpus undoubtedly elicits critical thinking on recent major societal topics. We argue this to be not only an *exercice de style* but also a rather in depth and symptomatic approach to nowadays uncomfortable new aesthetics.

Keywords: *horror, literature, French noir, plastic surgery, Franju*

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Critical Thinking in School Mathematics

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Critical thinking is a part of the cognitive competence included in the latest version of the Lithuanian curriculum framework. According to D.T. Willingham, thinking is defined as critical if it is novel, self-directed, and effective. In any school subject matter, the person's thinking is self-directed if they are not merely executing instructions given by someone else. Additionally, their thinking is effective if they respect certain conventions that make thinking more likely to yield useful conclusions. The meaning of effective thinking depends on the subject matter of study. We discuss critical thinking in the context of school mathematics.

Thinking in school mathematics is effective if it follows habits of mathematical reasoning similar to those used in academic mathematics. Specifically, mathematical reasoning in a school context involves looking for patterns among mathematical objects, making, testing, proving or disproving conjectures, refining them, and, finally, communicating the results. The implementation of mathematical reasoning and critical thinking in schools depends on the alignment of the three dimensions of the curriculum. Aligning with these dimensions ensures that the educational goals set forth in the intended curriculum are what gets taught in the enacted curriculum and ultimately what students actually learn. Finally, all this depends on teacher preparedness to teach mathematical reasoning effectively.

Advancing Clinical Excellence: Nurturing Critical Thinking Skills in Medical Education

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Critical thinking skills (CrT) are crucial for effective clinical decision-making, problem-solving, and patient care in all healthcare professions. Medical schools are increasingly emphasizing the development of critical thinking skills alongside medical knowledge. Many schools have integrated critical thinking training into their medical curricula across various stages of medical education. The strategies used may present different pedagogy types, whether they are intended to be used within a course (e.g., problem- or case-based learning, simulation-based learning, interprofessional education, and other active learning strategies) or they represent mandatory training in clinical settings (e.g., pre-clinical coursework, clinical rotations).

However, integrating critical thinking and clinical reasoning development in medical education presents several challenges. Some are related to the implementation of CrT nurturing activities (time constraints, assessment methods, faculty training, interdisciplinary collaboration), and others are related to the institutional culture, priorities, and resource constraints. Besides, to ensure the efficacy of the implemented strategies, student's prior knowledge must be guaranteed, and the evaluation of the activities' outcomes must prove its effectiveness.

This presentation explores learning strategies to enhance critical thinking in medical education, assessing their effectiveness and potential long-term impact on students' CrT development.

Keywords: *critical thinking; clinical reasoning; medical education; curriculum development; teaching strategies; educational innovation*

Participatory Co-design of Critical Thinking Blended interventions: Bringing the Workplace into the Classroom

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Under the Think4Jobs project, collaborative partnerships were established between Higher Education Institutions and Labor Market organizations to develop real-world scenarios to be integrated into Critical thinking (CrT) blended curricula. These aim to stimulate students' critical thinking (both skills and dispositions), addressing profession-specific real-life challenges by seeking solutions. The participatory co-design of the interventions was rooted in the previous identification of the CrT skills and dispositions deemed necessary for day-one graduates by labor market representatives, gathered from focus groups interviews. The identified needs concerned making well-informed decisions, whether within clinical or non-clinical settings, critically analysing ambiguous or poorly defined problems, offering corrective solutions, and anticipating potential challenges.

In Portugal, the partnership was established with a large Veterinary Hospital. Together, two labour market representatives and educators structured three sequential interventions, covering the course contents in Andrology, Gynecology, and Obstetrics. The design of the activities followed an adapted “*think aloud*” approach to deconstruct clinical reasoning into multiple interwoven small steps starting with the initial evaluation of a clinical case and aiming at deciding on the most adequate solution for the proposed problem. For each activity, a document should be produced, conveying the rationale behind the clinical analysis and proposed solutions. The documents were assessed for the factual and conceptual understanding related to the course, and the strength of students' reasoning, including the ability to substantiate procedural and metacognitive dimensions of knowledge with evidence. CrT skills and dispositions were assessed by a questionnaire at the beginning and end of the term.

In this presentation, we will discuss the operationalization of the University-Business collaboration, and the students' CrT gains associated to the interventions piloted in the second term of the 2022/23 academic year.

