LV- UA project

Gender aspects of digital readiness and human capital development in regions

Educators‘ professional development online program

LEARNING FOR POST-INDUSTRIAL DEVELOPMEN

Course Information

4 modules including 16 h synchronous online sessions and 56 h autonomous learning

Totally 72 hours

Participants: minimum 20 - Ukraine; 20 – Latvia

Duration: one month (November 2020)

The concept. Today, when education is rapidly digitalizing, is a great moment to create solutions for closing the gender employment gap at the profoundly digitalizing labor market. The Covid 19 pandemic sharpened the problem by increasing unemployment and accelerating digitalization. This made females' economic participation highly vulnerable, because their presence in the technologically enriched working places is significantly lower than that of men. At the same time, both Latvia and Ukraine experience a shortage of IT specialists, and fastly growing IT companies increasingly become more flexible in working time and place and interested in hiring women. Education should nudge women-students to actively use this opportunity.

The stage 1 of this research confirmed higher anxiety and lower interest of women in learning about IT than their colleagues-men, in both national groups. So, **the aim of the course** is to rethink the existing teaching and learning practices for achieving the goal to increase the positive attitudes of women (both students and teachers) toward IT and overcome traditional biases about "female" and "non-female" occupations.

The goal of the course program is to provide teachers, educators, and students with a methodology of practical classes on women involvement in economic processes in regions.

Participants are ***awarded a certificate*** if they:

- Participate in classes and complete at least 70% of the assignments and up-load them to the platform;
- Submit a self-evaluation of the individual achievements and evaluation of the course (tables will be suggested) no later than ***November 30.***

Schedule, content and resources

MODULE 1

November 5th 4h (Olena Mykhailenko, PhD Econ.)

The labour market transformations: What does it mean for each of us?

Where does the world move: Economic, social, political, behavioural changes. Socio-economic trajectories, issues and opportunities of Latvia and Ukraine, Latgale and Ternopil regions: The issues and opportunities of human capital development, and the proactive role of universities to improve women involvement and participation in economic processes.

Readings:

1. (2018). "More women in ICT: empowering women in the digital world." European Parliament. Retrieved 08-03-2018 2018, from http://www.europarl.europa.eu/news/en/headlines/society/20180301STO98927/more-women-in-ict-empowering-women-in-the-digital-world.
2. Barbieri, D., et al. (2018). Women and men in ICT: A chance for better work–life balance Luxembourg, European Institute for Gender Equality.

Group Research Activity Group research. The situation at the labour market in your region. How does it interact with the tendencies in your university? Post the results of your research (your essay) in the FB group.

The analysis of the present state of the labour markets of Latvia and Ukraine, Latgale and Ternopil region, - and their forecasted transformations. What skills and attitudes are needed? What is going to the past? What gaps in the HC are obvious? What are the employment issues? What strategic gaps universities should fix in the area of digital empowerment?

MODULE 2

November 12th (Gilberto Marzano, Dr. Phil**.)**

Women and the Future of Work 4 h

Women's economic empowerment is necessary to drive global growth and sustainability.

Industry 4.0 and Future Risks to the Female Workforce. Opportunities for Women in the

Future World of Work. Automation: the need of bridging skills gaps. (a) digital skills (b) entrepreneurship, (c) stress management, (d) risk management.

Readings:
Frey, C. B., & Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerisation? Technological forecasting and social change, 114, 254-280.
https://ora.ox.ac.uk/objects/uuid:4ed9f1bd-27e9-4e30-997e-5fc8405b0491/download_file?safe_filename=future-of-employment.pdf&file_format=application%2Fpdf&type_of_work=Journal%2Barticle
Learners should read and comment the article
Brandes, P., & Wattenhofer, R. (2016). Opening the Frey/Osborne black box: Which tasks of a job are susceptible to computerization?
arXiv preprint arXiv:1604.08823.
https://arxiv.org/pdf/1604.08823.pdf)
The issues and possible outcomes: a short report.

