

GENDER ASPECTS OF TRAINING SPECIALISTS IN ENGINEERING AND TECHNICAL UNIVERSITIES IN UKRAINE

The purpose of the article: to substantiate the gender aspects of training in engineering and technical education institutions of Ukraine, to present the results of an empirical research on the study of gender stereotypes in occupational choice among students of technical universities.

Key words: philosophy of gender, vocational training, engineering education, gender stereotypes, gender equality, gender discrimination, STEM professions.

The article highlights the relevance of the problem of gender in vocational training in engineering and technical education of Ukraine in terms of European integration. The need to improve the quality of educational services in this area in accordance with new societal challenges is pointed out.

The author also emphasizes the need to ensure gender equality in the choice of engineering professions, equal opportunities for men and women in employment.

To study certain gender aspects in vocational training in engineering and technical education institutions, the author conducted an empirical study among students of Ivano-Frankivsk National Technical University of Oil and Gas and presented its results. 110 future specialists of the following specialties took part in the survey: "Information Systems and Technologies", "Computer Engineering", "Software Engineering", "Oil and Gas Engineering and Technologies", "Environmental Technologies", "Tourism", "Architecture and urban planning", "Construction and civil engineering", "Electric power, electrical engineering and electromechanics", etc. The study sample was gender balanced: 46.4% of women and 53.6% of men.

It was found that a large number of young adults don't consider gender characteristics to be the prerogative of choosing engineering professions (this was indicated by 54.1% of respondents). It was found that 18.3% of respondents

are prone to stereotypes about the priority of men in the choice and success in computer or petroleum engineering. Gender stereotype in professional self-determination is considered as a cultural phenomenon that is formed under the influence of specific historical conditions and is a product of socio-cultural norms, rules or expectations. At the same time, almost a third of young people feel a partial gender impact in vocational training. It is important that modern students are sufficiently emancipated and independent, they are mostly not subject to traditional societal influences, but some "fears" or "complexes" about the ability to master the relevant competencies at a high level still exist.

The article emphasizes the need to form future professionals' readiness to professional communication, which is a complex socio-psychological formation that reflects the level of formation of their integrative knowledge, skills, practical skills to carry out relevant activities (Kaverina, 2010). This, according to the author, will greatly contribute to overcoming gender stereotypes in achieving success in engineering professions, especially among women. The study also identified cases of gender discrimination in the professional sphere, which was admitted by 28.4% of respondents. As it turned out, these are mostly girls, as there are still social stereotypes about their competence in engineering. Taking into account the fact that the majority of respondents are still receiving higher technical education and have no practical experience in such activities, 40.4% of them answered that they "can not remember" such situations and a third (31.2%) – did not face the relevant phenomena. The negative impact of gender discrimination on the economic development of the region and the country is substantiated.

The importance of stereotypical thinking about the status of men and women in support of gender inequality in the socio-economic system of society is determined. Emphasis is placed on the need to overcome gender stereotypes regarding the choice of STEM profession and achieving success in engineering among men and women.

It is noted that the Ministry of Information Policy of Ukraine is conducting a communication campaign against gender discrimination in professional activities. However, today it is necessary to intensify the activities of the media, educational institutions of various types and the public to conduct advocacy and promote "unpopular" among girls or boys professions to overcome gender inequality, especially in STEM, and motivate women to participate actively in science, engineering and design.

The author considers the prospects for further research in identifying the readiness of male and female gender to choose "non-traditional" professions, as well as improving career guidance support to promote engineering specialties among high school students.

REFERENCES

Blaha V. V., Blahoi V. V., Tykhomyrova A. O. (2018). Henderna dyskryminatsiia yak pereshkoda na shliakhu do rozvytku natsii. Hlobalni ta natsionalni problemy ekonomiky. Mykolaivskyi natsionalnyi universytet imeni V. O. Sukhomlynskoho. Vyp. 21. S. 130-133.

Budnyk, O. (2018). Theoretical principles of using STEAM-technologies in the preparation of the teacher of the New Ukrainian school. *Vasyl Stefanyk Precarpathian National University*, № 5(1). P. 23-30. DOI: 10.15330/jpnu.5.1.23-30.