Keywords: *critical thinking; curriculum development; learning strategies; educational innovation; university–business collaboration*

Are Contemporary Universities Venues for Critical Thought? Conceptual and Empirical Insights

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Critical thinking historically has been recognised as a foundation of intellectual inquiry in the European continental academic tradition since Kant. Underpinned by the principle of academic freedom, the pursuit of critical thinking has accompanied the quest for truth and has been inseparable from the broader democratic project. In contemporary European higher education, critical thinking re-emerges as a generic competence, reflecting a 'know-how' approach that highlights the practical use of knowledge and skills in real-world and work contexts. The presentation focuses on exploring the historical and contemporary European approaches to critical thinking in the context of university education and discerning their similarities and differences. Furthermore, it examines the challenges of fostering critical thinking within contemporary Lithuanian universities. The presentation offers a conceptual analysis of universities' historical role in nurturing critical thought and an overview of contemporary European higher education policy documents. Moreover, it draws on the findings of the broader research project, which explored Lithuanian academics' responses to European higher education reforms, to draw valuable insights into the current state of critical thinking in Lithuanian universities.

Keywords: *Critical thought, universities, European continental academic tradition, European higher education policy, generic competences, Lithuanian academics' perspectives*

Development of Critical Thinking Skills in Literature Classes

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This paper analyses the use of techniques through which critical thinking skills can be developed, honed, and nurtured during university literature classes. First, it reviews all the definitions of critical thinking, paying special attention to how they have evolved during the last one hundred years, and selecting those that are useful for literature teaching. Further, it uses the critical thinking skills, listed by an international expert group and described by Peter Facione in his 2011 article entitled “Critical Thinking: What It Is and Why It Counts,” and recommends ways in which they can be developed in a literature classroom. The six consensual skills listed by the group are interpretation, analysis, inference, evaluation, explanation, and self-regulation.

The recommended techniques in the following section heavily rely on the Dialogue Teaching Model, described in a 1990 work by William Hayes entitled “Critical Thinking through Literature: A Dialogue Teaching Model.” The model this author uses involves five basic steps: getting students to respond to their reading in some significant open-ended way, comparing their reasoning to that of others, reflecting on their own reasoning after considering what others have said, revising or maintaining their responses in the light of other viewpoints, and demonstrating their understanding of a literary piece through a written or oral assignment. This procedure cultivates the expression of one’s own opinion, the ability to listen and comprehend other people’s views and opinions, the encouragement of open-mindedness to different opinions, and the willingness to adapt your own stance according to the information and arguments collected from others. The principle aim of the work is to demonstrate how discussions about literature are one of the most effective ways to develop critical thinking skills.

Keywords: *Critical Thinking, Literature, Dialogue Teaching Model, University Classroom*

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Teaching Self-Assessment in Business English Classes

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The purpose of the presentation is to analyze the role of student self-assessment in group projects. The author intends to emphasize the importance of peer learning and self-assessment of individual and group work and to offer recommendations to instructors willing to improve their students' self-evaluation skills. For students themselves, self-assessment is a much-needed skill they could later use in the workforce when they could negotiate a wage raise, an end-of-the-year bonus, or ask for a promotion. As a tool for critical thinkers, self-assessment allows for contextualizing one's strengths and weaknesses within a group, improving communication among group members, and building trust. The presentation is informed by Business and Economics students' work on three group projects over three semesters in the courses of Business English the author teaches at Babeș-Bolyai University in Cluj-Napoca, Romania.

Keywords: *group work, peer learning, self-assessment, student reflections*

Can Critical Thinking Reduce the Gap Between Universities and Labour Market? A Study with Focus Groups and One in-depth Interview with Veterinarians

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Every year, universities award graduating students with a diploma that enables them to enter the job market. The discussion about whether the profile these students possess is the one desired by employers is recurrent in the literature. Critical Thinking for Successful Jobs (Think4Jobs) was an Erasmus+ project (2020-1-EL01-KA203-078797) that, using a multidisciplinary approach, sought to develop critical thinking among higher education students, so that the incorporation of this skill would be an asset in the transition between academic and professional environments.

The purpose of this presentation is to understand if critical thinking, understood as the ability to analyse, evaluate, and decide objectively and based on evidence, can reduce the gap between universities and the labour market. In the context of veterinary medicine, two

focus group interviews were conducted with 12 veterinarians (six in each group), followed by an in-depth interview to further explore the topics discussed. The interviews were transcribed, and the data were analysed using NVivo software, employing the reflexive thematic analysis technique.