MODULE 3

November 19th 4 h (Olena Mykhailenko)

Women and IT: The Readiness

Digital skills, attitudes and cultural orientation. What does digital readiness mean? Ukraine and Latvia, Ternopil and Latgale regions: The economic and cultural portraits. The findings of the stage I of the project. The democrating, empowering methods in teaching and learning. Overcoming the mental barriers. Guest-speakers: Women in IT.

Readings:

Mykhailenko, O., Blayone, T., Usca, S., Desyatnyuk, O., & Kvasovskyi, O. (2020). Optimism, interest and gender equality: Comparing the attitudes of university students in Latvia and Ukraine toward IT learning and work. Submitted to Compare, 1-31.

Activities:

1. A guest-speaker - a woman built a successful IT-career. Discussion of pros & contras, issues and important points.

2. Essay: Increasing my professional readiness to digitalized work (Moocs, online courses, self-expression, transformative-learning elements, etc.)

MODULE 4

November 26th 4 h (Irena Zogla, Dr.habil.paed.**)**

"Gender gap reproduces in education": Is it true, and what to do?

Elsevier's latest global analysis (The Researcher Journey Through a Gender Lens, 2020) reveals *progress toward gender parity; narrowing gender gap in research and innovation yet 'inequality persists in many areas'.* The latest findings indicate that disparities still linger with slower growth and therefore low % of women participation in technology-based activities; this also highlights that women are not represented in collaboration networks at the same level as men. Reasons of this are multiple, and these differ among countries, even among regions of one country.

The purpose *of this exercise-discussion* is to reiterate the need for education improvements and policy intervention, generate new ideas and develop a better understanding of the social gains of closing the gender gap by education and employment; revisit individual readiness to close the gap, especially digital skills; as well as consider the gender gaps' influence on education and influence of education to closing the gap.

Can educators facilitate the empowering girls for digital learning and career building? Where does the world move in democratizing and optimizing teaching and learning practices for humans' individual enhancement, economic, social, political, behavioural changes? What are the socio-economic trajectories, issues and opportunities of Latvia and Ukraine, experiences of particular regions of these countries to use the opportunities of human development and the proactive role of universities?

The researchers of the above-mentioned project suggest to ponder on the idea of the *capability approach* and discuss the gender gap problems in context with the dominating *human capital* approach (if and how far it is favourable for human individual development, etc.), as well as consider how university education can introduce progressive changes. Three articles are suggested for a background to initiate the discussion and suggestions.

Capability approach defined: The capability approach is a theoretical framework that entails two core normative claims: first, the claim that the freedom to achieve well-being is of primary moral importance, and second, that freedom to achieve well-being is to be understood in terms of people's capabilities, that is, *their real opportunities to do and be* what they have reason to value. (Stanford Encyclopaedia of Philosophy, 2016; https://plato.stanford.edu/entries/capability-approach/)

You can compare the ***capability approach*** with the ***human capital*** approach in education with the focus on possibilities to close the gender gaps.

Articles to read prior to the online session:

(1) Robeyns, I. (2006). Three models of education: Rights, capabilities and human capital. *Sage publications*, www.sagepublications.com Vol 4(1), 69–84. ISSN 1477-8785 DOI: 10.1177/1477878506060683 (attached)

(2) Žogla, I., Ušča, S. & Kijaško, M. (2019). Focus on Curriculum Transformation Through Educator and Student Attitude Development to Digital Competence. ATEE Spring Conference proceedings *INNOVATIONS, TECHNOLOGIES AND RESEARCH IN EDUCATION*, 2019. UL & ATEE. https://doi.org/10.22364/atee.2019.itre ISBN 978-9934-18-482-6. Pp 82-99. (attached)

(3) Žogla, I., Ušča, S. & Mikhailenko, O. (2020). Capability Approach in Technology-Enhanced Tertiary Education: Looking for new directions. *Rural Environment. Education. Personality*. Conference proceedings, 2020. Pp. 200-212. DOI number - DOI: 10.22616/REEP.2020.024, DOI https://doi.org/10.22616/REEP.2020.024 (attached)

Notes:

1. The article by Robeyns, Ingrid (2006) is suggested as the ***compulsory reading***, chosen for its focus on ***capability approach***, well-structured content therefore easy-to-compare with different other approaches – anyway it is good to have a common source to start discussions. I hope you will like the capability approach to create new knowledge, use it to create and catch new ideas to innovate education and close or at least reduce the gender gap, especially in the era of digital technologies. The article of Robeyns is not the only that suggests education models, as well as there are many other models that you can read and use.
2. Two more articles will ***illustrate and add*** to your knowledge being based on the project research.
3. Please, be prepared for the online session and complete the suggested activities prior to the online session; this will ***add to your formal and informal success*** and make the session possible and valuable. To make cooperation easier it would be wise to have the description of this course at hand and easy-to-use either in a hard copy or on your lap-top. Thank you for understanding.

Part I. Four activities prior to the online session:

Activity 1. Find the main data that reflect the gender gaps in your country (employment, career, social position, etc). Find the position of your country in the picture (attached) Gender employment gap (Eurostat, 2020) and comment possible reasons in the world or EU context. Explore other issues; get the data behind the trends and learn more about the different barriers holding women back from work, pay special attention to education and digitalization.

If and how the gaps are connected with ***education*** and ***digital technology***; prepare comments on the background of the gaps in your country:

- Discriminating practice of social processes
- Household duties of women
- Women have lower education
- Lower digital skills
- Individual capabilities reflected in gender behaviour

- Other

Activity 2. This will be very helpful if you could collect comments on a popular in your country education model/approach/policy/practices and highlight the influence on closing the gender gap in education or the role of education in closing the gap.

Table 1. Closing gender gaps in the normative documents (OECD, EU, your country)

Normative statements (in brief)	In real practices of your country

Activity 3. Use the suggested articles (especially Robeyns, 2006) and prepare SWAT analyses for ***at least two models of education*** focused on gender equality: (a) equal rights or ***humanistic model***; (b) based on the ***capability approach***; (c) based on the ***human capital*** theory. You will report the findings at the online discussion and use them to describe practices in your country.

Table 2. ***SWAT analysis of educational model/approach …. (by Robeyns, 2006).***

Note: leave space in the table to make notes on the ideas suggested by discussions for possible improvements of education in your country/region/university.

Strong: Compare with your country: Ideas from discussions:	***Weak***: Compare with your country: Ideas from discussions:
Opportunities: Compare with your country: Ideas from discussions:	***Threats***: Compare with your country: Ideas from discussions:

Activity 4. Explore school standards in your country on ***digital competence*** development (standard statements, special subjects on digital skill improvement, etc.) and spot out the girls' possibilities to be prepared for life in the digitalised world.

Have an interview with 2-3 girls of a high school (middle school) or university, or 2-3 job-seeking women to have their views on why they are jobless, if their digital preparation is adequate to the current demands, whether they consider themselves well-prepared for further online learning and work, whether they were well-prepared for on-line learning during Covid-19, etc.

The collected views will be very useful to illustrate your considerations at the online discussion.

Now you are ready for a productive and valuable discussion!

Part II. Four online activities (prepared prior to online):

Activity 1. Use ***Table 1*** and spot out normative background of educational policy (OECD, EU, UNESCO, your country) that you find important and focused on gender equality, as well as how the existing in practice gender gaps influence education. Pay attention to digital technologies. Your analysis of the described by Robeyns models/approach will help you to be prepared to analyse education models/approaches in your country/college/university

Table 3. Normative accounts and models that can implement educational policies/practices

Models/approaches and their background ideas - how these follow the statements of OECD, EU, or UNESCO	Influence on gender gaps	Influence on education in today's reality
human rights:		
individual capabilities:		
human capital theory:		

Note: if you like, you can add characteristics of another model to be discussed.

Activity 2. Please, comment if at least one of the suggested (Robeyns) models is possible in ***your country/college/university*** and:

- How the described policy/approach might influence education and how education would produce a return influence?

- How these approaches deal with issues of gender: influence/close gender gaps or gaps interfere with the approaches?