Hender ta filosofiia: henderni studii u filosofskykh naukakh (22 lystopada 2012 roku). Hender ta kulturolohiia: henderni doslidzhennia fenomeniv kultury (21 liutoho 2013 roku): zbirnyk materialiv kruhlykh stoliv. Ostroh: Vydavnytstvo Natsionalnoho universytetu "Ostrozka akademiia", 2013. 112 s.

Hrytsiuk, O. S. (2008). Pedahohichni umovy profesiinoi spriamovanosti matematychnoi pidhotovky maibutnikh fakhivtsiv inzhenerno-tekhnichnykh spetsialnostei u vyshchykh navchalnykh zakladakh: avtoref. dys. na zdobuttia nauk. stupenia kand. ped. nauk: spets. 13.00.04 «Teoriia i metodyka profesiinoi osvity». Kremenichuh. 20 s.

Kaverina, O. H. (2010). Intehratyvnyi pidkhid do formuvannia hotovnosti studentiv vyshchykh tekhnichnykh navchalnykh zakladiv do profesiinoi komunikatsii: avtoref. dys. na zdobuttia nauk. stupenia d. ped. nauk: spets. 13.00.04 „Teoriia ta metodyka profesiinoi osvity”. Kyiv. 44 s.

Kokarieva, A. (2018). Osoblyvosti profesiinoi pidhotovky maibutnikh fakhivtsiv u systemi inzhenerno-tekhnichnoi osvity Ukrainy. Visnyk Natsionalnoho aviatsiinoho universytetu. Seriia: Pedahohika, Psykholohiia. № 12. DOI: 10.18372/2411-264X.12.13218. URL: <http://jrnل.nau.edu.ua/index.php/VisnikPP/article/view/13218>

Nurjanah N., Suryadi A., Abdulhaq I., Hatimah I., Budimansyah D. (2019). Gender-Sensitive Effect of Problem-Based Learning on Student Performance in Indonesian Teacher College Classes *The New Educational Review*. Vol. 55. P.54-63. DOI: 10.15804/tner.2019.55.1.04.

Rodriguez, J., Esparragoza, I. E. (2017). Motivation of engineering students participating in multinational design projects – Comparison Based on Gender and Class Status. *International Journal of Engineering Pedagogy*, № 7 (4), P. 78-90. URL: <https://doi.org/10.3991/ijep.v7i4.7516>.

Superstars of STEM. URL: <https://scienceandtechnologyaustralia.org.au/what-we-do/superstarsof-stem/>.

Vasylenko, O. M. (2014). Osoblyvosti vyboru maibutnoi profesii abiturientamy vyshchykh navchalnykh zakladiv: hendernyi aspekt. Naukovyi visnyk Uzhhorodskoho natsionalnoho universytetu: Serii: Pedagogika. Sotsialna robota / hol. red. I. V. Kozubovska. Uzhhorod: Vydavnytstvo UzhNU «Hoverla». Vyp. 32. S. 32-34.

Uhoda pro Asotsiatsiiu mizh Ukrainoiu, z odniiei storony, ta Yevropeiskym Soiuzom, yevropeiskym spivtovarystvom z atomnoi enerhii i yikhnyimy derzhavamy-chlenamy, z inshoi storony. URL: <https://knute.edu.ua/file/NjY4NQ==/9ece50fd0ddffd98b924630447a49336.pdf>

Zakon Ukrainy «Pro zabezpechennia rivnykh prav ta mozhlyvostei zhinok i cholovikiv». Vidomosti Verkhovnoi Rady Ukrainy (VVR), 2005, № 52, st. 561. URL: <https://zakon.rada.gov.ua/laws/show/2866-15#Text>

Zakon Ukrainy «Pro zasady zapobihannia ta protydii dyskryminatsii v Ukraini». Vidomosti Verkhovnoi Rady (VVR), 2013, № 32, st. 412. URL: <https://zakon.rada.gov.ua/laws/show/5207-17#Text>

Zhinky v Ukraini zarobliaut na chvert menshe cholovikiv. URL: <https://economics.segodnya.ua/ua/economics/business/zhenshchiny-v-ukraine-zarabatyvayut-na-chetvert-menshe-muzhchin-1279440.html>