The results highlighted the need to change some pedagogical practices used both in the university and in the professional internships, to enhance self-regulation and autonomy, and to promote skills in decision-making and clinical reasoning. The importance of incorporating industry needs into university course curricula was also emphasized. Veterinarians recognize that initial training and internships provide different opportunities for the development of critical thinking, which complement each other. They also note that newly graduated individuals with higher levels of critical thinking competence align more adequately with the desired profile for entering the profession.

Keywords: *critical thinking; university-business collaboration; veterinarians; employability profile; soft skills*

“At First I Thought It Would Be Boring”. Critical Thinking in Classical Studies Classroom

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This paper presents a classroom experiment that evaluates how students’ critical thinking can be promoted in a seminar, as well as a method of teaching critical thinking during the seminars of the “Classical Art and Culture: Rome” course.

The purpose of the classroom experiment was to determine several study objectives of the aforementioned course, which aims to develop critical thinking through reading excerpts from ancient Roman literary sources in Lithuanian translation, dedicated to a specific seminar topic. The premise of the experiment was also based on a remark made by a student in 2023 during a reflection at the end of the course: “At first I thought it would be boring, but then I was hooked”.

The experiment was carried out with two target groups using different approaches. One seminar group received three excerpts from ancient Roman literary sources in Lithuanian translation and had 20 minutes to read and write two to three sentences about what they understood. The second group received the same extracts, but had a time limit to read and write their answers. Both groups then had a regular seminar after which they again had a limited time to read the same extracts again and again write two to three sentences about what they understood.

The results of the experiment showed that 80 per cent of the seminar group demonstrated an increased understanding of ancient sources and improved critical thinking skills. Furthermore, at the end of the seminar, at least 35 per cent of the class indicated intermediate or advanced progress in understanding the seminar topic and in critical thinking when reading and interpreting various ancient sources. Therefore, this qualitative experiment illustrates how close reading of such literary sources can be productive in developing the critical thinking skills of university students.

Keywords: *critical thinking, Classical studies, close reading, ancient sources, teaching approach*

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Beyond Listening and Speaking: The Role of Writing in Fostering Critical Thought in Literature Students

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In the realm of literature education, lectures and seminars traditionally emphasize aural comprehension and oral expression. However, the silent work of writing and note-taking is where complex layers of meaning can take shape, providing a foundational strategy for fostering critical thought in students. This presentation proposes a shift in focus to these underappreciated practices, exploring how the externalization of ideas through writing is not merely a supplementary activity but a central aspect of developing critical thought and understanding.

Drawing upon both pedagogical theory and media historians such as Siskin and Warner (2010), alongside the insights offered by Ahrens (2017) on smart note-taking, we will consider the rising prominence of the written and printed word as a tool for structuring critical thought during the Enlightenment. This historical perspective illuminates how the act of externalizing thought has always been integral to the emergence and advancement of critical analysis.

Using Zagzebski's (2019) theoretical framework on understanding, this presentation will examine how the material aspects of writing and note-taking can serve as cognitive scaffolds. These tools not only facilitate the absorption and dissection of literary works but also allow students to render tacit knowledge explicit, thereby refining their analytical skills and scholarly insights.

By incorporating examples and exercises from classroom experience, this presentation will propose the efficacy of these strategies in enhancing interpretative skills and fostering active student engagement with literary texts. Participants will gain a richer appreciation for the role of externalization in education and will be equipped with actionable methods to cultivate a robust culture of written reflection, necessary for nurturing enlightened, critical thinkers.

Keywords: *externalization, pedagogy, Enlightenment, note-taking, understanding*

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How Do We Celebrate a National Hero Today? The Transylvanian Avram Iancu and his Bicentennial

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Avram Iancu (1824-1872) is perhaps the most representative historical figure among Transylvanian Romanians, with a rich biography highlighted by the Revolution of 1848-1849. Known as the „King of the Mountains” to Transylvanian Romanians, he was immediately embraced as a national hero by Romanians beyond the mountains. However, he was often met with reservation, if not severe criticism or even stigmatization, in the rhetoric of otherness, particularly in the perception of Hungarian historiography. However, the way Avram Iancu’s personality and historical role have been approached in Romanian historiography and beyond, in over 150 years of works on this subject, has undergone numerous transformations. Since the presentation of such a personality to the general public is inherently tied to patriotic values, such approaches are often avoided by most contemporary historians. The current presentation aims to analyze, starting with the subject of Avram Iancu, how our relationship to history has changed, how thin the border between patriotism and chauvinism is perceived today, how „we are still allowed” to get excited about historical figures, what is considered disturbing and what is not in the historical information we pass on to new generations, and why, for example, the disturbing „doses” have increased compared to the historical content of 20 or 50 years ago. Alternatively, from another angle, how critical thinking shapes our perception of history.