- Pay attention to women education for the era of digital technologies and their readiness during the pandemic.

- Suggest your view for a discussion of how these models can be improved for today's reality (rapid digitalization, pandemic).

Activity 3. What approach (evidences of the approach), to your mind, dominates in higher education (or education in general) in your country? What are the gender possibilities or differences and their evidences in practice? How these differences appear in each of the five roles of education (below)?

Comment priorities and restrictions of each ***role*** (if dominating at universities or schools) that education can play to close the gender gap, give the influence of digitalization and Covid-19:

- value of knowledge, how standards/programs facilitate this; what knowledge dominates (theoretical, practical, professional…)
- emphasise personal economic role of education (dominate instrumental – skills, competences) or balanced with non-instrumental – cultural values, interests, hobbies, etc)
- emphasise collective economic role, cooperation/collaboration/teams
- support non-economic instrumental individual roles of education, like access to internet, books, other information
- support non-economic instrumental social roles of education, like participation in political processes, participation in cultural affairs, etc

Activity 4. Give the main ideas of a good education model/approach to close the gender gaps in your country (or any country – an ideal model). The three approaches and three models of education (Robeyns) can be used for new ideas.

Table 4. We generate the best possible education model/approach to avoid gender gap

Strong positions:	Avoiding possible weak positions:
Opportunities of closing the gender gap:	Avoiding possible threats:

Give your concluding view how the most common factors in your country and region should be treated, spot out their potential in closing the gender gap; focus on education.

How these will influence women employment, digital capability, and participation in social activities?

Look at the factors in a wider and local cultural context and draw conclusions to improve the position of women in the region, university students and educators, as well as your personal position.

Some considerations regarding the gender gap in education can be commented during the discussions:

Equality is part of quality in science, education, decision-making, government policy, etc. Making full use of the potential of both women and men maximizes the quantity and, more importantly, quality of all areas of human activities.

Despite the policies and regulations implemented by the European Commission and within individual countries, there are prominent gaps between women and men in terms of the number of scientific researchers, decision-making positions held, and other aspects of career development such as informal networks of collaboration and access to funding (Elsevier, 2017; 2020).

Diversity is integral to innovation. (Duran, et al 2015). Gender diversity adds considerably among the other kinds of diversity: education, age of the employees; cultural preferences, etc.

"There is no kind of science that could be given the name of applied science. There is science and the applications of science, bound to each other…" L. Pasteur

"What is hard, is to unlearn when you discover yourself wrong." Martin H. Fischer

Optional readings:

OECD (2020). The gender employment gap: Challenges and solutions https://ec.europa.eu/eurostat/cros/system/files/43-2015-the_gender_employment_gap-challenges_and_solutions.pdf

Elsevier (2020. The Researcher Journey Through a Gender Lens https://www.elsevier.com/__data/assets/pdf_file/0012/985674/Gender-2020-report-A4-WEB.pdf

Elsevier. (2017). Gender in the Global Research Landscape https: //www.elsevier.com/__data/assets/pdf_file/0008/265661/ElsevierGenderReport_final_for-web.pdf

Duran, A., Lopez, D. Impact of Diversity on Organization and Career Development. C. Hughes (Ed.). Hersey, PA: IGI Global; 2015. doi:10.4018/978-1-4666-7324-3; Hewlett, A., Marshall, M., Sherbin, L. "How diversity can drive innovation." Harvard Business Review. 2013.

Eurostat. (2016). Gender employment gap (select the most valuable chapters to read and analyse to meet your individual needs). https://ec.europa.eu/eurostat/web/products-datasets/product?code=sdg_05_30

Eurostat, 2020. Women's employment in the EU. https://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20200306-1

CSB Latvia. (2020). https://www.csb.gov.lv/en/gender-equality-indicators/Employment-and-Earnings

Gender gap in employment: what are the reasons? https://www.ilo.org/infostories/en-GB/Stories/Employment/barriers-women#intro

Global Network for Women - https://www.womentech.net/?utm_term=woman tech&utmcampaign