Keywords: *national hero, Transylvania, historical representation, perception, values*

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Effectiveness of the Course English for Academic Purposes and Research: The Learner Perspective

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The aim of this paper is to present the results of a survey undertaken to find out students' perception of the effectiveness of the course English for Academic Purposes and Research (CEFR level C1) introduced into Vilnius University in 2019. The course is constructed using the principles of the action-oriented approach, where students are exposed to typical situations encountered in the academic environment and engaged in appropriate interaction and mediation activities to identify and propose a solution to global and/or subject-related problems through collaborative critical analysis of authentic sources. The course aims to develop a range of capabilities embracing not only communicative language competencies but also transferable, academic, and subject-specific skills, which are assessed through production activities.

The sample of the study consisted of 70 first-year students at the Faculty of Chemistry and Geosciences who were asked to complete a questionnaire immediately after the examination and evaluate the effectiveness of the course from different perspectives. The respondents were asked to assess their own progress in terms of the acquisition of transferable and academic skills, language proficiency, and subject-specific knowledge. They were also asked to evaluate the activities, assignments and tasks regarding their usefulness, rank them by their difficulty and specify the ones that posed the greatest cognitive challenge.

The results indicate that the repertoire and sequence of the tasks create a strong platform for the development of competencies set in the description of the course; however, some adjustments (e.g., giving preference to certain activities, allocation of more time to practice particular tasks, or even raising the visibility of the usefulness of some formats) could be made to increase the efficacy of the course.

Keywords: *course effectiveness, English for Academic Purposes and Research, action-based approach, learner's competencies, authentic materials*

Culturally Responsive Approaches to Teaching Information Literacy to Secondary and University Students in an AI-Accessible World

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How do educators in different countries teach information literacy to secondary and university students in a world where artificial intelligence is now widely accessible? Information Literacy as defined by the American Library Association is, “a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Information literacy forms the basis for lifelong learning.”

Since 2020, I have been investigating questions of how information literacy is taught across different cultures and school systems. However, since the release of ChatGPT in November 2022, and consequently other similar platforms, educators are at a crossroads of how to continue to teach all aspects of information literacy to students and how to encourage them especially to avoid plagiarism (a cornerstone of information literacy education). This research aims to collect and share ideas and strategies offered by educators in the field to communicate with others as a community of practice. According to the University of Florida’s Center Lastinger Center for Learning, “A Community of Practice is a group of individuals who share a common goal and passion or profession striving to improve practices or outcomes.”

This research draws upon the surveys of 15 educators across Bulgaria, Romania and the U.S. to identify strategies they use or might use in their schools or universities to teach information literacy in culturally responsive ways in an environment where students now have full access to platforms such as ChatGPT. Montgomery (2001) states that culturally responsive classrooms recognize the existence of culturally diverse students and the need to find relevant connections among themselves and with the subject matter. Survey participants not only agree to complete the survey, but also to share their responses and contact information with other participants in order to form a community of practice.

Keywords: *Artificial Intelligence, Information Literacy, Secondary Education, Tertiary Education, Culturally Responsive Pedagogy*

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Critical Thinking as a Condition Sine Qua Non for University-Level Foreign Language Teachers' Professional Development

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The rapid development of the information society causes new challenges to higher education, continuously encouraging faculty development. In this respect, it is crucial to draw attention to cultivating university-level teachers' critical thinking as a necessary condition for enabling them to effectively sift through today's information overload, find new and different ways of solving educational problems, as well as to play an exemplary role in students' use of critical thinking skills [1]. Issues of incorporating critical thinking skills in language education have recently been tackled in the field of research development on teachers' critical thinking [2], foreign language teaching in HEI and the labour market [3], as a component of the CPD framework for teacher educators [4], etc.

The present study reports on the analysis of the role of critical thinking in foreign language teachers' professional development within the project on the implementation of the CEFR Companion Volume [4] into the teaching/learning process at Vilnius University (Lithuania) in 2019-2022 [5]. A qualitative case study research was chosen as the number of participants was limited. Convenience sampling was used, the participants being selected among English language teachers delivering courses at different faculties and study programmes who volunteered to participate in the survey.

The qualitative analysis of anonymous teachers' responses to a questionnaire consisting of open-ended questions resulted in identifying the ways teachers' critical thinking can contribute to professional development concerning the curriculum, teaching and students. The findings showed that critical engagement in received knowledge in the process and as a result of professional development ensures university-level foreign language teachers' active participation in the culture of teaching and learning, reflection on their own proficiency in critical thinking skills as part of their professional competence and ability to foster students' critical thinking.

Keywords: *critical thinking skills, professional development, foreign language teachers, higher education, curriculum*

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Value-added Experience Through Just a Step Aside

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The presentation contains the experience of the past eight years teaching English to students at the Faculty of Mathematics and Informatics (MIF). Specifically, it provides an overview of the practical enrichment of the assignments included into the Course Description. This includes the application of three interdisciplinary CLIL modules integrated into the language teaching curriculum during the study years of 2017-2019 and two trans-faculty Student Conferences of 2022 and 2024. Challenges and benefits will be highlighted, focusing on interdisciplinarity and students' empowerment for future work and life. Students' feedback will also be presented and analysed.

Additionally, a future virtual exchange (VE) project will be introduced. The project is planned for the implementation in the autumn semester of 2024. The VE project will be based on a debate assignment conducted between MIF students and Bologna University students from Italy, thus achieving the highly desired international dimension. By participating in the international VE project, students will have a brilliant opportunity to experience technology-based interaction, communicate with another culture, and gain an international perspective on the content discussed. Moreover, students will develop their soft skills. Exposure to different worldviews and attitudes will impact students' motivation to learn, exchange ideas, accept diverse opinions, and build their own arguments, all of which will enhance their critical thinking.

Keywords: *interdisciplinary, CLIL, virtual exchange project, soft skills, critical thinking*

Hard Skills vs Soft Skills: Cross-Perspectives of Trainers, Employers and Trainees

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Employers, when aiming to select and recruit new employees, establish a profile consisting of a set of skills that these individuals should have and possess to fulfil their future roles. This profile comprises hard skills as well as soft skills. Soft skills are distinguished from hard skills by being more difficult to identify, develop and assess.

Within the scope of the European Project ‘Think4Jobs’ (2020-1-EL01-KA203-078797), an exploratory study was conducted to understand whether, according to the perspectives of teachers and students, hard skills and soft skills are being developed during undergraduate studies. The study also aims to ascertain if the skills conveyed to students by teachers are adequate in relation to the profile desired by employers, and whether employers value hard skills or soft skills more.

The study focused on the fields of Educational Sciences, Psychology, Management, and Tourism, and involved both directors of various higher education programmes and employers whose business focus lies in the aforementioned areas. Additionally, third-year students from each higher education programme were interviewed. Four focus groups were conducted, with the participation of approximately five students each. Transcriptions of the interviews were processed and analysed using the content analysis technique, with the support of NVivo data analysis software.

The results revealed that all three interviewed groups assign high importance to soft skills, namely communication, critical thinking and autonomy, and advocate for greater integration between higher education and the business environment. As a result, it can be observed that there is agreement between the skills that employers wish to find in their employees and those that higher education institutions aim to develop.

Keywords: *Employability, hard skills, soft skills, labour market, university-business collaboration*

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Critical Thinking of Nursing Students: Developing an Essential Skill

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Introduction. Critical thinking is one of the competencies necessary for nurses to effectively manage complex care needs in a rapidly changing environment. The effect of nursing education on the development of students' critical thinking has been studied by many researchers. Critical thinking skills are an expected outcome of nursing education programmes.

The purpose of the present study was to identify the issues related to the development of critical thinking skills in nursing students. The research questions were: 1. How is critical thinking defined from a nursing perspective? 2. Are there specific teaching strategies that can be used to develop critical thinking in nursing students? 3. What factors contribute to the development of critical thinking skills in nursing students?

Methodology. A descriptive review was conducted to examine the literature and assess the existing knowledge about the critical thinking of nursing students. The literature search was performed using several keywords in different combinations on electronic databases. The studies were identified, screened, and excluded or included in the review.

Results. Critical thinking is a multidimensional concept. The strategies for teaching critical thinking include using frameworks to guide teaching, concept mapping, problem-based learning, guided reflective discussions of critical incidents, simulation-based learning, and the Socratic method. There is evidence of relationships between critical thinking ability and factors such as age, gender, academic year, academic achievement, and learning styles of nursing students.

Conclusions. Critical thinking is one of the basic skills in the clinical reasoning process in healthcare and is therefore essential to its development in nursing students during their education programmes. Critical thinking is a key element for making progress in evidence-based practice and providing safe patient-centred care.

Keywords: *critical thinking; nursing student; nursing education; skill; competence*

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Critical Thinking as a Path to a Well-grounded and Aware Individual

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Alongside education through virtual exchange (VE), task-based learning and content and language-integrated learning (CLIL), critical thinking (CT) is a vital factor in determining how progressive university teaching is. Its significance is increasing in weight due to swelling volumes of questionable or flawed argumentation and an urge to fight falsehoods on social media or orchestrated disinformation flows as part of non-conventional warfare, etc. Currently, we are witnessing revived importance in CT as a rational driver of skills, content and language learning (CLIL).

The aim of this presentation is to discuss in more depth how the confluence of CT and CLIL can meaningfully impact social sciences programmes, such as political sciences, philosophy, law, etc. Many experts contend that if done in a cohesive team and with careful consideration, foreign language instruction can provide a rational environment where different players, like language tutors, subject teachers and students of different study levels can collectively engage in order to promote clear, rational, logical, and independent thinking. An intriguing (and sometimes paradoxical) feature of the current situation is that even though everyone recognizes CT as a core of their courses in university education, efforts to promote CT remains the domain of an individual initiative, due to either enormous workloads, lack of coordination effort from the authorities or inconsistent collaboration in the faculty.

This presentation discusses how refined use of World Café, conference simulations and the Rogerian argument can enrich and consolidate the interaction between language and subject courses and improve students' ability to analyse, assess, and reconstruct *how we think*.

In an attempt to validate these educational techniques, I will detail how compliant they are with the overall university mission to educate a self-guided and self-disciplined individual who can efficiently function in a cross-cultural and cross-curriculum environment.

Keywords: *World Café, conference, Rogerian argument, subject integration, CLIL*

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The Role of Old Literature in Shaping Self-Awareness and Social Skills of Students

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My speech aims to emphasize the role that the university can and should play in shaping the self-awareness and social competencies of subsequent generations of citizens. What may seem surprising, classes on old literature can play a huge role in this respect. I would like to tell you about it using the example of lectures on French literature of the 18th century that I give to second-year students in Romance philology at the University of Wrocław.

In today's world, where – as it may seem – only exact sciences and specific skills that students acquire from their studies count, we forget that the University is definitely something more. It is, above all, a meeting place for people from different places, different backgrounds and cultures, with different life experiences and ambitions. It is at the University, in an atmosphere of equality and openness to arguments and differences, that students learn to discuss and make difficult compromises. They develop soft skills, so important in today's globalized and unstable world.

At the same time, students, for whom parents, school counsellors, and teachers were previously responsible, become independent individuals who personally create their careers and take their lives into their own hands. From now on, they are the only ones to decide for their future. The University is the time when they go through this process – it is a place where children transform into adults.

I would like to share with you my experiences and observations about how literature classes from a seemingly distant and forgotten epoch can, in a sometimes-surprising way, give young people much more than knowledge of IT tools and specific technical skills.

Keywords: *university, old literature, social skills, democracy, citizens*

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Complexity Theory-Based Insights into What Is More Important in Higher Education: Critical Thinking or Reflective Thinking? Or Both?

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Higher education is about complex learning. Amongst other things, it is about the development of critical thinking and reflective thinking, skills highly needed by university students to succeed in their academic endeavours, and the ones employers want graduates with. Although having the same denominator, that is *thinking*, in theory and research on higher education both types of thinking are mainly approached as separate phenomena, in this way contributing to the fragmentation of understanding of both their significance and interrelationship. Therefore, to overcome such a fragmentation, this research draws on complexity theory as a lens for the holistic approach to re-conceptualising critical and reflective thinking. Against this background, the aim of the current study is to gain a deeper understanding of critical and reflective thinking as complex phenomena. The theoretical framework developed for this research uses complexity theory in two ways: as an epistemological frame and an interpretative tool. The aim of this research is pursued first by overviewing some complexity-based concepts characteristic of complex phenomena, such as a complex system, emergence, self-organisation etc., and demonstrating their relevance to the concepts under study. Following this, complexity informed investigations into the synergistic nature of the relationships between critical thinking and reflective thinking are discussed. Finally, the need for seeing critical thinking and reflective thinking as an emerging complex system in higher education is justified. In conclusion, assuming that there is an urgent need to foster a broader awareness of complex phenomena in higher education, seeing complexity theory as an alternative conceptual space for theorising critical thinking and reflective thinking as an emerging complex system seems to be of great promise for nurturing it in higher education.

Keywords: *A complex phenomenon, complexity theory, critical thinking, higher education, reflective thinking*

